

~~A2004~~ → GW035D



RECEIVED

JUN 16 2001

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

# ANNUAL 2000 GROUNDWATER MONITORING REPORT

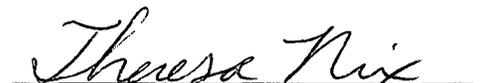
## JAL BASIN STATION JAL, LEA COUNTY, NEW MEXICO

H<sub>2</sub>A JOB NO. 106.001

*Prepared for:*



*Approved by:*

  
Theresa Nix  
Project Manager

July 2001

## TABLE OF CONTENTS

<b>INTRODUCTION</b>	1
<b>GROUNDWATER MONITORING ACTIVITIES</b>	1
<b>GROUNDWATER MEASUREMENTS</b>	1
<b>GROUNDWATER MONITORING RESULTS</b>	2
<b>FIGURES</b>	
FIG. 1 – Groundwater Contours / Analytical Results – February 2000	
FIG. 1 - Groundwater Contours / Analytical Results – August 2000	
FIG. 2 - Groundwater Contours / Analytical Results – November 2000	
FIG. 3 - PSH Thickness Map – August 2000	
FIG. 4 - PSH Thickness Map – November 2000	
<b>TABLES</b>	
TABLE I - Summary of Groundwater Monitoring	
TABLE II - Summary of Groundwater Results – BTEX and TPH	
TABLE III – Summary of Groundwater Results - Other	
<b>APPENDIX A – GROUNDWATER MONITORING DATA SHEETS</b>	
<b>APPENDIX B - GROUNDWATER ASSESSMENT</b>	
Certified Laboratory Reports	
Chain of Custody Documentation	

## **INTRODUCTION**

H<sub>2</sub>A Environmental, Ltd. (H<sub>2</sub>A) has completed the annual groundwater monitoring for the Jal Basin Station site located south of Jal, New Mexico. Monitoring events were conducted at the site on February 7, August 2, and November 24, 2000. Field activities and results of analytical testing are summarized in the following text.

## **GROUNDWATER MONITORING ACTIVITIES**

Groundwater monitoring activities consisted of gauging the water levels in all the monitoring wells, then purging the wells until stable groundwater parameters were achieved. After the monitoring wells had been purged, groundwater samples were collected with disposable Teflon bailers. Collected groundwater samples were tested for benzene, toluene, ethylbenzene, xylenes (BTEX) concentrations.

Groundwater samples collected for BTEX (Method SW846-8021B) analysis were placed in sterile, 40 ml glass VOA vials equipped with Teflon-lined caps and HCl preservative, as provided by the analytical laboratory. The vials were filled to a positive meniscus, sealed, and visually checked for the absence of air bubbles.

Ground water samples collected for TPH analysis were filled to capacity in sterile, one liter glass containers equipped with Teflon-lined caps. The containers were pre-preserved with HCl. Ground water samples collected for PAH analysis were filled to capacity in unpreserved sterile one liter glass containers equipped with Teflon-lined caps.

Filled sample containers were labeled, placed on ice in an insulated cooler, and chilled to an approximate temperature of 40° F (4°C). The cooler was sealed for transportation to the analytical laboratory. Proper chain of custody documentation was maintained throughout the sampling process.

## **GROUNDWATER MEASUREMENTS**

Groundwater measurements were obtained from monitoring wells MW-1 through MW-6, and MW-8 through MW-15 on February 7, August 2 and November 24, 2000. A groundwater contour map

illustrating groundwater elevations measured during all three 2000 monitoring events are presented as FIG. 1 through 3. A summary of groundwater measurements recorded during the monitoring events is presented in TABLE I, and copies of the Groundwater Monitoring Data Sheets are presented in APPENDIX A.

## GROUNDWATER MONITORING RESULTS

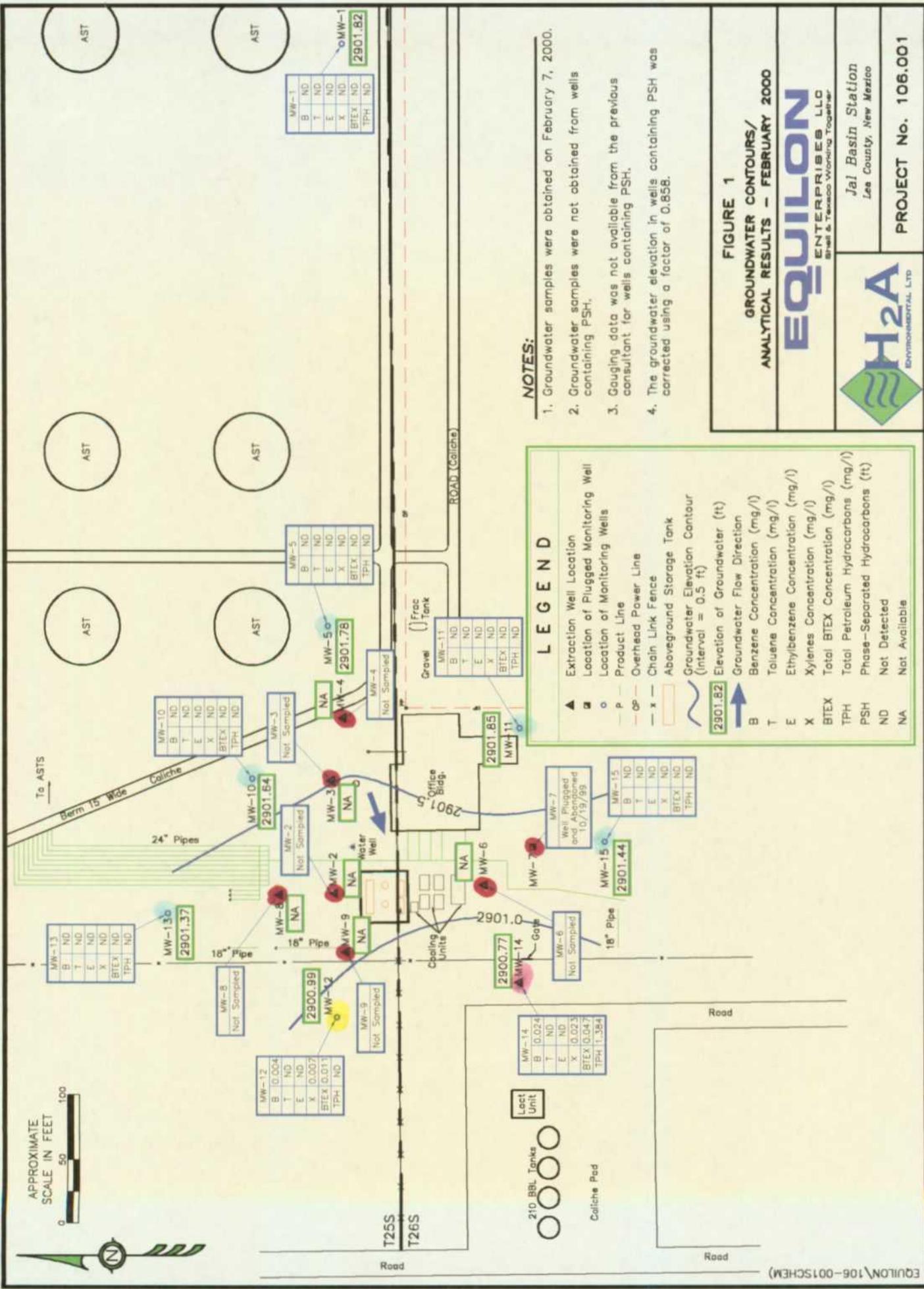
Groundwater samples were obtained and analyzed from all the wells that did not exhibit measurable phase-separated hydrocarbons (PSH). Water samples obtained during the February monitoring activities were delivered to Xenco Laboratories for determination of total BTEX, TPH – DRO, and PAH concentrations by EPA Method SW846-8021B, 8015 Diesel Range Organics, and 8270C. Water samples obtained during the August and November monitoring activities were delivered to Certes Environmental Laboratories for determination of total BTEX concentrations by EPA Method SW846-8021B.

Laboratory results for groundwater samples obtained on August 2 and November 24, 2000 were determined to have the following range of hydrocarbon concentrations:

Constituent	Minimum (mg/l)	Maximum (mg/l)
Benzene	ND	0.031
BTEX	ND	0.076

Hydrocarbon constituent concentrations for groundwater samples collected on February 7, August 2, and November 24, 2000 are presented on FIGs. 1 through 3, respectively, and are summarized in TABLES II and III. Copies of the certified laboratory reports and chain of custody documentation are presented in APPENDIX B.

APPROXIMATE  
SCALE IN FEET



**NOTES:**

1. Groundwater samples were obtained on February 7, 2000.
2. Groundwater samples were not obtained from wells containing PSH.
3. Gauging data was not available from the previous consultant for wells containing PSH.
4. The groundwater elevation in wells containing PSH was corrected using a factor of 0.858.

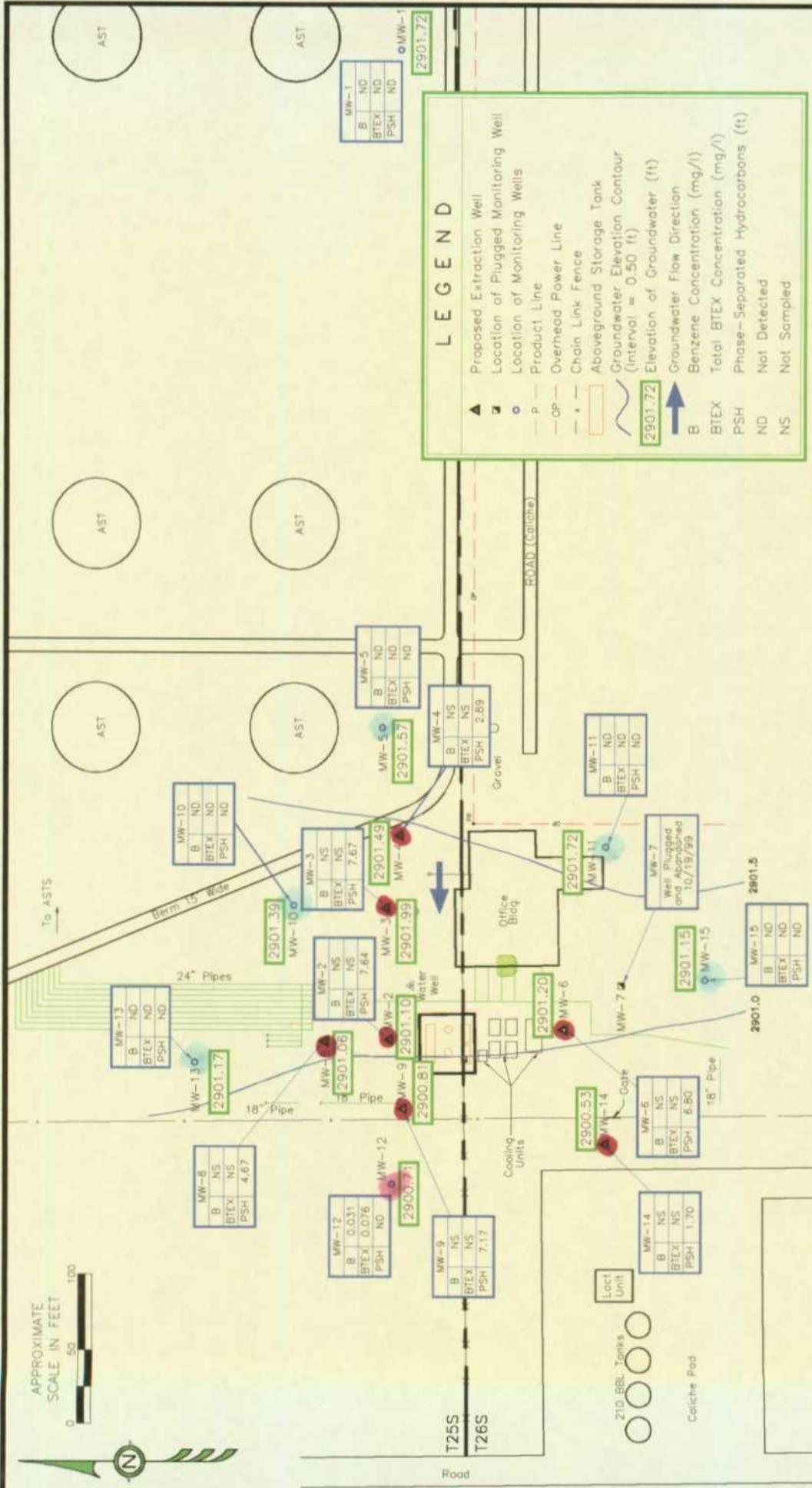
**FIGURE 1**  
**GROUNDWATER CONTOURS/  
ANALYTICAL RESULTS - FEBRUARY 2000**

**EQUILON**  
ENTERPRISES LLO  
Brent & Texasco Working Together



Jal Basin Station  
Lea County, New Mexico

PROJECT No. 106.001



**FIGURE 2**  
GROUNDWATER CONTOURS/  
ANALYTICAL RESULTS - AUGUST 2000

**EQUILON**  
ENTERPRISES LLD  
Bridell & Tenasco Working Together

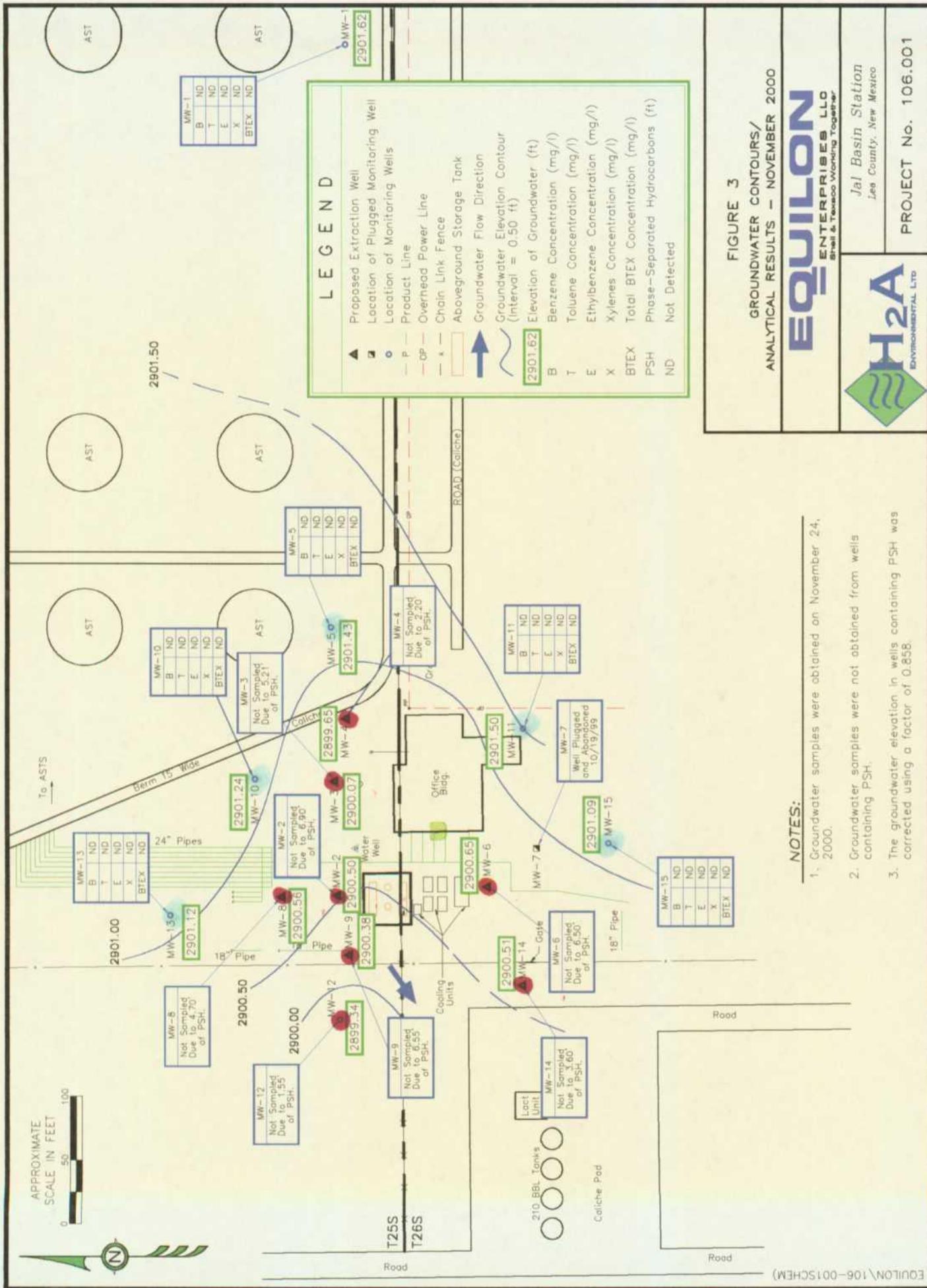


Jal Basin Station  
Lea County, New Mexico

PROJECT No. 106.001

- NOTES:**
1. Groundwater samples were obtained on August 2, 2000.
  2. The groundwater elevation in wells containing PSH was corrected using a factor of 0.858.
  3. Groundwater samples were not obtained from MW-2, MW-3, MW-4, MW-6, MW-8, MW-9, or MW-14 due to the presence of PSH.





**FIGURE 3**  
GROUNDWATER CONTOURS/  
ANALYTICAL RESULTS - NOVEMBER 2000

**EQUILON**  
ENTERPRISES LLO  
Shell & Toluene Wasting Together



Jal Basin Station  
Jes County, New Mexico

PROJECT No. 106.001

**NOTES:**

1. Groundwater samples were obtained on November 24, 2000.
2. Groundwater samples were not obtained from wells containing PSH.
3. The groundwater elevation in wells containing PSH was corrected using a factor of 0.858.

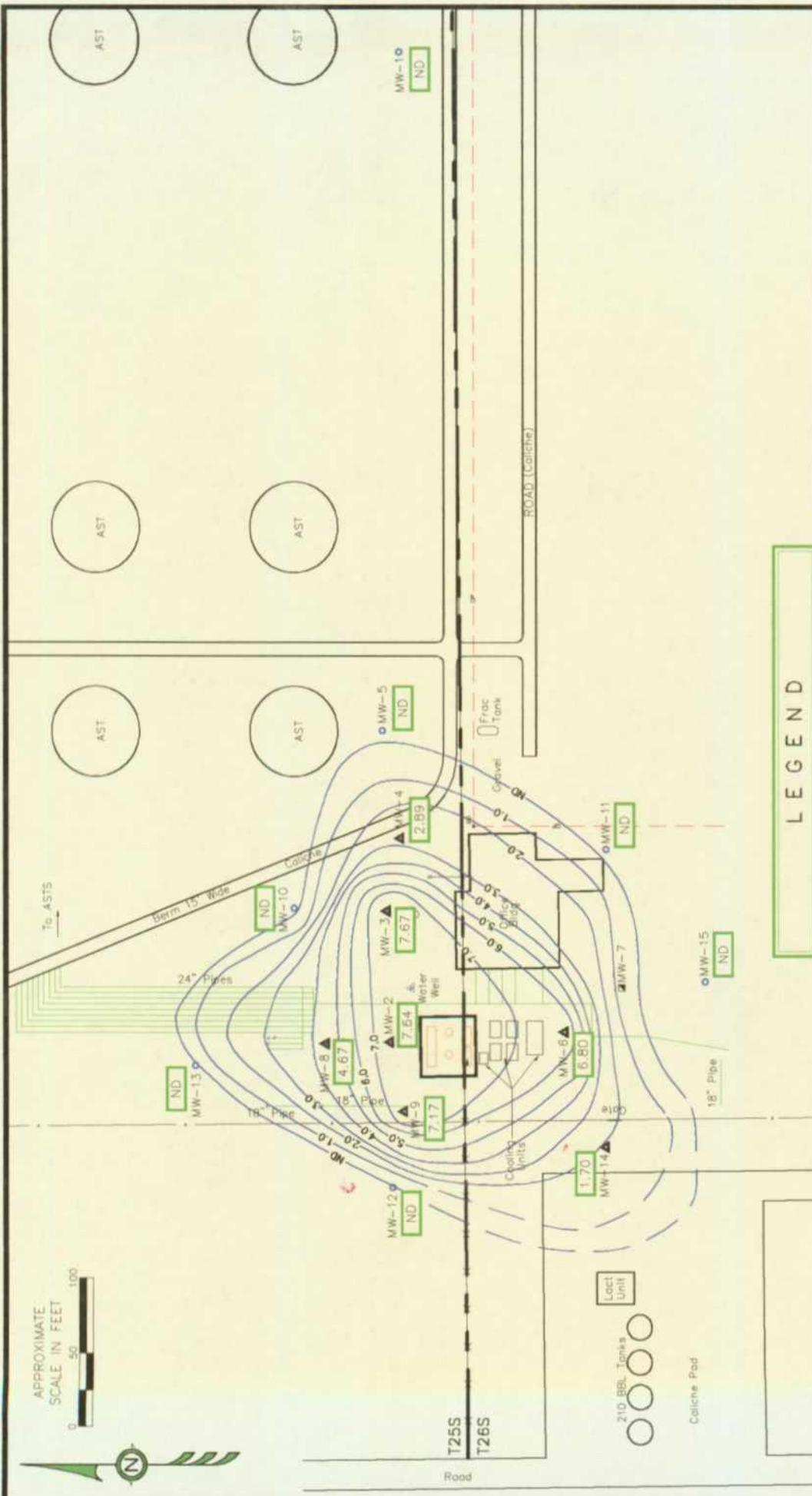


FIGURE 4  
PSH THICKNESS MAP -  
AUGUST 2000

**EQULON**  
ENTERPRISES LLO  
Shell & Terephthal Working Together

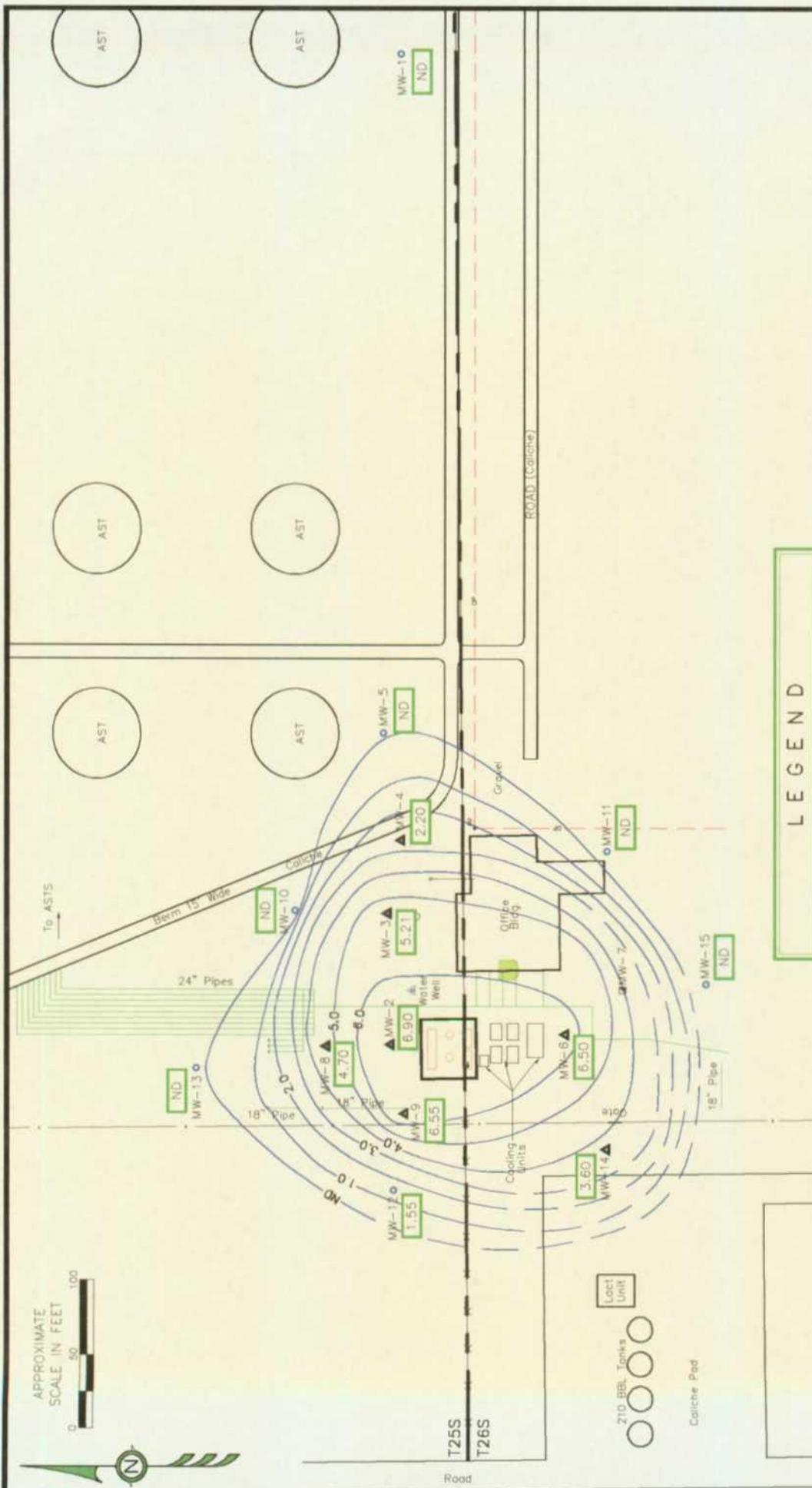
Jal Basin Station  
Los County, New Mexico

PROJECT No. 106.001



**LEGEND**

- ▲ Proposed Extraction Well
- Location of Plugged Monitoring Well
- Location of Monitoring Wells
- P - Product Line
- OP - Overhead Power Line
- x - Chain Link Fence
- Aboveground Storage Tank
- ~ PSH Elevation Contour (Interval = 1.0 ft)
- 7.64 ND Elevation of PSH (ft)
- ND Not Detected



**FIGURE 5**  
PSH THICKNESS MAP -  
NOVEMBER 2000

**EQUILON**  
ENTERPRISES LLO  
Shell & Terephthalic Working Together

Jal Basin Station  
Lea County, New Mexico

**H2A**  
ENVIRONMENTAL LTD

PROJECT No. 106.001

**LEGEND**

- ▲ Proposed Extraction Well
- Location of Plugged Monitoring Well
- Location of Monitoring Wells
- P - Product Line
- OP - Overhead Power Line
- - - Chain Link Fence
- Aboveground Storage Tank
- ~ PSH Elevation Contour (Interval = 1.0 ft)
- 6.90 Elevation of PSH (ft)
- ND Not Detected

**TABLE I**  
**SUMMARY OF GROUNDWATER MONITORING**  
**EQUILON PIPELINE COMPANY, LLC**  
**JAL BASIN STATION**  
**LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO PSH (feet)	ELEV. OF PSH (feet)	PSH THICKNESS (feet)	
MW-01	02/04/99	2992.30	90.27	2902.03	--	--	--	
	02/22/99	2992.30	90.19	2902.11	--	--	--	
	03/11/99	2992.30	90.31	2901.99	--	--	--	
	04/07/99	2992.30	90.63	2901.67	--	--	--	
	05/03/99	2992.30	90.22	2902.08	--	--	--	
	06/08/99	2992.30	90.40	2901.90	--	--	--	
	06/22/99	2992.30	90.43	2901.87	--	--	--	
	07/06/99	2992.30	90.41	2901.89	--	--	--	
	08/14/99	2992.30	90.48	2901.82	--	--	--	
	09/16/99	2992.30	90.44	2901.86	--	--	--	
	10/19/99	2992.30	90.43	2901.87	--	--	--	
	11/01/99	2992.30	90.43	2901.87	--	--	--	
	08/02/00	2992.30	90.58	2901.72	--	--	--	
	<b>11/24/00</b>	<b>2992.30</b>	<b>90.68</b>	<b>2901.62</b>	--	--	--	
MW-02	02/04/99	2987.02	92.17	2901.95	83.89	2903.13	8.28	
	02/22/99	2987.02	92.15	2901.85	84.02	2903.00	8.13	
	03/11/99	2987.02	92.14	2901.88	83.98	2903.04	8.16	
	03/24/99	2987.02	92.13	2901.64	84.26	2902.76	7.87	
	03/31/99	2987.02	91.86	2902.05	83.83	2903.19	8.03	
	04/02/99	2987.02	92.11	2901.85	84.02	2903.00	8.09	
	04/07/99	2987.02	92.18	2902.02	83.81	2903.21	8.37	
	07/15/99	2987.02	91.99	2901.65	84.28	2902.74	7.71	
	10/26/99	2987.02	91.99	2901.44	84.52	2902.50	7.47	
	11/01/99	2987.02	91.99	2895.03	--	--	--	
	08/02/00	2987.02	92.48	2901.10	84.84	2902.18	7.64	
		<b>11/24/00</b>	<b>2987.02</b>	<b>92.44</b>	<b>2900.50</b>	<b>85.54</b>	<b>2901.48</b>	<b>6.90</b>
	MW-03	02/04/99	2987.91	92.55	2902.25	84.52	2903.39	8.03
02/22/99		2987.91	92.53	2902.24	84.53	2903.38	8.00	
03/11/99		2987.91	92.49	2902.16	84.64	2903.27	7.85	
03/24/99		2987.91	92.45	2902.21	84.58	2903.33	7.87	
03/31/99		2987.91	92.42	2902.11	84.71	2903.20	7.71	
04/02/99		2987.91	92.45	2902.08	84.74	2903.17	7.71	
07/15/99		2987.91	95.20	2899.45	87.34	2900.57	7.86	
08/07/99		2987.91	92.44	2901.95	84.89	2903.02	7.55	
08/14/99		2987.91	92.50	2901.83	85.02	2902.89	7.48	
08/22/99		2987.91	95.25	2898.37	88.60	2899.31	6.65	
09/01/99		2987.91	92.50	2901.80	85.05	2902.86	7.45	
09/11/99		2987.91	95.31	2898.99	87.86	2900.05	7.45	
09/16/99		2987.91	92.35	2901.93	84.92	2902.99	7.43	
09/25/99		2987.91	92.45	2901.68	85.20	2902.71	7.25	
10/02/99		2987.91	92.35	2901.05	85.95	2901.96	6.40	
10/09/99		2987.91	94.93	2899.24	87.63	2900.28	7.30	
10/15/99		2987.91	95.10	2899.12	87.75	2900.16	7.35	
10/21/99		2987.91	92.35	2901.82	85.05	2902.86	7.30	
10/26/99		2987.91	92.35	2901.78	85.10	2902.81	7.25	
11/01/99	2987.91	92.50	2901.99	84.83	2903.08	7.67		
08/02/00	2987.91	92.50	2901.99	84.83	2903.08	7.67		
	<b>11/24/00</b>	<b>2987.91</b>	<b>92.31</b>	<b>2900.07</b>	<b>87.10</b>	<b>2900.81</b>	<b>5.21</b>	

**TABLE I**  
**SUMMARY OF GROUNDWATER MONITORING**  
**EQUILON PIPELINE COMPANY, LLC**  
**JAL BASIN STATION**  
**LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO PSH (feet)	ELEV. OF PSH (feet)	PSH THICKNESS (feet)
MW-04	02/04/99	2988.22	85.83	2902.39	—	—	—
	02/22/99	2988.22	85.90	2902.32	—	—	—
	03/11/99	2988.22	85.94	2902.28	—	—	—
	04/07/99	2988.22	86.11	2902.11	—	—	—
	05/03/99	2988.22	86.00	2902.27	85.94	2902.28	0.06
	05/10/99	2988.22	86.18	2902.14	86.06	2902.16	0.12
	05/18/99	2988.22	86.31	2902.04	86.16	2902.06	0.15
	05/24/99	2988.22	86.30	2902.06	86.14	2902.08	0.16
	06/01/99	2988.22	86.14	2902.19	86.01	2902.21	0.13
	06/08/99	2988.22	86.28	2902.10	86.09	2902.13	0.19
	06/14/99	2988.22	86.20	2902.20	85.99	2902.23	0.21
	06/22/99	2988.22	86.08	2902.32	85.87	2902.35	0.21
	07/02/99	2988.22	86.14	2902.31	85.87	2902.35	0.27
	07/06/99	2988.22	86.50	2902.01	86.16	2902.06	0.34
	07/13/99	2988.22	86.56	2901.97	86.20	2902.02	0.36
	07/20/99	2988.22	86.54	2902.01	86.16	2902.06	0.38
	07/26/99	2988.22	86.56	2902.00	86.16	2902.06	0.40
	08/07/99	2988.22	86.77	2901.85	86.30	2901.92	0.47
	08/14/99	2988.22	86.89	2901.83	86.31	2901.91	0.58
	08/22/99	2988.22	86.91	2901.87	86.26	2901.96	0.65
	09/01/99	2988.22	86.86	2901.92	86.21	2902.01	0.65
	09/11/99	2988.22	87.08	2901.82	86.29	2901.93	0.79
	09/16/99	2988.22	87.06	2901.85	86.26	2901.96	0.80
	09/25/99	2988.22	87.11	2901.89	86.20	2902.02	0.91
	10/02/99	2988.22	87.16	2901.88	86.20	2902.02	0.96
	10/09/99	2988.22	87.18	2901.94	86.13	2902.09	1.05
10/15/99	2988.22	87.16	2901.96	86.11	2902.11	1.05	
10/21/99	2988.22	87.41	2901.84	86.21	2902.01	1.20	
10/26/99	2988.22	87.43	2901.85	86.19	2902.03	1.24	
11/01/99	2988.22	89.21	2901.49	86.32	2901.90	2.89	
08/02/00	2988.22	89.21	2901.49	86.32	2901.90	2.89	
11/24/00	2988.22	90.46	2899.65	88.26	2899.96	2.20	
MW-05	02/04/99	2988.47	86.03	2902.44	—	—	—
	02/22/99	2988.47	86.07	2902.40	—	—	—
	03/11/99	2988.47	86.21	2902.26	—	—	—
	04/07/99	2988.47	86.25	2902.22	—	—	—
	05/03/99	2988.47	86.14	2902.33	—	—	—
	06/08/99	2988.47	86.49	2901.98	—	—	—
	06/22/99	2988.47	86.35	2902.12	—	—	—
	07/06/99	2988.47	86.43	2902.04	—	—	—
	08/14/99	2988.47	86.54	2901.93	—	—	—
	09/16/99	2988.47	86.54	2901.93	—	—	—
	10/19/99	2988.47	86.46	2902.01	—	—	—
	11/01/99	2988.47	86.90	2901.57	—	—	—
	08/02/00	2988.47	86.90	2901.57	—	—	—
	11/24/00	2988.47	87.04	2901.43	—	—	—
MW-06	02/04/99	2987.40	87.01	2902.35	84.72	2902.68	2.29
	02/22/99	2987.40	88.75	2902.20	84.61	2902.79	4.14
	03/03/99	2987.40	89.16	2902.13	84.63	2902.77	4.53
	07/15/99	2987.40	88.48	2901.77	85.16	2902.24	3.32
	08/07/99	2987.40	90.69	2900.94	85.76	2901.64	4.93
	08/14/99	2987.40	90.98	2901.57	84.98	2902.42	6.00
	08/22/99	2987.40	90.98	2901.64	84.90	2902.50	6.08
	09/01/99	2987.40	90.93	2901.67	84.87	2902.53	6.06
	09/11/99	2987.40	91.11	2901.58	84.95	2902.45	6.16
	09/16/99	2987.40	91.00	2901.65	84.88	2902.52	6.12

**TABLE I**  
**SUMMARY OF GROUNDWATER MONITORING**  
**EQUILON PIPELINE COMPANY, LLC**  
**JAL BASIN STATION**  
**LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO PSH (feet)	ELEV. OF PSH (feet)	PSH THICKNESS (feet)
MW-06 cont.	09/25/99	2987.40	90.85	2901.72	84.83	2902.57	6.02
	10/02/99	2987.40	90.88	2901.70	84.84	2902.56	6.04
	10/09/99	2987.40	90.86	2901.72	84.82	2902.58	6.04
	10/15/99	2987.40	90.88	2901.74	84.80	2902.60	6.08
	10/21/99	2987.40	91.05	2901.64	84.88	2902.52	6.17
	10/26/99	2987.40	91.03	2901.65	84.88	2902.52	6.15
	11/01/99	2987.40	92.03	2901.20	85.23	2902.17	6.80
	08/02/00	2987.40	92.03	2901.20	85.23	2902.17	6.80
	11/24/00	2987.40	92.33	2900.65	85.83	2901.57	6.50
	MW-07	02/04/99	2986.31	84.03	2902.28	—	—
02/22/99		2986.31	84.13	2902.18	—	—	—
03/11/99		2986.31	84.26	2902.05	—	—	—
04/07/99		2986.31	84.35	2901.96	—	—	—
05/03/99		2986.31	84.36	2902.10	84.18	2902.13	0.18
05/10/99		2986.31	84.58	2902.02	84.24	2902.07	0.34
05/18/99		2986.31	84.88	2901.92	84.31	2902.00	0.57
05/24/99		2986.31	84.89	2901.93	84.29	2902.02	0.60
06/01/99		2986.31	84.77	2901.99	84.25	2902.06	0.52
06/08/99		2986.31	84.99	2901.92	84.29	2902.02	0.70
06/14/99		2986.31	84.31	2902.76	83.43	2902.88	0.88
06/22/99		2986.31	84.27	2902.83	83.35	2902.96	0.92
07/02/99		2986.31	85.32	2901.92	84.24	2902.07	1.08
07/06/99		2986.31	85.49	2901.81	84.34	2901.97	1.15
07/13/99		2986.31	85.72	2901.77	84.34	2901.97	1.38
07/20/99		2986.31	85.87	2901.80	84.28	2902.03	1.59
07/26/99		2986.31	86.14	2901.76	84.29	2902.02	1.85
08/07/99		2986.31	86.54	2901.64	84.36	2901.95	2.18
08/14/99		2986.31	86.94	2901.63	84.31	2902.00	2.63
08/22/99		2986.31	87.49	2901.65	84.19	2902.12	3.30
09/01/99		2986.31	87.74	2901.68	84.11	2902.20	3.63
09/11/99	2986.31	88.14	2901.69	84.04	2902.27	4.10	
09/16/99	2986.31	88.24	2901.72	83.99	2902.32	4.25	
09/25/99	2986.31	88.34	2900.14	85.81	2900.50	2.53	
10/02/99	2986.31	88.49	2901.81	83.84	2902.47	4.65	
10/09/99	2986.31	88.64	2901.79	83.84	2902.47	4.80	
10/15/99	2986.31	88.69	2901.82	83.79	2902.52	4.90	
10/19/99	PLUGGED AND ABANDONED						
MW-08	02/04/99	2987.97	86.00	2901.98	85.99	2901.98	0.01
	02/22/99	2987.97	86.06	2901.93	86.04	2901.93	0.02
	03/11/99	2987.97	86.18	2901.86	86.10	2901.87	0.08
	03/24/99	2987.97	86.42	2901.88	86.04	2901.93	0.38
	03/31/99	2987.97	86.47	2901.88	86.03	2901.94	0.44
	04/02/99	2987.97	86.39	2901.79	86.14	2901.83	0.25
	04/07/99	2987.97	86.94	2901.77	86.08	2901.89	0.86
	04/13/99	2987.97	86.83	2901.90	85.94	2902.03	0.89
	04/19/99	2987.97	87.01	2901.87	85.95	2902.02	1.06
	04/26/99	2987.97	87.30	2901.81	85.97	2902.00	1.33
	05/03/99	2987.97	87.47	2901.85	85.90	2902.07	1.57
	05/10/99	2987.97	87.89	2901.75	85.94	2902.03	1.95
	05/18/99	2987.97	88.39	2901.66	85.96	2902.01	2.43
	05/24/99	2987.97	88.60	2901.68	85.91	2902.06	2.69
	06/01/99	2987.97	89.04	2901.74	85.76	2902.21	3.28
	06/08/99	2987.97	88.51	2901.79	85.80	2902.17	2.71
	06/14/99	2987.97	86.14	2904.58	82.94	2905.03	3.20
	06/22/99	2987.97	85.74	2905.36	82.09	2905.88	3.65
	07/02/99	2987.97	89.62	2901.64	85.78	2902.19	3.84
07/06/99	2987.97	89.76	2901.64	85.76	2902.21	4.00	

**TABLE I**  
**SUMMARY OF GROUNDWATER MONITORING**  
**EQUILON PIPELINE COMPANY, LLC**  
**JAL BASIN STATION**  
**LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO PSH (feet)	ELEV. OF PSH (feet)	PSH THICKNESS (feet)	
MW-08 cont.	07/13/99	2987.97	89.92	2901.55	85.84	2902.13	4.08	
	07/20/99	2987.97	89.94	2901.63	85.74	2902.23	4.20	
	07/26/99	2987.97	90.09	2901.63	85.72	2902.25	4.37	
	08/07/99	2987.97	90.20	2901.57	85.77	2902.20	4.43	
	08/14/99	2987.97	90.44	2901.65	85.64	2902.33	4.80	
	08/22/99	2987.97	90.49	2901.51	85.79	2902.18	4.70	
	09/01/99	2987.97	90.40	2901.52	85.80	2902.17	4.60	
	09/11/99	2987.97	90.74	2901.48	85.79	2902.18	4.95	
	09/16/99	2987.97	90.74	2901.44	85.83	2902.14	4.91	
	09/25/99	2987.97	90.74	2901.52	85.74	2902.23	5.00	
	10/02/99	2987.97	90.79	2901.48	85.78	2902.19	5.01	
	10/09/99	2987.97	90.74	2901.51	85.75	2902.22	4.99	
	10/15/99	2987.97	90.89	2901.50	85.74	2902.23	5.15	
	10/21/99	2987.97	91.04	2900.59	86.77	2901.20	4.27	
	10/26/99	2987.97	91.09	2901.44	85.77	2902.20	5.32	
	11/01/99	2987.97	91.09	2901.44	85.77	2902.20	5.32	
08/02/00	2987.97	90.92	2901.06	86.25	2901.72	4.67		
	<b>11/24/00</b>	<b>2987.97</b>	<b>91.44</b>	<b>2900.56</b>	<b>86.74</b>	<b>2901.23</b>	<b>4.70</b>	
MW-09	02/04/99	2987.39	86.06	2901.83	85.48	2901.91	0.58	
	02/22/99	2987.39	88.60	2902.34	84.46	2902.93	4.14	
	03/11/99	2987.39	91.48	2901.67	84.77	2902.62	6.71	
	03/24/99	2987.39	91.43	2901.67	84.78	2902.61	6.65	
	03/31/99	2987.39	91.40	2901.72	84.72	2902.67	6.68	
	04/02/99	2987.39	91.52	2901.60	84.84	2902.55	6.68	
	04/07/99	2987.39	91.58	2901.57	84.87	2902.52	6.71	
	07/15/99	2987.39	91.13	2901.43	85.11	2902.28	6.02	
	10/26/99	2987.39	90.63	2901.22	85.43	2901.96	5.20	
	11/01/99	2987.39	90.63	2900.93	85.77	2901.62	4.86	
	08/02/00	2987.39	92.73	2900.81	85.56	2901.83	7.17	
		<b>11/24/00</b>	<b>2987.39</b>	<b>92.63</b>	<b>2900.38</b>	<b>86.08</b>	<b>2901.31</b>	<b>6.55</b>
	MW-10	02/04/99	2987.96	85.73	2902.23	—	—	—
02/22/99		2987.96	85.76	2902.20	—	—	—	
03/11/99		2987.96	85.87	2902.09	—	—	—	
04/07/99		2987.96	85.93	2902.03	—	—	—	
05/03/99		2987.96	85.81	2902.15	—	—	—	
06/08/99		2987.96	86.02	2901.94	—	—	—	
06/22/99		2987.96	87.07	2900.89	—	—	—	
07/06/99		2987.96	87.07	2900.89	—	—	—	
08/14/99		2987.96	86.19	2901.77	—	—	—	
09/16/99		2987.96	86.22	2901.74	—	—	—	
10/19/99		2987.96	86.17	2901.79	—	—	—	
11/01/99		2987.96	86.17	2901.79	—	—	—	
08/02/00		2987.96	86.57	2901.39	—	—	—	
	<b>11/24/00</b>	<b>2987.96</b>	<b>86.72</b>	<b>2901.24</b>	—	—	—	
MW-11	02/04/99	2989.37	87.54	2901.83	—	—	—	
	02/22/99	2989.37	87.50	2901.87	—	—	—	
	03/11/99	2989.37	87.60	2901.77	—	—	—	
	04/07/99	2989.37	87.56	2901.81	—	—	—	
	05/03/99	2989.37	87.38	2901.99	—	—	—	
	06/08/99	2989.37	87.72	2901.65	—	—	—	
	06/22/99	2989.37	87.76	2901.61	—	—	—	
	07/06/99	2989.37	87.84	2901.53	—	—	—	
	08/14/99	2989.37	87.98	2901.39	—	—	—	
	09/16/99	2989.37	87.61	2901.76	—	—	—	
	10/19/99	2989.37	87.66	2901.71	—	—	—	
11/01/99	2989.37	87.07	2902.30	—	—	—		

**TABLE I**  
**SUMMARY OF GROUNDWATER MONITORING**  
**EQUILON PIPELINE COMPANY, LLC**  
**JAL BASIN STATION**  
**LEA COUNTY, NEW MEXICO**

WELL	DATE	SURFACE ELEV. (feet)	DEPTH TO WATER (feet)	ELEV. OF WATER (feet)	DEPTH TO PSH (feet)	ELEV. OF PSH (feet)	PSH THICKNESS (feet)
MW-11	08/02/00	2989.37	87.65	2901.72	—	—	—
cont.	<b>11/24/00</b>	<b>2989.37</b>	<b>87.87</b>	<b>2901.50</b>	---	---	---
MW-12	02/04/99	2987.79	86.52	2901.27	—	—	—
	02/22/99	2987.79	86.26	2901.53	—	—	—
	03/11/99	2987.79	86.38	2901.41	—	—	—
	04/07/99	2987.79	86.46	2901.33	—	—	—
	05/03/99	2987.79	86.36	2901.43	—	—	—
	06/08/99	2987.79	86.55	2901.24	—	—	—
	06/22/99	2987.79	86.55	2901.24	—	—	—
	07/06/99	2987.79	86.60	2901.19	—	—	—
	08/14/99	2987.79	86.70	2901.09	—	—	—
	09/16/99	2987.79	86.71	2901.08	—	—	—
	10/19/99	2987.79	86.72	2901.07	—	—	—
	11/01/99	2987.79	86.72	2901.07	—	—	—
	08/02/00	2987.79	87.08	2900.71	—	—	—
	<b>11/24/00</b>	<b>2987.79</b>	<b>88.45</b>	<b>2899.34</b>	<b>86.90</b>	<b>2900.89</b>	<b>1.55</b>
MW-13	10/19/99	2989.79	88.28	2901.51	—	—	—
	11/01/99	2989.79	88.28	2901.51	—	—	—
	08/02/99	2989.79	88.62	2901.17	—	—	—
	<b>11/24/00</b>	<b>2989.79</b>	<b>88.67</b>	<b>2901.12</b>	---	---	---
MW-14	10/19/99	2986.02	85.04	2900.98	—	—	—
	11/01/99	2986.02	85.04	2900.98	—	—	—
	08/02/99	2986.02	86.95	2900.53	85.25	2900.77	1.70
	<b>11/24/00</b>	<b>2986.02</b>	<b>88.60</b>	<b>2900.51</b>	<b>85.00</b>	<b>2901.02</b>	<b>3.60</b>
MW-15	10/19/99	2986.45	85.32	2901.13	—	—	—
	11/01/99	2986.45	85.32	2901.13	—	—	—
	08/02/99	2986.45	85.30	2901.15	—	—	—
	<b>11/24/00</b>	<b>2986.45</b>	<b>85.36</b>	<b>2901.09</b>	---	---	---

**TABLE II**

**SUMMARY OF GROUNDWATER RESULTS - BTEX AND TPH  
EQUILON PIPELINE COMPANY, LLC  
JAL BASIN STATION  
LEA COUNTY, NEW MEXICO**

SAMPLE LOCATION	DATE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL-BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)	TPH-DRO (mg/l)
MW-1	02/23/99	ND	ND	ND	ND	ND	—
	08/22/99	ND	ND	ND	ND	ND	ND
	10/19/99	ND	ND	ND	ND	ND	0.135
	08/02/00	ND	ND	ND	ND	ND	—
	11/24/00	ND	ND	ND	ND	ND	—
MW-2	02/23/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (8.28')					
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (7.71')					
	10/19/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (7.47')					
	08/02/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (7.64')					
	11/24/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (7.64')					
MW-3	02/23/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (8.00')					
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (7.45')					
	10/19/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (7.30')					
	08/02/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (7.67')					
	11/24/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (7.67')					
MW-4	02/23/99	ND	ND	ND	0.005	0.005	—
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (0.65')					
	10/19/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (1.05')					
	08/02/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (2.89')					
	11/24/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (2.89')					
MW-5	02/23/99	ND	ND	ND	ND	ND	—
	08/22/99	ND	ND	ND	ND	ND	ND
	10/19/99	ND	ND	ND	ND	ND	0.156
	08/02/00	ND	ND	ND	ND	ND	—
	11/24/00	ND	ND	ND	ND	ND	—
MW-6	02/23/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (4.14')					
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (6.08')					
	10/19/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (6.08')					
	08/02/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (6.80')					
	11/24/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (6.80')					
MW-7	02/23/99	ND	ND	ND	0.004	0.004	—
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (3.30')					
	10/19/99	PLUGGED AND ABANDONED					

TABLE II

SUMMARY OF GROUNDWATER RESULTS - BTEX AND TPH  
 EQUILON PIPELINE COMPANY, LLC  
 JAL BASIN STATION  
 LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	DATE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL-BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)	TPH-DRO (mg/l)
MW-8	02/23/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (0.02')					
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (4.70')					
	10/19/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (5.15')					
	08/02/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (4.67')					
	11/24/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (4.67')					
MW-9	02/23/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (4.14')					
	08/22/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (6.02')					
	10/19/99	NOT SAMPLED DUE TO THE PRESENCE OF PSH (5.20')					
	08/02/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (7.17')					
	11/24/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (7.17')					
MW-10	02/23/99	ND	ND	ND	ND	ND	---
	08/22/99	ND	ND	ND	ND	ND	ND
	10/19/99	ND	ND	ND	ND	ND	0.124
	08/02/00	ND	ND	ND	ND	ND	---
	11/24/00	ND	ND	ND	ND	ND	---
MW-11	02/23/99	ND	ND	ND	ND	ND	---
	08/22/99	ND	ND	ND	ND	ND	3.2
	10/19/99	ND	ND	ND	ND	ND	0.077
	08/02/00	ND	ND	ND	ND	ND	---
	11/24/00	ND	ND	ND	ND	ND	---
MW-12	02/23/99	ND	ND	ND	ND	ND	---
	08/22/99	ND	ND	ND	ND	ND	2.5
	10/19/99	ND	ND	ND	ND	ND	0.306
	08/02/00	0.031	ND	ND	0.045	0.076	---
	11/24/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (2.89')					
MW-13	10/19/99	ND	ND	ND	ND	ND	0.127
	08/02/00	ND	ND	ND	ND	ND	---
	11/24/00	ND	ND	ND	ND	ND	---
MW-14	10/19/99	0.007	ND	ND	0.010	0.017	0.481
	08/02/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (1.70')					
	11/24/00	NOT SAMPLED DUE TO THE PRESENCES OF PSH (1.70')					

**TABLE II**

**SUMMARY OF GROUNDWATER RESULTS - BTEX AND TPH  
EQUILON PIPELINE COMPANY, LLC  
JAL BASIN STATION  
LEA COUNTY, NEW MEXICO**

SAMPLE LOCATION	DATE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL-BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)	TPH-DRO (mg/l)
MW-15	10/19/99	ND	ND	ND	ND	ND	0.132
	08/02/00	ND	ND	ND	ND	ND	—
	11/24/00	ND	ND	ND	ND	ND	—
Product Tank	06/14/99	0.077	0.218	0.118	0.274	0.687	—

TABLE III

SUMMARY OF GROUND WATER RESULTS - OTHER  
 EQUILON PIPELINE COMPANY, LLC  
 JAL BASIN STATION  
 LEA COUNTY, NEW MEXICO

SAMPLE LOCATION DATE SAMPLED PARAMETER	MW-1	MW-4	MW-5	MW-7	MW-10
	02/23/99	02/23/99	02/23/99	02/23/99	02/23/99
	CONCENTRATION (mg/l)				
<b>PAH</b>					
Acenaphthalene	ND	ND	ND	0.003	ND
Fluorene	ND	ND	ND	0.005	ND
Naphthalene	ND	0.005	ND	ND	ND
Phenanthrene	ND	ND	ND	0.003	ND
<b>TOTAL</b>	ND	0.005	ND	0.011	ND
<b>Metals</b>					
Aluminum	ND	ND	2.81	4.93	2.72
Barium	ND	ND	0.492	ND	0.308
Boron	ND	1.76	0.355	ND	0.308
Calcium	587	447	1650	737	949
Chromium	0.13	ND	ND	ND	ND
Copper	ND	ND	ND	0.034	ND
Iron	6.72	2.94	1.26	3.11	3.28
Lead	0.021	ND	ND	0.030	ND
Magnesium	202	163	49.6	78.5	61.0
Manganese	0.31	ND	0.85	0.42	0.121
Potassium	14.56	13.0	6.39	12.11	7.56
Selenium	0.13	0.081	ND	ND	ND
Silica	62.28	51.30	54.67	60.44	59.5
Sodium	167	176	66.89	231	41.7
Strontium	11.59	10.6	4.61	4.74	3.80
Vanadium	ND	ND	ND	ND	ND
<b>Cations/Anions</b>					
Bicarbonate	362	385	280	402	376
Chloride	767	159	15	58.6	28.9
Sulfate	1960	453	40	980	25.9
<b>TDS</b>	2670	2290	640	1330	621

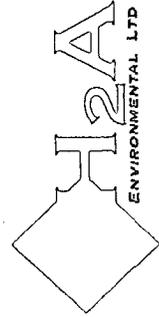
TABLE III

SUMMARY OF GROUND WATER RESULTS - OTHER  
 EQUILON PIPELINE COMPANY, LLC  
 JAL BASIN STATION  
 LEA COUNTY, NEW MEXICO

SAMPLE LOCATION DATE SAMPLED PARAMETER	MW-11		MW-12		MW-13		MW-14		MW-15	
	02/23/99	10/19/99	02/07/00	02/23/99	10/19/99	02/07/00	10/19/99	02/07/00	10/19/99	02/07/00
CONCENTRATION (mg/l)										
<b>PAH</b>										
Acenaphthalene	ND									
Fluorene	ND									
Naphthalene	ND	ND	ND	ND	ND	ND	0.036	0.0152	ND	ND
Phenanthrene	ND									
<b>TOTAL</b>	ND	0.0152	ND	ND						
<b>Metals</b>										
Aluminum	ND	0.528	---	5.78	0.696	4.56	---	0.936	---	1.39
Barium	ND	ND	---	0.59	ND	0.451	---	0.320	---	ND
Boron	ND	0.572	---	ND	0.636	ND	---	1.70	---	0.84
Calcium	387	110	---	524	128	807	---	1680	---	268
Chromium	ND	ND	---	ND	ND	ND	---	ND	---	ND
Copper	ND	ND	---	0.04	ND	ND	---	ND	---	ND
Iron	2.56	0.556	---	3.33	0.072	5.89	---	4.33	---	1.61
Lead	0.019	ND	---	0.031	ND	ND	---	ND	---	ND
Magnesium	49.6	41.9	---	48.1	51.5	41.6	---	87.2	---	96.9
Manganese	0.23	ND	---	0.26	ND	0.581	---	0.388	---	ND
Potassium	9.389	6.76	---	9.67	6.08	10.9	---	16.3	---	14.6
Selenium	ND	ND	---	ND	ND	ND	---	ND	---	ND
Silica	61.56	58.70	---	64.33	54.2	54.6	---	51.0	---	52.2
Sodium	227	211	---	97.22	82.5	64.6	---	188	---	167
Strontium	2.909	2.85	---	2.85	3.1	2.92	---	6.22	---	5.18
Vanadium	ND	ND	---	ND	ND	0.143	---	ND	---	ND
<b>Cations/Anions</b>										
Bicarbonate	272	276	---	382	498	284	---	345	---	202
Chloride	69	67.3	---	8	14.7	4.90	---	9.90	---	116.00
Sulfate	369	350	---	31	38	10.9	---	62.3	---	562
<b>TDS</b>	2060	1060	---	600	710	454	---	1110	---	1520



# GROUND WATER MONITORING DATA SHEET



**Job No.** 106.001

**Project** Equilon - Jal Basin Station

**Date** 08/02/2000

Field Tech.

Well No.	PVC Elev.	GS Elev.	DTW		GW Elevation		Well Depth	Depth to PSH		PSH Elev.	PSH Thickness	Vac in. H2O
			DTWgs	DTWpvc	Actual	Corrected		DTPgs	DTPpvc			
MW-1	2994.62	2992.30	90.58	92.90	2901.72	---	97.65	---	---	---	---	NM
MW-2	2989.43	2987.02	92.48	94.89	2894.54	2901.10	NM	84.84	87.25	2902.18	7.64	NM
MW-3	2990.81	2987.91	92.50	95.40	2895.41	2901.99	NM	84.83	87.73	2903.08	7.67	NM
MW-4	2991.16	2988.22	89.21	92.15	2899.01	2901.49	NM	86.32	89.26	2901.90	2.89	NM
MW-5	2991.38	2988.47	86.90	89.81	2901.57	---	98.42	---	---	---	---	NM
MW-6	2990.17	2987.40	92.03	94.80	2895.37	2901.20	NM	85.23	88.00	2902.17	6.80	NM
MW-8	2990.73	2987.97	90.92	93.68	2897.05	2901.06	NM	86.25	89.01	2901.72	4.67	NM
MW-9	2990.31	2987.39	92.73	95.65	2894.66	2900.81	NM	85.56	88.48	2901.83	7.17	NM
MW-10	2990.84	2987.96	86.57	89.45	2901.39	---	98.55	---	---	---	---	NM
MW-11	2992.30	2989.37	87.65	90.58	2901.72	---	100.20	---	---	---	---	NM
MW-12	2990.99	2987.79	87.08	90.28	2900.71	---	99.32	---	---	---	---	NM
MW-13	2992.97	2989.79	88.62	91.80	2901.17	---	100.75	---	---	---	---	NM
MW-14	2989.12	2986.02	86.95	90.05	2899.07	2900.53	NM	85.25	88.35	2900.77	1.70	NM
MW-15	2989.64	2986.45	85.30	88.49	2901.15	---	101.00	---	---	---	---	NM
												NM
												NM
												NM
												NM
												NM
												NM
												NM
												NM
												NM

Note: 1. All measurements are reported in feet unless otherwise indicated  
 2. The corrected ground water elevation was calculated using a specific gravity for PSH of: 0.86

Comments:





February 24, 2000

Project Manager: Carl Haack  
KEI Consultants, Ltd.  
1335 Valwood Parkway Suite 111  
Carrollton, TX 75006

Reference: XENCO Report No: 200879  
Project Name : Jal Station  
Project Address: Jal New Mexico

Dear Carl Haack :

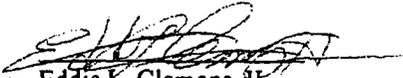
We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Chain of Custody Numbered 200879 . All results being reported under this Chain of Custody apply to the samples analyzed and properly identified with a Laboratory ID number.

All the results for the quality control samples were reviewed. Also, all parameters for data reduction and validation were reviewed. 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 after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 200879 will be filed for 60 days, and after that time they will be properly disposed 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).

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

Sincerely,

  
Eddie L. Clemons, II  
QA/QC Manager

*Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.  
Certified and approved by numerous States and Agencies.  
A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

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





# Certificate of Analysis Summary 200879

KEI Consultants, Ltd., Carrollton, TX

Project Name: Jal Station

Project ID: 910103-8-0

Project Manager: Carl Haack

Project Location: Jal New Mexico

Date Received in Lab: Fri Feb-11-00 12:05 PM

Date Report Faxed: Thu Feb-24-00

XENCO Contact: Debbie Simmons

Analysis Requested	Lab ID:	200879-001	200879-002	200879-003	200879-004	200879-005	200879-006
	Field ID:	MW-1	MW-5	MW-10	MW-11	MW-12	MW-13
	Depth:						
	Matrix:	Water	Water	Water	Water	Water	Water
	Sampled:	Feb-07-2000	Feb-07-2000	Feb-07-2000	Feb-07-2000	Feb-07-2000	Feb-07-2000
	Analyzed:	Feb-14-2000	Feb-14-2000	Feb-14-2000	Feb-14-2000	Feb-14-2000	Feb-14-2000
	Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		R L	R L	R L	R L	R L	R L
Benzene		BRL 0.001	BRL 0.001	BRL 0.001	BRL 0.001	0.004	BRL 0.001
Toluene		BRL 0.001					
Ethylbenzene		BRL 0.001					
m,p-Xylenes		BRL 0.002	BRL 0.002	BRL 0.002	BRL 0.002	0.007	BRL 0.002
o-Xylene		BRL 0.001					
Total Xylenes		BRL	BRL	BRL	BRL	0.007	BRL
Total BTEX		BRL	BRL	BRL	BRL	0.011	BRL



Eddie L. Clemoris, II  
QA/QC Director

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.

BRL Below Reporting Limits.

Since 1990 Houston - Dallas - San Antonio - Austin - Latin America



# Certificate of Analysis Summary 200879

**KEI Consultants, Ltd., Carrollton, TX**

Project Name: Jal Station

Project ID: 910103-8-0  
 Project Manager: Carl Haack  
 Project Location: Jal New Mexico

Date Received in Lab: Fri Feb-11-00 12:05 PM  
 Date Report Faxed: Thu Feb-24-00  
 XENCO Contact: Debbie Simmons

Analysis Requested	Lab ID:	200879-001	200879-002	200879-003	200879-004	200879-005	200879-006
	Field ID: Depth: Matrix: Sampled:	MW-1 Water Feb-07-2000	MW-5 Water Feb-07-2000	MW-10 Water Feb-07-2000	MW-11 Water Feb-07-2000	MW-12 Water Feb-07-2000	MW-13 Water Feb-07-2000
SVOA PAHs List by EPA 8270C	Analyzed: Units:				mg/L R L		mg/L R L
Acenaphthene					BRL 0.002		BRL 0.002
Acenaphthylene					BRL 0.002		BRL 0.002
Anthracene					BRL 0.002		BRL 0.002
Benzo(a)anthracene					BRL 0.002		BRL 0.002
Benzo(a)pyrene					BRL 0.002		BRL 0.002
Benzo(b)fluoranthene					BRL 0.002		BRL 0.002
Benzo(g,h,i)perylene					BRL 0.002		BRL 0.002
Benzo(k)fluoranthene					BRL 0.002		BRL 0.002
Chrysene					BRL 0.002		BRL 0.002
Dibenz(a,h)anthracene					BRL 0.002		BRL 0.002
Fluoranthene					BRL 0.002		BRL 0.002
Fluorene					BRL 0.002		BRL 0.002
Indeno(1,2,3-c,d)pyrene					BRL 0.002		BRL 0.002
Naphthalene					BRL 0.002		BRL 0.002
Phenanthrene					BRL 0.002		BRL 0.002
Pyrene					BRL 0.002		BRL 0.002
TPH DRO by SW846-8015	Analyzed: Units:	Feb-14-2000 mg/L BRL 1.00					
TPH-DRO (Diesel Range Organics)							

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.

Eddie L. Clemmons, II  
 QA/QC Director

BRL Below Reporting Limits.

Since 1990 Houston - Dallas - San Antonio - Austin - Latin America



# Certificate of Analysis Summary 200879

KEI Consultants, Ltd., Carrollton, TX

Project Name: Jal Station

Date Received in Lab: Fri Feb-11-00 12:05 PM  
Date Report Faxed: Thu Feb-24-00  
XENCO Contact: Debbie Simmons

Project ID: 910103-8-0  
Project Manager: Carl Haack  
Project Location: Jal New Mexico

Analysis Requested	Lab ID:		200879-008		200879-007	
	Field ID:	Depth:	MW-14	MW-15	MW-14	MW-15
	Matrix:	Sampled:	Water	Water	Water	Water
	Analyzed:	Units:	Feb-07-2000	Feb-07-2000	Feb-14-2000	Feb-14-2000
BTEX by EPA 8021			mg/L	mg/L	mg/L	mg/L
Benzene			R L	R L	R L	R L
Toluene	0.024	0.001	BRL	0.001	BRL	0.001
Ethylbenzene	BRL	0.001	BRL	0.001	BRL	0.001
m,p-Xylenes	0.020	0.002	BRL	0.002	BRL	0.002
o-Xylene	0.003	0.001	BRL	0.001	BRL	0.001
Total Xylenes	0.023		BRL		BRL	
Total BTEX	0.047		BRL		BRL	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.

BRL Below Reporting Limits.

Since 1990 Houston - Dallas - San Antonio - Austin - Latin America

Eddie L. Clemons, II  
QA/QC Director

KEI Consultants, Ltd., Carrollton, TX

Project Name: Jal Station

Project ID: 910103-8-0  
Project Manager: Carl Haack  
Project Location: Jal New Mexico

Date Received in Lab: Fri Feb-11-00 12:05 PM  
Date Report Faxed: Thu Feb-24-00  
XENCO Contact: Debbie Simmons

Analysis Requested	Lab ID:		Field ID:		Depth:		Matrix:		Sampled:		Analyzed:		Units:	
	200879-007	MW-14	200879-008	MW-15	Water	Water	Feb-07-2000	Feb-07-2000	Feb-15-2000	Feb-15-2000	mg/L	mg/L	R L	R L
<b>SVOA PAHs List by EPA 8270C</b>														
Acenaphthene	BRL	0.002	BRL	0.002										
Acenaphthylene	BRL	0.002	BRL	0.002										
Anthracene	BRL	0.002	BRL	0.002										
Benzo(a)anthracene	BRL	0.002	BRL	0.002										
Benzo(a)pyrene	BRL	0.002	BRL	0.002										
Benzo(b)fluoranthene	BRL	0.002	BRL	0.002										
Benzo(g,h,i)perylene	BRL	0.002	BRL	0.002										
Benzo(k)fluoranthene	BRL	0.002	BRL	0.002										
Chrysene	BRL	0.002	BRL	0.002										
Dibenz(a,h)Anthracene	BRL	0.002	BRL	0.002										
Fluoranthene	BRL	0.002	BRL	0.002										
Fluorene	BRL	0.002	BRL	0.002										
Indeno(1,2,3-c,d)Pyrene	BRL	0.002	BRL	0.002										
Naphthalene	0.0152	0.002	BRL	0.002										
Phenanthrene	BRL	0.002	BRL	0.002										
Pyrene	BRL	0.002	BRL	0.002										
<b>TPH DRO by SW846-8015</b>														
	mg/L	R L	mg/L	R L										
TPH-DRO (Diesel Range Organics)	1.384	1.00	BRL	1.00										

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.

*Eddie L. Clements, II*  
Eddie L. Clements, II  
QA/QC Director

BRL Below Reporting Limits.

Since 1990 Houston - Dallas - San Antonio - Austin - Latin America



# Certificate of Quality Control

Analytical Report: 200879

Lab Batch ID: 203352

Sample: 333916-1-

Units: mg/L

Matrix: Water

Project Name: Jal Station

Project ID: 910103-8-0

## BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Blank Spike Duplicate Result [E]	Blk. Spk Dup. %R [F]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021										
Benzene	<0.001	0.1	0.101	101.0	0.098	98.0	3.0	70-125	25	
Toluene	<0.001	0.1	0.104	104.0	0.103	103.0	1.0	70-125	25	
Ethylbenzene	<0.001	0.1	0.101	101.0	0.100	100.0	1.0	71-129	25	
m,p-Xylenes	<0.002	0.2	0.208	104.0	0.206	103.0	1.0	70-125	25	
o-Xylene	<0.001	0.1	0.110	110.0	0.109	109.0	0.9	71-133	25	

Lab Batch ID: 203413

Sample: 333948-1-

Units: mg/L

Matrix: Water

## BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Blank Spike Duplicate Result [E]	Blk. Spk Dup. %R [F]	RPD %	Control Limits %R	Control Limits %RPD	Flag
SVOA PAHs List by EPA 8270C										
4-chloro-3-methylphenol	<0.010	0.05	0.046	92.0	0.048	96.0	4.3	16-129	33	
2-Chlorophenol	<0.010	0.05	0.042	84.0	0.040	80.0	4.9	16-116	40	
1,4-Dichlorobenzene	<0.010	0.05	0.042	84.0	0.040	80.0	4.9	19-121	28	
2,4-Dinitrotoluene	<0.010	0.05	0.046	92.0	0.047	94.0	2.2	22-135	38	
4-Nitrophenol	<0.010	0.05	0.028	56.0	0.030	60.0	6.9	10-80	50	
n-Nitrosodi-n-Propylamine	<0.010	0.05	0.051	102.0	0.053	106.0	3.8	22-134	38	
Pentachlorophenol	<0.010	0.05	0.044	88.0	0.040	80.0	9.5	17-117	50	
Phenol	<0.010	0.05	0.028	56.0	0.029	58.0	3.5	12-110	25	
Pyrene	<0.002	0.05	0.052	104.0	0.052	104.0	0.0	23-152	31	
1,2,4-Trichlorobenzene	<0.010	0.05	0.044	88.0	0.046	92.0	4.4	20-124	28	

Relative Percent Difference RPD =  $200 * [(C-E)/(C+E)]$   
 Blank Spike Recovery [D] =  $100 * (C-A)/[B]$   
 Blank Spike Duplicate Recovery [F] =  $100 * (E-A)/[B]$   
 All results are based on MDL and Validated for QC Purposes

Eddie L. Clemons, II  
 QA/QC Director



# Certificate of Quality Control

Analytical Report: 200879

Lab Batch ID: 203361

Units: mg/L

Sample: 333915-1-

Matrix: Water

TPH DRO by SW846-8015

Analytes

TPH-DRO (Diesel Range Organics)

Project Name: Jal Station  
Project ID: 910103-8-0

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY									
Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Blank Spike Duplicate Result [E]	Blank Spike Dup. %R [F]	RPD %	Control Limits %R	Control Limits %RPD	Flag
<1.00	2.0	2.49	124.5	2.33	116.5	6.6	70-130	35	

Relative Percent Difference RPD =  $200 * |(C-E)/(C+E)|$   
 Blank Spike Recovery [D] =  $100 * (C-A)/[B]$   
 Blank Spike Duplicate Recovery [F] =  $100 * (E-A)/[B]$   
 All results are based on MDL and Validated for QC Purposes

  
 Eddie L. Clemons, II  
 QA/QC Director

## CERTES ENVIRONMENTAL LABORATORIES ANALYTICAL REPORT

Certes File Number: 00-1997

Client Project I.D.:

9276.3

Prepared for:

**H2A ENVIRONMENTAL-PORTLAND**

**418 San Saba**

**Portland, TX: 78374**

Attention:

**Teresa Nix**

Report Date:

**08/09/00**

Included are the results of chemical analyses for the samples submitted to Certes Environmental Laboratories, L.L.C., on 08/04/00. All analytical results meet Quality Control requirements as set by the industry accepted criteria. Please refer to the Laboratory Quality Control Results section of this report.

*This report must be reproduced in its entirety.*

Sincerely,

**Certes Environmental Laboratories, L.L.C.**



**Amy LaSalle**  
President

		Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-1						Sample Number: 00-1997-001			
Date Sampled: 08/02/00						Sample Matrix: Liquid			
Time Sampled: 16:10						Sampled By: MR			
EPA 8021B	Benzene	< 1	µg/L	1	08/04/00	08/04/00		JJS	1
	Toluene	< 1	µg/L	1	08/04/00	08/04/00		JJS	1
	Ethylbenzene	< 1	µg/L	1	08/04/00	08/04/00		JJS	1
	Xylenes (Total)	< 3	µg/L	3	08/04/00	08/04/00		JJS	1
	Total BTEX (Calculated)	0	µg/L		08/04/00	08/04/00		JJS	1
	**Surrogates*				08/04/00	08/04/00		JJS	1
	Difluorobenzene	87%		74-116%	08/04/00	08/04/00		JJS	1
	4-Bromofluorobenzene	91%		80-151%	08/04/00	08/04/00		JJS	1

		Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-5						Sample Number: 00-1997-002			
Date Sampled: 08/02/00						Sample Matrix: Liquid			
Time Sampled: 16:00						Sampled By: MR			
EPA 8021B	Benzene	< 1	µg/L	1	08/04/00	08/04/00		JJS	1
	Toluene	< 1	µg/L	1	08/04/00	08/04/00		JJS	1
	Ethylbenzene	< 1	µg/L	1	08/04/00	08/04/00		JJS	1
	Xylenes (Total)	< 3	µg/L	3	08/04/00	08/04/00		JJS	1
	Total BTEX (Calculated)	0	µg/L		08/04/00	08/04/00		JJS	1
	**Surrogates*				08/04/00	08/04/00		JJS	1
	Difluorobenzene	86%		74-116%	08/04/00	08/04/00		JJS	1
	4-Bromofluorobenzene	89%		80-151%	08/04/00	08/04/00		JJS	1

		Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-10						Sample Number: 00-1997-003			
Date Sampled: 08/02/00						Sample Matrix: Liquid			
Time Sampled: 14:15						Sampled By: MR			
EPA 8021B	Benzene	< 1	µg/L	1	08/04/00	08/04/00		JJS	1
	Toluene	< 1	µg/L	1	08/04/00	08/04/00		JJS	1
	Ethylbenzene	< 1	µg/L	1	08/04/00	08/04/00		JJS	1
	Xylenes (Total)	< 3	µg/L	3	08/04/00	08/04/00		JJS	1
	Total BTEX (Calculated)	0	µg/L		08/04/00	08/04/00		JJS	1
	**Surrogates*				08/04/00	08/04/00		JJS	1
	Difluorobenzene	86%		74-116%	08/04/00	08/04/00		JJS	1
	4-Bromofluorobenzene	90%		80-151%	08/04/00	08/04/00		JJS	1

	Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-11					Sample Number: 00-1997-004			
Date Sampled:	08/02/00			Sample Matrix:		Liquid		
Time Sampled:	15:12			Sampled By:		MR		
EPA 8021B	Benzene	< 1	µg/L	1	08/04/00	08/04/00	JJS	1
	Toluene	< 1	µg/L	1	08/04/00	08/04/00	JJS	1
	Ethylbenzene	< 1	µg/L	1	08/04/00	08/04/00	JJS	1
	Xylenes (Total)	< 3	µg/L	3	08/04/00	08/04/00	JJS	1
	Total BTEX (Calculated)	0	µg/L		08/04/00	08/04/00	JJS	1
	**Surrogates*				08/04/00	08/04/00	JJS	1
	Difluorobenzene	86%	74-116%		08/04/00	08/04/00	JJS	1
	4-Bromofluorobenzene	89%	80-151%		08/04/00	08/04/00	JJS	1

	Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-12					Sample Number: 00-1997-005			
Date Sampled:	08/02/00			Sample Matrix:		Liquid		
Time Sampled:	15:32			Sampled By:		MR		
EPA 8021B	Benzene	31	µg/L	1	08/04/00	08/04/00	JJS	1
	Toluene	< 1	µg/L	1	08/04/00	08/04/00	JJS	1
	Ethylbenzene	< 1	µg/L	1	08/04/00	08/04/00	JJS	1
	Xylenes (Total)	45	µg/L	3	08/04/00	08/04/00	JJS	1
	Total BTEX (Calculated)	76	µg/L		08/04/00	08/04/00	JJS	1
	**Surrogates*				08/04/00	08/04/00	JJS	1
	Difluorobenzene	88%	74-116%		08/04/00	08/04/00	JJS	1
	4-Bromofluorobenzene	102%	80-151%		08/04/00	08/04/00	JJS	1

	Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-13					Sample Number: 00-1997-006			
Date Sampled:	08/02/00			Sample Matrix:		Liquid		
Time Sampled:	15:42			Sampled By:		MR		
EPA 8021B	Benzene	< 1	µg/L	1	08/04/00	08/04/00	JJS	1
	Toluene	< 1	µg/L	1	08/04/00	08/04/00	JJS	1
	Ethylbenzene	< 1	µg/L	1	08/04/00	08/04/00	JJS	1
	Xylenes (Total)	< 3	µg/L	3	08/04/00	08/04/00	JJS	1
	Total BTEX (Calculated)	0	µg/L		08/04/00	08/04/00	JJS	1
	**Surrogates*				08/04/00	08/04/00	JJS	1
	Difluorobenzene	85%	74-116%		08/04/00	08/04/00	JJS	1
	4-Bromofluorobenzene	89%	80-151%		08/04/00	08/04/00	JJS	1

	Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-15					Sample Number: 00-1997-007			
Date Sampled: 08/02/00					Sample Matrix: Liquid			
Time Sampled: 15:22					Sampled By: MR			
<b>EPA 8021B</b>	Benzene	< 1	µg/L	1	08/04/00	08/04/00	JJS	1
	Toluene	< 1	µg/L	1	08/04/00	08/04/00	JJS	1
	Ethylbenzene	< 1	µg/L	1	08/04/00	08/04/00	JJS	1
	Xylenes (Total)	< 3	µg/L	3	08/04/00	08/04/00	JJS	1
	Total BTEX (Calculated)	0	µg/L		08/04/00	08/04/00	JJS	1
	**Surrogates*				08/04/00	08/04/00	JJS	1
	Difluorobenzene	85%	74-116%		08/04/00	08/04/00	JJS	1
	4-Bromofluorobenzene	91%	80-151%		08/04/00	08/04/00	JJS	1

## Index of Narrative Footnotes

A - Sample received with headspace for volatile analysis.
B - Analyte detected in the associated method blank.
C - Sample received in unapproved containers.
D - Surrogate diluted out of range.
DNI - Sample does not ignite.
E - Result is above the linear range of the instrument and is to be considered an estimate.
H - Sample contains significant levels of heavy petroleum products > C28.
I - Sample was reported at a dilution with few or no reportable values as a result of matrix interference.
J - Value is a J-value and to be considered an estimate only.
L - Re-analysis was not possible due to limited sample amount.
M - Recoveries out of range due to matrix interferences inherent in sample.
N - Sample has presumptive compounds other than fuel products.
O - Sample received out of hold time.
P - Result is unconfirmed. The quantitative result from the primary column and secondary column did not agree within 40%.
RR - Sample being re-extracted due to failing surrogate or internal standard.
S - Analysis performed at subcontract laboratory.
T - Sample prepared or analyzed out of hold time.
V - Insufficient sample was available for analysis as prescribed by the method. The lesser amount used for analysis raised reporting limits accordingly.
X - Laboratory contamination suspected.
Y - Benzo(B) and Benzo(K) Fluoranthene did not resolve. Value was reported as Benzo(B)fluoranthene.
Z - Dilution was required due to the dark color and thickness of the extract.

\* - Analytical result reported on dry weight basis.

	Benzene	Toluene	Ethyl- benzene	Xylenes
<b>Matrix Spike</b>				
Batch Number	080400L3	080400L3	080400L3	080400L3
Date Prepared	08/04/00	08/04/00	08/04/00	08/04/00
Date Analyzed	08/04/00	08/04/00	08/04/00	08/04/00
Spiked Sample ID	1997-1	1997-1	1997-1	1997-1
Sample Measured Result	<1	<1	<1	<3
Spike Level (mg/L) (µg/L) (mg/Kg) (µg/Kg)	100	100	100	300
Spike Result (mg/L) (µg/L) (mg/Kg) (µg/Kg)	97.4	99.3	98.6	291
% Recovery	97	99	99	97
Spike Duplicate Result (mg/L) (µg/L) (mg/Kg) (µg/Kg)	95.8	97.4	97.2	288
% Recovery Duplicate	96	97	97	96
Relative Percent Difference (RPD)	2	2	1	1
RPD % Control Limits (low-high)	0-25	0-25	0-25	0-25
% Rec. Control Limits (low-high)	70-130	70-130	70-130	70-130
<b>Method Blank</b>				
(mg/L) (µg/L) (mg/Kg) (µg/Kg)	<1	<1	<1	<3
<b>Laboratory Control Sample</b>				
Spike Level (mg/L) (µg/L) (mg/Kg) (µg/Kg)	100	100	100	300
Spike Result (mg/L) (µg/L) (mg/Kg) (µg/Kg)	97.5	99.2	96.7	295
% Recovery	98	99	97	98
Spike Duplicate Result (mg/L) (µg/L) (mg/Kg) (µg/Kg)	112	113	112	331
% Recovery Duplicate	112	113	112	110
Relative Percent Difference (RPD) <sup>4</sup>	14	13	15	12
RPD % Control Limits (low-high)	0-25	0-25	0-25	0-25
% Rec. Control Limits (low-high)	70-130	70-130	70-130	70-130

M = Recoveries out of range due to matrix interference inherent in sample.

µg/l = micrograms per liter (ppb)

µg/kg = micrograms per kilogram (ppb)

< = less than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Sample

BS = Blank Spike

µmhos/cm = micromhos/centimeter

mg/l = milligrams per liter (ppm)

mg/kg = milligrams per kilogram (ppm)

% = percent

RPD = Relative Percentage Difference

RW - Reagent Water

LCSD = Laboratory Control Sample Duplicate

BSD = Blank Spike Duplicate

**Certes**  
 2209 Wisconsin Street, Suite 200  
 Dallas, Texas 75229  
 Environmental Laboratories (972) 620-7966 (972) 620-7963

**Company**  
 H&A Environmental, LTD  
 Contact (Report Recipient)  
 Theresa Nix  
 Company Address  
 500 W. Carroll Avenue  
 Billing Address (If Different)

What type reporting feature would you like to use?  
 Fax: Yes  No  EDD's: Yes  No   
 E-Mail: Yes  No  Add:  
 Phone No. (361) 777-0860 (361) 777-0971  
 Fax No.  
 TAT: Standard: Yes  No  RUSH: Yes  No   
 If yes: 1  2  3  5  Days?

City: Southlake TX State: TX Zip: 76092

Certes No.	Sample ID	Date	Time	Matrix	No. Type of Container				Analysis(es) Requested (List specific method, if required)	Yes	No
					V	G	J	O			
1	MW-1	8/2/00	16:10	H <sub>2</sub> O	1	0	0	0	0		
2	MW-5		16:00		1	0	0	0	0		
3	MW-10		14:15		1	0	0	0	0		
4	MW-11		15:12		1	0	0	0	0		
5	MW-12		15:32		1	0	0	0	0		
6	MW-13		15:42		1	0	0	0	0		
7	MW-15		15:22		1	0	0	0	0		

Comments: headspace in #1,2,3,4,5

Analysis(es) Requested (List specific method, if required): BTEX

Relinquished By (Signature): *Mak A. ...* Date: 8/3/00 Time: 11:50

Relinquished By (Signature): *Mona Joban* Date: 8/4/00 Time: 845

Relinquished By (Signature): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Certes Job Number: 00-1997

By Signing, you have agreed to our terms and agreements listed on the reverse side.

## CERTES ENVIRONMENTAL LABORATORIES ANALYTICAL REPORT

Certes File Number: **00-3068**

Client Project I.D.:

**106.001**

Prepared for:

**H2A ENVIRONMENTAL, LTD.**

**500 N. Carroll, Ste. 120**

**Southlake, TX. 76092**

Attention:

**Theresa Nix**

Report Date:

**11/30/00**

Included are the results of chemical analyses for the samples submitted to Certes Environmental Laboratories, L.L.C., on 11/28/00. All analytical results meet Quality Control requirements as set by the industry accepted criteria. Please refer to the Laboratory Quality Control Results section of this report.

*This report must be reproduced in its entirety.*

Sincerely,

**Certes Environmental Laboratories, L.L.C.**



**Amy LaSalle**  
President

	Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-1					Sample Number: 00-3068-001			
Date Sampled: 11/24/00					Sample Matrix: Liquid			
Time Sampled: 7:30					Sampled By: JS			
EPA 8021B	Benzene	< 1	µg/L	1	11/29/00	11/29/00	DBC	1
	Toluene	< 1	µg/L	1	11/29/00	11/29/00	DBC	1
	Ethylbenzene	< 1	µg/L	1	11/29/00	11/29/00	DBC	1
	Xylenes (Total)	< 3	µg/L	3	11/29/00	11/29/00	DBC	1
	Total BTEX (Calculated)	0	µg/L		11/29/00	11/29/00	DBC	1
	**Surrogates*				11/29/00	11/29/00	DBC	1
	Difluorobenzene	93%	74-116%		11/29/00	11/29/00	DBC	1
	4-Bromofluorobenzene	106%	80-151%		11/29/00	11/29/00	DBC	1

	Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-5					Sample Number: 00-3068-002			
Date Sampled: 11/24/00					Sample Matrix: Liquid			
Time Sampled: 7:50					Sampled By: JS			
EPA 8021B	Benzene	< 1	µg/L	1	11/29/00	11/29/00	DBC	1
	Toluene	< 1	µg/L	1	11/29/00	11/29/00	DBC	1
	Ethylbenzene	< 1	µg/L	1	11/29/00	11/29/00	DBC	1
	Xylenes (Total)	< 3	µg/L	3	11/29/00	11/29/00	DBC	1
	Total BTEX (Calculated)	0	µg/L		11/29/00	11/29/00	DBC	1
	**Surrogates*				11/29/00	11/29/00	DBC	1
	Difluorobenzene	94%	74-116%		11/29/00	11/29/00	DBC	1
	4-Bromofluorobenzene	104%	80-151%		11/29/00	11/29/00	DBC	1

	Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-10					Sample Number: 00-3068-003			
Date Sampled: 11/24/00					Sample Matrix: Liquid			
Time Sampled: 8:10					Sampled By: JS			
EPA 8021B	Benzene	< 1	µg/L	1	11/29/00	11/29/00	DBC	1
	Toluene	< 1	µg/L	1	11/29/00	11/29/00	DBC	1
	Ethylbenzene	< 1	µg/L	1	11/29/00	11/29/00	DBC	1
	Xylenes (Total)	< 3	µg/L	3	11/29/00	11/29/00	DBC	1
	Total BTEX (Calculated)	0	µg/L		11/29/00	11/29/00	DBC	1
	**Surrogates*				11/29/00	11/29/00	DBC	1
	Difluorobenzene	95%	74-116%		11/29/00	11/29/00	DBC	1
	4-Bromofluorobenzene	106%	80-151%		11/29/00	11/29/00	DBC	1

		Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-11						Sample Number: 00-3068-004			
Date Sampled: 11/24/00						Sample Matrix: Liquid			
Time Sampled: 8:30						Sampled By: JS			
EPA 8021B	Benzene	< 1	µg/L	1	11/29/00	11/29/00		DBC	1
	Toluene	< 1	µg/L	1	11/29/00	11/29/00		DBC	1
	Ethylbenzene	< 1	µg/L	1	11/29/00	11/29/00		DBC	1
	Xylenes (Total)	< 3	µg/L	3	11/29/00	11/29/00		DBC	1
	Total BTEX (Calculated)	0	µg/L		11/29/00	11/29/00		DBC	1
	**Surrogates*				11/29/00	11/29/00		DBC	1
	Difluorobenzene	94%	74-116%		11/29/00	11/29/00		DBC	1
	4-Bromofluorobenzene	107%	80-151%		11/29/00	11/29/00		DBC	1

		Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-15						Sample Number: 00-3068-005			
Date Sampled: 11/24/00						Sample Matrix: Liquid			
Time Sampled: 9:00						Sampled By: JS			
EPA 8021B	Benzene	< 1	µg/L	1	11/29/00	11/29/00		DBC	1
	Toluene	< 1	µg/L	1	11/29/00	11/29/00		DBC	1
	Ethylbenzene	< 1	µg/L	1	11/29/00	11/29/00		DBC	1
	Xylenes (Total)	< 3	µg/L	3	11/29/00	11/29/00		DBC	1
	Total BTEX (Calculated)	0	µg/L		11/29/00	11/29/00		DBC	1
	**Surrogates*				11/29/00	11/29/00		DBC	1
	Difluorobenzene	94%	74-116%		11/29/00	11/29/00		DBC	1
	4-Bromofluorobenzene	108%	80-151%		11/29/00	11/29/00		DBC	1

		Result	Units	Reporting Limit	Date Prepared	Date Analyzed	Flag	Analyzed By	Dilution
Client Sample ID: MW-13						Sample Number: 00-3068-006			
Date Sampled: 11/24/00						Sample Matrix: Liquid			
Time Sampled: 9:35						Sampled By: JS			
EPA 8021B	Benzene	< 1	µg/L	1	11/29/00	11/29/00		DBC	1
	Toluene	< 1	µg/L	1	11/29/00	11/29/00		DBC	1
	Ethylbenzene	< 1	µg/L	1	11/29/00	11/29/00		DBC	1
	Xylenes (Total)	< 3	µg/L	3	11/29/00	11/29/00		DBC	1
	Total BTEX (Calculated)	0	µg/L		11/29/00	11/29/00		DBC	1
	**Surrogates*				11/29/00	11/29/00		DBC	1
	Difluorobenzene	97%	74-116%		11/29/00	11/29/00		DBC	1
	4-Bromofluorobenzene	113%	80-151%		11/29/00	11/29/00		DBC	1

## Index of Narrative Footnotes

A - Sample received with headspace for volatile analysis.
B - Analyte detected in the associated method blank.
C - Sample received in unapproved containers.
D - Surrogate diluted out of range.
DNI - Sample does not ignite.
E - Result is above the linear range of the instrument and is to be considered an estimate.
H - Sample contains significant levels of heavy petroleum products > C28.
I - Sample was reported at a dilution with few or no reportable values as a result of matrix interference.
J - Value is a J-value and to be considered an estimate only.
L - Re-analysis was not possible due to limited sample amount.
M - Recoveries out of range due to matrix interferences inherent in sample.
N - Sample has presumptive compounds other than fuel products.
O - Sample received out of hold time.
P - Result is unconfirmed. The quantitative result from the primary column and secondary column did not agree within 40%.
RR - Sample being re-extracted due to failing surrogate or internal standard.
S - Analysis performed at subcontract laboratory.
T - Sample prepared or analyzed out of hold time.
V - Insufficient sample was available for analysis as prescribed by the method. The lesser amount used for analysis raised reporting limits accordingly.
X - Laboratory contamination suspected.
Y - Benzo(B) and Benzo(K) Fluoranthene did not resolve. Value was reported as Benzo(B)fluoranthene.
Z - Dilution was required due to the dark color and thickness of the extract.

\* - Analytical result reported on dry weight basis.

<b>BTEX - EPA 8021B</b>	<b>Benzene</b>	<b>Toluene</b>	<b>Ethyl- benzene</b>	<b>Xylenes</b>
<b>Matrix Spike</b>				
Batch Number	112900L4	112900L4	112900L4	112900L4
Date Prepared	11/29/00	11/29/00	11/29/00	11/29/00
Date Analyzed	11/29/00	11/29/00	11/29/00	11/29/00
Spiked Sample ID	2997-1	2997-1	2997-1	2997-1
Sample Measured Result	<1	<1	<1	<3
Spike Level (µg/L)	100	100	100	300
Spike Result (µg/L)	99.0	97.0	95.0	287
% Recovery	99	97	95	96
Spike Duplicate Result (µg/L)	102	101	100	301
% Recovery Duplicate	102	101	100	100
Relative Percent Difference (RPD)	3	4	5	5
RPD % Control Limits (low-high)	0-25	0-25	0-25	0-25
% Rec. Control Limits (low-high)	70-130	70-130	70-130	70-130
<b>Method Blank (µg/L)</b>	<1	<1	<1	<3
<b>Laboratory Control Sample</b>				
Spike Level (µg/L)	100	100	100	300
Spike Result (µg/L)	107	107	108	328
% Recovery	107	107	108	109
Spike Duplicate Result (µg/L)	109	110	110	334
% Recovery Duplicate	109	110	110	111
Relative Percent Difference (RPD)	2	3	2	2
RPD % Control Limits (low-high)	0-25	0-25	0-25	0-25
% Rec. Control Limits (low-high)	70-130	70-130	70-130	70-130

µg/l = micrograms per liter (ppb)

µg/kg = micrograms per kilogram (ppb)

< = less than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Sample

BS = Blank Spike

µmhos/cm = micromhos/centimeter

mg/l = milligrams per liter (ppm)

mg/kg = milligrams per kilogram (ppm)

% = percent

RPD = Relative Percentage Difference

RW - Reagent Water

LCSD = Laboratory Control Sample Duplicate

BSD = Blank Spike Duplicate

**Certes**  
 2209 Wisconsin Street, Suite 200  
 Dallas, Texas 75229  
 Environmental Laboratories (972) 620-7966 (972) 620-7963

Company: **H2A Environmental**  
 Contact (Report Recipient): **Theresa Nix**  
 Phone No.: **361-777-0860** Fax No.: **361-777-0971**  
 What type reporting feature would you like to use?  
 Fax: Yes  No  EDD: Yes  No

Company Address: **500 N. Carroll Ave. Suite 120 Southlake TX 76092**  
 Billing Address (If Different): **Same**

Turnaround Time:  
 Standard: Yes  No  RUSH: Yes  No   
 If RUSH: 1  2  3  5  Days?

Certes No.	Sample ID	Date	Time	Matrix	No. Type of Container		
					VOA	Glass	Other Plastic
1	MW-1	11-24	0730	Water	2X		
2	MW-5		0750				
3	MW-10		0810				
4	MW-11		0830				
5	MW-15		0900				
6	MW-13		0935				

Analysis(es) Requested (List specific method, if required):

Relinquished By (Signature): *John Savoir* Date: 11-27-00 Time: 1200  
 Relinquished By (Signature): *Monica Tolan* Date: 11-28-00 Time: 910

Relinquished By (Signature): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received for Laboratory By (Signature): *Monica Tolan*

Certes Job Number: **00-3068**

By Signing, you have agreed to our terms and agreements listed on the reverse side.