

**GW - 351**

---

*Annual*  
**MONITORING  
REPORTS**

**DATE:  
2008**

---

*GW-351*

# **2008 ANNUAL MONITORING REPORT**

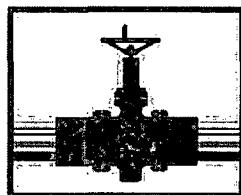
**LEA STATION  
PLAINS REF: 2003-00339  
(COMPANY # 231735)**

**NW $\frac{1}{4}$  OF SECTION 28, T20S, R37E  
~9.5 MILES NORTH-NORTHWEST OF  
EUNICE, LEA COUNTY, NEW MEXICO  
LATITUDE: N32° 32' 51.3"      LONGITUDE: W103° 15' 37.0"**

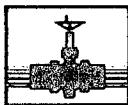
**MARCH 2009**

***PREPARED BY:***  
**ENVIRONMENTAL PLUS, INC.**  
**P.O. Box 1558**  
**2100 AVENUE O**  
**EUNICE, NEW MEXICO 88231**

***PREPARED FOR:***



**PLAINS**  
**ALL AMERICAN**



PLAINS  
ALL AMERICAN

RECEIVED:

2009 MAR 23 PM 1 40

GW-351

March 18, 2009

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

Re: Plains All American – 2008 Annual Monitoring Report  
1 Site in Lea County, New Mexico

Dear Mr. Hansen:

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 an Annual Monitoring report for the following site:

Lea Station

Section 28, Township 20 South, Range 37 East, Lea County

Environmental Plus, Inc. (EPI) prepared this document and has vouched for its accuracy and completeness, and on behalf of Plains All American, I have personally reviewed the document and interviewed EPI personnel in order to verify the accuracy and completeness of the report. It is based upon these inquiries and reviews that Plains All American submits the enclosed Annual Monitoring Report for the above facility.

If you have any questions or require further information, please contact me at (575) 441-1099.

Sincerely,

Jason Henry  
Remediation Coordinator  
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosures



## Distribution List

### 2008 Annual Monitoring and Soil Closure Report

Plains Pipeline, L.P.

Lea Station (Ref. #2003-00339)

Name	Title	Company or Agency	Mailing Address	e-mail
Edward Hansen	Environmental Engineer	New Mexico Oil Conservation Division – Santa Fe	1120 South St. Francis Drive Santa Fe, NM 87505	<a href="mailto:edward.hansen@state.nm.us">edward.hansen@state.nm.us</a>
Larry Johnson	Environmental Engineer	New Mexico Oil Conservation Division – Hobbs	1625 North French Drive Hobbs, NM 88240	<a href="mailto:larry.johnson@state.nm.us">larry.johnson@state.nm.us</a>
Jeff Dann	Senior Environmental Specialist	Plains All American Pipeline	333 Clay Street, Suite 1600 Houston, TX 77002	<a href="mailto:jdann@paalp.com">jdann@paalp.com</a>
Jason Henry	Remediation Coordinator	Plains All American Pipeline	2530 State Highway 214 Denver City, Texas 79323	<a href="mailto:jhenry@paalp.com">jhenry@paalp.com</a>
File	--	Environmental Plus, Inc.	P.O. Box 1558 Eunice, NM 88231	<a href="mailto:ddominguez@envplus.net">ddominguez@envplus.net</a>

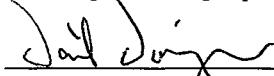
## Standard of Care

### 2008 Annual Monitoring Report

Lea Station  
Ref. # 2003-00339

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:

  
\_\_\_\_\_  
Daniel Dominguez  
Environmental Consultant

3-19-07  
\_\_\_\_\_  
Date

This report was reviewed by:

  
\_\_\_\_\_  
David P. Duncan  
Civil Engineer

3-19-07  
\_\_\_\_\_  
Date

## TABLE OF CONTENTS

I.	Background.....	1
II.	Field Activities.....	1
III.	Groundwater Gradient and PSH Thickness .....	2
IV.	PSH Recovery .....	2
V.	Groundwater Sampling .....	2
VI.	Groundwater Analytical Results .....	2
VII.	Recommendations.....	3

## FIGURES

Figure 1	Area Map
Figure 2	Site Location Map
Figure 3	Site Map
Figure 4	Groundwater Contour Map – 03/31/08
Figure 5	Contaminant Concentration Map – 03/31/08
Figure 6	Groundwater Contour Map – 06/30/08
Figure 7	Contaminant Concentration Map – 06/30/08
Figure 8	Groundwater Contour Map – 09/30/08
Figure 9	Contaminant Concentration Map – 09/30/08
Figure 10	Groundwater Contour Map – 12/30/08
Figure 11	Contaminant Concentration Map – 12/30/08

## TABLES

Table 1	Relative Groundwater Elevations, Phase Separated Hydrocarbon Thicknesses and Manual Phase-Separated Hydrocarbon Recovery
Table 2	Groundwater Analytical Results (BTEX & TPH)
Table 3	Concentrations of PAH in Groundwater
Table 4	Summary of Groundwater Sampling Recommendations

## APPENDIX

Appendix A	Laboratory Analytical Results and Chain-of-Custody Forms; Historic Gauging and Analytical Data Tables on attached CD
------------	---

## I. Background

Lea Station is located approximately nine (9) miles north-northwest of Eunice in Lea County, New Mexico, at an elevation of approximately 3,495 feet above mean sea level (reference Figures 1 and 2). The site is located in the Monument-Jal Oil Field and is utilized as a crude oil pipeline pumping station. There are no residences or surface water bodies within a 1,000-foot radius of the facility. The facility is surrounded by a barbed wire fence and has a locked gate (reference Figure 3).

In 1992, Shell Pipeline Corporation (SPLC) retained CURA to establish baseline conditions of the subsurface environment at the site. In December 1992, twelve (12) soil borings were advanced around the site and seven (7) groundwater monitoring wells installed. Analytical results for soil samples collected during this phase of the investigation indicated two general areas of concern (one each in the eastern and western half of the site) were identified as hydrocarbon-impacted areas by elevated total petroleum hydrocarbon (TPH) concentrations in soils [ $>100$  parts per million (ppm)]. Analytical results for groundwater samples collected during this phase of the investigation indicated dissolved phase hydrocarbon contaminants present in five (5) of seven (7) groundwater samples.

Based on these results, an additional four (4) soil borings were advanced with four (4) groundwater monitoring wells installed in September 1993. Results of this and previous phases of the investigation indicated three (3) hydrocarbon-impacted areas present on the site. One is located in the eastern portion, one in the north-central portion and one in the western portion. In addition, phase separated hydrocarbons (PSH) were detected in groundwater monitoring well MW-8. Due to the presence of PSH, extent of hydrocarbon-impacted soil and groundwater, CURA recommended feasibility testing be completed to evaluate soil and groundwater remedial methods for potential implementation at the site.

In September 1994, CURA submitted a *Remediation Plan* to SPLC. The plan consisted of a soil vapor extraction (SVE) and product-only pumping system in the vicinity of groundwater monitoring well MW-8. The *Remediation Plan* included installation of two (2) recovery wells (RW-1 and RW-2), installation of two (2) PSH only pump/air extraction units (one unit each in RW-1 and RW-2), regulatory notification of air emissions, final installation of the system, performance monitoring, operation/maintenance activities and reporting.

In February 1995, a remediation system consisting of SVE with product-only pumping was installed at the west end of the site. The system was designed with high vacuum levels at the wellheads in an effort to induce oil flow towards the wells, as observed during the pilot testing. Recovery of PSH occurred from 1994 to 2003. Currently no PSH is present in this area and the SVE system has been turned off.

Plains assumed responsibility for Lea Station remediation activities in late 2003.

*Annual Monitoring Reports* submitted to the NMOCD from 2004 through 2008 documented quarterly gauging results, PSH recovery efforts, laboratory analytical results for BTEX and PAH concentrations and recommendations for upgrading sampling of the groundwater monitor well network.

## **II. Field Activities**

Site visits were made monthly throughout 2008 to gauge monitor wells for determining depth to PSH (if present) and groundwater.

Groundwater samples were collected on March 31, June 30, September 30 and December 30, 2008 for laboratory analyses.

## **III. Groundwater Gradient and PSH Thickness**

Prior to purging, monitoring wells were gauged to determine depth to groundwater and thickness of any PSH. Except for minor fluctuations, average groundwater levels have generally risen during recordable years (2003-2008). PSH was non-detectable in groundwater monitoring wells during 2008. A summary of groundwater elevations and PSH thickness is included in *Table 1*.

Based on data collected during the four (4) sampling and twelve (12) gauging events, groundwater is flowing in the southeast direction (reference *Figures 4, 6, 8 and 10*).

## **IV. PSH Recovery**

No appreciable PSH thickness was detected in the groundwater monitoring wells during 2008 gauging and sampling activities. Absorbent booms and hand bailing accomplish recovery of PSH on-site. Approximately 260 gallons of PSH have been recovered to date. However, no recordable volume of PSH was recovered in 2008. A summary of historic PSH recovery is presented in *Table 1*.

## **V. Groundwater Sampling**

Groundwater monitoring wells are sampled on a quarterly basis until analytical results indicate contaminant concentrations are below New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards for eight (8) consecutive quarters. Samples are submitted to an independent laboratory for quantification of benzene, toluene, ethyl-benzene and total xylenes (BTEX) on a quarterly basis and poly-aromatic hydrocarbons (PAH) on an annual basis. After receipt of analytical results indicating contaminant concentrations below NMWQCC standards for eight (8) consecutive quarters, qualifying groundwater monitoring wells are sampled on an annual basis and samples submitted for quantification of BTEX, until analytical results for all samples collected from the groundwater monitoring well network are below NMWQCC standards for eight (8) consecutive quarters. Groundwater monitoring wells with quarterly laboratory analytical results below NMWQCC groundwater standards for eight (8) consecutive quarters which are not needed to monitor existing contaminant plume will be plugged and abandoned (P&A).

Groundwater samples from MW's 1, 2, 3, and 11 were submitted to an independent laboratory for quantification of PAH concentrations during each quarterly sampling event.

On March 31 and September 30, 2008 groundwater samples collected from monitoring wells MW-1, MW-2, MW-3 and MW-11 were submitted to an independent laboratory for quantification of BTEX and PAH concentrations.

On June 30 and December 30, 2008 groundwater samples collected from monitoring wells MW-1, MW-2, MW-3 and MW-11 were submitted to an independent laboratory for quantification of BTEX, PAH and TPH concentrations.

On June 30 and December 30, 2008 groundwater samples were also collected from monitoring wells MW-4, MW-7, MW-8, MW-9, MW-10, MW-12 and MW-13 with submittal to an independent laboratory for quantification of BTEX constituent concentrations.

## **VI. Groundwater Analytical Results**

No PSH were detected in groundwater monitoring wells during sampling events in 2008. Laboratory analytical data indicates eight (8) monitor wells (MW's 4, 5, 6, 7, 8, 9, 10, 13) with Benzene below NMWQCC standards and five (5) monitor wells (MW's 1, 2, 3, 11, 12) with Benzene above NMWQCC standards. Laboratory analytical data indicates all monitor wells with BTEX below NMWQCC standards. Summaries of PSH recovery are presented in *Table 1*, BTEX and TPH laboratory analytical results in *Table 2* and PAH laboratory analytical results in *Table 3*. Hence, monitor well analytical results will not be expanded on individually, but can be addressed by reviewing the above noted *Tables*.

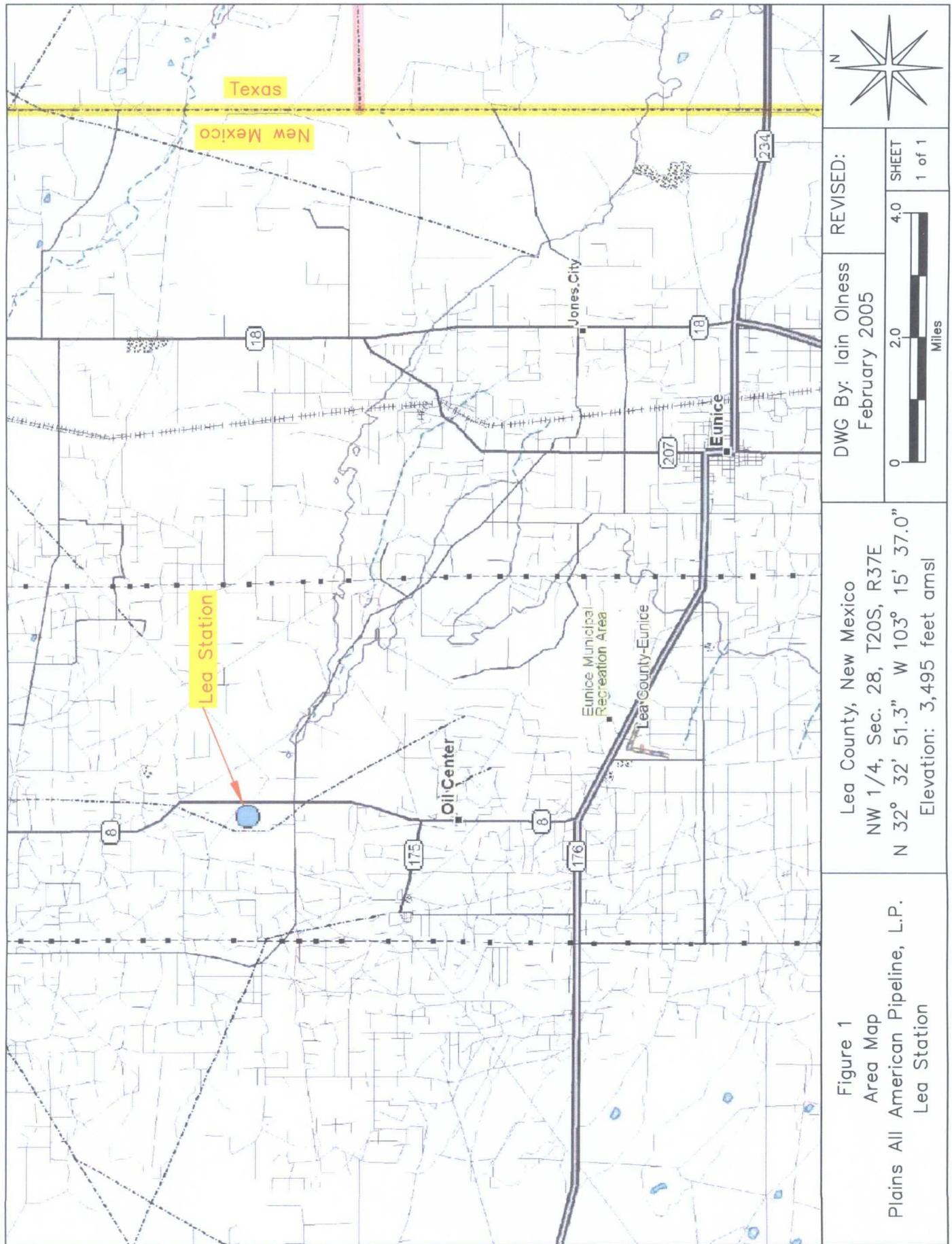
Due to voluminous data contained in the analytical tables, only data collected from 2006 – 2008 are presented in *Tables 1 – 3* for this report. Included as *Appendix A* is attached CD containing complete gauging and analytical data tables and copies of all laboratory analytical data.

## **VII. Recommendations**

Based on field monitoring and laboratory analytical results on groundwater samples collected during 2008 in conjunction with analytical data amassed during the previous thirteen (13) years, the following are recommendations with regards to gauging and sampling protocol for 2009 (also summarized in *Table 4*):

- 1) Gauge all groundwater monitoring wells for water levels and presence of PSH on a monthly basis.
- 2) Sample groundwater monitoring wells MW-1, MW-2, MW-3 and MW-11 on a quarterly basis and submit samples for quantification of BTEX concentrations. Analyze groundwater samples annually for PAH concentrations. In the event PSH is detected during any groundwater sampling event, the monitoring well(s) will (shall) be excluded from quarterly sampling events.
- 3) Sample groundwater monitoring wells MW-4, MW-7, MW-8, MW-9, MW-10, MW-12 and MW-13 on a semi-annual basis with submittal of samples for quantification of BTEX. Should analytical results indicate presence of contaminants, sample the impacted well(s) on a quarterly basis for quantification of BTEX constituent and annually for PAH concentrations.
- 4) Plug and abandon RW-1, RW-2, MW-5 and MW-6. Upgradient control of contaminant plume will still be evaluated through monitor wells MW-7, MW-8 and MW-13.

## **FIGURES**



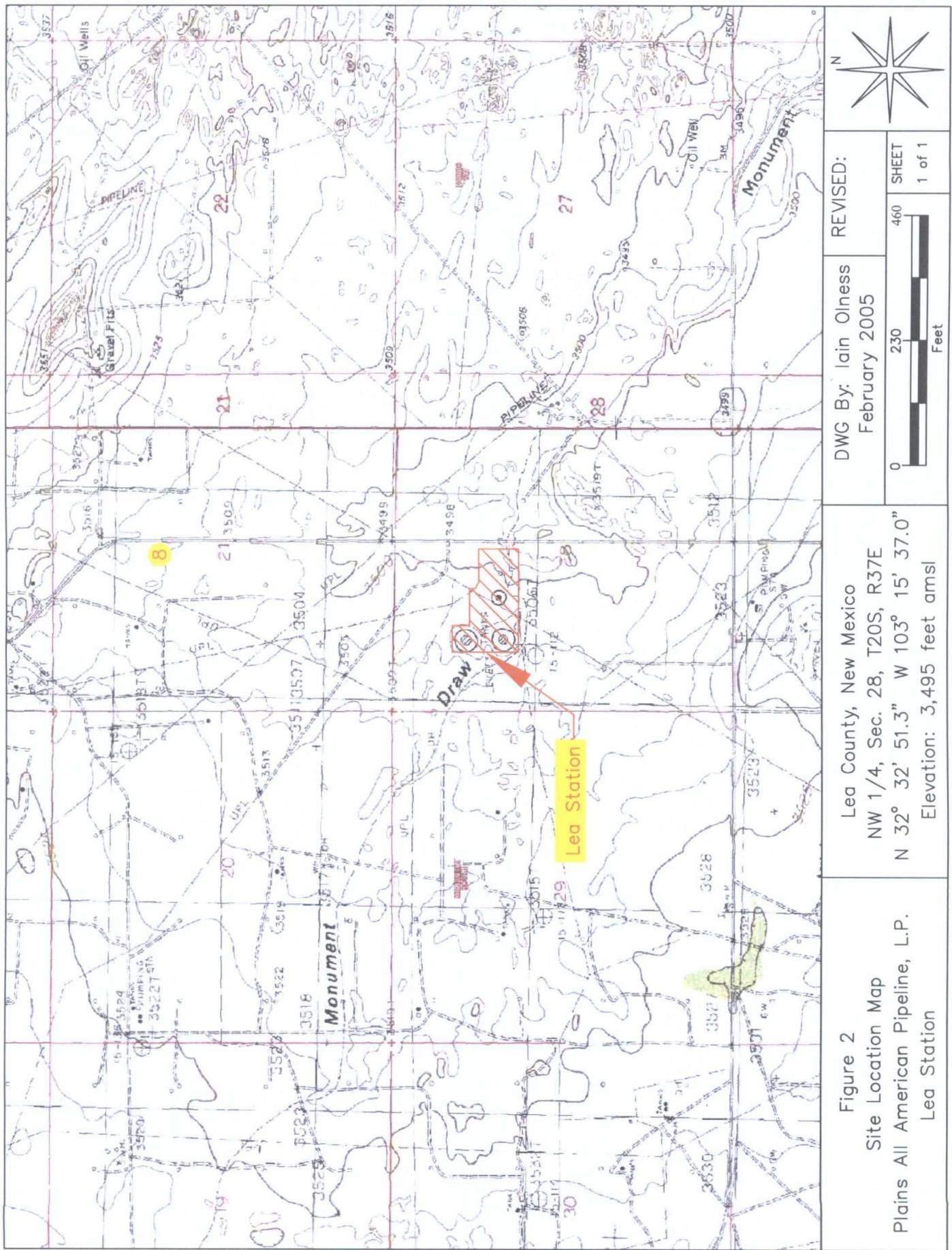


Figure 2  
 Site Location Map  
 Plains All American Pipeline, L.P.  
 Lea Station

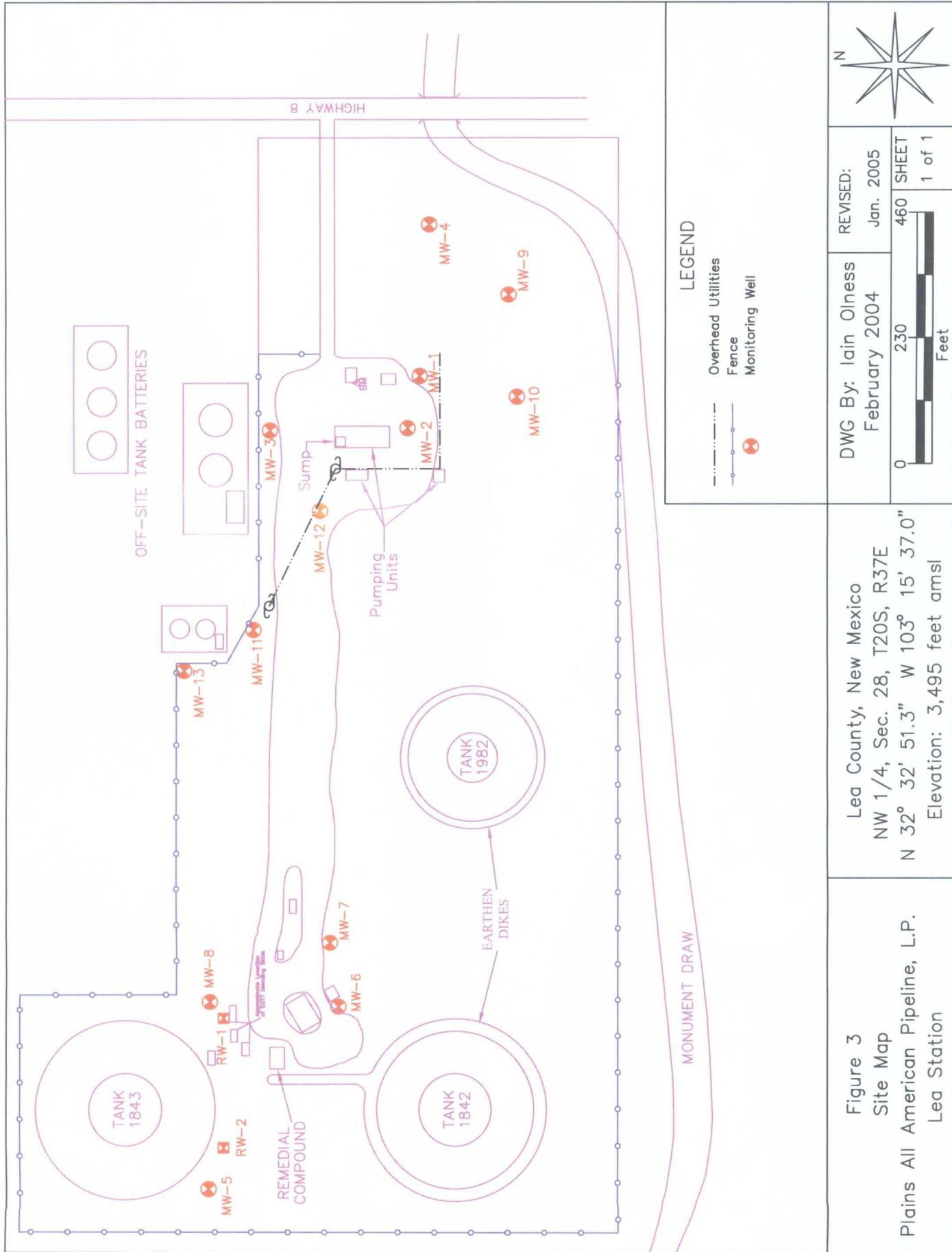


Figure 3  
Site Map  
Plains All American Pipeline, L.P.  
Lea Station

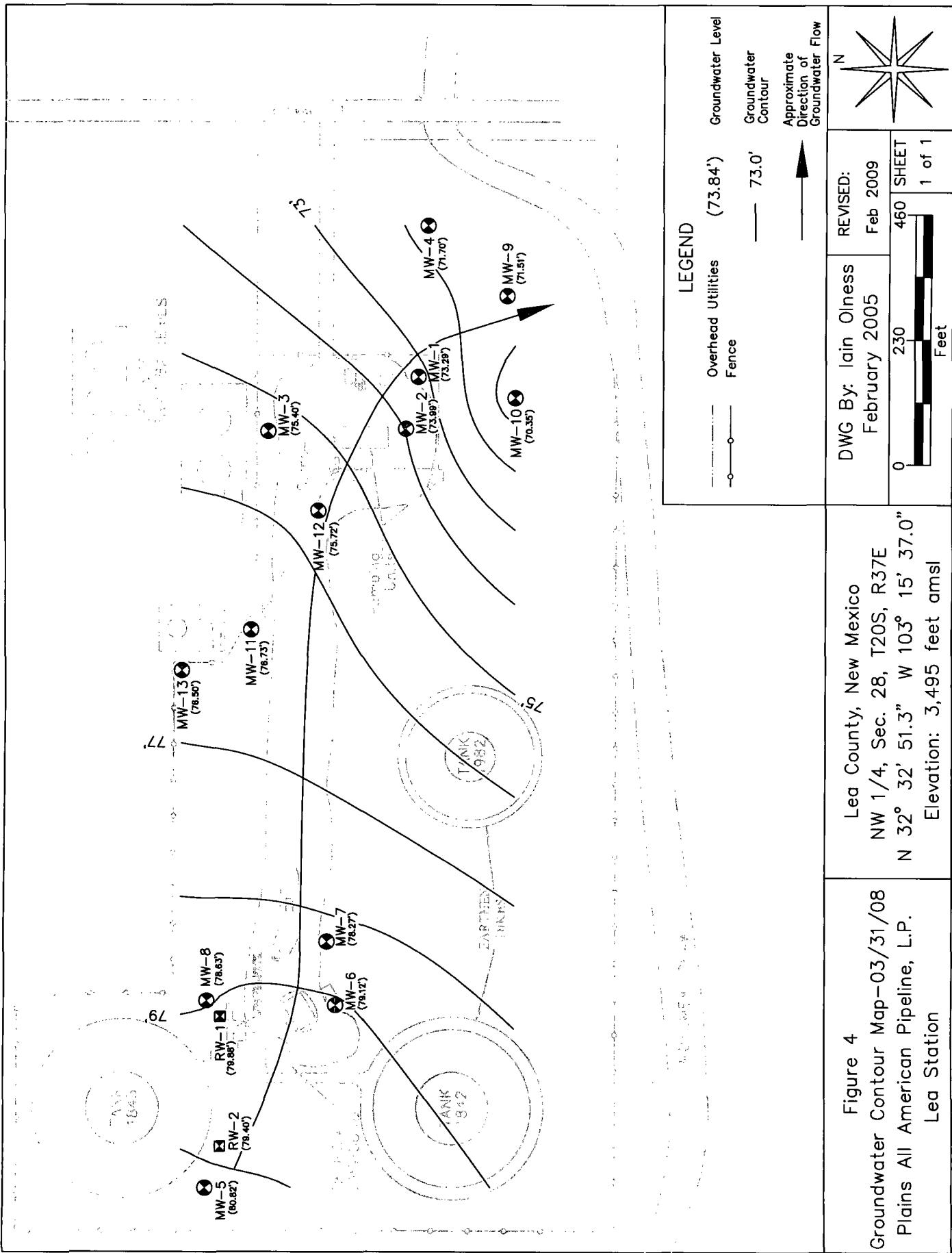


Figure 4  
Groundwater Contour Map—03/31/08  
Plains All American Pipeline, L.P.  
Lea Station

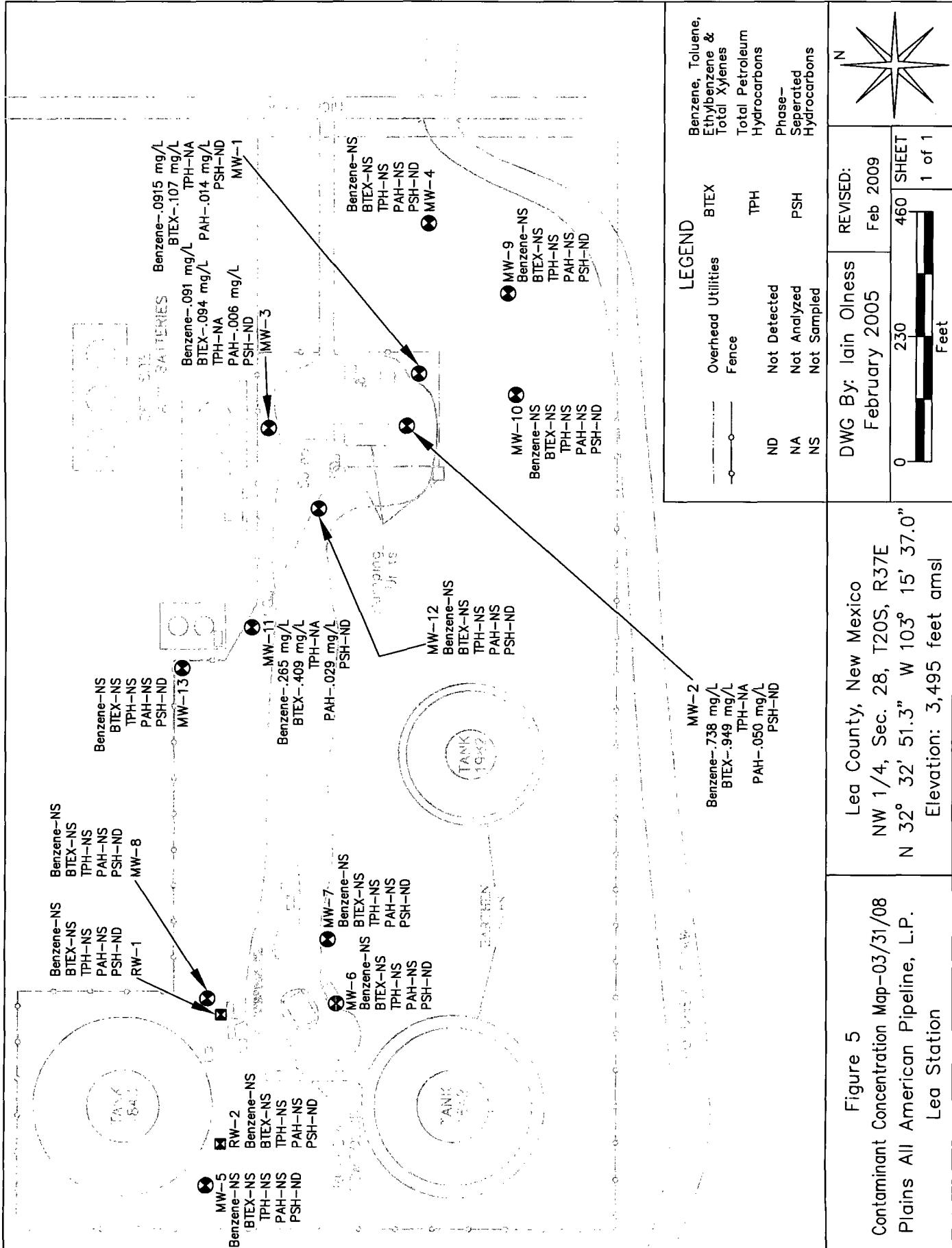
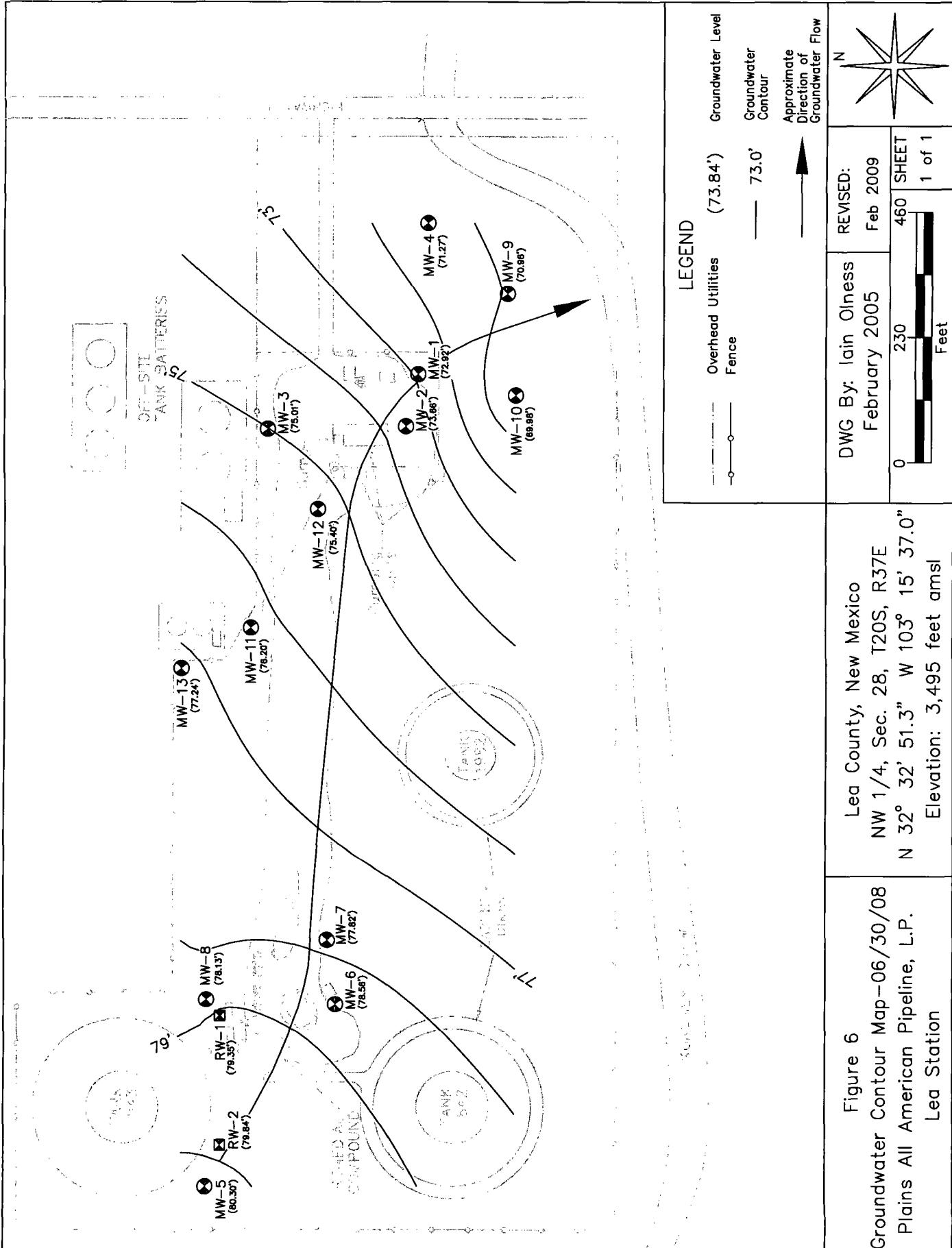


Figure 5  
Contaminant Concentration Map-03/31/08  
Plains All American Pipeline, L.P.  
Lea Station

Lea County, New Mexico  
NW 1/4, Sec. 28, T20S, R37E  
N 32° 32' 51.3" W 103° 15' 37.0"  
Elevation: 3,495 feet amsl

N  
S  
E  
W  
BENZENE & TOTAL XYLYNES  
TOTAL PETROLEUM HYDROCARBONS  
PHASE-Separated Hydrocarbons



Overhead Utilities	(73.84')	Groundwater Level
Fence		
73.0'	73.0'	Groundwater Contour
		Approximate Direction of Groundwater Flow

DWG By: Iain Olness February 2005	REvised: Feb 2009
0 230 460	0 230 460 SHEET
Feet	Feet

Figure 6  
Groundwater Contour Map—06/30/08  
Plains All American Pipeline, L.P.  
Lea Station

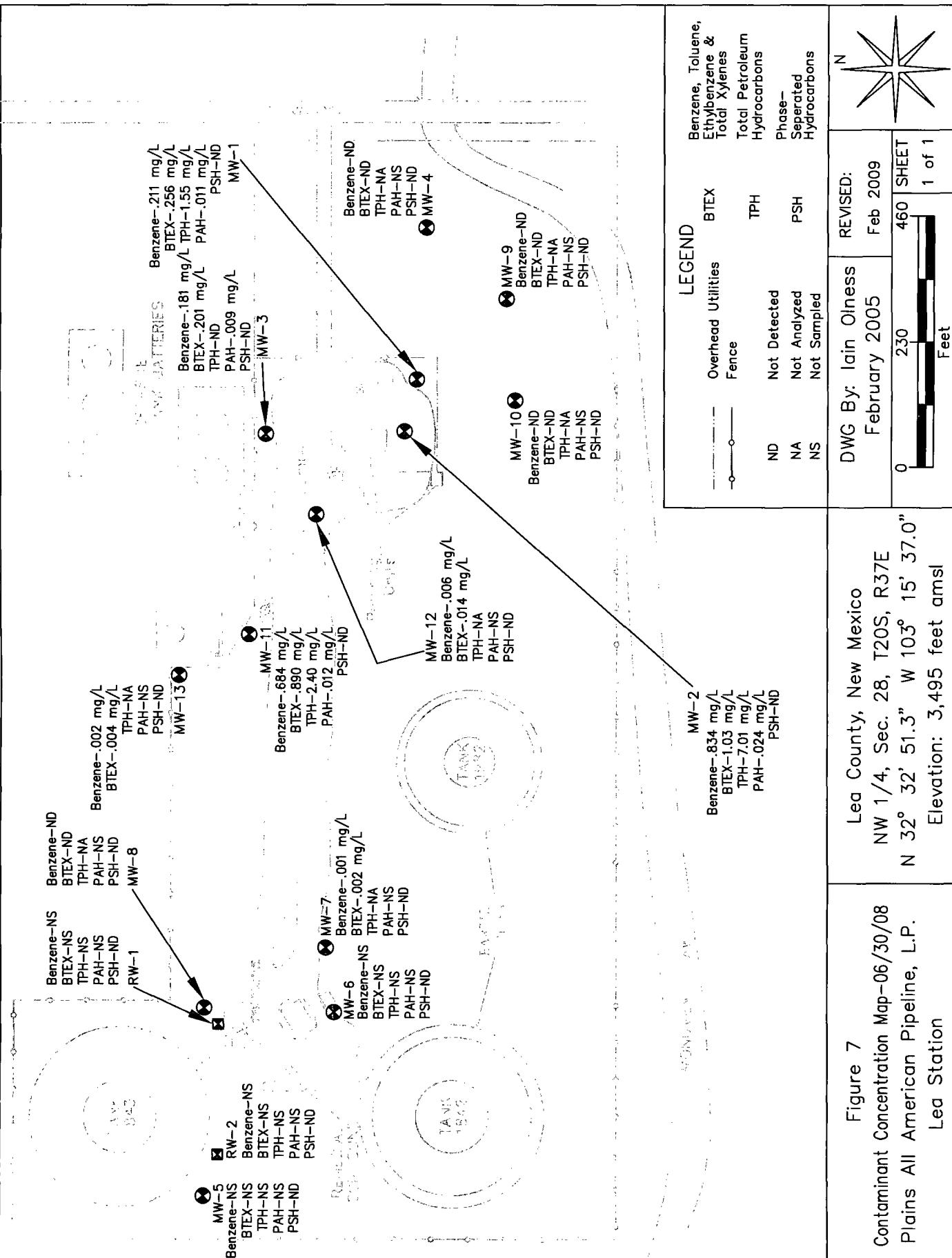
Lea County, New Mexico

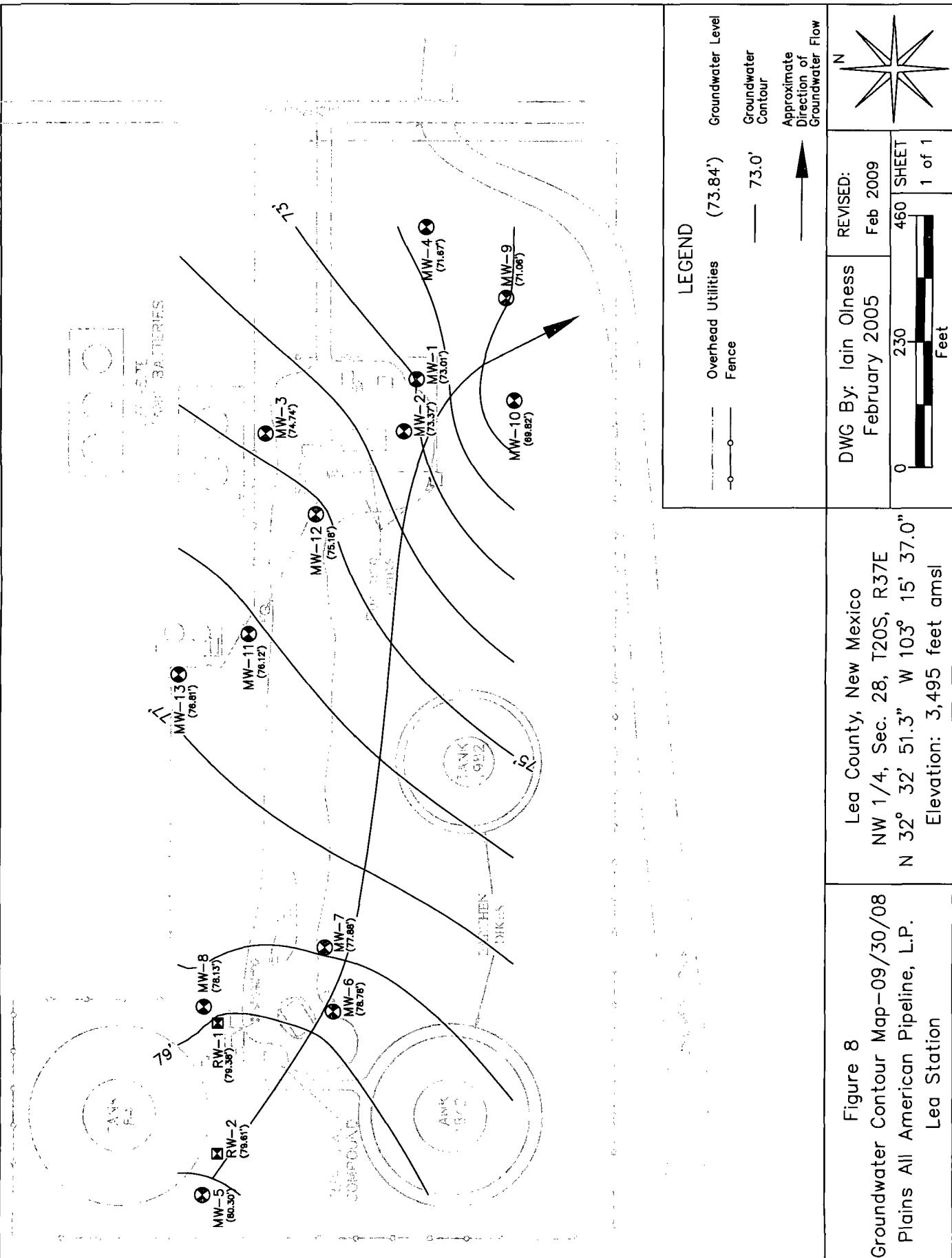
NW 1/4, Sec. 28, T20S, R37E  
N 32° 32' 51.3" W 103° 15' 37.0"  
Elevation: 3,495 feet amsl

DWG By: Iain Olness  
February 2005

460 SHEET

1 of 1





Overhead Utilities	(73.84')	Groundwater Level
Fence		
Groundwater Contour	73.0'	
Approximate Direction of Groundwater Flow		

Figure 8  
Groundwater Contour Map-09/30/08  
Plains All American Pipeline, L.P.  
Lea Station

Lea County, New Mexico  
NW 1/4, Sec. 28, T20S, R37E  
N 32° 32' 51.3" W 103° 15' 37.0"  
Elevation: 3,495 feet amsl

DWG By: Iain Olness February 2005	REvised: Feb 2009
0 230	460 SHEET 1 of 1
Feet	Feet

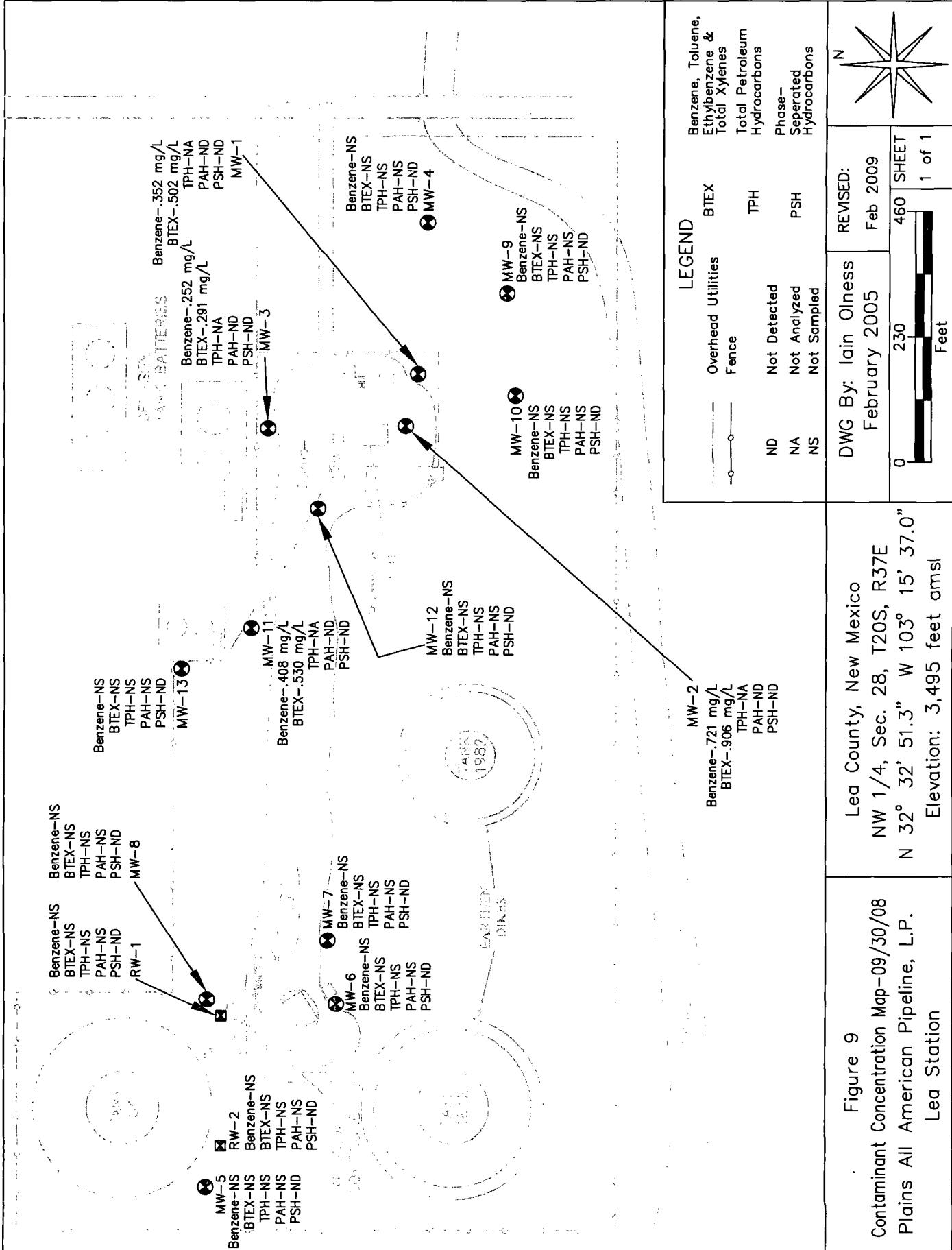
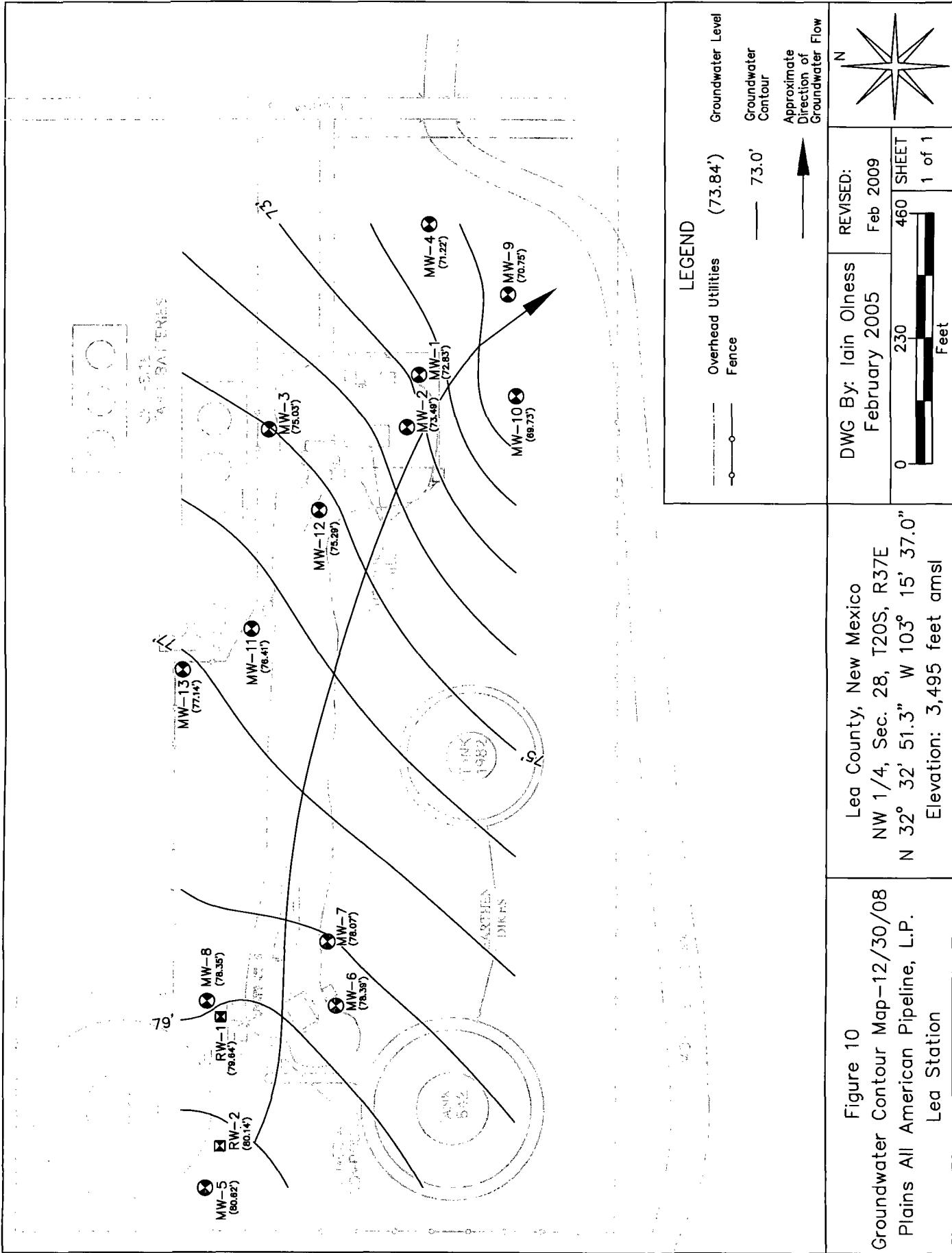


Figure 9  
Contaminant Concentration Map-09/30/08  
Plains All American Pipeline, L.P.  
Lea Station

Lea County, New Mexico  
NW 1/4, Sec. 28, T20S, R37E  
N 32° 32' 51.3" W 103° 15' 37.0"  
Elevation: 3,495 feet amsl



Overhead Utilities	(73.84')	Groundwater Level
Fence		73.0'
		Groundwater Contour
		Approximate Direction of Groundwater Flow

Figure 10  
Groundwater Contour Map-12/30/08  
Plains All American Pipeline, L.P.  
Lea Station

Lea County, New Mexico NW 1/4, Sec. 28, T20S, R37E N 32° 32' 51.3" W 103° 15' 37.0" Elevation: 3,495 feet amsl	DWG By: Iain Olness February 2005	REvised: Feb 2009
	0 230 460	1 of 1 Feet
	SHEET	

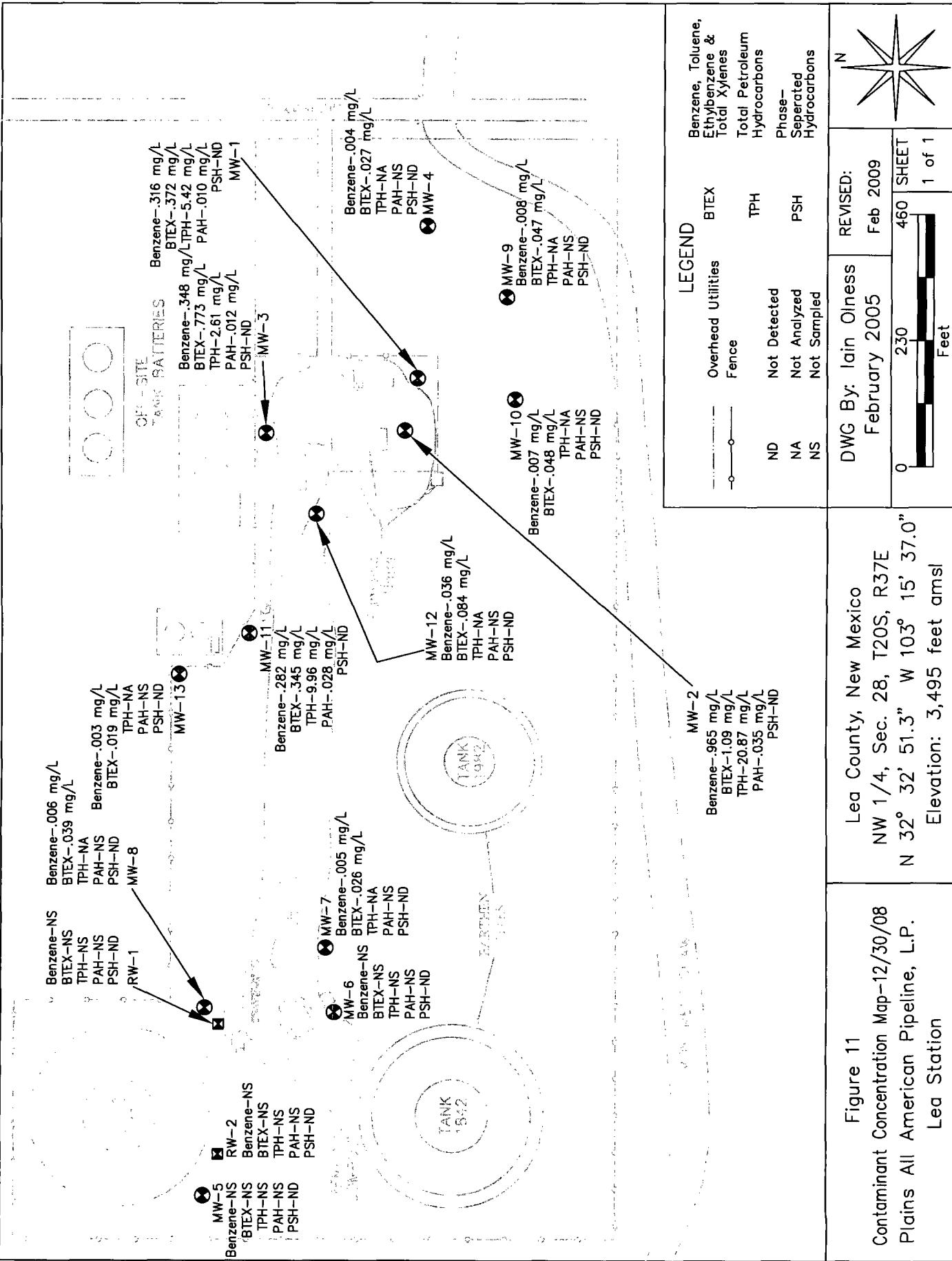


Figure 11  
Contaminant Concentration Map-12/30/08  
Plains All American Pipeline, L.P.  
Lea Station

## **TABLES**

TABLE 1

**RELATIVE GROUNDWATER ELEVATIONS, PHASE SEPARATED HYDROCARBON THICKNESSES  
AND MANUAL PHASE-SEPARATED HYDROCARBON RECOVERY**

**PLAINS ALL AMERICAN PIPELINE, L.P. - LEA STATION  
LEA COUNTY, NEW MEXICO**

Monitor Well	Date Gauged	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase Separated Hydrocarbon Thickness (feet)	PSH Recovery (gallons)	Cumulative Recovery (gallons)	Type of Recovery
MW-1	01/11/06	98.88	100.73		27.35	73.38	0.00	0.00		
	02/17/06				27.66	73.07	0.00	0.00		
	03/15/06				27.61	73.12	0.00	0.00		
	04/11/06				28.18	72.55	0.00	0.00		
	05/23/06				27.72	73.01	0.00	0.00		
	08/09/06				27.84	72.89	0.00	0.00		
	09/27/06				26.95	73.78	0.00	0.00		Sock OK
	10/18/06				27.08	73.65	0.00	0.00		
	11/22/06				27.16	73.57	0.00	0.00		Flipped Sock
	12/14/06				27.25	73.48	0.00	0.00		Sock OK
	01/11/07				27.32	73.41	0.00	0.00		Installed new sock
	03/31/07				27.23	73.50	0.00	0.00		
	08/01/07				27.15	73.58	0.00	0.00		
	12/13/07				27.08	73.65	0.00	0.00		
	01/10/08				27.11	73.62				
	02/18/08				26.40	74.33				
	03/31/08				27.44	73.29				Changed Sock
	04/28/08				27.55	73.18				
	05/29/08				27.56	73.17				
	06/30/08				27.81	72.92				
	07/29/08				27.98	72.75				
	08/29/08				28.17	72.56				flipped sock
	09/30/08				27.72	73.01				color
	10/31/08				27.75	72.98				
	11/26/08				27.81	72.92				
	12/30/08				27.90	72.83				
MW-2	01/11/06	100.78	102.37		28.42	73.95	0.00			
	02/17/06				28.67	73.70	0.00			
	03/15/06				28.50	73.87	0.00			
	04/11/06				28.99	73.38	0.00			
	05/23/06				28.62	73.75	0.00			
	08/09/06				28.72	73.65	0.00			
	09/27/06				28.10	74.27	0.00			Flipped sock
	11/22/06				28.08	74.29	0.00			Flipped Sock
	12/14/06				28.15	74.22	0.00			Sock OK
	01/11/07				28.19	74.18	0.00			Installed new sock
	03/31/07				28.14	74.23	0.00	0.00		
	08/01/07				28.08	74.29	0.00	0.00		
	12/13/07				28.02	74.35	0.00	0.00		
	01/10/08				28.04	74.33				
	02/18/08				28.40	73.97				
	03/31/08				28.38	73.99				Changed Sock
	04/28/08				28.43	73.94				
	05/29/08				28.49	73.88				
	06/30/08				28.71	73.66				
	07/29/08				28.85	73.52				
	08/29/08				29.10	73.27				flipped sock
	09/30/08				29.00	73.37				color
	10/31/08				28.89	73.48				
	11/26/08				28.85	73.52				
	12/30/08				28.88	73.49				

TABLE 1

**RELATIVE GROUNDWATER ELEVATIONS, PHASE SEPARATED HYDROCARBON THICKNESSES  
AND MANUAL PHASE-SEPARATED HYDROCARBON RECOVERY**

**PLAINS ALL AMERICAN PIPELINE, L.P. - LEA STATION  
LEA COUNTY, NEW MEXICO**

Monitor Well	Date Gauged	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase Separated Hydrocarbon Thickness (feet)	PSH Recovery (gallons)	PSH Cumulative Recovery (gallons)	Type of Recovery
MW-3	01/11/06	101.79	103.61		28.35	75.26	0.00	0.00		
	02/17/06				28.36	75.25	0.00	0.00		
	03/15/06				28.37	75.24	0.00	0.00		
	04/11/06				28.82	74.79	0.00	0.00		
	05/23/06				28.48	75.13	0.00	0.00		
	08/09/06				28.77	74.84	0.00	0.00		
	09/27/06				28.11	-28.11	0.00	0.00	Sock OK	
	10/18/06				28.02	75.59	0.00	0.00		
	11/22/06				27.99	75.62	0.00	0.00		Flipped Sock
	12/14/06				27.99	75.62	0.00	0.00		Sock OK
	01/11/07				28.06	75.55	0.00	0.00		Installed new sock
	03/31/07				28.01	75.60	0.00	0.00		
	08/01/07				27.95	75.66	0.00	0.00		
	12/13/07				27.88	75.73	0.00	0.00		
	01/10/08				27.90	75.71				
	02/18/08				27.11	76.50				
	03/31/08				28.21	75.40				Flipped Sock
	04/28/08				28.31	75.30				
	05/29/08				28.37	75.24				
	06/30/08				28.60	75.01				
	07/29/08				28.60	75.01				
	08/29/08				29.03	74.58				
	09/30/08				28.87	74.74				color
	10/31/08				28.82	74.79				
	11/26/08				28.66	74.95				
	12/30/08				28.58	75.03				
MW-4	01/11/06	93.80	96.08		24.28	71.80	0.00			
	02/17/06				24.60	71.48	0.00			
	03/15/06				24.65	71.43	0.00			
	04/11/06				24.49	71.59	0.00			
	05/23/06				24.67	71.41	0.00			
	08/09/06				24.73	71.35	0.00			
	09/27/06				24.13	71.95	0.00			
	10/18/06				--	--	--			Not gauged
	11/22/06				23.63	72.45	0.00			
	12/14/06				--	--	--			Not gauged
	01/11/07				24.37	71.71	0.00	0.00		
	03/31/07				24.25	71.83	0.00	0.00		
	08/01/07				24.09	71.99	0.00	0.00		
	12/13/07				23.91	72.17	0.00	0.00		
	01/10/08				23.95	72.13				
	02/18/08				24.29	71.79				
	03/31/08				24.38	71.70				
	04/28/08				24.50	71.58				
	05/29/08				24.47	71.61				
	06/30/08				24.81	71.27				
	07/29/08				25.06	71.02				
	08/29/08				25.31	70.77				
	09/30/08				24.41	71.67				
	10/31/08				24.15	71.93				
	11/26/08				24.63	71.45				
	12/30/08				24.86	71.22				

TABLE 1

**RELATIVE GROUNDWATER ELEVATIONS, PHASE SEPARATED HYDROCARBON THICKNESSES  
AND MANUAL PHASE-SEPARATED HYDROCARBON RECOVERY**

**PLAINS ALL AMERICAN PIPELINE, L.P. - LEA STATION  
LEA COUNTY, NEW MEXICO**

Monitor Well	Date Gauged	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase Separated Hydrocarbon Thickness (feet)	PSH Recovery (gallons)	PSH Cumulative Recovery (gallons)	Type of Recovery
MW-5	01/11/06	107.08	109.21		28.46	85.54	0.00			
	02/17/06				28.80	85.20	0.00			
	03/15/06				28.77	85.23	0.00			
	04/11/06				28.83	85.17	0.00			
	05/23/06				28.96	85.04	0.00			
	08/09/06				--	--	--			
	09/27/06				28.40	85.60	0.00			Flipped sock
	10/18/06				28.40	85.60	0.00			
	11/22/06				29.61	84.39	0.00			
	12/14/06				28.38	85.62	0.00			Sock OK
	01/11/07				28.37	85.63	0.00	0.00		Installed new sock
	03/31/07				28.29	85.71	0.00	0.00		
	08/01/07				28.18	85.82	0.00	0.00		
	12/13/07				28.11	85.89	0.00	0.00		
	01/10/08				27.02	82.19				
	02/18/08				28.43	80.78				
	03/31/08				28.39	80.82				
	04/28/08				28.55	80.66				
	05/29/08				28.61	80.60				
	06/30/08				28.91	80.30				
	07/29/08				29.11	80.10				
	08/29/08				29.33	79.88				
	09/30/08				28.91	80.30				
	10/31/08				28.79	80.42				
	11/26/08				28.65	80.56				
	12/30/08				28.59	80.62				
MW-6	01/11/06	103.66	106.26		27.32	78.94	0.00			
	02/17/06				27.64	78.62	0.00			
	03/15/06				27.55	78.71	0.00			
	04/11/06				27.96	78.30	0.00			
	05/23/06				28.08	78.18	0.00			
	08/09/06				--	--	--			
	09/27/06				26.55	79.71	0.00			
	10/18/06				26.83	79.43	0.00			
	11/22/06				27.13	79.13	0.00			
	12/14/06				26.96	79.30	0.00			
	01/11/07				27.02	79.24	0.00	0.00		
	03/31/07				27.05	79.21	0.00	0.00		
	08/01/07				27.03	79.23	0.00	0.00		
	12/13/07				27.00	79.26	0.00	0.00		
	01/10/08				27.04	79.22				
	02/18/08				27.25	79.01				
	03/31/08				27.14	79.12				
	04/28/08				27.43	78.83				
	05/29/08				27.43	78.83				
	06/30/08				27.70	78.56				
	07/29/08				27.89	78.37				
	08/29/08				28.00	78.26				
	09/30/08				27.48	78.78				
	10/31/08				27.37	78.89				
	11/26/08				27.43	78.83				
	12/30/08				27.87	78.39				

TABLE 1

**RELATIVE GROUNDWATER ELEVATIONS, PHASE SEPARATED HYDROCARBON THICKNESSES  
AND MANUAL PHASE-SEPARATED HYDROCARBON RECOVERY**

**PLAINS ALL AMERICAN PIPELINE, L.P. - LEA STATION  
LEA COUNTY, NEW MEXICO**

Monitor Well	Date Gauged	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase Separated Hydrocarbon Thickness (feet)	PSH Recovery (gallons)	PSH Cumulative Recovery (gallons)	Type of Recovery
MW-7	01/11/06	104.34	106.27		28.02	78.25	0.00			
	02/17/06				28.26	78.01	0.00			
	03/15/06				28.21	78.06	0.00			
	04/11/06				28.53	77.74	0.00			
	05/23/06				28.67	77.60	0.00			
	08/09/06				28.55	77.72	0.00			
	09/27/06				27.54	78.73	0.00			
	10/18/06				27.70	78.57	0.00			
	11/22/06				27.86	78.41	0.00			
	12/14/06				27.71	78.56	0.00			
	01/11/07				27.75	78.52	0.00	0.00		
	03/31/07				27.73	78.54	0.00	0.00		
	08/01/07				27.69	78.58	0.00	0.00		
	12/13/07				27.67	78.60	0.00	0.00		
	01/10/08				27.70	78.57				
	02/18/08				27.90	78.37				
	03/31/08				28.00	78.27				
	04/28/08				28.11	78.16				
	05/29/08				28.18	78.09				
	06/30/08				28.45	77.82				
	07/29/08				28.74	77.53				
	08/29/08				28.88	77.39				
	09/30/08				28.39	77.88				
	10/31/08				28.43	77.84				
	11/26/08				28.22	78.05				
	12/30/08				28.20	78.07				
MW-8	01/11/06	105.52	107.44		28.86	78.58	0.00			
	02/17/06				29.23	78.21	0.00			
	03/15/06				29.12	78.32	0.00			
	04/11/06				29.21	78.23	0.00			
	05/23/06				29.39	78.05	0.00			
	08/09/06				27.16	80.28	0.00			
	09/27/06				28.67	78.77	0.00			
	10/18/06				28.79	78.65	0.00			
	11/22/06				28.71	78.73	0.00			
	12/14/06				28.79	78.65	0.00			
	01/11/07				28.78	78.66	0.00	0.00		
	03/31/07				28.69	78.75	0.00	0.00		
	08/01/07				28.60	78.84	0.00	0.00		
	12/13/07				28.52	78.92	0.00	0.00		
	01/10/08				28.55	78.89				
	02/18/08				28.85	78.59				
	03/31/08				28.81	78.63				
	04/28/08				29.03	78.41				
	05/29/08				29.06	78.38				
	06/30/08				29.31	78.13				
	07/29/08				27.81	79.63				
	08/29/08				29.70	77.74				
	09/30/08				29.31	78.13				
	10/31/08				29.20	78.24				
	11/26/08				29.13	78.31				
	12/30/08				29.09	78.35				

TABLE 1

**RELATIVE GROUNDWATER ELEVATIONS, PHASE SEPARATED HYDROCARBON THICKNESSES  
AND MANUAL PHASE-SEPARATED HYDROCARBON RECOVERY**

**PLAINS ALL AMERICAN PIPELINE, L.P. - LEA STATION  
LEA COUNTY, NEW MEXICO**

Monitor Well	Date Gauged	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase Separated Hydrocarbon Thickness (feet)	PSH Recovery (gallons)	PSH Cumulative Recovery (gallons)	Type of Recovery
MW-9	01/11/06	93.76	97.21		25.75	71.46	0.00			
	02/17/06				26.03	71.18	0.00			
	03/15/06				25.96	71.25	0.00			
	04/11/06				25.91	71.30	0.00			
	05/23/06				26.15	71.06	0.00			
	08/09/06				26.25	70.96	0.00			
	09/27/06				25.18	72.03	0.00			
	10/18/06				27.77	69.44	0.00			
	11/22/06				25.43	71.78	0.00			
	12/14/06				25.54	71.67	0.00			
	01/11/07				25.59	71.62	0.00	0.00		
	03/31/07				25.50	71.71	0.00	0.00		
	08/01/07				25.42	71.79	0.00	0.00		
	12/13/07				25.31	71.90	0.00	0.00		
	01/10/08				25.35	71.86				
	02/18/08				25.65	71.56				
	03/31/08				25.70	71.51				
	04/28/08				26.83	70.38				
	05/29/08				25.89	71.32				
	06/30/08				26.25	70.96				
	07/29/08				26.55	70.66				
	08/29/08				26.56	70.65				
	09/30/08				26.15	71.06				
	10/31/08				26.10	71.11				
	11/26/08				26.31	70.90				
	12/31/08				26.46	70.75				
MW-10	01/11/06	99.63	102.51		32.17	70.34	0.00			
	02/17/06				32.40	70.11	0.00			
	03/15/06				34.41	68.10	0.00			
	04/11/06				32.37	70.14	0.00			
	05/23/06				32.40	70.11	0.00			
	08/09/06				32.69	69.82	0.00			
	09/27/06				31.85	70.66	0.00			
	10/18/06				31.90	70.61	0.00			
	11/22/06				31.99	70.52	0.00			
	12/14/06				32.01	70.50	0.00			
	01/11/07				32.07	70.44	0.00	0.00		
	03/31/07				31.98	70.53	0.00	0.00		
	08/01/07				31.87	70.64	0.00	0.00		
	12/13/07				31.70	70.81	0.00	0.00		
	01/10/08				32.24	70.27				
	02/18/08				32.05	70.46				
	03/31/08				32.16	70.35				
	04/28/08				32.24	70.27				
	05/29/08				32.25	70.26				
	06/30/08				32.53	69.98				
	07/29/08				32.94	69.57				
	08/29/08				33.02	69.49				
	09/30/08				32.69	69.82				
	10/31/08				32.64	69.87				
	11/26/08				32.57	69.94				
	12/31/08				32.78	69.73				

TABLE 1

**RELATIVE GROUNDWATER ELEVATIONS, PHASE SEPARATED HYDROCARBON THICKNESSES  
AND MANUAL PHASE-SEPARATED HYDROCARBON RECOVERY**

**PLAINS ALL AMERICAN PIPELINE, L.P. - LEA STATION  
LEA COUNTY, NEW MEXICO**

Monitor Well	Date Gauged	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase Separated Hydrocarbon Thickness (feet)	PSH Recovery (gallons)	PSH Cumulative Recovery (gallons)	Type of Recovery
MW-11	01/11/06	104.48	105.62		28.92	76.70	0.00	0.00		
	02/17/06				29.26	76.36	0.00	0.00		
	03/15/06				29.12	76.50	0.00	0.00		
	04/11/06				29.51	76.11	0.00	0.00		
	05/23/06				29.21	76.41	0.00	0.00		
	08/09/06				29.55	76.07	0.00	0.00		
	09/27/06				28.91	76.71	0.00	0.00		Flipped sock
	10/18/06				28.85	76.77	0.00	0.00		
	11/22/06				28.80	76.82	0.00	0.00		Flipped Sock
	12/14/06				28.75	76.87	0.00	0.00		Flipped sock
	01/11/07				28.77	76.85	0.00	0.00		
	03/31/07				28.73	76.89	0.00	0.00		
	08/01/07				28.70	76.92	0.00	0.00		
	12/13/07				28.66	76.96	0.00	0.00		
	01/10/08				28.69	76.93				
	02/18/08				29.01	76.61				
	03/31/08				28.89	76.73				Changed Sock
	04/28/08				29.00	76.62				
	05/29/08				29.10	76.52				
	06/30/08				29.42	76.20				
	07/29/08				29.58	76.04				
	08/29/08				29.76	75.86				flipped sock
	09/30/08				29.50	76.12				color
	10/31/08				29.42	76.20				
	11/26/08				29.28	76.34				
	12/30/08				29.21	76.41				
MW-12	01/11/06	Not Surveyed	103.90		28.23	75.67	0.00			
	02/17/06				28.34	75.56	0.00			
	03/15/06				28.41	75.49	0.00			
	04/11/06				28.44	75.46	0.00			
	05/23/06				28.46	75.44	0.00			
	08/09/06				28.69	75.21	0.00			
	09/27/06				28.05	75.85	0.00			
	10/18/06				28.03	75.87	0.00			
	11/22/06				27.98	75.92	0.00			
	12/14/06				27.99	75.91	0.00			
	01/11/07				28.03	75.87	0.00	0.00		
	03/31/07				28.01	75.89	0.00	0.00		
	08/01/07				27.97	75.93	0.00	0.00		
	12/13/07				27.89	76.01	0.00	0.00		
	01/10/08				27.91	75.99				
	02/18/08				28.12	75.78				
	03/31/08				28.18	75.72				
	04/28/08				28.30	75.60				
	05/29/08				28.47	75.43				
	06/30/08				28.50	75.40				
	07/29/08				28.69	75.21				
	08/29/08				28.90	75.00				
	09/30/08				28.72	75.18				
	10/31/08				28.74	75.16				
	11/26/08				28.65	75.25				
	12/30/08				28.61	75.29				

TABLE 1

**RELATIVE GROUNDWATER ELEVATIONS, PHASE SEPARATED HYDROCARBON THICKNESSES  
AND MANUAL PHASE-SEPARATED HYDROCARBON RECOVERY**

**PLAINS ALL AMERICAN PIPELINE, L.P. - LEA STATION  
LEA COUNTY, NEW MEXICO**

Monitor Well	Date Gauged	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase Separated Hydrocarbon Thickness (feet)	PSH Recovery (gallons)	PSH Cumulative Recovery (gallons)	Type of Recovery
MW-13	01/11/06	Not Surveyed	103.89		26.47	77.42	0.00			
	02/17/06				26.58	77.31	0.00			
	03/15/06				26.57	77.32	0.00			
	04/11/06				26.57	77.32	0.00			
	05/23/06				26.71	77.18	0.00			
	08/09/06				27.12	76.77	0.00			
	09/27/06				26.38	77.51	0.00			
	10/18/06				26.31	77.58	0.00			
	11/22/06				26.23	77.66	0.00			
	12/14/06				26.19	77.70	0.00			
	01/11/07				26.21	77.68	0.00	0.00		
	03/31/07				26.18	77.71	0.00	0.00		
	08/01/07				26.15	77.74	0.00	0.00		
	12/13/07				26.10	77.79	0.00	0.00		
	01/10/08				26.12	77.77				
	02/18/08				26.28	77.61				
	03/31/08				27.39	76.50				
	04/28/08				26.40	77.49				
	05/29/08				26.59	77.30				
	06/30/08				26.65	77.24				
	07/29/08				27.17	76.72				
	08/29/08				27.27	76.62				add sock
	09/30/08				27.08	76.81				
	10/31/08				26.91	76.98				
	11/26/08				26.77	77.12				
	12/31/08				26.75	77.14				
RW-1	01/11/06	Not Surveyed	106.40		26.66	79.74	0.00			
	02/17/06				26.85	79.55	0.00			
	03/15/06				26.72	79.68	0.00			
	04/11/06				26.78	79.62	0.00			
	05/23/06				26.92	79.48	0.00			
	08/09/06				--	--	--			
	09/27/06				26.19	80.21	0.00			Sock OK
	10/18/06				26.32	80.08	0.00			
	11/22/06				26.23	80.17	0.00			Installed new Sock
	12/14/06				26.28	80.12	0.00			Sock OK
	01/11/07				26.32	80.08	0.00	0.00		Sock OK
	03/31/07				26.27	80.13	0.00	0.00		
	08/01/07				26.24	80.16	0.00	0.00		
	12/13/07				26.21	80.19	0.00	0.00		
	01/10/08				26.22	80.18				
	02/18/08				26.54	79.86				
	03/31/08				26.52	79.88				
	04/28/08				26.70	79.70				
	05/29/08				26.74	79.66				
	06/30/08				27.05	79.35				
	07/29/08				27.94	78.46				
	08/29/08				27.39	79.01				
	09/30/08				27.02	79.38				
	10/31/08				26.89	79.51				
	11/26/08				26.80	79.60				
	12/30/08				26.76	79.64				

TABLE 1

**RELATIVE GROUNDWATER ELEVATIONS, PHASE SEPARATED HYDROCARBON THICKNESSES  
AND MANUAL PHASE-SEPARATED HYDROCARBON RECOVERY**

**PLAINS ALL AMERICAN PIPELINE, L.P. - LEA STATION  
LEA COUNTY, NEW MEXICO**

Monitor Well	Date Gauged	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase Separated Hydrocarbon Thickness (feet)	PSH Recovery (gallons)	PSH Cumulative Recovery (gallons)	Type of Recovery
RW-2	01/11/06	Not Surveyed	106.65		26.35	80.30	0.00			
	02/17/06				26.68	79.97	0.00			
	03/15/06				26.61	80.04	0.00			
	04/11/06				26.52	80.13	0.00			
	05/23/06				26.65	80.00	0.00			
	08/09/06				--	--	--			
	09/27/06				26.02	80.63	0.00			Flipped sock
	10/18/06				26.05	80.60	0.00			Flipped sock
	11/22/06				26.03	80.62	0.00			
	12/14/06				26.04	80.61	0.00			Flipped sock
	01/11/07				26.05	80.60	0.00	0.00		Installed new sock
	03/31/07				26.03	80.62	0.00	0.00		
	08/01/07				26.01	80.64	0.00	0.00		
	12/13/07				25.99	80.66	0.00	0.00		
	01/10/08				25.99	80.66				
	02/18/08				26.31	80.34				
	03/31/08				27.25	79.40				
	04/28/08				26.42	80.23				
	05/29/08				26.51	80.14				
	06/30/08				26.81	79.84				
	07/29/08				27.01	79.64				odor
	08/29/08				27.17	79.48				
	09/30/08				27.04	79.61				
	10/31/08				26.99	79.66				
	11/26/08				26.52	80.13				
	12/30/08				26.51	80.14				

\* Measured from a relative datum (benchmark = 100 feet).

\*\* Correction Equation for Phase-Separated Hydrocarbons: Corrected Groundwater Elevation =

Top of Casing Elevation - [Depth to Water Below Top of Casing - (SG)(PSH Thickness)].

Specific Gravity (SG) = 0.9 for crude oil.

Note 1: Total recovery: 101.61 gallons by manual means.

Note 2: The SVE System blower failed on 3/12/98. The system was

reactivated on 4/15/99.

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS (BTEX & TPH)**  
**PLAINS ALL AMERICAN PIPELINE, L.P.**  
**LEA STATION**  
**LEA COUNTY, NEW MEXICO**

Monitor Well	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethyl-Benzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)	TPH as Gasoline (C6 - C12)	TPH as Diesel (C12 - C28)	TPH as Oil (C28 C35)	Total TPH
MW-1	02/17/06	0.272	<0.005	0.078	0.024	0.374				
	05/23/06	0.219	<0.001	0.0716	0.0474	0.338				
	08/09/06	0.187	<0.001	0.0647	0.0439	0.296				
	11/22/06	0.174	<0.001	0.0154	0.0292	0.219				
	03/31/07	0.129	<0.001	0.0274	0.0284	0.185				
	08/01/07	0.2070	<0.0100	0.0454	0.387	0.2911				
	12/13/07	0.1687	ND	0.0351	0.036	0.2401				
	03/31/08	0.0915	0.0027	0.0055	0.008	0.1074				
	06/30/08	0.2111	0.0045	0.0300	0.010	0.2559	1.55	ND	ND	1.55
	09/30/08	0.3516	0.0603	0.0530	0.0372	0.5021				
MW-2	12/30/08	0.3155	ND	0.0565	ND	0.3720	3.54	1.88	ND	5.42
	02/17/06	0.587	<0.05	0.529	0.505	1.62				
	05/23/06	0.599	<0.01	0.237	0.182	1.02				
	08/09/06	0.575	<0.01	0.188	0.112	0.875				
	11/22/06	0.577	<0.01	0.135	0.0722	0.784				
	03/31/07	0.665	<0.01	0.160	0.0440	0.869				
	08/01/07	0.640	<0.0100	0.1605	0.0381	0.8387				
	12/13/07	0.539	ND	0.0955	ND	0.6340				
	03/31/08	0.7380	ND	0.1577	0.053	0.9489				
	06/30/08	0.8336	0.0107	0.1227	0.058	1.0250	4.57	2.44	ND	7.01
MW-3	09/30/08	0.7206	0.0509	0.0831	0.051	0.9055				
	12/30/08	0.9645	ND	0.1245	ND	1.0890	7.97	12.90	ND	20.87
	02/17/06	0.257	<0.005	0.0283	0.177	0.462				
	05/23/06	0.242	<0.002	0.0331	0.0294	0.305				
	08/09/06	0.421	<0.005	0.0844	0.0280	0.533				
	11/22/06	0.00934	<0.001	<0.001	<0.003	0.00934				
	03/31/07	0.120	<0.001	0.0391	<0.003	0.159				
	08/01/07	0.00560	<0.0010	<0.0010	<0.0030	0.0056				
	12/13/07	ND	ND	ND	ND	ND				
	03/31/08	0.0906	ND	0.0037	ND	0.0943				
MW-4	06/30/08	0.1805	0.0028	0.0129	0.0045	0.2007	ND	ND	ND	ND
	09/30/08	0.2517	0.0231	0.0158	ND	0.2906				
	12/30/08	0.3475	0.11	0.0950	0.221	0.7730	ND	2.61	ND	2.61
	02/17/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	05/23/06					Not Sampled ^				
	08/09/06	<0.001	<0.001	0.0225	<0.003	0.0225				
	11/22/06					Not Sampled ^				
	03/31/07	0.00146	<0.001	<0.001	<0.003	0.00146				
	08/01/07	<0.0010	<0.0010	<0.0010	<0.0030	<0.0060				
	12/13/07					Not Sampled ^				
	03/31/08					Not Sampled ^				
	06/30/08	ND	ND	ND	ND	ND	--	--	--	--
	09/30/08					Not Sampled ^				
	12/30/08	0.0043	0.0121	0.0040	0.0064	0.0268	--	--	--	--

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS (BTEX & TPH)**  
**PLAINS ALL AMERICAN PIPELINE, L.P.**  
**LEA STATION**  
**LEA COUNTY, NEW MEXICO**

Monitor Well	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethyl-Benzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)	TPH as Gasoline (C6 - C12)	TPH as Diesel (C12 - C28)	TPH as Oil (C28 C35)	Total TPH
MW-5	02/17/06					Not Sampled <sup>A</sup>				
	05/23/06					Not Sampled <sup>A</sup>				
	08/09/06					Not Sampled <sup>A</sup>				
	11/22/06					Not Sampled <sup>A</sup>				
	03/31/07					Not Sampled <sup>A</sup>				
	08/01/07					Not Sampled <sup>A</sup>				
	12/13/07					Not Sampled <sup>A</sup>				
	03/31/08					Not Sampled <sup>A</sup>				
	06/30/08					Not Sampled <sup>A</sup>				
	09/30/08					Not Sampled <sup>A</sup>				
	12/30/08					Not Sampled <sup>A</sup>				
MW-6	02/17/06					Not Sampled <sup>A</sup>				
	05/23/06					Not Sampled <sup>A</sup>				
	08/09/06					Not Sampled <sup>A</sup>				
	11/22/06					Not Sampled <sup>A</sup>				
	03/31/07					Not Sampled <sup>A</sup>				
	08/01/07					Not Sampled <sup>A</sup>				
	12/13/07					Not Sampled <sup>A</sup>				
	03/31/08					Not Sampled <sup>A</sup>				
	06/30/08					Not Sampled <sup>A</sup>				
	09/30/08					Not Sampled <sup>A</sup>				
	12/30/08					Not Sampled <sup>A</sup>				
MW-7	02/17/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	05/23/06					Not Sampled <sup>A</sup>				
	08/09/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	11/22/06					Not Sampled <sup>A</sup>				
	03/31/07	<0.001	<0.001	<0.001	<0.003	<0.006				
	08/01/07	<0.001	<0.001	<0.001	<0.003	<0.006				
	12/13/07					Not Sampled <sup>A</sup>				
	03/31/08					Not Sampled <sup>A</sup>				
	06/30/08	0.0010	ND	0.0010	ND	0.0020	--	--	--	--
	09/30/08					Not Sampled <sup>A</sup>				
MW-8	02/17/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	05/23/06					Not Sampled <sup>A</sup>				
	08/09/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	11/22/06					Not Sampled <sup>A</sup>				
	03/31/07	<0.001	<0.001	<0.001	<0.003	<0.006				
	08/01/07	<0.001	<0.001	<0.001	<0.003	<0.006				
	12/13/07					Not Sampled <sup>A</sup>				
	03/31/08					Not Sampled <sup>A</sup>				
	06/30/08	ND	ND	ND	ND	ND	--	--	--	--
	09/30/08					Not Sampled <sup>A</sup>				
	12/30/08	0.0062	0.0172	0.0064	0.0088	0.0386	--	--	--	--

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS (BTEX & TPH)**  
**PLAINS ALL AMERICAN PIPELINE, L.P.**  
**LEA STATION**  
**LEA COUNTY, NEW MEXICO**

Monitor Well	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethyl-Benzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)	TPH as Gasoline (C6 - C12)	TPH as Diesel (C12 - C28)	TPH as Oil (C28 C35)	Total TPH
MW-9	02/17/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	05/23/06					Not Sampled <sup>A</sup>				
	08/09/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	11/22/06					Not Sampled <sup>A</sup>				
	03/31/07	<0.001	<0.001	<0.001	<0.003	<0.006				
	08/01/07	<0.001	<0.001	<0.001	<0.003	<0.006				
	12/13/07					Not Sampled <sup>A</sup>				
	03/31/08					Not Sampled <sup>A</sup>				
	06/30/08	ND	ND	ND	ND	ND	--	--	--	--
	09/30/08					Not Sampled <sup>A</sup>				
MW-10	12/31/08	0.0081	0.0240	0.0057	0.0091	0.0469	--	--	--	--
	02/17/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	05/23/06					Not Sampled <sup>A</sup>				
	08/09/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	11/22/06					Not Sampled <sup>A</sup>				
	03/31/07	<0.001	<0.001	<0.001	<0.003	<0.006				
	08/01/07	<0.001	<0.001	<0.001	<0.003	<0.006				
	12/13/07					Not Sampled <sup>A</sup>				
	03/31/08					Not Sampled <sup>A</sup>				
	06/30/08	ND	ND	ND	ND	ND	--	--	--	--
MW-11	09/30/08					Not Sampled <sup>A</sup>				
	12/31/08	0.0074	0.0249	0.0057	0.0095	0.0475	--	--	--	--
	02/17/06	<b>0.571</b>	<0.005	0.399	0.0769	1.047				
	05/23/06	<b>0.517</b>	<0.001	0.513	<.03	1.030				
	08/09/06	<b>1.310</b>	<0.001	0.425	<0.0672	1.735				
	11/22/06	<b>0.601</b>	<0.001	0.316	<0.03	0.917				
	03/31/07	<b>0.275</b>	<0.001	0.186	<0.003	0.461				
	08/01/07	<b>0.2775</b>	<0.0500	0.1630	<0.1500	0.4405				
	12/13/07	<b>4.616</b>	ND	1.232	ND	5.848				
	03/31/08	<b>0.2648</b>	0.0083	0.1139	0.022	0.4093				
MW-12	06/30/08	<b>0.6838</b>	ND	0.2066	ND	0.8904	2.40	ND	ND	2.40
	09/30/08	<b>0.4075</b>	ND	0.1226	ND	0.5301				
	12/30/08	<b>0.2820</b>	ND	0.0630	ND	0.3450	2.93	7.03	ND	9.96
	02/17/06	0.008	<0.001	0.0096	<0.003	0.017				
	05/23/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	08/09/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	11/22/06	0.00398	<0.001	0.00459	<0.003	0.00857				
MW-12	03/31/07	0.00114	<0.001	<0.001	<0.003	0.00114				
	08/01/07	0.00290	<0.0500	0.163	<0.1500	0.4405				
	12/13/07					Not Sampled <sup>A</sup>				
	03/31/08					Not Sampled <sup>A</sup>				
	06/30/08	0.0063	ND	0.0076	ND	0.0139	--	--	--	--
MW-12	09/30/08					Not Sampled <sup>A</sup>				
	12/30/08	<b>0.0360</b>	ND	0.0476	ND	0.0836	--	--	--	--

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS (BTEX & TPH)**  
**PLAINS ALL AMERICAN PIPELINE, L.P.**  
**LEA STATION**  
**LEA COUNTY, NEW MEXICO**

Monitor Well	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethyl-Benzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)	TPH as Gasoline (C6 - C12)	TPH as Diesel (C12 - C28)	TPH as Oil (C28 C35)	Total TPH
MW-13	02/17/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	05/23/06					Not Sampled <sup>A</sup>				
	08/09/06	<0.001	<0.001	<0.001	<0.003	<0.006				
	11/22/06					Not Sampled <sup>A</sup>				
	03/31/07	<0.001	<0.001	<0.001	<0.003	<0.006				
	08/01/07	<0.0010	<0.0010	<0.0010	<0.0030	<0.0060				
	12/13/07					Not Sampled <sup>A</sup>				
	03/31/08					Not Sampled <sup>A</sup>				
	06/30/08	0.0019	ND	0.0024	ND	0.0043	--	--	--	--
	09/03/08					Not Sampled <sup>A</sup>				
RW-1	12/31/08	0.0030	0.0093	0.0026	0.0045	0.0194	--	--	--	--
	02/17/06					Not Sampled <sup>A</sup>				
	05/23/06					Not Sampled <sup>A</sup>				
	08/09/06					Not Sampled <sup>A</sup>				
	11/22/06					Not Sampled <sup>A</sup>				
	03/31/07					Not Sampled <sup>A</sup>				
	08/01/07					Not Sampled <sup>A</sup>				
	12/13/07					Not Sampled <sup>A</sup>				
	03/31/08					Not Sampled <sup>A</sup>				
	06/30/08					Not Sampled <sup>A</sup>				
NMWQCC Groundwater	02/17/06	0.01	0.75	0.75	0.62	2.13				
	05/23/06									

mg/L = milligrams per liter

ND = None Detected

If the cell is blank, laboratory analysis was not performed.

<sup>A</sup> Not sampled due to eight consecutive quarters of analytical data below NMWQCC groundwater standards.

TABLE 3  
CONCENTRATIONS OF PAH IN GROUNDWA-  
TER  
PLAINS ALL AMERICAN PIPELINE, L.P.  
LEA STATION  
LEA COUNTY, NEW MEXICO

TABLE 3

**CONCENTRATIONS OF PAH IN GROUNDWATER  
PLAINS ALL AMERICAN PIPELINE, L.P.  
LEA STATION  
LEA COUNTY, NEW MEXICO**

ND = Not Detected  
NA = Not Analyzed

**TABLE 4**

**Summary of Groundwater Sampling Recommendations for 2009**

**Plains All American Pipeline, L.P.**

**Lea Station - Ref. #2003-00339**

**Lea County, New Mexico**

<b>Monitoring Well</b>	<b>Eight Quarters Below</b>	<b>Sampling Schedule</b>				<b>Notes</b>
		<b>1st Quarter</b>	<b>2nd Quarter</b>	<b>3rd Quarter</b>	<b>4th Quarter</b>	
RW-1						Well to be P/A
RW-2						Well to be P/A
MW-1	No	BTEX	BTEX	BTEX	BTEX, PAH	Recommend Annual PAH analysis
MW-2	No	BTEX	BTEX	BTEX	BTEX, PAH	Recommend Annual PAH analysis
MW-3	No	BTEX	BTEX	BTEX	BTEX, PAH	Recommend Annual PAH analysis
MW-4	Yes		BTEX		BTEX, PAH	
MW-5	Yes					Well to be P/A
MW-6	Yes					Well to be P/A
MW-7	Yes		BTEX		BTEX, PAH	
MW-8	Yes		BTEX		BTEX, PAH	
MW-9	Yes		BTEX		BTEX, PAH	
MW-10	Yes		BTEX		BTEX, PAH	
MW-11	No	BTEX	BTEX	BTEX	BTEX, PAH	Recommend Annual PAH analysis
MW-12	Yes		BTEX		BTEX, PAH	
MW-13	Yes		BTEX		BTEX, PAH	

## **APPENDIX**

**APPENDIX A**

**LABORATORY ANALYTICAL RESULTS**

**AND**

**CHAIN-OF-CUSTODY FORM**

***ANALYTICAL DATA INCLUDED ON ATTACHED CD***