

1R - 110

# Annual GW Mon. REPORTS

DATE:  
2007

**2007  
ANNUAL MONITORING REPORT**

RECEIVED  
2008 APR 1 PM 2 05

**MONUMENT 2**

SW ¼ SW ¼ SECTION 06, TOWNSHIP 20 SOUTH, RANGE 37 EAST  
NW ¼ NW ¼ SECTION 07, TOWNSHIP 20 SOUTH, RANGE 37 EAST  
LEA COUNTY, NEW MEXICO  
PLAINS EMS NUMBER: TNM MONUMENT 2-KNOWN  
NMOCD File Number 1R-0110

**PREPARED FOR:**

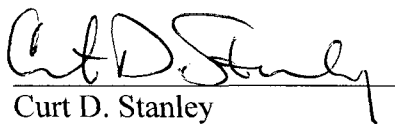
Prepared For:


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

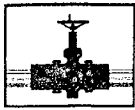
Prepared By:

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

**March 2008**

  
Curt D. Stanley  
Project Manager

  
Todd K. Choban, P.G.  
Vice President Technical Services



RECEIVED

March 28, 2008

2008 APR 1 PM 2 07

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

Re: Plains All American – Annual Monitoring Reports  
25 Sites 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 our Annual Monitoring reports for the following sites:

TNM 97-17	Section 21, Township 20 South, Range 37 East, Lea County
TNM 97-18	Section 28, Township 20 South, Range 37 East, Lea County
TNM 98-05A	Section 26, Township 21 South, Range 37 East, Lea County
TNM 98-05B	Section 26, Township 21 South, Range 37 East, Lea County
TNM 97-04	Section 11, Township 16 South, Range 35 East, Lea County
Texaco Skelly "F"	Section 21, Township 20 South, Range 37 East, Lea County
Darr Angell #2	Section 14, Township 15 South, Range 37 East, Lea County
LF-59	Section 32, Township 19 South, Range 37 East, Lea County
SPS-11	Section 18, Township 18 South, Range 36 East, Lea County
Monument #10	Section 32, Township 19 South, Range 37 East, Lea County
Monument #17	Section 29, Township 19 South, Range 37 East, Lea County
Monument #18	Section 7, Township 20 South, Range 37 East, Lea County
Lea Station to Monument 6"	Section 5, Township 20 South, Range 37 East, Lea County
34 Junction South Station	Section 2, Township 17 South, Range 36 East, Lea County
Bob Durham	Section 32, Township 19 South, Range 37 East, Lea County
Darr Angell #1	Section 11, Township 15 South, Range 37 East, Lea County
Darr Angell #4	Sections 2 and 11, Township 15 South, Range 37 East, Lea County
HDO 90-23	Section 6, Township 20 South, Range 37 East, Lea County
Junction 34 to Lea	Section 21, Township 20 South, Range 37 East, Lea County
Monument #2	Section 6, Township 20 South, Range 37 East, Lea County
Monument Barber 10" Sour	Section 32, Township 19 South, Range 37 East, Lea County
Monument #11	Section 30, Township 19 South, Range 37 East, Lea County
Red Byrd #1	Section 1, Township 20 South, Range 36 East, Lea County
South Monument Gathering	Section 5, Township 20 South, Range 37 East, Lea County
Denton Station	Section 14, Township 15 South, Range 37 East, Lea County

order to verify the accuracy and completeness of these documents. It is based upon these inquiries and reviews that Plains All American submits the enclosed Annual Monitoring Reports for the above facilities.

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

Sincerely,

A handwritten signature in cursive script that reads "Camille Reynolds". The signature is written in dark ink and is positioned above the printed name and title.

Camille Reynolds  
Remediation Coordinator  
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosures

## TABLE OF CONTENTS

INTRODUCTION .....	1
SITE DESCRIPTION AND BACKGROUND INFORMATION.....	1
RECENT FIELD ACTIVITIES .....	1
LABORATORY RESULTS .....	2
SUMMARY .....	4
ANTICIPATED ACTIONS .....	5
LIMITATIONS .....	5
DISTRIBUTION.....	7

### FIGURES

Figure 1 – Site Location Map

Figure 2A – Inferred Groundwater Gradient Map – February 13, 2007

2B – Inferred Groundwater Gradient Map – May 10, 2007

2C – Inferred Groundwater Gradient Map – August 20, 2007

2D – Inferred Groundwater Gradient Map – November 2, 2007

Figure 3A – Groundwater Concentration and Inferred PSH Extent Map – February 13, 2007

3B – Groundwater Concentration and Inferred PSH Extent Map – May 10, 2007

3C – Groundwater Concentration and Inferred PSH Extent Map – August 20, 2007

3D – Groundwater Concentration and Inferred PSH Extent Map – November 2, 2007

### TABLES

Table 1 – 2007 Groundwater Elevation Data

Table 2 – 2007 Concentrations of Benzene and BTEX in Groundwater

Table 3 – 2007 Concentrations of Benzene and BTEX in Soil

### APPENDICES

Appendix A – Soil Boring Logs

Appendix B – Release Notification and Corrective Action (Form C-141)

### ENCLOSED ON DATA DISK

2007 Annual Monitoring Report

2007 Tables 1 and 2 - Groundwater Elevation and BTEX Concentration Data

2007 Table 3 – Concentrations of BTEX and TPH in Soil

2007 Figures 1, 2A-2D, and 3A-3D

Electronic Copies of Laboratory Reports

Historic Table 1 and 2 - Groundwater Elevation and BTEX 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 for the Monument 2 site (the site) were assumed by NOVA. The site, formerly 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 text, figures, tables, and appendices. This report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2007 only. However, historic data tables as well as 2007 laboratory analytical reports are provided on the enclosed disk. For reference, the Site Location Map is provided as Figure 1.

Groundwater monitoring was conducted during each quarter of 2007 to assess the levels and extent of dissolved phase constituents and Phase Separated Hydrocarbon (PSH). Each groundwater monitoring event consisted of measuring static water levels in monitor wells, checking for the presence of PSH on the water column, and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 foot were not sampled.

## SITE DESCRIPTION AND BACKGROUND INFORMATION

The legal description of the site is SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  Section 6, Township 20 South, Range 37 East and NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  Section 7, Township 20 South, Range 37 East. No information with respect to the release date, volume of crude oil released and recovered, excavation dimensions or pipeline repair is available as the release at the site occurred while the pipeline was operated by the Texas New Mexico Pipeline Company (TNM). The Release Notification and Corrective Action (Form C-141) is provided as Appendix B. The initial site investigation, consisting of the installation of seven groundwater monitor wells (MW-1 through MW-7) was conducted by previous consultants.

In June 2006, Plains submitted a *Soil Investigation Work Plan* to the NMOCD. The Work Plan detailed a soil investigation strategy designed to evaluate the degradation of hydrocarbon impacted soil within the source area. In November 2007, an air rotary drilling rig was utilized to advance the soil borings and complete the soil investigation. Due to existing overhead power lines at the site, only one soil boring (SB-1) was advanced using the air rotary drill rig. Plains anticipates the completion of the soil investigation activities at a later date, utilizing Geoprobe® technology, when scheduling permits.

The analytical results of soil samples collected during the advancement of the soil boring are provided in Table 3, 2007 Concentrations of BTEX and TPH in Soil. The boring log details are provided in Appendix A. Laboratory results are provided on the enclosed disk.

Currently, there are eight monitor wells (MW-1 through MW-8) on-site.

## RECENT FIELD ACTIVITIES

Monitor well MW-2 exhibited a sheen during the 1<sup>st</sup> and 4<sup>th</sup> quarter sampling event, monitor well MW-5 exhibited a sheen during the 1<sup>st</sup> quarter sampling event and monitor well MW-8 exhibited a sheen during the 1<sup>st</sup> quarter sampling event of the reporting period. No measurable thicknesses of PSH were reported in any of the site monitor wells during the reporting period. Approximately 52 gallons (1.2 barrels) of PSH have been recovered by manual recovery methods since project inception. Refer to Table 1 for 2007 groundwater gauging information.

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 correspondence dated July 7, 2005

NMOCD Approved Sampling Schedule			
MW-1	Annually	MW-5	Quarterly
MW-2	Quarterly	MW-6	Annually
MW-3	Annually	MW-7	Annually
MW-4	Semi-Annually	MW-8	Quarterly

The site monitor wells were gauged and sampled on February 13, May 10, August 20, and November 2, 2007. During each sampling event, sampled monitor wells were purged of a minimum of three well volumes of water or until the wells failed to produce water using a PVC bailer or electric Grundfos Pump. Groundwater was allowed to recharge and samples were obtained using disposable Teflon samplers. Water samples were collected 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 the four quarterly monitoring events, are depicted on Figures 2A through 2D, the Inferred Groundwater Gradient Maps. Groundwater elevation data for 2007 is provided as Table 1. Historic groundwater elevation data beginning at project inception is provided on the enclosed disk.

The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.0035 feet/foot to the southeast as measured between groundwater monitor wells MW-3 and MW-1. This is consistent with data presented on Figures 2A through 2C from earlier in the year. The groundwater elevation has ranged between 3,528.96 and 3,529.88 feet above mean sea level, in monitor well MW-1 on February 13, 2007 and MW-3 on May 10, 2007, respectively.

## LABORATORY RESULTS

Groundwater samples collected during the 2007 quarterly monitoring events were delivered to Trace Analysis, Inc., of Lubbock, for determination of Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations by EPA Method SW846-8021b. A listing of BTEX constituent concentrations for 2007 is summarized in Table 2. Copies of the laboratory reports

for 2007 are provided on the enclosed disk. The quarterly groundwater sample results for benzene and BTEX constituent concentrations are depicted on Figures 3A-3D.

**Monitor well MW-1** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the laboratory method detection limit (MDL) and NMOCD regulatory standards for each BTEX constituent during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX concentrations have been below NMOCD regulatory standards for the last nineteen consecutive quarters.

**Monitor well MW-2** exhibited a sheen during the 1<sup>st</sup> and 4<sup>th</sup> quarter sampling event. The monitor well is sampled on quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 2<sup>nd</sup> quarter to 0.0214 mg/L during the 3<sup>rd</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard of 0.01 mg/L during two of the four quarters. Toluene concentrations ranged from <0.001 mg/L during the 2<sup>nd</sup> and 3<sup>rd</sup> quarters to 0.0464 mg/L during the 1<sup>st</sup> quarter of 2007. Toluene concentrations were below the NMOCD regulatory standard of 0.75 mg/L during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0269 mg/L during the 2<sup>nd</sup> quarter to 0.1430 mg/L during the 1<sup>st</sup> quarter of the reporting period. Ethylbenzene concentrations were below the NMOCD regulatory standard of 0.75 mg/L during all four quarters of the reporting period. Xylene concentrations ranged from 0.0142 mg/L during the 2<sup>nd</sup> quarter to 0.3500 mg/L during the 1<sup>st</sup> quarter. Xylene concentrations were below the NMOCD regulatory standard of 0.62 mg/L during all four quarters of 2007.

**Monitor well MW-3** is sampled on an annual schedule and analytical results indicated the benzene concentration was 0.114 mg/L during the 4<sup>th</sup> quarter of the reporting period. The benzene concentration is above the NMOCD regulatory standard. The toluene concentration was 0.0123 mg/L during the 4<sup>th</sup> quarter of the reporting period. The toluene concentration is below the NMOCD regulatory standard. The ethylbenzene concentration was 0.0042 mg/L during the 4<sup>th</sup> quarter of the reporting period. The ethylbenzene concentration is below the NMOCD regulatory standard. The xylene concentration was 0.0167 mg/L during the 4<sup>th</sup> quarter of the reporting period. The xylene concentration is below the NMOCD regulatory standard.

**Monitor well MW-4** is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 2<sup>nd</sup> and 4<sup>th</sup> quarter sampling events. The analytical results indicate BTEX concentrations have been below NMOCD regulatory standards for the last thirty-six consecutive quarters.

**Monitor well MW-5** is sampled on quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup> and 2<sup>nd</sup> quarters to 0.020 mg/L during the 3<sup>rd</sup> quarter of 2007. Benzene concentrations were below the NMOCD regulatory standard during 1<sup>st</sup>, 2<sup>nd</sup> and 4<sup>th</sup> quarters. Toluene concentrations were below the MDL and NMOCD regulatory standard during all four quarters. Ethylbenzene concentrations ranged from <0.001 mg/L during the 3<sup>rd</sup> and 4<sup>th</sup> quarters to 0.0041 mg/L during the 1<sup>st</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters to 0.0035 mg/L during the 1<sup>st</sup> quarter. Xylene concentrations were below the NMOCD regulatory standard during all four quarters of 2007.



**Monitor well MW-6** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX concentrations have been below NMOCD regulatory standards for the last thirty-one consecutive quarters.

**Monitor well MW-7** is sampled on an annual schedule and analytical results the benzene concentration was 0.0052 mg/L during the 4<sup>th</sup> quarter of the reporting period. The benzene concentration is below the NMOCD regulatory standard. The toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX concentrations have been below NMOCD regulatory standards for the last twenty-nine consecutive quarters.

**Monitor well MW-8** is sampled on quarterly schedule and analytical results indicate benzene concentrations ranged from 0.091 mg/L during the 2<sup>nd</sup> quarter to 0.141 mg/L during the 3<sup>rd</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during all four quarters. Toluene concentrations ranged from 0.0252 mg/L during the 4<sup>th</sup> quarter to 0.0464 mg/L during the 1<sup>st</sup> quarter of 2007. Toluene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.118 mg/L during the 2<sup>nd</sup> quarter to 0.174 mg/L during the 3<sup>rd</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from 0.343 mg/L during the 4<sup>th</sup> quarter to 0.425 mg/L during the 3<sup>rd</sup> quarter. Xylene concentrations were below the NMOCD regulatory standard during all four quarters of 2007.

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 2007 annual monitoring period. Currently, there are eight groundwater monitor wells (MW-1 through MW-8) on-site. The monitor wells are gauged monthly. The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.0035 feet/foot to the southeast.

Monitor well MW-2 exhibited a sheen during the 1<sup>st</sup> and 4<sup>th</sup> quarter sampling event, monitor well MW-5 exhibited a sheen during the 1<sup>st</sup> quarter sampling event and monitor well MW-8 exhibited a sheen during the 1<sup>st</sup> quarter sampling event of the reporting period. No measurable thicknesses of PSH were reported in any of the site monitor wells during the reporting period.

Monitor well MW-3 is the most up gradient monitor well on the Monument #2 release site. Prior to the 4<sup>th</sup> quarter 2007 sampling event, the monitor well MW-3 analytical results indicated BTEX constituent concentrations had previously been below the MDL and NMOCD regulatory standard for the previous eighteen consecutive sampling events. The 4<sup>th</sup> quarter 2007 analytical results indicate a benzene concentration of 0.114 mg/L. The 4<sup>th</sup> quarter 2007 analytical results are confirmed by the 1<sup>st</sup> quarter 2008 analytical results, which indicate a benzene concentration

of 0.0931 mg/L. These analytical results indicate BTEX constituent concentrations are currently above the NMOCD regulatory standards. The BTEX constituents concentrations exhibited in monitor well MW-3 do not appear to be associated with the Monument #2 release and may be the result of an off-site contributor.

Plains has identified and documented an historic crude oil release approximately 500 feet up gradient (north) of the Plains Monument #2 release site. The historic release site exhibits very heavy asphaltine in association with a former tank battery and a two-inch gathering line. Based on the presence of the asphaltines, this release does not appear to have been remediated to NMOCD regulatory standards. The responsible party, date of the release and volume are unknown at this time

Approximately 52 gallons (1.2 barrels) of PSH have been recovered by manual recovery methods since project inception.

Review of laboratory analytical results of the groundwater samples obtained during the 2007 monitoring period indicate the benzene concentrations are above regulatory standards in four site monitor wells, MW-2 (1<sup>st</sup> and 3<sup>rd</sup> quarters), MW-3 (4<sup>th</sup> quarter), MW-5 (3<sup>rd</sup> quarter), and MW-8 (all four quarters). Analytical results of samples collected from the remaining four monitor wells indicate benzene and BTEX constituent concentrations below the applicable NMOCD regulatory standard.

## **ANTICIPATED ACTIONS**

Monitor well gauging and groundwater sampling will continue in 2008.

Plains will continue to monitor BTEX constituent concentrations in monitor well MW-3 and will modify the groundwater sampling schedule to a quarterly schedule. Plains will modify the sampling schedule at monitor well MW-6, the monitor well is currently sampled annually and Plains will begin a quarterly sampling schedule in 2008. In addition, the sampling schedule at monitor well MW-7 will be modified to a semi-annual schedule from the current annual schedule, to monitor evaluated benzene concentrations of in the monitor well.

A Soil Closure Proposal will be submitted to the NMOCD in the future. The Proposal will report the results of the Soil Investigation Work Plan and propose a strategy to remediate the remaining soil issues at the site.

A 2007 annual monitoring report will be submitted to the NMOCD by April 1, 2009.

## **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.

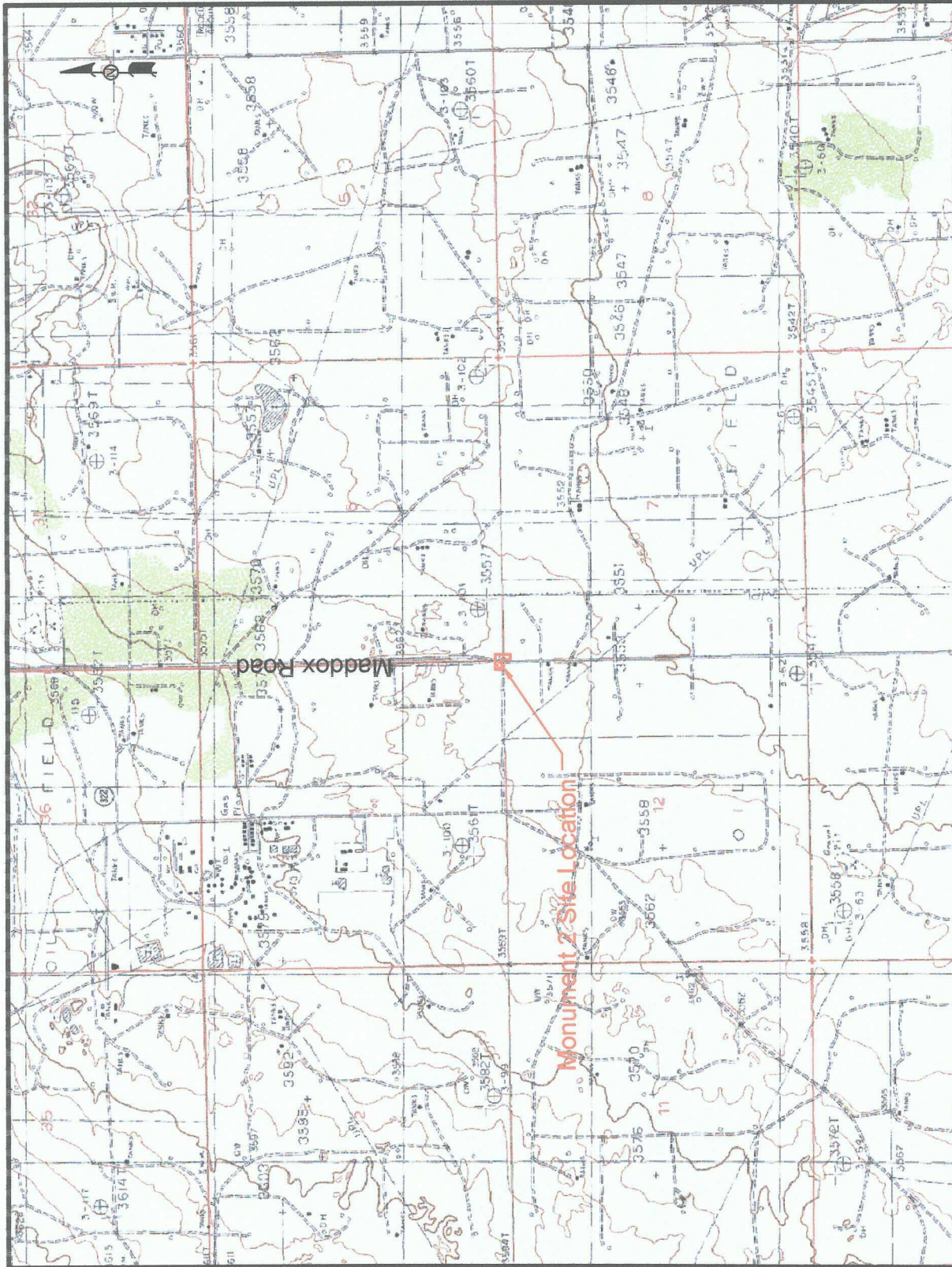
This report has been prepared for the benefit of Plains. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of NOVA and/or Plains.

## **DISTRIBUTION**

- Copy 1      Ed Hansen  
New Mexico Energy, Minerals and Natural Resources Department  
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Santa Fe, NM 87505
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cstanley@novatraining.cc

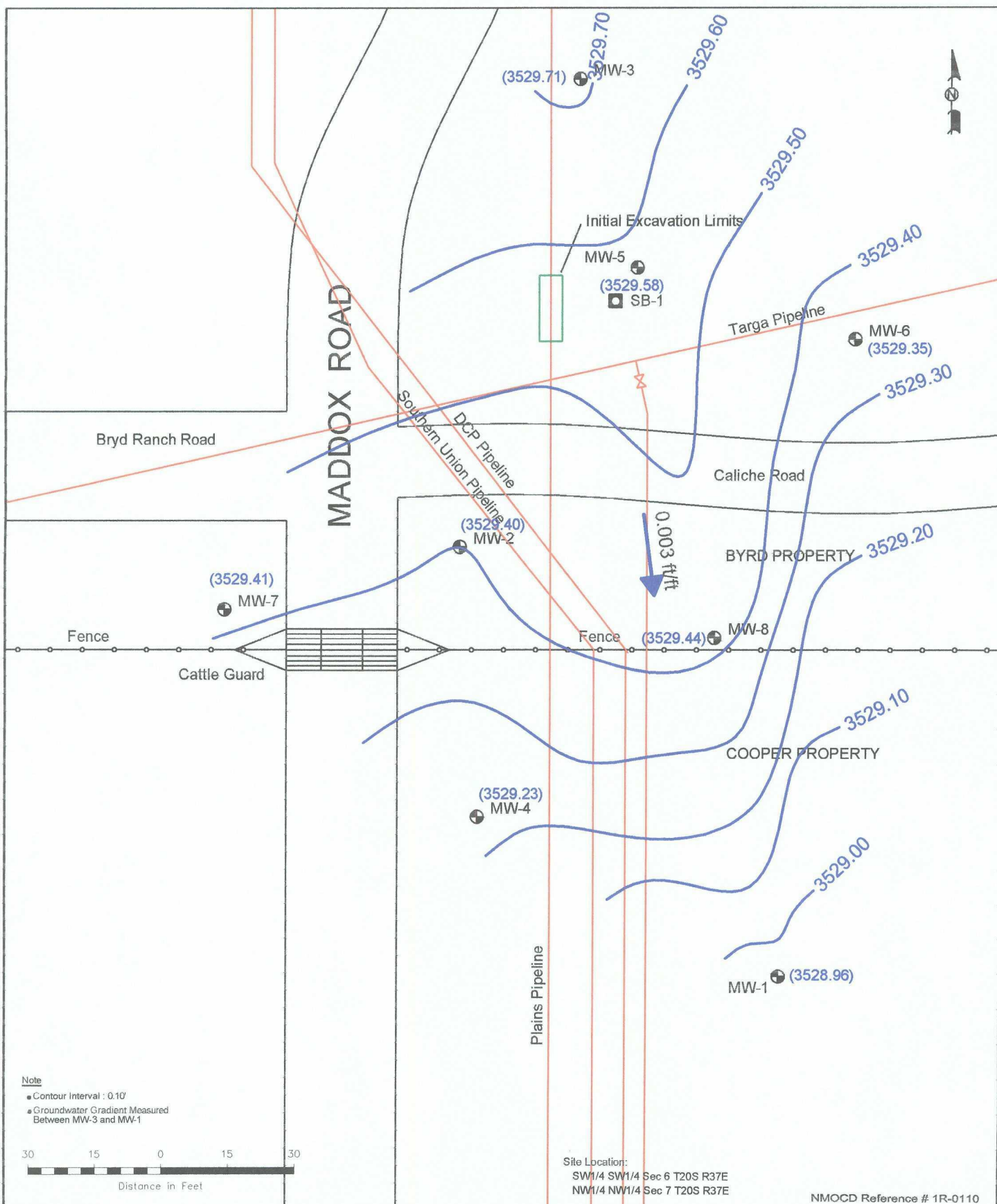


Figures



<p>SW1/4 SW1/4 Sec 6 T20S R37E NW1/4 NW1/4 Sec 7 T20S R37E</p>	<p>Figure 1 Site Location Map</p>	<p>NOVA Safety and Environmental</p>	<p>NOVA Safety and Environmental</p>
<p>Plains Marketing, L.P. Monument 2 Lea County, NM</p>	<p>Scale: NTS February 25, 2005</p>	<p>Prep By: CDS Checked By: MRE</p>	<p>Lat: N32° 35' 42.4" Long: W103° 17' 56.5"</p>
<p>NMOC Reference # 1R-0110</p>	<p></p>	<p></p>	<p></p>





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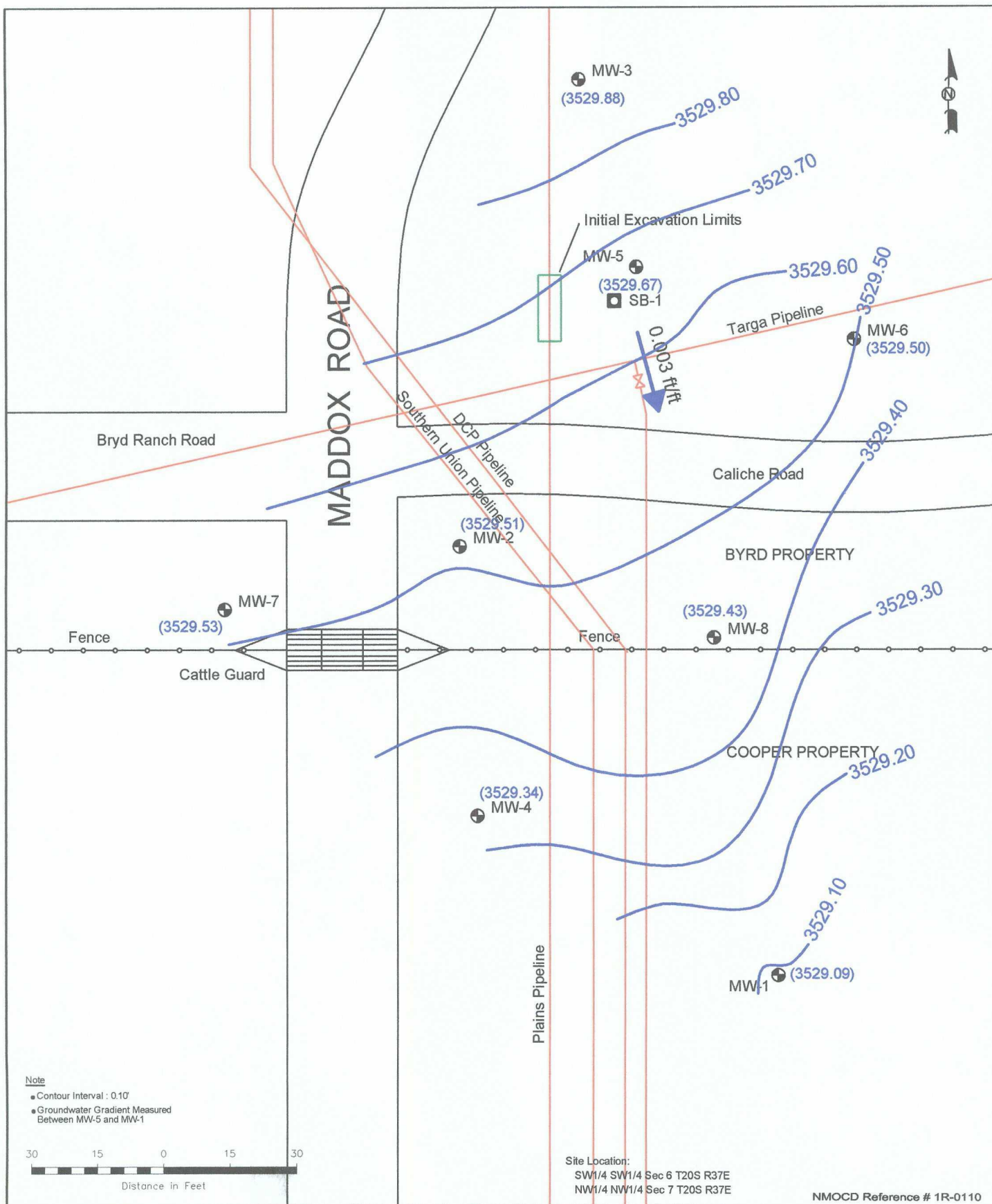
- Monitor Well Location
- Pipeline
- Groundwater Elevation Contour Line
- 0.001 ft/ft Groundwater Gradient and Magnitude

**Figure 2A**  
Inferred Groundwater  
Gradient Map (02/13/07)  
Plains Marketing, L.P.  
Monument 2  
Lea County, TX

**NOVA Safety and Environmental**



Scale: 1"=30'	CAD By: DGC	Checked By: DGC
January 31, 2008	32° 35' 42.4"N	103° 17' 56.5"W



**LEGEND:**

- Monitor Well Location
- Pipeline
- Groundwater Elevation Contour Line
- Groundwater Gradient and Magnitude

(3529.08) Groundwater Elevation (feet)

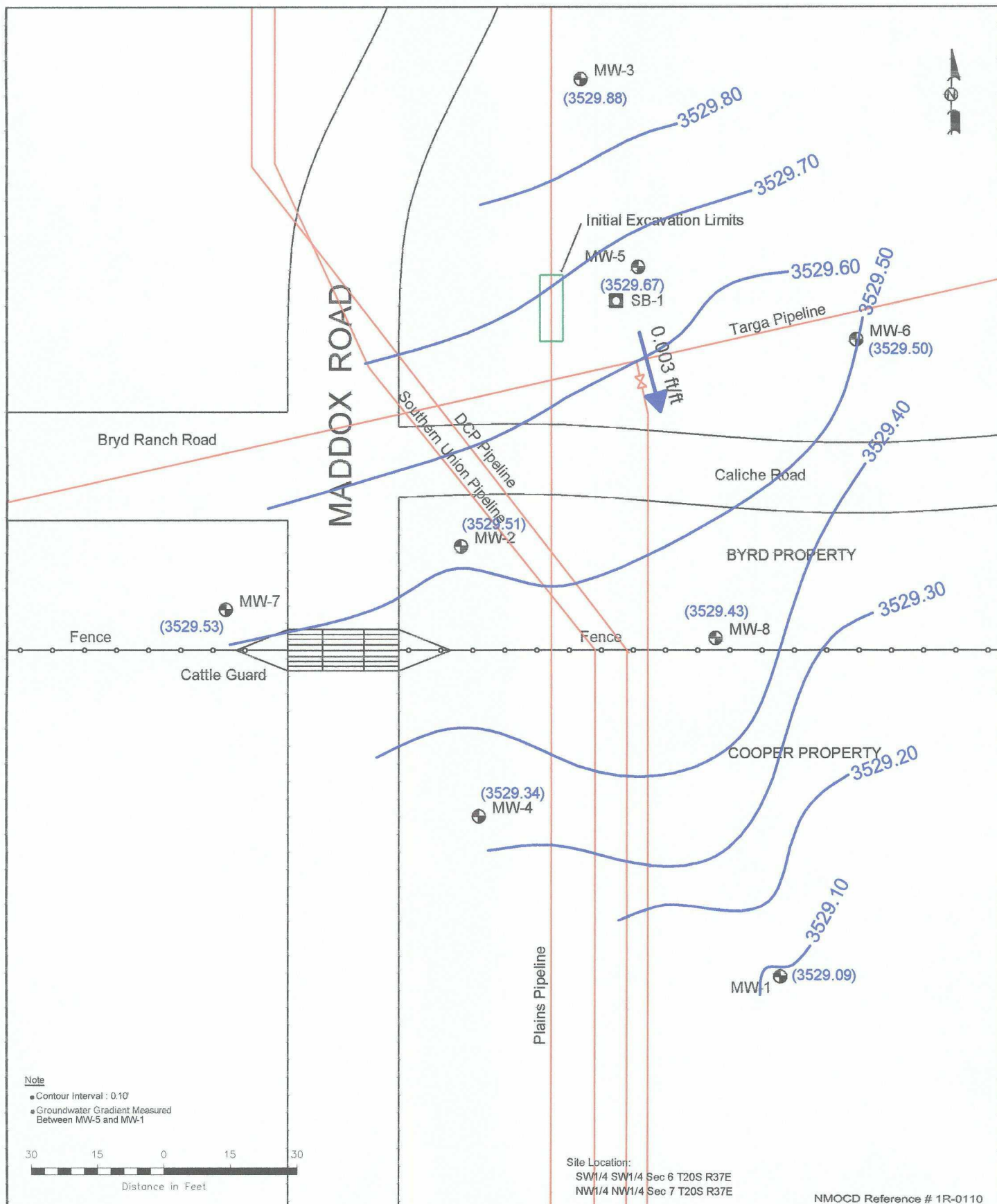
**Figure 2B**  
Inferred Groundwater  
Gradient Map (05/10/07)  
Plains Marketing, L.P.  
Monument 2  
Lea County, TX

**NOVA Safety and Environmental**



Scale: 1" = 30'	CAD By: DGC	Checked By: DGC
January 30, 2008	32° 35' 42.4"N 103° 17' 56.5"W	





# LEGEND:

- Monitor Well Location (3529.08) Groundwater Elevation (feet)
- Pipeline
- Groundwater Elevation Contour Line
- Groundwater Gradient and Magnitude

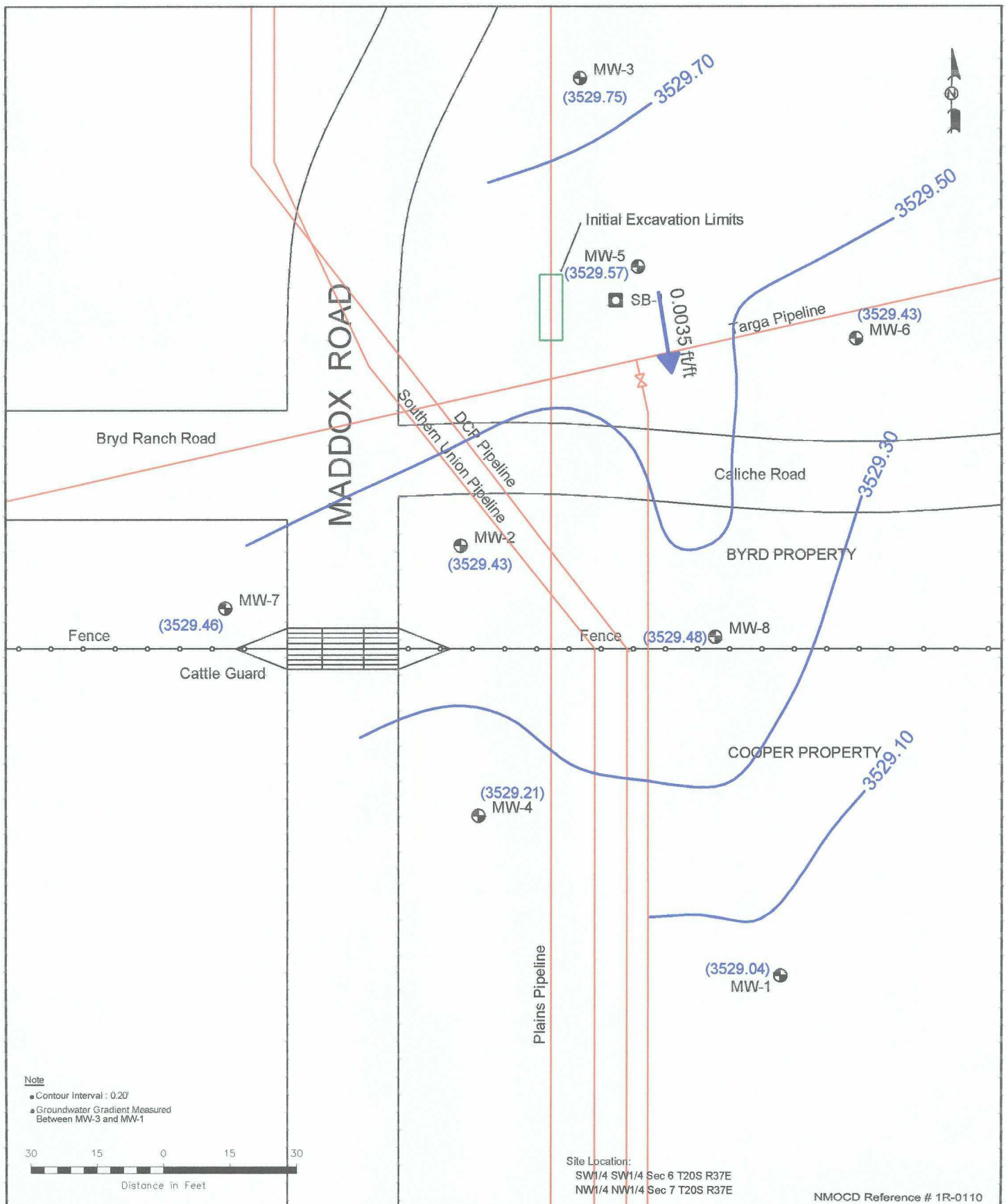
## Figure 2B Inferred Groundwater Gradient Map (05/10/07)

Plains Marketing, L.P.  
Monument 2  
Lea County, TX



## NOVA Safety and Environmental

Scale: 1" = 30' CAD By: DGC Checked By: DGC  
January 30, 2008 32° 35' 42.4"N 103° 17' 56.5"W



**LEGEND:**

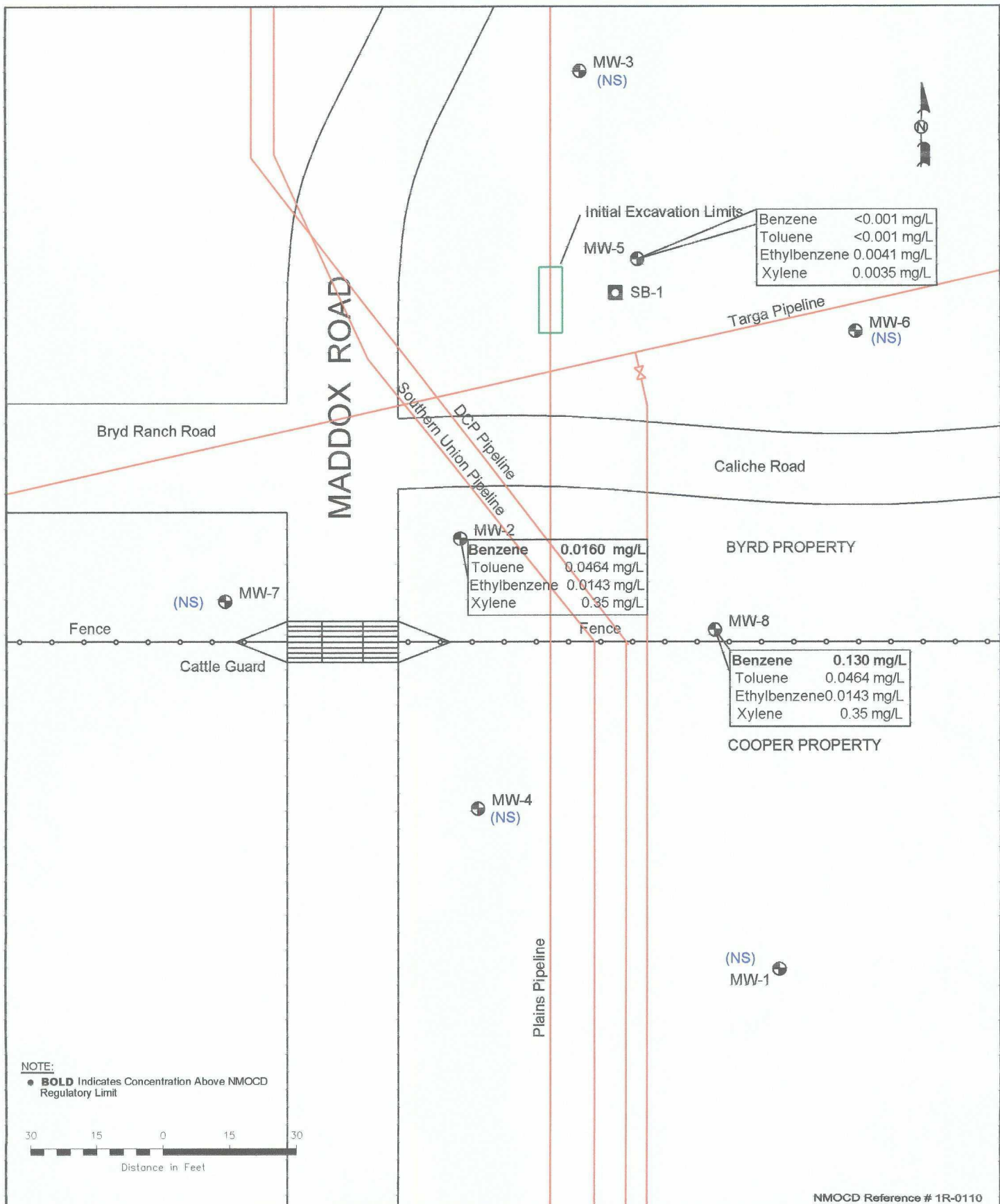
- Monitor Well Location (3529.08) Groundwater Elevation (feet)
- Pipeline
- Groundwater Elevation Contour Line
- 0.001 ft/ft Groundwater Gradient and Magnitude

**Figure 2D**  
Inferred Groundwater  
Gradient Map (11/02/07)  
Plains Marketing, L.P.  
Monument 2  
Lea County, TX

**NOVA Safety and Environmental**



Scale: 1" = 30'	CAD By: DGC	Checked By: DGC
March 12, 2008	32° 35' 42.4"N 103° 17' 56.5"W	



**LEGEND:**

- Monitor Well Location
- Pipeline
- <0.001 Constituent Concentration (mg/L)
- (NS) Not Sampled

Site Location:  
 SW1/4 SW1/4 Sec 6 T20S R37E  
 NW1/4 NW1/4 Sec 7 T20S R37E  
 32° 35' 42.4"N  
 103° 17' 56.5"W

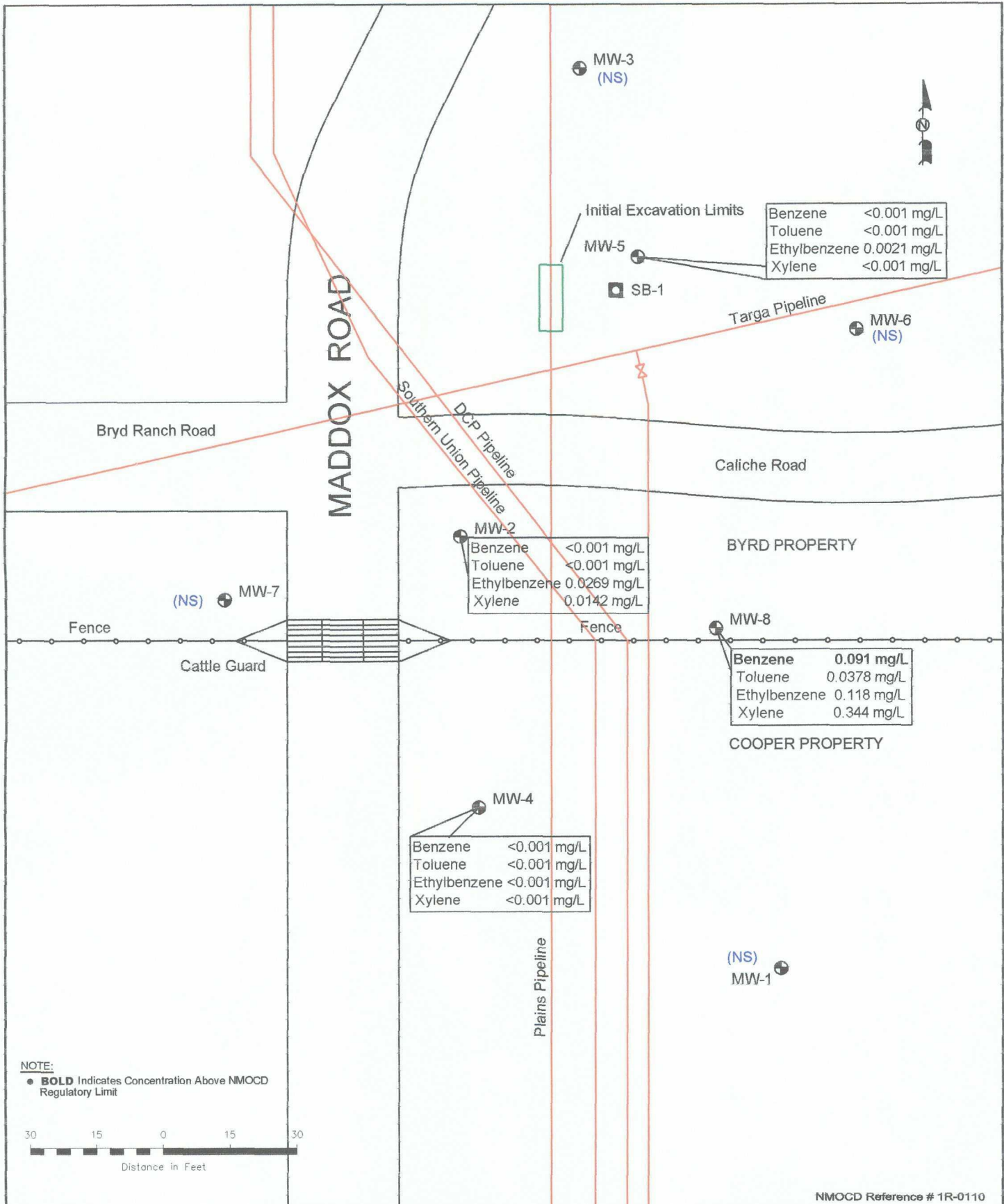
Figure 3A  
 Groundwater Concentration  
 and Inferred PSH Extent  
 Map (02/13/07)  
 Plains Marketing, LP  
 Monument 2  
 Lea County, TX

NOVA Safety and Environmental



Scale: 1" = 30'	CAD By: DGC	Checked By: CDS
September 25, 2007		

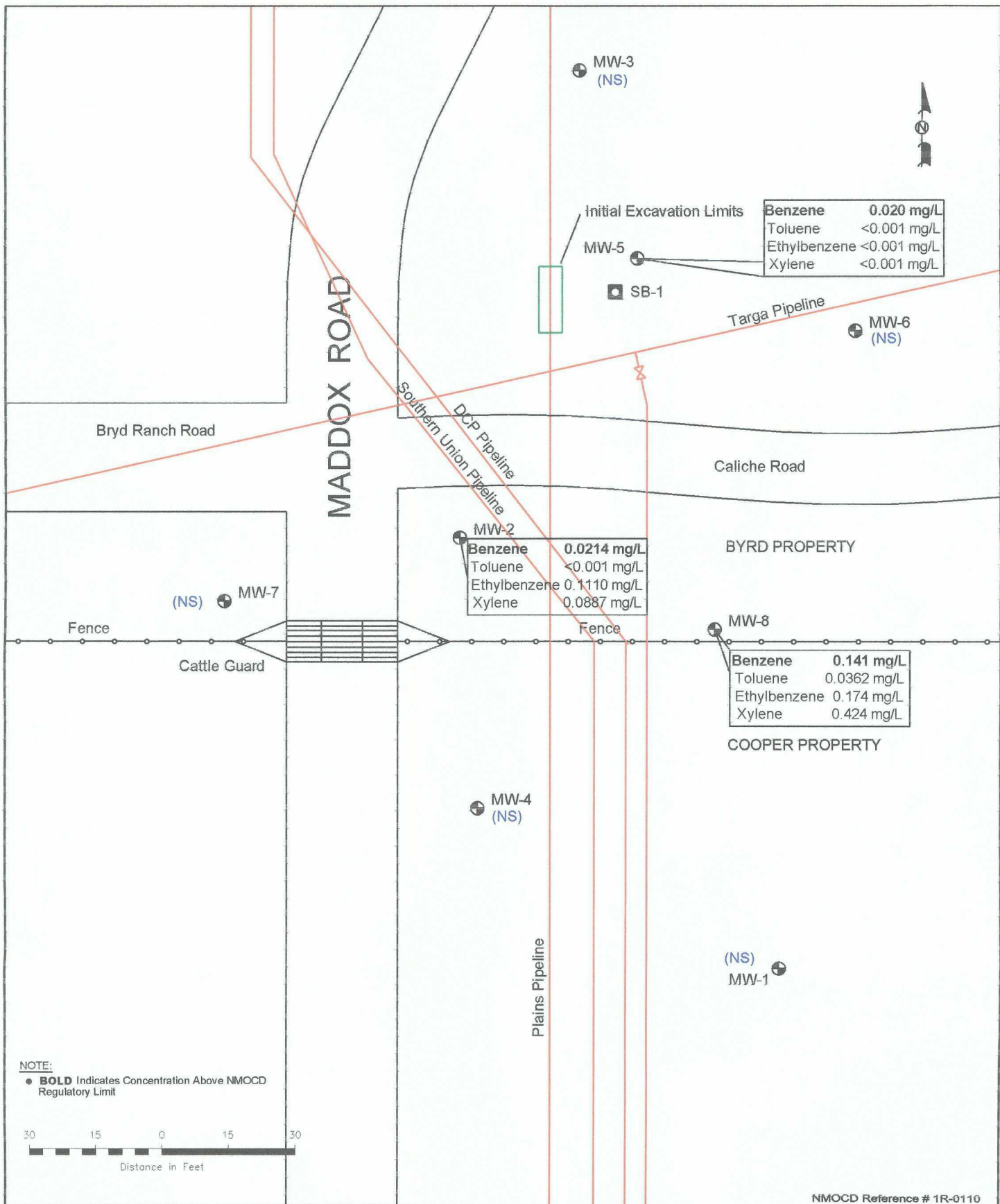




**NOTE:**  
 • **BOLD** Indicates Concentration Above NMOCD Regulatory Limit

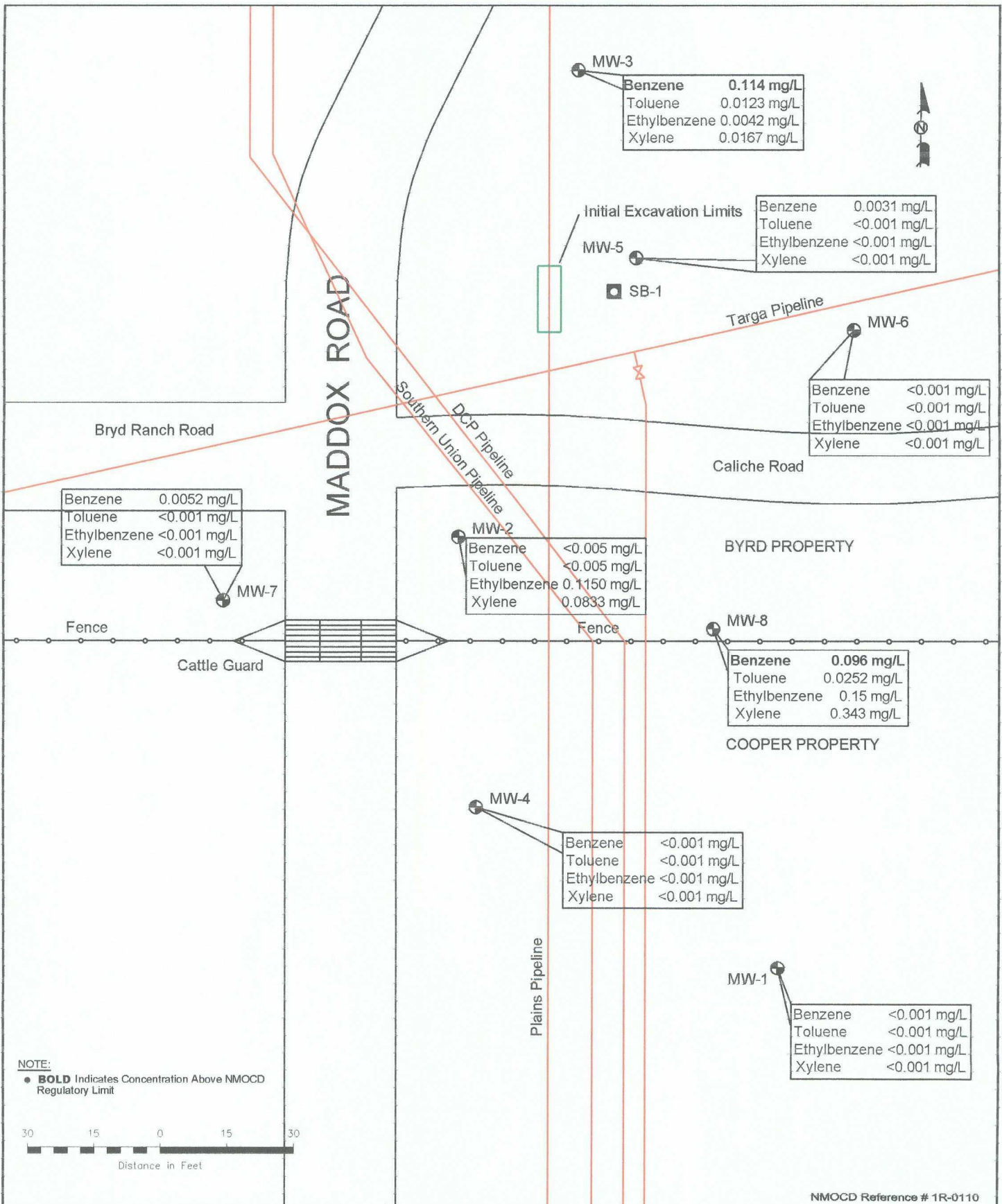
NMOCD Reference # 1R-0110

<b>LEGEND:</b> Monitor Well Location Pipeline <0.001 Constituent Concentration (mg/L) (NS) Not Sampled	<b>Site Location:</b> SW1/4 SW1/4 Sec 6 T20S R37E NW1/4 NW1/4 Sec 7 T20S R37E 32° 35' 42.4"N 103° 17' 56.5"W	<b>Figure 3B</b> Groundwater Concentration and Inferred PSH Extent Map (05/10/07) Plains Marketing, LP Monument 2 Lea County, TX	<b>NOVA Safety and Environmental</b>  Scale: 1" = 30' CAD By: DGC Checked By: CDS September 25, 2007
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NMOCD Reference # 1R-0110

<b>LEGEND:</b> Monitor Well Location Pipeline <0.001 Constituent Concentration (mg/L) (NS) Not Sampled	<b>Site Location:</b> SW1/4 SW1/4 Sec 6 T20S R37E NW1/4 NW1/4 Sec 7 T20S R37E 32° 35' 42.4"N 103° 17' 56.5"W	<b>Figure 3C</b> Groundwater Concentration and Inferred PSH Extent Map (08/20/07) Plains Marketing, LP Monument 2 Lea County, TX	<b>NOVA Safety and Environmental</b>  Scale: 1" = 30' CAD By: DGC Checked By: CDS September 25, 2007
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## Tables



TABLE 1

## 2007 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 MONUMENT 2  
 LEA COUNTY, NEW MEXICO  
 NMOCD REFERENCE NUMBER 1R -0110

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW-1	02/13/07	3,560.60	-	31.64	0.00	3528.96
	05/10/07	3,560.60	-	31.51	0.00	3529.09
	08/20/07	3,560.60	-	31.58	0.00	3529.02
	11/02/07	3,560.60	-	31.56	0.00	3529.04
MW-2	02/13/07	3,561.14	sheen	31.74	0.00	3529.40
	05/10/07	3,561.14	-	31.63	0.00	3529.51
	08/20/07	3,561.14	-	31.73	0.00	3529.41
	11/02/07	3,561.14	sheen	31.71	0.00	3529.43
MW-3	02/13/07	3,560.39	-	30.68	0.00	3529.71
	05/10/07	3,560.39	-	30.51	0.00	3529.88
	08/20/07	3,560.39	-	30.64	0.00	3529.75
	11/02/07	3,560.39	-	30.64	0.00	3529.75
MW-4	02/13/07	3,561.08	-	31.85	0.00	3529.23
	05/10/07	3,561.08	-	31.74	0.00	3529.34
	08/20/07	3,561.08	-	31.87	0.00	3529.21
	11/02/07	3,561.08	-	31.87	0.00	3529.21
MW-5	02/13/07	3,560.20	sheen	30.62	0.00	3529.58
	05/10/07	3,560.20	-	30.53	0.00	3529.67
	08/20/07	3,560.20	-	30.63	0.00	3529.57
	11/02/07	3,560.20	-	30.63	0.00	3529.57
MW-6	02/13/07	3,560.32	-	30.97	0.00	3529.35
	05/10/07	3,560.32	-	30.82	0.00	3529.50
	08/20/07	3,560.32	-	30.92	0.00	3529.40
	11/02/07	3,560.32	-	30.89	0.00	3529.43
MW-7	02/13/07	3,561.07	-	31.66	0.00	3529.41
	05/10/07	3,561.07	-	31.54	0.00	3529.53
	08/20/07	3,561.07	-	31.61	0.00	3529.46
	11/02/07	3,561.07	-	31.61	0.00	3529.46
MW-8	02/05/07	3,561.07	-	31.70	0.00	3529.37
	02/13/07	3,561.07	sheen	31.63	0.00	3529.44
	03/27/07	3,561.07	-	31.64	0.00	3529.43
	05/10/07	3,561.07	-	31.54	0.00	3529.53
	05/21/07	3,561.07	-	31.52	0.00	3529.55
	08/20/07	3,561.07	-	31.64	0.00	3529.43
	11/02/07	3,561.07	-	31.59	0.00	3529.48



TABLE 2

## 2007 CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.

MONUMENT 2

LEA COUNTY, NEW MEXICO

NMOCD REFERENCE NUMBER 1R-0110

*All concentrations are reported in mg/L.*

SAMPLE LOCATION	SAMPLE DATE	SW 846-8012B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
NMOCD REGULATORY LIMIT		0.01	0.75	0.75	0.62	
MW-1	02/13/07	Not Sampled on Current Sample Schedule				
	05/10/07	Not Sampled on Current Sample Schedule				
	08/20/07	Not Sampled on Current Sample Schedule				
	11/02/07	<0.001	<0.001	<0.001	0.001	
MW-2	02/13/07	0.0160	0.0464	0.1430	0.3500	
	05/10/07	<0.001	<0.001	0.0269	0.0142	
	08/20/07	0.0214	<0.001	0.1110	0.0887	
	11/02/07	<0.005	<0.005	0.1150	0.0833	
MW-3	02/13/07	Not Sampled on Current Sample Schedule				
	05/10/07	Not Sampled on Current Sample Schedule				
	08/20/07	Not Sampled on Current Sample Schedule				
	11/02/07	0.114	0.0123	0.0042	0.0167	
MW-4	02/13/07	Not Sampled on Current Sample Schedule				
	05/10/07	<0.001	<0.001	<0.001	<0.001	
	08/20/07	Not Sampled on Current Sample Schedule				
	11/02/07	<0.001	<0.001	<0.001	<0.001	
MW-5	02/13/07	<0.001	<0.001	0.0041	0.0035	
	05/10/07	<0.001	<0.001	0.0021	<0.001	
	08/20/07	0.020	<0.001	<0.001	<0.001	
	11/02/07	0.0031	<0.001	<0.001	<0.001	
MW-6	02/13/07	Not Sampled on Current Sample Schedule				
	05/10/07	Not Sampled on Current Sample Schedule				
	08/20/07	Not Sampled on Current Sample Schedule				
	11/02/07	<0.001	<0.001	<0.001	<0.001	
MW-7	02/13/07	Not Sampled on Current Sample Schedule				
	05/10/07	Not Sampled on Current Sample Schedule				
	08/20/07	Not Sampled on Current Sample Schedule				
	11/02/07	0.0052	<0.001	<0.001	<0.001	
MW-8	02/13/07	0.130	0.0464	0.143	0.35	
	05/10/07	0.091	0.0378	0.118	0.344	
	08/20/07	0.141	0.0362	0.174	0.424	
MW-8	11/02/07	0.096	0.0252	0.15	0.343	

**TABLE 3**  
**CONCENTRATIONS OF TPH AND BTEX IN SOIL**

**MONUMENT #2**  
**PLAINS MARKETING, L.P.**  
**LEA COUNTY, NM**  
**NMOCD Reference Number 1R-0110**  
All concentrations reported in mg/Kg

SAMPLE LOCATIONS	SAMPLE DATE	SAMPLE DEPTH (FEET)	Methods: EPA SW 846-8021B, 5030				TOTAL BTEX (mg/Kg)	Methods: EPA SW 846-8015M		
			BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	m,p,o-XYLENE (mg/Kg)		GRO C <sub>6</sub> -C <sub>10</sub> (mg/Kg)	DRO >C <sub>10</sub> -C <sub>25</sub> (mg/Kg)	TPH >C <sub>6</sub> -C <sub>25</sub> (mg/Kg)
NMOCD REGULATORY STANDARD			10				50			100
SB-1 @ 10'	08/17/07		<0.01	<0.01	<0.01	<0.01	<0.01	<1	<50.0	<50.0
SB-1 @ 20'	08/17/07		<0.01	<0.01	<0.01	<0.01	<0.01	<1	<50.0	<50.0
SB-1 @ 25'	08/17/07		-	-	-	-	-	51.8	188	239.8

**Bold** indicates concentration above NMOCD regulatory levels

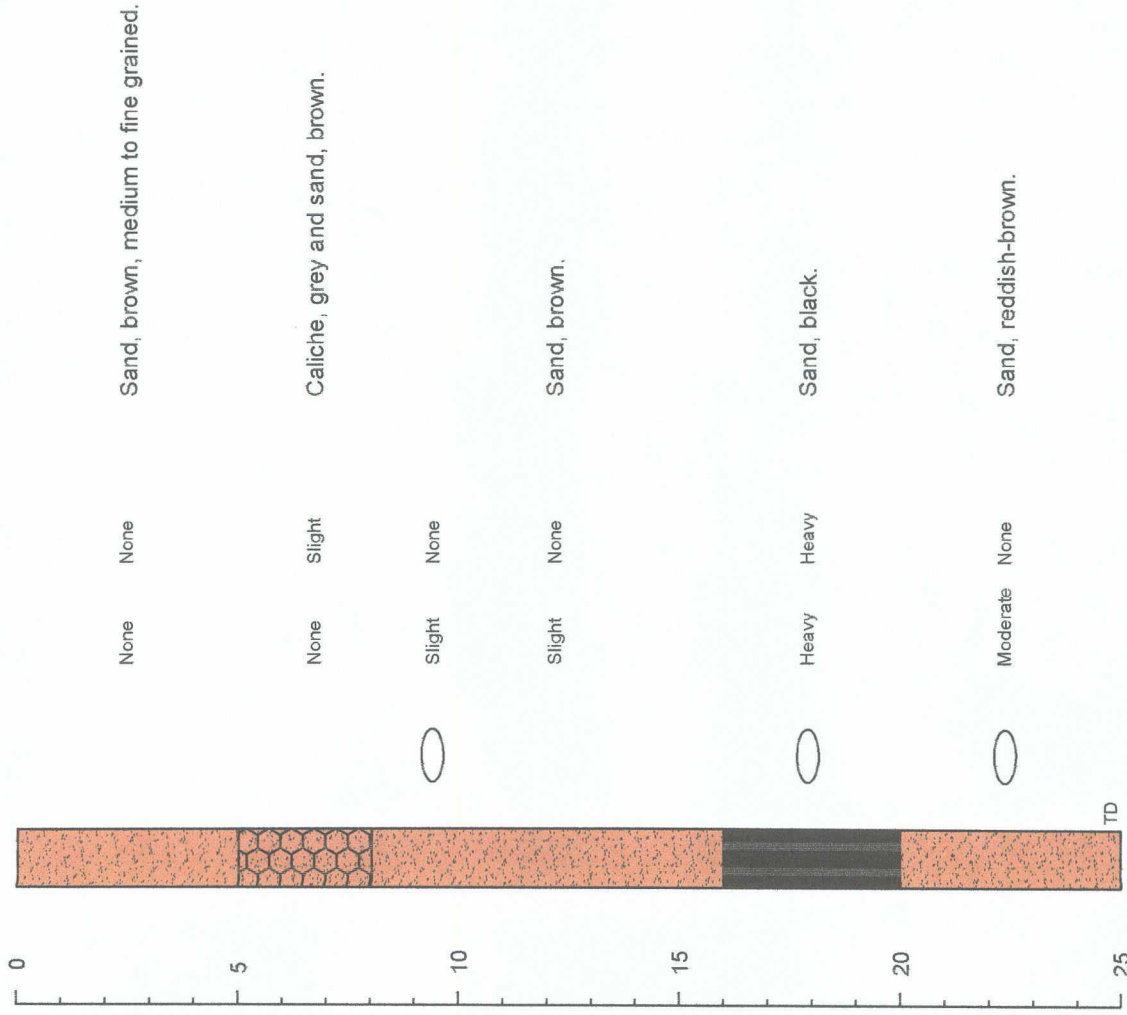
## Appendices

# Appendix A

## Soil Boring Logs

# Soil Boring SB-1

Depth (feet) Soil Columns PID Odor Stain Soil Description



## Soil Boring Details

Date Drilled 08/17/07  
Depth of Soil Boring 25 ft

○ Indicates samples selected for Laboratory Analysis.

PID Head-space reading in ppm obtained with a photo-ionization detector.

## Completion Notes

1. The soil boring was installed on date using air rotary drilling techniques.
2. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
3. The depths indicated are referenced from the ground surface.

## Soil Boring Log And Details

### Soil Boring SB-1

Plains Marketing, L.P. Monument 2 Lea County, NM



NMOCD Reference # 1R-0110

## NOVA Safety and Environmental

Scale: NTS CAD By: DGC Checked By: CDS  
February 25, 2008

Appendix B  
Release Notification and Corrective Action  
(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 # 2	Facility Type:	Pipeline

Surface Owner:	Mineral Owner	Lease No.
BLM, Jim T Cooper		

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	6	20S	37E					Lea

**Latitude** 32 degrees, 35' 42.4" **Longitude** 32 degrees, 17' 56.5"

#### 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.

Signature:		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Camille Reynolds		Approved by District Supervisor:	
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