ABATEMENT PLAN

SUBSURFACE INVESTIGATION REPORT

(STAGE 1 ABATEMENT PLAN)

FILE

EOTT ENERGY CORP
R. L. ROGERS RELEASE SITE
LEA COUNTY, NEW MEXICO

RECEIVED

MAR 12 2001

Prepared For: EOTT Energy Corp 5805 East Highway 80 Midland, Texas 79701

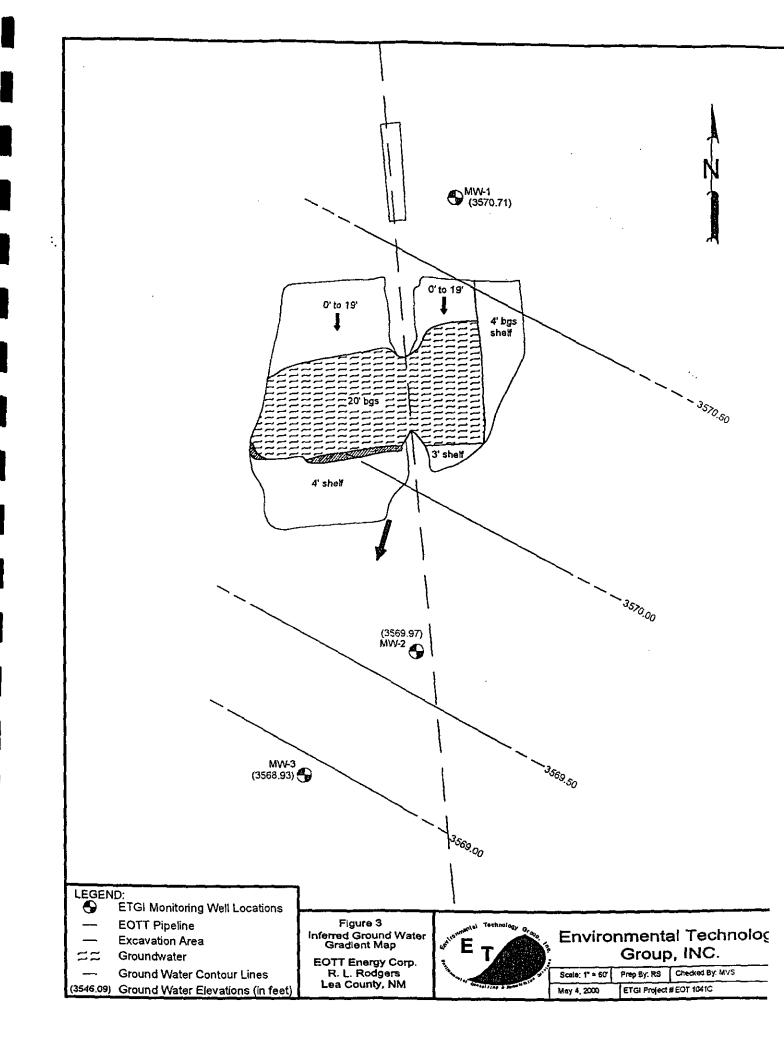
ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

Environmental Technology Group, Inc. Project No. EOT1041C

Prepared By: Environmental Technology Group, Inc. 4600 West Wall Street Midland, Texas 79703

May 2000

Revised: June 2000



A Report Prepared for:

EOTT Energy Corp 5805 East Highway 80 Midland, Texas 79701

Subsurface Investigation Report
(Stage 1 Abatement Plan)

Environmental Technology Group, Inc. Project No. EOT1041C

Prepared by:

Jesse Taylor Principal Geologist

Jerry Nickell Managing Principal

Environmental Technology Group, Inc. 4600 West Wall Street Midland, Texas 79703

May 2000

Revised: June 2000

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1.0 INTRODUCTION AND SITE BACKGROUND

The site is located approximately two miles west of the town of Monument, New Mexico, in the NE 1/4 of the NW 1/4 Section 32, Township 19 South, Range 37 East. A site location map is provided as Figure 1.

The topography of the site is relatively flat with a slight topographic slope to the south. The site is located in a rural/residential area with a residence located approximately 800 feet to the north. Generally, the surface consists of unconsolidated sand covered by sparse grasses and mesquite trees. There are no structures or facilities at the site and the only site features are the excavation and monitoring wells as depicted on Figure 2, the Site Map.

The excavation was made under the direct supervision of EOTT Energy Corp. (EOTT). Any questions regarding this feature should be directed to Mr. Wayne Brunette of EOTT. At the request of EOTT, Environmental Technology Group, Inc. (ETGI) completed three borings as monitoring wells around an existing excavation and collected confirmation side wall samples as discussed below.

2.0 GEOLOGY/HYDROGEOLOGY

In the site vicinity, the surface is composed of unconsolidated, wind blown sands and finer materials associated with the Tertiary Ogallala Formation, which serves as a major aquifer for southeastern New Mexico and several high plains states. Alluvial, unconfined ground water is typically present in these sands at varying depths and generally flows from the north to the south. These aquifers are typically characterized by relatively high hydraulic conductivity and transmissivity.

The Ogallala is underlain by the Triassic Dockum Formation, commonly referred to as the "red beds". While there are sand lenses within the Dockum, it is more typically characterized by red silts and shales in which detectable ground water is often absent or limited in extent. Where ground water is present, the aquifer is usually characterized by relatively low hydraulic conductivity and transmissivity.

At the site, the subsurface is composed of approximately 20 feet of sand and caliche which unconformably overlies a horizon of red clay. The red clay corresponds to the Dockum Formation or "red beds". The top of the Dockum Formation represents an erosional surface on which the sands were later deposited. Areas of thick sand sections correspond to areas of greater erosion of the Dockum.

The ground water table occurs near the interface of sand and clay at the site. Monitoring wells completed in that portion of the site area where the ground water occurs within the sand are characterized by high recharge rates and the measured hydraulic conductivity is high. Monitoring wells completed in that portion of the site where the ground water occurs in the red clay are characterized by slow recharge rates and low hydraulic conductivity.

3.0 RECENT FIELD ACTIVITIES

Three borings were completed as monitoring wells at the site in order to characterize the ground water conditions around an existing excavation. The drilling activities were conducted on February 7, 2000. The location of these borings, and the excavation, are depicted on Figure 2.

The soil borings were advanced with an air-rotary drilling rig operated by Eades Drilling, Inc. of Hobbs, New Mexico. During the boring process, soil samples were collected at five foot intervals with a split spoon sampling tool when possible. A portion of all of the soil samples were field screened with a photoionization detector (PID) and the remainder was placed in a laboratory cleaned, four ounce soil sample jar. Soil samples with the highest PID reading in each boring, and the sample nearest to the water table, were submitted for laboratory analysis.

The monitoring wells were developed on February 9, 2000. The depth to water was measured on February 22 and April 5, 2000 and ground water samples were collected on February 23 and April 5, 2000. In addition, a ground water sample was collected from the excavation on February 29, 2000. The depth to ground water and ground water elevations are provided as Table 2 and a ground water gradient map is provided as Figure 3. The ground water chemistry is provided as Tables 3 and 4. For reference, the benzene, toluene, ethylbenzene and xylenes (BTEX) concentrations are posted on Figure 4. All laboratory reports are provided as Appendix B.

On May 3, 2000, eight sidewall soil samples were collected from the excavation walls and submitted for laboratory analysis. The soil samples were collected from immediately above the water table at a depth of 17' bgs at the approximate locations shown on Figure 5. The soil chemistry data, for both the borings and sidewall samples, are provided in Table 1 and the soil boring logs are provided as Appendix A.

All soil samples selected for laboratory analysis were subjected to total petroleum hydrocarbon (TPH) analysis using EPA Method 8015M GRO/DRO. All ground water samples were analyzed for BTEX using EPA Method 8021B, 5030. Ground water samples were also subjected to analysis of selected semi-volatile organic compounds (SVOC), and selected metals, chlorides, sulfates, carbonates, bicarbonates and total dissolved solids (TDS) as required by the New Mexico Oil Conservation Division (OCD). All laboratory results are provided as Appendix B.

4.0 RESULTS

4.1 NEW MEXICO OIL CONSERVATION (OCD) SOIL CLASSIFICATION

During the site investigation, Highly Contaminated/Saturated Soils, as described by the OCD Guidelines, were not detected in the soil borings/monitoring wells or the excavation. Laboratory analysis of one sample collected from the excavation wall contained adsorbed phase hydrocarbons with a TPH-DRO concentration of 290 mg/kg.

The depth to ground water, as measured from the well head casing, ranges from 15.5 feet bgs in monitoring well MW-3 to 24.5 feet bgs in monitoring well MW-1. Therefore, the OCD ranking score of 20 must be assigned to the site. In addition, a water supply well is located approximately 800 feet to the northeast, also confirming the OCD ranking score of 20. There are no surface water bodies within 200 feet of the site.

4.2 DISTRIBUTION OF HYDROCARBONS IN SOIL

No evidence of petroleum impact was observed in the unsaturated zone at the boring locations. Low concentrations of xylenes were observed in soil samples collected at the water table from the borings later completed as monitoring wells MW-2 and MW-3. These concentrations were below regulatory limits. The concentrations of TPH from these samples were below the detection limit. Soil samples collected from the walls of the existing excavation revealed BTEX levels below detection limits except in two samples. Samples SS04 and SS06 had toluene and/or m,p-Xylene slightly above detection limits but well below regulatory levels. The concentrations of TPH-GRO in all eight soil samples were below detection limits. The concentration of TPH-DRO in six soil samples were below detection limits. Sample SS05 exhibited a TPH-DRO concentration of 10 mg/kg, which is well below regulatory levels. Sample SS04 exhibited TPH-DRO concentration of 290 mg/kg, which is above regulatory levels for a site with an OCD ranking of 20. Sample SS04 is located directly beneath the pipeline on the south wall as shown in Figure 5.

4.3 DISTRIBUTION OF HYDROCARBONS IN GROUND WATER

The ground water gradient slopes to the southeast at a gradient of 0.005 feet per foot as depicted on Figure 3. Dissolved phase concentrations of BTEX were either below detection limits or below maximum contaminant levels (MCLs) with one exception. Dissolved phase benzene, at a concentration of 6 ug/L, was detected in the sample collected from monitoring well MW-3, the most downgradient well, on February 23, 2000. However, the benzene concentration, in the sample from this well on April 5, 2000, was below OCD and MCL levels for benzene. Dissolved phase SVOC were below the detection limit at all of the monitoring well locations.

Dissolved phase concentrations of BTEX were below the detection limit for the sample collected from the excavation. Dissolved phase concentrations of volatile organic compounds (VOC), EPA Method 8260, were also below detection limits

5.0 SUMMARY AND CONCLUSIONS

No evidence of petroleum impact was observed in the unsaturated zone at the boring locations. Concentrations of BTEX in soil samples collected at the water table from the borings were below regulatory limits. The concentrations of TPH from these samples were below the detection limit. One sample of petroleum impacted soil was collected from the south excavation wall at 17' bgs directly beneath the pipeline.

As is common to the area, the ground water gradient slopes to the southeast at a gradient of 0.005 feet per foot. Dissolved phase concentrations of BTEX were either below detection limits or below MCL with one exception. Dissolved phase benzene, at a concentration of 6 ug/L, was detected in the sample collected from monitoring well MW-3, the most downgradient well, on February 23, 2000. However, the benzene concentration, in the sample from this well collected on April 5, 2000, was below OCD and MCL levels for benzene. Dissolved phase SVOC were below the detection limit at all of the monitoring well locations.

Dissolved phase concentrations of BTEX were below the detection limit for the sample collected from the excavation. Dissolved phase concentrations of VOC (EPA Method 8260) were also below detection limits.

6.0 RECOMMENDATIONS

ETGI recommends that portion of the excavation, adjacent to the clean side wall samples, be backfilled with clean material such that the pipeline integrity in the currently exposed portion can be maintained. The backfill should incorporate a confining /impermeable clay like cap (minium of three feet in thickness above the top of the aquifer) in order to prevent the development or existence of preferential pathways to the ground water. The backfill material in this portion of the excavation will allow the impacted soil, located under the pipeline in the southern portion of the site, to be excavated and treated ex situ or subject to disposal.

It is recommended that no active abatement of ground water be conducted at the site. Ground water monitoring from all monitoring wells should continue for one year in order to demonstrate the following.

- Ground water concentrations remain below MCL in monitoring wells MW-1 and MW-2.
- Benzene concentrations in monitoring well MW-3 demonstrate reductions below MCL, by way of natural attenuation.

Following the successful conclusion of ground water monitoring activities it is recommended that ground water monitoring be discontinued and final closure of the site be completed through the New Mexico Oil Conservation Division.

7.0 MONITORING PLANS

All site monitoring wells will be gauged and sampled on a quarterly basis. Each well will be measured for the depth to groundwater. All of the groundwater monitoring wells will be purged and sampled for BTEX and TPH.

After purging the wells, groundwater samples will be collected with a disposable Teflon sampler and polyethylene liner by personal wearing clean, disposable gloves.

Groundwater sample containers will be filled in the order of decreasing volatilization sensitivity (i.e., BTEX containers will be filled first and TPH containers second).

Groundwater samples collected for BTEX analysis will be placed in 40 ml glass VOA vials equipped with Teflon line caps. The containers will be provided by the analytical laboratory. The vials will be filled to a positive meniscus, sealed, and visually checked to ensure the absence of air bubbles. The containers will be provided by the analytical laboratory.

The filled containers will be labeled and placed on ice in an insulated cooler. The cooler will be sealed for transportation to the analytical laboratory. Proper chain-of-custody documentation will be maintained throughout the sampling process.

The groundwater samples will be analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8020, 5030
- TPH concentrations in accordance with modified EPA Method 8015-GRO/DRO

The quarterly data will be compiled and summarized in an annual report. The annual report will be submitted prior to April 1, 2001

8.0 SCHEDULE OF ACTIVITIES

The quarterly sampling event is scheduled for the first week of July 2000. Subsequent quarterly sampling events will be conducted in October 2000, January and April 2001.

9.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) PROCEDURES

9.1 Soil Sampling

Samples of subsurface soils were obtained utilizing either a split spoon sampler (air rotary drilling rig) or a two inch, continuous sampling tube with a clean polybuterate liner (geoprobe). Representative soil samples were divided into two separate portions using clean, disposable gloves and clean sampling tools. One portion of the soil sample was placed in a disposable sample bag. The bag was labeled and sealed for head space analysis using a PID calibrated to a 100 ppm isobutylene standard. Each sample was allowed to volatilize for approximately 30 minutes at ambient temperature prior to conducting the analysis.

The other portion of the soil sample was placed in a sterile glass container equipped with a Teflon lined lid furnished by the analytical laboratory. The container was filled to capacity to limit the amount of head space present. Each container was labeled and placed on ice in an insulated cooler. Upon selection of samples for analysis, the cooler was sealed for shipment to the laboratory. Proper chain-of-custody documentation was maintained throughout the sampling process.

Soil samples were delivered to Environmental Lab of Texas, Inc. in Midland, Texas for BTEX and TPH analyses using the methods described below. Soil samples were analyzed for BTEX and TPH-GRO/DRO within 14 days following the collection date.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015-GRO/DRO

9.2 Ground Water Sampling

Monitoring wells were developed and purged with a clean PVC bailer. The bailer was cleaned prior to each use with Liqui-Nox® detergent and rinsed with distilled water. Monitoring wells with sufficient recharge were purged by removing a minimum of three well volumes. Monitoring wells that did not recharge sufficiently were purged until no additional ground water can be obtained.

After purging the wells, ground water samples were collected with a disposable Teflon sampler and polyethylene liner by personnel wearing clean, disposable gloves. Ground water sample containers were filled in the order of decreasing volatilization sensitivity (i.e., BTEX containers were filled first and polynuclear aromatic hydrocarbons (PAH) containers second.

Ground water samples collected for BTEX analysis were placed in 40 ml glass VOA vials equipped with Teflon lined caps. The containers were provided by the analytical laboratory. The vials were filled to a positive meniscus, sealed, and visually checked to ensure the absence of air bubbles.

Ground water samples collected for PAH analysis were filled to capacity in sterile, one liter glass containers equipped with Teflon lined caps. Ground water samples collected for metals analysis were filled to capacity in sterile, one liter plastic containers equipped with Teflon lined caps. The containers were provided by the analytical laboratory.

The filled containers were labeled and placed on ice in an insulated cooler. The cooler was sealed for transportation to the analytical laboratory. Proper chain-of-custody documentation was maintained throughout the sampling process.

The ground water samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015-GRO/DRO

9.3 Decontamination Of Equipment

Cleaning of drilling equipment was the responsibility of the drilling company. In general, the cleaning procedures consisted of using high pressure steam to wash the drilling and

sampling equipment prior to drilling and prior to starting each hole. Prior to use, the sampling equipment will be cleaned with Liqui-Nox® detergent and rinsed with distilled water.

9.4 Laboratory Protocol

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

10.0 LIMITATIONS

Environmental Technology Group, Inc. has prepared this Subsurface Investigation Report to the best of its ability. No other warranty, expressed or implied, is made or intended.

Environmental Technology Group, Inc. has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Environmental Technology Group, Inc. has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Environmental Technology Group, Inc. has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Environmental Technology Group, Inc. also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of EOTT Energy Corp. The information contained in this report including all exhibits and attachments, may not be used by any other party without the express consent of Environmental Technology Group, Inc. and/or EOTT Energy Corp.

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Q

Quality Control Review

By:

Jason Hénry, Staff Environmental Scientist

TABLES

TABLE 1

SUMMARY OF SOIL CHEMISTRY R.L. RODGERS LEAK SITE LEA COUNTY, NM ETGI PROJECT #EOT1041C

				Methods:	Methods: EPA SW 846-8021B, 5030	.8021B, 5030		Meth	Methods:
	-	SAMPLE			2134			EPA SW 8	EPA SW 846-8015M GRO/DRO
SAMPLE LOCATION	SAMPLE DATE	DEPTH (fect)	BENZENE (mg/kg)	TOLUENE (mg/kg)	BENZENE (mg/kg)	m,p-XYLENE (mg/kg	o-XYLENE (mg/kg)	GRO C6-C10 (mg/kg)	DRO >C10-C25 (mg/kg)
	CONTO	,00	40 400	<0.100	<0.100	<0.100	<0.100	<10	<10
MW-T	02/0//00	27 6	<0.100	<0.100	<0.100	0.170	<0.100	~10	<10
MVV-2	02/07/00	15.	<0.100	<0.100	<0.100	0.107	<0.100	×10	410
SS01/East Wall	05/03/00	17;	<0.100	<0.100	<0.100	<0.100	<0.100	<10	<10
SS02/SE Corner	02/03/00	17.	<0.100	<0.100	<0.100	<0.100	<0.100	<10	<10
SS03/South Wall	02/03/00	17.	<0.100	<0.100	<0.100	<0.100	<0.100	<10	<10
SS04/South Wall	02/03/00	17.	<0.100	0.101	<0.100	0.108	<0.100	<10	290
SS05/South Wall	02/03/00	17.	<0.100	<0.100	<0.100	<0.100	<0.100	<10	10
SS06/West Wall	02/03/00	17.	<0.100	<0.100	<0.100	0.109	<0.100	<10	<10
SS07/North Wall West 17' bas	02/03/00	17.	<0.100	<0.100	<0.100	<0.100	<0.100	<10	<10
SS08/North Wall East 17' bgs	05/03/00	17.	<0.100	<0.100	<0.100	<0.100	<0.100	<10	<10

TABLE 2 GROUND WATER ELEVATION DATA R.L. ROGERS SITE LEA COUNTY, NM ETGI PROJECT# EOT1041C

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	02/22/00	3593.22	-	22.53	0.00	3570.69
	04/05/00			22.51	0.00	3570.71
MW-2	02/22/00	3591.20	-	21.55	0.00	3569.65
	04/05/00			21.55	0.00	3569.67
MW-3	02/22/00	3588.85	-	19.98	0.00	3568.87
	04/05/00			19.98	0.00	3568.93

TABLE 3

SUMMARY OF GROUND WATER CHEMISTRY R. L. RODGERS LEAK SITE LEA COUNTY, NM ETGI PROJECT# EOT1041C

_	_	_	_	_	_	_			_
	SQL	(mg/L)		657		952		675	
.3, 310, 160.1	BICARBONATE	(mg/L)		220		330		335	
Methods: EPA 375.4, 325.3, 310, 160.1	CARBONATE	(mg/L)		0		0		0	
Methods:	CHLORIDE C	(mg/L)		170		163		195	
	SULFATE	(mg/L)		206		186		230	
		XYLENE	(mg/L)	<0.001	0.005	<0.001	0.003	0.002	<0.001
0218, 5030	-d'w	XYLENE	(mg/L)	<0.001	0.009	<0.001	0.025	0.002	<0.001
Methods: EPA SW 846-8021B, 5030	ETHYL-	BENZENE	(mg/L)	<0.001	0.002	<0.001	0.001	<0.001	<0.001
ethods: EF	TOLUENE	(mg/L)		0.001	<0.001	0.001	0.011	0.002	<0.001
Σ	BENZENE	(mg/L)		<0.001	0.002	<0.001	0.003	900.0	0.002
SAMPLE	DATE			02/23/00	04/02/00	02/23/00	04/05/00	02/23/00	04/02/00
SAMPLE	LOCATION			MW-1		MW-2		MW-3	

TABLE 4

ADDITIONAL GROUND WATER CHEMISTRY Semi-volatiles R. L. RODGERS LEA COUNTY, NM ETGI PROJECT # EOT1041C

Analyte (mg/L)	MW-1 02/23/00	MW-2 02/23/00	MW-3 02/23/00	Reporting Limit
Naphthalene	ND	ND	ND	0.005
Acenaphthylene	ND	ND	ND	0.005
Acenaphthene	ND	ND	ND	0.005
Fluorene	ND	ND	ND	0.005
Phenanthrene	ND	ND	ND	0.005
Anthracene	ND	ND	ND	0.005
Fluoranthene	ND	ND	ND	0.005
Pyrene	ND	ND	ND	0.005
Benzo[a]anthracene	ND	ND	ND	0.005
Chrysene	ND	ND	ND	0.005
Benzo[b]fluoranthene	ND	ND	ND	0.005
Benzo[k]fluoranthene	ND	ND	ND	0.005
Benzo[a]pyrene	ND	ND	ND	0.005
Indeno[1,2,3-cd]pyrene	ND	ND	ND	0.005
Dibenz[a,h]anthracene	ND	ND	ND	0.005
Benzo[g,h,i]perylene	ND	ND	ND	0.005

ND = Below Reporting Limit

METHOD: EPA SW846-8270C, 3510

TABLE 4

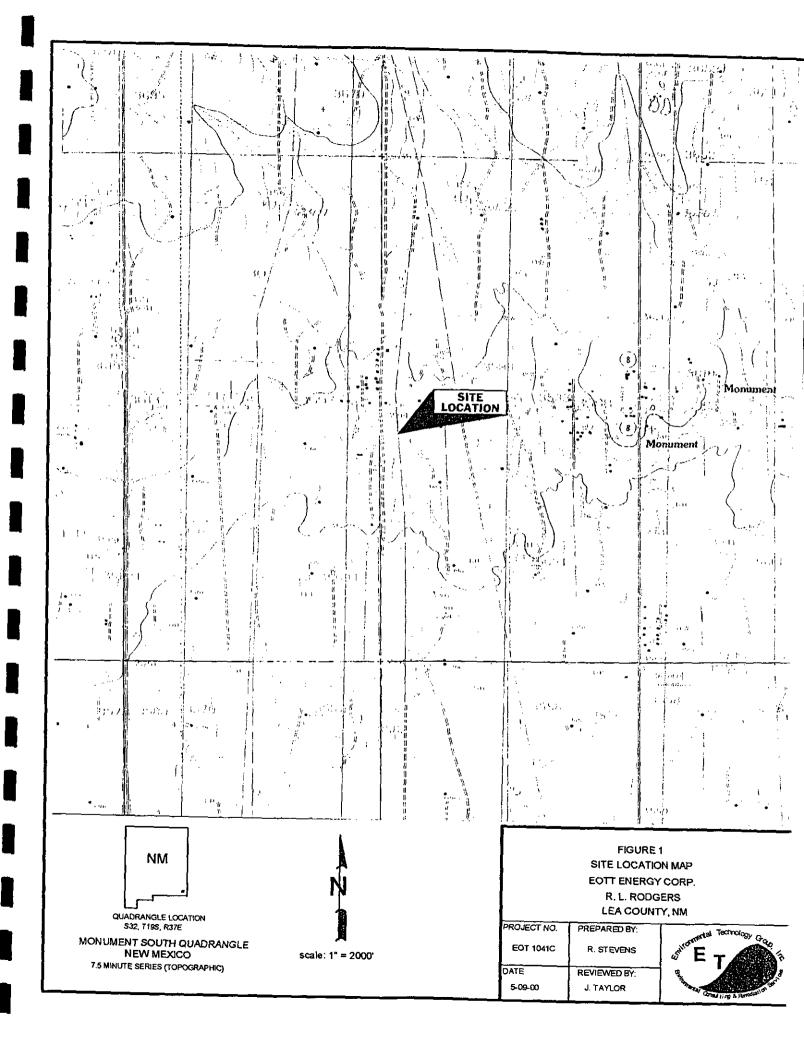
ADDITIONAL GROUND WATER CHEMISTRY Metals R. L. ROGERS LEAK SITE LEA COUNTY, NM ETGI PROJECT# EOT1041C

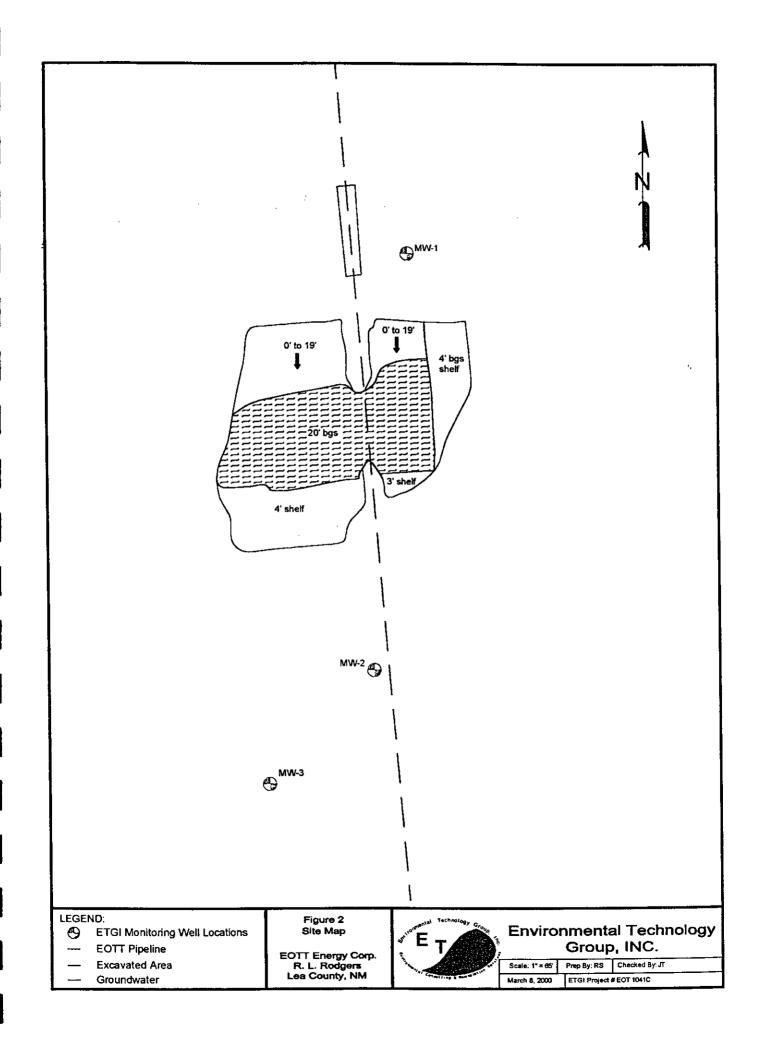
Analyte	MW-1	MW-2	MW-3	REPORTING
_(mg/L)	02/23/00	02/23/00	02/23/00	LIMIT
Aluminum	0.2530	2.640	4.680	0.0500
Arsenic	ND	ND	0.0080	0.0500
Barium	0.1410	0.2440	0.1830	0.0100
Beryllium	ND	ND	ND	0.0040
Cadmium	ND	ND	ND	0.0010
Calcium	139.0	248.0	256.0	1.000
Chromium	ND	0.0080	0.0110	0.0050
Cobalt	ND	ND	ND	0.0200
Copper	ND	ND	ND	0.0100
Iron	0.2600	1.680	3.240	0.0500
Lead	ND	ND	ND	0.0030
Magnesium	23.90	24.50	34.50	1.000
Manganese	0.0490	0.0590	0.1120	0.0150
Mercury	ND	ND	ND	0.00020
Molybdenum	ND	ND	ND	0.050
Nickel	ND	ND	ND	0.0100
Potassium	6.310	6.920	7.340	1.000
Selenium	0.0050	ND	ND	0.0050
Silver	ND	ND	ND	0.00500
Sodium	91.70	117.0	176.0	1.000
Tin	ND	ND	ND	0.0500
Vanadium	ND	0.0270	0.0350	0.0200
Zinc	ND	0.0550	0.0700	0.0200
Boron	0.161	0.188	0.275	0.050
Strontium	1.33	1.29	1.70	0.050

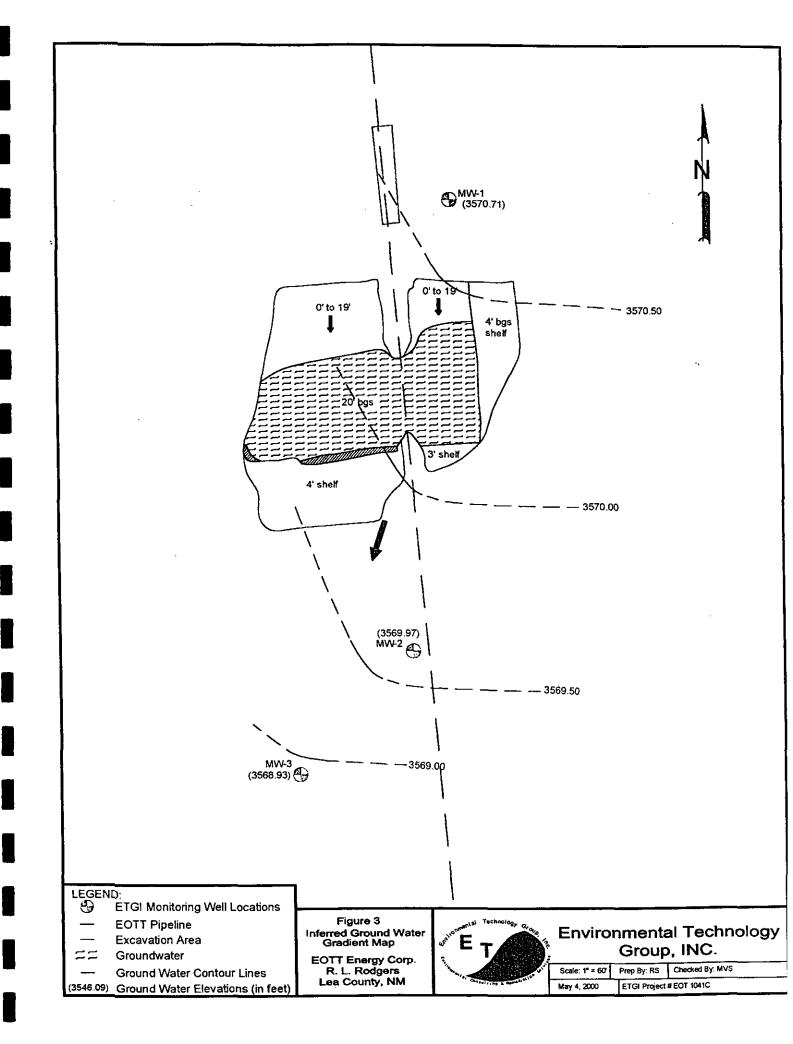
ND = Below Reporting Limit

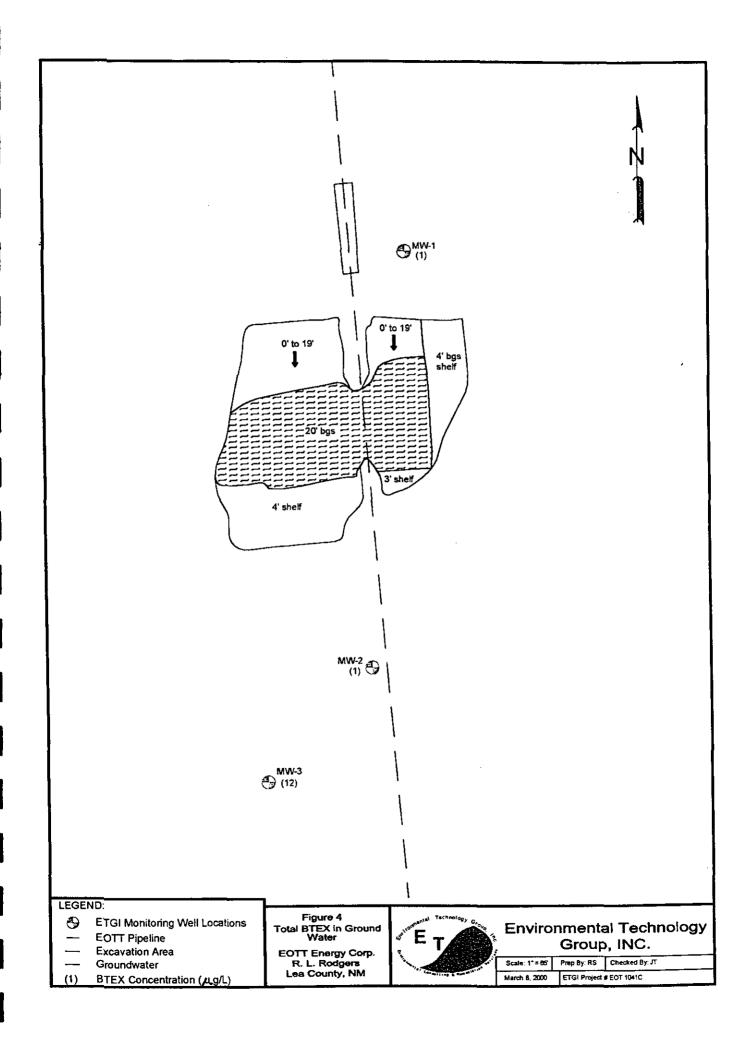
METHOD: EPA SW846-6010B, 7470

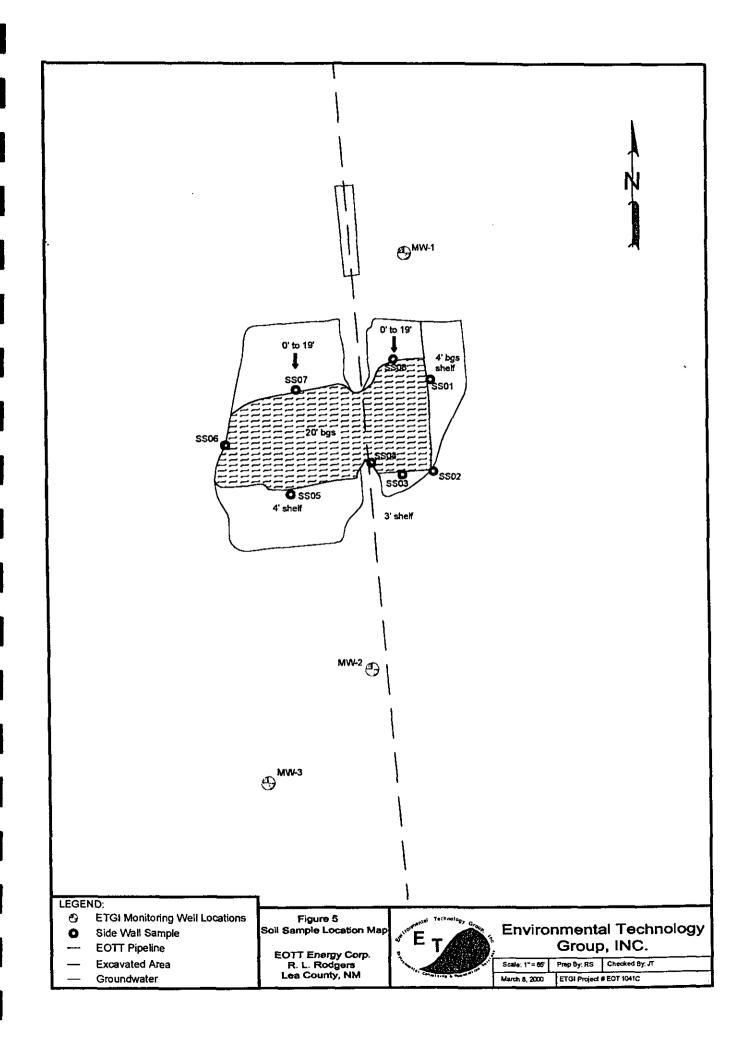
FIGURES



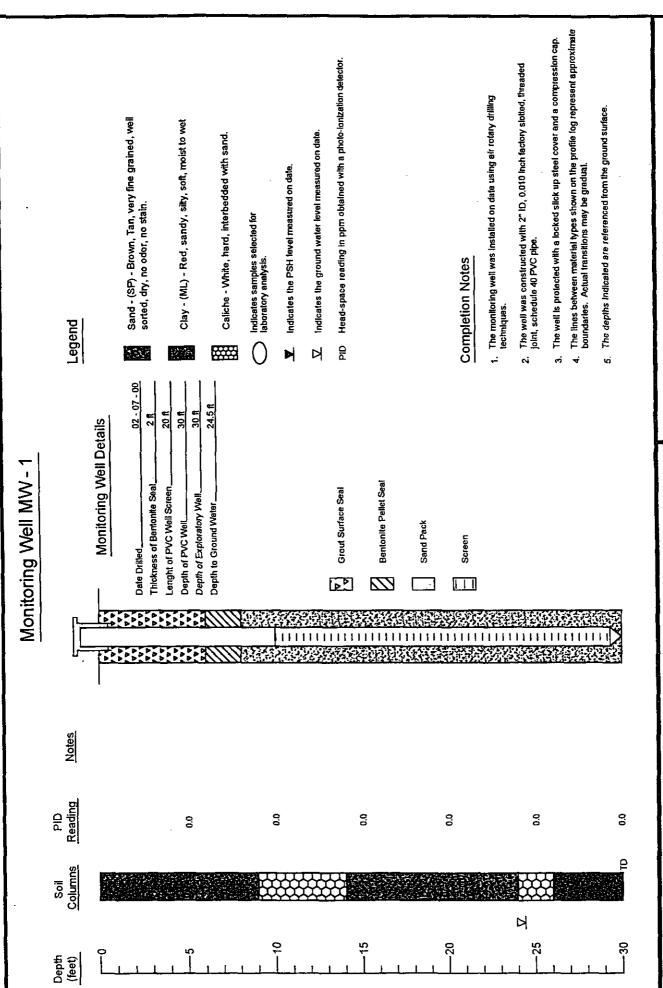








APPENDIX A



Boring Log And Monitoring Well Details

Monitoring Well - 1

R. L. Rodgers

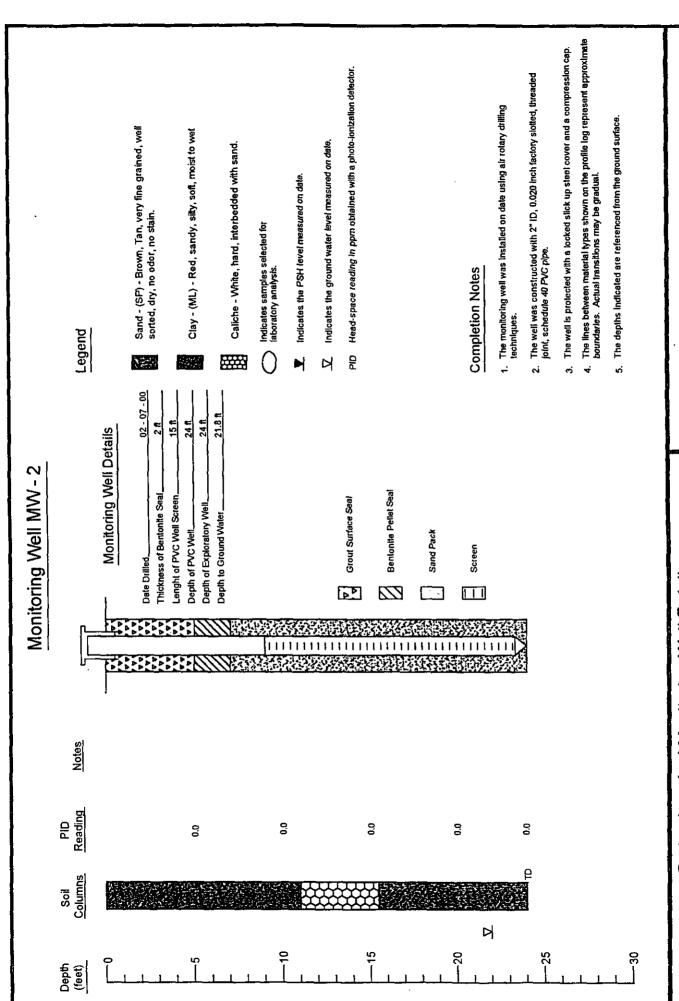
EOTT Energy Corp.

Environmental Technology Group, Inc.

Scale: use scale | Prep By: RS | Checked By: JT

February 17, 2000 ETGI Project #EOT 1041C

Lea County, NM



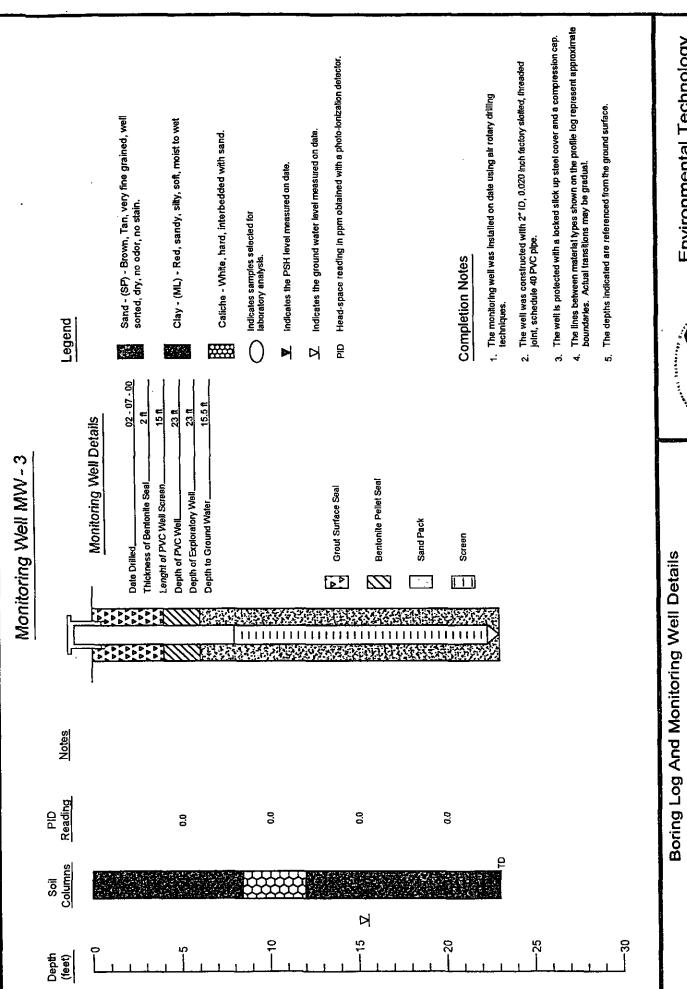
Boring Log And Monitoring Well Details Monitoring Well - 2 Lea County, NM EOTT Energy Corp. R. L. Rodgers

Ш

Environmental Technology

Prep By: RS | Checked By: JT Scale; use scale

February 17, 2000 ETGI Project #EOT 1041C



Environmental Technology Group, Inc.

Scale, use scale | Prep By: RS | Checked By: JT February 17, 2000 ETGI Project #EOT 1041C

R. L. Rodgers Lea County, NM

EOTT Energy Corp.

Monitoring Well - 3

APPENDIX B



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 505-392-3760

Sample Type: Soil

Sample Condition: Intact/Iced

Project #: EOT 1041C Project Name: R.L. Rodgers

Project Location: Monument, N.M.

Sampling Date: 02/07/00 Receiving Date: 02/12/00 Analysis Date: 2/14 & 2/15/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg	
00500	h # 4 4 4000	40.400	40.100	40.100	40.400	40.100	
23532	MW-1 (20')	<0.100	<0.100	<0.100	<0.100	<0.100	
23533	MW-2 (20')	<0.100	<0.100	<0.100	0.170	<0.100	
23534	MW-3 (15')	<0.100	<0.100	<0.100	0.107	<0.100	
	% IA	94	92	90	91	88	
	%EA	102	98	96	98	95	
	BLANK	<0.100	<0.100	<0.100	<0.100	<0.100	

METHODS: SW 846-8021B.5030

Raland K Tuttle

Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 505-392-3760

Sample Type: Soil

Sample Condition: Intact/Iced

Project #: EOT1041C

Project Name: R.L. Rodgers

Project Location: Monument, N.M.

Sampling Date: 02/07/00

Receiving Date: 02/12/00

Analysis Date: 02/14/00

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg	
23532	MW-1 (20')	<10	<10	
23533 23534	MW-2 (20') MW-3 (15')	<10 <10	<10 <10	

%INSTRUMENT ACCURACY	111	110
% EXTRACTION ACCURACY	112	113
BLANK	<10	<10

Methods: EPA SW 846-8015M GRO/DRO

environmenta ed	المارين <u>المرر</u>	(915) 563-1800 FAX (915) 563-1713 CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST (915) 563-1800 FAX (915) 563-1713	UEST
	,	Phone #: (915) 664-9166 FAX#: (<-35) 292-3760	
Company Name & Address:	76.T 30% 4845	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
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Relinquished by:	Date:	Times:	
Relinquished by:	Date - 12 - 00	1115 Synchrone INVOJEC. L. FROST	
Mar. IN ADD.			



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704 FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/ Iced/HCI

Project #: EOT 1041C
Project Name: R.L. Rogers
Project Location: Monument, N.M.

Sampling Date: 02/23/00 Receiving Date: 02/24/00 Analysis Date: 02/24/00

m.p-XYLENE o-XYLENE BENZENE TOLUENE ETHYLBENZENE ELT# FIELD CODE (mg/L) (mg/L) (mg/L) (mg/L)(mg/L)< 0.001 23713 MW-1 < 0.001 0.001 < 0.001 < 0.001 23714 MW-2 < 0.001 0.001 <0.001 <0.001 < 0.001 0.002 0.002 0.008 < 0.001 23715 **MW-3** 0.002

% IA	94	89	89	90	89
% EA	95	90	90	91	90
BLANK	< 0.001	<0.001	< 0.001	<0.001	<0.001

METHODS: EPA SW 846-8021B,5030

Raland K Tuttle

Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O, BOX 4845

MIDLAND, TEXAS 79704 FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/ Iced
Project #: EOT 1041C

Project Name: R.L. Rogers
Project Location: Monument, N.M.

Sampling Date: 02/23/00 Receiving Date: 02/24/00 Analysis Date: 02/24/00

ELT#	, FIELD CODE	Sulfate mg/L	Chloride mg/L	Carbonate mg/L	Bicarbonate mg/L	TDS mg/L	
23713	MW-1	206	170	0	220	759	
23714	MW-2	186	163	0	330	756	
23715	K-WM	230	195	0	335	975	
	QUALITY CONTROL	52.7	5318	*	*	*	
	TRUE VALUE	50.0	5000	•	*	*	
	% PRECISION	105	106	•	*	*	

METHODS: EPA 375.4, 325.3, 310, 160.1

Daland K Tuttle

Z-28-00



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/ Iced

Project#: EOT 1041C Project Name: R.L. Rogers

Project Location: Monument, N.M.

Sampling Date: 02/23/00 Receiving Date: 02/24/00 Extraction Date: 02/25/00

Analysis Date: 02/25/00

Field Code: MW-1

EPA SW846 8270 (mg/l)	REPORT LIMIT	ELT# 23713	RPD	%EA	%IA	
Et Motto to oblic (mgr.)		20110		700.	7017.	
Naphthalene	0.005	ND			92	
Acenaphthylene	0.005	ND			94	
Acenaphthene	0.005	ND	2.90	68	94	
Fluorene	0,005	ND			98	
Phenanthrene	0.005	ND			102	
Anthracene	0.005	ND			92	
Fluoranthene	0.005	ND			94	
Pyrene	0.005	ND	1.50	66	88	
Benzo[a]anthracene	0.005	ND			92	
Chrysene	0.005	ND			92	
Benzo[b]fluoranthene	0.005	ND			94	
Benzo[k]fluoranthene	0.005	ND			100	
Benzo [a]pyrene	0.005	ND			100	
Indeno[1,2,3-cd]pyrene	0.005	ND			84	
Dibenz[a,h]anthracene	0.005	ND			104	
Benzo[g,ḥ,i]perylene	0.005	ИD			100	
		% RECOVERY				
Nitrobenzene-d5 SURR		76				
2-Fluorobiphenyl SURR		86				
Terphenyl-d14 SURR		81				
ND= NOT DETECTED						

Method: EPA SW 846 8270C, 3510



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704 FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/ Iced

Project #: EOT 1041C Project Name: R.L. Rogers

Project Location: Monument, N.M.

Sampling Date: 02/23/00 Receiving Date: 02/24/00 Extraction Date: 02/25/00 Analysis Date: 02/25/00

Field Code: MW-2

	REPORT	ELT#				
EPA SW846 8270 (mg/l)	LIMIT	23714	RPD	%EA	%!A	
Naphthalene	0.005	ND			92	
Acenaphthylene	0.005	ND			94	
Acenaphthene	0.005	ND	2.90	68	94	
Fluorene	0.005	ND			98	
Phenanthrene	0.005	ND			102	
Anthracene	0.005	ND			92	
Fluoranthene	0.005	ND			94	
Pyrene	0.005	ND	1.50	66	88	
Benzo[a]anthracene	0.005	ND			92	
Chrysene	0.005	ND			92	
Benzo[b]fluoranthene	0.005	ND			94	
Benzo[k]fluoranthene	0.005	ND			100	
Benzo (a)pyrene	0.005	ND			100	
Indeno[1,2,3-cd]pyrene	0.005	ND			84	
Dibenz[a,h]anthracene	0.005	ND			104	
Benzo(g,h,i)perylene	0.005	ND			100	
		% RECOVERY				
Nitrobenzene-d5 SURR		78				
2-Fluorobiphenyl SURR		84				
Terphenyl-d14 SURR		91				
resplicitly and out at		J ,				

ND= NOT DETECTED

Method: EPA SW 846 8270C, 3510

CCL C/CJURIL
Raland K. Tuttle

Z-29-00



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/ Iced

Project #: EOT 1041C
Project Name: R.L. Rogers

Project Location: Monument, N.M.

Field Code: MW-3

Sampling Date: 02/23/00 Receiving Date: 02/24/00 Extraction Date: 02/25/00 Analysis Date: 02/25/00

,,,,,						
	REPORT	ELT#	ಎ			
EPA SW846 8270 (mg/l)	LIMIT	23715	RPD	%EA	%IA	
Naphthalene	0.005	ND			92	
Acenaphthylene	0.005	ND			94	
Acenaphthene	0.005	ND	2.90	68	94	
Fluorene	0.005	ND			98	
Phenanthrene	0.005	ND			102	
Anthracene	0.005	ND			92	
Fluoranthene	0.005	ND			94	
Pyrene	0.005	ND	1.50	66	88	
Benzo[a]anthracene	0.005	ND			92	
Chrysene	0.005	ND			92	
Benzo[b]fluoranthene	0.005	ND			94	
Benzo[k]fluoranthene	0.005	ND			100	
Benzo [a]pyrene	0.005	ND			100	
Indeno[1,2,3-cd]pyrene	0.005	ND			84	
Dibenz[a,h]anthracene	0.005	ND			104	
Benzo[g.h,i]perylene	0.005	ND			100	
		% RECO	/ERY			
Nitrobenzene-d5 SURR		76				
2-Fluorobiphenyl SURR		82				
Terphenyl-d14 SURR		84				
ND= NOT DETECTED						

ND= NOT DETECTED

Method: EPA SW 846 8270C, 3510

Raland K. Tuttle

Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704 FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/Iced/HNO3

Project #: EOT 1041C Project Name: R.L. Rogers

Project Location: Monument, N.M.

Sample Date: 02/23/00 Receiving Date: 02/24/00 Analysis Date: 02/26/00

	MW-1	MW-2	E-WM	Reporting				
Analyte (mg/L)	23713	23714	23715	Limit	%IA	%EA	BLANK	RPD
Aluminum	0.2530	2.640	4.680	0.0500	104	111	<0.0500	1.22
Arsenic	ND	ND	0.0080	0.0500	104	110	<0.0050	3.70
Barium	0.1410	0.2440	0.1830	0.0100	102	101	<0.0100	2.82
Beryllium	ND	ND	ND	0.0040	96	96	<0.0040	2.11
Cadmium	ND	ND	ND	0.0010	94	94	<0.0010	2.15
Calcium	139.0	248.0	256,0	1.000	96	•	<1.000	0.69
Chromium	ND	0.0080	0.0110	0.0050	94	92	<0.0050	2.19
Cobalt	ND	ND	ND	0.0200	95	94	<0.0200	2.60
Copper	ND	ND	ND	0.0100	93	97	<0.0100	3.36
Iron	0.2600	1.680	3.240	0.0500	99	98	<0.0500	0.81
Lead	ND	ИD	ND	0.0030	94	94	<0.0030	2.15
Magnesium	23.90	24.50	34.50	1,000	99	*	<1.000	0.41
Manganese	0.0490	0.0590	0.1120	0.0150	94	93	<0.0150	2.56
Mercury	ND	ND	ND	0.00020	95	106	<0.00020	0.94
Molybdenum	ND	ND	ND	0.050	94	96	<0.050	2.32
Nickel	ND	ND	ND	0.0100	95	92	<0.0100	2.63
Potassium	6.310	6.920	7.340	1,000	85	•	<1.000	0.77
Selenium	0.0050	ND	ND	0.0050	108	108	<0.0050	1.71
Silver	ND	ИD	ND	0.00500	94	92	<0.0050	0.00
Sodium	91.70	117.0	176.0	1.000	112	*	<1.000	0.42
Tin	ND	ND	ND	0.0500	104	103	<0.0500	1.96
Vanadium	ND	0.0270	0.0350	0.0200	94	96	<0.0200	2.52
Zinc	ND	0.0550	0.0700	0.0200	97	99	<0.0200	3.29
Boron	0.161	0.188	0.275	0.050	103	107	<0.050	1.64
Strontium	1.33	1.29	1.70	0.050	97	91	<0.050	2.26

ND = Below Reporting Limit

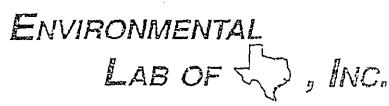
METHOD: EPA SW846-6010B, 7470

Relance Justil

Date

Environmental Lab of Texas, Inc. 12	:aS, Inc. 12600 West I-20 Bast Odessa, Texas 79763 (915) 563-1800 FAX (915) 563-1713	CILLIN-OF-CUSTÓDY RECORD AND ANALYSIS REQUEST
Troject Nanager: Jest 1 14'6 CH	Phone II: (917) 664 - 9166 FAX II: (525) 392 - 7760	ANALYSIS REQUEST
Company Name & Address: 6 1866	MIDERIA TA 74.204	
Project 11: 767 1041C	Project Hame: R. L. Lugers	ek da 1
Froject Location:	Sampler Stensture:	S BS Cd C
	 	24 gA 28 gA 29 30 J
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Environmental Lab of Texas, inc. 11600Weil-20 East Odera, Texas 79753 (915) 563-1500 FAX (915) 563-1713	1:11011 4(915) 664-9166	MIDLAND TX 78704 Project Hanc: R. L. Lodge 21 5 Simple Stylinlure: Anylow (2003	MATHEN MESERVATIVE NOTICE NOTI	A V X V V V V V V V V V V V V V V V V V		Times: Times: Received by:	Thres: Received by Laboratory:
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ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 915-520-4310

SampleType: Soil

Sample Condition: Intact/ Iced 1deg C.

Project V: EOT 1041C
Project Name: R.L. Rodgers
Project Location: Monument, N.M.

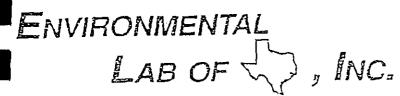
Sampling Date: 05/03/00 Receiving Date: 05/03/00 Analysis Date: 05/04/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENS mg/kg	ETHYLBENZENE mg/kg	m.p-XYLENE mg/kg	o-XYLENE
25488	8801/2-411/	ZO 160	40.160	20.103	40.100	40.100
	SSO 1/East Wall-17 Egs	<0.100	<0.100	<0.100	<0.100	<0.100
25469	SSO2/SE Corner-17/bgs	<0.100	<0.100	<0.100	<0.100	<0.100
25490	SSOUScuth Wall East-17tigs	<0.100	<0.100	<0.100	<0.100	<0.100
25491	SSO4/South Wall P/L-17bgs	<0.100	0.101	<0.100	0.108	<0.100
25492	SSO5/South Wall West-17bgs	<0.100	<0.100	<0.100	<0.100	<0,100
25493	SSOE/West Wall-17thgs	<0.100	<0.100	< 0.100	0.109	<0,100
25494	SSO7/North Wall West-1763s	<0.100	<0.160	< 0.100	<0.100	<0,100
25495	SSOSMonh Wall East-17bgs	<0.100	<0.100	<0.100	<0.100	<0.100
	% Ц % ЕА	108 101	102 95	103 101	112 111	101 101
•	BLANK	<0.100	<0,100		-	
	OLDINI III	NO. 100	₹0,100	<0.100	<0.100	<0.100

METHODS: SW 846-80213.5030

Paland K. Turile

5-5-00 Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704 FAX: 915-520-4310

SampleType: Soil

Sample Condition: Intact/ Iced Tdeg C.

Project #: EOT 1041C
Project Name: R.L. Rodgers
Project Location: Monument, N.M.

Sampling Date: 05/03/00 Receiving Date: 05/03/00 Analysis Date: 05/04/00

	Location: Monument, N.M.	07.0 01.3.30	DRO >C10-C28		
ELTH	FIELO CODE	<u> </u>	mc/ke	·	
25488	SSO1/East Wall-17 bgs	<10	<10		
25489	SSO2/SE Comer-17'bgs	<10	<10		
25490	SSO3/South Wall East-17bgs	<18	<10		
25491	SSO4/South Wall P/L-17bgs	<10	230		
25492	SSO5/South Wall West-17bgs	<10	10		
25493	SSOE(West Waf-17bgs	<10	<10		
25494	SSO7/North Wall West-17/bgs	<10	<10		
25495	SSOYNOM Wall East-17 ogs	<10	<10		
	% 1A	100	119		
	% EA	58	108		
	BLANK	<10	<10	•	

METHODS: ISW 846-8015M GROJDRO

Baland K Tultle

Date

3 CIERTH-OF-CUSTORY DECISION AND CO.	AHALYSIS REQUEST	THAT IN THAT I	meximis from Lesures H. Duston
38, IRC. 12091 West 1.20 Bast Oders, Texas vita (918) S63-1860 FAX (915) S63-1713	Mone #: (915) 664-8160	MATRIX Smaller Stante: Smaller Stante: Smaller Stante: Smaller Stante: Smaller Stante: Smaller Stanter: And	Times: Three: Three: Three: Three: Three: Three: Three:
Environmental Lab of Texas, Inc.	Project Numeric JESSE / Are U.A.	Empery Nome & Address: C-172 (1994) Project 11: MORLINGENT NOW NOW	Rellinguistical by. Rellinguistical by. Rellinguistical by. Rellinguistical by. Rellinguistical by. Rellinguistical by.

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ANNUAL MONITORING REPORT

EOTT PIPELINE COMPANY R. L. RODGERS LEA COUNTY, NEW MEXICO 1R-87

RECEIVED

MAY 0 9 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

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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 wells were gauged and sampled on February 23, May 3, August 29, and November 28, 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 28, 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 0.005 ft/ft to the southwest as measured between ground water monitoring wells MW-1 and MW-3. The depth to ground water, as measured from the top of the well casing, ranged between 19.86 to 22.52 feet for the shallow alluvial aquifer.

LABORATORY RESULTS

Ground water samples collected during the quarterly 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.

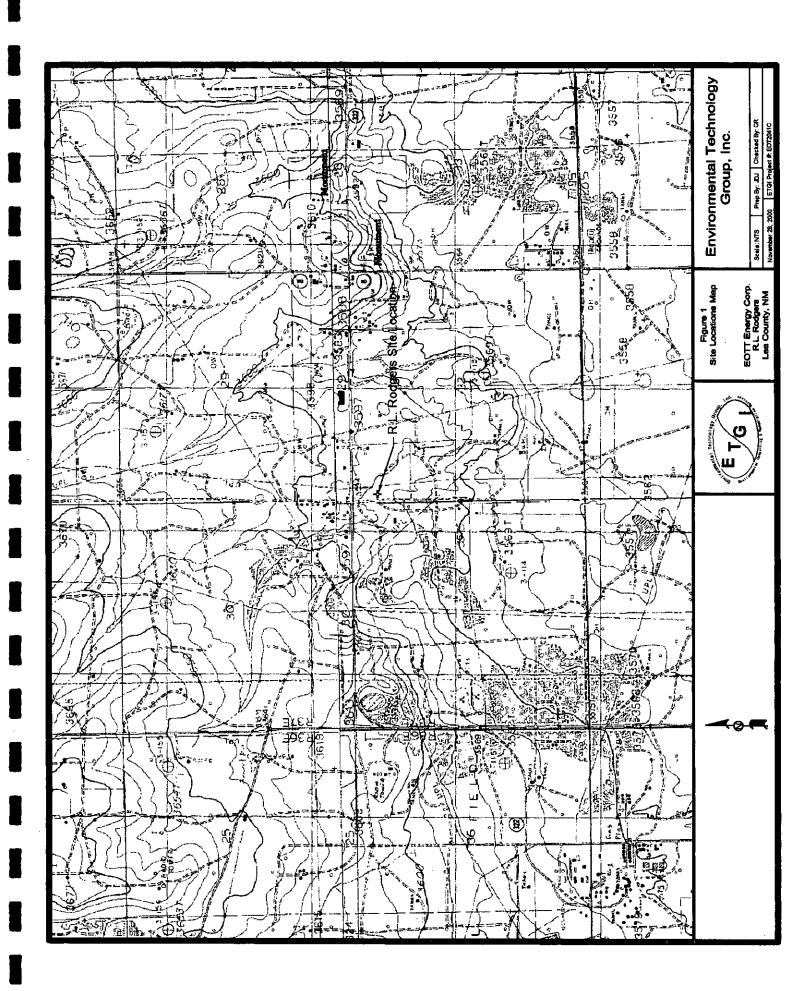
Laboratory results for all of the site ground water samples, obtained during the calendar year 2000 monitoring period, indicated that Benzene and BTEX concentrations were below regulatory standards for all of the on-site monitoring wells.

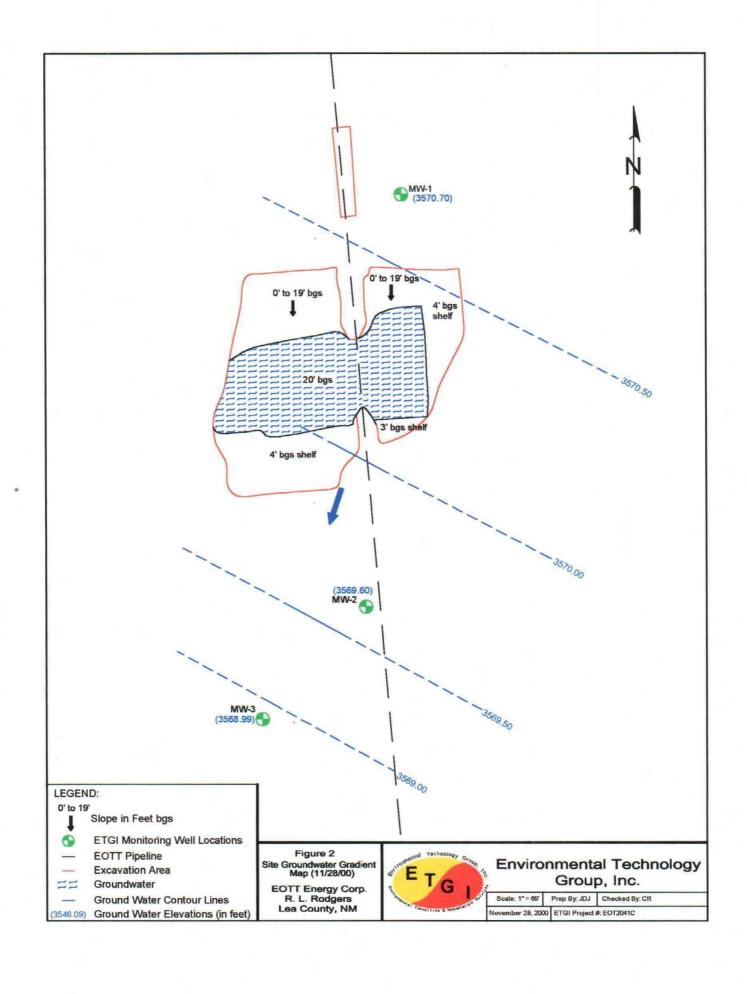
SUMMARY

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 0.005 ft/ft to the southwest as measured between ground water monitoring wells MW-1 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 regulatory standards for all of the on-site monitoring wells. Therefore, a site closure request will be submitted to the OCD in the near future.

FIGURES





TABLES

TABLE 1

GROUND WATER ELEVATION ANNUAL REPORT

EOTT ENERGY CORPORATION R. L. ROGERS LEA COUNTY, NEW MEXICO ETGI PROJECT # EOT 2041C

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 1	02/23/00	3,593.22	-	22.51	0.00	3,570.71
	05/03/00	3,593.22	-	20.03	0.00	3,573.19
	08/29/00	3,593.22		22.52	0.00	3,570.70
	11/28/00	3,593.22	-	22.52	0.00	3,570.70
MW - 2	02/23/00	3,591.20	_	21.55	0.00	3,569.65
	05/03/00	3,591.20		20.03	0.00	3,571.17
	08/29/00	3,591.20	_	21.57	0.00	3,569.63
	11/28/00	3,591.20	-	21.60	0.00	3,569.60
MW - 3	02/23/00	3,588.85	-	19.98	0.00	3,568.87
	05/03/00	3,588.85	-	21.56	0.00	3,567.29
	08/29/00	3,588.85	-	19.88	0.00	3,568.97
	11/28/00	3,588.85	-	19.86	0.00	3,568.99
			-			

TABLE 2

GROUND WATER CHEMISTRY ANNUAL REPORT

EOTT ENERGY CORPORATION R.L. ROGERS LEA COUNTY, NEW MEXICO ETGI PROJECT # EOT 2041C

All concentrations are in mg/L

			SW	846-8021B,	5030	
SAMPLE LOCATION	SAMPLE DATE	BENZENE	TOLUENE	ETHYL- BENZENE	M,P- XYLENES	O- XYLENES
MW - 1	02/23/00	<0.001	0.001	<0.001	<0.001	<0.001
	04/05/00	0.002	<0.001	0.002	0.009	0.005
	08/29/00	<0.001	<0.001	<0.001	<0.001	<0.001
	11/28/00	<0.001	<0.001	<0.001	<0.001	<0.001
MW - 2	02/23/00	<0.001	0.001	<0.001	<0.001	<0.001
	04/05/00	0.003	0.011	0.001	0.025	0.003
	08/29/00	<0.001	<0.001	<0.001	<0.001	<0.001
	11/28/00	<0.001	<0.001	<0.001	<0.001	<0.001
MW - 3	02/23/00	0.006	0.002	<0.001	0.002	0.002
	04/05/00	0.002	<0.001	<0.001	<0.001	<0.001
	08/29/00	<0.001	<0.001	<0.001	<0.001	<0.001
	11/28/00	<0.001	<0.001	<0.001	<0.001	<0.001

APPENDIX



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/ Iced/HCI

Project #: EOT 1041C
Project Name: R.L. Rogers
Project Location: Monument, N.M.

Sampling Date: 02/23/00 Receiving Date: 02/24/00

Analysis Date: 02/24/00

ELT#	FIELD CODE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYLBENZENE (mg/L)	m,p-XYLENE (mg/L)	o-XYLENE (mg/L)	
23713	MW-1	<0.001	0.001	<0.001	<0.001	<0.001	:
23714	MW-2	< 0.001	0.001	<0.001	<0.001	<0.001	
23715	MW-3	0.006	0.002	<0.001	0.002	0.002	

% IA	94	. 89	89	90	89
% EA	 95	- 90	90	91	90
BLANK	 <0.001	<0.001	<0.001	< 0.001	<0.001

METHODS: EPA SW 846-8021B,5030

Raland K. Tuttle

) Sate

Company Name & Address: 7-56 No. 18 Froject Mane; 7-56 No. 18 Froject Mane; 7-56 No. 18 Froject Mane; 7-50 No. 18 Froject Location; 7-50 No. 18 No.	6/64 Analysis request
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Date: Times: Re	Rush
Relinquished by: Date: Times: Received by Laboratory:	nums INVOICE LENNAN FREST 1013 TH



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/HCI

Project #: EOT 1041C
Project Name: R.L. Rogers
Project Location: Monument, N.M.

Sampling Date: 04/05/00 Receiving Date: 04/06/00 Analysis Date: 4/10/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m.p-XYLENE mg/L	o-XYLENE mg/L	<u></u>
24647	MW-1	0.002	<0.001	0.002	0.009	0.005	
24548	MW-2	0.003	0.011	0.001	0.025	0.003	
24649	MW-3	0.002	<0.001	<0.001	<0.001	<0.001	

%IA	91	90	92	95	88
% EA	94	92	94	97	90
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021B,5030

Raland K. Tuttle

4-12-00

Date

Freject Manager: JESSE JAVICA Company Name & Address: PTPL Freject 1s. Freject 1s. Freject UAB # FIELD CODE (LAB USE) MW MW MW MW MW MW MW MW MW M	Phone # (JOS.	7	-	1	oc #	6// =		
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ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: BETH ALDRICH

P.O. BOX 4845

MIDLAND, TEXAS 79704 FAX: 915-520-4310

SampleType: Water

Sample Condition: Intact/ loed/ HCI/ 27 deg. F

Project #: EOT 2041C
Project Name: R.L. Rogers
Project Location: Monument, N.M.

Sampling Date: 08/29/00 Receiving Date: 08/30/00 Analysis Date: 09/05/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m.p-XYLENE mg/L	o-XYLENE mg/L	TOTAL BTEX mg/L
30255	MW 1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
30256	MW 2	<0.001	< 0.001	<0.001	< 0.001	<0.001	< 0.001
30257	MW 3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

% IA	103	100	103	106	99
% EA	104	104	106	110	102
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021B,5030

Raland K Tuttle

Date

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Project Manager. BYTH ALDRICH	<i>*</i> 5							0/8					
Rosse			FOT 2041	2,				· //BA1 00					
Project Location:	NM	Sampler Signal Me:	where Casa	4								.	
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ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: 8ETH ALDRICH P.O. BOX 4845 MIDLAND, TEXAS 79704 FAX: 915-520-4310

FAX: 915-520-4310 FAX: 505-39**7-4701**

Sample Type: Water

Sample Condition: Intact/ Iced/ HCI/ 0.5 deg. C

Project #: EOT 2041C Project Name: R.L. Rogers Project Location: Monument, N.M. Sampling Date: 11/28/00 Receiving Date: 12/02/00 Analysis Date: 12/03/00

BENZENE TOLUENE ETHYLBENZENE m,p-XYLENE o-XYLENE ELT# FIELD CODE mg/Lmg/L mg/L mg/L mg/L 34584 MW 1 <0.001 < 0.001 < 0.001 < 0.001 < 0.001 34585 MW 2 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 34586 MW 3 < 0.001 < 0.001 < 0.001 <0.001 34587 EB 1 < 0.001 < 0.001 < 0.001 <0.001

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

METHODS: EPA SW 846-8021B ,5030

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12-4-00 Date

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2000 ANNUAL GROUNDWATER MONITORING REPORT

EOTT PIPELINE COMPANY
R. L. ROGERS RELEASE SITE
LEA COUNTY, NEW MEXICO

DRAFT

PREPARED FOR:

EOTT PIPELINE COMPANY 5805 EAST HIGHWAY 80 MIDLAND, TEXAS 79701

RECEIVED

MAR 1 2 2001

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

PREPARED BY:

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

February 2001

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2.0	FIELD ACTIVITIES	1
3.0	GROUND WATER GRADIENT	2
4.0	LABORATORY RESULTS	2
5.0	SUMMARY	2
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TABLES

Table 1 – Ground Water Elevation Table 2 – Ground Water Chemistry

APPENDICES

Appendix A - Laboratory Reports

1.0 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 (NMOCD) regulations. The report presents the results of the quarterly ground water monitoring events for the calendar year 2000 only. Additional site activities and remedial work is summarized in several letters and reports previously submitted to the NMOCD. For reference, a site location map is provided as Figure 1.

Ground water monitoring was conducted during four sampling events in the four quarters of 2000 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.

2.0 FIELD ACTIVITIES

The site monitoring wells were gauged and sampled on February 22nd, April 4th, August 29th and November 23rd, 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. Purging of monitoring wells was performed to evacuate water that has been stagnant in the well and may not be representative of the aquifer. At least three well volumes were removed from the well before it is sampled.

Groundwater was allowed to recharge and then samples were obtained using disposable Teflon samplers. Monitoring wells with a measurable presence of PSH were not sampled. When numerous monitoring wells were sampled in succession, those wells expected to have low levels of contamination or no contamination were sampled prior to those wells expected to have higher levels of contamination.

VOCs samples were collected as soon as possible after purging, and not more than two hours after purging was completed. If a monitoring well was bailed or pumped dry before three well volumes were obtained, the sample was collected when a sufficient volume of water had accumulated in the well. Following collection of VOC samples, remaining water samples were collected in the following order: polynuclear aromatic hydrocarbons (PAHs); total petroleum hydrocarbons (TPH); metals; and total dissolved

solid (TDS) and water quality parameters. 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 at an NMOCD approved disposal facility. The groundwater analyses are found in Table 1.

3.0 GROUNDWATER GRADIENT

Locations of the monitoring wells and the inferred ground water gradient for each quarterly sampling event are depicted on Figures 2. The ground water elevation data are provided as Table 2. Groundwater elevation contours, generated from the quarterly sampling events of 2000 water level measurements, indicated a general gradient of approximately 0.005 ft/ft to the southwest. The depth to groundwater, as measured from the top of the well casing, ranged between 18 to 17.24 feet for the shallow alluvial aquifer. There was no PSH detected in any of the monitoring wells.

4.0 LABORATORY RESULTS

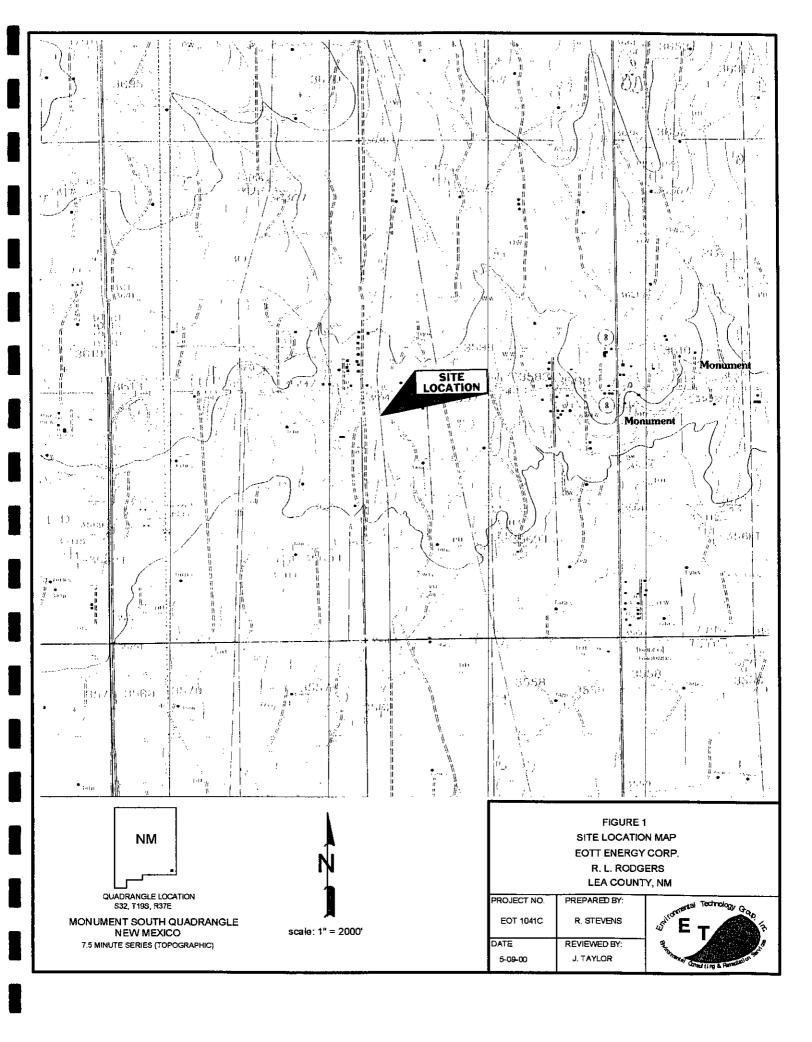
Ground water samples obtained during the quarterly sampling events were hand delivered under Chain of Custody to Environmental Laboratory of Texas, of Midland, Texas for determination of benzene, toluene, ethylbenzene and total xylenes (BTEX) concentrations by EPA Method SW846-8021B, 5030. In addition, the ground water samples collected during the first quarter sampling event were submitted for the analysis of Major Cations and Anions, Metals, Total Dissolved Solids and Poly Aromatic Hydrocarbons (PAH) using EPA Methods 375.4, 325.3, 310, 6010B, 7470,160.1 and8270C, 3510 respectively. The ground water chemistry data are provided as Table 1 and the Laboratory Reports are provided as Appendix A.

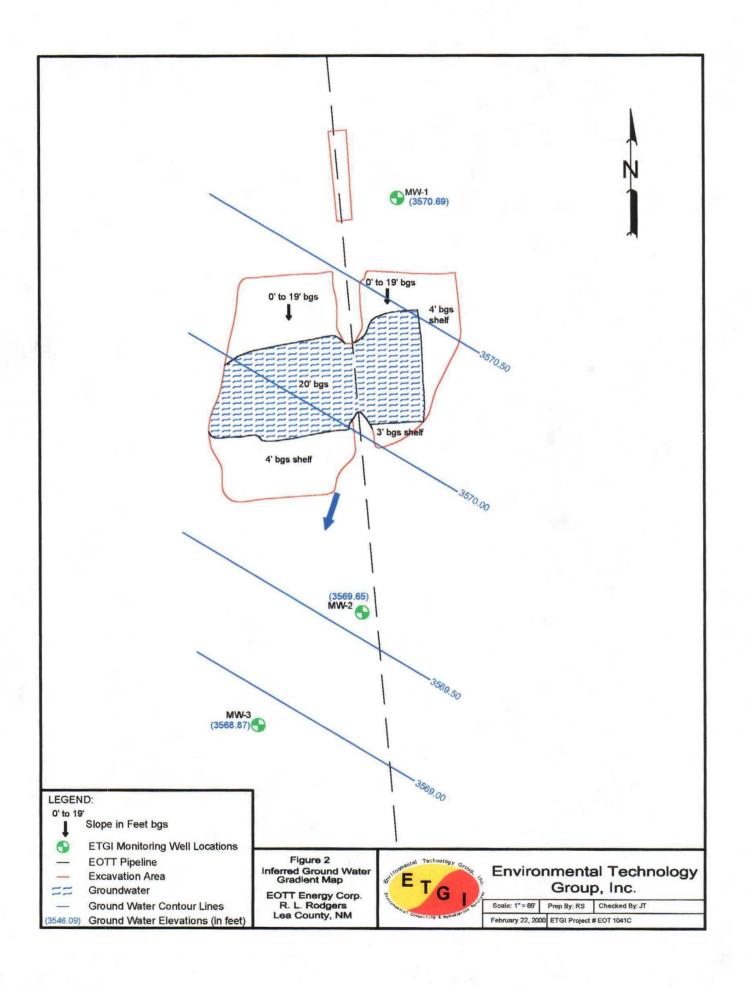
Laboratory results for all of the site ground water samples, obtained during the 2000 annual period, indicated that BTEX concentrations were below detection limits. All of the ground water samples were below the detection limit for all other analyzed constituents during the first quarter sampling event.

5.0 SUMMARY

This report presents the results of groundwater monitoring for the annual monitoring period of calendar year 2000. No PSH was detected in any of the site wells during the two monitoring events. Dissolved phase concentrations of BTEX were non-detect in all of the monitoring wells. Therefore, there appears to be no dissolved phase petroleum constituent impact to the ground water at the site.

FIGURES





TABLES

Table 1

CONCENTRATIONS OF BTEX IN GROUNDWATER ANNUAL REPORT EOTT ENERGY CORPORATION R.L. ROGERS LEA COUNTY, NM ETGI Project # EOT 2041C

All concentrations are in mg/L

			SW	846-8021B,	5030	
SAMPLE LOCATION	SAMPLE DATE	BENZENE	TOLUENE	ETHYL- BENZENE	M,P- Xylenes	O- XYLENES
MW - 1	2/23/00	<0.001	0.001	<0.001	<0.001	<0.001
	4/5/00	0.002	<0.001	0.002	0.009	0.005
	8/29/00	<0.001	<0.001	<0.001	<0.001	<0.001
	11/28/00	<0.001	<0.001	<0.001	<0.001	<0.001
MW - 2	2/23/00	<0.001	0.001	<0.001	<0.001	<0.001
	4/5/00	0.003	0.011	0.001	0.025	0.003
	8/29/00	<0.001	<0.001	<0.001	<0.001	<0.001
	11/28/00	<0.001	<0.001	<0.001	<0.001	<0.001
MW - 3	2/23/00	0.006	0.002	<0.001	0.002	0.002
	4/5/00	0.002	<0.001	<0.001	<0.001	<0.001
	8/29/00	<0.001	<0.001	<0.001	<0.001	<0.001
	1128/00	<0.001	<0.001	<0.001	<0.001	<0.001

Table 1

CONCENTRATIONS OF METALS IN GROUND WATER

EOTT ENERGY CORPORATION
R.L. ROGERS
LEA COUNTY, NEW MEXICO
EGTI Project # EOT 2041C

All soil concentrations are in mg/kg All water concentrations are in mg/L

_		_		
	muthous	1.33	1.29	1.70
	nero8	0.161	0.188	0.275
	oniZ	aN	0.055	0.700
	mulbeneV	QN	0.027	ND 0.035 0.700
	niT	QN	2	Q
	muíbo2	91.70	117.0	176.0
	Silver	QN	Q	2
	muinələ2	0.005	9	Q
	muissatoq	6.310	6.920	7.340
	Nickel	QN	ΩN	Q
	Моһураепит	ΩN	QN	QN
0B, 7470	Метсигу	QN	2	QN
EPA SW846-6010B,	Manganese	0.049	0.059	0.112
EPA SN	Magnesium	23.90	24.50	34.50
	резд	Q	2	오
	กดาไ	0.260	- 88	3.240
	Copper	QN	₽	Q Z
	Cobait	9	₽	9
	muimond2	Q	0000	0.011
	Calcium	139.0	248.0	256.0
	Cadmium	S	£	S
	B eryllium	2	₽	₽
	mvhe8	0.141	0.244	0.183
	SineariA	2	2	800
	munimulA	0.253	2.640	4.680
	SAMPLE	WATER	WATER	WATER
	SAMPLE	02/23/00	02/23/00	02/23/00
	SAMPLE	MW - 1	MW-2	MW-3

		mulbeneV	QN	0.027
		niT	QΝ	2
		mulbos	91.70	117.0
		Silver	QN	2
		muinələ2	0.005	9
		muissatod	6.310	6.920
		Hickel	QN	2
		Мођур аевит	ON	2
	08,747 0	Mercury	Ε.	2
	848-601	Мапдалесе	0.049	0.059
•	PA SW	mulsəngs ^M	23.90	24.50
		реэд	Q	2
		กดาใ	0.260	088
		Copper	QN	2
		Cobait	QN	2
		muimondo	QΝ	0.008
		Calcium	139.0	248.0
		Cadmium	Q	S
		Beryillum	2	2
		mvins8	0.141	0 244

CHEMICAL CONCENTRATIONS OF IN GROUNDWATER EOTT ENERGY CORPORATION R.L. ROGERS MONUMENT, NEW MEXICO ETGI Project # EOT 2041C

All concentrations are in mg/L

		SW 375.4, 325.3, 310, 160.1											
SAMPLE LOCATION	SAMPLE DATE	SULFATE	CHLORIDE	CARBONATE	BICARBONATE	TDS							
MW - 1	02/23/00	206	170	0	220	759							
MW - 2	02/23/00	186	163	0	330	756							
MW-3	02/23/00	230	195	0	335	975							

TABLE 2

Ground Water Elevation

Annual Report LF 59 Site

Lea County, NM

NOT 1287

ETGI Project # EOT 2041C

Well Number	Date Measured	Casing Well Elevation	Depth to Product	Depth to Water	PSH Thickness	Corrected Groundwater Elevation		
MW - 1	02/23/00	3,572.21	-	29.95	0.00	3,542.26		
	04/06/00	3,572.21	-	19.81	0.00	3,552.40		
	08/29/00	3,572.21	19.46	19.46	0.30	3,553.01		
	11/28/00	3,593.22	-	22.52	0.00	3,570.70		
MW - 2	02/23/00	3,571.46	-	22.95	0.00	3,548.51		
	04/06/00	3,571.46	-	22.87	0.00	3,548.59		
	08/29/00	3,571.46		22.06	0.00	3,549.40		
	11/28/00	3,591.20	-	21.60	0.00	3,569.60		
MW - 3	02/23/00	3,573.46	•	20.92	0.00	3,552.54		
	04/06/00	3,573.46	-	20.85	0.00	3,552.61		
	08/29/00	3,573.46	•	20.53	0.00	3,552.93		
	11/28/00	3,588.85	-	19.86	0.00	3,568.99		
	04/06/00	3,570.15	-	20.90	0.00	3,549.25		
	08/29/00	3,570.15	20.43	20.54	0.11	3,549.70		
/W - 5	02/23/00	3562.92	-	19.8	0.00	3,543.12		
	04/06/00	3572.92	-	19.74	0.00	3,553.18		
	08/29/00	3572.92	-	19.33	0.00	3,553.59		

APPENDICES

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

Sample Type: Water

Sample Condition: Intact/ Iced

Project #: EOT 1041C
Project Name: R.L. Rogers
Project Location: Monument, N.M.

Sampling Date: 02/23/00 Receiving Date: 02/24/00 Analysis Date: 02/24/00

ELT#	FIELD CODE	Sulfate mg/L	Chioride mg/L	Carbonate mg/L	Bicarbonate mg/L	TDS mg/L
23713 23714 23715	MW-1 MW-2 MW-3	206 186 230	170 163 195	0 0 0	220 330 335	759 756 975
	QUALITY CONTROL TRUE VALUE % PRECISION	52.7 50.0 105	5318 5000 106	*	*	* *

METHODS: EPA 375.4, 325.3, 310, 160.1

Raland K. Tuttle

Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/ Iced

Project #: EOT 1041C Project Name: R.L. Rogers

Project Location: Monument, N.M.

Field Code: MW-1

Sampling Date: 02/23/00 Receiving Date: 02/24/00 Extraction Date: 02/25/00 Analysis Date: 02/25/00

	REPORT	ELT#				
EPA SW846 8270 (mg/l)	LIMIT	23713	RPD	%EA	%IA	
Naphthalene	0.005	ND			92	
Acenaphthylene	0.005	ND			94	
Acenaphthene	0.005	ND	2.90	68	94	
Fluorene	0.005	ND			98	
Phenanthrene	0.005	ND ·			102	
Anthracene	0.005	ND	•	٠	92	•
Fluoranthene	0.005	ND	•		94	
Pyrene	0.005	ND	1.50	66	88	
Benzo[a]anthracene	0.005	ND .	•		92	
Chrysene	0.005	ND			92	
Benzo[b]fluoranthene	0.005	ND			94	
Benzo[k]fluoranthene	0.005	ND .			100	
Benzo [a]pyrene	0.005	ND			100	
Indeno[1.2.3-cd]pyrene	0.005	ND			84	
Dibenz[a,h]anthracene	0.005	ND			104	
Benzo[g,h,i]perylene	0.005	ND			100	

% RECOVERY

Nitrobenzene-d5 SURR 76
2-Fluorobiphenyl SURR 86
Terphenyl-d14 SURR 81

ND= NOT DETECTED

Method: EPA SW 846 8270C, 3510

land Livel

IK Tuttle



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/ Iced

Project #: EOT 1041C
Project Name: R.L. Rogers

Project Location: Monument, N.M.

Field Code: MW-2

Sampling Date: 02/23/00 Receiving Date: 02/24/00 Extraction Date: 02/25/00

Extraction Date: 02/25/00 Analysis Date: 02/25/00

EDA 01440 40 0070 (m. m/l)	REPORT	ELT#				
EPA SW846 8270 (mg/l)	LIMIT	23714	RPD	%EA_	· %IA	
Naphthalene	0.005	ND	•		92	
Acenaphthylene	0.005	ND			94	-
Acenaphthene	0.005	ND	2.90	68	94	•
Fiuorene	0.005	ND		. •	98	
Phenanthrene	0.005	ND			102	-
Anthracene	0.005	ND .			92	
Fluoranthene	0.005	ND			94	
Pyrene	0.005	ND	1.50	66	88	
Benzo(a)anthracene	0.005	ND		•	92	
Chrysene	0.005	ND	•		92	
Benzo[b]fluoranthene	0.005	ND		Ē	94	
Benzo[k]fluoranthene	0.005	ND			100	
Benzo [a]pyrene	0.005	ND -			100	
Indeno[1,2,3-cd]pyrene	0.005	ND			84	
Dibenz[a,h]anthracene	0.005	ND			104	
Benzo(g,h,i)perylene	0.005	ND	,		100	
		% RECOVERY				
Nitrobenzene-d5 SURR		78		-		

Nitrobenzene-d5 SURR 78
2-Fluorobiphenyl SURR 84
Terphenyl-d14 SURR 91

ND= NOT DETECTED

Method: EPA SW 846 8270C, 3510

Paland K Turb

2-24-

Date

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

Sample Type: Water

Sample Condition: Intact/ Iced

Project #: EOT 1041C
Project Name: R.L. Rogers

Project Location: Monument, N.M.

Field Code: MW-3.

Sampling Date: 02/23/00 Receiving Date: 02/24/00

Extraction Date: 02/25/00 Analysis Date: 02/25/00

	REPORT	ELT#				
EFA SW846 8270 (mg/l)	LIMIT	23715	RPD	%EA	%IA	
Naphthalene	0.005	ND		· •	92	
Acenaphthylene	0.005	ND			94 .	
Acenaphthene	0.005	ND	2.90	68	94	
Fluorene	0.005	ND			98	
Phenanthrene	0.005	ND			102	
Anthracene	0.005	ND			92	
Fluoranthene	0.005	ND	•		94	
Pyrene	0.005	ND	1.50	66	88	
Benzo[a]anthracene	0.005	ND		•	92	
Chrysene	0.005	ND		•	. 92	
Benzo[b]fluoranthene	0.005	ND		•	94	
Benzo[k]fluoranthene	0.005	ND			100	
Benzo [a]pyrene	0.005	ND			100	
ndeno[1,2,3-cd]pyrene	0.005	ND			84	
Dibenz[a,h]anthracene	0.005	ND			104	
Benzo[g,h,i]perylene	0.005	ND			100	

% RECOVERY

Nitrobenzene-d5 SURR 76 2-Fluorobiphenyl SURR 82 Terphenyl-d14 SURR 84

ND= NOT DETECTED

Method: EPA SW 846 8270C, 3510

Raland K. Tuttle

2-29-00

Dat



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/ Iced/HCI

Project #: EOT 1041C
Project Name: R.L. Rogers
Project Location: Monument, N.M.

Sampling Date: 02/23/00 Receiving Date: 02/24/00 Analysis Date: 02/24/00

ELT#	FIELD CODE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYLBENZENE (mg/L)	m,p-XYLENE (mg/L)	o-XYLENE (mg/L)	
23713		<0.001	0.001	<0.001	<0.001	<0.001	
23714	MW-2	<0.001	0.001	<0.001	<0.001	<0.001	
23715	MW-3	0.006	0.002	<0.001	0.002	0.002	
				•			

% IA .		94	89	89	90	89
% EA		95	90	90	91	90
BLANK	O	<0.001	<0.001	<0.001	<0,001	<0.001

METHODS: EPA SW 846-8021B,5030

Raland K. Tuttle

Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 505-392-3760

Sample Type: Water

Sample Condition: Intact/Iced/HNO3

Project #: EOT 1041C
Project Name: R.L. Rogers

Project Location: Monument, N.M.

Sample Date: 02/23/00 Receiving Date: 02/24/00 Analysis Date: 02/26/00

•	MW-1	MW-2	MW-3	Reporting		•		
Analyte (mg/L)	23713	23714	23715	Limit	%IA	%EA	BLANK	RPD
					,			
Aluminum	0.2530	2.640	4.680	0.0500	104	111	<0.0500	1.22
Arsenic	ND	ND	0.0080	0.0500	104	110	<0.0050	3.70
Barium	0.1410	0.2440	0.1830	0.0100	102	101	<0.0100	2.82
Beryllium	ND	ND	ND	0.0040	96	96	< 0.0040	2.11
Cadmium	ND	ND	ND	0.0010	94	94	<0.0010	2.15
Calcium	139.0	248.0	256.0	1.000	96	* .	<1.000	0.69
Chromium	ND	0.0080	0.0110	0.0050	94	92	<0.0050	2.19
Cobalt	ND	ND	ND	0.0200	95	94	<0.0200	2.60
Copper	ND	ND	ND	0.0100	93	97	<0.0100	3.36
Iron	0.2600	1.680	3.240	. 0.0500	99	98 .	<0.0500	0.81
Lead	ND	ND	ND	0.0030	94	94	<0.0030	2.15
Magnesium	23.90	24.50	34.50	1.000	99	* .	<1.000	0.41
Manganese	0.0490	0.0590	0.1120	0.0150	94.	93	<0.0150	2.56
Mercury	ND	ND	ND	0.00020	95	106	<0.00020	0.94
Molybdenum	ND	ND	ND	0.050	94	96	<0.050	2.32
Nickel	ND	ND	ND	0.0100	95	92	<0.0100	2.63
Potassium	6.310	6.920	7.340	1.000	85	*	<1.000	0.77
Selenium	0.0050	ND	ND	0.0050	108	108	<0.0050	1.71
Silver	ND	ND	ND	0.00500	94	92	<0.0050	0.00
Sodium	91.70	117.0	176.0	1.000	112	*	<1.000	0.42
Tin	ND	ND	ND	0.0500	104	103	<0.0500	1.96
Vanadium	ND	0.0270	0.0350	0.0200	94	96	<0.0200	2.52
Zinc	ND	0.0550	0.0700	0.0200	97	99	<0.0200	3.29
Boron	0.161	0.188	0.275	0.050	103	. 107	<0.050	1.64
Strontium	1.33	1.29	1.70	0.050	97	91	<0.050	2.26

ND = Below Reporting Limit

METHOD: EPA SW846-6010B, 7470

Ralanck Jutel

<u> 2-29-00</u>

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST	ANALYSIS REQUEST			20 PO E	SA DA Day Day Salileto	***							LAKS MAIL RESILT: K. Part on	RUSH Journ Frost 1015 m
Fexas, Inc. 12600 West 1.20 East Odesta, Texas 79763 (915) 563-1800 FAX (915) 563-1713	Phone H: (917) 664 - 9164 FAX H: (520+ 392 - 2360	MISSAW TX 19204	Project Name:	Sampler Slenalyre:		V CONTA!! 15 Volume/Amou Solic Solic Hock H	1/2 X X X X X X X X X X X X X X X X X X X		551 V VVV				Thme: 0800	Times: Received by: Times: Received by Laboratory:
Environmental Lab of Texas, Inc.	Project Manager - 1 2566 / Aly 1 124	Company Name & Address: 6 Tond	7	Project Location:		LAB # FIELD CODE (LAB USE)	23713 MW!	23714 MW. 2.	73715 MW3				Relinquished by: At they as a 2/24/02	Relinquished by: Relinquished by: Date:

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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/HCI

Project #: EOT 1041C
Project Name: R.L. Rogers
Project Location: Monument, N.M.

Sampling Date: 04/05/00 Receiving Date: 04/06/00 Analysis Date: 4/10/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m.p-XYLENE mg/L	o-XYLENE mg/L	
24647	MW- 1	0.002	<0.001	ົດ ດດຈ	0.000	0.005	
	*****			0.002	0.009	0.005	
24648	MW-2	0.003	0.011	0.001	0.025	0.003	
24649	MW-3	0.002	<0.001	<0.001	<0.001	<0.001	
						•	

% IA	91	90	92	95	88
% EA	94	92	94	97	90
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021B,5030

Poland K Turks

Date

Environ Project Manager: Company Name & A. Compa	Environmental Lab of Texas, Inc. 12600 West 1.20 East Odesta, Texas 79763 Froject Manager: JESSE JOVENA Froject Manager: JESSE JOVENA Froject Location: ANVINTICATION MA FIGURE 18 FI	MUNINERS W CONTAINERS Samp Samp	Phone W (915) 563-1800 Phone W (915) 563-1800 FAX #: (725) 3 FAX #: (725) 3 Sumpler Signature: ATRIX HOLD HOLD MESE ATRIX MESE ATRIX MESE ATRIX MESE	20 East Odessa, 2-1800 FAX (9) 3-1800 FAX (9) 3-1800 FAX (9) 3-1800 FAX (9) 3-1800 FAX (9) 4-100 Class FACTIVE METHOD 4-100 METHOD 5-100 METHOD 6-100 METHOD 7-100 METHOD 7-10	FAX (915) EVATIVE STROOM STATES STATE	FAX (915) 563-1713 FAX (915) 563-1713 SON FILE SON FILE SON FILING THOD OFF FILE OFF FILE		0.02 N	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volsilies	TCLP Semi Volatiles	TDS TOS TOS TOS TOS TOS TOS TOS TOS TOS TO	TOLP Semi Volatifies TOLP Semi Volatifies	D VANVE	TOLP Metals Ag As Ba Cd Ct Pb Hg Se TOLP Metals Ag As Ba Cd Ct Pb Hg Se TOLP Wetals Ag As Ba Cd Ct Pb Hg Se TOLP Wetals Ag As Ba Cd Ct Pb Hg Se TOLP Semi Volatities TOLP Semi Volatities TOLP Semi Volatities AMALYSIS REQUEST RCI RCI RCI RCI RCI RCI RCI RC	EQUES	k	
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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

SampleType: Water

Sample Condition: Intact/ loed/ HCl/ 27 deg. F

Project #: EOT 2041C
Project Name: R.L. Rogers
Project Location: Monument, N.M.

Sampling Date: 08/29/00 Receiving Date: 08/30/00 Analysis Date: 09/05/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m.p-XYLENE mg/L_	o-XYLENE mg/L	TOTAL BTEX mg/L
30255	MW 1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
30256	MW 2	<0.001	<0.001	<0.001	< 0.001	<0.001	< 0.001
30257	MW 3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	•				-		

% 1A 103 100 103 106 99 % EA 104 104 106 110 102 **BLANK** < 0.001 < 0.001 < 0.001 < 0.001 < 0.001

METHODS: SW 846-8021B,5030

Raland K Tuttle

9-6-0 Date

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A L Rome Ot s	4600 West Wall Midland, TX 79703 Tel (915) 522-1139 Fax (915) 520-4310	2540 West Marland Hobbs, NM 86242 Tel (505) 397-4692 Fax (505) 397-4701		601 ENERGY CORP. 5805 East Business 20 Midhan 79702 Tel (915) 667-3400 Fax (915) 582-2781	,)	ANALYSIS REQUEST (Circle or Specify Method No.)	Specify	EQUE Method	ST No.)			
Project Manager: BETH ALDRICH	43							021							
Project Name: R. L. Robsers		Project Number:	FOT 2041	0				-∐8010							
Project Location: MoNUM らだ「	NIN	Sampler Signarhe:	in God			-	(Aju								
		MATRIX	PRESERVATION METHOD		SAMPLING			•				£.85.			
LAB# FIELD CODE	AINERS		1) BOW			GRO\DRO 1 GRO0 N ew	s8 sA gA s	Səli		O0/28 891	E\4.2\2 anoi	<u></u>		
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ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: BETH ALDRICH

P.O. BOX 4845

MIDLAND, TEXAS 79704 FAX: 915-520-4310 FAX: 505-397-4701

Sample Type: Water

Sample Condition: Intact/ Iced/ HCI/ 0.5 deg. C

Project #: EOT 2041C Project Name: R.L. Rogers Project Location: Monument, N.M. Sampling Date: 11/28/00 Receiving Date: 12/02/00 Analysis Date: 12/03/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBE VZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
34584	MW 1	< 0.001	<0.001	<0.001	< 0.001	< 0.001
34585	MW 2	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
34586	MW 3 :	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
34587	EB 1	< 0.001	<0.001	< 0.001	< 0.001	<0.001

•					
%IA	95	102	100	103	98
% E A	96	102	100	104	98
RIANK	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

METHODS: EPA SW 846-8021B ,5030

Relick June

Date

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	, inc	4600 West Wall Medand, TX 79703 Tel (915) 522-1139 Fax (915) 520-4310	2540 Wes! Martand Hobbs, NM 88242 Tel (505) 397-4882 Fax (505) 397-4701	and 42 882 701	EOTT ENES 5905 East B Midland, Tel (915) Fax (315)	BOTT ENERGY CORP. 5805 East Business. 20 Midland, TX. 79702 Tel (915) 587-3400 Fax (915) 582-2781					ANA (Circle	ANALYSIS REQUEST (Circle or Specify Method No.)	S RE(cify M	athod 2	F. (,			
Project Manager:	W ALGEICH									021								
Project Name:	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Project Number:	1. CC 7	244	2/				V/8010				-	·			
Project Location:	WIN TWO		Sampler Signature:	ture:	1.	1		•			6H s≥							
]		MATRIX	PRESE	PRESERVATION METHOD		SAMPLING				Cq Ct BP			523				
1.AB#	FIELD CODE	InuomA				3			ORG/ORD I.	ed sA pA s	s8 zA gA zii zalii	eatheloV i	20458 296i	C/4.21C 200.4				
		# CONT.	ASTAW SOIL SIA	HMO ³ HCF	NONE ICE NSH2O	TAG	1 WAE	1.81± H9T			New 9JOT GIOV 9JOT		Volatiles B	TOS 160.1				
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DRAFT

ADDITIONAL SUBSURFACE INVESTIGATION REPORT (PURSUANT TO STAGE 1 ABATEMENT PLAN)



EOTT ENERGY CORP
R. L. ROGERS RELEASE SITE
LEA COUNTY, NEW MEXICO

RECEIVED

MAR 12 2001

Prepared For: EOTT Energy Corp 5805 East Highway 80 Midland, Texas 79701

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

Environmental Technology Group, Inc. Project No. EOT2041C

Prepared By: Environmental Technology Group, Inc. 2540 West Marland Boulevard Hobbs, New Mexico 88240

February 2001

A Report Prepared for:

EOTT Energy Corp 5805 East Highway 80 Midland, Texas 79701

Additional Subsurface Investigation Report

(Pursuant to Stage 1 Abatement Plan)

Environmental Technology Group, Inc. Project No. EOT2041C

Prepared by:

Beth Aldrich Sr. Project Manager/ Staff Geologist

> Jerry Nickell Managing Principal

Environmental Technology Group, Inc. 4600 West Wall Street Midland, Texas 79703

February 2001

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	LE 1: LE 2:	Summary of Soil Chemistry from June 19, 200 Sampling Event Summary of Soil Chemistry from the Soil Boring SB-1	

FIGURES

FIGURE 1: Site Location Map FIGURE 2: Soil sampling Map

Additional Boring Site Map FIGURE 3:

APPENDICES

APPENDIX A: Soil Boring Log APPENDIX B: Laboratory Analytical Data

1.0 INTRODUCTION AND SITE BACKGROUND

The site is located approximately two miles west of the town of Monument, New Mexico, in the NE ¼, NW ¼, Section 32, Township 19 South, Range 37 East. A site location map is provided as Figure 1.

The topography of the site is relatively flat with a slight topographic slope to the south. The site is located in a rural/residential area with a residence located approximately 800 feet to the north. Generally, the surface consists of unconsolidated sand covered by sparse grasses and mesquite trees. There are no structures or facilities at the site and the only site features are the excavation and monitoring wells as depicted on Figure 2, the Site Map. The excavation is partially filled with water, the surface elevation of which corresponds to the elevation of ground water in the adjacent monitoring wells.

The excavation, made in order to facilitate soil remediation, was completed under the direct supervision of EOTT Energy Corp. (EOTT). Any questions regarding this feature should be directed to Mr. Wayne Brunette of EOTT. At the request of EOTT, Environmental Technology Group, Inc. (ETGI) completed three borings as monitoring wells around the existing excavation and collected confirmation side wall samples.

Further side wall sampling was conducted in the excavation prior to its backfilling. An additional soil boring was advanced adjacent to the pipeline after the backfilling of the excavation was completed. These items are discussed below.

2.0 RECENT FIELD ACTIVITIES

On June 19, 2000, additional sampling was performed on the south wall of the excavated area at a depth of approximately 20 feet below ground surface (bgs). Three grab samples were taken from the sidewalls in the excavated area beneath the pipeline. The location of the sampling sites is provided in Figure 2, Sampling Location Map. The samples were submitted for laboratory analysis and analyzed for benzene, toluene, ethyl benzene and xylenes (BTEX) EPA Method 8021B, 5030. These results are found in Table 1.

The materials that were excavated and stockpiled northeast of the excavated area were also sampled. The location of the stockpile area is provided in Figure 2, Sampling Location Map. Four representative samples were taken of the stockpile area and submitted for laboratory analysis. These samples were also analyzed for BTEX using the same method. These results are also found in Table 1.

The excavation was backfilled under the direction of Mr. Wayne Brunette. After completion of the backfilling, ETGI mobilized a rotary drilling rig on September 22, 2000 to conduct advancement of a soil boring (SB-1) on the west side of the pipeline, near the previously sampled points. The soil boring location is found on Figure 3, Additional Soil Boring Site Map. The soil boring was sampled at five foot intervals utilizing a split soon sampler where applicable. The soil boring log is provided in Appendix A.

Each soil sample was field screened with a photoionization detector (PID). All samples demonstrating PID readings in excess of 100 ppm for Volatile Organic Compounds (VOCs) were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA SW 846 Methods 8021B. No field screening result was in excess of 100 ppm, therefore no laboratory analyses for BTEX were conducted. All soil samples selected for laboratory analysis were subjected to total petroleum hydrocarbon (TPH) analysis using EPA Method 8015M GRO/DRO. For reference, the soil laboratory analytical results are posted on Table 2. All laboratory reports are provided as Appendix B.

3.0 GEOLOGY/HYDROGEOLOGY

In the site vicinity, the surface is composed of unconsolidated, wind blown sands and finer materials associated with the Tertiary Ogallala Formation, which serves as a major aquifer for southeastern New Mexico and several high plains states. Alluvial, unconfined ground water is typically present in these sands at varying depths and generally flows from the north to the south. These aquifers are typically characterized by relatively high hydraulic conductivity and transmissivity.

The Triassic Dockum Formation, commonly referred to as the "red beds", underlies the Ogallala. While there are sand lenses within the Dockum, it is more typically characterized by red silts and shales in which detectable ground water is often absent or limited in extent. Where ground water is present, the aquifer is usually characterized by relatively low hydraulic conductivity and transmissivity.

At the site, the subsurface is composed of approximately 20 feet of sand and caliche that unconformably overlies a horizon of red clay. The red clay corresponds to the Dockum Formation or "red beds". The top of the Dockum Formation represents an erosional surface on which the sands were later deposited. Areas of thick sand sections correspond to areas of greater erosion of the Dockum.

The ground water table occurs at a depth of approximately 18 feet bgs (21 feet from the top of the extended casing), which is near the interface of sand and clay at the site. Monitoring wells completed in that portion of the site area where the ground water occurs within the sand are characterized by high recharge rates and the measured hydraulic conductivity is high. Monitoring wells completed in that portion of the site where the ground water occurs in the red clay are characterized by slow recharge rates and low hydraulic conductivity.

The concentration of total dissolved solids (TDS) ranged from 759 to 975 mg/L in the samples collected from the site monitoring wells. As per New Mexico WQCC statute 20.6.2 Subpart III.3101 and OCD Rule 19 NMAC 15.A.19.A, ground water with TDS concentrations of 10,000 mg/L or less are designated for beneficial use and subject to remediation.

4.0 RESULTS

4.1 NEW MEXICO OIL CONSERVATION (OCD) SOIL CLASSIFICATION

During the additional site investigation, Highly Contaminated/Saturated Soils, as described by the Oil Conservation Division (OCD) Guidelines (OCD, 1993), were not detected in the sidewall samples from the excavation, in the samples from the stockpile area or in SB-1.

The depth to ground water, as measured from the surface, ranges from 17 to 19.5 feet bgs, which corresponds to 20 to 22.5 as measured from the extended casing top. A water supply well is located approximately 800 feet to the northeast. There are no surface water bodies within 200 feet of the site. These conditions result in an OCD Ranking Score of greater than 19 points. The OCD soil remediation action levels for a site with a Ranking Score of greater than 19 are as follows:

- Benzene 10 ppm
- BTEX 50 ppm
- TPH 100 ppm

Further reference to impacted soil in this report refers to soils that exceed this standard.

4.2 DISTRIBUTION OF HYDROCARBONS IN SOIL

Slightly elevated levels of BTEX and TPH above the OCD regulatory limits were observed in the soils from the sidewall samples. Slightly elevated levels of BTEX and TPH were also observed in the soils from areas A and D of the stockpile area. Further landfarming of the stockpile area was to be conducted before backfilling was begun.

No evidence of petroleum impact was observed in the soil boring (SB-1) location. The soil boring was advanced to through the water table to the "red bed". The concentrations of TPH from these samples are below the detection limit, which in turn, is below the OCD regulatory limit. The method detection limit for TPH, used for all soil boring soil samples, is below the OCD regulatory limit.

4.3 DISTRIBUTION OF HYDROCARBONS IN GROUND WATER

The groundwater was not addressed in this investigation.

5.0 SUMMARY AND CONCLUSIONS

The soils sampled in the sidewalls of the excavation beneath the pipeline exhibited slightly elevated levels of BTEX and TPH above the OCD regulatory limits. Further excavation was necessary beneath the pipeline before backfilling was begun. Slightly elevated levels of BTEX and TPH were also observed in the soils from areas A and D of the stockpile area. Further landfarming of the soils in the stockpile area was necessary

before backfilling was begun. The backfilling of the excavation was under the direction of Mr. Wayne Brunette.

On completion of the backfilling of the excavation, a soil boring was advanced on the west side of the pipeline, near the previous sampling points on the sidewalls of the excavation. No evidence of petroleum impact (as defined above) was observed in the soil boring (SB-1) in any sample to total depth, approximately 30 feet bgs.

6.0 SCHEDULE OF ACTIVITIES

The excavation has been backfilled and the site restored to its natural contour. The recommended quarterly sampling events were completed for the year 2000. The laboratory results for the quarterly monitoring well sampling events indicate no groundwater contamination above the New Mexico Water Quality Control Commission (NMWQCC) standards. This information will be provided under separate cover in a Annual Groundwater Monitoring Report.

This annual report will be submitted prior to April 1, 2001. If the contaminates of concern concentrations in the groundwater have remained below OCD regulatory standards, this report will also constitute the summary report and a request for closure will be made at that time.

7.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) PROCEDURES

7.1 Soil Sampling

Samples of subsurface soils were obtained utilizing either a split spoon sampler or a grab sample (air rotary drilling rig). Representative soil samples were divided into two separate portions using clean, disposable gloves and clean sampling tools. One portion of the soil sample was placed in a disposable sample bag. The bag was labeled and sealed for head space analysis using a PID calibrated to a 100 ppm isobutylene standard. Each sample was allowed to volatilize for approximately 30 minutes at ambient temperature prior to conducting the analysis.

The other portion of the soil sample was placed in a sterile glass container equipped with a Teflon lined lid furnished by the analytical laboratory. The container was filled to capacity to limit the amount of head space present. Each container was labeled and placed on ice in an insulated cooler. Upon selection of samples for analysis, the cooler was sealed for shipment to the laboratory. Proper chain-of-custody documentation was maintained throughout the sampling process.

Soil samples were delivered to Environmental Lab of Texas, Inc. in Midland, Texas for BTEX and TPH analyses using the methods described below. Soil samples were analyzed for BTEX and TPH-GRO/DRO within 14 days following the collection date.

The soil samples will be analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015-GRO/DRO

7.2 Ground Water Sampling

Groundwater was not addressed in this investigation, therefore QA/QC protocol are not applicable.

7.3 Decontamination Of Equipment

Cleaning of drilling equipment was the responsibility of the drilling company. In general, the cleaning procedures consisted of using high pressure steam to wash the drilling and sampling equipment prior to drilling and prior to starting each hole. Prior to use, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

7.4 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory. A review of the QA/QC data, transmitted with the laboratory reports, were reviewed by ETGI personnel. All instrumentation and extraction accuracy ranges were within acceptable limits. All blank samples were non-detect for the tested constituents and holding times, for all samples, were within established limits.

8.0 LIMITATIONS

Environmental Technology Group, Inc. has prepared this Additional Site Investigation Report to the best of its ability. No other warranty, expressed or implied, is made or intended.

Environmental Technology Group, Inc. has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Environmental Technology Group, Inc. has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Environmental Technology Group, Inc. has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Environmental Technology Group, Inc. also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of EOTT Energy Corp. The information contained in this report including all exhibits and attachments, may not be used by any other party without the express consent of Environmental Technology Group, Inc. and/or EOTT Energy Corp.

DISTRIBUTION

Copies 1 and 2 to: EOTT Energy Corp

5805 East Highway 80 Midland, Texas 79701

Copy 3 to: Environmental Technology Group, Inc.

4600 West Wall Street Midland, Texas 79703

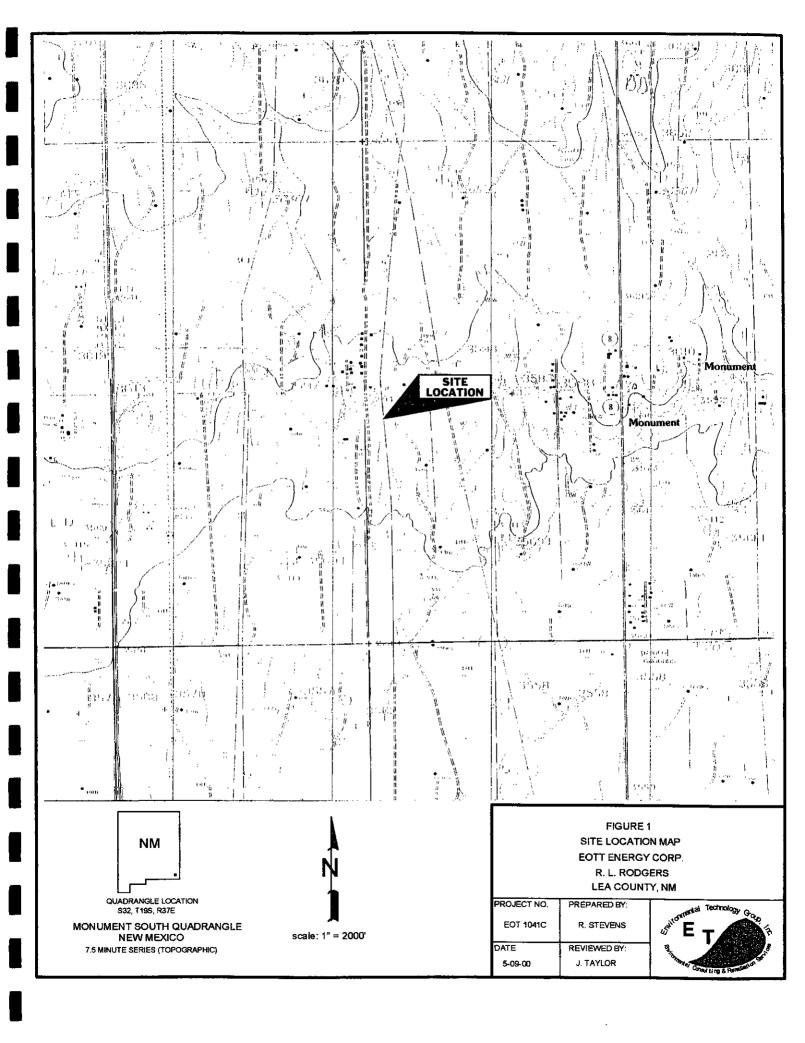
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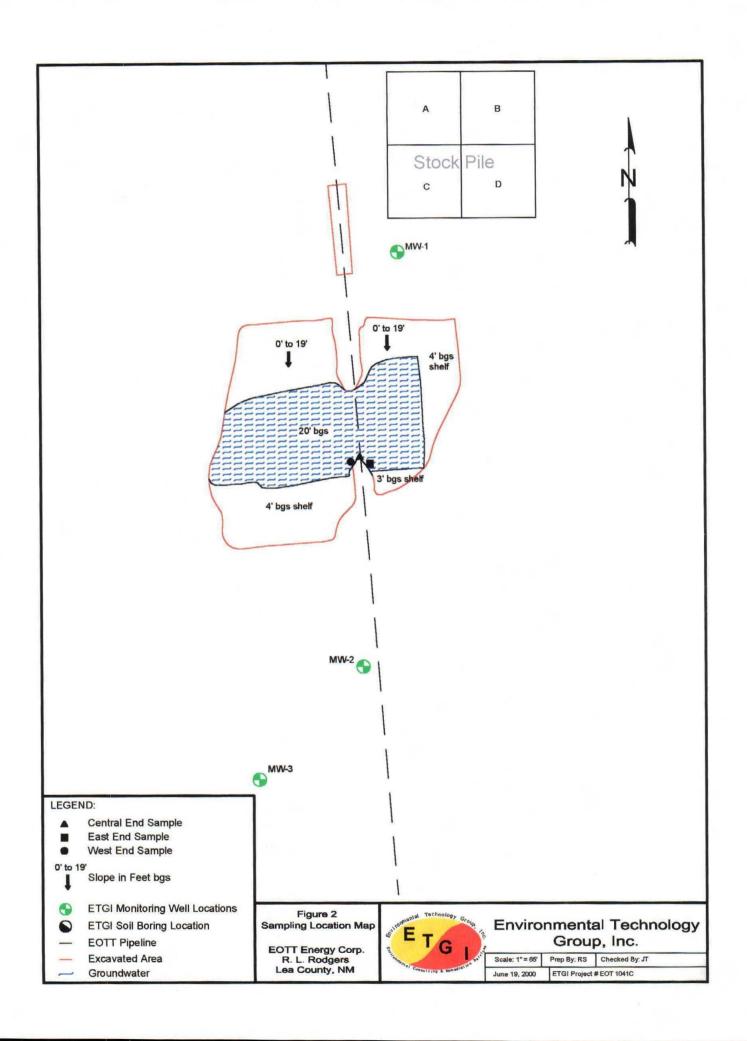
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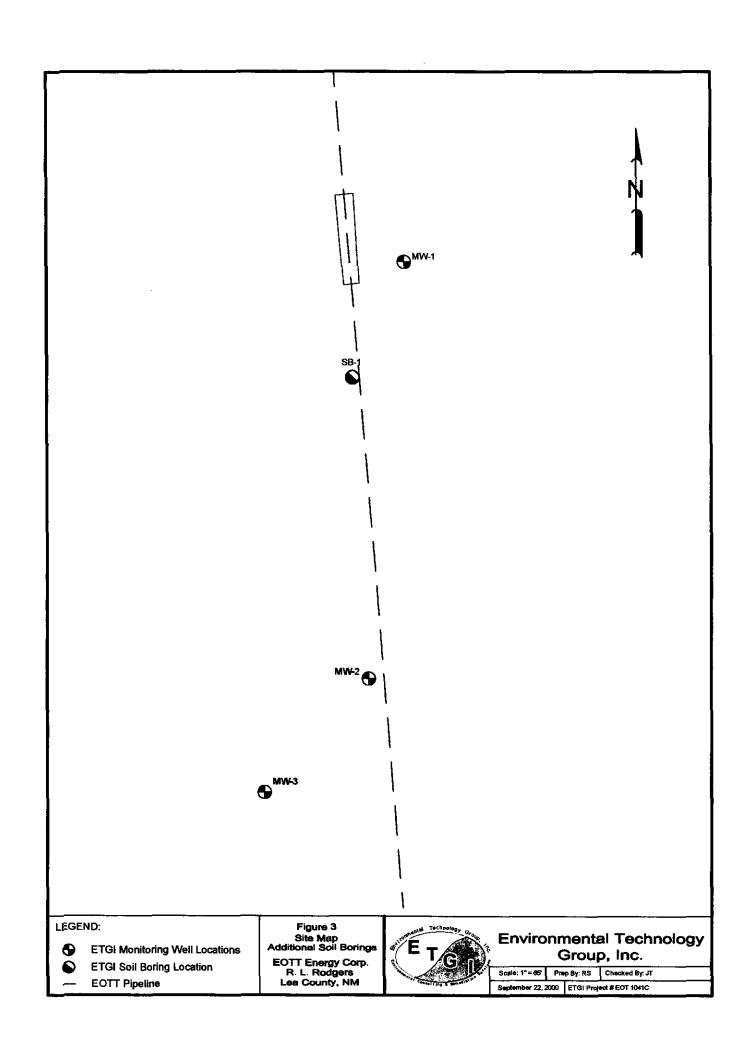
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FIGURES







TABLES

TABLE 1

SUMMARY OF SOIL CHEMISTRY R.L. ROGERS RELEASE SITE LEA COUNTY, NM ETGI PROJECT #EOT2041C

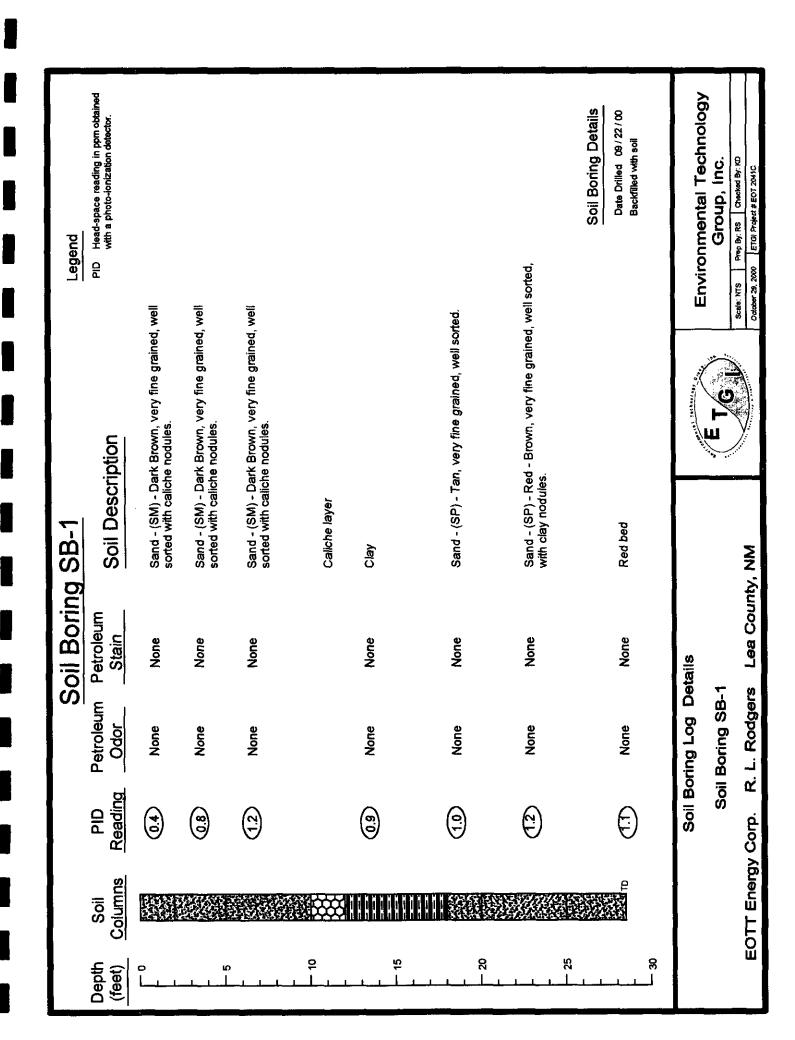
SAMPLE	SAMPLE		Methods: El	PA SW 8746	-8021B, 5030	
LOCATION	DATE	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL- BENZENE (mg/kg)	' '	o-XYLENE (mg/kg)
Stockpile Area A	6/19/00	<0.100	0.125	<0.100	0.205	0.151
Stockpile Area B	6/19/00	<0.100	<0.100	<0.100	<0.100	<0.100
Stockpile Area C	6/19/00	<0.100	<0.100	<0.100	<0.100	<0.100
Stockpile Area D	6/19/00	<0.100	0.219	<0.100	0.141	<0.100
SE Bottom East End	6/19/00	<0.100	0.786	0.325	2.10	0.980
SE Bottom Central	6/19/00	<0.100	0.64	0.185	0.875	0.306
SE Bottom West End	6/19/00	<0.100	0.205	0.160	1.53	0.790

TABLE 2

SUMMARY OF SOIL CHEMISTRY R.L. ROGERS RELEASE SITE LEA COUNTY, NM ETGI PROJECT #EOT2041C

SAMPLE LOCATION	SAMPLE DATE	EPA SW 8	ethods: 46-8015M :O/DRO
		GRO (mg/kg)	DRO (mg/kg)
Soil Boring 1 - 0'-2'	9/22/00	<10	58.00
Soil Boring 1 - 3'-5'	9/22/00	<10	19.00
Soil Boring 1 - 8'-10'	9/22/00	<10	<10
Soil Boring 1 - 13'-15'	9/22/00	<10	<10
Soil Boring 1 - 18'-20'	9/22/00	<10	<10
Soil Boring 1 - 23'-25'	9/22/00	<10	<10
Soil Boring 1 - 28'-30'	9/22/00	<10	<10

APPENDICES





ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: BETH ALDRICH 2540 W. MARLAND HOBBS, N.M. 88240 FAX: 505-397-4701 FAX: 915-520-4310

SampleType: Soil

Sample Condition: Intact/ loed/ 33 deg. F

Project #: EOT 2041C
Project Name: R.L. Rodgers
Project Location: None Given

Sampling Date: 06/19/00 Receiving Date: 06/20/00 Analysis Date: 06/20/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m.p-XYLENE mg/kg	o-XYLENE mg/kg	
27018	Stockpile Area A (g)	0.110	0.125	<0.100	0.205	0.151	*
27019	Stockpile Area B (g)	<0.100	< 0.100	< 0.100	<0.100	<0.100	
27020	Stockpile Area C (g)	< 0.100	<0.100	<0.100	<0.100	<0.100	
27021	Stockpile Area D (g)	<0.100	0.219	<0.100	0.141	<0.100	
27022	SE Bottom East End (g)	<0.100	0.786	0. 327	2.10	0.980	
27023	SE Bottom Central (g)	< 0.100	0.640	0.185	0.875	0.306	
27024	SE Bottom West End (g)	<0.100	0.205	0.160	1.53	0.790	

% IA	91	87	86	94	87
% EA	88	85	86	91	86
BLANK	<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-80219.5030

Raland K Just

0.21-00 Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: BETH ALDRICH 2540 W. MARLAND HOBBS, N.M. 88240 FAX: 505-397-4701 FAX: 915-520-4310

SampleType: Soil

Sample Condition: Intact/ load/ 33 deg. F

Project #: EOT 2041C Project Name: R.L. Plogers Project Location: None Given Sampling Date: 06/19/00 Receiving Date: 06/20/00 Analysis Date: 06/20/00

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg	
27018	Stockpile Area A (g)	<10	127	
27019	Stockpile area B (g)	<10	118	
27020	Stockpile Area C (g)	<10	233	
27021	Stockpile Area D (g)	<10	282	
27022	SE Bottom East End (g)	72	469	
27023	SE Bottom Central (g)	<10	<10	
27024	SE Bottom West End (g)	<10	22	

% IA	89	102
% EA	87	127
BLANK	<10	<10

METHODS: SW 846-8015M GRO/DRO

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6-21-00

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ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: BETH ALDRICH

P.O. BOX 4845

MIDLAND, TEXAS 797004

FAX: 915-520-4310 FAX: 505-397-4701

SampleType: Soil

Sample Condition: Intact/ Iced

Project #: 2041C

Project Name: R.L. Rogers
Project Location: Monument, N.M.

Sampling Date: 09/22/00 Receiving Date: 10/03/00 Analysis Date: 10/03/00

•	EIGID CODE	GRO 06-010	E/RO >C) 0.028	
<u>EL</u> 7#	FIELD CODE	mg/kg	mg/kg	
31636	SB-1 0-2	<10	58	
31637	SB*1, 3.5	<10	19	
31638	SB-1 8-10	<10	·-10	
31639	SB-1 13-15	× 10	~10	
31640	\$8-1 18-20	<10	- 10	
31641	SB-1 23-25	<10	~10	
31642	SB-1 28 30	<10	-:10	

% IA	78	98
% EA	89	92
BLANK	<10	<10

METHODS: SW 846-8015M GROZDRO

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