

1R - 119

# Annual GW Mon. REPORTS

DATE:

2008



2008  
ANNUAL MONITORING REPORT

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**MONUMENT 10**  
**SE ¼ NE¼ Section 30, Township 19 South, Range 37 East**  
**LEA COUNTY, NEW MEXICO**  
**PLAINS SRS NUMBER: TNM MONUMENT-10**  
**NMOCD Reference Number 1R-0119**

Prepared For:

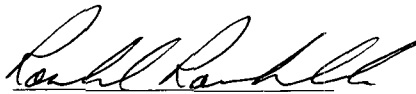
**PLAINS MARKETING, L.P.**  
333 CLAY STREET, SUITE 1600  
HOUSTON, TEXAS 77002

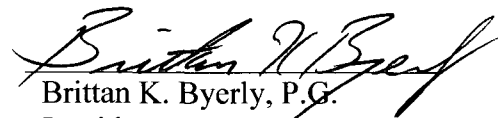


Prepared By:

**NOVA Safety and Environmental**  
2057 Commerce Street  
Midland, Texas 79703

**February 2009**

  
Ronald K. Rounsaville  
Project Manager

  
Brittan K. Byerly, P.G.  
President

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### ENCLOSED ON DATA DISK

2008 Annual Monitoring Report

2008 Tables 1, 2 and 3 – Groundwater Elevation, BTEX, TPH and PAH Concentration Data

2008 Figures 1, 2A-2D, and 3A-3D

Electronic Copies of Laboratory Reports

Historic Table 1 and 2 – Groundwater Elevation and BTEX, TPH, PAH Concentration Tables

Historic Table 1 and 2 – Groundwater Elevation and BTEX, TPH, PAH Concentration Tables

## **INTRODUCTION**

On behalf of Plains Marketing, L.P., (Plains), NOVA Safety and Environmental (NOVA) is pleased to submit this Annual Monitoring Report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. Beginning on May 29, 2004, project management responsibilities were assumed by NOVA. The Monument 10 Site (the site), formally the responsibility of Enron Oil Trading and Transportation (EOTT), is now the responsibility of Plains. This report is intended to be viewed as a complete document with figures, attachments, tables and text. The report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2008 only. For reference, the Site Location Map is provided as Figure 1. Cumulative tables and laboratory data are provided on the enclosed data disk.

Groundwater monitoring was conducted each quarter of 2008 to assess the levels and extent of dissolved phase constituents and Phase Separated Hydrocarbon (PSH). The groundwater monitoring events consisted of measuring static water levels in the monitor wells, checking for the presence of PSH and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 foot were sampled as per a NMOCD directive.

## **SITE DESCRIPTION AND BACKGROUND INFORMATION**

The legal description of the site is SE ¼ NE¼ Section 30, Township 19 South, Range 37 East. No information with respect to the release date, volume of crude oil released or recovered, excavation volumes, or pipeline repair details is available. The Release Notification and Corrective Action (Form C-141) is provided as Appendix A. The initial site investigation, consisting of the installation of seven groundwater monitor wells (MW-1 through MW-7), was performed by a previous consultant.

Seven groundwater monitor wells (MW-1 through MW-7) are currently on-site. Manual product recovery is being conducted weekly at monitor wells MW-2 and MW-3.

## **FIELD ACTIVITIES**

### **Product Recovery Efforts**

During the reporting period, monitor wells MW-2 and MW-3 exhibited measurable thicknesses of PSH. The average PSH thickness for the year from the two monitor wells displaying PSH was 2.58 feet. The maximum measured PSH thickness was 3.85 feet observed in monitor well MW-3 on March, 14, 2008. Approximately 302 gallons (approximately 7.56 barrels) of PSH were recovered from the site during the reporting period. Approximately 1,400 gallons (approximately 33 barrels) of PSH have been recovered from this site since the project inception.

Recovered PSH is reintroduced into the Plains transportation system at the Lea Station Facility, near Monument, New Mexico. Measurable thicknesses of PSH are recorded in Table 1 and Figures 3A-3D.

## Groundwater Monitoring

Quarterly monitoring events for the reporting period were performed according to the following sampling schedule, which was approved by the NMOCD in correspondence dated April 28, 2004 and amended by NMOCD correspondences dated June 22, 2005 and January 26, 2006.

NMOCD Approved Sampling Schedule	
MW-1	Annually
MW-2	Quarterly
MW-3	Quarterly
MW-4	Annually
MW-5	Annually
MW-6	Semi-Annually
MW-7	Semi-Annually

The site monitor wells were gauged and sampled on February 26, May 26, August 28, and November 19, 2008. During each sampling event, monitor wells were purged of a minimum of three well volumes of water or until the wells failed to produce water. Purging was performed using a disposable polyethylene bailer for each well or electrical Proactive Mini-Monsoon pump and dedicated tubing. Groundwater was allowed to recharge and samples were collected using disposable Teflon samplers. Water samples were placed in clean glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed of at a licensed disposal facility.

Locations of the monitor wells and the inferred groundwater gradient, which were constructed from measurements collected during quarterly sampling events performed in 2008, are depicted on the Inferred Groundwater Gradient Maps, Figures 2A-2D. Groundwater elevation data for 2008 is provided as Table 1. Historic groundwater elevation data beginning at project inception is provided on the enclosed data disk.

The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.009 feet/foot to the southeast as measured between monitor wells MW-3 and MW-4. This is consistent with data presented on Figures 2A through 2C from earlier in the year. The corrected groundwater elevations ranged between 3,605.05 and 3,609.59 feet above mean sea level, in monitor well MW-6 on August 28, 2008 and monitor well MW-4 on February 26, 2008, respectively.

## LABORATORY RESULTS

Monitor wells MW-2 and MW-3 contained PSH during all four quarters of the reporting period. Plains, at the request of the NMOCD, collected groundwater samples below PSH levels in all monitor wells containing PSH during one sampling event.

Groundwater samples obtained during the quarterly sampling events of 2008 were delivered to Trace Analysis, Inc. in Midland, Texas for determination of Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations by EPA Method 8021B, and Polynuclear Aromatic Hydrocarbons (PAH) concentrations by EPA Method 8270C. Monitoring wells containing measurable amounts of PSH were analyzed for Total Petroleum Hydrocarbons (TPH) concentrations by EPA Method 8015M. A listing of BTEX and TPH constituent concentrations for 2008 are summarized in Table 2 and the PAH constituent concentrations for 2008 are

summarized in Table 3. Copies of the laboratory reports generated for 2008 are provided on the enclosed data disk. The quarterly groundwater sample results for BTEX constituent concentrations are depicted on Figures 3A through 3D.

**Monitor well MW-1** is sampled on an annual schedule during the 4<sup>th</sup> quarter, but was inadvertently also sampled during the 2<sup>nd</sup> and 3<sup>rd</sup> quarters of the reporting period. Analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.0022 mg/L during the 3<sup>rd</sup> quarter of 2008. Benzene concentrations were below the NMOCD regulatory standard of 0.01 mg/L during the three quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.0011 mg/L during the 3<sup>rd</sup> quarter of 2008. Toluene concentrations were below the NMOCD regulatory standard of 0.75 mg/L during the three quarters of the reporting period. Ethyl-benzene concentrations were below the NMOCD regulatory standard of 0.75 mg/L, during the three quarters of the reporting period. Xylene concentrations ranged from <0.005 mg/L during the 2<sup>nd</sup> quarter to 0.0061 mg/L during the 4<sup>th</sup> quarter of 2008. Xylene concentrations were below the NMOCD regulatory standard of 0.62 mg/L during the three quarters of the reporting period. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above MDLs for fluorene (0.000788 mg/L), naphthalene (0.000386 mg/L), phenanthrene (0.000887 mg/L), 1-methylnaphthalene (0.00226 mg/L), 2-methylnaphthalene (0.000251 mg/L) and dibenzofuran (0.00143 mg/L), which are below the WQCC Drinking Water Standards.

**Monitor well MW-2** is monitored on a quarterly schedule. Monitor well MW-2 was not sampled during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 2.32 feet, 2.00 feet and 1.91 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2008, respectively. Benzene concentrations were above the NMOCD regulatory standard during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.571 mg/L. Toluene concentrations were below NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.438 mg/L. Ethylbenzene concentrations were below NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.044 mg/L. Xylene concentrations were below NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.211 mg/L. Analytical results indicated a total TPH result of 609.38 mg/L. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards of chrysene (0.0281 mg/L), naphthalene (0.0899 mg/L), 1-methylnaphthalene (0.429 mg/L) and 2-methylnaphthalene (0.337 mg/L). Additional PAH constituents detected above MDLs include anthracene (0.115 mg/L), fluorene (0.0786 mg/L), phenanthrene (0.114 mg/L) and dibenzofuran (0.0612 mg/L), which are below the WQCC Drinking Water Standards.

**Monitor well MW-3** is monitored on a quarterly schedule. Monitor well MW-3 was not sampled during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 3.57 feet, 3.05 feet and 3.00 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2008, respectively. Benzene concentrations were above the NMOCD regulatory standard during the 4<sup>th</sup> quarter of the reporting period with a concentration of 2.41 mg/L. Toluene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 1.74 mg/L. Ethylbenzene concentrations were below NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.215 mg/L. Xylene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.694 mg/L. Analytical results indicated a

total TPH result of 523.0 mg/L. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards of naphthalene (0.468 mg/L), 1-methylnaphthalene (1.85 mg/L) and 2-methylnaphthalene (1.79 mg/L). Additional PAH constituents detected above MDLs include fluorene (0.373 mg/L), phenanthrene (0.473 mg/L) and dibenzofuran (0.269 mg/L), which are below the WQCC Drinking Water Standards.

**Monitor well MW-4** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-4 has exhibited twenty-seven consecutive monitoring events below NMOCD regulatory limits. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-5** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-5 has exhibited thirty consecutive monitoring events below NMOCD regulatory limits. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-6** is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during the 2nd and 4th quarter sampling events. Monitor well MW-6 has exhibited twenty-nine consecutive monitoring events below NMOCD regulatory limits. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-7** is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during the 2nd quarter sampling event. Analytical results indicate BTEX constituent concentrations were below MDL and NMOCD standards during the 4th quarter of the reporting period, with the exception of the benzene, which indicated a concentration of 0.0023 mg/L (below NMOCD regulatory standards). Monitor well MW-7 has exhibited thirty-two consecutive monitoring events below NMOCD regulatory limits. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above MDLs for phenanthrene (0.000237 mg/L), 1-methylnaphthalene (0.00034 mg/L) and dibenzofuran (0.000338 mg/L), which are below the WQCC Drinking Water Standards.

Laboratory analytical results were compared to NMOCD regulatory limits based on the New Mexico groundwater standards found in section 20.6.2.3103 of the New Mexico Administrative Code.

## **SUMMARY**

This report presents the results of monitoring activities for the 2008 annual monitoring period. Currently, there are seven groundwater monitor wells present at the site. Two monitor wells (MW-2 and MW-3) exhibited measurable thicknesses of PSH during each sampling event of the reporting period and were not sampled during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of the reporting period.

Manual product recovery occurs from monitor wells MW-2 and MW-3 on a weekly schedule. The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.009 feet/foot to the southeast.

Approximately 302 gallons (approximately 7.56 barrels) of PSH were recovered from the site during the reporting period. Approximately 1,400 gallons (approximately 33 barrels) of PSH have been recovered from this site since the project inception.

Review of the laboratory analytical results of the groundwater samples obtained during the reporting period indicated BTEX constituent concentrations remain below applicable NMOCD regulatory standards in five of the site monitor wells. At this time, dissolved phase impact appears to be limited to monitor wells MW-2 and MW-3. Groundwater samples from monitor wells MW-2 and MW-3 exhibited elevated TPH concentrations for GRO and DRO. Analytical results indicate PAH distributions mirrored those of BTEX distributions over the site.

### **ANTICIPATED ACTIONS**

Quarterly monitoring, aggressive PSH recovery and groundwater sampling will continue in 2009. Manual product recovery and gauging well be conducted on a bi-weekly schedule and will be adjusted according to site conditions. An Annual Monitoring Report will be submitted to the NMOCD before April 1, 2010.

### **LIMITATIONS**

NOVA has prepared this Annual Monitoring Report to the best of its ability. No other warranty, expressed or implied, is made or intended.

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

This report has been prepared for the benefit of Plains. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of NOVA and/or Plains.



## **DISTRIBUTION**

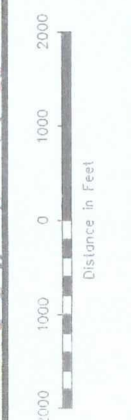
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New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505
- Copy 2:      Larry Johnson  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division, District 1  
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jpdann@paalp.com
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Midland, TX 79703  
rrounsaville@novatraining.cc

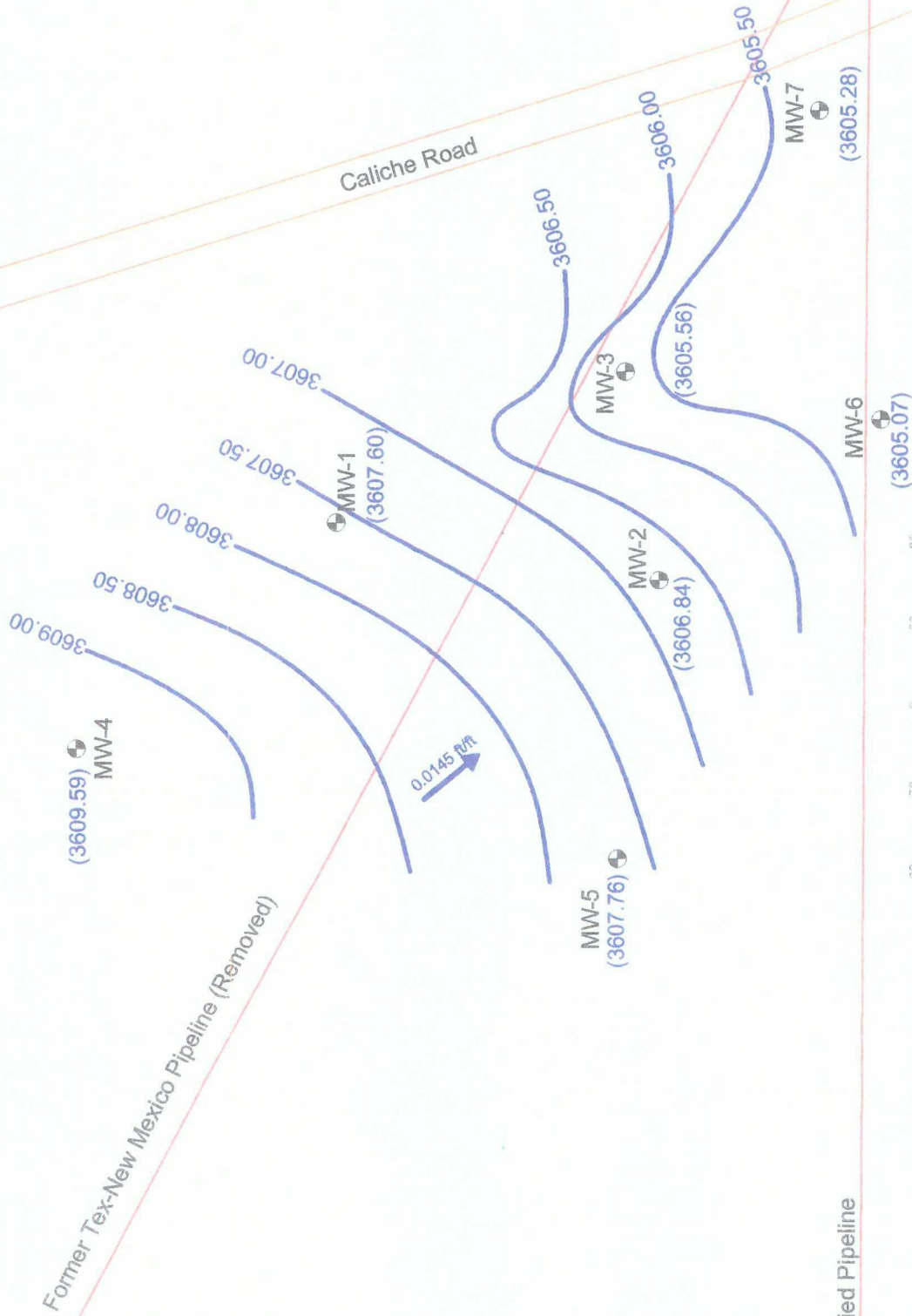
## FIGURES



**Figure 1**  
**Site Location Map**  
Plains Marketing, L.P.  
Monument 10  
Lee County, NM

NMOC Reference #1R-0119





NOTE:

Contour Interval = 0.5'

Groundwater Gradient Measured Between MW-4 and MW-3

Legend:

Monitor Well Location

Pipeline

Groundwater Elevation Contour Line

(3606.94) Groundwater Elevation (feet)

0.001 ft/ft Groundwater Gradient and Magnitude

NMOCDC Reference No. 1R-0119

Figure 2A  
Inferred Groundwater  
Gradient Map (02/28/08)  
Plains Marketing, L.P.  
Monument 10  
Lea County, NM

NOVA Safety and Environmental



Scale: 1" = 80'

October 9, 2008

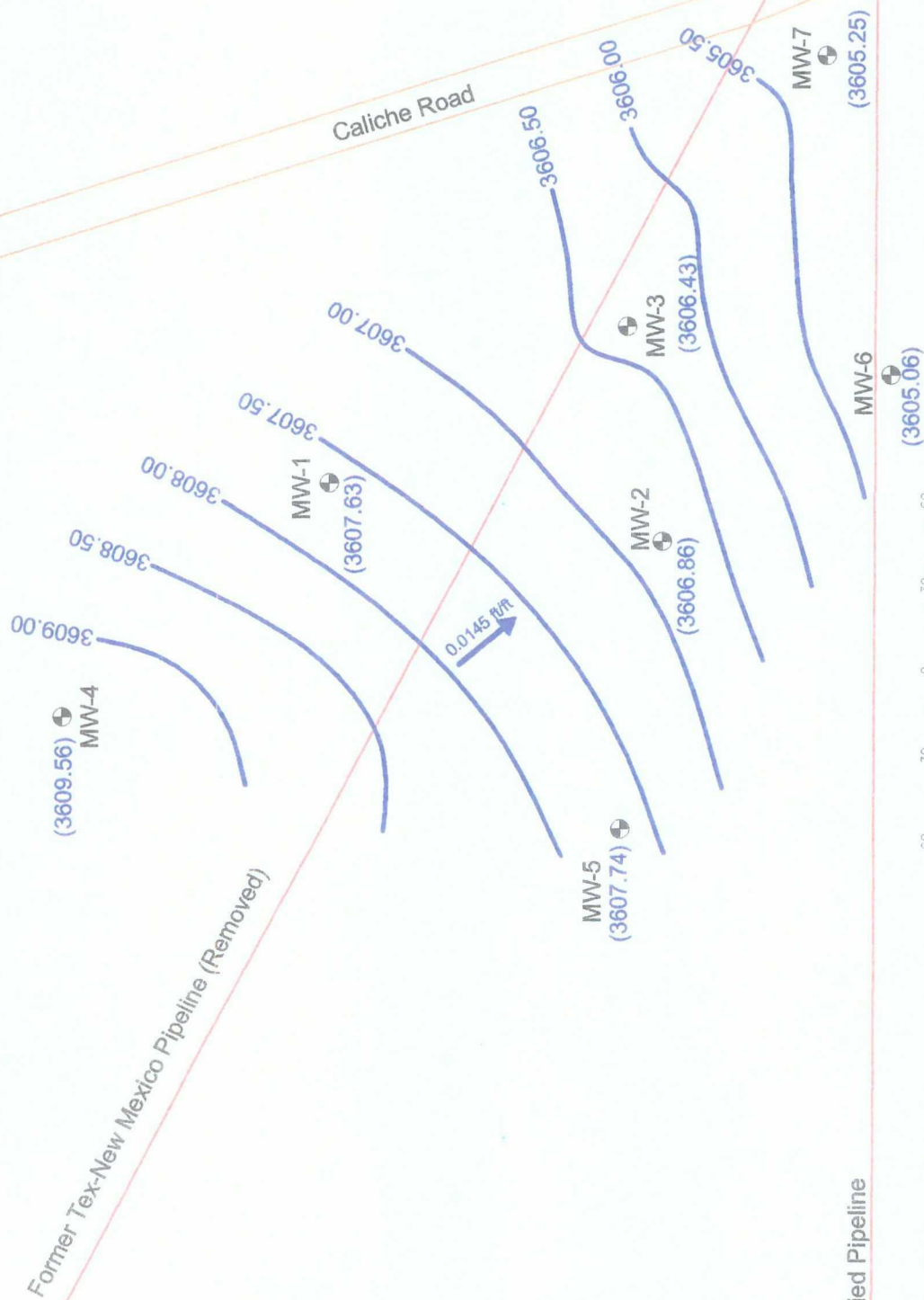
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Checked By: CDS

NE 1/4 Section 30T18S R37E

Lat. N32° 30' 14" Long. W102° 17' 4"





NOTE:

Contour Interval = 0.5'  
Groundwater Gradient Measured Between MW-4 and MW-3



NMOCD Reference No. 1R-0119

Legend:

- Monitor Well Location
- Pipeline
- Groundwater Elevation Contour Line

(3606.94) Groundwater Elevation (feet)  
0.001 ft Groundwater Gradient and Magnitude

Figure 2B  
Inferred Groundwater  
Gradient Map (05/28/06)  
Plains Marketing, L.P.  
Monument 10  
Lea County, NM

NOVA Safety and Environmental

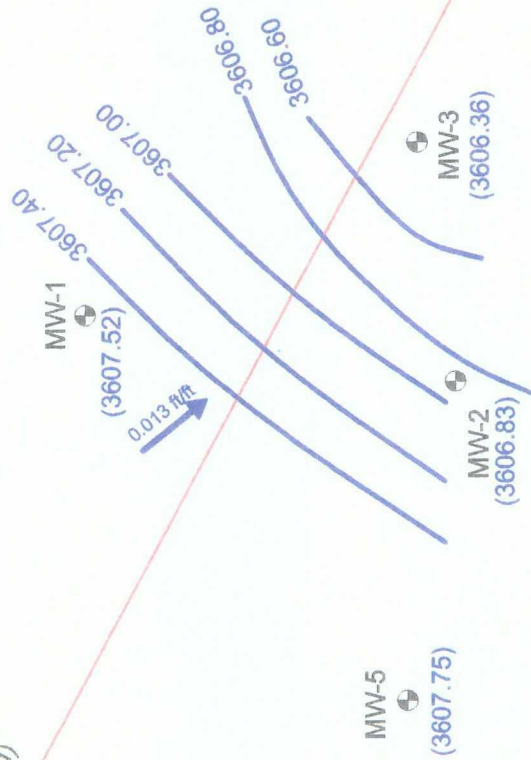


Scale: 1" = 80'	CAD By: DGC	Checked By: CDS
October 9, 2008	INE/4 Section 307106 R37E	
	Lat. N32° 35' 14" Long. W103° 17' 4"	



Former Tex-New Mexico Pipeline (Removed)

MW-4  
(3609.56)



Caliche Road

MW-7  
(NA)

Buried Pipeline

NOTE:

Contour Interval = 0.5'

Groundwater Gradient Measured Between MW-4 and MW-3

MW-7 Not Used In Gradient Map Construction



NMOC Reference No. 1R-0119

Legend:

Monitor Well Location

Pipeline

Groundwater Elevation Contour Line

(3606.94) Groundwater Elevation (feet)

0.001 ft/ft Groundwater Gradient and Magnitude

Figure 2C

Inferred Groundwater

Gradient Map (08/19/08)

Plains Marketing, L.P.

Monument 10

Lea County, NM

NOVA Safety and Environmental



Scale: 1" = 60'

CAD By: DGC

Checked By: DDS

October 9, 2008

NE1/4 Section 30 T19S R37E

Lat. N32° 35' 14" Long. W103° 17' 4"



Former Tex-New Mexico Pipeline (Removed)

Caliche Road

Buried Pipeline

MW-4  
(3608.52)

MW-1  
(3607.65)

MW-5  
(3607.82)

MW-2  
(3606.89)

MW-3  
(3606.45)

MW-7  
(3605.25)

MW-6  
(3605.06)

3608.00

3607.50

3607.00

3606.50

3606.00

3605.50

0.009 ft/ft



NOTE:  
Contour Interval = 0.5'  
Groundwater Gradient Measured Between MW-4 and MW-3

Legend:  
Monitor Well Location  
Pipeline  
Groundwater Elevation Contour Line

(3606.94)  
Groundwater Elevation (feet)  
0.001 ft/ft  
Groundwater Gradient and Magnitude

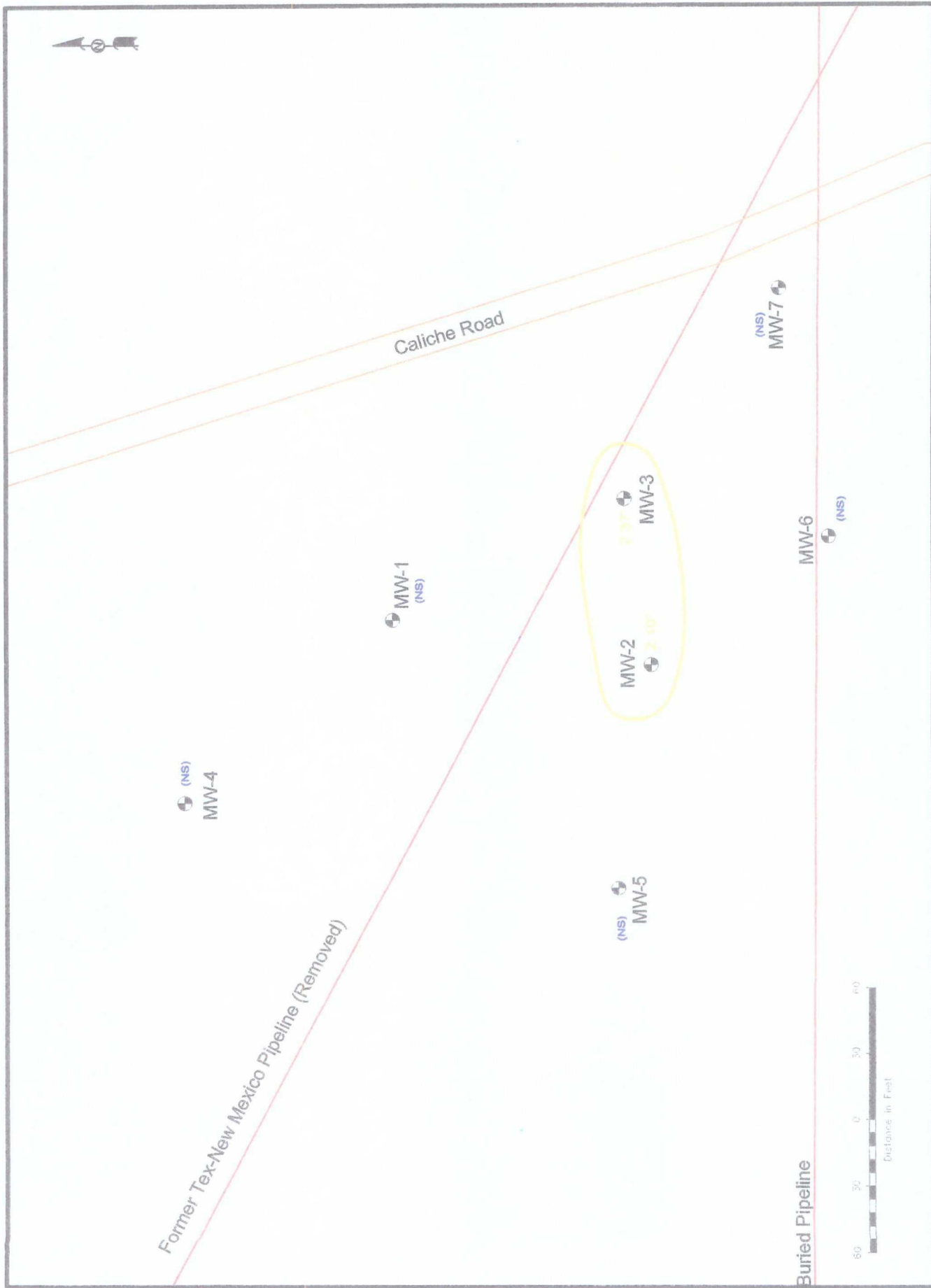
NMOC Reference No. 1R-0119

Figure 2D  
Inferred Groundwater  
Gradient Map (1/19/08)  
Plains Marketing, L.P.  
Monument 10  
Las County, NM

NOVA Safety and Environmental

Scale: 1"=60'	CAD By: DGC	Checked By: RKR
December 5, 2008	NE1/4 Section 30T19S R3TE	
Lat: N32° 38' 14" Long: W105° 17' 4"		





**Legend:**

- Monitor Well Location
- Pipeline
- Inferred Extent of PSH
- Depth of PSH (feet)

Not Sampled

(NS)

<0.001

Constituent Concentration (mg/L)

Figure 3A

Groundwater Concentration and Inferred PSH Extents Map (02/28/08)

Plains Marketing, L.P.

Monument 10

Lea County, NM

NMOC Reference No. 1R-0119

**NOVA**

NOVA Safety and Environmental

Scale: 1" = 60'

CAD By: DSC

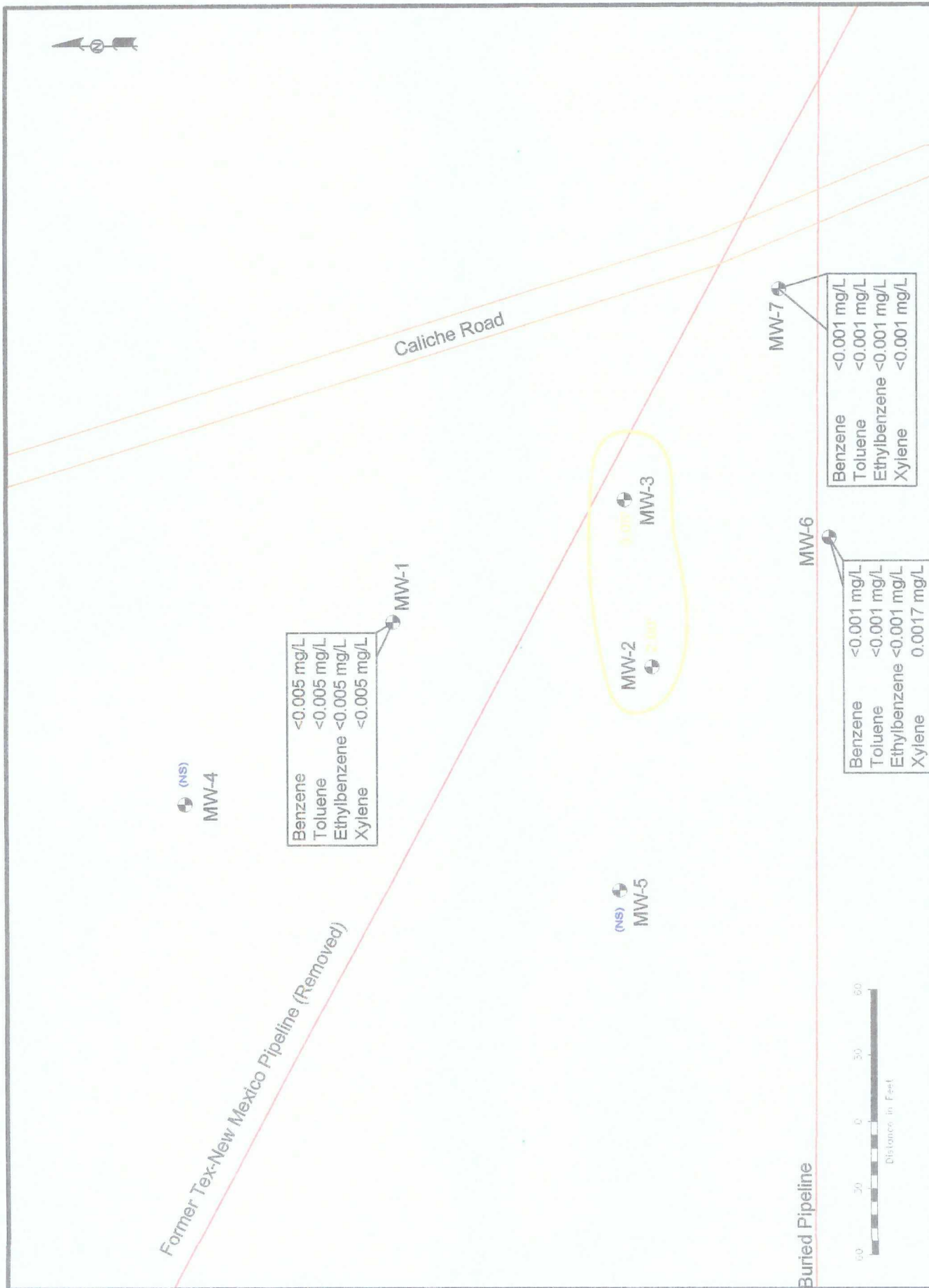
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October 9, 2003

SE 1/4 NE 1/4 Sec. 30 T16S R37E

Lat. 32° 38' 8.2"N Long. 103° 17' 2.4"W



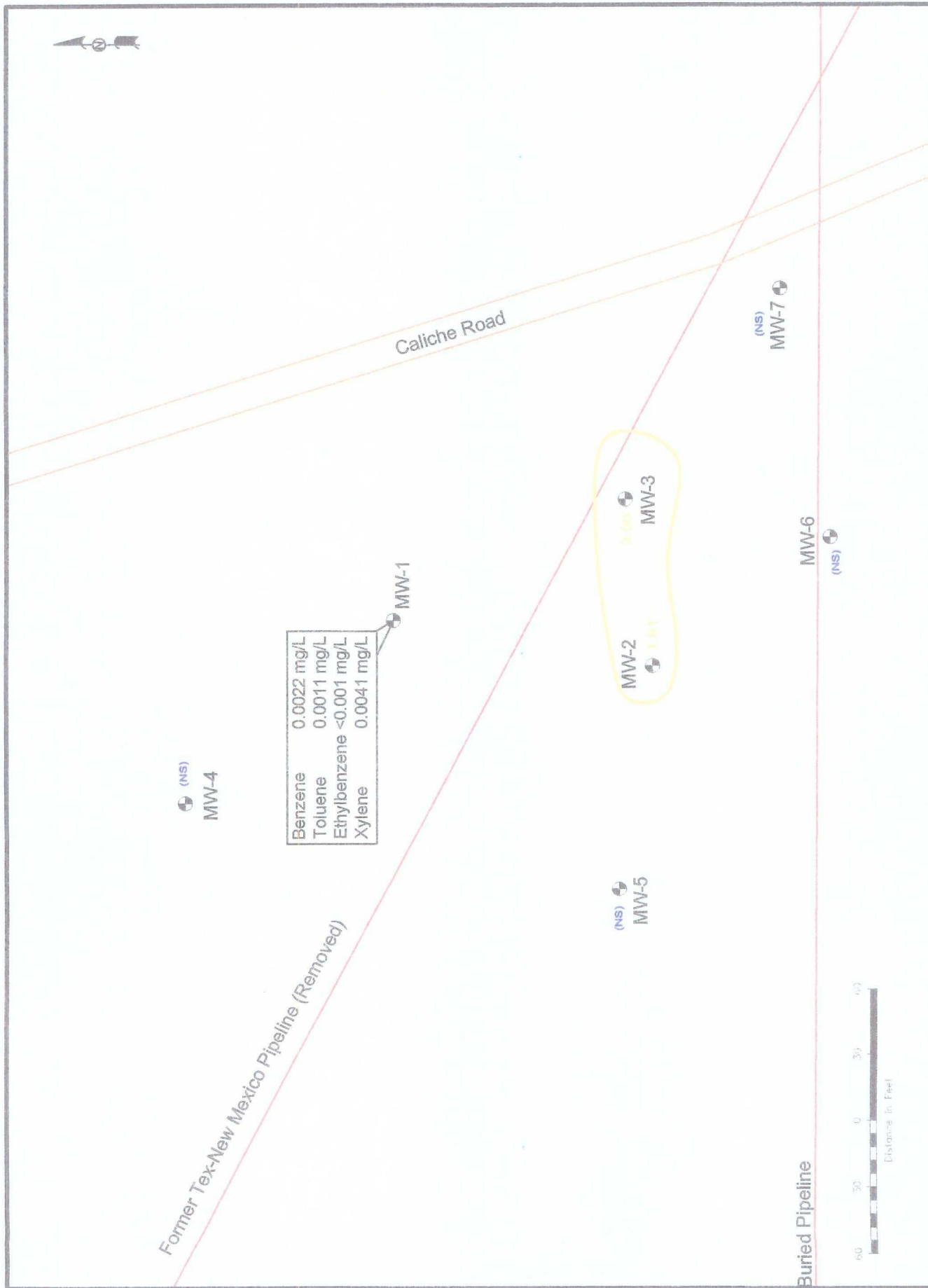


**Figure 3B**  
Groundwater Concentration and Inferred PSH Extents Map (05/26/06)

Plains Marketing, L.P.  
Monument 10  
Lea County, NM

**NOVA Safety and Environmental**

Scale: 1" = 60'  
October 9, 2009  
SE 1/4 NE 1/4 Sec. 30 T19S R37E  
Lat. 32° 36' 0.21" Long. 103° 17' 2.70"



**Legend:**

- Monitor Well Location
- Pipeline
- Inferred Extent of PSH
- Depth of PSH (feet)

**Figure 3C**  
Groundwater Concentration and Inferred PSH Extents Map (08/28/08)  
Plains Marketing, L.P.  
Monument 10  
Lea County, NM

**NOVA Safety and Environmental**

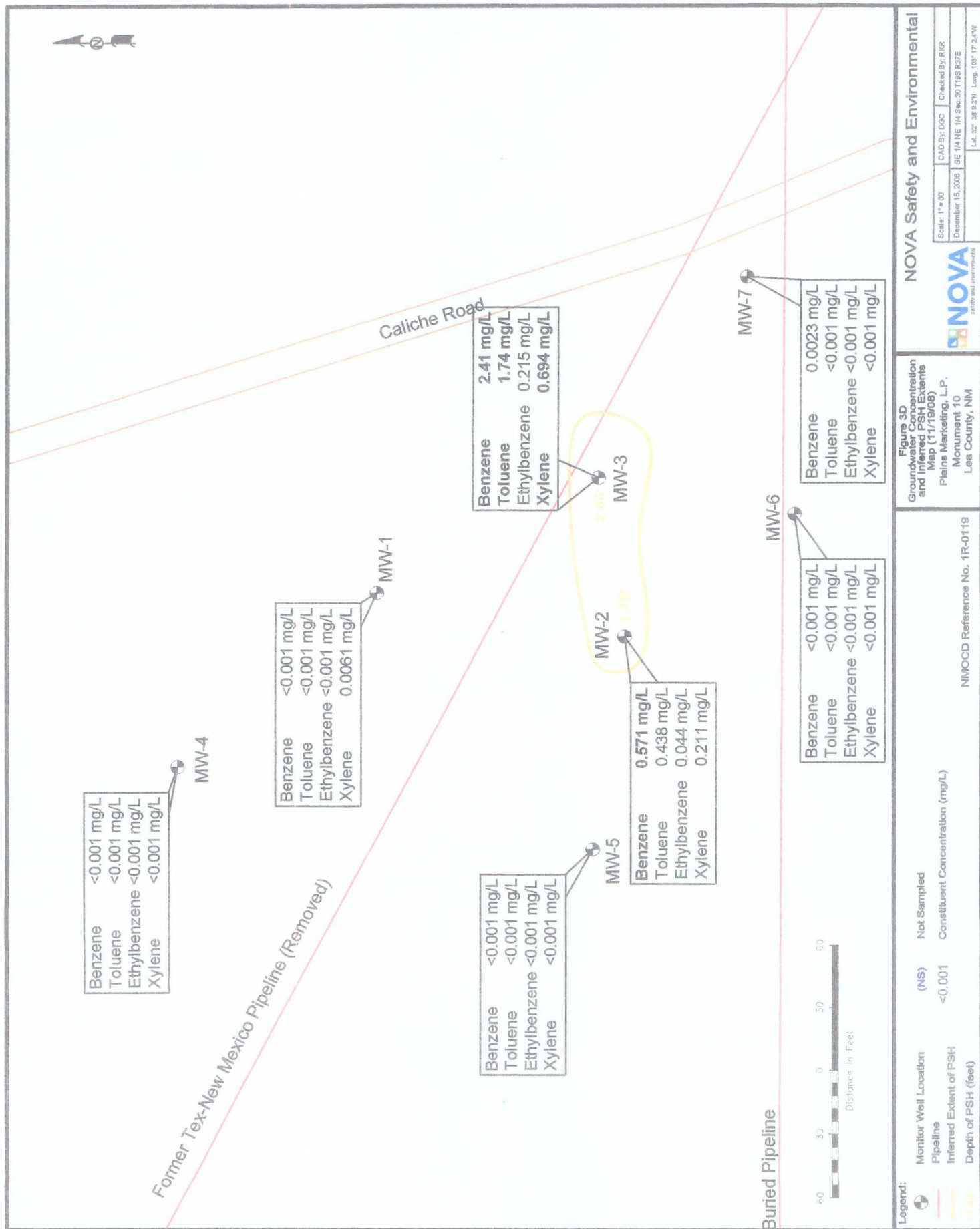
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October 9, 2008

SE 1/4 NE 1/4 Sec. 30 T18S R3E

Lat: 32° 39' 21" N Long: 107° 17' 24" W

NMOCD Reference No. 1R-0119



## **TABLES**

**TABLE 1**  
**2008 GROUNDWATER ELEVATION DATA**

**PLAIN MARKETING, L.P.**  
**MONUMENT 10**  
**LEA COUNTY, NEW MEXICO**  
**NMOCD REFERENCE NUMBER 1R-0119**

<b>WELL NUMBER</b>	<b>DATE MEASURED</b>	<b>TOP OF CASING ELEVATION</b>	<b>DEPTH TO PRODUCT</b>	<b>DEPTH TO WATER</b>	<b>PSH THICKNESS</b>	<b>CORRECTED GROUND WATER ELEVATION</b>
MW - 1	01/18/08	3,629.33	-	21.52	0.00	3,607.81
MW - 1	01/23/08	3,629.33	-	21.69	0.00	3,607.64
MW - 1	02/21/08	3,629.33	-	21.74	0.00	3,607.59
MW - 1	02/26/08	3,629.33	-	21.73	0.00	3,607.60
MW - 1	03/14/08	3,629.33	-	21.68	0.00	3,607.65
MW - 1	03/20/08	3,629.33	-	21.17	0.00	3,608.16
MW - 1	04/04/08	3,629.33	-	21.68	0.00	3,607.65
MW - 1	04/10/08	3,629.33	-	21.71	0.00	3,607.62
MW - 1	04/17/08	3,629.33	-	21.61	0.00	3,607.72
MW - 1	04/24/08	3,629.33	-	21.69	0.00	3,607.64
MW - 1	05/01/08	3,629.33	-	21.69	0.00	3,607.64
MW - 1	05/08/08	3,629.33	-	21.67	0.00	3,607.66
MW - 1	05/15/08	3,629.33	-	21.73	0.00	3,607.60
MW - 1	05/20/08	3,629.33	-	21.72	0.00	3,607.61
MW - 1	05/26/08	3,629.33	-	21.70	0.00	3,607.63
MW - 1	05/30/08	3,629.33	-	21.76	0.00	3,607.57
MW - 1	06/04/08	3,629.33	-	21.73	0.00	3,607.60
MW - 1	06/12/08	3,629.33	-	21.73	0.00	3,607.60
MW - 1	06/17/08	3,629.33	-	21.73	0.00	3,607.60
MW - 1	06/24/08	3,629.33	-	21.73	0.00	3,607.60
MW - 1	07/03/08	3,629.33	-	21.70	0.00	3,607.63
MW - 1	07/09/08	3,629.33	-	21.84	0.00	3,607.49
MW - 1	07/14/08	3,629.33	-	21.78	0.00	3,607.55
MW - 1	08/19/08	3,629.33	-	21.81	0.00	3,607.52
MW - 1	08/28/08	3,629.33	-	21.68	0.00	3,607.65
MW - 1	09/25/08	3,629.33	-	21.72	0.00	3,607.61
MW - 1	10/03/08	3,629.33	-	21.60	0.00	3,607.73
MW - 1	10/07/08	3,629.33	-	21.79	0.00	3,607.54
MW - 1	10/15/08	3,629.33	-	21.71	0.00	3,607.62
MW - 1	10/22/08	3,629.33	-	21.69	0.00	3,607.64
MW - 1	10/28/08	3,629.33	-	21.61	0.00	3,607.72
MW - 1	11/06/08	3,629.33	-	21.69	0.00	3,607.64
MW - 1	11/13/08	3,629.33	-	21.63	0.00	3,607.70
MW - 1	11/19/08	3,629.33	-	21.68	0.00	3,607.65
MW - 2	01/18/08	3,629.43	22.12	24.96	2.84	3,606.88
MW - 2	01/23/08	3,629.43	22.18	23.75	1.57	3,607.01
MW - 2	02/13/08	3,629.43	22.13	24.90	2.77	3,606.88
MW - 2	02/21/08	3,629.43	22.20	24.68	2.48	3,606.86
MW - 2	02/26/08	3,629.43	22.22	24.54	2.32	3,606.86

TABLE 1

## 2008 GROUNDWATER ELEVATION DATA

PLAIN MARKETING, L.P.  
 MONUMENT 10  
 LEA COUNTY, NEW MEXICO  
 NMOC D REFERENCE NUMBER 1R-0119

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 2	03/14/08	3,629.43	22.18	24.77	2.59	3,606.86
MW - 2	03/20/08	3,629.43	22.23	24.47	2.24	3,606.86
MW - 2	04/04/08	3,629.43	22.19	24.76	2.57	3,606.85
MW - 2	04/10/08	3,629.43	22.23	24.45	2.22	3,606.87
MW - 2	04/17/08	3,629.43	22.20	24.76	2.56	3,606.85
MW - 2	04/24/08	3,629.43	22.24	24.55	2.31	3,606.84
MW - 2	05/01/08	3,629.43	22.28	24.42	2.14	3,606.83
MW - 2	05/08/08	3,629.43	22.26	24.35	2.09	3,606.86
MW - 2	05/15/08	3,629.43	22.28	24.21	1.93	3,606.86
MW - 2	05/20/08	3,629.43	23.30	24.05	0.75	3,606.02
MW - 2	05/26/08	3,629.43	22.27	24.27	2.00	3,606.86
MW - 2	05/30/08	3,629.43	22.25	24.44	2.19	3,606.85
MW - 2	06/04/08	3,629.43	22.28	24.19	1.91	3,606.86
MW - 2	06/12/08	3,629.43	22.28	24.34	2.06	3,606.84
MW - 2	06/17/08	3,629.43	22.33	23.97	1.64	3,606.85
MW - 2	06/24/08	3,629.43	22.31	24.26	1.95	3,606.83
MW - 2	07/03/08	3,629.43	22.31	24.39	2.08	3,606.81
MW - 2	07/09/08	3,629.43	22.31	24.18	1.87	3,606.84
MW - 2	07/14/08	3,629.43	22.32	24.01	1.69	3,606.86
MW - 2	07/23/08	3,629.43	22.29	24.31	2.02	3,606.84
MW - 2	08/01/08	3,629.43	22.24	24.45	2.21	3,606.86
MW - 2	08/05/08	3,629.43	22.24	24.58	2.34	3,606.84
MW - 2	08/11/08	3,629.43	22.30	24.24	1.94	3,606.84
MW - 2	08/19/08	3,629.43	22.31	24.22	1.91	3,606.83
MW - 2	08/28/08	3,629.43	22.25	24.23	1.98	3,606.88
MW - 2	09/09/08	3,629.43	22.26	24.54	2.28	3,606.83
MW - 2	09/25/08	3,629.43	22.28	24.71	2.43	3,606.79
MW - 2	10/03/08	3,629.43	22.30	24.40	2.10	3,606.82
MW - 2	10/07/08	3,629.43	21.33	23.86	2.53	3,607.72
MW - 2	10/15/08	3,629.43	23.35	24.11	0.76	3,605.97
MW - 2	10/22/08	3,629.43	22.25	24.09	1.84	3,606.90
MW - 2	10/28/08	3,629.43	22.31	24.09	1.78	3,606.85
MW - 2	11/06/08	3,629.43	22.28	24.12	1.84	3,606.87
MW - 2	11/13/08	3,629.43	22.22	24.19	1.97	3,606.91
MW - 2	11/19/08	3,629.43	22.28	24.04	1.76	3,606.89
MW - 3	01/18/08	3,628.90	21.87	25.71	3.84	3,606.45
MW - 3	01/23/08	3,628.90	21.95	25.35	3.40	3,606.44
MW - 3	02/13/08	3,628.90	21.89	25.70	3.81	3,606.44
MW - 3	02/21/08	3,628.90	21.89	25.63	3.74	3,606.45



TABLE 1

## 2008 GROUNDWATER ELEVATION DATA

PLAIN MARKETING, L.P.  
 MONUMENT 10  
 LEA COUNTY, NEW MEXICO  
 NMOCD REFERENCE NUMBER 1R-0119

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 3	02/26/08	3,628.90	21.96	25.53	3.57	3,606.40
MW - 3	03/14/08	3,628.90	21.91	25.76	3.85	3,606.41
MW - 3	03/20/08	3,628.90	21.93	25.43	3.50	3,606.45
MW - 3	04/04/08	3,628.90	21.93	25.20	3.27	3,606.48
MW - 3	04/10/08	3,628.90	21.95	25.23	3.28	3,606.46
MW - 3	04/17/08	3,628.90	21.93	25.64	3.71	3,606.41
MW - 3	04/24/08	3,628.90	21.94	25.43	3.49	3,606.44
MW - 3	05/01/08	3,628.90	21.94	25.33	3.39	3,606.45
MW - 3	05/08/08	3,628.90	21.97	25.23	3.26	3,606.44
MW - 3	05/15/08	3,628.90	21.96	25.19	3.23	3,606.46
MW - 3	05/20/08	3,628.90	22.03	24.88	2.85	3,606.44
MW - 3	05/26/08	3,628.90	22.01	25.06	3.05	3,606.43
MW - 3	05/30/08	3,628.90	22.00	25.28	3.28	3,606.41
MW - 3	06/04/08	3,628.90	21.99	24.96	2.97	3,606.46
MW - 3	06/12/08	3,628.90	22.02	25.12	3.10	3,606.42
MW - 3	06/17/08	3,628.90	22.07	24.82	2.75	3,606.42
MW - 3	06/24/08	3,628.90	22.03	25.06	3.03	3,606.42
MW - 3	07/03/08	3,628.90	22.01	25.16	3.15	3,606.42
MW - 3	07/09/08	3,628.90	22.05	24.98	2.93	3,606.41
MW - 3	07/14/08	3,628.90	22.08	24.74	2.66	3,606.42
MW - 3	07/23/08	3,628.90	22.09	25.08	2.99	3,606.36
MW - 3	08/01/08	3,628.90	22.00	25.12	3.12	3,606.43
MW - 3	08/05/08	3,628.90	21.98	25.33	3.35	3,606.42
MW - 3	08/11/08	3,628.90	22.04	24.98	2.94	3,606.42
MW - 3	08/19/08	3,628.90	22.02	25.02	3.00	3,606.43
MW - 3	08/28/08	3,628.90	22.10	25.04	2.94	3,606.36
MW - 3	09/09/08	3,628.90	21.98	25.30	3.32	3,606.42
MW - 3	09/25/08	3,628.90	21.98	25.46	3.48	3,606.40
MW - 3	10/03/08	3,628.90	22.50	24.95	2.45	3,606.03
MW - 3	10/07/08	3,628.90	22.08	24.70	2.62	3,606.43
MW - 3	10/15/08	3,628.90	22.07	24.79	2.72	3,606.42
MW - 3	10/22/08	3,629.43	22.06	24.72	2.66	3,606.97
MW - 3	10/28/08	3,628.90	22.03	24.62	2.59	3,606.48
MW - 3	11/06/08	3,628.90	22.03	24.70	2.67	3,606.47
MW - 3	11/13/08	3,628.90	22.00	24.80	2.80	3,606.48
MW - 3	11/19/08	3,628.90	22.05	24.71	2.66	3,606.45
MW - 4	02/26/08	3,629.97	-	20.38	0.00	3,609.59
MW - 4	05/26/08	3,629.97	-	20.41	0.00	3,609.56
MW - 4	08/28/08	3,629.97	-	20.41	0.00	3,609.56

TABLE 1

## 2008 GROUNDWATER ELEVATION DATA

PLAIN MARKETING, L.P.  
 MONUMENT 10  
 LEA COUNTY, NEW MEXICO  
 NMOCD REFERENCE NUMBER 1R-0119

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 4	11/19/08	3,629.97	-	21.45	0.00	3,608.52
MW - 5	02/26/08	3,629.36	-	21.60	0.00	3,607.76
MW - 5	05/26/08	3,629.36	-	21.62	0.00	3,607.74
MW - 5	08/28/08	3,629.36	-	21.61	0.00	3,607.75
MW - 5	11/19/08	3,629.36	-	21.54	0.00	3,607.82
MW - 6	02/26/08	3,629.17	-	24.10	0.00	3,605.07
MW - 6	05/26/08	3,629.17	-	24.11	0.00	3,605.06
MW - 6	08/28/08	3,629.17	-	24.12	0.00	3,605.05
MW - 6	11/19/08	3,629.17	-	24.11	0.00	3,605.06
MW - 7	02/26/08	3,628.07	-	22.79	0.00	3,605.28
MW - 7	05/26/08	3,628.07	-	22.82	0.00	3,605.25
MW - 7	08/28/08	3,628.07	-	22.82	0.00	3,605.25
MW - 7	11/19/08	3,628.07	-	22.82	0.00	3,605.25

\* Complete Historical Tables are presented on the attached CD.



TABLE 2

## 2008 - CONCENTRATIONS OF BTEX AND TPH IN GROUNDWATER

PLAINS MARKETING, L.P.  
 MONUMENT 10  
 LEA COUNTY, NEW MEXICO  
 NMOCD Reference No. 1R-0119

Results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		Methods: EPA SW 846-8021, 5030				
		GRO C <sub>6</sub> -C <sub>12</sub>	DRO >C <sub>12</sub> -C <sub>35</sub>	BENZENE	TOLUENE	ETHYL- BENZENE	m, p - XYLENES	o - XYLENE
NMOCD REGULATORY LIMIT				0.01	0.75	0.75	0.62	
MW - 1	02/26/08			Not Sampled on Current Sample Schedule				
MW - 1	05/26/08			<0.005	<0.005	<0.005	<0.005	
MW - 1	08/28/08			0.0022	0.0011	<0.001	0.0041	
MW - 1	11/19/08			<0.001	<0.001	<0.001	0.0061	
MW - 2	02/26/08			Not sampled Due to PSH in Well				
MW - 2	05/26/08			Not sampled Due to PSH in Well				
MW - 2	08/28/08			Not sampled Due to PSH in Well				
MW - 2	11/19/08	8.38	601	0.5710	0.4380	0.044	0.2110	
MW - 3	02/26/08			Not sampled Due to PSH in Well				
MW - 3	05/26/08			Not sampled Due to PSH in Well				
MW - 3	08/28/08			Not sampled Due to PSH in Well				
MW - 3	11/19/08	21.0	502	2.41	1.74	0.215	0.6940	
MW - 4	02/26/08			Not Sampled on Current Sample Schedule				
MW - 4	05/26/08			Not Sampled on Current Sample Schedule				
MW - 4	08/28/08			Not Sampled on Current Sample Schedule				
MW - 4	11/19/08			<0.001	<0.001	<0.001	<0.001	
MW - 5	02/26/08			Not Sampled on Current Sample Schedule				
MW - 5	05/26/08			Not Sampled on Current Sample Schedule				
MW - 5	08/28/08			Not Sampled on Current Sample Schedule				
MW - 5	11/19/08			<0.001	<0.001	<0.001	<0.001	
MW - 6	02/26/08			Not Sampled on Current Sample Schedule				
MW - 6	05/26/08			<0.001	<0.001	<0.001	0.0017	
MW - 6	08/28/08			Not Sampled on Current Sample Schedule				
MW - 6	11/19/08			<0.001	<0.001	<0.001	0.0017	
MW - 7	02/26/08			Not Sampled on Current Sample Schedule				
MW - 7	05/26/08			<0.001	<0.001	<0.001	<0.001	
MW - 7	08/28/08			Not Sampled on Current Sample Schedule				
MW - 7	11/19/08			0.0023	<0.001	<0.001	<0.001	

Concentrations in **BOLD** are above the applicable NMOCD Regulatory Limit.

\* Complete Historical Tables are presented on the attached CD.

TABLE 3

## POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER - 2008

PLAINS MARKETING, L.P.  
MONUMENT 10  
LEA COUNTY, NEW MEXICO  
NMOC REFERENCE NUMBER RI-0119

All water concentrations are reported in mg/L

EPA SW846-8270C, 3510

SAMPLE LOCATION	SAMPLE DATE	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[e,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		--	--	--	0.0001 mg/L	0.0007 mg/L	0.0002 mg/L	--	0.0002 mg/L	0.0002 mg/L	0.0003 mg/L	--	--	0.0004 mg/L	0.03 mg/L	--	--	0.03 mg/L	0.03 mg/L	--
MW-1	11/19/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.000788	<0.000183	0.000386	0.000887	<0.000183	0.00226	0.000251	0.00143
MW-2	11/19/08	<0.0229	<0.0229	0.115	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	0.0281	<0.0229	<0.0229	0.0786	<0.0229	0.0899	0.114	<0.0229	0.429	0.337	0.0612
MW-3	11/19/08	<0.0917	<0.0917	<0.0917	<0.0917	<0.0917	<0.0917	<0.0917	<0.0917	<0.0917	<0.0917	<0.0917	0.373	<0.0917	0.468	0.473	<0.0917	1.85	1.79	0.269
MW-4	11/19/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-5	11/19/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-6	11/19/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-7	11/19/08	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	0.000237	<0.000186	0.00034	<0.000186	0.000338

## **APPENDICES**

**APPENDIX A:**  
**Form C-141**

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, 2003

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	Plains Pipeline, LP	Contact:	Camille Reynolds
Address:	3705 E. Hwy 158, Midland, TX 79706	Telephone No.	505-441-0965
Facility Name	Monument #10	Facility Type:	Steel Pipeline

Surface Owner:	New Mexico State Land	Mineral Owner	Lease No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	30	19S	37E					Lea

**Latitude** 32 degrees 38' 9.2" **Longitude** 103 degrees 17' 2.4"

**NATURE OF RELEASE**

Type of Release:	Volume of Release:	Volume Recovered
Source of Release:	Date and Hour of Occurrence	Date and Hour of Discovery
	Unknown	
Was Immediate Notice Given?	If YES, To Whom?	
Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required <input type="checkbox"/>		
By Whom?	Date and Hour	
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Describe Area Affected and Cleanup Action Taken.\*  
**NOTE: Texas-New Mexico Pipeline was the owner/operator of the pipeline system at the time of the release, initial response information is unavailable.**

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 ground water, 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><u>OIL CONSERVATION DIVISION</u></b>	
Signature:		Approved by District Supervisor:	
Printed Name: Camille Reynolds			
Title: Remediation Coordinator	Approval Date:	Expiration Date:	
E-mail Address: cjreynolds@paalp.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 3/21/2005	Phone: (505)441-0965		

\* Attach Additional Sheets If Necessary