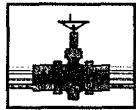


**AP - 54**

**ANNUAL  
MONITORING REPORT**

**YEAR(S):**

**2005**



# PLAINS ALL AMERICAN

March 20, 2006

Mr. Ed Martin  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Plains All American – Annual Monitoring Report  
One Site in Lea County, New Mexico

2006 MAR 27  
2006 MAR 27  
2006 MAR 27

Dear Mr. Martin:

Plains All American is an operator of crude oil pipelines and terminal facilities in the state of New Mexico. Plains All American actively monitors certain historical release sites exhibiting groundwater impacts, consistent with assessments and work plans developed in consultation with the New Mexico Oil Conservation Division (NMOCD). In accordance with the rules and regulations of the NMOCD, Plains All American hereby submits the Annual Monitoring report for the following site:

Hobbs Junction Mainline                           Section 26, Township 18 South, Range 37 East, Lea County

EPI prepared this document and has vouched for the accuracy and completeness. On behalf of Plains All American, I have personally reviewed the document and interviewed EPI in order to verify the accuracy and completeness of the document. It is based upon this inquiry and review that Plains All American submits the enclosed Annual Monitoring Report for the above-referenced facility.

If you have any questions or require further information, please contact me at (505) 441-0965.

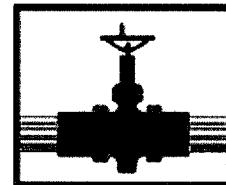
Sincerely,

*Camille Reynolds*

Camille Reynolds  
Remediation Coordinator  
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosure



**PLAINS**  
ALL AMERICAN  
PIPELINE, L.P.

*Entire Report  
is on the  
L-Drive*

## 2005 ANNUAL MONITORING REPORT

Hobbs Junction Mainline  
Ref. # 2003-00017  
(Company #231735)

UL-M of Section 26, R37E, T18S  
Latitude 32°42'40.85"N and Longitude 103°13'42.01"W  
Elevation ~3,372'amsl

3 miles west of Hobbs, Lea County, New Mexico

February 2006

Prepared by

Environmental Plus, Inc.  
2100 West Avenue O  
P.O. Box 1558  
Eunice, New Mexico 88231  
Tele 505•394•3481 FAX 505•394•2601  
(pmccasland@envplus.net)



## Distribution List

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### 2005 Annual Monitoring Report Hobbs Junction Mainline (ref. # 2003-00017)

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file		Environmental Plus, Inc.	P.O. Box 1558 Eunice, NM 88231	pmccasland@envplus.net

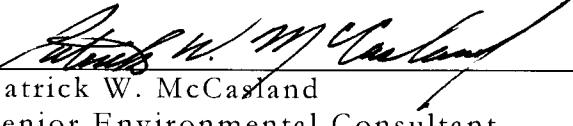
## STANDARD OF CARE

## 2005 ANNUAL MONITORING REPORT

Hobbs Junction Mainline  
Ref. # 2003-00017  
(Company #231735)

The information provided in this report was collected consistent with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993), the NMOCD Unlined Surface Impoundment Closure Guidelines (February 1993), and the Environmental Plus, Inc. (EPI) Standard Operating Procedures and Quality Assurance/Quality Control Plan. The conclusions are based on field observations and laboratory analytical reports as presented in the report. Recommendations follow NMOCD guidance and represent the professional opinions of EPI staff. These opinions were arrived at with currently accepted geologic, hydrogeologic and engineering practices at this time and location. The report was prepared or reviewed by a certified or registered EPI professional with a background in engineering, environmental and/or the natural sciences.

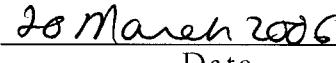
This report was prepared by:

  
Patrick W. McCasland  
Senior Environmental Consultant

  
Date

This report was reviewed by:

  
Iain A. Olness, P.G.  
Hydrogeologist

  
Date

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## 1.0 BACKGROUND

This release originated in UL-M (SW $\frac{1}{4}$  of the SW $\frac{1}{4}$ ) of Section 26 at a latitude of 32°42'40.85"N and a longitude of 103°13'42.01"W, approximately 3 miles west of Hobbs, Lea County, New Mexico on land owned by the State of New Mexico and spread south into UL-D (NW $\frac{1}{4}$  of the NW $\frac{1}{4}$ ) of Section 35 in Range 37 East, Township 18 South, property owned by Faye Klein (reference *Figure 1*, *Figure 2* and *Figure 3*). The estimated 50 barrel crude oil leak, affecting approximately 12,500 square feet (ft $^2$ ) (50' x 470') of surface area and attributed to internal corrosion, occurred on January 23, 2003 in the 10" steel pipeline with 24 barrels of crude oil recovered and reintroduced to the system. A limited amount of impacted soil in the area of the leak origin was excavated and stockpiled on a plastic barrier on site during pipe repair. During excavation activities it was also observed that a historical spill or spills had occurred at the site. During site delineation activities in February 2003, crude oil was found to have impacted groundwater situated approximately 40-feet below ground surface (bgs). In June 2003, with approval from the New Mexico Oil Conservation Division (NMOCD) and the landowners, monitoring wells MW-1 through MW-6 were installed and found to be impacted with phase separated hydrocarbons (PSH). Weekly product recovery and site surveillance began in June 2003. In August 2003, a remote gasoline powered product recovery system was deployed and in October 2003, electrical power was installed at the site and a skid mounted recovery system deployed. To bound the areal extents of PSH and dissolved phase hydrocarbon impacts, monitor wells MW-7 through MW-13 were installed in January 2004. MW-12, south of the leak origin was impacted with PSH. Monitoring wells MW-7 through MW-11 and MW-13 were not impacted by PSH or dissolved phase hydrocarbons. MW-13 is installed between the leak origin and the private irrigation well located approximately 620' west of the leak origin. In May 2004, with approval from the NMOCD and the landowners, monitoring wells MW-14 and MW-17 were installed as interior recovery wells and monitoring wells MW-15 and MW-16 installed to delineate the southern extents of the dissolved phase plume. Routine monitoring activities include; documenting changes in water and PSH levels, quarterly sampling of the groundwater monitoring wells not impacted with PSH and the Klein irrigation well, routine site reconnaissance, maintenance of the continuous product recovery system and management of produced fluids.

## 2.0 FIELD ACTIVITIES

Site visits occurred at least three times per week to inspect and maintain the PSH recovery system and manage produced fluids. The monitoring wells not impacted with PSH were sampled on March 31, May 23, August 17, and November 14, 2005. Prior to collecting the laboratory sample, depth to groundwater and PSH were measured. To allow the groundwater and PSH levels to stabilize and ensure representative and comparable measurements, the PSH recovery system was shutdown at least 48-hours prior to collecting water level information.

## 3.0 GROUNDWATER GRADIENT AND PSH THICKNESS

The area groundwater gradient is generally to the southeast and was interpolated from area water well information from the New Mexico Office of the State

Engineer. The site gradient remains consistent with the area groundwater gradient (reference *Figure 27, Figure 29, Figure 31 and Figure 33*). Stabilized PSH thicknesses in the impacted wells declined during 2005, ranging up to 2.14-feet decline in monitoring well MW-3. Cumulative PSH thickness declines, (i.e., declines recorded since inception of the PSH recovery program in 2003) range from 4.95-feet declines in monitoring well MW-3 to 0.04-feet decline in monitoring well MW-14. (reference *Table 2, Figures 23 through 26 and Figure 28, Figure 30, Figure 32 and Figure 34*).

## 4.0 PSH RECOVERY

In 2005, approximately 13,566 gallons of crude oil were recovered and reintroduced into the Plains Pipeline, L.P. pipeline system. The total recovery volume as of December 31, 2005, including 25,010 gallons recovered in 2003 and 2004, is 38,576 gallons (918.5 bbls). Approximately 24,696 gallons of groundwater accumulated during well development, purging activities prior to quarterly monitoring well sampling and incidental production during crude oil recovery activities have been disposed of off-site in NMOCD permitted disposal facilities.

## 5.0 GROUNDWATER SAMPLING AND ANALYTICAL RESULTS

PSH impacted monitoring wells (i.e., MW-1 through MW-6, MW-12, MW-14, and MW-17) were not sampled in 2005. Sampling events occurred on March 31, May 23, August 17, and November 14, 2005. Each well sampled was purged a minimum of 3 well volumes or dry prior to collecting the laboratory samples. The monitoring well samples were submitted to an independent laboratory during each sampling event for quantification of benzene, toluene, ethylbenzene, and total xylenes (BTEX) with polynuclear aromatic hydrocarbons (PAHs) analyses included in the May 23, 2005 sampling event. In addition to routine sampling of the site monitoring wells, the Klein irrigation well, located approximately 620-feet west of the leak origin, was sampled during the March 31, 2005 sampling event (reference *Figures 5 through 21, Table 3, Table 4 and Appendix I*).

### 5.1 GROUNDWATER MONITORING WELLS MW-1 THROUGH MW-6, MW-12, MW-14, AND MW-17

Groundwater monitoring wells MW-1 through MW-6, MW-12, MW-14 and MW-17 were not sampled in 2005 due to the presence of PSH.

### 5.2 GROUNDWATER MONITORING WELL MW-7

The BTEX and PAH compounds were not detected at or above the respective method detection limits (MDLs) during 2005.

### 5.3 GROUNDWATER MONITORING WELL MW-8

The BTEX and PAH compounds were not detected at or above the respective MDLs during 2005.

#### **5.4 GROUNDWATER MONITORING WELL MW-9**

The BTEX and PAH compounds were not detected at or above the respective MDLs during 2005.

#### **5.5 GROUNDWATER MONITORING WELL MW-10**

Benzene concentrations ranged from non-detectable at or above the 0.05 µg/L MDL to 11.9 µg/L, in excess of the WQCC groundwater standard of 10.0 µg/L. Toluene, ethylbenzene and total xylenes and the PAH compounds were not detected at or above the respective MDLs.

#### **5.6 GROUNDWATER MONITORING WELL MW-11**

Benzene concentrations ranged from 1,010 µg/L to 24,000 µg/L and were in excess of the WQCC groundwater standard of 10.0 µg/L. Toluene concentrations ranged from 831 µg/L to 7,450 µg/L and were in excess of the WQCC groundwater standard of 750 µg/L. Ethylbenzene concentrations ranged from 1,400 µg/L to 2,240 µg/L and were in excess of the 750 µg/L WQCC groundwater standard. Total xylenes concentrations ranged from 1,197 µg/L to 1,945 µg/L and were in excess of the 620 µg/L WQCC groundwater standard. Of the semi-volatile organic PAH compounds, only fluorene was detected above the 0.05 µg/L MDL, (i.e., 0.056 µg/L) and was less than the 30.0 µg/L WQCC groundwater standard.

#### **5.7 GROUNDWATER MONITORING WELL MW-13**

Benzene concentrations ranged from 1.04 µg/L to 1.50 µg/L and were not in excess of the WQCC groundwater standard of 10.0 µg/L. Toluene, ethylbenzene and total xylenes were not detected at or above the respective MDLs. The semi-volatile organic, PAH compounds, were detected above the laboratory MDL of 0.050 µg/L but were less than the 30.0 µg/L WQCC groundwater standard.

#### **5.8 GROUNDWATER MONITORING WELL MW-15**

Benzene concentrations ranged from 1.04 µg/L to 8,860 µg/L and were in excess of the WQCC groundwater standard of 10.0 µg/L. Toluene concentrations ranged from 10.4 µg/L to 14.9 µg/L and were not in excess of the WQCC groundwater standard of 750 µg/L. Ethylbenzene concentrations ranged from not detected at or above the MDL to 34.1 µg/L and were not in excess of the 750 µg/L WQCC groundwater standard. The total xylene concentrations ranged from 23.9 µg/L to 265 µg/L and were not in excess of the 620.0 µg/L WQCC groundwater standard. The PAH compounds were not detected at or above the 0.050 µg/L MDL.

#### **5.9 GROUNDWATER MONITORING WELL MW-16**

Benzene concentrations ranged from 2.42 µg/L to 7.12 µg/L, but were below the WQCC groundwater standard of 10.0 µg/L. Toluene, ethylbenzene and total xylenes were not detected above the respective MDLs. The PAH compounds were not detected at or above the 0.050 µg/L MDL.

## 5.10 KLEIN IRRIGATION WELL

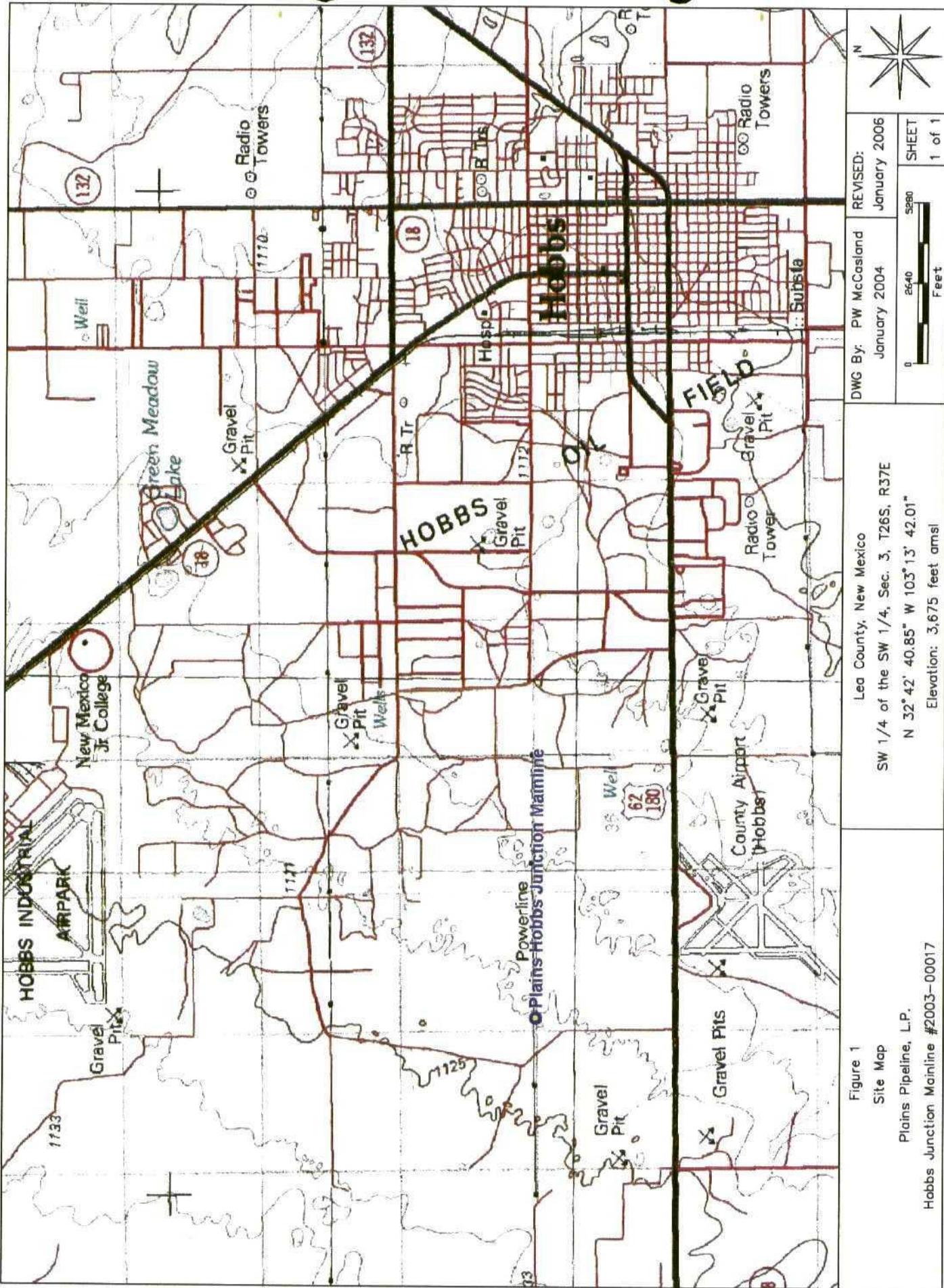
The BTEX compounds were not detected at or above the MDLs in this irrigation well during 2005.

## 6.0 STATUS AND RECOMMENDATIONS

Based on field monitoring and analytical results collected during the past year, the following recommendations are being made (reference *Table 5*):

- 1) Continue to monitor the system on a semi-weekly basis to record water and PSH levels, maintain the PSH recovery system, and inspect the site.
- 2) Install additional groundwater monitoring wells, as approved by the NMOCD in 2005, to further delineate the lateral extent of the dissolved phase groundwater impacts. The proposed location of monitoring well MW18 is approximately 75-feet south of monitoring well MW-16 and proposed monitoring well MW-19 is approximately 75-feet south of monitoring well MW-15 (reference *Figure 34*).
- 3) Install one additional groundwater monitoring well to further delineate the lateral extent of the dissolved phase groundwater impacts. The proposed location of monitoring well MW-20 is approximately 75-feet southeast (down-gradient) of monitoring well MW-11 (reference *Figure 34*).
- 4) Continue to sample the groundwater monitoring wells that do not have eight consecutive quarters of results below the WQCC groundwater standards and not impacted with PSH on a quarterly basis. The samples shall be submitted for quantification of BTEX for each sampling event and PAH during the initial sampling event of 2006.
- 5) Reduce sampling frequency from quarterly to annually for groundwater monitoring wells with eight consecutive quarters of results below the WQCC groundwater standards, (i.e., groundwater monitoring wells MW-7, MW-8, MW-9 and MW-13), analyzing for BTEX and the PAH parameters.
- 6) Sample the up-gradient Klein irrigation well annually. If impact is detected during quarterly monitoring of perimeter monitoring well MW-13, located between the leak origin and the Klein irrigation well, the Klein irrigation well will be sampled and analyzed for BTEX and PAH immediately, quarterly for BTEX and annually for PAH thereafter.
- 7) Develop an interim soil remediation plan and submit it to the NMOCD prior to the end of the second quarter of 2006.

## FIGURES



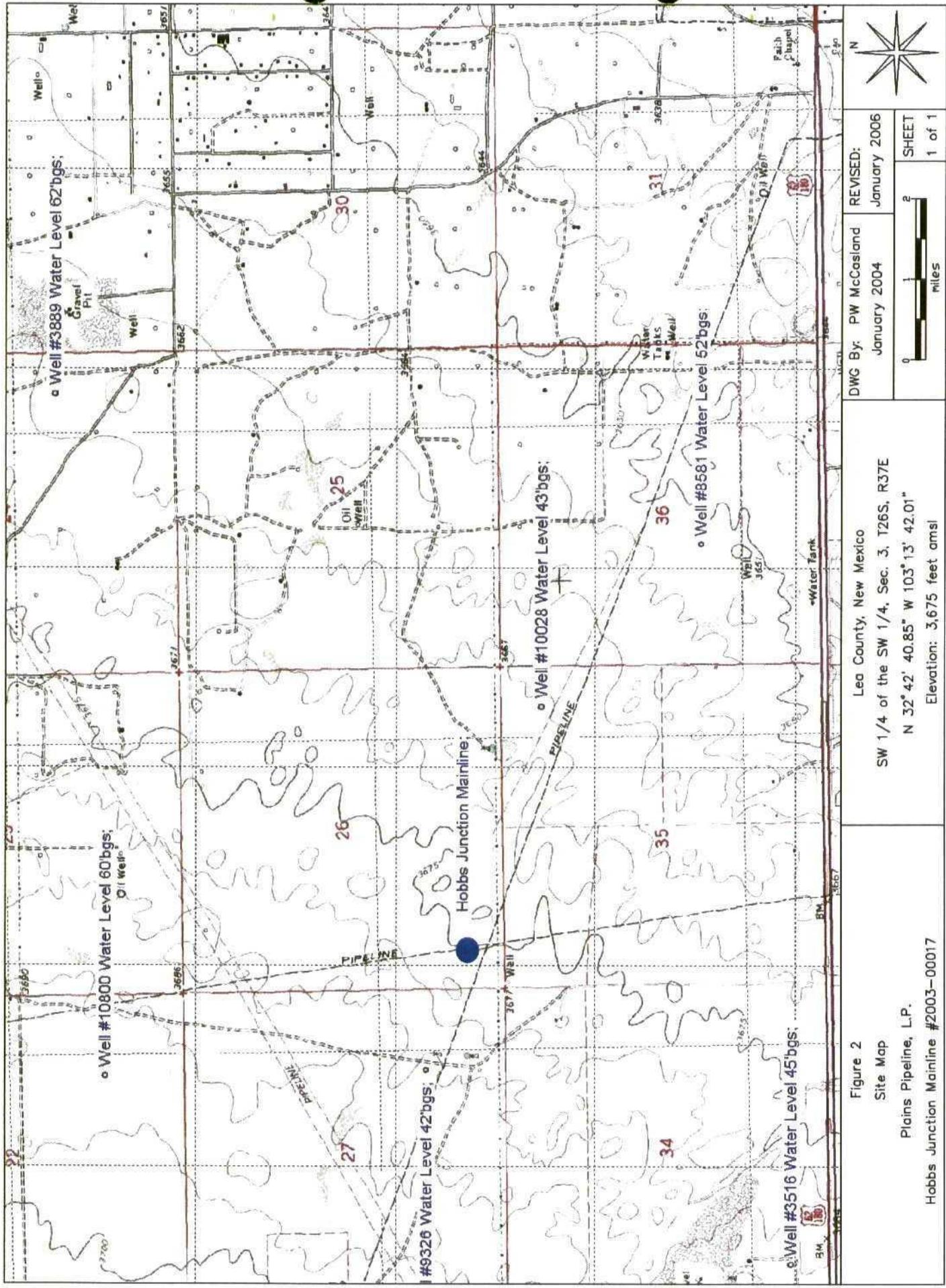


Figure 2  
Site Map  
Plains Pipeline, L.P.  
Hobbs Junction Mainline #2003-00017

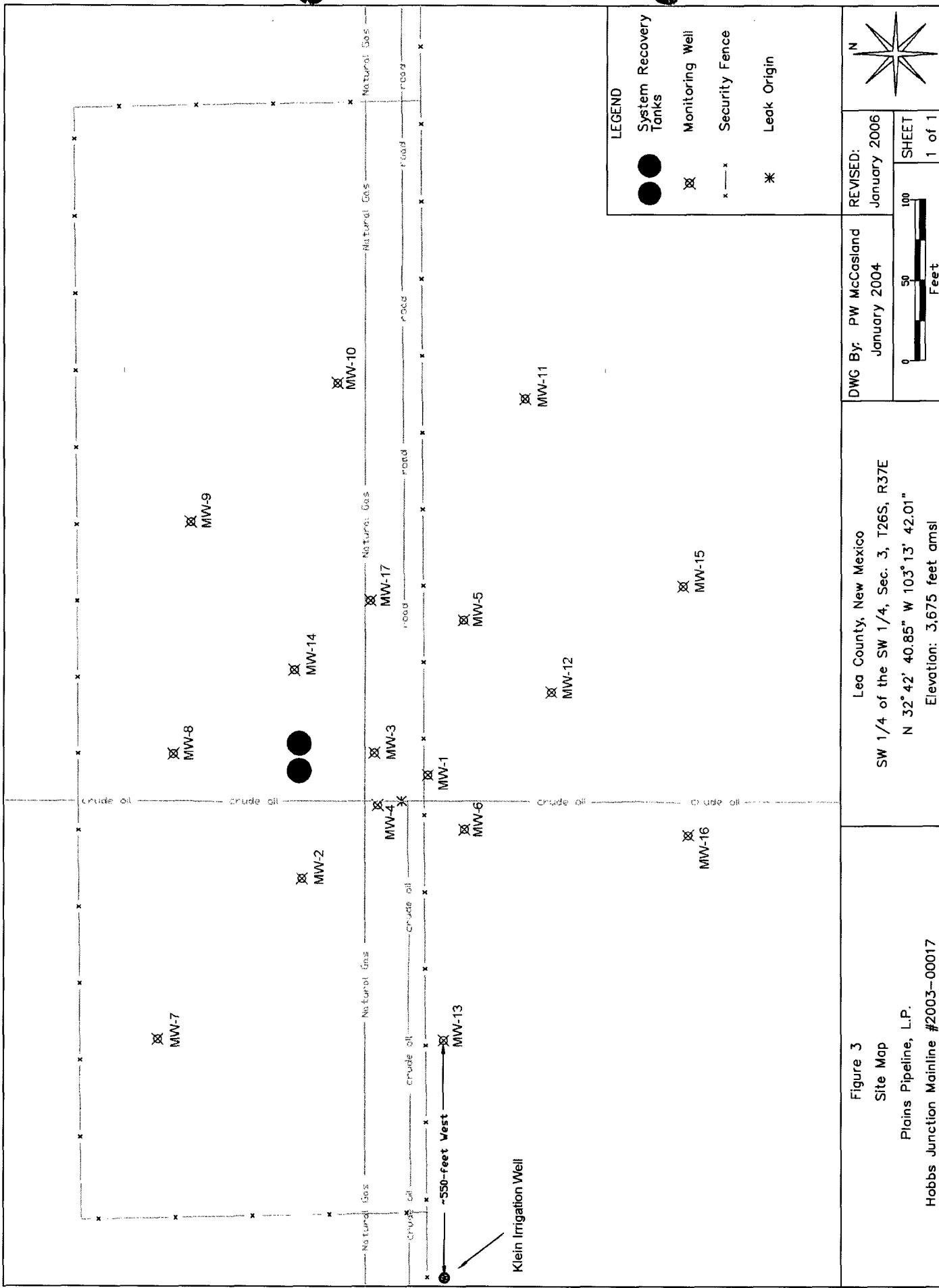


Figure 3  
Site Map  
Plains Pipeline, L.P.  
Hobbs Junction Mainline #2003-000017

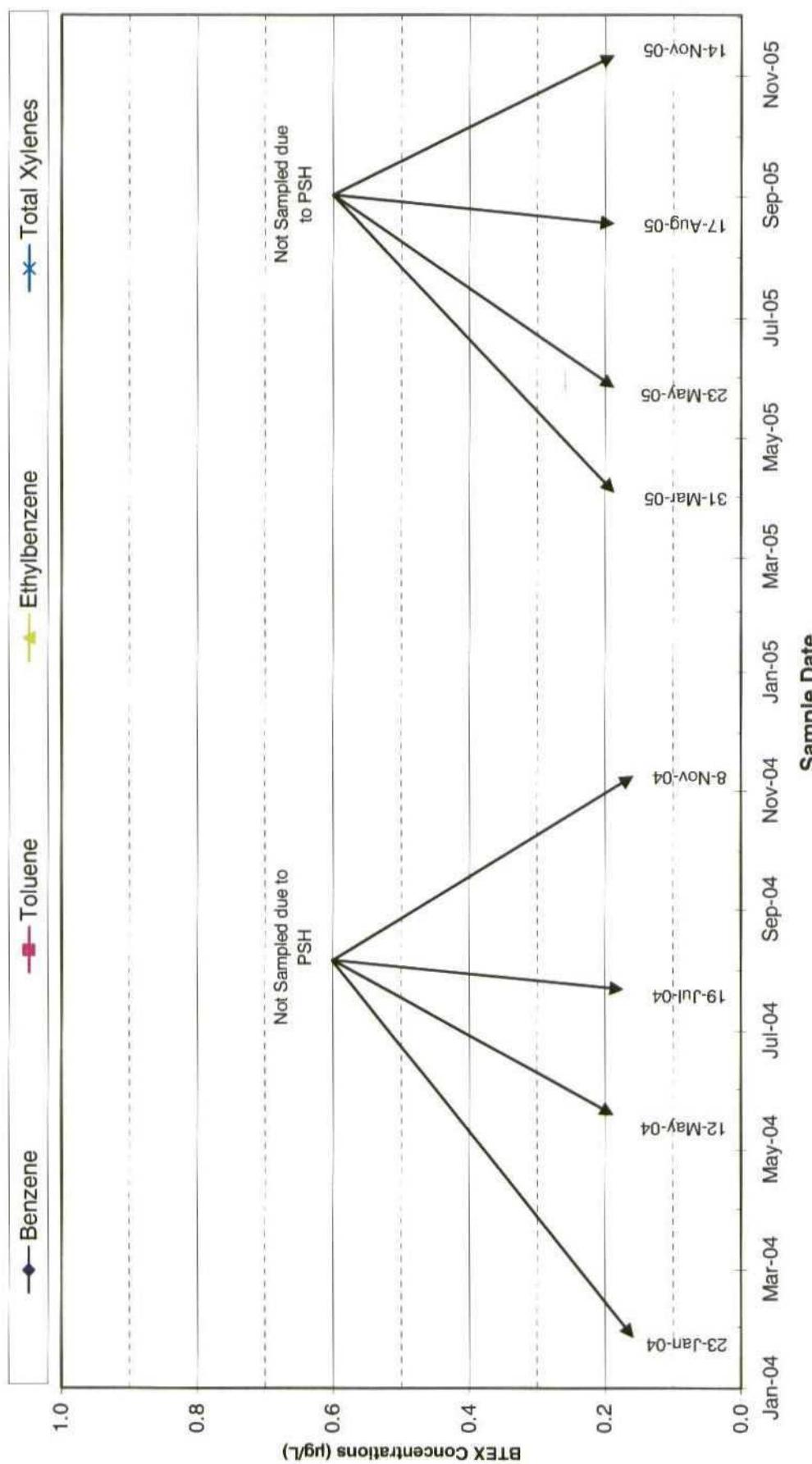
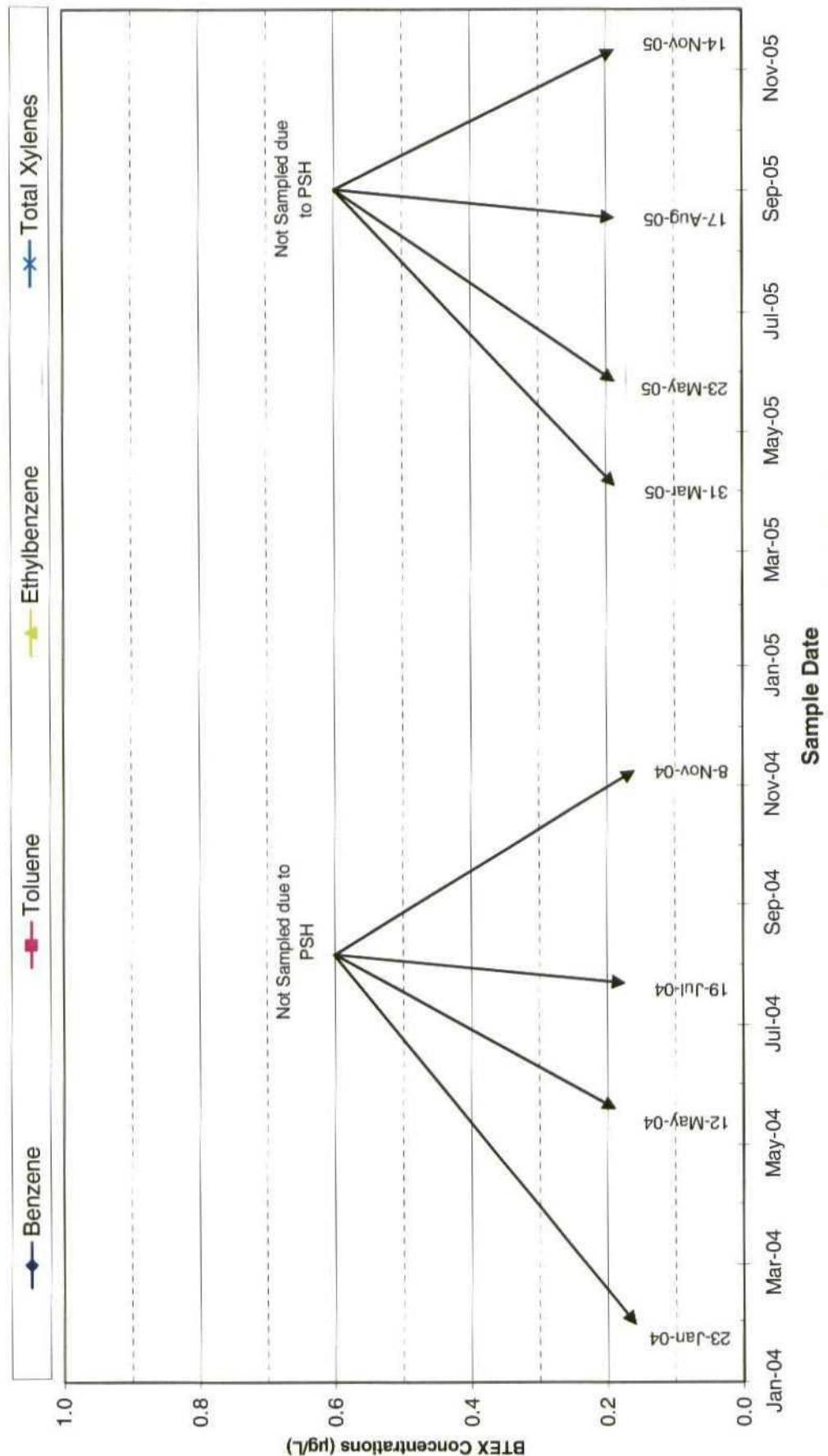
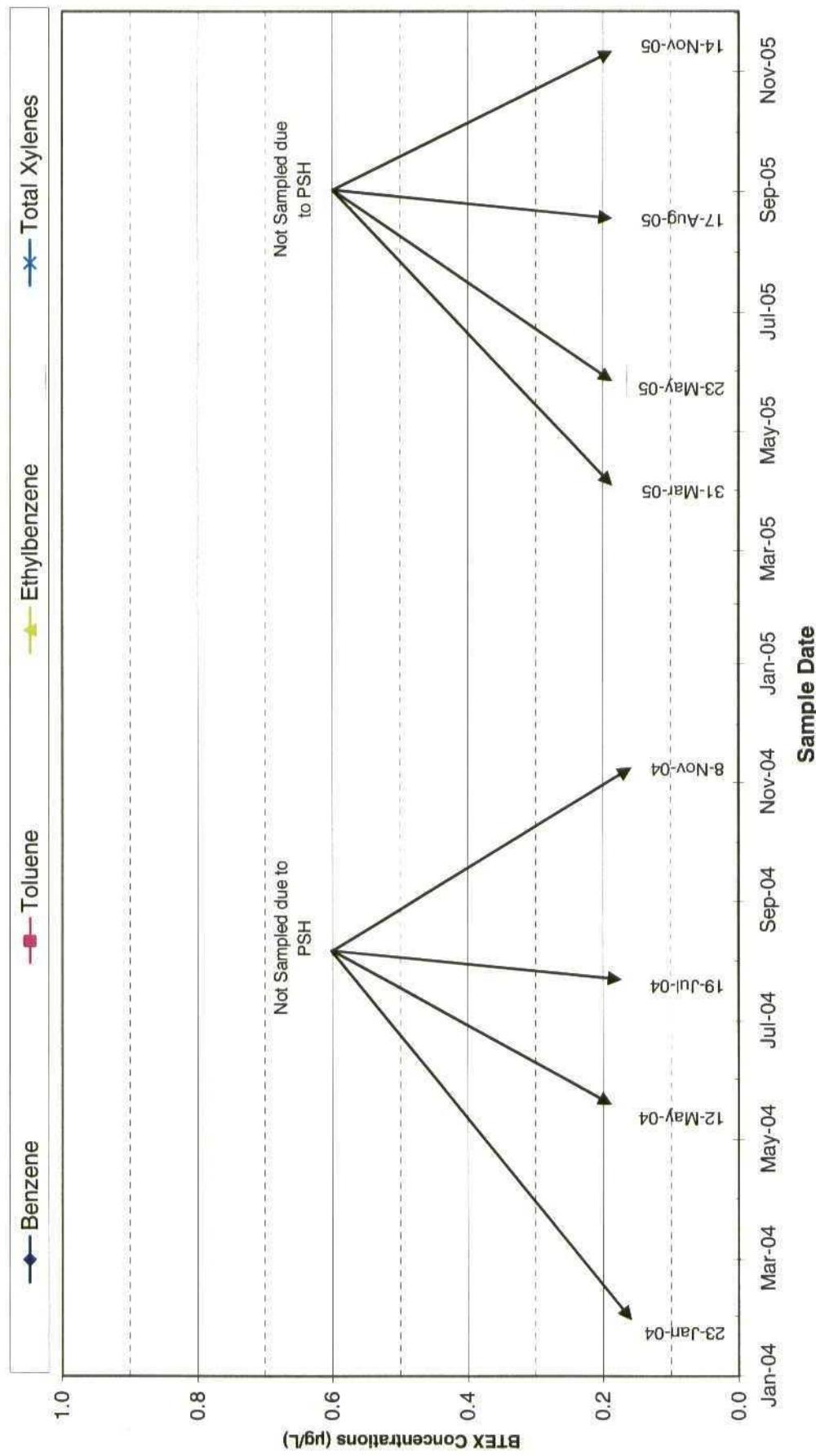


Figure 4: BTEX Concentrations in Groundwater Monitoring Well MW-1, from 1-23-04 to 12-31-05,  
Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico



**Figure 5: BTEX Concentrations in Groundwater Monitoring Well MW-2, from 1-23-04 to 12-31-05, Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-000017), Lea County, New Mexico**



**Figure 6: BTEX Concentrations in Groundwater Monitoring Well MW-3, from 1-23-04 to 12-31-05, Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico**

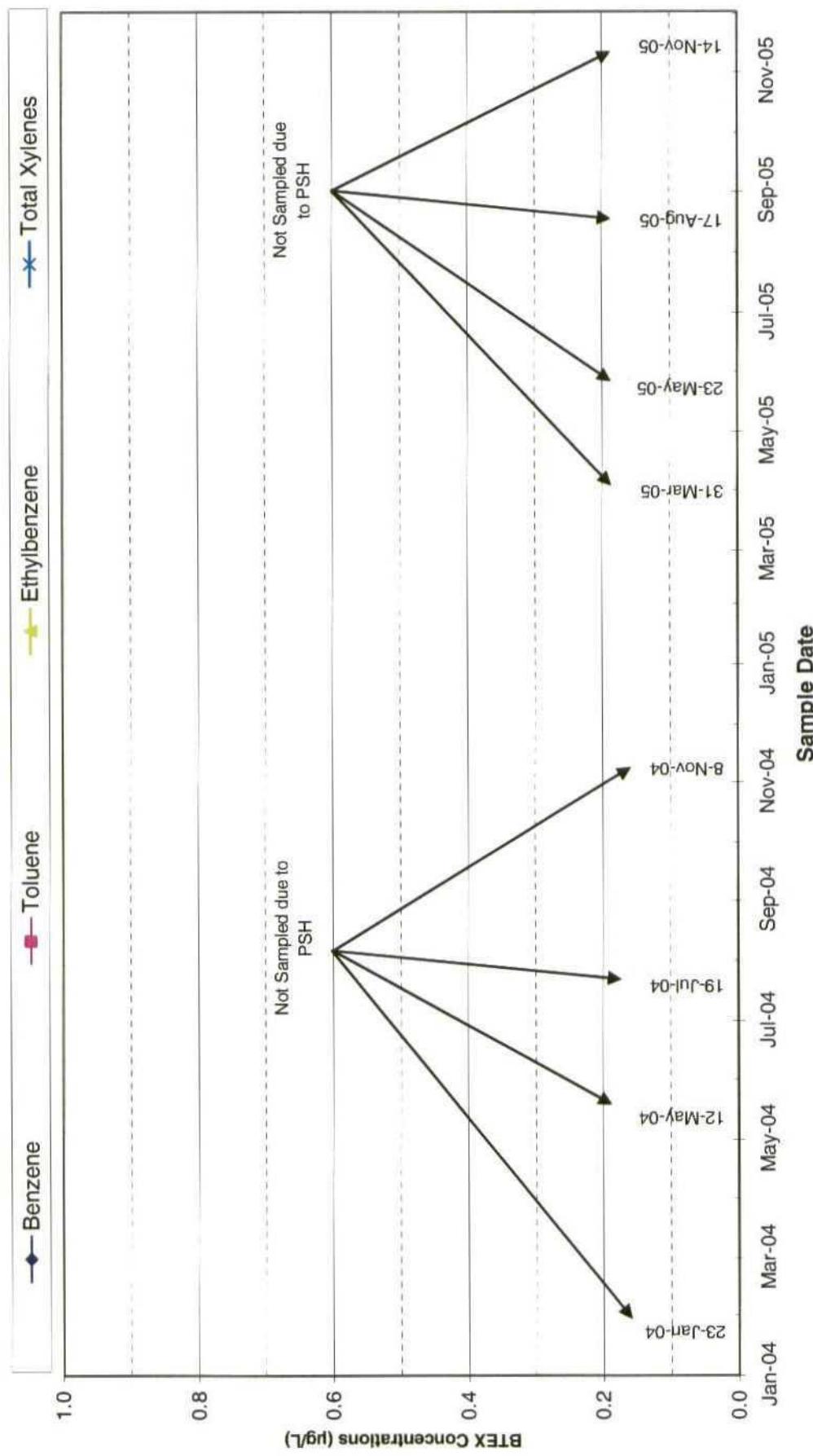
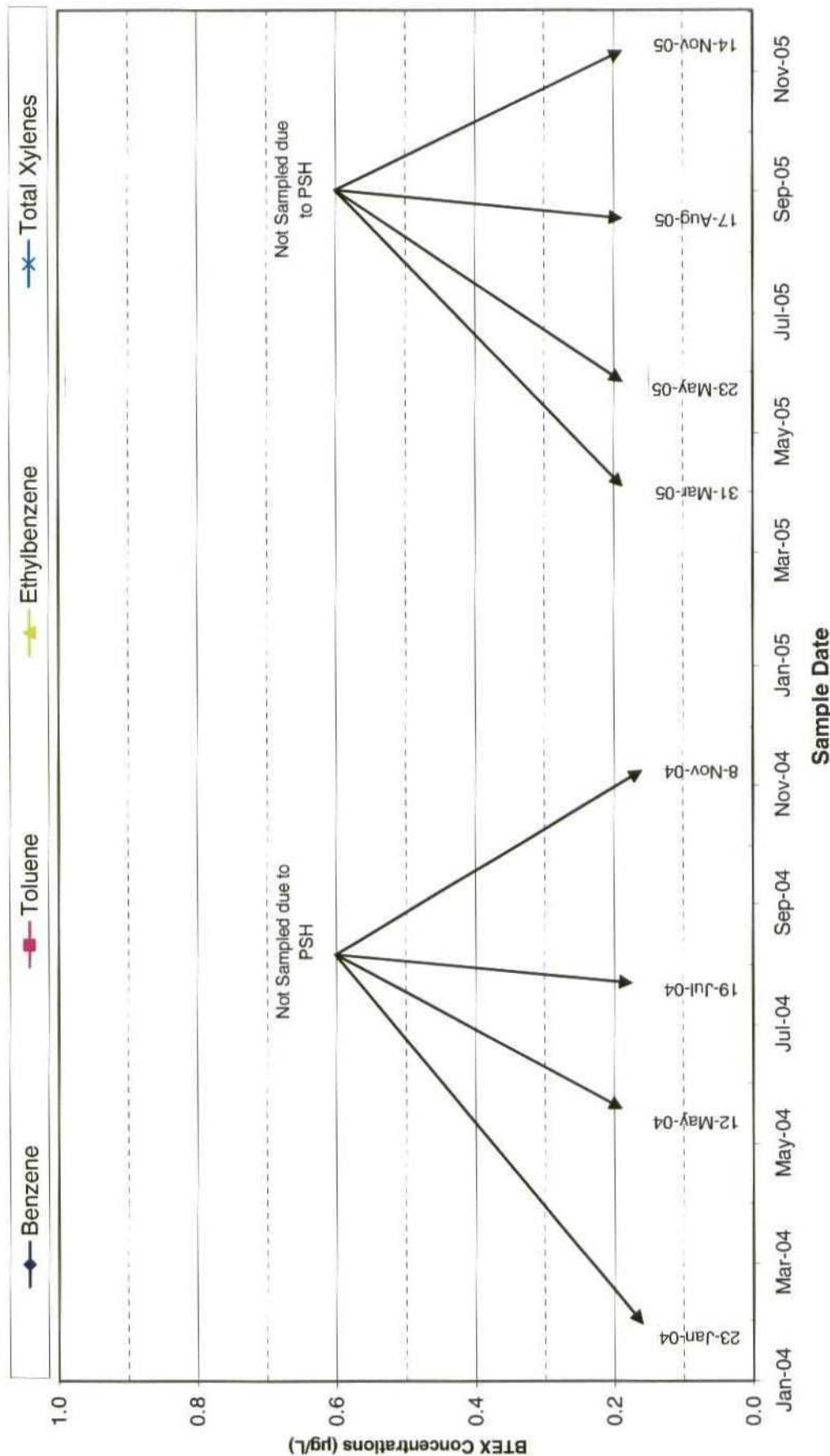
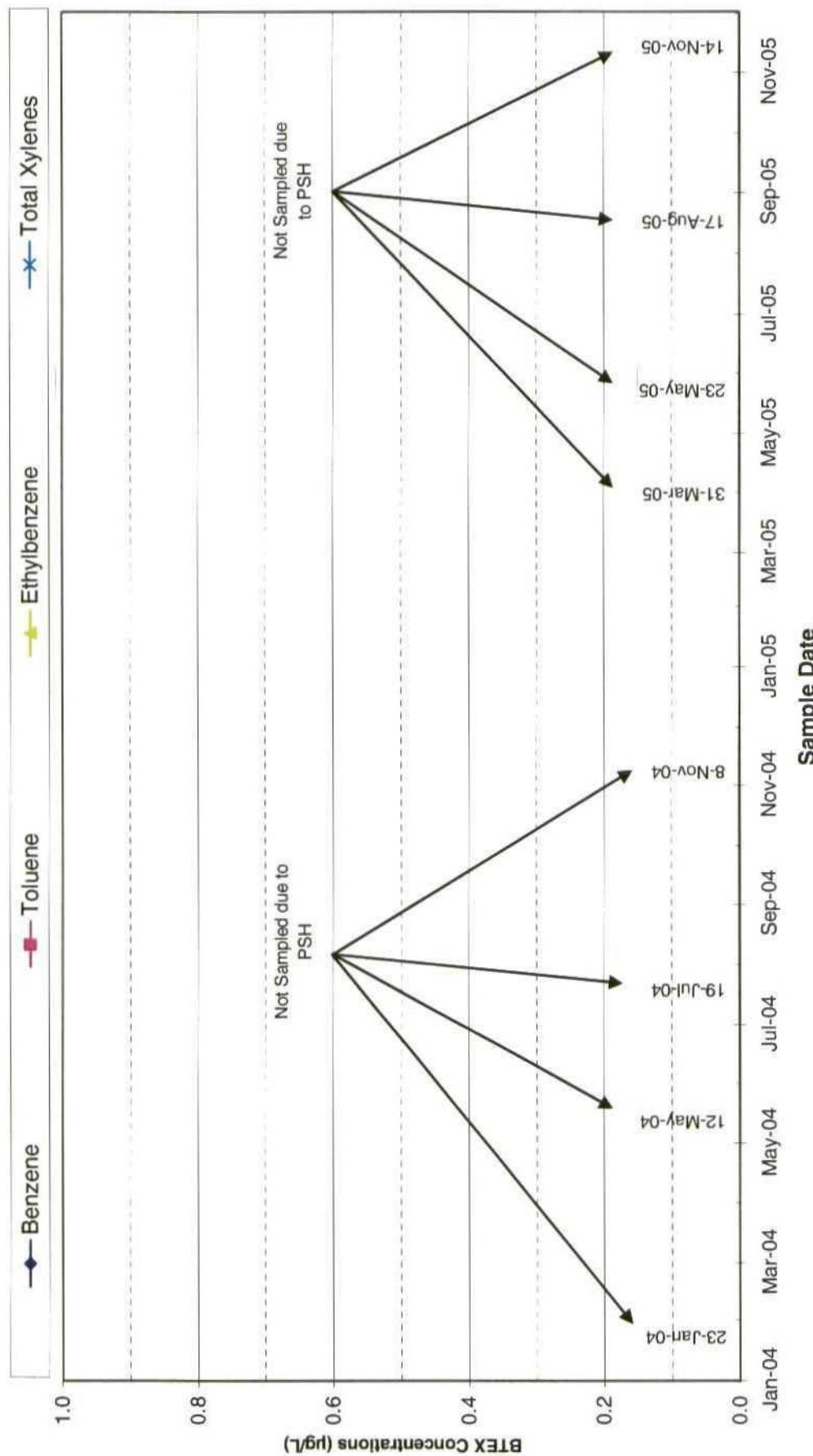


Figure 7: BTEX Concentrations in Groundwater Monitoring Well MW-4, from 1-23-04 to 12-31-05, Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico



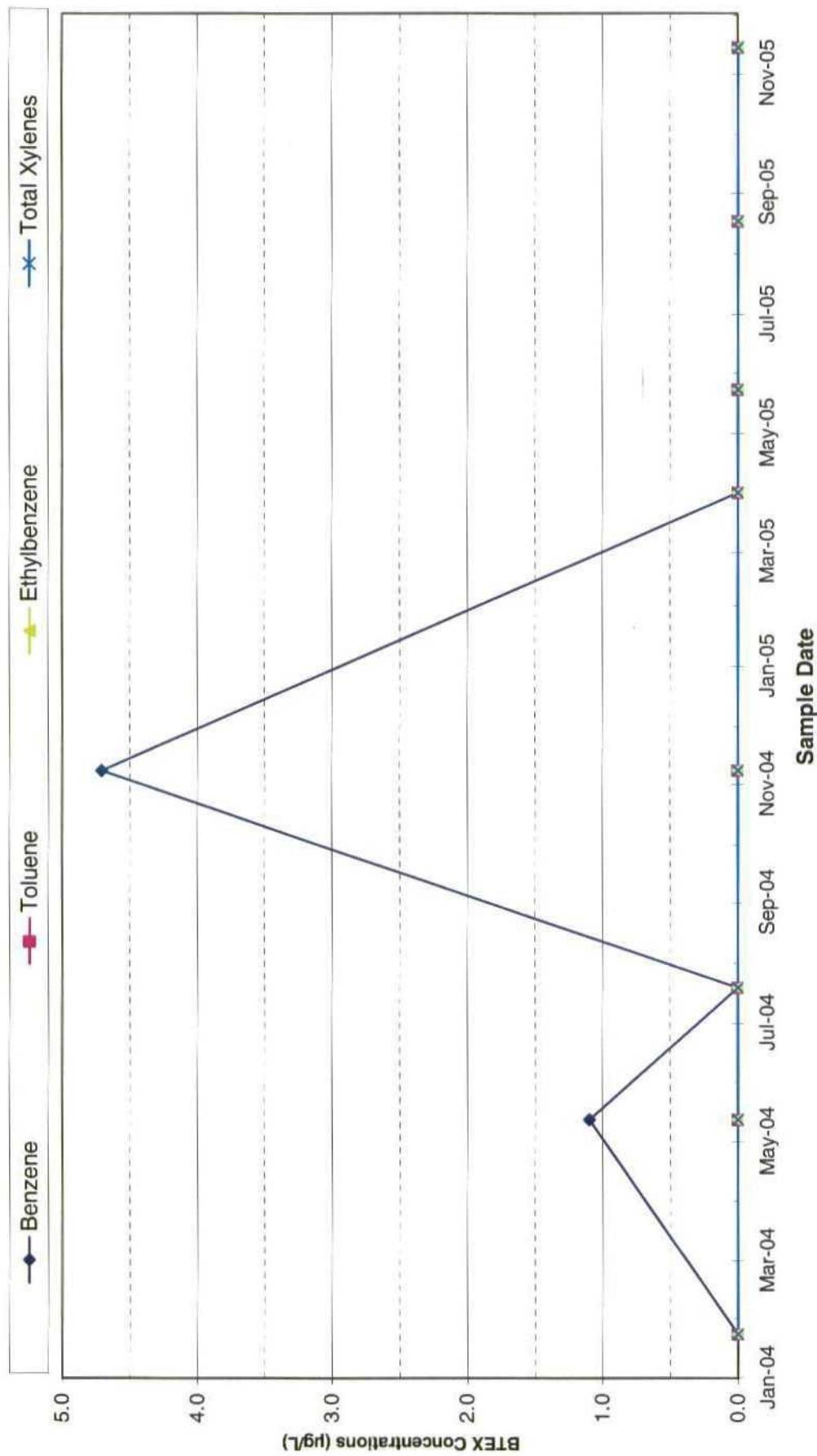
**Figure 8: BTEX Concentrations in Groundwater Monitoring Well MW-5, from 1-23-04 to 12-31-05,  
Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico**



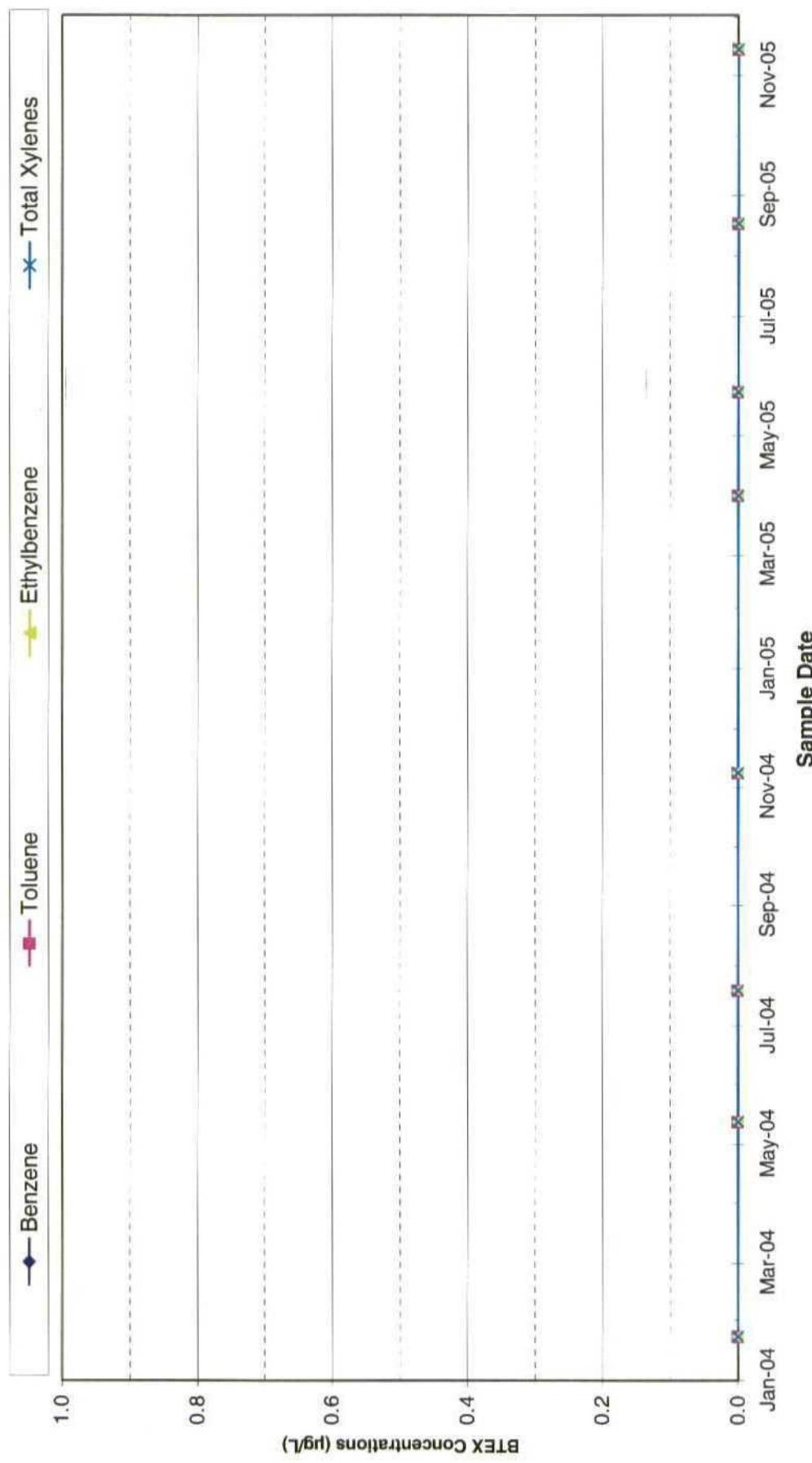
**Figure 9: BTEX Concentrations in Groundwater Monitoring Well MW-6, from 1-23-04 to 12-31-05, Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico**



**Figure 10:** BTEX Concentrations in Groundwater Monitoring Well MW-7, from 1-23-04 to 12-31-05,  
Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-000017), Lea County, New Mexico



**Figure 11:** BTEX Concentrations in Groundwater Monitoring Well MW-8, from 1-23-04 to 12-31-05, Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico



**Figure 12: BTEX Concentrations in Groundwater Monitoring Well MW-9, from 1-23-04 to 12-31-05, Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico**

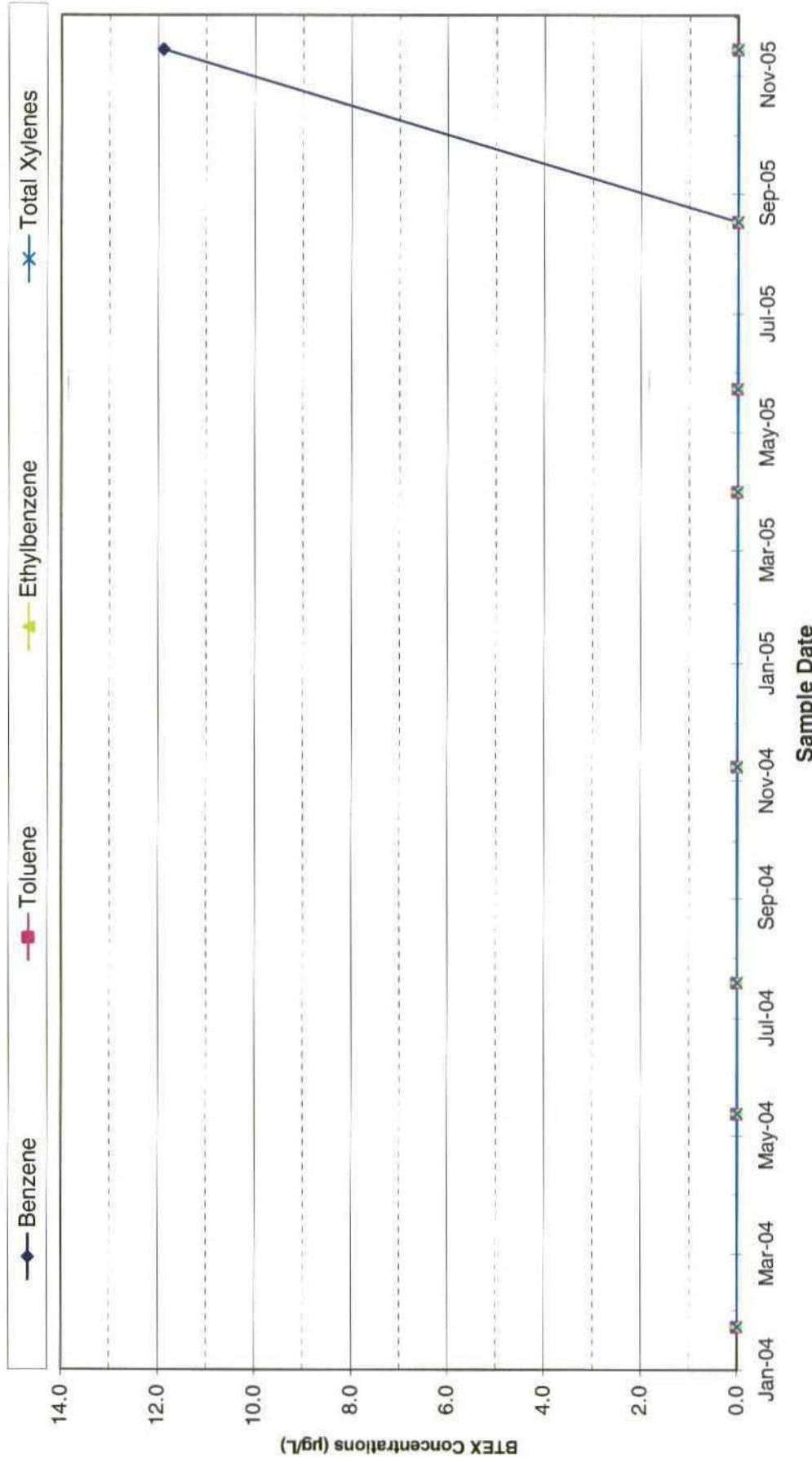


Figure 13: BTEX Concentrations in Groundwater Monitoring Well MW-10, from 1-23-04 to 12-31-05,  
Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico

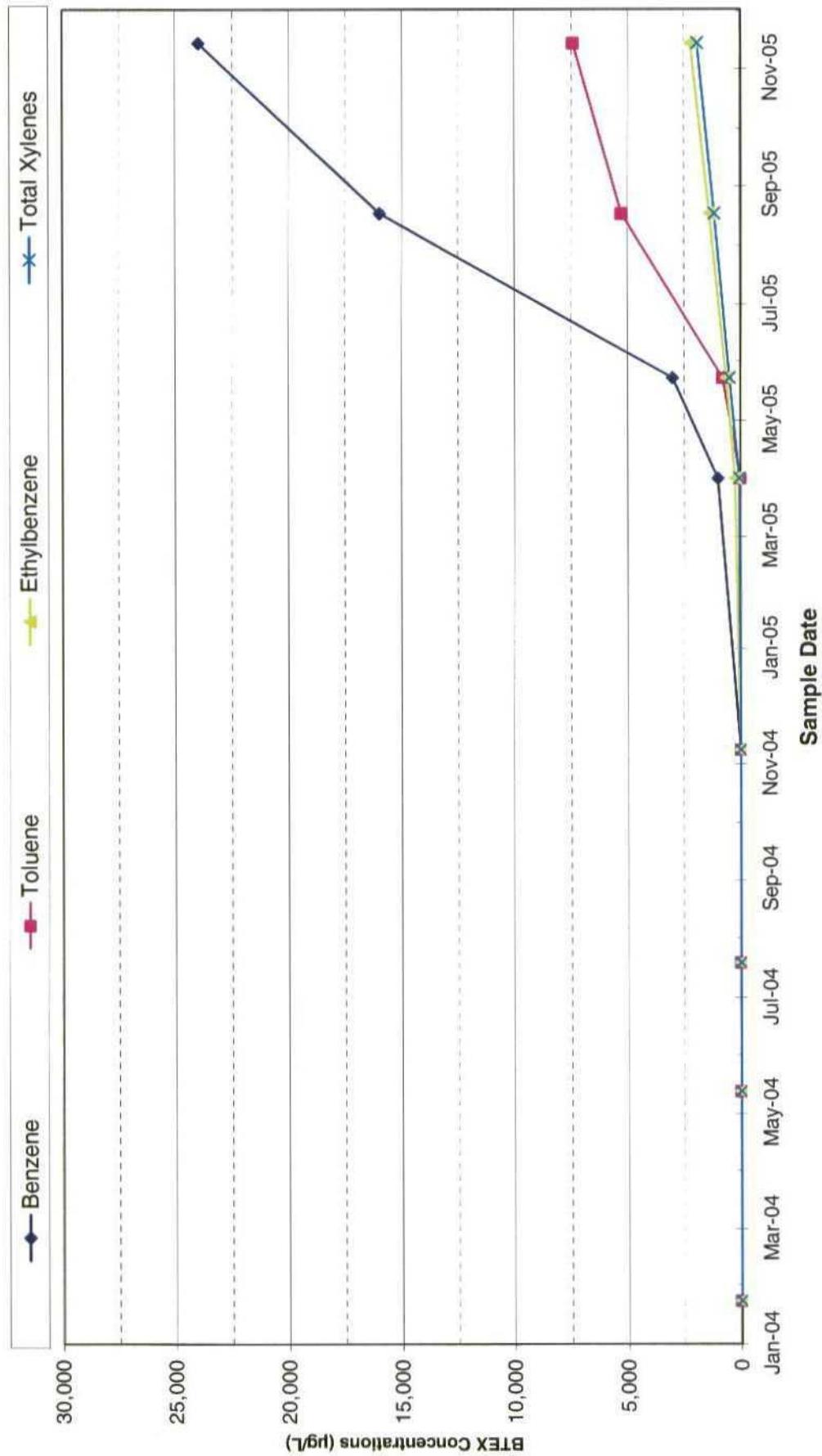
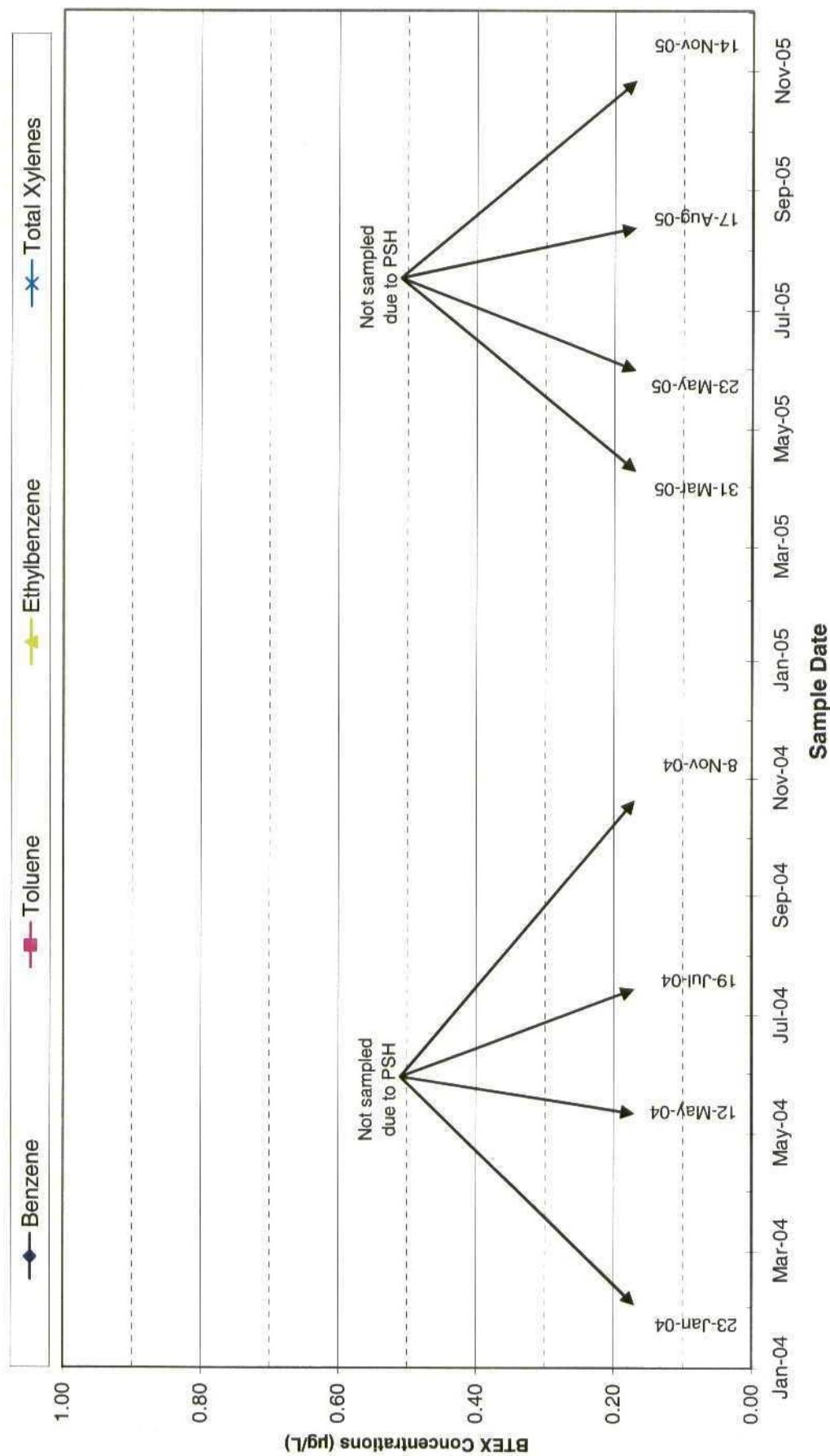
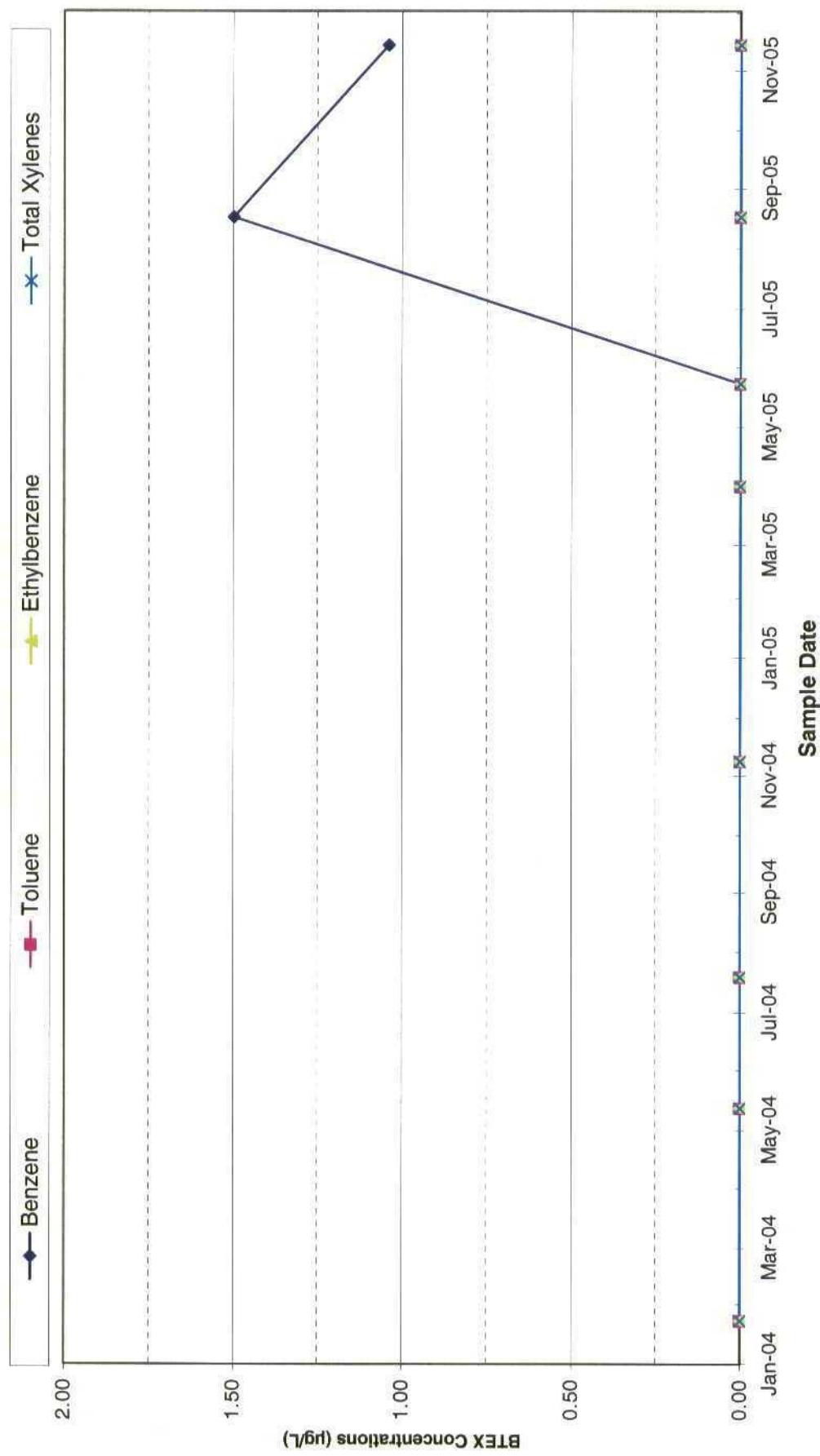


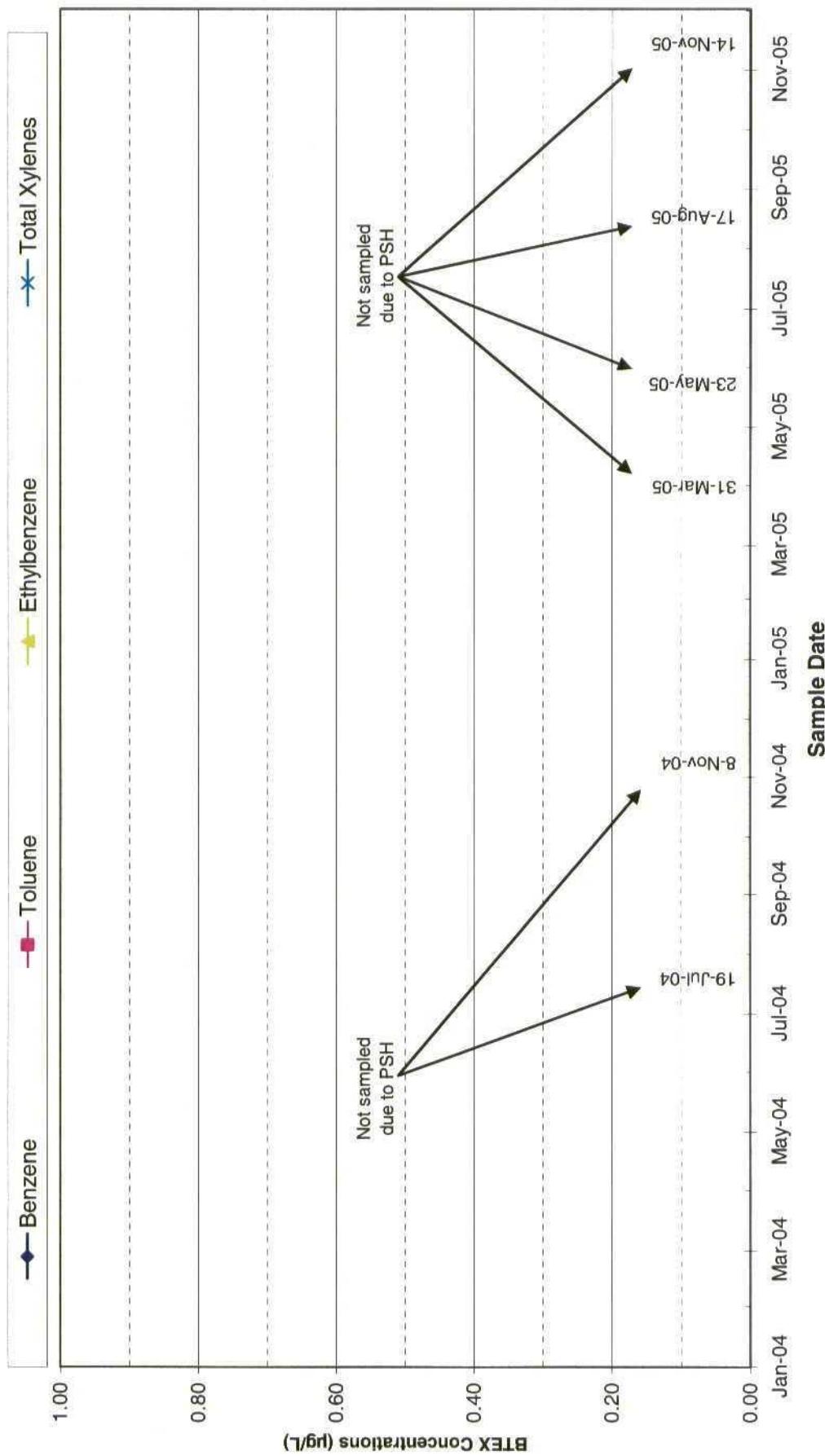
Figure 14: BTEX Concentrations in Groundwater Monitoring Well MW-11, from 1-23-04 to 12-31-05, Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-000017), Lea County, New Mexico



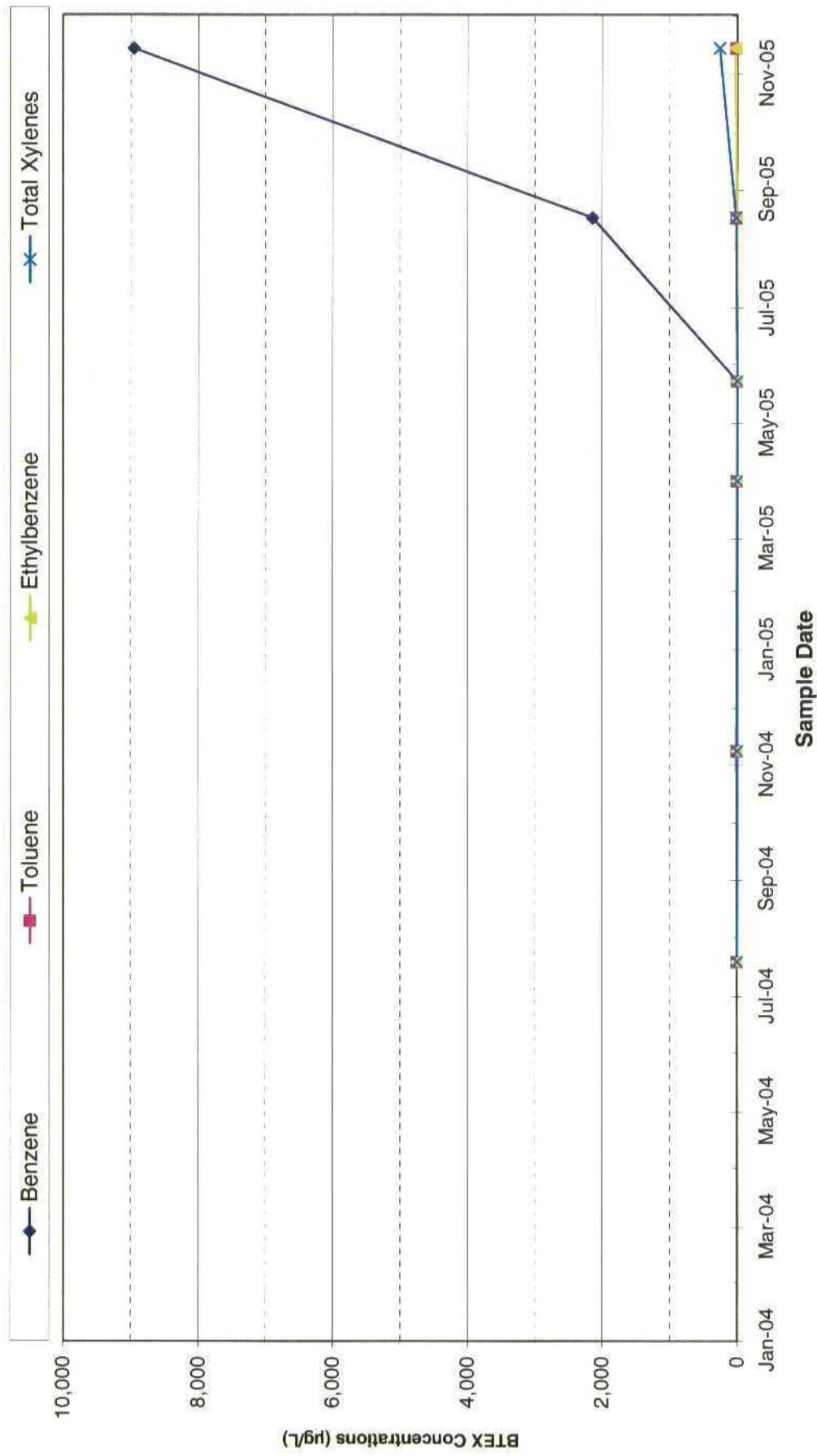
**Figure 15:** BTEX Concentrations in Groundwater Monitoring Well MW-12, from 1-23-04 to 12-31-05, Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico



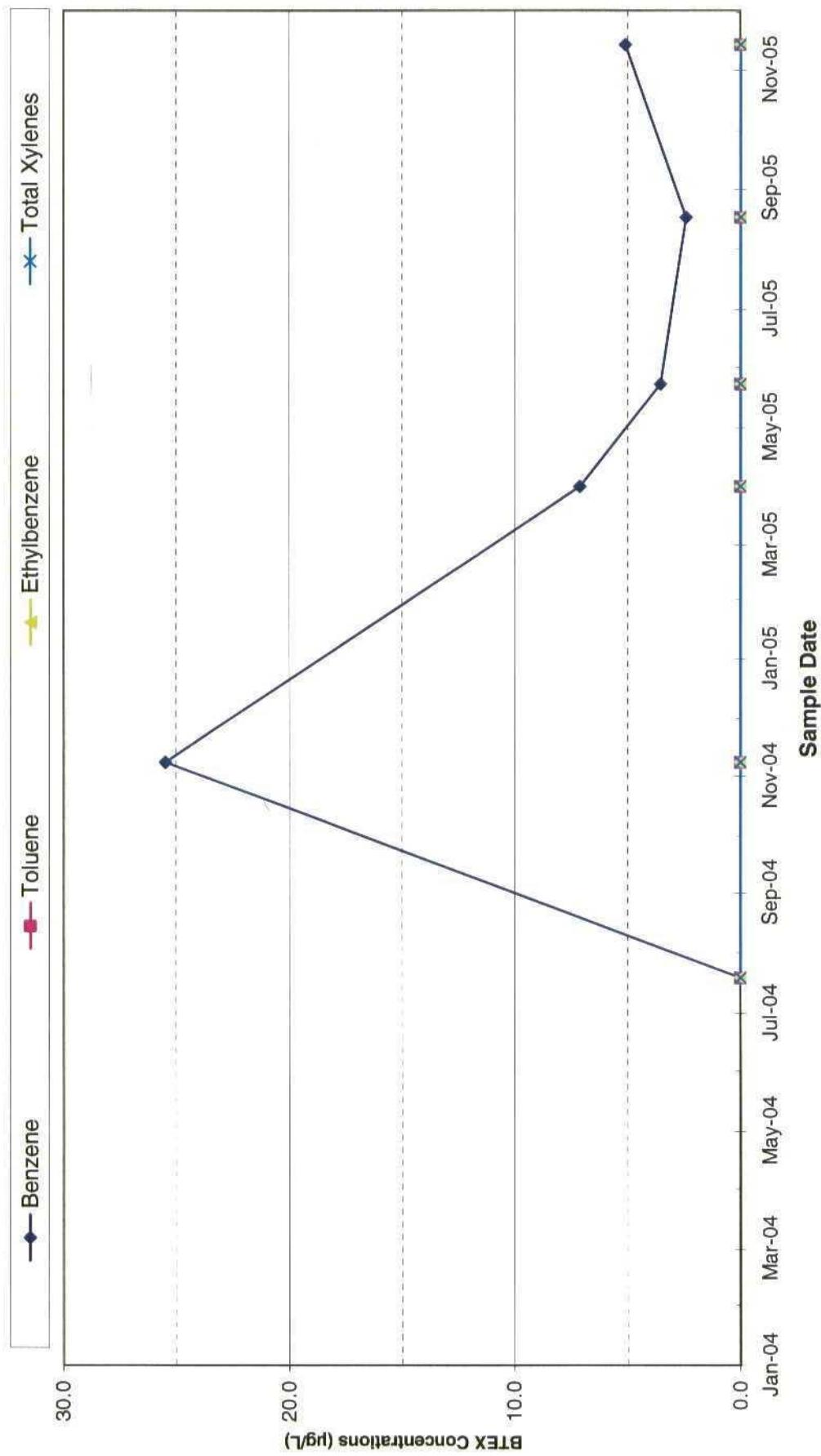
**Figure 16:** BTEX Concentrations in Groundwater Monitoring Well MW-13, from 1-23-04 to 12-31-05,  
Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico



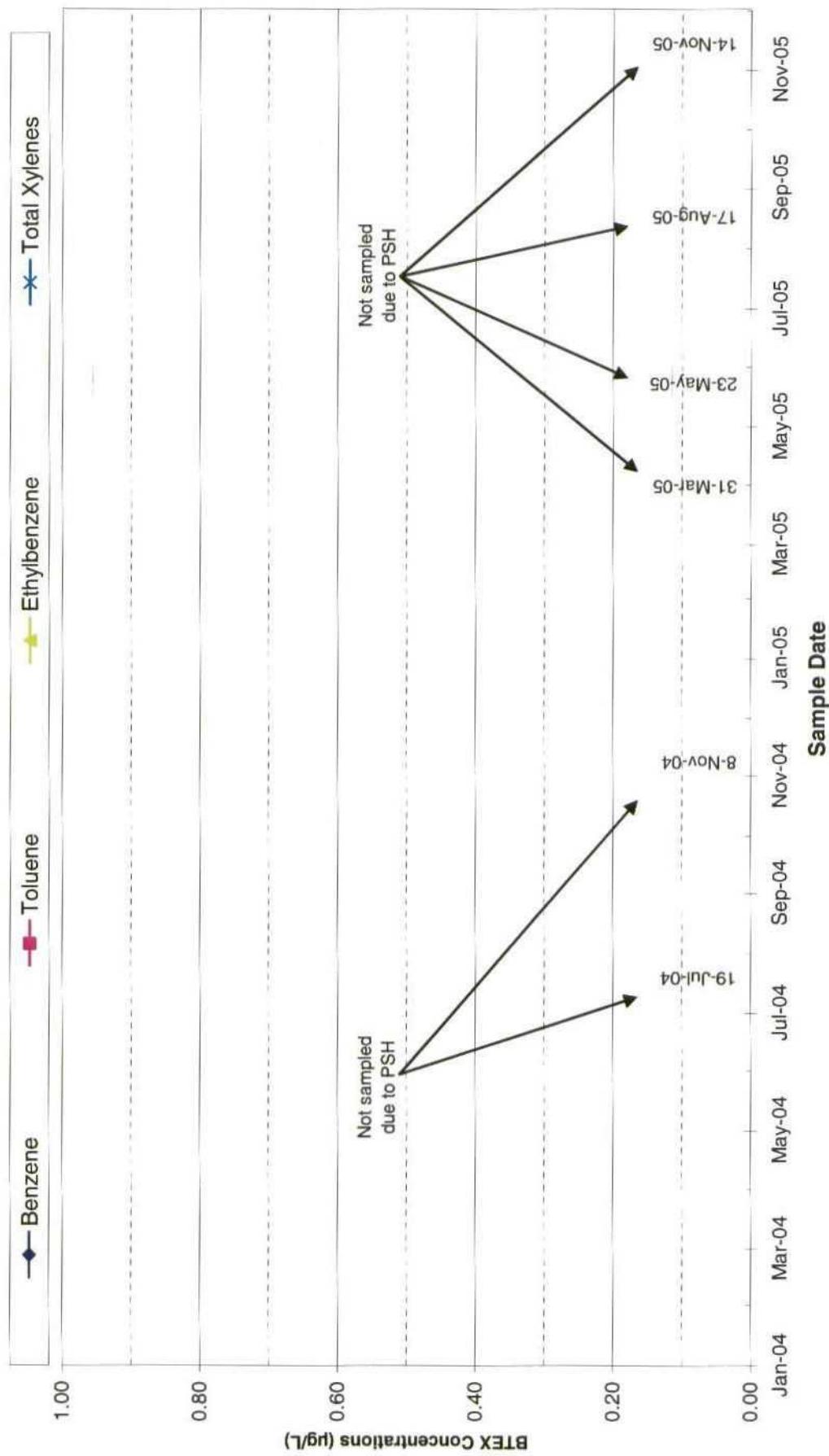
**Figure 17:** BTEX Concentrations in Groundwater Monitoring Well MW-14, from 1-23-04 to 12-31-05, Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico



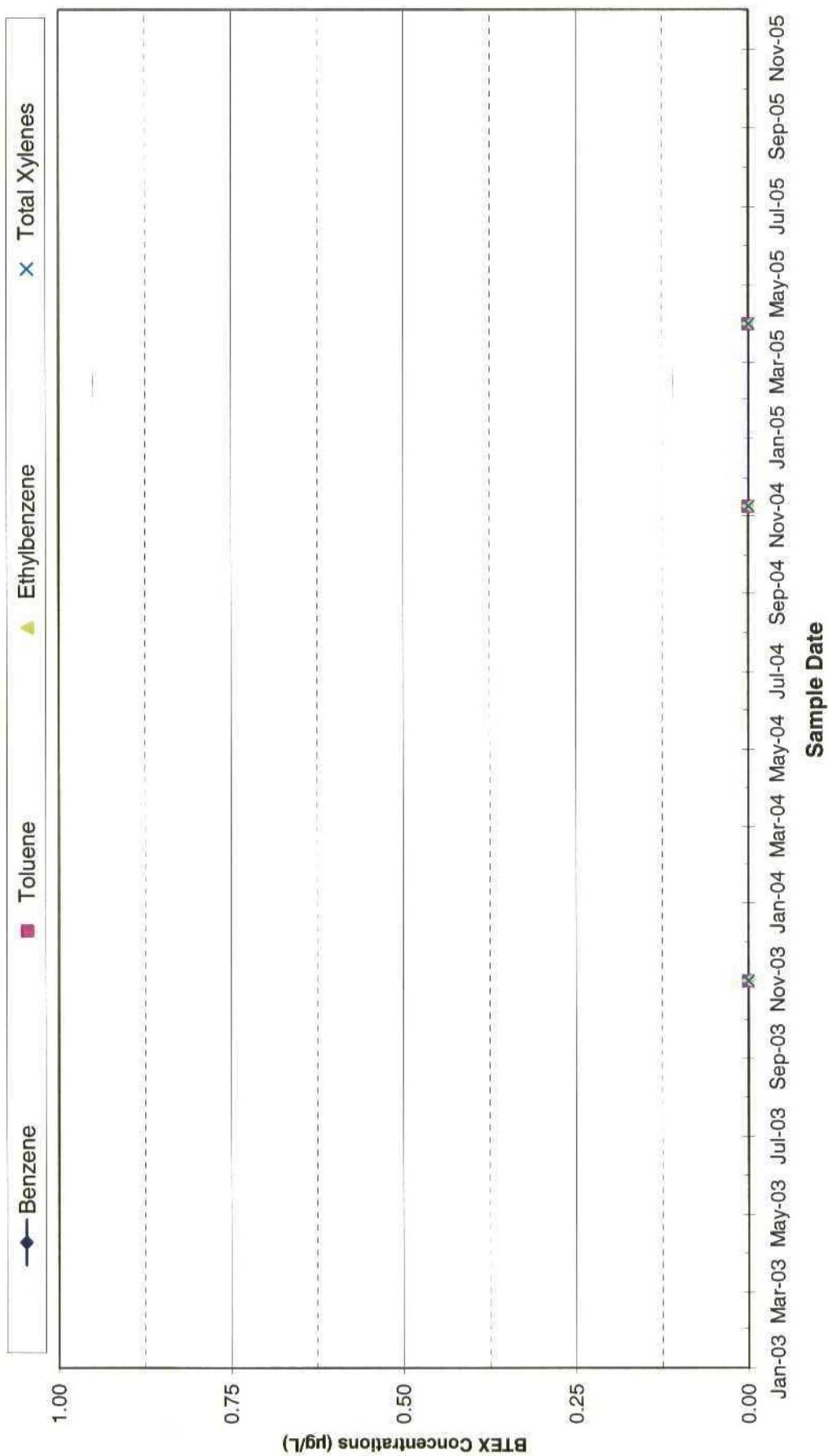
**Figure 18:** BTEX Concentrations in Groundwater Monitoring Well MW-15, from 1-23-04 to 12-31-05, Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico



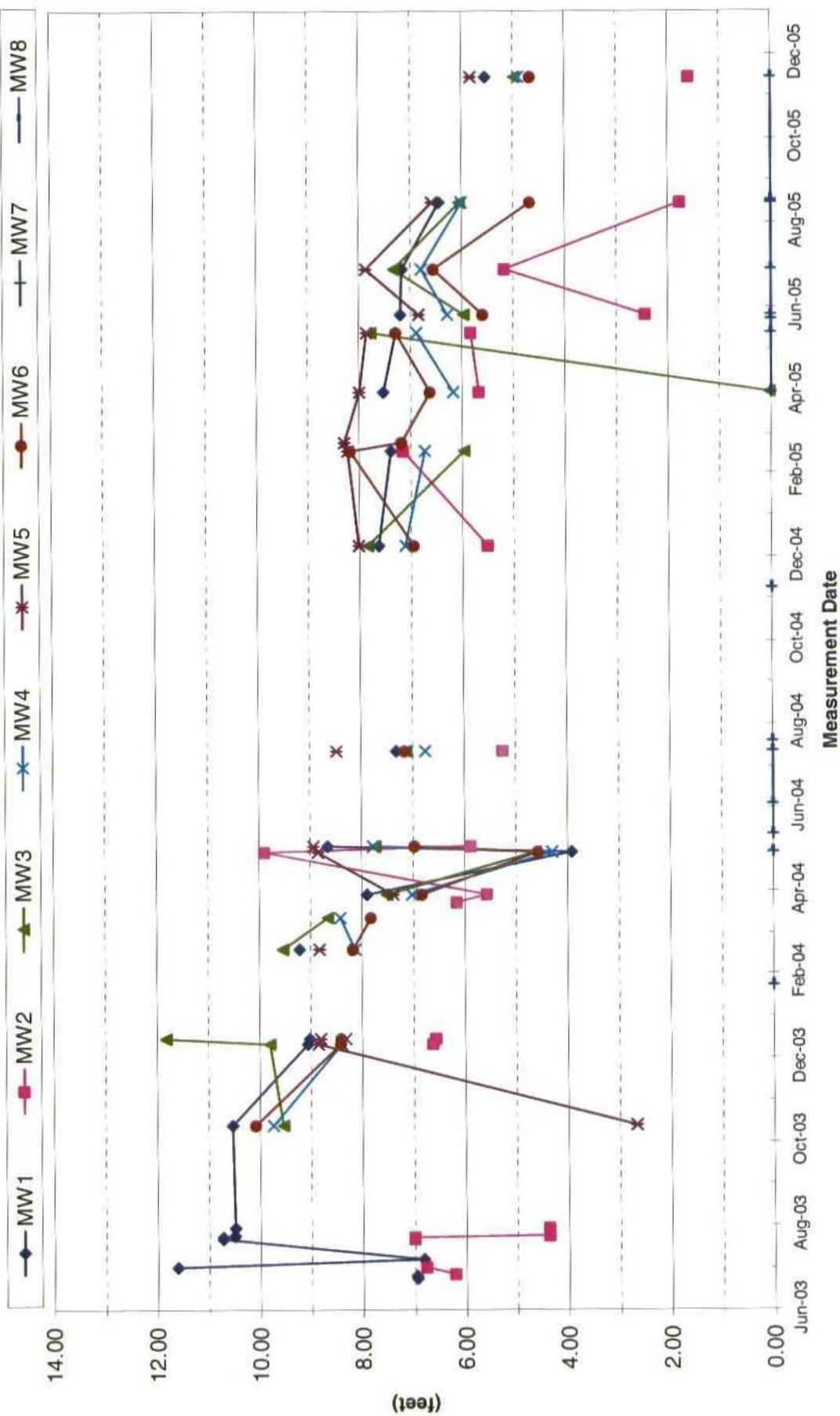
**Figure 19:** BTEX Concentrations in Groundwater Monitoring Well MW-16, from 1-23-04 to 12-31-05,  
Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico



**Figure 20: BTEX Concentrations in Groundwater Monitoring Well MW-17, from 1-23-04 to 12-31-05, Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico**

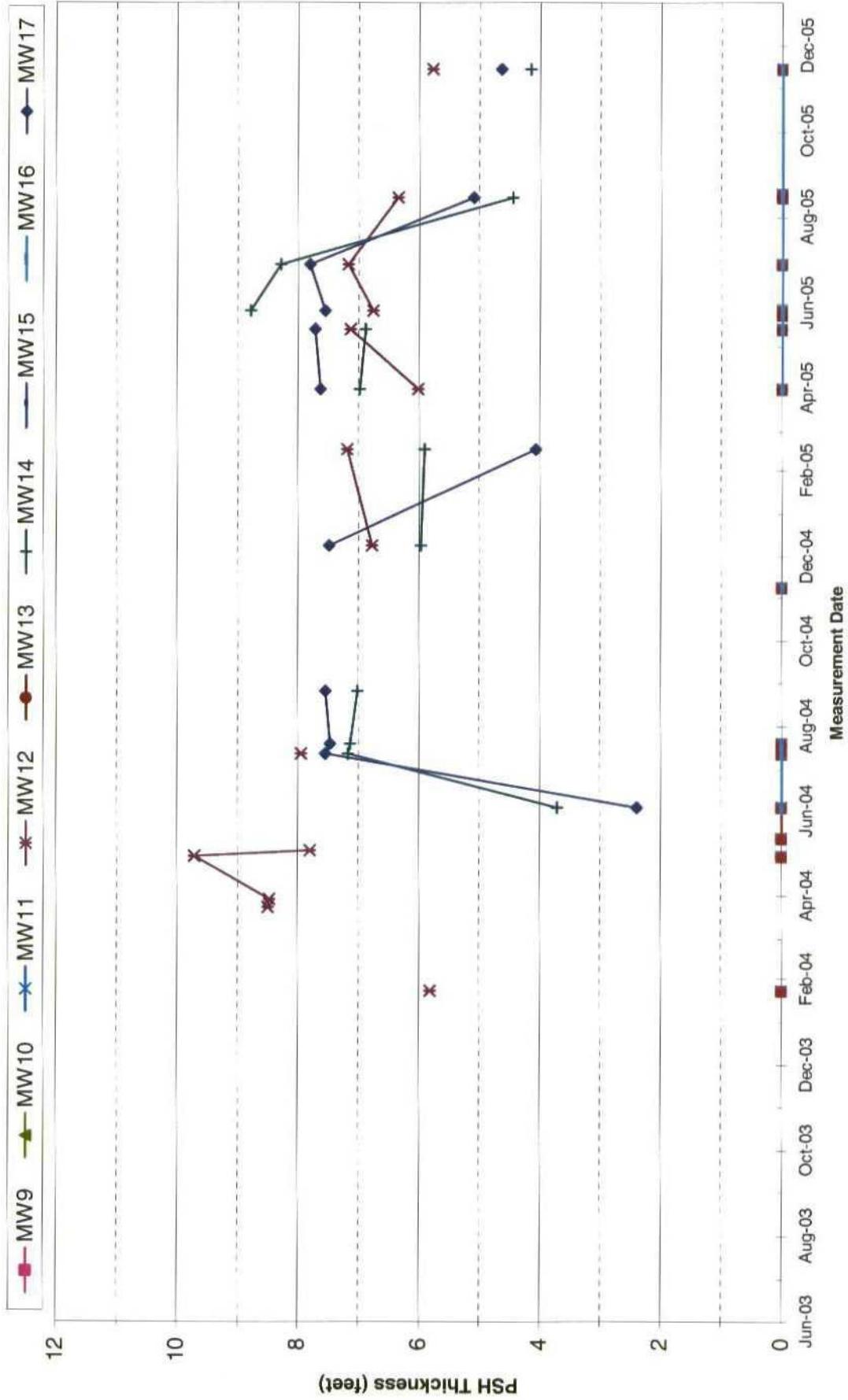


**Figure 21:** BTEX Concentrations in the Klein Irrigation Well, from 1-23-04 to 12-31-05,  
Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico



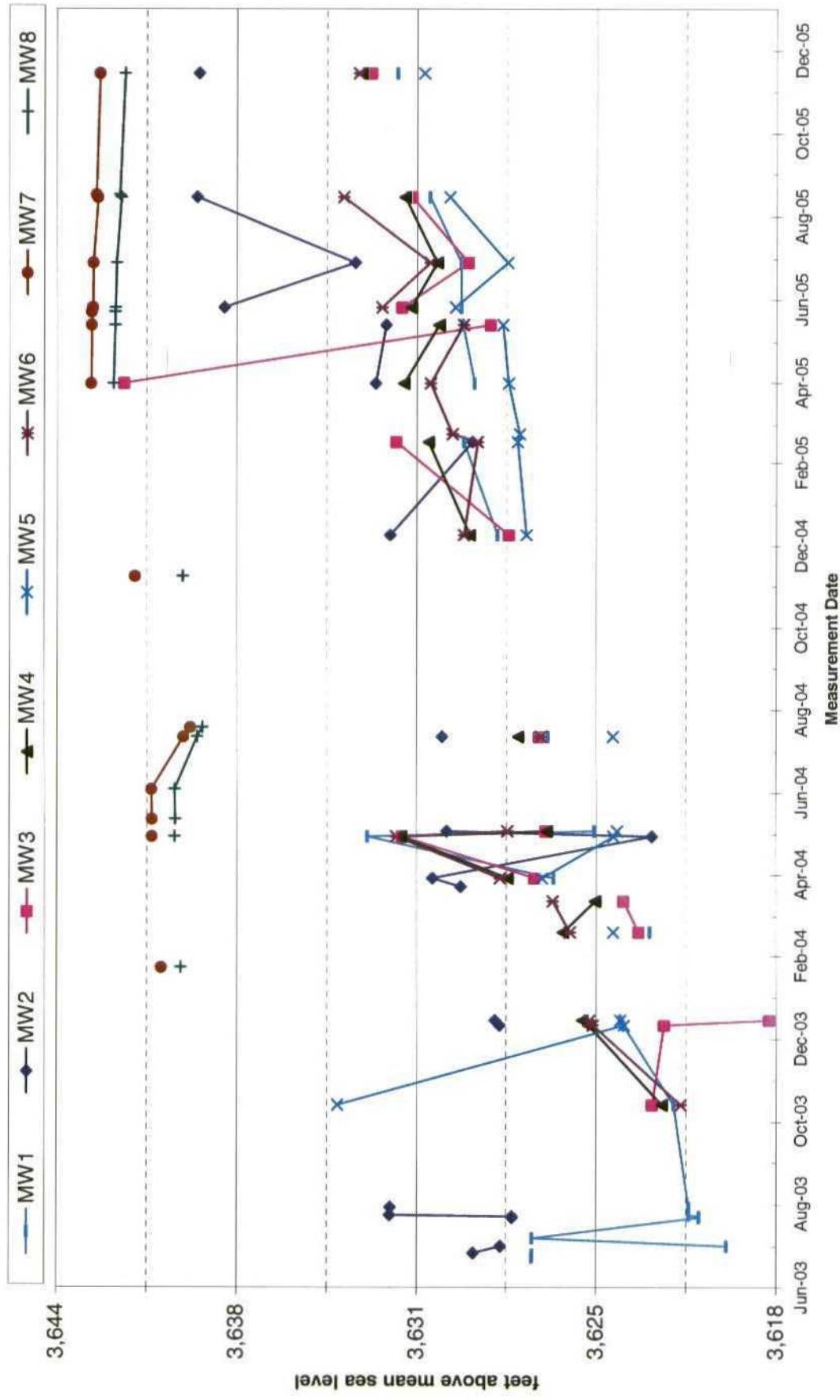
**Figure 22:** PSH Thickness in Groundwater Monitoring Wells MW-1 through MW-8, 6-23-03 to 12-31-05, Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico

**Figure 22:**



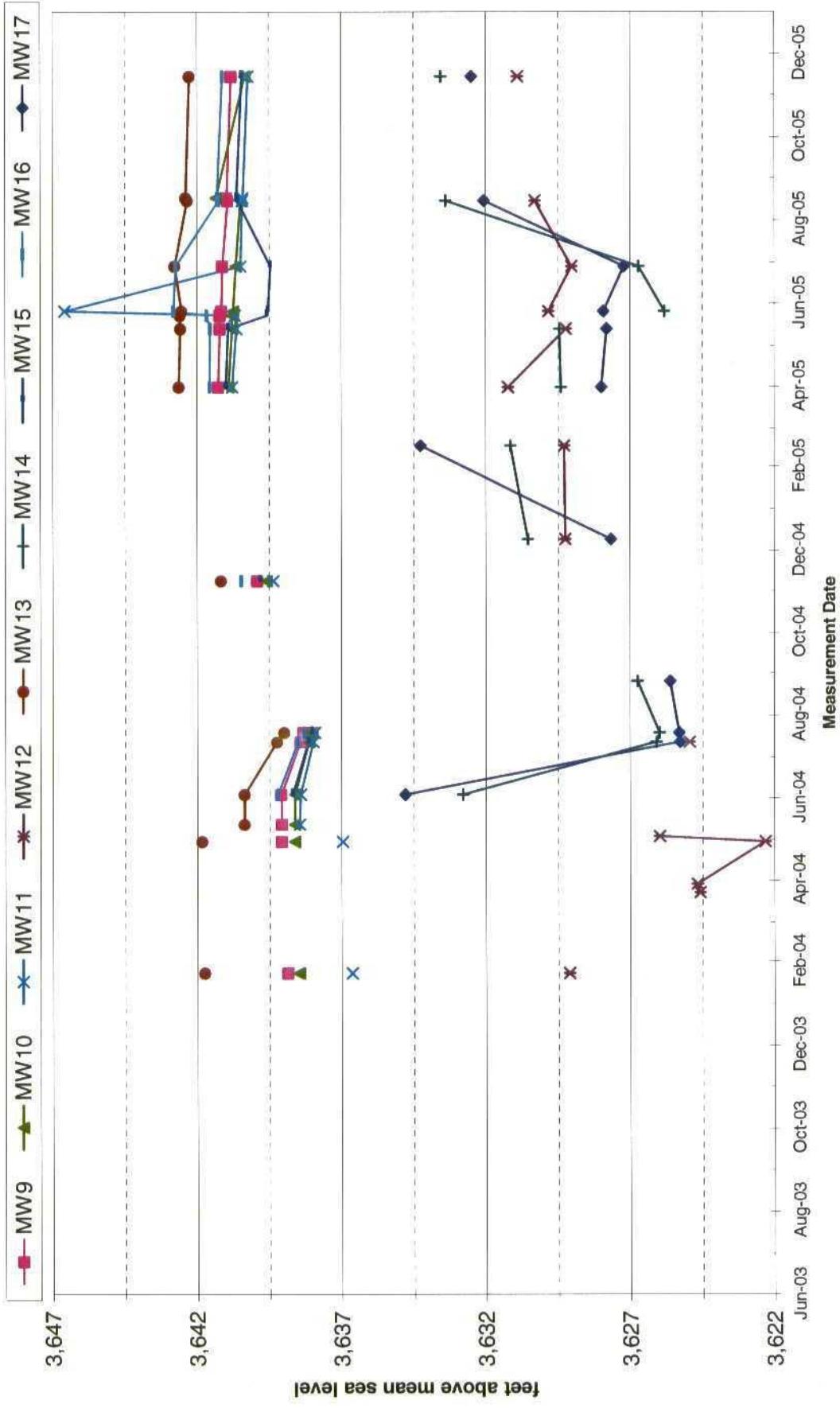
**Figure 23:** PSH Thickness in Groundwater Monitoring Wells MW-9 through MW-17, 6-23-03 to 12-31-05,  
Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico

**Figure 23:**



**Figure 24:** Hydrograph for Groundwater Monitoring Wells MW-1 through MW-8, 6-23-03 to 12-31-05,  
Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico

**Figure 24:**



**Figure 25:** Hydrograph for Groundwater Monitoring Wells MW-9 through MW-17, 6-23-03 to 12-31-05,  
Plains Pipeline, L.P., Hobbs Junction Mainline (ref. #2003-00017), Lea County, New Mexico

**Figure 25:**

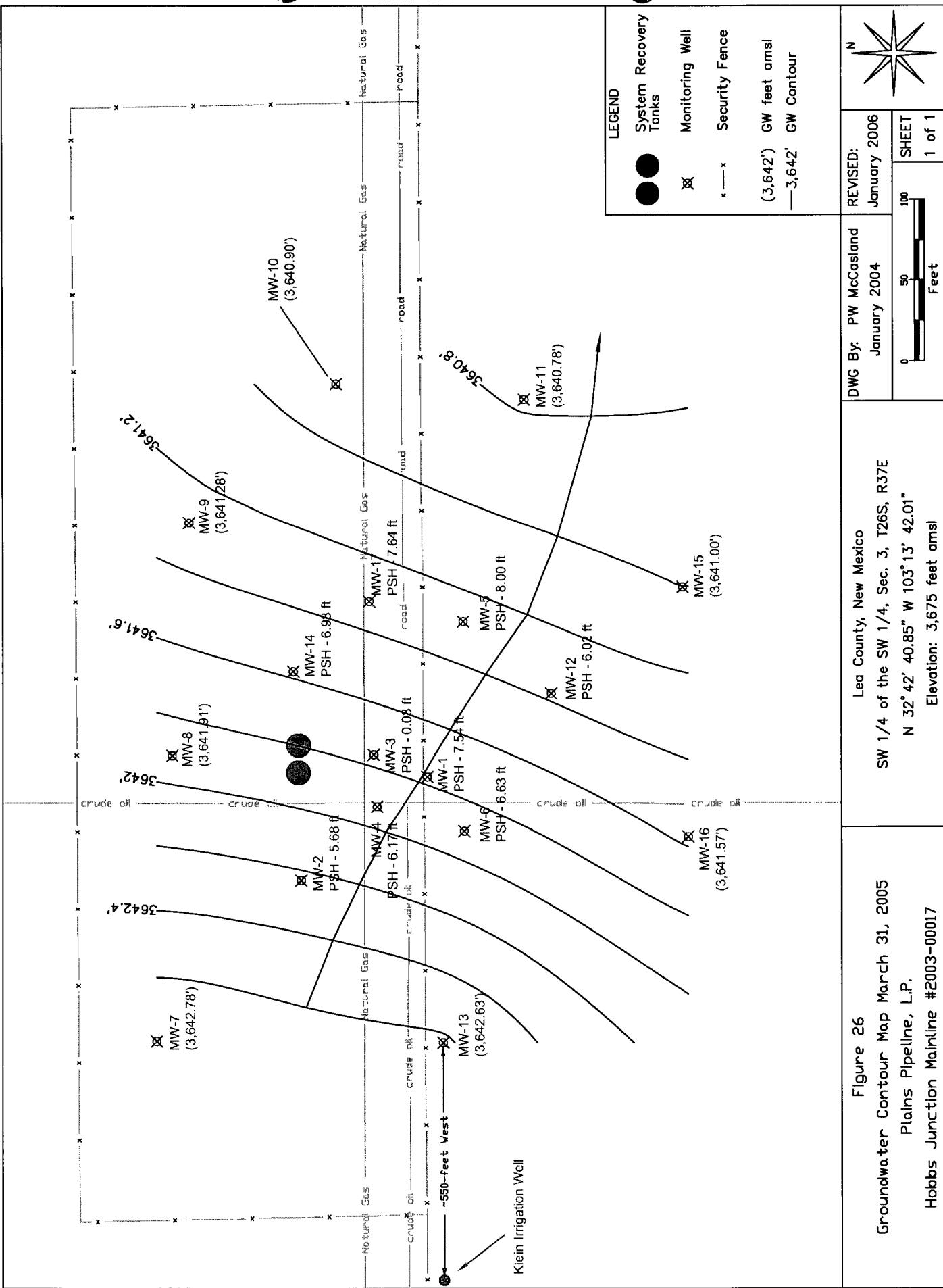


Figure 26  
Groundwater Contour Map March 31, 2005  
Plains Pipeline, L.P.  
Hobbs Junction Mainline #2003-00017

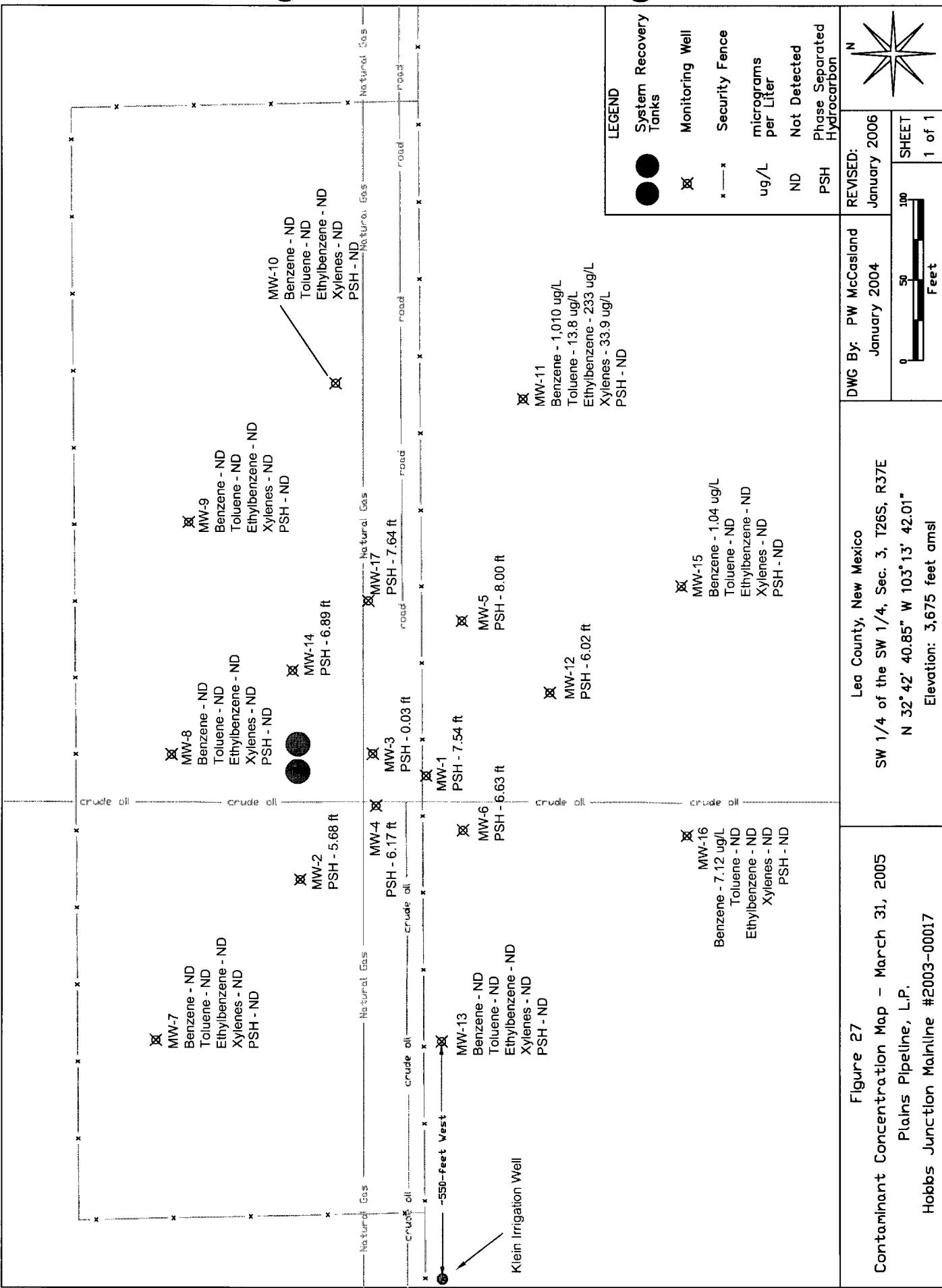
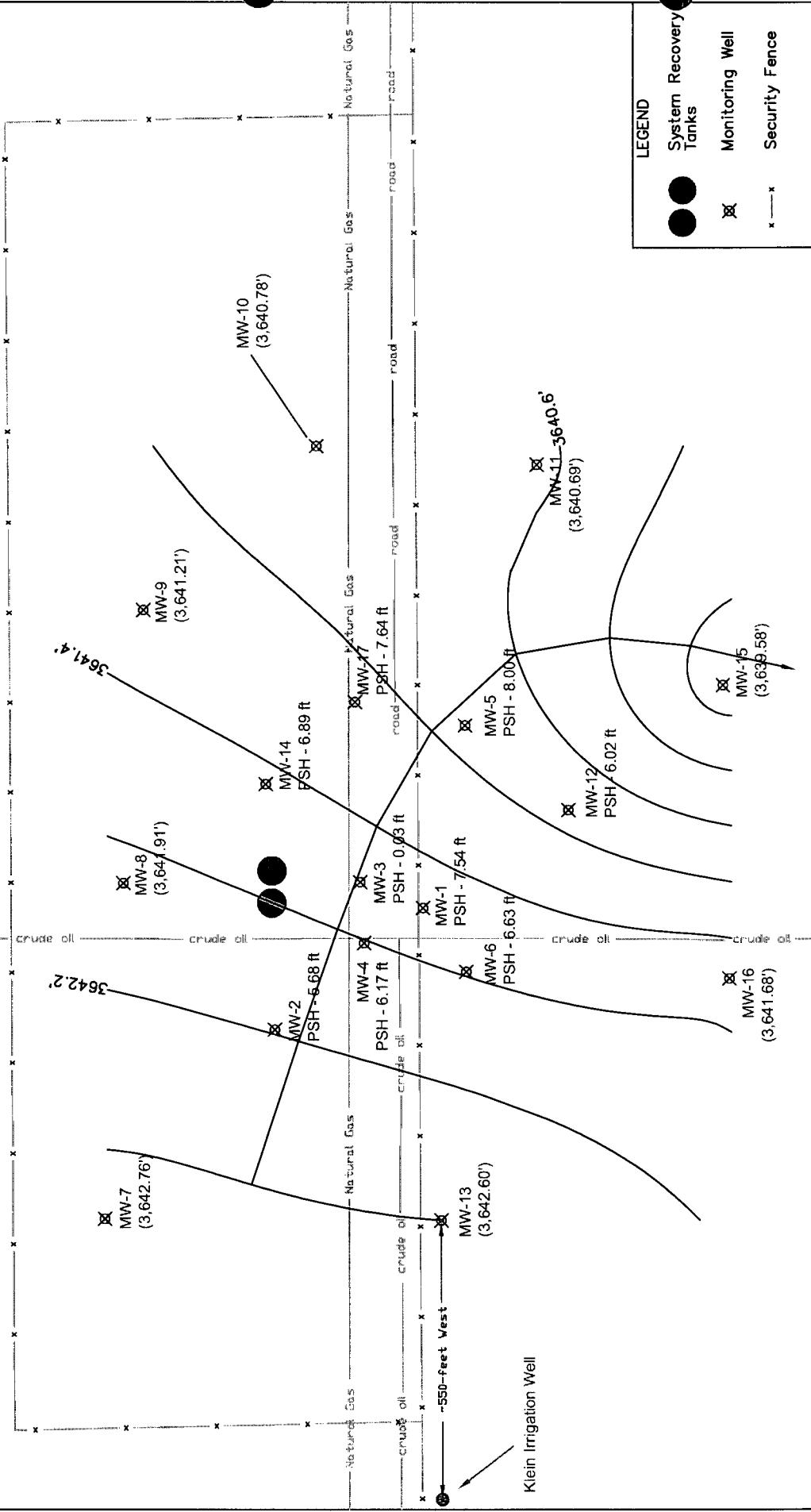


Figure 27  
 Contaminant Concentration Map – March 31, 2005  
 Plains Pipeline, L.P.  
 Hobbs Junction Mainline #2003-00017

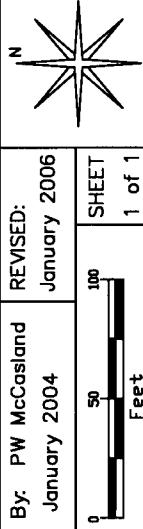


Only the groundwater monitoring wells not impacted with PSH were utilized in calculating the groundwater contour and flow direction.

Figure 28  
Groundwater Contour Map – May 23, 2005  
Plains Pipeline, L.P.  
Hobbs Junction Mainline #2003-00017

Lea County, New Mexico  
SW 1/4 of the SW 1/4, Sec. 3, T26S, R37E  
N 32° 42' 40.85" W 103° 13' 42.01"  
Elevation: 3,675 feet amsl

DWG By: PW McCasland	REVISED:
January 2004	January 2006
0 50 100	Feet
	SHEET 1 of 1



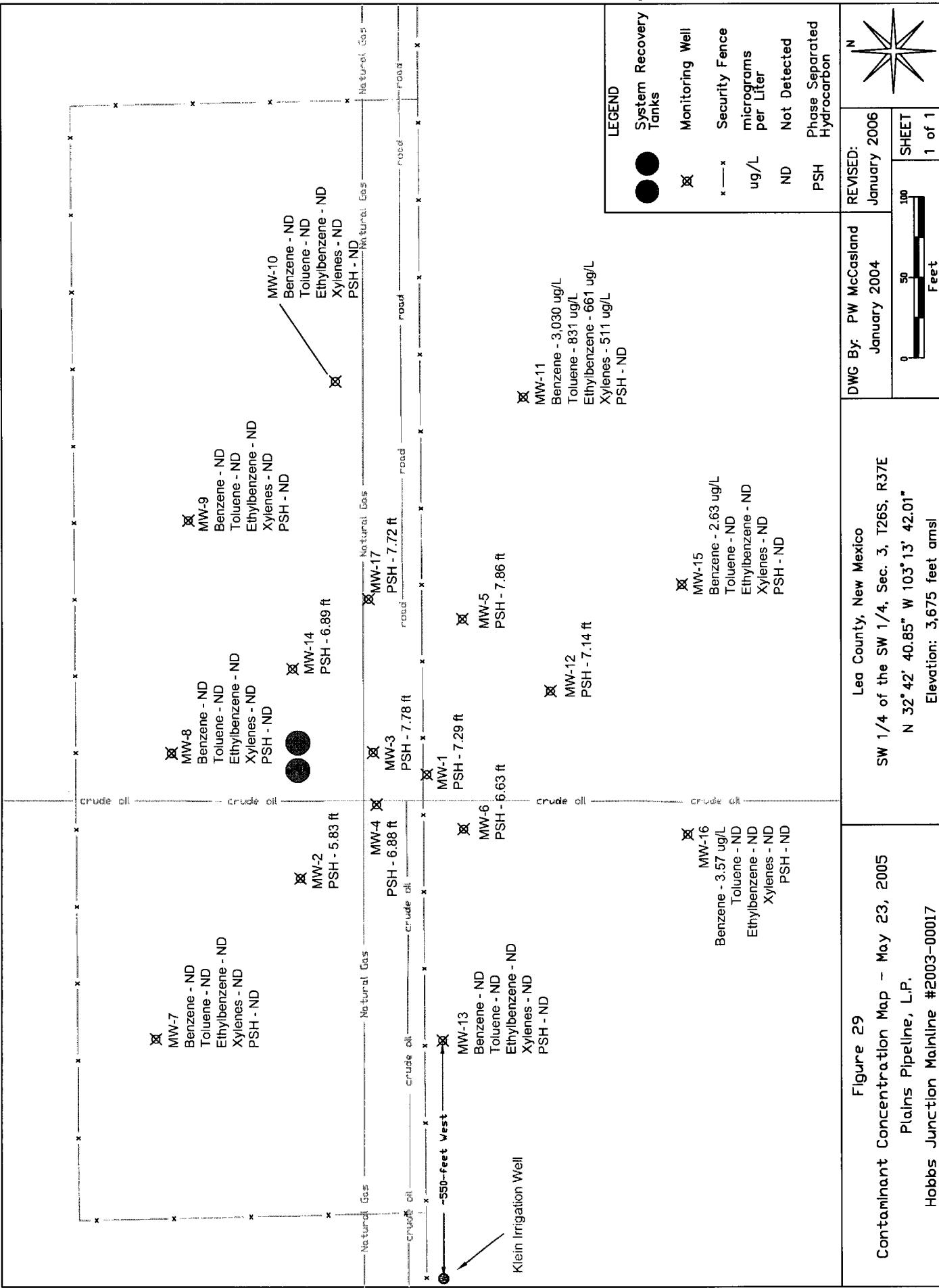
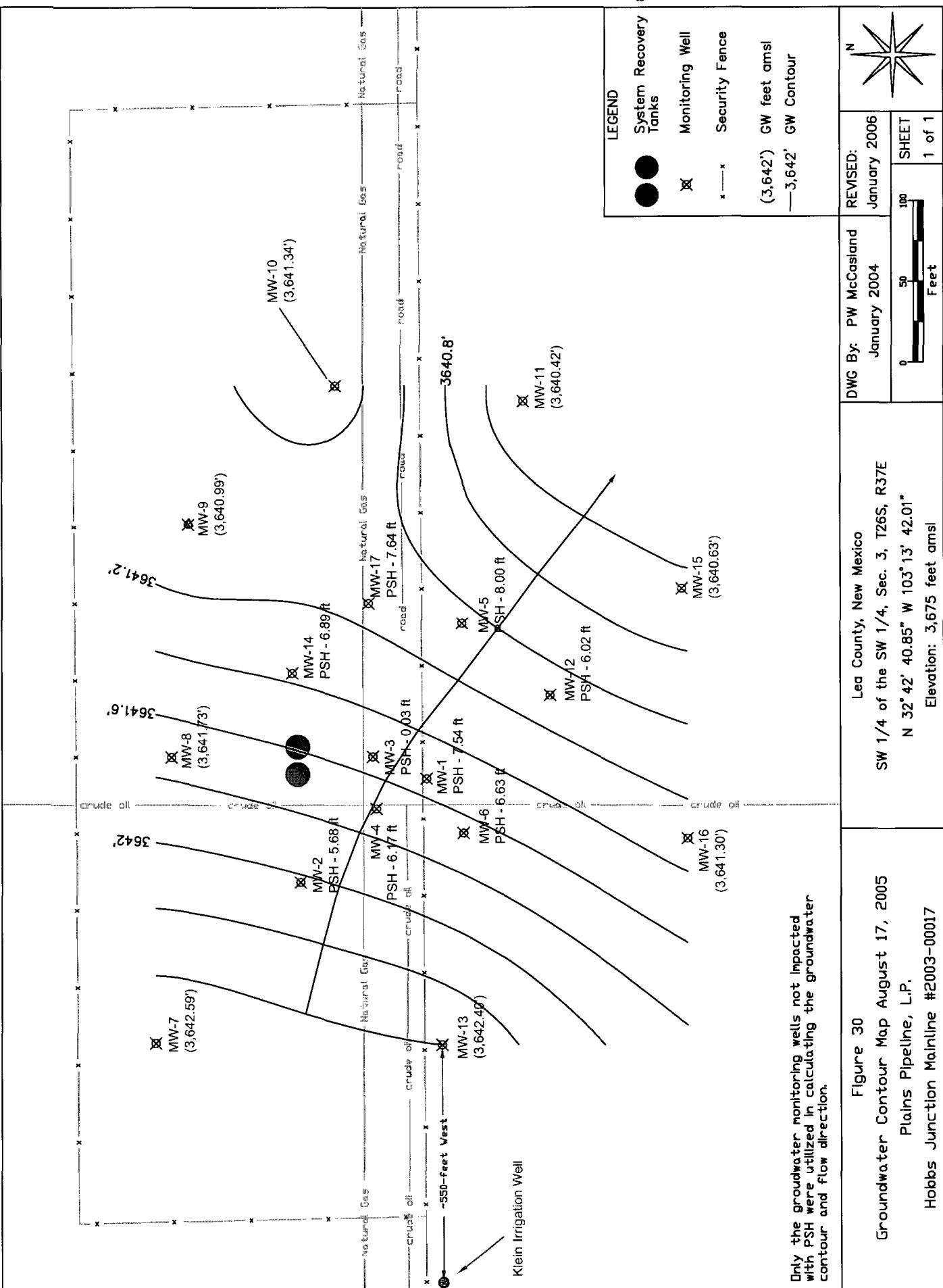


Figure 29  
Contaminant Concentration Map – May 23, 2005  
Plains Pipeline, L.P.  
Hobbs Junction Mainline #2003-00017

Lea County, New Mexico  
SW 1/4 of the SW 1/4, Sec. 3, T26S, R37E  
N 32° 42' 40.85" W 103° 13' 42.01"  
Elevation: 3,675 feet amsl



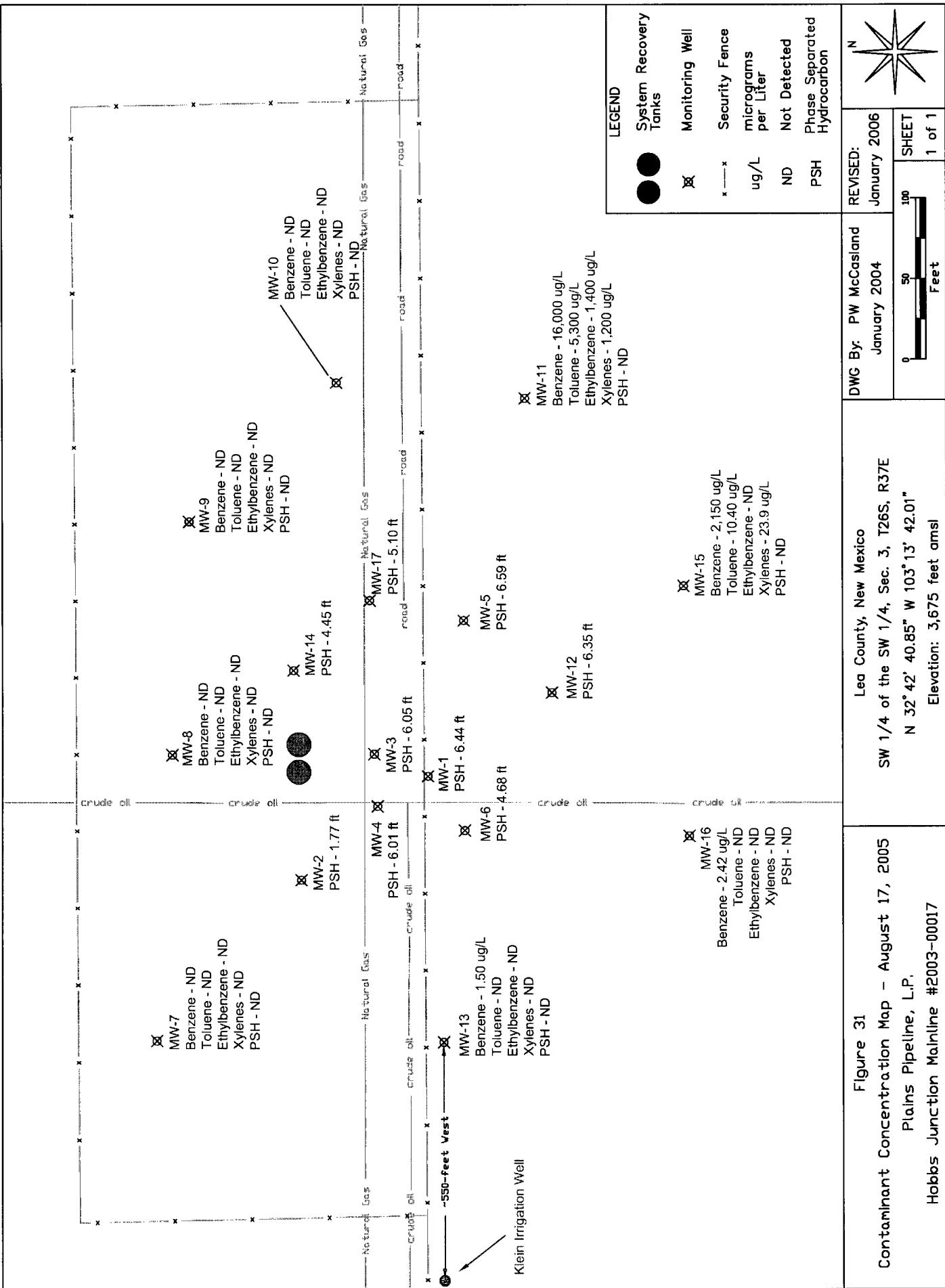


Figure 31  
**Contaminant Concentration Map – August 17, 2005**  
**Plains Pipeline, L.P.,**  
**Hobbs Junction Mainline #2003-00017**

Lea County, New Mexico  
SW 1/4 of the SW 1/4, Sec. 3, T26S, R37E  
N 32° 42' 40.85" W 103° 13' 42.01"  
Elevation: 3,675 feet amsl

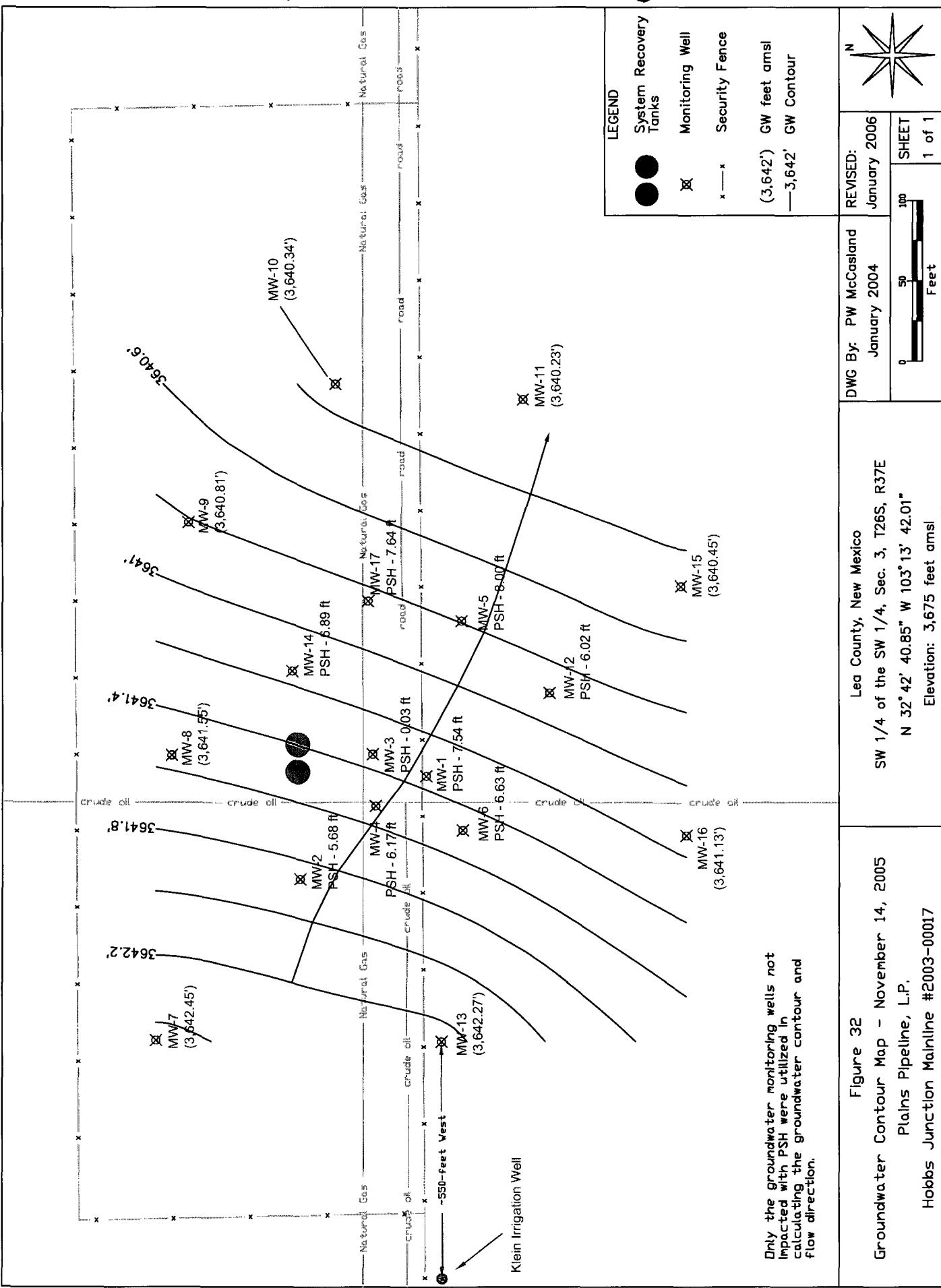


Figure 32  
Groundwater Contour Map – November 14, 2005  
Plains Pipeline, L.P.  
Hobbs Junction Mainline #2003-00017

Lea County, New Mexico

SW 1/4 of the SW 1/4, Sec. 3, T26S, R37E  
N 32°42' 40.85" W 103°13' 42.01"

Elevation: 3,675 feet amsl

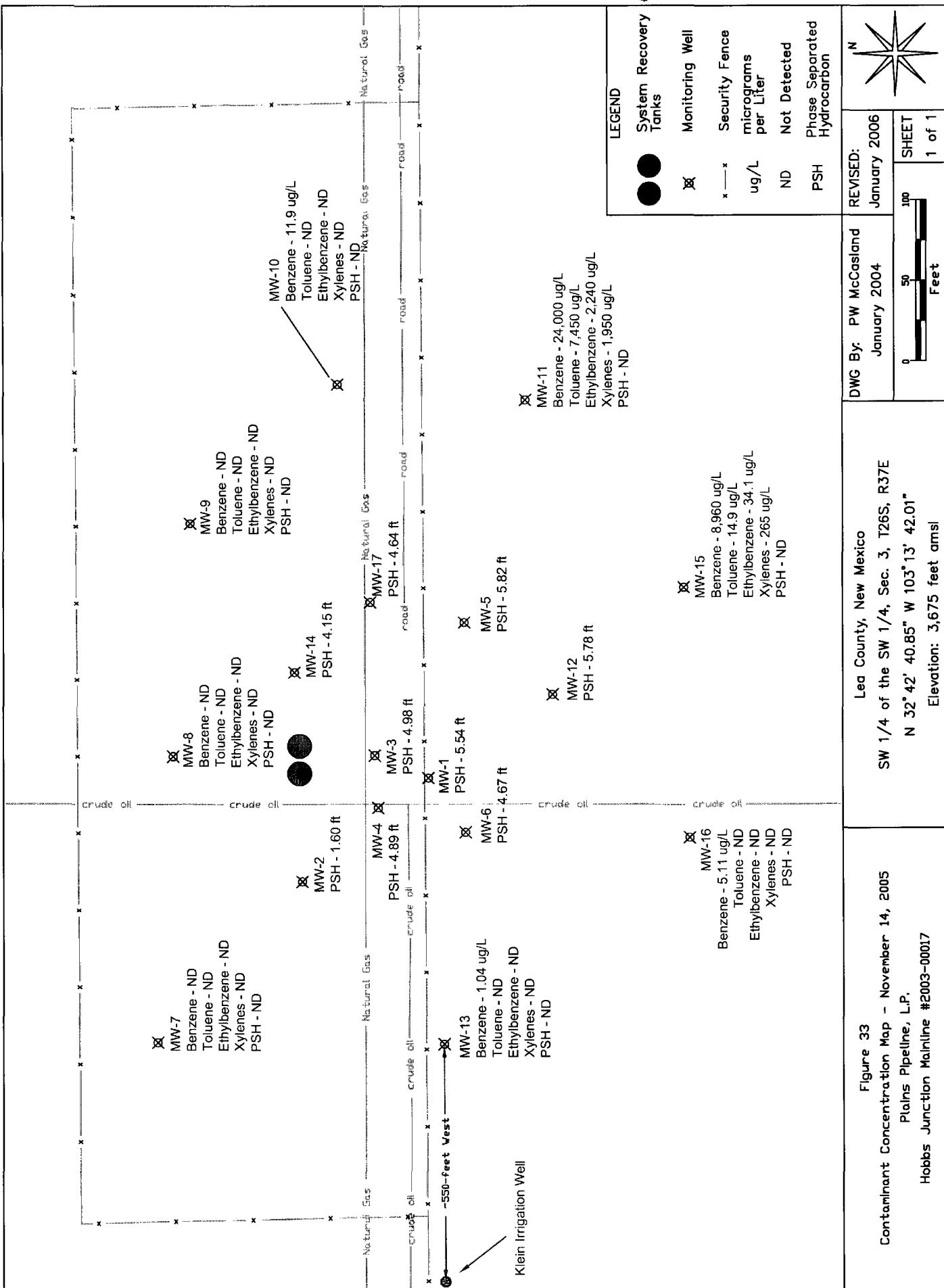
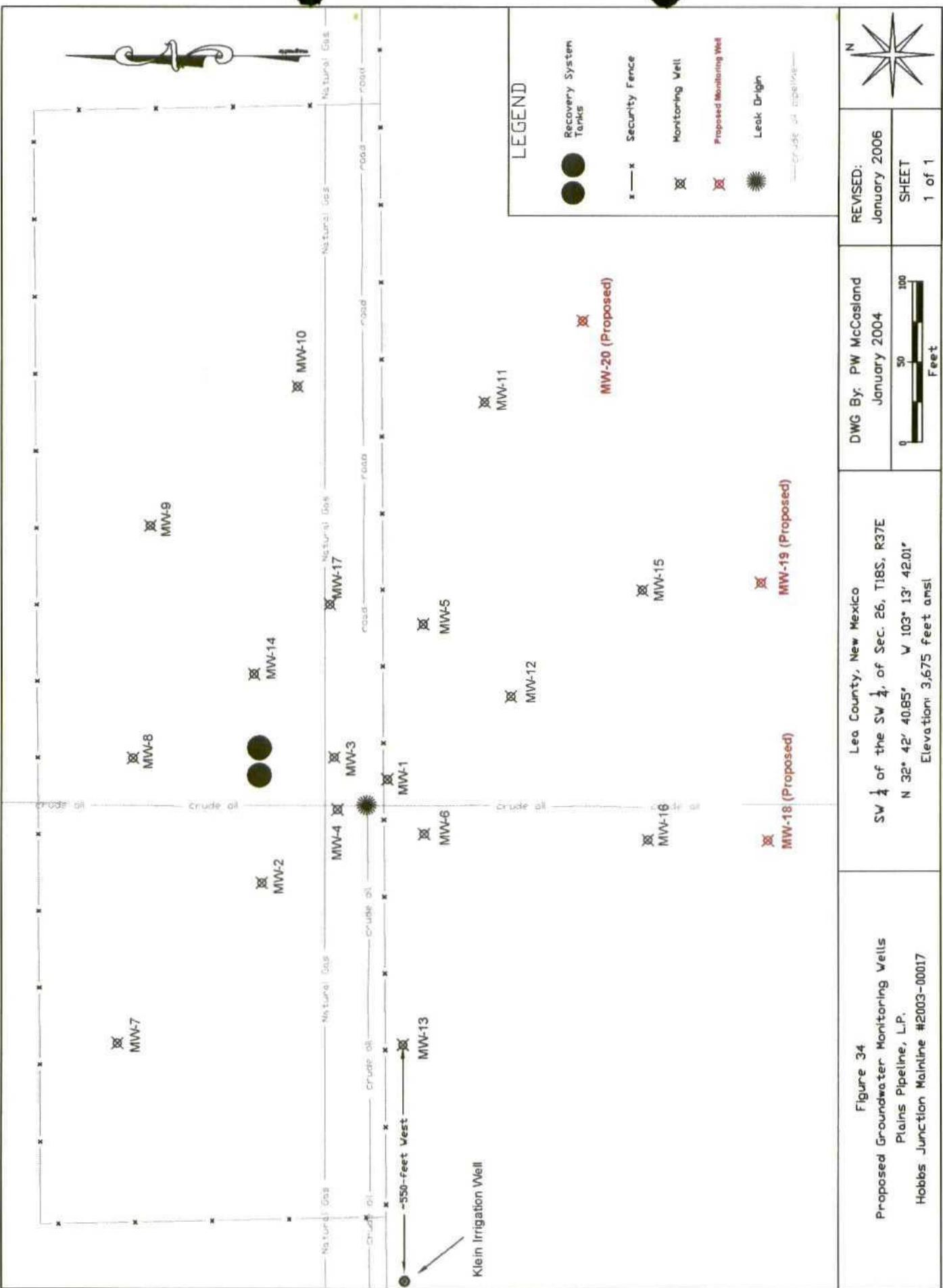


Figure 33  
Contaminant Concentration Map – November 14, 2005  
Plains Pipeline, L.P.  
Hobbs Junction Mainline #2003-00017

Lea County, New Mexico  
SW 1/4 of the SW 1/4, Sec. 3, T26S, R37E  
N 32° 42' 40.85" W 103° 13' 42.01"  
Elevation: 3,675 feet amsl



## TABLES

**Table 1**  
**Plains Pipeline, L.P.**  
**Hobbs Junction Mainline - Ref. #2003-00017**  
**Groundwater Elevations and**  
**Phase Separated Hydrocarbon (PSH) Thickness**

Monitoring Well #	Date	Top of Casing Elevation (feet-amsl)	Depth to PSH (feet-btoc)	Depth to Water (feet-btoc)	Corrected Groundwater Elevation* (feet-amsl)	PSH Thickness (feet)
MW-1	23-Jun-03	3,678.50	38.49	45.43	3,626.82	6.94
	25-Jun-03		38.48	45.43	3,626.82	6.95
	1-Jul-03		36.64	48.25	3,619.80	11.61
	7-Jul-03		38.73	45.55	3,626.81	6.82
	22-Jul-03		37.32	48.05	3,620.79	10.73
	23-Jul-03		37.33	48.06	3,620.78	10.73
	24-Jul-03		37.40	47.90	3,621.15	10.50
	30-Jul-03		37.41	47.90	3,621.16	10.49
	13-Oct-03		36.81	47.34	3,621.68	10.53
	11-Dec-03		37.79	46.85	3,623.50	9.06
	15-Dec-03		37.75	46.77	3,623.61	9.02
	18-Feb-04		38.42	47.64	3,622.56	9.22
	29-Mar-04		37.45	45.35	3,626.04	7.90
	29-Apr-04		38.26	42.18	3,632.79	3.92
	3-May-04		37.44	46.11	3,624.59	8.67
	12-Jul-04		38.34	45.66	3,626.25	7.32
	9-Dec-04		35.90	43.54	3,628.08	7.64
	16-Feb-05		35.15	42.54	3,629.31	7.39
	31-Mar-05		35.27	42.81	3,628.90	7.54
	13-May-05		35.31	42.60	3,629.34	7.29
	26-May-05		35.41	42.61	3,629.41	7.20
	28-Jun-05		35.48	42.65	3,629.40	7.17
	15-Aug-05		35.72	42.16	3,630.54	6.44
	14-Nov-05		36.26	41.80	3,631.71	5.54
MW-2	26-Jun-03	3,679.47	38.72	44.93	3,628.95	6.21
	1-Jul-03		38.65	45.42	3,627.96	6.77
	22-Jul-03		38.63	45.63	3,627.54	7.00
	23-Jul-03		38.64	45.63	3,627.55	6.99
	24-Jul-03		39.20	43.57	3,631.97	4.37
	30-Jul-03		39.21	43.58	3,631.96	4.37
	11-Dec-03		38.88	45.51	3,627.99	6.63
	15-Dec-03		38.84	45.41	3,628.15	6.57
	23-Mar-04		38.36	44.52	3,629.41	6.16
	29-Mar-04		38.47	44.04	3,630.42	5.57
	29-Apr-04		38.16	48.06	3,622.50	9.90
	3-May-04		38.39	44.27	3,629.91	5.88
	12-Jul-04		39.42	44.67	3,630.08	5.25
	9-Dec-04		37.00	42.52	3,631.98	5.52
	16-Feb-05		36.87	44.03	3,629.00	7.16
	31-Mar-05		36.17	41.85	3,632.51	5.68
	13-May-05		36.27	42.10	3,632.12	5.83
	26-May-05		36.84	39.29	3,637.98	2.45
	28-Jun-05		36.39	41.57	3,633.24	5.18
	15-Aug-05		37.15	38.92	3,638.96	1.77
	14-Nov-05		37.56	39.16	3,638.87	1.60

**Table 1**  
**Plains Pipeline, L.P.**  
**Hobbs Junction Mainline - Ref. #2003-00017**  
**Groundwater Elevations and**  
**Phase Separated Hydrocarbon (PSH) Thickness**

Monitoring Well #	Date	Top of Casing Elevation (feet-amsl)	Depth to PSH (feet-btoc)	Depth to Water (feet-btoc)	Corrected Groundwater Elevation* (feet-amsl)	PSH Thickness (feet)
MW-3	13-Oct-03	3,679.81	39.21	48.75	3,622.47	9.54
	11-Dec-03		39.15	48.95	3,622.04	9.80
	15-Dec-03		39.08	50.91	3,618.25	11.83
	18-Feb-04		38.72	48.26	3,622.96	9.54
	12-Mar-04		39.82	48.49	3,623.52	8.67
	29-Mar-04		38.81	46.32	3,626.73	7.51
	29-Apr-04		39.49	44.11	3,631.54	4.62
	3-May-04		38.77	46.51	3,626.33	7.74
	12-Jul-04		39.68	46.81	3,626.58	7.13
	9-Dec-04		37.21	45.06	3,627.69	7.85
	16-Feb-05		36.70	42.67	3,631.77	5.97
	31-Mar-05		38.17	38.20	3,641.58	0.03
	13-May-05		36.67	44.45	3,628.36	7.78
	26-May-05		36.92	42.88	3,631.57	5.96
	28-Jun-05		36.72	44.05	3,629.16	7.33
MW-4	15-Aug-05		37.12	43.17	3,631.20	6.05
	14-Nov-05		37.69	42.67	3,632.66	4.98
	13-Oct-03	3,679.64	39.01	48.75	3,622.12	9.74
	11-Dec-03		38.92	47.32	3,624.76	8.40
	15-Dec-03		38.84	47.16	3,624.99	8.32
	18-Feb-04		38.48	46.62	3,625.69	8.14
	12-Mar-04		39.09	47.51	3,624.55	8.42
	29-Mar-04		38.59	45.62	3,627.69	7.03
	29-Apr-04		39.94	44.23	3,631.55	4.29
	3-May-04		38.55	46.33	3,626.31	7.78
	12-Jul-04		39.49	46.24	3,627.33	6.75
	9-Dec-04		37.03	44.15	3,629.08	7.12
	16-Feb-05		36.28	43.01	3,630.57	6.73
	31-Mar-05		36.45	42.62	3,631.47	6.17
	13-May-05		36.37	43.25	3,630.20	6.88
MW-5	26-May-05		36.51	42.79	3,631.20	6.28
	28-Jun-05		36.47	43.26	3,630.27	6.79
	15-Aug-05		36.79	42.80	3,631.43	6.01
	14-Nov-05		37.35	42.24	3,633.00	4.89
	13-Oct-03	3,679.26	40.35	43.02	3,633.84	2.67
	11-Dec-03		38.95	47.81	3,623.48	8.86
	15-Dec-03		38.91	47.72	3,623.61	8.81
	18-Feb-04		38.61	47.44	3,623.87	8.83
	29-Mar-04		38.76	46.15	3,626.46	7.39
	29-Apr-04		38.55	47.41	3,623.88	8.86
	3-May-04		38.52	47.46	3,623.75	8.94
	12-Jul-04		39.24	47.72	3,623.91	8.48
	9-Dec-04		36.99	45.01	3,627.03	8.02
	16-Feb-05		36.24	44.48	3,627.36	8.24
	22-Feb-05		36.20	44.50	3,627.29	8.30
	31-Mar-05		36.38	44.38	3,627.68	8.00
	13-May-05		36.43	44.29	3,627.90	7.86
	26-May-05		36.66	43.50	3,629.60	6.84
	28-Jun-05		36.58	44.45	3,627.73	7.87
	15-Aug-05		36.93	43.52	3,629.81	6.59
	14-Nov-05		37.45	43.27	3,630.75	5.82

**Table 1**  
**Plains Pipeline, L.P.**  
**Hobbs Junction Mainline - Ref. #2003-00017**  
**Groundwater Elevations and**  
**Phase Separated Hydrocarbon (PSH) Thickness**

Monitoring Well #	Date	Top of Casing Elevation (feet-amsl)	Depth to PSH (feet-btoc)	Depth to Water (feet-btoc)	Corrected Groundwater Elevation* (feet-amsl)	PSH Thickness (feet)
MW-6	13-Oct-03	3,680.63	40.04	50.12	3,621.44	10.08
	11-Dec-03		40.01	48.43	3,624.62	8.42
	15-Dec-03		39.92	48.33	3,624.73	8.41
	18-Feb-04		39.63	47.81	3,625.46	8.18
	12-Mar-04		39.68	47.51	3,626.07	7.83
	29-Mar-04		39.67	46.50	3,627.98	6.83
	29-Apr-04		40.18	44.76	3,631.75	4.58
	3-May-04		39.66	46.63	3,627.73	6.97
	12-Jul-04		40.52	47.68	3,626.51	7.16
	9-Dec-04		38.11	45.06	3,629.32	6.95
	16-Feb-05		36.25	44.44	3,628.82	8.19
	22-Feb-05		37.25	44.44	3,629.72	7.19
	31-Mar-05		37.52	44.15	3,630.51	6.63
	13-May-05		37.46	44.75	3,629.32	7.29
	26-May-05		37.71	43.31	3,632.28	5.60
	28-Jun-05		37.62	44.18	3,630.55	6.56
	15-Aug-05		38.09	42.77	3,633.65	4.68
	14-Nov-05		38.64	43.31	3,633.12	4.67
MW-7	23-Jan-04	3,679.85	nd	39.64	3,640.21	na
	29-Apr-04		nd	39.29	3,640.56	na
	12-May-04		nd	39.29	3,640.56	na
	3-Jun-04		nd	39.27	3,640.58	na
	12-Jul-04		nd	40.42	3,639.43	na
	19-Jul-04		nd	40.68	3,639.17	na
	8-Nov-04		nd	38.66	3,641.19	na
	31-Mar-05		nd	37.07	3,642.78	na
	13-May-05		nd	37.10	3,642.75	na
	23-May-05		nd	37.09	3,642.76	na
	26-May-05		nd	37.13	3,642.72	na
	28-Jun-05		nd	37.16	3,642.69	na
	15-Aug-05		nd	37.32	3,642.53	na
	17-Aug-05		nd	37.26	3,642.59	na
	14-Nov-05		nd	37.40	3,642.45	na
MW-8	23-Jan-04	3,679.07	nd	39.56	3,639.51	na
	29-Apr-04		nd	39.33	3,639.74	na
	12-May-04		nd	39.34	3,639.73	na
	3-Jun-04		nd	39.32	3,639.75	na
	12-Jul-04		nd	40.13	3,638.94	na
	19-Jul-04		nd	40.32	3,638.75	na
	8-Nov-04		nd	39.60	3,639.47	na
	31-Mar-05		nd	37.11	3,641.96	na
	13-May-05		nd	37.16	3,641.91	na
	23-May-05		nd	37.16	3,641.91	na
	26-May-05		nd	37.19	3,641.88	na
	28-Jun-05		nd	37.23	3,641.84	na
	15-Aug-05		nd	37.40	3,641.67	na
	17-Aug-05		nd	37.34	3,641.73	na
	14-Nov-05		nd	37.52	3,641.55	na

**Table 1**  
**Plains Pipeline, L.P.**  
**Hobbs Junction Mainline - Ref. #2003-00017**  
**Groundwater Elevations and**  
**Phase Separated Hydrocarbon (PSH) Thickness**

Monitoring Well #	Date	Top of Casing Elevation (feet-amsl)	Depth to PSH (feet-btoc)	Depth to Water (feet-btoc)	Corrected Groundwater Elevation* (feet-amsl)	PSH Thickness (feet)
MW-9	23-Jan-04	3,678.76	nd	39.91	3,638.85	na
	29-Apr-04		nd	39.68	3,639.08	na
	12-May-04		nd	39.69	3,639.07	na
	3-Jun-04		nd	39.67	3,639.09	na
	12-Jul-04		nd	40.34	3,638.42	na
	19-Jul-04		nd	40.44	3,638.32	na
	8-Nov-04		nd	38.84	3,639.92	na
	31-Mar-05		nd	37.48	3,641.28	na
	13-May-05		nd	37.54	3,641.22	na
	23-May-05		nd	37.55	3,641.21	na
	26-May-05		nd	37.59	3,641.17	na
	28-Jun-05		nd	37.64	3,641.12	na
	15-Aug-05		nd	37.82	3,640.94	na
	17-Aug-05		nd	37.77	3,640.99	na
	14-Nov-05		nd	37.95	3,640.81	na
MW-10	23-Jan-04	3,678.36	nd	39.89	3,638.47	na
	29-Apr-04		nd	39.74	3,638.62	na
	12-May-04		nd	39.74	3,638.62	na
	3-Jun-04		nd	39.74	3,638.62	na
	12-Jul-04		nd	40.24	3,638.12	na
	19-Jul-04		nd	40.33	3,638.03	na
	8-Nov-04		nd	38.76	3,639.60	na
	31-Mar-05		nd	37.46	3,640.90	na
	13-May-05		nd	37.58	3,640.78	na
	23-May-05		nd	37.58	3,640.78	na
	26-May-05		nd	37.62	3,640.74	na
	28-Jun-05		nd	37.70	3,640.66	na
	15-Aug-05		nd	37.87	3,640.49	na
	17-Aug-05		nd	37.02	3,641.34	na
	14-Nov-05		nd	38.02	3,640.34	na
MW-11	23-Jan-04	3,678.03	nd	41.40	3,636.63	na
	29-Apr-04		nd	41.07	3,636.96	na
	12-May-04		nd	39.57	3,638.46	na
	3-Jun-04		nd	39.61	3,638.42	na
	12-Jul-04		nd	40.04	3,637.99	na
	19-Jul-04		nd	40.10	3,637.93	na
	8-Nov-04		nd	38.66	3,639.37	na
	31-Mar-05		nd	37.25	3,640.78	na
	13-May-05		nd	37.40	3,640.63	na
	23-May-05		nd	37.34	3,640.69	na
	26-May-05		nd	31.45	3,646.58	na
	28-Jun-05		nd	37.54	3,640.49	na
	15-Aug-05		nd	37.60	3,640.43	na
	17-Aug-05		nd	37.61	3,640.42	na
	14-Nov-05		nd	37.80	3,640.23	na

**Table 1**  
**Plains Pipeline, L.P.**  
**Hobbs Junction Mainline - Ref. #2003-00017**  
**Groundwater Elevations and**  
**Phase Separated Hydrocarbon (PSH) Thickness**

Monitoring Well #	Date	Top of Casing Elevation (feet-amsl)	Depth to PSH (feet-btoc)	Depth to Water (feet-btoc)	Corrected Groundwater Elevation* (feet-amsl)	PSH Thickness (feet)
MW-12	23-Jan-04	3,679.63	39.49	45.30	3,629.10	5.81
	23-Mar-04		38.89	47.39	3,624.59	8.50
	29-Mar-04		38.86	47.33	3,624.68	8.47
	29-Apr-04		38.86	48.57	3,622.32	9.71
	3-May-04		38.83	46.63	3,625.98	7.80
	12-Jul-04		39.58	47.53	3,624.95	7.95
	9-Dec-04		37.50	44.28	3,629.25	6.78
	16-Feb-05		36.68	43.87	3,629.29	7.19
	31-Mar-05		36.95	42.97	3,631.24	6.02
	13-May-05		36.83	43.97	3,629.23	7.14
	26-May-05		36.95	43.71	3,629.84	6.76
	28-Jun-05		36.97	44.14	3,629.04	7.17
	15-Aug-05		37.25	43.60	3,630.32	6.35
	14-Nov-05		37.73	43.51	3,630.92	5.78
MW-13	23-Jan-04	3,681.42	nd	39.67	3,641.75	na
	29-Apr-04		nd	39.58	3,641.84	na
	12-May-04		nd	41.05	3,640.37	na
	3-Jun-04		nd	41.05	3,640.37	na
	12-Jul-04		nd	42.18	3,639.24	na
	19-Jul-04		nd	42.44	3,638.98	na
	8-Nov-04		nd	40.24	3,641.18	na
	31-Mar-05		nd	38.79	3,642.63	na
	13-May-05		nd	38.83	3,642.59	na
	23-May-05		nd	38.82	3,642.60	na
	26-May-05		nd	38.87	3,642.55	na
	28-Jun-05		nd	38.63	3,642.79	na
	15-Aug-05		nd	39.07	3,642.35	na
	17-Aug-05		nd	39.02	3,642.40	na
	14-Nov-05		nd	39.15	3,642.27	na
MW-14	3-Jun-04	3,679.00	39.16	42.87	3,632.79	3.71
	12-Jul-04		39.29	46.46	3,626.09	7.17
	19-Jul-04		39.45	46.59	3,625.98	7.14
	26-Aug-04		38.92	45.94	3,626.74	7.02
	9-Dec-04		37.11	43.08	3,630.55	5.97
	16-Feb-05		36.62	42.53	3,631.15	5.91
	31-Mar-05		36.34	43.32	3,629.40	6.98
	13-May-05		36.45	43.34	3,629.46	6.89
	26-May-05		36.48	45.27	3,625.82	8.79
	28-Jun-05		36.54	44.83	3,626.71	8.29
	15-Aug-05		37.14	41.59	3,633.41	4.45
	14-Nov-05		37.55	41.70	3,633.57	4.15

**Table 1**  
**Plains Pipeline, L.P.**  
**Hobbs Junction Mainline - Ref. #2003-00017**  
**Groundwater Elevations and**  
**Phase Separated Hydrocarbon (PSH) Thickness**

Monitoring Well #	Date	Top of Casing Elevation (feet-amsl)	Depth to PSH (feet-btoc)	Depth to Water (feet-btoc)	Corrected Groundwater Elevation* (feet-amsl)	PSH Thickness (feet)
MW-15	3-Jun-04	3,674.92	nd	36.22	3,638.70	na
	12-Jul-04		nd	36.77	3,638.15	na
	19-Jul-04		nd	36.90	3,638.02	na
	8-Nov-04		nd	35.10	3,639.82	na
	31-Mar-05		nd	33.92	3,641.00	na
	13-May-05		nd	34.00	3,640.92	na
	23-May-05		nd	35.34	3,639.58	na
	26-May-05		nd	35.38	3,639.54	na
	28-Jun-05		nd	35.46	3,639.46	na
	15-Aug-05		nd	34.32	3,640.60	na
	17-Aug-05		nd	34.29	3,640.63	na
	14-Nov-05		nd	34.47	3,640.45	na
MW-16	3-Jun-04	3,676.86	nd	37.66	3,639.20	na
	12-Jul-04		nd	38.35	3,638.51	na
	19-Jul-04		nd	38.57	3,638.29	na
	8-Nov-04		nd	36.38	3,640.48	na
	31-Mar-05		nd	35.29	3,641.57	na
	13-May-05		nd	35.31	3,641.55	na
	23-May-05		nd	35.18	3,641.68	na
	26-May-05		nd	34.04	3,642.82	na
	28-Jun-05		nd	34.11	3,642.75	na
	15-Aug-05		nd	35.61	3,641.25	na
	17-Aug-05		nd	35.56	3,641.30	na
	14-Nov-05		nd	35.73	3,641.13	na
MW-17	3-Jun-04	3,679.01	39.66	42.05	3,634.81	2.39
	12-Jul-04		39.39	46.94	3,625.28	7.55
	19-Jul-04		39.50	46.97	3,625.32	7.47
	26-Aug-04		39.04	46.59	3,625.63	7.55
	9-Dec-04		37.11	44.60	3,627.67	7.49
	16-Feb-05		37.00	41.07	3,634.28	4.07
	31-Mar-05		36.49	44.13	3,628.00	7.64
	13-May-05		36.52	44.24	3,627.82	7.72
	26-May-05		36.72	44.28	3,627.93	7.56
	28-Jun-05		36.95	44.76	3,627.22	7.81
	15-Aug-05		37.25	42.35	3,632.07	5.10
	14-Nov-05		37.69	42.33	3,632.50	4.64
Klein Irrigation Well	10/31/2003	Well sampled but groundwater depth not measured.				
	11/8/2004	Well sampled but groundwater depth not measured.				
	3/31/2005	Well sampled but groundwater depth not measured.				

PSH - Phase Separated Hydrocarbons

na - not applicable

amsl - above mean sea level

nd - not detected

btoc - below top of casing

Yellow highlight indicates a 2005 sampling event.

\*Corrected Groundwater Elevation = Top of Casing Elevation - (Depth to Water Below Top of Casing - (SG)(PSH Thickness)).

**Table 2**  
**Plains Pipeline, L.P.**  
**Hobbs Junction Mainline #2003-00017**  
**Phase Separated Hydrocarbon (PSH) Declination Table**

Monitoring Well #	Period	Average PSH Thickness	Yearly Decline	Cumulative Decline
		feet	feet	feet
MW-1	2003	9.40	na	-2.46
	2004	7.45	-1.95	
	2005	6.94	-0.51	
MW-2	2003	6.39	na	-2.15
	2004	6.38	-0.01	
	2005	4.24	-2.14	
MW-3	2003	10.39	na	-4.95
	2004	7.58	-2.81	
	2005	5.44	-2.14	
MW-4	2003	8.82	na	-2.57
	2004	7.08	-1.74	
	2005	6.25	-0.83	
MW-5	2003	8.84	na	-1.40
	2004	8.42	-0.42	
	2005	7.44	-0.98	
MW-6	2003	8.97	na	-2.62
	2004	6.93	-2.04	
	2005	6.35	-0.58	
MW-7		not impacted		
MW-8		not impacted		
MW-9		not impacted		
MW-10		not impacted		
MW-11		not impacted		
MW-12	2004	7.64	na	-1.01
MW-12	2005	6.63	-1.01	
MW-13		not impacted		
MW-14	2004	6.57	na	-0.08
MW-14	2005	6.49	-0.08	
MW-15		not impacted		
MW-16		not impacted		
MW-17	2004	7.52	na	-1.16
MW-17	2005	6.36	-1.16	

na - not applicable

**Table 3**  
**Plains Pipeline L.P.**  
**Hobbs Junction Mainline #2003-00017**  
**Groundwater Monitoring Analytical Results**

**Table 3**  
**Plains Pipeline L.P.**  
**Hobbs Junction Mainline #2003-00017**  
**Groundwater Monitoring Analytical Results**

Monitoring Well #	Sample Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	m,p-Xylenes µg/L	o-Xylene µg/L	Total Xylenes µg/L	MTBE µg/L
MW-8	23-Jan-04	<1	<1	<1	<2	<1	<2	
	12-May-04	1.10	<1	<1	<2	<1	<2	
	19-Jul-04	<1	<1	<1	<2	<1	<2	
	8-Nov-04	4.71	<1	<1	<2	<1	<2	
	31-Mar-05	<1	<1	<1	<2	<1	<2	
	23-May-05	<1	<1	<1	<2	<1	<2	
	17-Aug-05	<1	<1	<1	<2	<1	<2	
	14-Nov-05	<1	<1	<1	<2	<1	<2	
MW-9	23-Jan-04	<1	<1	<1	<2	<1	<2	
	12-May-04	<1	<1	<1	<2	<1	<2	
	19-Jul-04	<1	<1	<1	<2	<1	<2	
	8-Nov-04	<1	<1	<1	<2	<1	<2	
	31-Mar-05	<1	<1	<1	<2	<1	<2	
	23-May-05	<1	<1	<1	<2	<1	<2	
	17-Aug-05	<1	<1	<1	<2	<1	<2	
	14-Nov-05	<1	<1	<1	<2	<1	<2	
MW-10	23-Jan-04	<1	<1	<1	<2	<1	<2	
	12-May-04	<1	<1	<1	<2	<1	<2	
	19-Jul-04	<1	<1	<1	<2	<1	<2	
	8-Nov-04	<1	<1	<1	<2	<1	<2	
	31-Mar-05	<1	<1	<1	<2	<1	<2	
	23-May-05	<1	<1	<1	<2	<1	<2	
	17-Aug-05	<1	<1	<1	<2	<1	<2	
	14-Nov-05	11.9	<1	<1	<2	<1	<2	
MW-11	23-Jan-04	<1	<1	<1	<2	<1	<2	
	12-May-04	<1	<1	<1	<2	<1	<2	
	19-Jul-04	<1	<1	<1	<2	<1	<2	
	8-Nov-04	2.25	<1	<1	<2	<1	<2	
	31-Mar-05	1,010	13.8	233	33.9	41.1	75.0	
	23-May-05	3,030	831	661	292	219	511	
	17-Aug-05	16,000	5,300	1,400	711	486	1,200	
	14-Nov-05	24,000	7,450	2,240	1,120	825	1,950	
MW-12	23-Jan-04				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
	12-May-04				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
	19-Jul-04				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
	8-Nov-04				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
	31-Mar-05				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
	23-May-05				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
	17-Aug-05				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
	14-Nov-05				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
MW-13	23-Jan-04	<1	<1	<1	<2	<1	<2	
	12-May-04	<1	<1	<1	<2	<1	<2	
	19-Jul-04	<1	<1	<1	<2	<1	<2	
	8-Nov-04	<1	<1	<1	<2	<1	<2	
	31-Mar-05	<1	<1	<1	<2	<1	<2	
	23-May-05	<1	<1	<1	<2	<1	<2	
	17-Aug-05	1.50	<1	<1	<2	<1	<2	
	14-Nov-05	1.04	<1	<1	<2	<1	<2	
MW-14	19-Jul-04				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
	8-Nov-04				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
	31-Mar-05				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
	23-May-05				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
	17-Aug-05				Not sampled Due to the Presence of Phase Separated Hydrocarbon			
	14-Nov-05				Not sampled Due to the Presence of Phase Separated Hydrocarbon			

**Table 3**  
**Plains Pipeline L.P.**  
**Hobbs Junction Mainline #2003-00017**  
**Groundwater Monitoring Analytical Results**

Monitoring Well #	Sample Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	m,p-Xylenes µg/L	o-Xylene µg/L	Total Xylenes µg/L	MTBE µg/L
MW-15	19-Jul-04	<1	1.01	<1	<2	<1	<2	
	8-Nov-04	4.82	<1	<1	<2	<1	<2	
	31-Mar-05	1.04	<1	<1	<2	<1	<2	
	23-May-05	2.63	<1	<1	<2	<1	<2	
	17-Aug-05	2,150	10.4	<1	22.0	1.89	23.9	
	14-Nov-05	8,960	14.9	34.1	265	<10	265	
MW-16	19-Jul-04	<1	<1	<1	<2	<1	<2	
	8-Nov-04	25.5	<1	<1	<2	<1	<2	
	31-Mar-05	7.12	<1	<1	<2	<1	<2	
	23-May-05	3.57	<1	<1	<2	<1	<2	
	17-Aug-05	2.42	<1	<1	<2	<1	<2	
	14-Nov-05	5.11	<1	<1	<2	<1	<2	
MW-17	19-Jul-04	Not sampled Due to the Presence of Phase Separated Hydrocarbon						
	8-Nov-04	Not sampled Due to the Presence of Phase Separated Hydrocarbon						
	31-Mar-05	Not sampled Due to the Presence of Phase Separated Hydrocarbon						
	23-May-05	Not sampled Due to the Presence of Phase Separated Hydrocarbon						
	17-Aug-05	Not sampled Due to the Presence of Phase Separated Hydrocarbon						
	14-Nov-05	Not sampled Due to the Presence of Phase Separated Hydrocarbon						
Klein Irrigation Well	31-Oct-03	<1	<1	<1	<2	<1	<2	
	19-Jul-04	Not sampled						
	8-Nov-04	<1	<1	<1	<2	<1	<2	
	31-Mar-05	<1	<1	<1	<2	<1	<2	
	23-May-05	Not sampled						
	17-Aug-05	Not sampled						
	14-Nov-05	Not sampled						
<b>NMWQCC Standards</b>		10	750	750			620	

PSH - Phase Separated Hydrocarbon

< - denotes method detection limit

µg/L - micrograms per Liter

Blank cells indicate that analyses was not performed.

Concentrations reported to be above the NMWQCC Groundwater Standards are highlighted in red.

NMWQCC - New Mexico Water Quality Control Commission

**Table 4**  
**Plains Pipeline, L.P.**  
**Hobbs Junction Mainline - Ref #2003-00017**  
**Summary of Groundwater Polynuclear-Aromatic Hydrocarbons (PAH) Analytical Results**

**Table 4**  
**Plains Pipeline, L.P.**  
**Hobbs Junction Mainline - Ref #2003-00017**  
**Summary of Groundwater Polynuclear-Aromatic Hydrocarbons (PAH) Analytical Results**

**Table 4**  
**Plains Pipeline, L.P.**  
**Hobbs Junction Mainline - Ref #2003-00017**  
**Summary of Groundwater Polynuclear-Aromatic Hydrocarbons (PAH) Analytical Results**

**Table 4**  
**Plains Pipeline, L.P.**  
**Hobbs Junction Mainline - Ref #2003-00017**  
**Summary of Groundwater Polynuclear-Aromatic Hydrocarbons (PAH) Analytical Results**  
EPA SW846-8270C, 3510

Monitor Well #	Date	Acenaphthene ( $\mu\text{g/L}$ )	Acenaphthylene ( $\mu\text{g/L}$ )	Anthracene ( $\mu\text{g/L}$ )	Benzo[a]-anthracene ( $\mu\text{g/L}$ )	Benzo[a]-pyrene ( $\mu\text{g/L}$ )	Benzo[b]-fluoranthene ( $\mu\text{g/L}$ )	Benzo[g,h,i]-perylene ( $\mu\text{g/L}$ )	Benzo[j,k]-fluoranthene ( $\mu\text{g/L}$ )	Chrysene ( $\mu\text{g/L}$ )	Dibenz[a,h]-anthracene ( $\mu\text{g/L}$ )	Fluoranthene ( $\mu\text{g/L}$ )	Fluorene ( $\mu\text{g/L}$ )	Indeno[1,2,3-cd]-pyrene ( $\mu\text{g/L}$ )	Naphthalene ( $\mu\text{g/L}$ )	Phenanthrene ( $\mu\text{g/L}$ )	Pyrene ( $\mu\text{g/L}$ )
MW-16	19-Jul-04	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	8-Nov-04																
	31-Mar-05																
	23-May-05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	17-Aug-05																
	14-Nov-05																
MW-17	19-Jul-04																
	8-Nov-04																
	31-Mar-05																
	23-May-05																
	17-Aug-05																
	14-Nov-05																
Klein Irrigation Well	31-Oct-03																
	19-Jul-04																
	8-Nov-04																
	31-Mar-05																
	23-May-05																
	17-Aug-05																
	14-Nov-05																
NMWQCC Standards																	

PSH - Phase Separated Hydrocarbon

< - denotes method detection limit

NMWQCC - New Mexico Water Quality Control Commission

$\mu\text{g/L}$  - micrograms per Liter

Concentrations reported to be above the NMWQCC Drinking Water Standards are highlighted in red.

**Table 5**  
**Plains Pipeline, L.P.**  
**Hobbs Junction Mainline #2003-00017**  
**Recommendations and Monitoring Well Sampling Schedule for 2006**

Monitoring Well	Eight Quarters Below NMWQCC Standards	2006 Sampling Schedule				Notes
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
MW-1	No	--	--	--	--	Continue PSH recovery
MW-2	No	--	--	--	--	Continue PSH recovery
MW-3	No	--	--	--	--	Continue PSH recovery
MW-4	No	--	--	--	--	Continue PSH recovery
MW-5	No	--	--	--	--	Continue PSH recovery
MW-6	No	--	--	--	--	Continue PSH recovery
MW-7	Yes	X	--	--	--	Recommend Annual PAH analysis
MW-8	Yes	X	--	--	--	Recommend Annual PAH analysis
MW-9	Yes	X	--	--	--	Recommend Annual PAH analysis
MW-10	No	X	X	X	X	Recommend Annual PAH analysis
MW-11	No	X	X	X	X	Recommend Annual PAH analysis
MW-12	No	--	--	--	--	Continue PSH recovery
MW-13	Yes	X	--	--	--	Recommend Annual PAH analysis
MW-14	No	--	--	--	--	Continue PSH recovery
MW-15	No	X	X	X	X	Recommend Annual PAH analysis
MW-16	No	X	X	X	X	Recommend Annual PAH analysis
MW-17	No	--	--	--	--	Continue PSH recovery
MW-18	No	X-install	X	X	X	Recommend Annual PAH analysis
MW-19	No	X-install	X	X	X	Recommend Annual PAH analysis
MW-20	No	X-install	X	X	X	Recommend Annual PAH analysis
Klein Irrigation Well	No	--	X	--	--	Recommend Annual PAH analysis

NMWQCC - New Mexico Water Quality Control Commission

PAH - Polynuclear Aromatic Hydrocarbons

PSH - Phase Separated Hydrocarbons

## APPENDICES

## **Appendix I:      Laboratory Reports**

3512 Montopolis Drive, Austin, TX 78744 &  
 2209 N. Padre Island Dr., Corpus Christi, TX 78408  
 (512) 385-5886 • FAX (512) 385-7411

**Environmental Plus, Inc.**  
 Attn: Iain Ohness  
 Address: 2100 Ave. O  
 Eunice,  
 NM 88231  
 Phone: (505) 394-3481 FAX: (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	--		--		04/12/05	8260b(5030/5035)	--	--	--	--	--
Benzene	<1	µg/L	1	<1	04/12/05	8260b	--	0.4	93.3	103	94.8
Ethylbenzene	<1	µg/L	1	<1	04/12/05	8260b	--	0.3	99.2	107.5	96.8
m,p-Xylenes	<2	µg/L	2	<2	04/12/05	8260b	--	0.8	98.6	106.3	97.4
o-Xylene	<1	µg/L	1	<1	04/12/05	8260b	--	0.5	102.4	112	100.3
Toluene	<1	µg/L	1	<1	04/12/05	8260b	J	0.4	104.5	117.5	98.8

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,  
  
 Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%), difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analytic recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ('<') values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & SI = MS and/or MSD recovery exceed advisory limits. S2 = Post digestion spike (PDS) recovery exceeds advisory limit. S3 = MS and/or MSD and PDS recoveries exceed advisory limits. P = Precision higher than advisory limit. M = Matrix interference.

**Environmental Sciences**  
/NCE

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 382-7411

Client:	Environmental Plus, Inc.	Project ID:	2003-00017
Attn:	Iain Oldness	Sample Name:	PAAHJM33105MW-7
<b>REPORT OF SURROGATE RECOVERY</b>			

**Surrogate Compound**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	106	74-124	---
Toluene-d8	8260b	103	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report# /Lab ID#: 165655  
Sample Matrix: water

## Exceptions Report:

Report #/Lab ID#: 165655 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2003-00017  
Sample Name: PAAHJM3105MW-7

### Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation:

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Toluene	J	See J-flag discussion above.

Notes:

**ANALYSYS**  
ME.

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

**Client:** Environmental Plus, Inc.  
**Attn:** Iain Olness  
**Address:** 2100 Ave. O  
 Eunice,  
 NM 88231  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	04/12/05	8260b(5030/5035)	---	---	---	---	---	---
Benzene	<1	µg/L	1	<1	04/12/05	8260b	---	0.4	93.3	103	94.8
Ethylbenzene	<1	µg/L	1	<1	04/12/05	8260b	---	0.3	99.2	107.5	96.8
m,p-Xylenes	<2	µg/L	2	>2	04/12/05	8260b	---	0.8	98.6	106.3	97.4
o-Xylene	<1	µg/L	1	<1	04/12/05	8260b	---	0.5	102.4	112	100.3
Toluene	<1	µg/L	1	<1	04/12/05	8260b	---	0.4	104.5	117.5	98.8

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Respectfully Submitted,

Dale Wagner

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7/10/04 S  
HHC

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc. Project ID: 2003-00017  
Attn: Iain Ohness Sample Name: PAAHJM33105MW-8

Report#Lab ID#: 165656  
Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	106	74-124	---
Toluene-d8	8260b	103	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

**ANALYSYS INC.**

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**Client:** Environmental Plus, Inc.  
**Attn:** Iain Oiness  
**Address:** 2100 Ave. O  
 Eunice,  
 NM 88231  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	04/12/05	8260b(5030/5035)	---	---	2.6	94.2	98.9
Benzene	<1	µg/L	1	<1	04/12/05	8260b	---	4.2	103.6	103.4	100.7
Ethylbenzene	<1	µg/L	1	<1	04/12/05	8260b	---	5	103.4	103.2	97
m,p-Xylenes	<2	µg/L	2	<2	04/12/05	8260b	---	11.1	110.3	108.6	96.5
o-Xylene	<1	µg/L	1	<1	04/12/05	8260b	---	3.5	106.5	102.9	99.9
Toluene	<1	µg/L	1	<1	04/12/05	8260b	---	106.1	106.5	102.9	106.1

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Dale Wagner

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Report#/Lab ID#:	165657	Report Date:	04/14/05
Project ID#:	2003-00017		
Sample Name:	PAAHJM33105MW-9		
Sample Matrix:	water		
Date Received:	04/06/2005	Time:	10:00
Date Sampled:	03/31/2005	Time:	17:30

**QUALITY ASSURANCE DATA 1**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	<1	04/12/05	8260b(5030/5035)	---	---	---	---	---

7/7/04 SWS

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2003-00017  
Sample Name: PAAHJM33105MW-9

Report#Lab ID#: 165657  
Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	84.9	74-124	--
Toluene-d8	8260b	106	89-115	--

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

**ANALYST**  
//7E.

3512 Montopolis Drive, Austin, TX 78744 &  
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**Client:** Environmental Plus, Inc.  
**Attn:** Iain Olness  
**Address:** 2100 Ave. O  
Eunice,  
NM 88231  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile Organics-8260b/BTEX	---	µg/L	---	04/12/05	8260b(S030/S035)	---	---	---	---	---	---
Benzene	<1	µg/L	1	<1	04/12/05	8260b	---	0.4	93.3	103	94.8
Ethylbenzene	<1	µg/L	1	<1	04/12/05	8260b	---	0.3	99.2	107.5	96.8
m,p-Xylenes	<2	µg/L	2	>2	04/12/05	8260b	---	0.8	98.6	106.3	97.4
o-Xylene	<1	µg/L	1	<1	04/12/05	8260b	---	0.5	102.4	112	100.3
Toluene	<1	µg/L	1	<1	04/12/05	8260b	---	0.4	104.5	117.5	98.8

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Dale Wagner

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*7/17/05*

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5386 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2003-00017  
Sample Name: PAAHJM33105MW-10

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	89.4	74-124	---
Toluene-d8	8260b	105	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report#/Lab ID#: 165658  
Sample Matrix: water

**AnalySys**  
Inc.

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

**Client:** Environmental Plus, Inc.  
**Attn:** Iain Olness  
**Address:** 2100 Ave. O  
 Eunice,  
 NM 88231  
**Phone:** (505) 394-3481      **FAX:** (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	04/13/05	8260b(5030/5035)	---	---	---	---	---
Benzene	1010	µg/L	10	<10	04/13/05	8260b	---	2.6	94.2	98.9	100.7
Ethylbenzene	233	µg/L	10	<10	04/13/05	8260b	---	4.2	103.6	103.4	97
m,p-Xylenes	33.9	µg/L	20	>20	04/13/05	8260b	---	5	103.4	103.2	96.5
o-Xylene	41.1	µg/L	10	<10	04/13/05	8260b	---	11.1	110.3	108.6	99.9
Toluene	13.8	µg/L	10	<10	04/13/05	8260b	---	3.5	106.5	102.9	106.1

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Respectfully Submitted,



Dale Wagner

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Report#/Lab ID#:	165659	Report Date:	04/14/05
Project ID#:	2003-00017		
Sample Name:	PAAHJM33105MW-11		
Sample Matrix:	water		
Date Received:	04/06/2005	Time:	10:00
Date Sampled:	03/31/2005	Time:	18:12

#### QUALITY ASSURANCE DATA <sup>1</sup>

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	04/13/05	8260b(5030/5035)	---	---	---	---	---
Benzene	1010	µg/L	10	<10	04/13/05	8260b	---	2.6	94.2	98.9	100.7
Ethylbenzene	233	µg/L	10	<10	04/13/05	8260b	---	4.2	103.6	103.4	97
m,p-Xylenes	33.9	µg/L	20	>20	04/13/05	8260b	---	5	103.4	103.2	96.5
o-Xylene	41.1	µg/L	10	<10	04/13/05	8260b	---	11.1	110.3	108.6	99.9
Toluene	13.8	µg/L	10	<10	04/13/05	8260b	---	3.5	106.5	102.9	106.1

**Environmental Plus, Inc.**

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	102	74-124	----
Toluene-d8	8260b	101	89-115	----

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

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(512) 385-5886 • FAX (512) 385-7411

Project ID: 2003-00017  
Sample Name: PAAHIM33105MW-11  
Report#/Lab ID#: 165659  
Sample Matrix: water

**ANALYSTS INC.**

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

**Client:** Environmental Plus, Inc.  
**Attn:** Alan Oiness  
**Address:** 2100 Ave. O  
Eunice,  
**Phone:** (505) 394-3481      **FAX:** (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Reov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	04/12/05	8260b(5030/5035)	J	0.4	93.3	103	94.8	---
Benzene	<1	µg/L	1	<1	04/12/05	8260b	---	0.3	99.2	107.5	96.8
Ethylbenzene	<1	µg/L	1	<1	04/12/05	8260b	---	0.8	98.6	106.3	97.4
m,p-Xylenes	<2	µg/L	2	<2	04/12/05	8260b	---	0.5	102.4	112	100.3
o-Xylene	<1	µg/L	1	<1	04/12/05	8260b	---	0.4	104.5	117.5	98.8
Toluene	<1	µg/L	1	<1	04/12/05	8260b	---	0.4	104.5	117.5	98.8

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Respectfully Submitted,  
  
 Dale Wagner

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*7/11/05*

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Client: Environmental Plus, Inc.

Attn: Iain Ohness

Project ID: 2003-00017  
Sample Name: PAAHM33105MW-13

Report#/Lab ID#: 165660  
Sample Matrix: water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	90.2	74-124	---
Toluene-d8	8260b	108	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

## Exceptions Report:

Report #/Lab ID#: 165660 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Olness  
Project ID: 2003-00017  
Sample Name: PAAHJM33105MW-13

**Sample Temperature/Condition:** <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA, and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

**Sample Bottles & Preservation:**

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

**J flag Discussion:**

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (e.g. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

**Comments pertaining to Data Qualifiers and QC data:**

Parameter	Qualif	Comment
Benzene	J	See J flag discussion above.

Notes:

**AnalySys**  
INC.3512 Montopolis Drive, Austin, TX 78744 &  
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 Address: 2100 Ave. O  
 Eunice,  
 NM 88231  
 Phone: (505) 394-3481 FAX: (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	04/12/05	8260b(5030/S035)	---	---	---	---	---
Benzene	1.04	µg/L	1	<1	04/12/05	8260b	---	0.4	93.3	103	94.8
Ethylbenzene	<1	µg/L	1	<1	04/12/05	8260b	---	0.3	99.2	107.5	96.8
m,p-Xylenes	<2	µg/L	2	<2	04/12/05	8260b	---	0.8	98.6	106.3	97.4
o-Xylene	<1	µg/L	1	<1	04/12/05	8260b	---	0.5	102.4	112	100.3
Toluene	<1	µg/L	1	<1	04/12/05	8260b	---	0.4	104.5	117.5	98.8

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7/11/05

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(512) 385-5886 • FAX (512) 385-7411

Client:	Environmental Plus, Inc.	Project ID:	2003-00017
Attn:	Iain Ohness	Sample Name:	PAAHJM33105MW-15

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	94.9	74-124	---
Toluene-d8	8260b	103	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

# AnalySys

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Attn: Iain Ohness  
Address: 2100 Ave. O  
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NM 88231  
Phone: (505) 394-3481 FAX: (505) 394-2601

## REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	04/13/05	8260b(5030/5035)	---	---	---	---	---	---
Benzene	7.12	µg/L	1	<1	04/13/05	8260b	---	2.6	94.2	98.9	100.7
Ethylbenzene	<1	µg/L	1	<1	04/13/05	8260b	---	4.2	103.6	103.4	97
m,p-Xylenes	2	µg/L	2	<2	04/13/05	8260b	---	5	103.4	103.2	96.5
o-Xylene	<1	µg/L	1	<1	04/13/05	8260b	---	11.1	110.3	108.6	99.9
Toluene	<1	µg/L	1	<1	04/13/05	8260b	J	3.5	106.5	102.9	106.1

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,  
  
Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analytic recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL, B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limits. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

77074545

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 383-5886 • FAX (512) 383-7411

Client: Environmental Plus, Inc.  
Attn: Iain Olness

Project ID: 2003-000017

Sample Name: PAAHM33105MW-16

Report# /Lab ID#: 165662

Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	98.1	74-124	--
Toluene-d8	8260b	104	89-115	--

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

## Exceptions Report

Report #/Lab ID#: 165662 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2003-00017  
Sample Name: PAAHM33105MW-16

**Sample Temperature/Condition:** <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

**Sample Bottles & Preservation:**

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

**J Flag Discussion:**

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination) though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

**Comments pertaining to Data Qualifiers and QC data:**

Parameter	Qualif	Comment
Toluene	J	See J-flag discussion above.

Notes:

Analysys Inc.

3512 Montopolis Drive, Austin, TX 78744 &  
2009 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Olness  
Address: 2100 Ave. O  
Eunice,  
NM 88231  
Phone: (505) 394-3481 FAX: (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	8260b(5030/5035)	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	---	04/12/05	8260b	---	---	0.4	93.3	103	94.8
Benzene	<1	µg/L	1	<1	04/12/05	8260b	---	---	0.3	99.2	107.5	96.8
Ethylbenzene	<1	µg/L	1	<1	04/12/05	8260b	---	---	0.8	98.6	106.3	97.4
m,p-Xylenes	<2	µg/L	2	<2	04/12/05	8260b	---	---	0.5	102.4	112	100.3
o-Xylene	<1	µg/L	1	<1	04/12/05	8260b	---	---	0.4	104.5	117.5	98.8
Toluene	<1	µg/L	1	<1	04/12/05	8260b	---	---	---	---	---	---

This analytical report is respectfully submitted by Analysys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with Analysys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, Analysys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of Analysys, Inc.

Respectfully Submitted,  
  
Dale Wagner

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7/17/03 4645

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2003-00017  
Sample Name: PAAHJM33105KleinWW

Report#/Lab ID#: 165663  
Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	96.7	74-124	---
Toluene-d8	8260b	111	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

# AnalySys Inc.

4221 Friedrich Lane, Suite 190, Austin, TX 78744  
512-444-5896 FAX: 512-447-4766

2209 N. Padre Island Dr., Corpus Christi, TX 78408

## Chain of Custody Form

Company Name	Environmental Plus, Inc.	ANALYSIS REQUEST																	
		BILLED TO:																	
EPI Project Manager	Iain Olness																		
Mailing Address	P.O. BOX 1558																		
City, State, Zip	Eunice New Mexico 88231																		
EPI Phone#/Fax#	505-394-3481 / 505-394-2601																		
Client Company	Plains All American																		
Facility Name	Hobbs Junction Mainline	Attn: ENV Accounts Receivable																	
Project Reference	2003-00017	PO Box 4648																	
EPI Sampler Name	Manuel Gonzales	Houston, TX 77210-4648																	
LAB I.D.	SAMPLE I.D.	MATRIX	PRESERV.	SAMPLING	TIME	DATE	OTHER:	ACID/BASE	ICE/COOL	SLUDGE	SOLID	WASTEWATER	CRUDE OIL	OTHER:	PH	TCLP	OTHER >Y	PAH	
165655 <sub>1</sub>	PAAHJM33105MW-7	G 3 X	X X	X X	3/31/05	3:10	X												
165656 <sub>2</sub>	PAAHJM33105MW-8	G 3 X	X X	X X	3/31/05	5:09	X												
165657 <sub>3</sub>	PAAHJM33105MW-9	G 3 X	X X	X X	3/31/05	5:30	X												
165658 <sub>4</sub>	PAAHJM33105MW-10	G 3 X	X X	X X	3/31/05	5:55	X												
165659 <sub>5</sub>	PAAHJM33105MW-11	G 3 X	X X	X X	3/31/05	6:12	X												
165660 <sub>6</sub>	PAAHJM33105MW-13	G 3 X	X X	X X	3/31/05	3:49	X												
165661 <sub>7</sub>	PAAHJM33105MW-15	G 3 X	X X	X X	3/31/05	6:29	X												
165662 <sub>8</sub>	PAAHJM33105MW-16	G 3 X	X X	X X	3/31/05	4:45	X												
165663 <sub>9</sub>	PAAHJM33105KleinWW	G 3 X	X X	X X	31-Mar	6:42	X												
	10																		
Date 4/1/05 Received By: _____ Time 3:00												E-mail results to: iolness@hotmail.com and envplus1@aol.com							
Delivered by: _____												REMARKS: _____							
Delivered by: _____												Sample Cool & Intact Yes No Checked By: _____							

Sampler Relinquished: <i>Manuel Gonzales</i>	Date 4/1/05 Time 3:00	Received By: (lab staff) <i>Julie Lutz</i>	Date 4/1/05 Time 10:05	Received By: (lab staff) <i>Manolito</i>
Delivered by: <i>Manolito</i>				

T:5.2 C

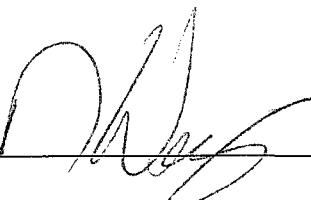
## Sample Analysis Case Narrative

Client: Environmental Plus, Inc. Project ID: 2003-00017

Attn: Iain Olness

for Sample #'s: 167527 thru 167534

Analyzed by AnalySys, Inc.

Final Review Date: 6/8/2005 By:  (D. Wagner)

### Case Narrative:

The spike recoveries and/or precisions of several PAH compounds for the analytical batch that contained samples 167527 thru 167534 were outside normal laboratory acceptance criteria due to matrix effects in the randomly selected spiked sample. The Laboratory Control Sample (LCS) run with this batch met recovery criteria for each compound indicating the analytical method was operating correctly and in control.

**AnalySys**  
fme.

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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohness  
Address: 2100 Ave. O  
Eunice,  
Phone: (505) 394-3481 FAX: (505) 394-2601

REPORT OF ANALYSIS	
Parameter	Result
A/B/N Extraction-PAH	---
Extractable organics-PAH	---
Volatile organics-8260b/BTEX	---
Benzene	<1
Ethylbenzene	<1
m,p-Xylenes	<2
o-Xylene	<1
Toluene	<1
Acenaphthene	<0.05
Acenaphthylene	<0.05
Anthracene	<0.05
Benz[a]anthracene	<0.05
Benz[a]pyrene	<0.05
Benz[b]fluoranthene	<0.05
Benz[g,h,i]perylene	<0.05
Benz[j,k]fluoranthene	<0.05
Chrysene	<0.05
Dibenz[a,h]anthracene	<0.05
Fluoranthene	<0.05
Fluorene	<0.05
Indeno[1,2,3-cd]pyrene	<0.05

Report#/Lab ID#:	167527	Report Date:	06/06/05
Project ID#:	2003-00017		
Sample Name:	HJM MW-10		
Sample Matrix:	water		
Date Received:	05/25/2005	Time:	09:30
Date Sampled:	05/23/2005	Time:	10:45

QUALITY ASSURANCE DATA 1									
Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>
A/B/N Extraction-PAH	---	---	---	---	05/27/05	3520	---	---	---
Extractable organics-PAH	---	---	---	---	06/04/05	610 & 8270c	---	---	---
Volatile organics-8260b/BTEX	---	---	---	05/26/05	8260b(5030/5035)	---	---	---	---
Benzene	<1	$\mu\text{g/L}$	1	<1	05/26/05	8260b	---	2.6	84.9
Ethylbenzene	<1	$\mu\text{g/L}$	1	<1	05/26/05	8260b	---	3.1	102.6
m,p-Xylenes	<2	$\mu\text{g/L}$	2	<2	05/26/05	8260b	---	2.5	103.9
o-Xylene	<1	$\mu\text{g/L}$	1	<1	05/26/05	8260b	---	14.7	106.3
Toluene	<1	$\mu\text{g/L}$	1	<1	05/26/05	8260b	---	1.2	93.5
Acenaphthene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	P	33.3	98.3
Acenaphthylene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	P	36.9	97.4
Anthracene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	P	26.8	53
Benz[a]anthracene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	--	1.1	49.5
Benz[a]pyrene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	--	6.8	22.5
Benz[b]fluoranthene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	--	5.8	22.7
Benz[g,h,i]perylene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	S,M	16.1	111.3
Benz[j,k]fluoranthene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	--	6.9	27.8
Chrysene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	--	9.4	55.4
Dibenz[a,h]anthracene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	--	1.9	15.9
Fluoranthene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	--	13.4	59.5
Fluorene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	P	35.6	98.2
Indeno[1,2,3-cd]pyrene	<0.05	$\mu\text{g/L}$	0.05	<0.05	06/04/05	610 & 8270c	S,M,P	29.3	9.1

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Respectfully Submitted,

  
Dale Wagner

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3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Jain Ohness

Project ID: 2003-00017  
Sample Name: HJM MW-10

**REPORT OF ANALYSIS-cont.**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Naphthalene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	JP	37.4	40.9	106.3	79.3
Phenanthrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	21.3	57.5	108.1	90.7
Pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	0.5	58.1	102.3	78.9

**QUALITY ASSURANCE DATA 1**

Report#/Lab ID#: 167527  
Sample Matrix: water

**Environmental Plus, Inc.**

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.

Attn: Iain Olness

#### REPORT OF SURROGATE RECOVERY

##### Surrogate Compound

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	53.4	30-110	---
Nitrobenzene-d5	610 & 8270c	64.5	12-110	---
Terphenyl-d14	610 & 8270c	73.6	25-110	---
1,2-Dichloroethane-d4	8260b	93.3	70-130	---
Toluene-d8	8260b	104	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Client:	Environmental Plus, Inc.
Attn:	Iain Olness
Project ID:	2003-00017
Sample Name:	HJM MW-10

Report#/Lab ID#: 167527

Sample Matrix: water

## Exceptions Report:

Report #/Lab ID#: 167527 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2003-00017  
Sample Name: HM MW-10

### Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation:

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (e.g. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Benzof[ghi]perylene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	J	See J-flag discussion above.

Notes:



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**Client:** Environmental Plus, Inc.  
**Attn:** Jain Olness  
**Address:** 2100 Ave. O  
 Eunice,  
**Phone:** (505) 394-3481 **FAX:** (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQ <sub>L</sub> <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
A/BN Extraction-PAH	---	---	---	---	05/27/05	3520	---	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	06/04/05	610 & 8270c	---	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	05/31/05	8260b(5030/5035)	---	---	---	---	---	---	---	---
Benzene	3030	µg/L	100	<100	05/31/05	8260b	---	2.6	84.9	84.8	83.6	
Ethylbenzene	661	µg/L	100	<100	05/31/05	8260b	---	3.1	102.6	97.6	102.7	
m,p-Xylenes	292	µg/L	200	>200	05/31/05	8260b	---	2.5	103	97.9	103.3	
o-Xylene	219	µg/L	100	<100	05/31/05	8260b	---	14.7	107.8	102.8	106.3	
Toluene	831	µg/L	100	<100	05/31/05	8260b	---	1.2	93.5	91.9	93.7	
Acenaphthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	33.3	43.2	98.3	79.2	
Acenaphthylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	J.P.	36.9	43.5	97.4	81.7	
Anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	26.8	53	109.7	89.8	
Benzof[a]anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.1	49.5	107.2	93.9	
Benzo[a]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.8	22.5	107.1	82.3	
Benzo[b]fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	5.8	22.7	97.9	87.9	
Benzo[g,h,i]perylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	S.M.	16.1	11.3	101.6	84.1	
Benzo[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.9	27.8	109.9	90.5	
Chrysene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	9.4	55.4	106.8	109.7	
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.9	15.9	96	111.1	
Fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	13.4	59.5	105	85.9	
Fluorene	0.056	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	35.6	43.7	98.2	80.5	
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	S.M.P.	29.3	9.1	89.1	84.7	

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically, at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD and PDS recoveries exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. M =Matrix interference.

**Qnalysis** //TC.

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 \* FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Olness

Project ID: 2003-00017  
Sample Name: HJM MW-11

Report#/Lab ID#: 167528  
Sample Matrix: water

**REPORT OF ANALYSIS-cont.**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. 2	Recov. 3	CCV <sup>4</sup>	LCS <sup>4</sup>
Naphthalene	10.8 0.353 <0.05	$\mu\text{g/L}$ $\mu\text{g/L}$ $\mu\text{g/L}$	0.5 0.05 0.05	<0.5 <0.05 <0.05	06/06/05 06/04/05 06/04/05	610 & 8270c 610 & 8270c 610 & 8270c	P --- ---	37.4 21.3 0.5	40.9 57.5 58.1	106.3 108.1 102.3	79.3 90.7 78.9
Phenanthrene											
Pyrene											

**QUALITY ASSURANCE DATA 1**

*Environmental Plus, Inc.*

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client:	Environmental Plus, Inc.	Project ID:	2003-00017
Attn:	Iain Olness	Sample Name:	HJM MW-11
<b>REPORT OF SURROGATE RECOVERY</b>			

**Surrogate Compound**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	47.3	30-110	---
Nitrobenzene-d5	610 & 8270c	51.2	12-110	---
Terphenyl-d14	610 & 8270c	42.9	25-110	---
1,2-Dichloroethane-d4	8260b	129	70-130	---
Toluene-d8	8260b	88.6	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report#Lab ID#: 167528  
Sample Matrix: water

## Exceptions Report:

Report #/Lab ID#: 167528 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain O'ness  
Project ID: 2003-00017  
Sample Name: HJM MW-11

### Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation:

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL), is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (e.g. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualifier	Comment
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	J	See J-flag discussion above.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Benzol,g,h,iperylene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.

Notes:

**AnalySys**  
INC.

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Olness  
Address: 2100 Ave. O  
Eunice,  
Phone: (505) 394-3481 FAX: (505) 394-2601

REPORT OF ANALYSIS	
Parameter	Result
A/BN Extraction-PAH	---
Extractable organics-PAH	---
Volatile organics-8260b/BTEX	---
Benzene	<1
Ethylbenzene	<1
m,p-Xylenes	<2
o-Xylene	<1
Toluene	<1
Acenaphthene	<0.05
Acenaphthylene	<0.05
Anthracene	<0.05
Benz[a]anthracene	0.071
*Benz[a]pyrene	<0.05
Benz[b]fluoranthene	0.069
Benz[g,h,i]perylene	0.062
Benz[j,k]fluoranthene	0.083
Chrysene	0.096
Dibenz[a,h]anthracene	0.137
Fluoranthene	<0.05
Fluorene	<0.05
Indeno[1,2,3-cd]pyrene	0.07

Report#/Lab ID#:	167529	Report Date:	06/06/05
Project ID#:	2003-00017		
Sample Name:	HJM MW-13		
Sample Matrix:	water		
Date Received:	05/25/2005	Time:	09:30
Date Sampled:	05/23/2005	Time:	13:18

#### QUALITY ASSURANCE DATA <sup>1</sup>

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
A/BN Extraction-PAH	---	---	---	---	05/27/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	06/04/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	---	05/26/05	8260b(5030/5035)	---	---	---	---	---	---
Benzene	<1	µg/L	1	<1	05/26/05	8260b	J	2.6	84.9	84.8	83.6
Ethylbenzene	<1	µg/L	1	<1	05/26/05	8260b	---	3.1	102.6	97.6	102.7
m,p-Xylenes	<2	µg/L	2	<2	05/26/05	8260b	---	2.5	103	97.9	103.3
o-Xylene	<1	µg/L	1	<1	05/26/05	8260b	---	14.7	107.8	102.8	106.3
Toluene	<1	µg/L	1	<1	05/26/05	8260b	---	1.2	93.5	91.9	93.7
Acenaphthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	33.3	43.2	98.3	79.2
Acenaphthylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	36.9	43.5	97.4	81.7
Anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	26.8	53	109.7	89.8
Benz[a]anthracene	0.071	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.1	49.5	107.2	93.9
*Benz[a]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	J	6.8	22.5	107.1	82.3
Benz[b]fluoranthene	0.069	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	5.8	22.7	97.9	87.9
Benz[g,h,i]perylene	0.062	µg/L	0.05	<0.05	06/04/05	610 & 8270c	S,M	16.1	11.3	101.6	84.1
Benz[j,k]fluoranthene	0.083	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.9	27.8	109.9	90.5
Chrysene	0.096	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	9.4	55.4	106.8	109.7
Dibenz[a,h]anthracene	0.137	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.9	15.9	96	111.1
Fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	13.4	59.5	105	85.9
Fluorene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	35.6	43.7	98.2	80.5
Indeno[1,2,3-od]pyrene	0.07	µg/L	0.05	<0.05	06/04/05	610 & 8270c	S,M,P	29.3	9.1	89.1	84.7

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

Dale Wagner

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July 17, 2003

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Olness

Project ID: 2003-00017  
Sample Name: HJM MW-13

Report#Lab ID#: 167529  
Sample Matrix: water

**REPORT OF ANALYSIS-cont.**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. 2	Recovery <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Naphthalene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	J.P	37.4	40.9	106.3	79.3
Phenanthrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	--	21.3	57.5	108.1	90.7
Pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	J	0.5	58.1	102.3	78.9

**QUALITY ASSURANCE DATA 1**

7701L4S4S  
HCE.

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client:	Environmental Plus, Inc.	Project ID:	2003-00017
Attn:	Iain Ohness	Sample Name:	HJM MW-13

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	43.7	30-110	---
	610 & 8270c	56.2	12-110	---
	610 & 8270c	62.7	25-110	---
Terphenyl-d14	8260b	93.2	70-130	---
	8260b	103	80-127	---
1,2-Dichloroethane-d4				
Toluene-d8				

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report#Lab ID#: 167529  
Sample Matrix: water

## Exceptions Report:

Report #/Lab ID#: 167529 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Olness  
Project ID: 2003-00017  
Sample Name: HJM MW-13

### Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation:

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Benzene	J	See J-flag discussion above.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Benzol[ <i>g,h,i</i> ]perylene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3- <i>c,d</i> ]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Indeno[1,2,3- <i>c,d</i> ]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	I	See J-flag discussion above.
Naphthalene	J	See J-flag discussion above.
Naphthalene	J	See J-flag discussion above.
Pyrene		

Notes:

**AnalySys**  
INC.

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Olness  
Address: 2100 Ave. O  
Eunice,  
Phone: (505) 394-3481 FAX: (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
A/BN Extraction-PAH	---	---	---	---	05/27/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	06/04/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	05/26/05	8260b(5030/5035)	---	---	---	---	---	---	---
Benzene	2.63	µg/L	1	<1	05/26/05	8260b	---	2	82.9	87.3	84.5
Ethylbenzene	<1	µg/L	1	<1	05/26/05	8260b	---	1.5	104.8	98.7	101.8
m,p-Xylenes	<2	µg/L	2	<2	05/26/05	8260b	---	1.2	105.7	99.1	102.3
o-Xylene	<1	µg/L	1	<1	05/26/05	8260b	---	13.5	93.8	104.2	107.6
Toluene	<1	µg/L	1	<1	05/26/05	8260b	---	2.7	93	92.6	94.4
Acenaphthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	33.3	43.2	98.3	79.2
Acenaphthylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	36.9	43.5	97.4	81.7
Anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	26.8	53	109.7	89.8
Benz[a]anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.1	49.5	107.2	93.9
Benz[a]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.8	22.5	107.1	82.3
Benz[b]fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	5.8	22.7	97.9	87.9
Benz[g,h]perylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	S,M	16.1	11.3	101.6	84.1
Benz[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.9	27.8	109.9	90.5
Chrysene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	9.4	55.4	106.8	109.7
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.9	15.9	96	111.1
Fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	13.4	59.5	105	85.9
Fluorene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	35.6	43.7	98.2	80.5
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	SMP	29.3	9.1	89.1	84.7

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

  
Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recoveries exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limits. M=Matrix interference.

Report# /Lab ID#:	167530	Report Date:	06/06/05
Project ID:	2003-00017		
Sample Name:	HJM MW-15		
Sample Matrix:	water		
Date Received:	05/25/2005	Time:	09:30
Date Sampled:	05/23/2005	Time:	13:59

*777777777777*

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7311

Client: Environmental Plus, Inc.  
Attn: Iain Olness

Project ID: 2003-00017  
Sample Name: HJM MW-15

Report# /Lab ID#: 167530  
Sample Matrix: water

**REPORT OF ANALYSIS-cont.**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Naphthalene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	37.4	40.9	106.3	79.3
Phenanthrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	21.3	57.5	108.1	90.7
Pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	0.5	58.1	102.3	78.9

**QUALITY ASSURANCE DATA 1**

*Environmental Plus, Inc.*

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2003-00017  
Sample Name: HJM MW-15

Report# /Lab ID#: 167530  
Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	38.5	30-110	---
	610 & 8270c	43.8	12-110	---
	610 & 8270c	31.1	25-110	---
1,2-Dichloroethane-d4	8260b	90.2	70-130	---
	8260b	105	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

## Exceptions Report:

Report #/Lab ID#: 167530 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2003-00017  
Sample Name: HJM MW-15

### Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation:

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background level) is blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (e.g. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Benzol,g,h,i,p-terphenyl	S,M	MS and/or MSD recovers outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recovers outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.

Notes: \_\_\_\_\_

**AnalySys**  
//TEC.

3512 Montopolis Drive, Austin, TX 78744 &  
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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Ian Olness  
Address: 2100 Ave. O  
Eunice,  
NM 88231  
Phone: (505) 394-3481 FAX: (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
A/BN Extraction-PAH	---	---	---	---	05/27/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	06/04/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	05/26/05	8260b(5030/5035)	---	---	---	---	---	---	---
Benzene	3.57	µg/L	1	<1	05/26/05	8260b	---	2.6	84.9	84.8	83.6
Ethylbenzene	<1	µg/L	1	<1	05/26/05	8260b	---	3.1	102.6	97.6	102.7
m,p-Xylenes	<2	µg/L	2	<2	05/26/05	8260b	---	2.5	103	97.9	103.3
o-Xylene	<1	µg/L	1	<1	05/26/05	8260b	---	14.7	107.8	102.8	106.3
Toluene	<1	µg/L	1	<1	05/26/05	8260b	J	1.2	93.5	91.9	93.7
Acenaphthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	33.3	43.2	98.3	79.2
Acenaphthylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	36.9	43.5	97.4	81.7
Anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	26.8	53	109.7	89.8
Benzof[a]anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.1	49.5	107.2	93.9
Benzof[ap]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.8	22.5	107.1	82.3
Benzof[b]fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	5.8	22.7	97.9	87.9
Benzof[g,h]perylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	S.M.	16.1	11.3	101.6	84.1
Benzof[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.9	27.8	109.9	90.5
Chrysene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	9.4	55.4	106.8	109.7
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.9	15.9	96	111.1
Fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	13.4	59.5	105	85.9
Fluorene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	35.6	43.7	98.2	80.5
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	SMP	29.3	9.1	89.1	84.7

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

  
Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

**ANALYSIS**

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Olness

Project ID: 2003-00017  
Sample Name: HJM MW-16

**REPORT OF ANALYSIS-cont.**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. 2	Recov. 3	CCV <sup>4</sup>	LCS <sup>4</sup>
Naphthalene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	37.4	40.9	106.3	79.3
Phenanthrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	21.3	57.5	108.1	90.7
Pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	0.5	58.1	102.3	78.9

**QUALITY ASSURANCE DATA 1**

Report# /Lab ID#: 167531  
Sample Matrix: water

**770LY6Y5**

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX  
78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	Project ID: 2003-00017
Attn: Iain Ohness	Sample Name: HJM MW-16

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	44.3	30-110	---
Nitrobenzene-d5	610 & 8270c	54.7	12-110	---
Terphenyl-d14	610 & 8270c	50.7	25-110	---
1,2-Dichloroethane-d4	8260b	88.4	70-130	---
Toluene-d8	8260b	103	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report# /Lab ID#: 167531  
Sample Matrix: water

## Exceptions Report:

Report #/Lab ID#: 167531 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2003-00017  
Sample Name: HM MW-16

### Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation:

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (e.g., the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Toluene	J	See J-flag discussion above.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Benzol,g,h,i]perylene	S,M	MS and/or MSD recovers outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recovers outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.

Notes:

ANALYSIS

3512 Montopolis Drive, Austin, TX 78744 &  
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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohness  
Address: 2100 Ave. O  
Eunice,  
NM 88231  
Phone: (505) 394-3481 FAX: (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQI <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
A/BN Extraction-PAH	---	---	---	---	05/27/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	06/04/05	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	---	05/26/05	8260b(5030/5035)	---	---	---	---	---	---
Benzene	<1	µg/L	1	<1	05/26/05	8260b	---	2.6	84.9	84.8	83.6
Ethylbenzene	<1	µg/L	1	<1	05/26/05	8260b	---	3.1	102.6	97.6	102.7
m,p-Xylenes	<2	µg/L	2	<2	05/26/05	8260b	---	2.5	103	97.9	103.3
o-Xylene	<1	µg/L	1	<1	05/26/05	8260b	---	14.7	107.8	102.8	106.3
Toluene	<1	µg/L	1	<1	05/26/05	8260b	J	1.2	93.5	91.9	93.7
Acenaphthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	33.3	43.2	98.3	79.2
Acenaphthylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	36.9	43.5	97.4	81.7
Anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	26.8	53	109.7	89.8
Benzo[alanthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.1	49.5	107.2	93.9
Benzo[al]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.8	22.5	107.1	82.3
Benzo[b]fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	5.8	22.7	97.9	87.9
Benzo[g,h,i]perylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	S,M	16.1	11.3	101.6	84.1
Benzo[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.9	27.8	109.9	90.5
Chrysene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	9.4	55.4	106.8	109.7
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.9	15.9	96	111.1
Fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	13.4	59.5	105	85.9
Fluorene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	35.6	43.7	98.2	80.5
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	S,M,P	29.3	9.1	89.1	84.7

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

Date Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 = MS and/or MSD recoveries exceed advisory limits. S2 = Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

Report#Lab ID#: 167532 Report Date: 06/06/05

Project ID: 2003-00017

Sample Name: HJM MW-7

Sample Matrix: water

Date Received: 05/25/2005 Time: 09:30

Date Sampled: 05/23/2005 Time: 11:42

#### QUALITY ASSURANCE DATA 1

**7707Lysys**

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohess

**REPORT OF ANALYSIS-cont.**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. 2	Recov. 3	CCV <sup>4</sup>	LCS <sup>4</sup>
Naphthalene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	37.4	40.9	106.3	79.3
Phenanthrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	21.3	57.5	108.1	90.7
Pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	0.5	58.1	102.3	78.9

Project ID: 2003-00017  
Sample Name: HIM MW-7

Report#/Lab ID#: 167532  
Sample Matrix: water

**QUALITY ASSURANCE DATA 1**

**ENVIRONMENTAL PLUS INC.**

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.

Attn: Iain Ohness

Project ID: 2003-00017  
Sample Name: HJM MW-7

Report# / Lab ID#: 167532

Sample Matrix: water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	36.3	30-110	---
Nitrobenzene-d5	610 & 8270c	56.7	12-110	---
Terphenyl-d14	610 & 8270c	72.2	25-110	---
1,2-Dichloroethane-d4	8260b	88.5	70-130	---
Toluene-d8	8260b	103	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

## Exceptions Report:

Report #/Lab ID#: 167532 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2003-00017  
Sample Name: HIM MW-7

### Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by JCP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation:

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (e.g. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Toluene	J	See J-flag discussion above.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Benzol[g,h]perylene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits: indicative of potential matrix interference as evidenced by M-flag.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits: indicative of potential matrix interference as evidenced by M-flag.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.

Notes:

**ANALYSTS**  
HTE.

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohness  
Address: 2100 Ave.O  
Eunice,  
Phone: (505) 394-3481 FAX: (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>8</sup>
A/BN Extraction-PAH	---	---	---	---	05/27/05	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	06/04/05	610 & 8270c	---	---	---	---	---
Volatile organics 8260b/BTEX	---	---	---	05/26/05	8260b(5030/5035)	---	---	---	---	---	---
Benzene	<1	µg/L	1	<1	05/26/05	8260b	J	2.6	84.9	84.8	83.6
Ethylbenzene	<1	µg/L	1	<1	05/26/05	8260b	---	3.1	102.6	97.6	102.7
m,p-Xylenes	<2	µg/L	2	<2	05/26/05	8260b	---	2.5	103	97.9	103.3
o-Xylene	<1	µg/L	1	<1	05/26/05	8260b	---	14.7	107.8	102.8	106.3
Toluene	<1	µg/L	1	<1	05/26/05	8260b	---	1.2	93.5	91.9	93.7
Acenaphthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	33.3	43.2	98.3	79.2
Acenaphthylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	36.9	43.5	97.4	81.7
Anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	26.8	53	109.7	89.8
Benzof[a]anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.1	49.5	107.2	93.9
Benzof[al]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.8	22.5	107.1	82.3
Benzol[b]fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	5.8	22.7	97.9	87.9
Benzol[g,h,i]perylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	S,M	16.1	11.3	101.6	84.1
Benzol[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.9	27.8	109.9	90.5
Chrysene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	9.4	55.4	106.8	109.7
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.9	15.9	96	111.1
Fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	13.4	59.5	105	85.9
Fluorene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	35.6	43.7	98.2	80.5
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	S,M,P	29.3	9.1	89.1	84.7

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

  
Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD and PDS recoveries exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. M =Matrix interference. M =Matrix interference.

**6701L4S45**

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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Ian Ohress

Project ID: 2003-00017  
Sample Name: HJM MW-8

**REPORT OF ANALYSIS-cont.**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method 6	Data Qual. <sup>7</sup>	Prec. 2	Recov. 3	CCV4	LCS <sup>4</sup>
Naphthalene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	37.4	40.9	106.3	79.3
Phenanthrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	21.3	57.5	108.1	90.7
Pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	0.5	58.1	102.3	78.9

**QUALITY ASSURANCE DATA 1**

Report# /Lab ID#: 167533  
Sample Matrix: water

**GLASS ME**

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	Project ID: 2003-00017
Attn: Iain Ohness	Sample Name: HJM MW-8

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	47.4	30-110	---
Nitrobenzene-d5	610 & 8270c	66.9	12-110	---
Terphenyl-d14	610 & 8270c	63.7	25-110	---
1,2-Dichloroethane-d4	8260b	102	70-130	---
Toluene-d8	8260b	99.2	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report# /Lab ID#: 167533  
Sample Matrix: water

## Exceptions Report:

Report #/Lab ID#: 167533 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2003-00017  
Sample Name: HM MW-8

### Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation:

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Benzene	J	See J-flag discussion above.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Benzol,g,h,i)perylene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.

Notes:

**AnalySys** Inc.

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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohnes  
Address: 2100 Ave. O  
Eunice,  
NM 88231  
Phone: (505) 394-3481 FAX: (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQl <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
A/BN Extraction-PAH	---	---	---	---	05/27/05	3520	---	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	06/04/05	610 & 8270c	---	---	---	---	---	---
Volatile organics-8260b/BTEX	---	---	---	05/26/05	8260b(5030/5035)	---	---	---	---	---	---	---
Benzene	<1	µg/L	1	<1	05/26/05	8260b	---	2.6	84.9	84.8	83.6	
Ethylbenzene	<1	µg/L	1	<1	05/26/05	8260b	---	3.1	102.6	97.6	102.7	
m,p-Xylenes	<2	µg/L	2	<2	05/26/05	8260b	---	2.5	103	97.9	103.3	
o-Xylene	<1	µg/L	1	<1	05/26/05	8260b	---	14.7	107.8	102.8	106.3	
Toluene	<1	µg/L	1	<1	05/26/05	8260b	---	1.2	93.5	91.9	93.7	
Acenaphthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	33.3	43.2	98.3	79.2	
Acenaphthylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	36.9	43.5	97.4	81.7	
Anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	26.8	53	109.7	89.8	
Benz[a]anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.1	49.5	107.2	93.9	
Benz[al]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.8	22.5	107.1	82.3	
Benz[b]fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	5.8	22.7	97.9	87.9	
Benz[g,h,i]perylene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	S,M	16.1	11.3	101.6	84.1	
Benz[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	6.9	27.8	109.9	90.5	
Chrysene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	9.4	55.4	106.8	109.7	
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	1.9	15.9	96	111.1	
Fluoranthene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	13.4	59.5	105	85.9	
Fluorene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	35.6	43.7	98.2	80.5	
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	S,M,P	29.3	9.1	89.1	84.7	

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P=Precision higher than advisory limit. M =Matrix interference.

**770L4S4S**

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(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Jain Ohness

Project ID: 2003-00017  
Sample Name: HJM MW-9

**REPORT OF ANALYSIS-cont.**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Naphthalene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	P	37.4	40.9	106.3	79.3
Phenanthrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	21.3	57.5	108.1	90.7
Pyrene	<0.05	µg/L	0.05	<0.05	06/04/05	610 & 8270c	---	0.5	58.1	102.3	78.9

**QUALITY ASSURANCE DATA 1**

Report#/Lab ID#: 167534

Sample Matrix: water

777777777777

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client:	Environmental Plus, Inc.	Project ID:	2003-00017
Attn:	Iain Ohness	Sample Name:	HJM MW-9
REPORT OF SURROGATE RECOVERY			Report# /Lab ID#: 167534 Sample Matrix: water

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	71.8	30-110	---
Nitrobenzene-d5	610 & 8270c	100	12-110	---
Terphenyl-d14	610 & 8270c	71.9	25-110	---
1,2-Dichloroethane-d4	8260b	91.7	70-130	---
Toluene-d8	8260b	104	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

## Exceptions Report:

Report #/Lab ID#: 167334 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Olness  
Project ID: 2003-00017  
Sample Name: HIM MW-9

### Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation:

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (e.g., the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Benzol[ghi]perylene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M flag.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Fluorene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M flag.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.
Naphthalene	P	The precision of the MS & MSD (or sample and sample duplicate for those analyses where MS/MSD are not run) is outside advisory/acceptance limits.

Notes:

# AnalySys Inc.

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512-444-5896 FAX: 512-447-4766

2209 N. Padre Island Dr., Corpus Christi, TX 78408

## Chain of Custody Form

Page 1 of 3

Company Name	EPA Project Manager	Mailing Address	City, State, Zip	EPA Phone# /Fax#	Client Company	Facility Name	Project Reference	EPA Sampler Name	Bill To:		ANALYSIS REQUEST																		
Environmental Plus, Inc.	Iain Olness	P.O. BOX 1558	Eunice New Mexico 88231	505-394-3481 / 505-394-2601	Plains All American	Hobbs Junction Mainline	2003-00017	Manuel Gonzales																					
Attn: ENV Accounts Receivable PO Box 4648 Houston, TX 77210-4648																													
LAB I.D.	SAMPLE I.D.		# CONTAINERS (G)RAB OR (G)OMP.	GROUNDS WATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER:	PH	TCLP	OTHER >>>	PAH														
																MATRIX		PRESERV.		SAMPLING									
	167532	1														HJM MW-7	G	6	X			X	X			5/23/05	11:42	X	X
	167533	2														HJM MW-8	G	6	X			X	X			5/23/05	11:21	X	X
	167534	3														HJM MW-9	G	6	X			X	X			5/23/05	11:01	X	X
		4																											
		5																											
		6																											
		7																											
		8																											
	9																												
	10																												
Submitted Relinquished: <i>Iain Olness</i>									Date: 5/24/05 Time: 16:00	Received By:																			
Relinquished by: <i>John J. Gonzalez</i>									Date: 5/25/05 Time: 19:30	Received By: (lab staff) <i>John J. Gonzalez</i>																			
Delivered by:									Sample Cool & Intact: Yes No	Checked By: <i>John J. Gonzalez</i>																			
<i>T.S. 9°C</i>																													
E-mail results to: iolness@hotmail.com and enviplus1@aol.com REMARKS:																													

# Analysys Inc.

4221 Friedrich Lane, Suite 190, Austin, TX 78744  
512-444-5896 FAX: 512-447-4766

2209 N. Padre Island Dr., Corpus Christi, TX 78408

## Chain of Custody Form

Company Name		Environmental Plus, Inc.		Bill To:		ANALYSIS REQUEST																		
EPI Project Manager	Iain Olness																							
Mailing Address	P.O. BOX 1558																							
City, State, Zip	Eunice New Mexico 88231																							
EPI Phone#/Fax#	505-394-3481 / 505-394-2601																							
Client Company	Plains All American																							
Facility Name	Hobbs Junction Mainline																							
Project Reference	2003-00017																							
EPI Sampler Name	Manuel Gonzales																							
LAB I.D.	SAMPLE I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER VV	PH	TCLP	SULFATES (SO <sub>4</sub> ) <sup>2-</sup>	CHLORIDES (Cl <sup>-</sup> )	TPH 8015M	BTEX 8021B	TPH 8021B	BTEX 8021B	PAH	OTHER VV		
	Matrix	Preserv.																					Sampling	
167527 1	HJM MW-10	G	6 X			X	X																	
167528 2	HJM MW-11	G	6 X			X	X																	
167529 3	HJM MW-13	G	6 X			X	X																	
4																								
5																								
6																								
7																								
8																								
9																								
10																								
Sampler Relinquished: <i>Iain Olness</i>		Received By: <i>John Jones</i>																						
Relinquished by: <i>John Jones</i>		Received By: (lab staff) <i>John Jones</i>																						
Delivered by: <i>John Jones</i>		Sample Cool & Intact Yes No		Checked By: <i>John Jones AS</i>																				
REMARKS: <i>None</i>																								
E-mail results to: iolness@hotmail.com and envplus1@aol.com																								

# AnalySys Inc.

4221 Friedrich Lane, Suite 190, Austin, TX 78744  
512-444-5896 FAX: 512-447-4766

2209 N. Padre Island Dr., Corpus Christi, TX 78408

## Chain of Custody Form

LAB I.D.	SAMPLE I.D.	ANALYSIS REQUEST			
		MATRIX	PRESERV.	SAMPLING	
167530 1	HJM MW-15	G 6 X	X X	5/23/05	13:59 X
167531 2	HJM MW-16	G 6 X	X X	5/23/05	14:40 X
3					
4					
5					
6					
7					
8					
9					
10					
Sample Delinquent by:				Received By:	E-mail results to: idness@hotmail.com and enviplus1@aol.com
Released by:				Received By: (lab staff)	REMARKS:
Delivered by:				Sample Cont & intact: Yes      No	Checked By:

Client: Environmental Plus, Inc.  
Attn: Iain Ohness  
Address: 2100 Ave. O  
Eunice,  
Phone: (505) 394-3481 FAX: (505) 394-2601

## REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	08/25/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	08/25/05	8260b	---	1.4	90.6	97.6	91.5
Ethylbenzene	<1	µg/L	1	<1	08/25/05	8260b	---	1.7	101	104.4	101.4
m,p-Xylenes	<2	µg/L	2	<2	08/25/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	<1	µg/L	1	<1	08/25/05	8260b	---	0.8	93	109	105.8
Toluene	<1	µg/L	1	<1	08/25/05	8260b	---	2	97.7	104.8	98

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Respectfully Submitted,

Dale Wagner

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**ENVIRONMENTAL PLUS INC.**

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2003-00017  
Sample Name: MW-7

2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Report#/Lab ID#: 170094  
Sample Matrix: water

#### **REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	90	70-130	---
Toluene-d8	8260b	103	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Client: Environmental Plus, Inc.  
Attn: Iain Olness  
Address: 2100 Ave. O  
Eunice,  
NM 88231  
Phone: (505) 394-3481 FAX: (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. 2	Recov. 3	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	08/25/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	08/25/05	8260b	---	1.4	90.6	97.6	91.5
Ethylbenzene	<1	µg/L	1	<1	08/25/05	8260b	---	1.7	101	104.4	101.4
m,p-Xylenes	<2	µg/L	2	<2	08/25/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	<1	µg/L	1	<1	08/25/05	8260b	---	0.8	93	109	105.8
Toluene	<1	µg/L	1	<1	08/25/05	8260b	---	2	97.7	104.8	98

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Respectfully Submitted,

Dale Wagner

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Report#/Lab ID#: 170095 Report Date: 08/29/05  
Project ID: 2003-00017  
Sample Name: MW-8  
Sample Matrix: water  
Date Received: 08/23/2005 Time: 11:20  
Date Sampled: 08/17/2005 Time: 08:30

**QUALITY ASSURANCE DATA 1**

LITERS

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2003-00017  
Sample Name: MW-8

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	88.5	70-130	---
Toluene-d8	8260b	103	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Report#/Lab ID#: 170095  
Sample Matrix: water

[REDACTED] N. P. Island, Corpus Christi, TX 78406  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohness  
Address: 2100 Ave. O  
Eunice,  
Phone: (505) 394-3481 FAX: (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	--		--		08/26/05	8260b(5030/5035)	--	--	--	--	--
Benzene	<1	$\mu\text{g/L}$	1	<1	08/26/05	8260b	--	1.4	90.6	97.6	91.5
Ethylbenzene	<1	$\mu\text{g/L}$	1	<1	08/26/05	8260b	--	1.7	101	104.4	101.4
m,p-Xylenes	<2	$\mu\text{g/L}$	2	<2	08/26/05	8260b	--	1.4	100.8	105.4	102.1
o-Xylene	<1	$\mu\text{g/L}$	1	<1	08/26/05	8260b	--	0.8	93	109	105.8
Toluene	<1	$\mu\text{g/L}$	1	<1	08/26/05	8260b	--	2	97.7	104.8	98

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Respectfully Submitted,



Dale Wagner

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Report#/Lab ID#: 170096 Report Date: 08/29/05  
Project ID: 2003-00017  
Sample Name: MW-9  
Sample Matrix: water  
Date Received: 08/23/2005 Time: 11:20  
Date Sampled: 08/17/2005 Time: 09:45

#### QUALITY ASSURANCE DATA 1

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	--		--		08/26/05	8260b(5030/5035)	--	--	--	--	--
Benzene	<1	$\mu\text{g/L}$	1	<1	08/26/05	8260b	--	1.4	90.6	97.6	91.5
Ethylbenzene	<1	$\mu\text{g/L}$	1	<1	08/26/05	8260b	--	1.7	101	104.4	101.4
m,p-Xylenes	<2	$\mu\text{g/L}$	2	<2	08/26/05	8260b	--	1.4	100.8	105.4	102.1
o-Xylene	<1	$\mu\text{g/L}$	1	<1	08/26/05	8260b	--	0.8	93	109	105.8
Toluene	<1	$\mu\text{g/L}$	1	<1	08/26/05	8260b	--	2	97.7	104.8	98

**CHILLYS INC.**

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	85.3	70-130	---
Toluene-d8	8260b	105	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Report#/Lab ID#: 170096  
Sample Matrix: water

Client ID: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2003-00017  
Sample Name: MW-9

Report#/Lab ID#: 170096  
Sample Matrix: water

Client: Environmental Plus, Inc.  
Attn: Iain Ohness  
Address: 2100 Ave. O  
Eunice,  
NM 88231  
Phone: (505) 394-3481 FAX: (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. 2	Recov. 3	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	08/26/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	08/26/05	8260b	---	1.4	90.6	97.6	91.5
Ethylbenzene	<1	µg/L	1	<1	08/26/05	8260b	---	1.7	101	104.4	101.4
m,p-Xylenes	<2	µg/L	2	<2	08/26/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	<1	µg/L	1	<1	08/26/05	8260b	---	0.8	93	109	105.8
Toluene	<1	µg/L	1	<1	08/26/05	8260b	---	2	97.7	104.8	98

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Respectfully Submitted,



Dale Wagner

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Report#/Lab ID#:	170097	Report Date:	08/29/05
Project ID:	2003-00017		
Sample Name:	MW-10		
Sample Matrix:	water		
Date Received:	08/23/2005	Time:	11:20
Date Sampled:	08/17/2005	Time:	10:45

**QUALITY ASSURANCE DATA 1**

**LITI<sup>Y</sup>S INC.**

Client: Environmental Plus, Inc.  
Attn: Iain Olness

Project ID: 2003-00017  
Sample Name: MW-10

2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Report#/Lab ID#: 170097  
Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	91.5	70-130	----
Toluene-d8	8260b	105	80-127	----

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

**Client:** Environmental Plus, Inc.  
**Attn:** Iain Olness  
**Address:** 2100 Ave. O  
 Eunice,  
**Phone:** (505) 394-3481      **FAX:** (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---			08/26/05	8260b(5030/5035)	---	---	---	---	---
Benzene	161000	µg/L	500	<500	08/29/05	8260b	---	1.4	90.6	97.6	91.5
Ethylbenzene	1400	µg/L	10	<10	08/26/05	8260b	---	1.7	101	104.4	101.4
m,p-Xylenes	711	µg/L	20	<20	08/26/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	486	µg/L	10	<10	08/26/05	8260b	---	0.8	93	109	105.8
Toluene	5300	µg/L	500	<500	08/29/05	8260b	---	2	97.7	104.8	98

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Respectfully Submitted,

  
 Dale Wagner

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Report#/Lab ID#:	170098	Report Date:	08/29/05
Project ID#:	2003-00017		
Sample Name:	MW-11		
Sample Matrix:	water		
Date Received:	08/23/2005	Time:	11:20
Date Sampled:	08/17/2005	Time:	11:45

#### QUALITY ASSURANCE DATA 1

**ENVIRONMENTAL PLUS, INC.**

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Project ID: 2003-00017  
Sample Name: MW-11

Report#Lab ID#: 170098  
Sample Matrix: water

### **REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	102	70-130	---
Toluene-d8	8260b	103	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

<b>Client:</b>	Environmental Plus, Inc.			
Attn:	Iain Ohness			
Address:	2100 Ave. O Eunice,			
Phone:	(505) 394-3481      FAX: (505) 394-2601			
<b>REPORT OF ANALYSIS</b>				
Parameter	Result	Units	RQL <sup>5</sup>	Blank
Volatile organics-8260b/BTEX	---	---	---	08/26/05
Benzene	1.5	µg/L	1	<1
Ethylbenzene	<1	µg/L	1	<1
m,p-Xylenes	<2	µg/L	2	<2
o-Xylene	<1	µg/L	1	<1
Toluene	<1	µg/L	1	<1

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Respectfully Submitted,



Dale Wagner

Report#/Lab ID#:	170099	Report Date:	08/29/05
Project ID#:	2003-00017		
Sample Name:	MW-13		
Sample Matrix:	water		
Date Received:	08/23/2005	Time:	11:20
Date Sampled:	08/17/2005	Time:	13:00

QUALITY ASSURANCE DATA <sup>1</sup>						
			Method 6	Data Qual. 7	Prec. 2	Recov. 3
			8260b(5030/5035)	---	---	---
			8260b	---	1.4	90.6
			8260b	---	1.7	101
			8260b	---	1.4	100.8
			8260b	---	0.8	93
			8260b	J	2	97.7

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**CHLOROFYRIN**

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2003-00017  
Sample Name: MW-13

2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	93.3	70-130	---
Toluene-d8	8260b	107	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report #/Lab ID#: 170099 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2003-00017  
Sample Name: MW-13

**Sample Temperature/Condition:** <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

**Sample Bottles & Preservation:**

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

**J flag Discussion:**

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

**Comments pertaining to Data Qualifiers and QC data:**

Parameter	Qualif	Comment
Toluene	J	See J-flag discussion above.

Notes:

**Client:** Environmental Plus, Inc.  
**Attn:** Iain Ohness  
**Address:** 2100 Ave. O  
 Eunice,  
 NM 88231  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	---	08/26/05	8260b(5030/5035)	---	---	---	---	---
Benzene	2150	µg/L	100	<100	08/29/05	8260b	---	1.4	90.6	97.6	91.5
Ethylbenzene	<1	µg/L	1	<1	08/26/05	8260b	J	1.7	101	104.4	101.4
m,p-Xylenes	22	µg/L	2	<2	08/26/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	1.39	µg/L	1	<1	08/26/05	8260b	---	0.8	93	109	105.8
Toluene	10.4	µg/L	1	<1	08/26/05	8260b	---	2	97.7	104.8	98

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Respectfully Submitted,

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

Report#/Lab ID#:	170100	Report Date:	08/29/05
Project ID#:	2003-00017		
Sample Name:	MW-15		
Sample Matrix:	water		
Date Received:	08/23/2005	Time:	11:20
Date Sampled:	08/17/2005	Time:	14:00

**QUALITY ASSURANCE DATA 1**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	---	08/26/05	8260b(5030/5035)	---	---	---	---	---
Benzene	2150	µg/L	100	<100	08/29/05	8260b	---	1.4	90.6	97.6	91.5
Ethylbenzene	<1	µg/L	1	<1	08/26/05	8260b	J	1.7	101	104.4	101.4
m,p-Xylenes	22	µg/L	2	<2	08/26/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	1.39	µg/L	1	<1	08/26/05	8260b	---	0.8	93	109	105.8
Toluene	10.4	µg/L	1	<1	08/26/05	8260b	---	2	97.7	104.8	98

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

9 N. [REDACTED] Dr., [REDACTED] Ch[REDACTED]  
(512) 385-5886 • FAX (512) 385-7411

Project ID: 2003-00017  
Sample Name: MW-15

Report#/Lab ID#: 170100  
Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	100	70-130	---
Toluene-d8	8260b	106	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report #/Lab ID#: 170100 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2003-00017  
Sample Name: MW-15

**Sample Temperature/Condition:** <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

**Sample Bottles & Preservation:**

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

**J flag Discussion:**

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

**Comments pertaining to Data Qualifiers and QC data:**

Parameter	Qualif	Comment
Ethylbenzene	J	See J-flag discussion above.

Notes:

Client: Environmental Plus, Inc.  
 Attn: Iain Oiness  
 Address: 2100 Ave. O  
 Eunice,  
 NM 88231  
 Phone: (505) 394-3481 FAX: (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	08/29/05	8260b(5030/5035)	---	---	---	---	---	---
Benzene	2.42	µg/L	1	<1	08/29/05	8260b	---	1.4	90.6	97.6	91.5
Ethylbenzene	<1	µg/L	1	<1	08/29/05	8260b	---	1.7	101	104.4	101.4
m,p-Xylenes	<2	µg/L	2	<2	08/29/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	<1	µg/L	1	<1	08/29/05	8260b	---	0.8	93	109	105.8
Toluene	<1	µg/L	1	<1	08/29/05	8260b	---	2	97.7	104.8	98

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Respectfully Submitted,

Dale Wagner  


1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analytic recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

Report#/ <b>Lab ID#:</b> 170101	Report Date: 08/29/05
Project ID: 2003-00017	
Sample Name: MW-16	
Sample Matrix: water	
Date Received: 08/23/2005	Time: 11:20
Date Sampled: 08/17/2005	Time: 15:00

**QUALITY ASSURANCE DATA 1**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	µg/L	---	08/29/05	8260b(5030/5035)	---	---	---	---	---	---
Benzene	2.42	µg/L	1	<1	08/29/05	8260b	---	1.4	90.6	97.6	91.5
Ethylbenzene	<1	µg/L	1	<1	08/29/05	8260b	---	1.7	101	104.4	101.4
m,p-Xylenes	<2	µg/L	2	<2	08/29/05	8260b	---	1.4	100.8	105.4	102.1
o-Xylene	<1	µg/L	1	<1	08/29/05	8260b	---	0.8	93	109	105.8
Toluene	<1	µg/L	1	<1	08/29/05	8260b	---	2	97.7	104.8	98

**ENVIRONMENTAL PLUS, INC.**

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2003-00017  
Sample Name: MW-16

Report#/Lab ID#: 170101  
Sample Matrix: water

#### **REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1,2-Dichloroethane-d4	8260b	101	70-130	---
Toluene-d8	8260b	105	80-127	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

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# AnalySys Inc.

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512-444-5896 FAX: 512-447-4766

2209 N. Padre Island Dr., Corpus Christi, TX 78408

## Chain of Custody Form

Company Name		Environmental Plus, Inc.		Billed To		ANALYSIS REQUEST	
EPI Project Manager	Iain Olness						
Mailing Address	P.O. BOX 1558						
City, State, Zip	Eunice New Mexico 88231						
EPI Phone#/Fax#	505-394-3481 / 505-394-2601						
Client Company	Plains All American						
Facility Name	Hobbs Junction Mainline						
Project Reference	2003-0017						
EPI Sampler Name	George Blackburn						
LAB I.D.	SAMPLE I.D.	MATRIX	PRESERV.	SAMPLING			
170094	1 MW-7	G 4 X	X X	X	DATE 17-Aug-05	TIME 7:30	X
170095	2 MW-8	G 4 X	X X	X X	DATE 17-Aug-05	TIME 8:30	X
170096	3 MW-9	G 4 X	X X	X X	DATE 17-Aug-05	TIME 9:45	X
170097	4 MW-10	G 4 X	X X	X X	DATE 17-Aug-05	TIME 10:45	X
170098	5 MW-11	G 4 X	X X	X X	DATE 17-Aug-05	TIME 11:45	X
170099	6 MW-13	G 4 X	X X	X X	DATE 17-Aug-05	TIME 13:00	X
170100	7 MW-15	G 4 X	X X	X X	DATE 17-Aug-05	TIME 14:00	X
170101	8 MW-16	G 4 X	X X	X X	DATE 17-Aug-05	TIME 15:00	X
	9						
	10						
Sampler Relinquished:		Date 8/22/05	Received By: Iain Olness			E-mail results to: iolness@envplus.net and dreynolds@paalp.com	
Relinquished By: <i>Iain Olness</i>		Date 8/22/05	Received By: (lab staff) <i>John Arnold</i>			REMARKS: T=5.2cc	
Delivered by:		Date 8/22/05	Time 16:30	Sample Cool & Intact Yes	No	Checked By:	

**ANALYSIS**3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohness  
Address: 2100 Ave. O  
Eunice,  
NM 88231  
Phone: (505) 394-3481 FAX: (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	11/23/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	11/23/05	8260b	---	4	102.4	106	98.7
Ethylbenzene	<1	µg/L	1	<1	11/23/05	8260b	---	1.9	95.7	100.3	96.9
m,p-Xylenes	<2	µg/L	2	<2	11/23/05	8260b	---	1.7	98.3	99	99
o-Xylene	<1	µg/L	1	<1	11/23/05	8260b	---	1.6	105.7	93.2	105.8
Toluene	<1	µg/L	1	<1	11/23/05	8260b	---	3.3	106.7	108	103.2

**QUALITY ASSURANCE DATA 1**

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Richard Elton

Report#Lab ID#: 173890 Report Date: 11/29/05  
Project ID: 2003-00017 Hobbs Junction Mainline  
Sample Name: MW-7  
Sample Matrix: water  
Date Received: 11/22/2005 Time: 10:30  
Date Sampled: 11/14/2005 Time: 07:00

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

*HPLC*

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(512) 385-5886 • FAX (512) 385-7411

**Client:** Environmental Plus, Inc.  
**Attn:** Iain Ohness

**Project ID:** 2003-00017 Hobbs Junction Mainline  
**Sample Name:** MW-7

**Report#Lab ID#:** 173890  
**Sample Matrix:** water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Date Analyze	Data Qualifiers
1,2-Dichloroethane-d4	8260b	88.2	70-130	11/23/05	---
Toluene-d8	8260b	87.1	80-127	11/23/05	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

**ANALYSYS**  
INC.

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 2209 N. Padre Island Dr., Corpus Christi, TX 78408  
 (512) 385-5886 • FAX (512) 385-7411

**Client:** Environmental Plus, Inc.  
**Attn:** Iain Ohness  
**Address:** 2100 Ave. O  
 Eunice,  
 NM 88231  
**Phone:** (505) 394-3481 **FAX:** (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	<1	11/23/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	11/23/05	8260b	---	0.2	104.5	96.9	100.6
Ethylbenzene	<1	µg/L	1	<1	11/23/05	8260b	---	4.6	110.5	110.7	112.5
m,p-Xylenes	<2	µg/L	2	<2	11/23/05	8260b	---	2.9	111.8	110.3	112.3
o-Xylene	<1	µg/L	1	<1	11/23/05	8260b	---	3.5	121.8	116.1	120.4
Toluene	<1	µg/L	1	<1	11/23/05	8260b	---	9.1	108.1	98.3	106.2

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Richard Elton

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*Environmental Plus, Inc.*

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Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2003-00017 Hobbs Junction Mainline  
Sample Name: MW-8

Report# /Lab ID#: 173891  
Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Date Analyze	Data Qualifiers
1,2-Dichloroethane-d4	8260b	92.4	70-130	11/23/05	---
Toluene-d8	8260b	104	80-127	11/23/05	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

**ANALYST**

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

**Client:** Environmental Plus, Inc.  
**Attn:** Iain Ohness  
**Address:** 2100 Ave. O  
Eunice,  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		11/23/05	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	11/23/05	8260b	---	0.2	104.5	96.9	100.6
Ethylbenzene	<1	µg/L	1	<1	11/23/05	8260b	---	4.6	110.5	110.7	112.5
m,p-Xylenes	<2	µg/L	2	<2	11/23/05	8260b	---	2.9	111.8	110.3	112.3
o-Xylene	<1	µg/L	1	<1	11/23/05	8260b	---	3.5	121.8	116.1	120.4
Toluene	<1	µg/L	1	<1	11/23/05	8260b	---	9.1	108.1	98.3	106.2

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Richard Elton

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77014545

471C.

Client: Environmental Plus, Inc.  
Attn: Iain Oiness

Project ID: 2003-00017 Hobbs Junction Mainline  
Sample Name: MW-9

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Date Analyze	Data Qualifiers
1,2-Dichloroethane-d4	8260b	94.5	70-130	11/23/05	---
Toluene-d8	8260b	105	80-127	11/23/05	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

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(512) 385-5886 • FAX (512) 385-7411

Report#/Lab ID#: 173892  
Sample Matrix: water

**AnalySys**  
InCE.

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2209 N Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

**Client:** Environmental Plus, Inc.  
**Attn:** Iain Ohness  
**Address:** 2100 Ave. O  
 Eunice,  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	11/23/05	8260b(5030/5035)	---	---	---	---	---
Benzene	11.9	µg/L	1	<1	11/23/05	8260b	---	0.2	104.5	96.9	100.6
Ethylbenzene	<1	µg/L	1	<1	11/23/05	8260b	---	4.6	110.5	110.7	112.5
m,p-Xylenes	<2	µg/L	2	<2	11/23/05	8260b	J	2.9	111.8	110.3	112.3
o-Xylene	<1	µg/L	1	<1	11/23/05	8260b	---	3.5	121.8	116.1	120.4
Toluene	<1	µg/L	1	<1	11/23/05	8260b	---	9.1	108.1	98.3	106.2

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Richard Elton

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*Environmental Plus, Inc.*

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Date Analyze	Data Qualifiers
1,2-Dichloroethane-d4	8260b	94.7	70-130	11/23/05	---
1,2-Dichloroethane-d4	8260b	91	70-130	12/01/05	---
Toluene-d8	8260b	106	80-127	11/23/05	---
Toluene-d8	8260b	93.5	80-127	12/01/05	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Project ID: 2003-00017 Hobbs Junction Mainline  
Sample Name: MW-10

Report# / Lab ID#: 173893  
Sample Matrix: water

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

## Exceptions Report:

Report #/Lab ID#:	173893	Matrix:	water
Client:	Environmental Plus, Inc.	Attn:	Iain Olness
Project ID:	2003-00017 Hobbs Junction Mainline		
Sample Name:	MW-10		

**Sample Temperature/Condition:** <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

**Sample Bottles & Preservation:**

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

**J flag Discussion:**

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (e.g. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

**Comments pertaining to Data Qualifiers and QC data:**

Parameter	Qualif	Comment
m,p-Xylenes	J	See J-flag discussion above.

Notes:

**AnalySys Inc.**

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

**Client:** Environmental Plus, Inc.  
**Attn:** Iain Ohness  
**Address:** 2100 Ave. O  
Eunice,  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	11/28/05	8260b(5030/5035)	---	---	---	---	---
Benzene	24000	µg/L	200	<200	11/28/05	8260b	---	0.2	104.5	96.9	100.6
Ethylbenzene	2240	µg/L	100	<100	11/28/05	8260b	---	4.6	110.5	110.7	112.5
m,p-Xylenes	1120	µg/L	200	<200	11/28/05	8260b	---	2.9	111.8	110.3	112.3
o-Xylene	825	µg/L	100	<100	11/28/05	8260b	---	3.5	121.8	116.1	120.4
Toluene	7450	µg/L	100	<100	11/28/05	8260b	---	9.1	108.1	98.3	106.2

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Richard Elton

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

**CHIQUROS**  
/7C.

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client:	Environmental Plus, Inc.	Project ID:	2003-00017 Hobbs Junction Mainline	Report#/Lab ID#:	173894
Attn:	Iain Olness	Sample Name:	MW-11	Sample Matrix:	water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Date Analyze	Data Qualifiers
1,2-Dichloroethane-d4	8260b	109	70-130	11/28/05	--
Toluene-d8	8260b	115	80-127	11/28/05	--

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

**ANALYSTS**  
HTE.

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

**Client:** Environmental Plus, Inc.  
**Attn:** Ian Olness  
**Address:** 2100 Ave. O  
Eunice,  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		11/23/05	8260b(5030/5035)	---	---	---	---	---
Benzene	1.04	µg/L	1	<1	11/23/05	8260b	---	0.2	104.5	96.9	100.6
Ethylbenzene	<1	µg/L	1	<1	11/23/05	8260b	---	4.6	110.5	110.7	112.5
m,p-Xylenes	<2	µg/L	2	<2	11/23/05	8260b	---	2.9	111.8	110.3	112.3
o-Xylene	<1	µg/L	1	<1	11/23/05	8260b	---	3.5	121.8	116.1	120.4
Toluene	<1	µg/L	1	<1	11/23/05	8260b	---	9.1	108.1	98.3	106.2

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Richard Elton

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Report#/Lab ID#:	173895	Report Date:	11/29/05
Project ID:	2003-00017 Hobbs Junction Mainline		
Sample Name:	MW-13		
Sample Matrix:	water		
Date Received:	11/22/2005	Time:	10:30
Date Sampled:	11/14/2005	Time:	09:30

**CHROMASYS**

3512 Montopolis Drive, Austin, TX 78744 &  
2289 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client:	Environmental Plus, Inc.	Project ID:	2003-00017 Hobbs Junction Mainline
Attn:	Iain Ohness	Sample Name:	MW-13

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Date Analyze	Data Qualifiers
1,2-Dichloroethane-d4	8260b	106	70-130	11/23/05	---
Toluene-d8	8260b	106	80-127	11/23/05	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

**ANALYSIS REPORT**

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

**Client:** Environmental Plus, Inc.  
**Attn:** Iain Ohness  
**Address:** 2100 Ave. O  
 Eunice,  
**Phone:** (505) 394-3481    **FAX:** (505) 394-2601

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	11/24/05	8260b(5030/5035)	---	---	---	---	---
Benzene	8960	$\mu\text{g/L}$	50	<50	11/28/05	8260b	---	0.2	104.5	96.9	100.6
Ethylbenzene	34.1	$\mu\text{g/L}$	10	<10	11/24/05	8260b	---	4.6	110.5	110.7	112.5
m,p-Xylenes	265	$\mu\text{g/L}$	20	<20	11/24/05	8260b	---	2.9	111.8	110.3	112.3
o-Xylene	<10	$\mu\text{g/L}$	10	<10	11/24/05	8260b	J	3.5	121.8	116.1	120.4
Toluene	14.9	$\mu\text{g/L}$	10	<10	11/24/05	8260b	---	9.1	108.1	98.3	106.2

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Richard Elton

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**777774545**

Client:	Environmental Plus, Inc.	Project ID:	2003-00017 Hobbs Junction Mainline	Report#/Lab ID#:	173896
Attn:	Iain Ohness	Sample Name:	MW-15	Sample Matrix:	water
<b>REPORT OF SURROGATE RECOVERY</b>					
Surrogate Compound	Method	Recovery	Recovery Limits	Date Analyze	Data Qualifiers
1,2-Dichloroethane-d4	8260b	120	70-130	11/24/05	---
Toluene-d8	8260b	112	80-127	11/24/05	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

## Exceptions Report:

Report #/Lab ID#: 173896 Matrix: water  
Client: Environmental Plus, Inc. Attn: Iain Ohness  
Project ID: 2003-00017 Hobbs Junction Mainline  
Sample Name: MW-15

### Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation:

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
o-Xylene	J	See J-flag discussion above.

Notes:

**ANALYSIS**3512 Montopolis Drive, Austin, TX 78744 &  
2209 N Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohness  
Address: 2100 Ave. O  
Eunice,  
NM 88231  
Phone: (505) 394-3481 FAX: (505) 394-2601

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method	Data Qual.	Prec.	Recovery	CCV <sup>3</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---	---	---	---	11/23/05	8260b(5030/5035)	---	---	---	---	---
Benzene	5.11	µg/L	1	<1	11/23/05	8260b	---	0.2	104.5	96.9	100.6
Ethylbenzene	<1	µg/L	1	<1	11/23/05	8260b	---	4.6	110.5	110.7	112.5
m,p-Xylenes	<2	µg/L	2	<2	11/23/05	8260b	---	2.9	111.8	110.3	112.3
o-Xylene	<1	µg/L	1	<1	11/23/05	8260b	---	3.5	121.8	116.1	120.4
Toluene	<1	µg/L	1	<1	11/23/05	8260b	---	9.1	108.1	98.3	106.2

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Richard Elton

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Report#/Lab ID#:	173897	Report Date:	11/29/05
Project ID#:	2003-00017 Hobbs Junction Mainline		
Sample Name:	MW-16		
Sample Matrix:	water		
Date Received:	11/22/2005	Time:	10:30
Date Sampled:	11/14/2005	Time:	10:30

*Surrogates*

3512 Montopolis Drive, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.  
Attn: Iain Ohness

Project ID: 2003-00017 Hobbs Junction Mainline  
Sample Name: MW-16

Report# /Lab ID#: 173897  
Sample Matrix: water

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Date Analyze	Data Qualifiers
1,2-Dichloroethane-d4	8260b	103	70-130	11/23/05	---
Toluene-d8	8260b	114	80-127	11/23/05	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

**AnalySys Inc.**

4221 Friedrich Lane, Suite 190, Austin, TX 78744  
512-444-5896 FAX: 512-447-4766

2209 N. Padre Island Dr., Corpus Christi, TX 78408

Chain of Custody Form

(4010)

		ANALYSIS REQUEST																						
Company Name	Environmental Plus, Inc.																							
EPI Project Manager	Iain Olness																							
Mailing Address	P.O. BOX 1558																							
City, State, Zip	Eunice New Mexico 88231																							
EPI Phone#/Fax#	505-394-3481 / 505-394-2601																							
Client Company	Plains All American																							
Facility Name	Hobbs Junction Mainline																							
Project Reference	2003-00017																							
EPI Sampler Name	George Blackburn																							
LAB I.D.	SAMPLE I.D.	# CONTAINERS	(G)RAB OR (C)OMP.	MATRIX	PRESERV.	SAMPLING	TIME	DATE	OTHER:	ACID/BASE	ICE/COOL	SLUDGE	SOL	WASTEWATER	GROUNDM WATER	CRUDE OIL	OTHER:	CHLORIDES (Cl <sup>-</sup> )	SULFATES (SO <sub>4</sub> <sup>2-</sup> )	PH	TCLP	OTHER >>	PAH	
173890 <sub>1</sub>	MW-7	G	4	X					X	X														
173891 <sub>2</sub>	MW-8	G	4	X					X	X														
173892 <sub>3</sub>	MW-9	G	4	X					X	X														
173893 <sub>4</sub>	MW-10	G	4	X					X	X														
173894 <sub>5</sub>	MW-11	G	4	X					X	X														
173895 <sub>6</sub>	MW-13	G	4	X					X	X														
173896 <sub>7</sub>	MW-15	G	4	X					X	X														
173897 <sub>8</sub>	MW-16	G	4	X					X	X														
9																								
10																								

Sampler Relinquished: *John M. Reynolds* Date Received By: *John M. Reynolds*  
 Relinquished by: *John M. Reynolds* Time Received By: (lab staff) *11:22:05 ASI*  
 Delivered by: *John M. Reynolds* Date Checked By: *11:22:05 10:30 AM*  
 Sample Cool & Inact (Yes) No  
 Temp: 2.1°

E-mail results to: iohness@envplus.net and creyolds@paalp.com  
 REMARKS:

**Appendix II: Site Information and Metrics Form and NMOCD Form C-141**



## Site Information and Metrics

		Incident Date: 1-23-03 @ 8:00 AM	NMOCD Notified: 1-23-03 @ 11:35 AM Larry Johnson by Pat McCasland EPI
<b>SITE: Hobbs Junction Mainline</b>		Assigned Site Reference #: <b>2003-00017</b>	
Company: Plains All American Pipeline		Notified Date/Time: NA	
Street Address: PO Box 1660		Notified by: Pat McCasland EPI	
Mailing Address: 5805 East Highway 80		Person Notified: NA	
City, State, Zip: Midland, Texas 79702		NRC Report# : NA	
Representative: Camille Reynolds		Representative Telephone: 505.393.5611	
Telephone:			
Fluid volume released (bbls): 50 bbls		Recovered (bbls): 24 bbls	
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
Leak, Spill, or Pit (LSP) Name: Hobbs Junction Mainline			
Source of contamination: 10" Steel Pipeline			
Land Owner, i.e., BLM, ST, Fee, Other: State of New Mexico and Faye Klein			
LSP Dimensions 50' x 470'			
LSP Area: 12,500 sqft			
Location of Reference Point (RP)			
Location distance and direction from RP			
Latitude: 32°42'40.85"N			
Longitude: 103°13'42.01"W			
Elevation above mean sea level: 3,372'amsl			
Feet from South Section Line			
Feet from West Section Line			
Location- Unit or 1/4: SW 1/4 of the SW 1/4		Unit Letter: M	
Location- Section: 26			
Location- Township: T18S			
Location- Range: R37E			
Surface water body within 1000' radius of site: none			
Domestic water wells within 1000' radius of site: none			
Agricultural water wells within 1000' radius of site: 1- approximately 600' west			
Public water supply wells within 1000' radius of site: none			
Depth from land surface to groundwater (DG) 40'bgs			
Depth of contamination (DC) - 40'bgs			
Depth to groundwater (DG - DC = DtGW) - 0'			
1. Groundwater	2. Wellhead Protection Area	3. Distance to Surface Water Body	
If Depth to GW <50 feet: 20 points	If <1000' from water source, or; <200' from private domestic water source: 20 points	<200 horizontal feet: 20 points	
If Depth to GW 50 to 99 feet: 10 points		200-100 horizontal feet: 10 points	
If Depth to GW >100 feet: 0 points	If >1000' from water source, or; >200' from private domestic water source: 0 points	>1000 horizontal feet: 0 points	
Groundwater Score = 20	Wellhead Protection Area Score=20	Surface Water Score= 0	
Site Rank (1+2+3) = 40			
Total Site Ranking Score and Acceptable Concentrations			
Parameter	>19	10-19	0-9
Benzene <sup>1</sup>	10 ppm	10 ppm	10 ppm
BTEX <sup>1</sup>	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm

<sup>1</sup>100 ppm field VOC headspace measurement may be substituted for lab analysis

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

**State of New Mexico  
Energy Minerals and Natural Resources**

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

**Form C-141**  
Revised October 10, 2004

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report     Final Report

Name of Company: <b>Plains Pipeline, L.P.</b>	Contact: <b>Camille Reynolds</b>	
Address: <b>PO Box 3119 (3705 East Highway 158) Midland, Texas 79702 (79706)</b>	Telephone No. <b>505.393.5611</b>	
Facility Name <b>Hobbs Junction Mainline #2003-00017</b>	Facility Type <b>10" Steel Pipeline</b>	
Surface Owner: <b>State of New Mexico and Faye Klein</b>	Mineral Owner	Lease No.

**LOCATION OF RELEASE**

Unit Letter <b>M</b>	Section <b>26</b>	Township <b>T18S</b>	Range <b>R37E</b>	Feet from the	North/South Line	Feet from the	East/West Line	County: <b>Lea</b>
-------------------------	----------------------	-------------------------	----------------------	------------------	---------------------	------------------	-------------------	-----------------------

Latitude: **32°42'40.85"N**   Longitude: **103°13'42.01"W**

**NATURE OF RELEASE**

Type of Release <b>Crude Oil</b>	Volume of Release <b>50 barrels</b>	Volume Recovered <b>24 barrels</b>
Source of Release <b>10" Steel Pipeline</b>	Date and Hour of Occurrence <b>1-23-03 @ 8:00 AM</b>	Date and Hour of Discovery <b>1-23-03 @ 10:45 AM</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Larry Johnson</b>	
By Whom? <b>Pat McCasland EPI</b>	Date and Hour <b>1-23-03 @ 11:35 AM</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>	

If a Watercourse was Impacted, Describe Fully.\*  
**NA**

Describe Cause of Problem and Remedial Action Taken.\*  
**10" Steel Pipeline Steel line began leaking due to internal corrosion. Pipe replaced and line tested.**

Describe Area Affected and Cleanup Action Taken.\*  
**12,500 sqft (50' x 470'): Soil and groundwater contaminated above the NMOCD Remedial Guidelines will be remediated to the prescribed remedial goals. Remedial Goals: TPH 8015m = 100 mg/Kg, Benzene = 10 mg/Kg, and BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg.**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

		<b>OIL CONSERVATION DIVISION</b>
Signature:		Approved by District Supervisor:
Printed Name: <b>Camille Reynolds</b>		
E-mail Address: <b>CJReynolds@PAALP.com</b>	Approval Date:	Expiration Date:
Title: <b>District Environmental Coordinator</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>                        Phone: 505.396.3341</b>		

Attach Additional Sheets If Necessary