# **AP - 9**

# REPORT

# DATE:



AP-9 Report 2006

### 2006 ANNUAL MONITORING REPORT

#### HDO-90-23

NE ¼, NW ¼, SECTION 6, TOWNSHIP 20 SOUTH, RANGE 37 EAST LEA COUNTY, NEW MEXICO PLAINS EMS NUMBER: HDO-90-23 NMOCD REFERENCE AP-009

**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 2007** 

Curt D. Stanley

Project Manager

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



#### **TABLE OF CONTENTS**

INTRODUCTION	.1
SITE DESCRIPTION AND BACKGROUND INFORMATION	.1
FIELD ACTIVITIES	.2
LABORATORY RESULTS	.3
SUMMARY	.5
ANTICIPATED ACTIONS	.6
LIMITATIONS	6
DISTRIBUTION	7

#### FIGURES

Figure 1 – Site Location Map

Figure 2A – Inferred Groundwater Gradient Map March 7, 2006

- 2B Inferred Groundwater Gradient Map June 6, 2006
- 2C Inferred Groundwater Gradient Map September 15, 2006
- 2D Inferred Groundwater Gradient Map November 20-21, 2006

Figure 3A - Groundwater Concentration and Inferred PSH Extent Map March 7, 2006

- 3B Groundwater Concentration and Inferred PSH Extent Map June 6. 2006
- 3C Groundwater Concentration and Inferred PSH Extent Map September 15, 2006
- 3D Groundwater Concentration and Inferred PSH Extent Map November 20-21, 2006

#### TABLES

Table 1 – 2006 Groundwater Elevation Data Table 2 – 2006 Concentrations of BTEX in Groundwater

#### **APPENDICES**

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

#### **ENCLOSED ON DATA DISK**

2006 Annual Monitoring Report 2006 Tables 1 and 2 – Groundwater Elevation and BTEX Concentration Data 2006 Figures 1, 2A-2D, 3A-3D, 4 Electronic Copies of Laboratory Reports Historic Groundwater Elevation Data Table Historic BTEX Concentration Table

#### 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, having previously been managed by Environmental Technology Group, Inc (ETGI). The HDO-90-23 site, which was formally the responsibility of Texas New Mexico Pipeline Company (TNM), is now the responsibility of Plains. This report is intended to be viewed as a complete document with text, figures, tables and appendices. The report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2006 only. However, historic data tables as well as 2006 laboratory analytical reports are provided on the enclosed data disk. A Site Location Map is provided as Figure 1.

Groundwater monitoring was conducted during each of four quarters in calendar year 2006 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 not sampled.

#### SITE DESCRIPTION AND BACKGROUND INFORMATION

The site is located in the NE 1/4 of the NW 1/4 of Section 6, Township 20 South, Range 37 East in Lea County. The HDO 90-23 release was discovered by TNM personnel and reported on March 27, 1990. According to the release report, an estimated 750 barrels of crude oil were released and 550 barrels were recovered. The release occurred from a 14-inch Texas-New Mexico Pipeline Company (TNM) pipeline and was attributed to structural failure associated with internal pipeline corrosion. Limited excavation occurred around the release point to repair the pipeline. The Release Notification and Corrective Action (Form C-141) is provided as Appendix A.

In February 1998, nine (9) soil borings were advanced and five monitoring wells were installed by a previous contractor to assess the subsurface conditions. In September 1999, three (3) additional monitor wells were installed. In the fall of 2002, monitor wells MW-9 through MW-15 were installed. In November 2004, two (2) additional monitor wells (MW-16 and MW-17) were installed to further delineate the southeast extent of the dissolved phase plume.

On August 9, 2005, NOVA personnel discovered and documented a leaking produced water pipeline approximately 100 feet north of monitor well MW-3. The leaking pipeline was reported to NMOCD, Hobbs District office on the same day. The pipeline was identified as a Mar Oil and Gas (MAR) pipeline. A MAR employee was successful in closing an off site valve to stop the produced water flow. On August 12, 2005, MAR employees began limited excavation surrounding monitor well MW-3, stockpiling the soil on site. Since the activities of August 2005, the excavated soil has been stockpiled on site.

Currently, thirteen (13) groundwater monitor wells (MW-2 through MW-6, MW-8, MW-9 and MW-12 through MW-17) and two product recovery wells (RW-1 and RW-2) are onsite.

#### FIELD ACTIVITIES

A measurable thickness of PSH was detected in monitor wells MW-2, MW-3, MW-6, and MW-14 during the 2006 annual reporting period. A maximum PSH thickness of 1.11 feet in monitor well MW-6 was recorded on June 1, 2006 and is shown on Table 1. The average thickness of PSH in monitor and recovery wells containing PSH during 2006 was 0.30 feet. Approximately nine (9) gallons of PSH were recovered from the site during the 2006 reporting period. Approximately 768 gallons (18 barrels) of PSH have been recovered through automated and manual recovery methods since project inception.

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 June 21, 2005.

NMOCD Approved Sampling Schedule					
MW-1	Plugged and Abandoned				
MW-2	Quarterly				
MW-3	Quarterly				
MW-4	Semi-Annually				
MW-5	Semi-Annually				
MW-6	Quarterly				
	Plugged and Abandoned				
MW-8	Annually				
	Quarterly				
MW-10	Plugged and Abandoned				
MW-11	Plugged and Abandoned				
MW-12	Quarterly				
MW-13	Quarterly				
MW-14	Quarterly				
MW-15	Quarterly				
MW-16	Quarterly				
MW-17	Quarterly				

The site monitor wells were gauged and sampled on March 7, June 6, September 15, and November 20, 2006. During each sampling event, sampled monitor wells were purged of approximately three well volumes of water or until the wells were dry using a PVC bailer or electrical 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 by Key Energy, Lovington, New Mexico utilizing a licensed disposal facility (NMOCD AO SWD-730).

Locations of the monitor wells and the inferred groundwater gradient, which were constructed utilizing measurements collected during the four (4) quarterly monitoring events, are depicted on Figures 2A through 2D. Groundwater elevation data for 2006 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 0.0003 feet/foot to the southeast as measured between monitor wells MW-9 and MW-2. This is consistent with data presented on Figures 2A through 2C from earlier in the year. The corrected groundwater elevation has ranged between 3,418.90 and 3,421.97 feet above mean sea level, in monitor wells MW-2 on November 20, 2006 and MW-3 on September 15, 2006, respectively.

Currently, thirteen (13) monitor wells and two (2) recovery wells are located on site.

#### LABORATORY RESULTS

6

Monitor wells MW-2 (second, third and fourth quarters), MW-6 and MW-14 contained PSH and were not sampled in one or more quarter during the reporting period.

Groundwater samples obtained during the sampling events of 2006 were delivered to TraceAnalysis, Inc. in Lubbock, Texas, Texas for determination of Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations by EPA Method 8021b. A cumulative listing of BTEX constituent concentrations for 2006 is summarized in Table 2. Copies of the laboratory reports generated for 2006 are provided on the enclosed data disk. The quarterly groundwater sample results for BTEX constituent concentrations are depicted on Figures 3A-3D.

**Monitor well MW-2** is monitored/sampled on a quarterly schedule. Monitor well MW-2 was not sampled during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period, due to the reported presence of PSH in the monitor well. PSH thicknesses of 0.02 feet, 0.05 feet and 0.16 feet were reported during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2006, respectively. Analytical results of groundwater samples collected during the 1<sup>st</sup> quarter of 2006 indicate benzene concentrations were 4.94 mg/L. This 1<sup>st</sup> quarter benzene concentration is above the NMOCD regulatory standard of 0.01 mg/L. Toluene concentrations were below laboratory method detection limits (MDL) and NMOCD regulatory standards of 0.75 mg/L, during the 1<sup>st</sup> quarter of 2006. Ethylbenzene and Xylene concentrations were 2.99 mg/L and 1.01 mg/L, respectively. Ethylbenzene and Xylene concentrations were above NMOCD regulatory standards of 0.75 mg/L, and 0.62 mg/L, respectively, during the 1<sup>st</sup> quarter of the reporting period.

**Monitor well MW-3** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.005 mg/L during the  $2^{nd}$  quarter to 0.130 mg/L during the  $1^{st}$  quarter of 2006. Benzene concentrations were above NMOCD regulatory standards during the  $1^{st}$ ,  $3^{rd}$ , and  $4^{th}$  quarters of the reporting period. Toluene concentrations were below MDL and NMOCD regulatory standards during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from <0.005 mg/L during the  $2^{nd}$  quarter to 0.107 mg/L during the  $3^{rd}$  quarter of 2006. Ethylbenzene concentrations were below NMOCD regulatory standards during all four (4) quarters of the reporting period. Ethylbenzene concentrations were below NMOCD regulatory standards during the  $3^{rd}$  quarter of 2006. Ethylbenzene concentrations were below NMOCD regulatory standards during period. Xylene concentrations ranged from <0.001 mg/L during the  $3^{rd}$  and  $4^{th}$  quarter to 0.019 mg/L during the  $1^{st}$  quarter of 2006. Xylene concentrations were below NMOCD regulatory standards during all four (4) quarters of the reporting period. Xylene concentrations were below NMOCD regulatory standards during the  $1^{st}$  quarter of 2006. Xylene concentrations were below NMOCD regulatory standards during the  $1^{st}$  quarter of 2006. Xylene concentrations

**Monitor well MW-4** 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  $2^{nd}$  and  $4^{th}$  quarter sampling events.

**Monitor well MW-5** 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 2<sup>nd</sup> and 4<sup>th</sup> quarter sampling events.

**Monitor well MW-6** is monitored on a quarterly schedule. Monitor well MW-6 was not sampled during any of the four (4) quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 0.81 feet, 0.88 feet, 0.89 feet, and 1.00 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarter of 2006, respectively.

**Monitor well MW-8** 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 4<sup>th</sup> quarter sampling event.

**Monitor well MW-9** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during all four (4) quarters of 2006.

**Monitor well MW-12** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during all four (4) quarters of 2006.

**Monitor well MW-13** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during all four (4) quarters of 2006.

**Monitor well MW-14** is monitored on a quarterly schedule. Monitor well MW-14 was not sampled during any of the four (4) quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 0.24 feet, 0.21 feet, 0.08 feet, and 0.11 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarter of 2006, respectively.

**Monitor well MW-15** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 3<sup>rd</sup> and 4<sup>th</sup> quarter to 0.0016 mg/L during the 1<sup>st</sup> quarter of 2006. Benzene concentrations were below NMOCD regulatory standards during all four (4) quarters of the reporting period. Toluene, ethylbenzene and xylene constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during all four (4) quarters of 2006.

**Monitor well MW-16** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during all four (4) quarters of 2006.

**Monitor well MW-17** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during all four (4) quarters of 2006.

**Recovery well RW-1** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 1.82 mg/L during the  $3^{rd}$  quarter to 3.75 mg/L during the  $2^{nd}$  quarter of 2006. Benzene concentrations were above NMOCD regulatory standards all four (4) quarters of the reporting period. Toluene concentrations ranged from <0.02 mg/L during the  $1^{st}$ ,  $3^{rd}$  and  $4^{th}$  quarter to 0.024 mg/L during the  $2^{nd}$  quarter of 2006. Toluene concentrations were below NMOCD regulatory standards during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from 0.44 mg/L during the  $3^{rd}$  quarter to 1.12 mg/L during the  $2^{nd}$  quarter of 2006. Ethylbenzene concentrations were above NMOCD regulatory standards during  $1^{st}$ ,  $2^{nd}$ , and  $4^{th}$  quarters of the reporting period. Xylene concentrations ranged from 0.473 mg/L during the  $3^{rd}$  quarter to 1.050 mg/L during the  $2^{nd}$  quarter of 2006. Xylene concentrations were above NMOCD regulatory standards during the  $1^{st}$ ,  $2^{nd}$ , and  $4^{th}$  quarter to 1.050 mg/L during the  $2^{nd}$  quarter of 2006. Xylene concentrations were above NMOCD regulatory standards during the  $2^{nd}$  quarter of 2006. Xylene concentrations were above NMOCD regulatory standards during  $1^{st}$ ,  $2^{nd}$ , and  $4^{th}$  quarter to 1.050 mg/L during the  $2^{nd}$  quarter of 2006. Xylene concentrations were above NMOCD regulatory standards during the  $2^{nd}$  quarter of 2006. Xylene concentrations were above NMOCD regulatory standards during the  $1^{st}$ ,  $2^{nd}$  and  $4^{th}$  quarters of the reporting period. Xylene concentrations ranged from 0.473 mg/L during the  $3^{rd}$  quarter of 2006. Xylene concentrations were above NMOCD regulatory standards during the  $1^{st}$ ,  $2^{nd}$  and  $4^{th}$  quarters of the reporting period.

**Recovery well RW-2** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup> quarter to 0.162 mg/L during the 3<sup>rd</sup> quarter of 2006. Benzene concentrations were above NMOCD regulatory standards during the 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup> and 4<sup>th</sup> quarter to 0.001 mg/L during the 3<sup>rd</sup> quarter of 2006. Toluene concentrations were below NMOCD regulatory standards during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from <0.005 mg/L during the 2<sup>nd</sup> quarter to 0.15 mg/L during the 3<sup>rd</sup> quarter of 2006. Ethylbenzene concentrations were below NMOCD regulatory standards during the 3<sup>rd</sup> quarter to 0.15 mg/L during the 3<sup>rd</sup> quarter of 2006. Ethylbenzene concentrations were below NMOCD regulatory standards during the 3<sup>rd</sup> quarter to 0.15 mg/L during the 3<sup>rd</sup> quarter of 2006. Ethylbenzene concentrations were below NMOCD regulatory standards during the 3<sup>rd</sup> quarter to 0.15 mg/L during the 3<sup>rd</sup> quarter of 2006. Ethylbenzene concentrations were below NMOCD regulatory standards during all four (4) quarters of the reporting period. Xylene concentrations ranged from 0.01 mg/L during the 4<sup>th</sup> quarter to 0.0514 mg/L during the 3<sup>rd</sup> quarter of 2006. Xylene concentrations were below NMOCD regulatory standards during all four (4) quarters of the reporting period.

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 annual monitoring period of 2006. Currently, there are thirteen (13) groundwater monitor wells (MW-2 through MW-6, MW-8, MW-9 and MW-12 through MW-17) and two (2) recovery wells (RW-1 and RW-2) on-site. The most recent Groundwater Gradient Map, Figure 2D indicates a general gradient of approximately 0.0003 feet/foot to the southeast.

Monitor wells MW-2 (second, third and fourth quarters), MW-6 and MW-14 contained PSH and were not sampled during the reporting period. The average thickness of PSH in monitor and recovery wells containing PSH during 2006 was 0.30 feet.

Approximately nine (9) gallons of PSH were recovered from the site during the 2006 reporting period. Approximately 768 gallons (18 barrels) of PSH have been recovered through automated and manual recovery methods since project inception.

Review of laboratory analytical results generated from analysis of the groundwater samples obtained during the 2006 monitoring period indicates BTEX constituent concentrations are below NMOCD regulatory standards in nine (9) monitor wells.

#### ANTICIPATED ACTIONS

Plains respectfully requests NMOCD approval to modify the sampling schedule for the following monitor well:

- Monitor well MW-9 is currently sampled on a quarterly schedule, Plains proposes to modify the schedule to a semi-annual schedule. This upgradient monitor well was installed during the 1<sup>st</sup> quarter 2003 and has not exhibited hydrocarbon impact.
- Monitor well MW-16 is currently sampled on a quarterly schedule, Plains proposes to modify the schedule to a annual schedule. This down gradient monitor well was installed during the 4<sup>th</sup> quarter 2004 and has not exhibited hydrocarbon impact. Down gradient monitoring is maintained by monitor well MW-17.

Groundwater monitoring, quarterly sampling, manual bi-monthly PSH recovery and will continue in 2007. An Annual Monitoring report will be submitted to the NMOCD before April 1, 2008.

#### 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	Ben Stone New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505
Copy 2:	Larry Johnson and Patricia Caperton New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, District 1 1625 French Drive Hobbs, NM 88240
Copy 3:	Camille Reynolds Plains Marketing, L.P. 3112 Highway 82 Lovington, NM cjreynolds@paalp.com
Copy 4:	Jeff Dann Plains Marketing, L.P. 333 Clay Street Suite 1600 Houston, TX 77002 jpdann@paalp.com
Copy 5:	NOVA Safety and Environmental 2057 Commerce Street Midland, TX 79703 cstanley@novatraining.cc

,

## **FIGURES**

.









••••



•









.

.

Ĵ

•

•

9

#### 2006 GROUNDWATER ELEVATION DATA

#### PLAINS MARKETING, L.P. HDO 90 - 23 LEA COUNTY, NEW MEXICO

		TOP OF				CORRECTED
WELL	DATE	CASING	DEPTH TO	<b>DEPTH TO</b>	PSH	GROUNDWATER
NUMBER	MEASURED	ELEVATION	PRODUCT	WATER	THICKNESS	ELEVATION
MW-2	01/11/06	3,465.44	45.42	45.50	0.08	3,420.01
	01/25/06	3,465.44	45.49	45.54	0.05	3,419.94
	02/08/06	3,465.44	45.44	45.50	0.06	3,419.99
	02/23/06	3,465.44	45.47	45.50	0.03	3,419.97
	03/07/06	3,465.44	45.43	45.44	0.01	3,420.01
	03/08/06	3,465.44	sheen	45.44	0.00	3,420.00
	03/20/06	3,465.44	sheen	45.47	0.00	3,419.97
	03/30/06	3,465.44	45.44	45.48	0.04	3,419.99
	05/03/06	3,465.44	45.47	45.55	0.08	3,419.96
	06/01/06	3,465.44	45.50	45.61	0.11	3,419.92
	06/06/06	3,465.44	45.57	45.59	0.02	3,419.87
	06/14/06	3,465.44	45.50	45.64	0.14	3,419.92
	06/29/06	3,465.44	45.54	45.58	0.04	3,419.89
	07/13/06	3,465.44	45.53	45.54	0.01	3,419.91
	07/27/06	3,465.44	45.55	45.59	0.04	3,419.88
	08/10/06	3,465.44	45.56	45.61	0.05	3,419.87
<u> </u>	09/15/06	3,465.44	45.43	45.48	0.05	3,420.00
	10/03/06	3,465.44	45.48	45.51	0.03	3,419.96
	11/20/06	3,465.44	46.52	46.68	0.16	3,418.90
MW-3	03/07/06	3,464.68	-	44.85	0.00	3,419.83
	06/06/06	3,464.68	sheen	44.93	0.00	3,419.75
	07/13/06	3,464.68	sheen	44.94	0.00	3,419.74
	07/27/06	3,464.68	47.61	47.63	0.02	3,417.07
	08/10/06	3,464.68	45.53	45.74	0.21	3,419.12
	09/15/06	3,464.68	-	42.71	0.00	3,421.97
	10/03/06	3,464.68	sheen	42.74	0.00	3,421.94
	11/20/06	3,464.68	-	44.92	0.00	3,419.76
MW-4	03/07/06	3,465.76	-	45.96	0.00	3,419.80
	06/06/06	3,465.76	-	46.03	0.00	3,419.73
	09/15/06	3,465.76	-	45.97	0.00	3,419.79
	11/20/06	3,465.76	-	46.02	0.00	3,419.74
MW-5	03/07/06	3,467.40	-	47.71	0.00	3,419.69
	06/06/06	3,467.40	-	47.78	0.00	3,419.62
	09/15/06	3,467.40	-	47.74	0.00	3,419.66
	11/20/06	3,467.60		47.82	0.00	3,419.78

1 of 4

#### 2006 GROUNDWATER ELEVATION DATA

0

0 0 0

9 9 9

•

•

•

•

9

•

#### PLAINS MARKETING, L.P. HDO 90 - 23 LEA COUNTY, NEW MEXICO

		TOP OF				CORRECTED
WELL	DATE	CASING	<b>DEPTH TO</b>	<b>DEPTH TO</b>	PSH	GROUNDWATER
NUMBER	MEASURED	ELEVATION	PRODUCT	WATER	THICKNESS	ELEVATION
MW-6	01/11/06	3,465.42	45.25	46.00	0.75	3,420.06
	01/25/06	3,465.42	45.30	46.06	0.76	3,420.01
	02/08/06	3,465.42	45.25	46.03	0.78	3,420.05
	02/23/06	3,465.42	45.26	45.99	0.73	3,420.05
	03/07/06	3,465.42	45.25	46.06	0.81	3,420.05
	03/08/06	3,465.42	45.25	46.05	0.80	3,420.05
	03/20/06	3,465.42	45.27	46.10	0.83	3,420.03
	03/30/06	3,465.42	45.27	46.06	0.79	3,420.03
	05/03/06	3,465.42	45.30	46.15	0.85	3,419.99
	06/01/06	3,465.42	45.31	46.42	1.11	3,419.94
	06/06/06	3,465.42	45.33	46.21	0.88	3,419.96
	06/14/06	3,465.42	45.31	46.39	1.08	3,419.95
	06/29/06	3,465.42	45.35	46.24	0.89	3,419.94
	07/13/06	3,465.42	45.34	46.23	0.89	3,419.95
	07/27/06	3,465.42	45.36	46.31	0.95	3,419.92
	08/10/06	3,465.42	45.38	46.32	0.94	3,419.90
	09/15/06	3,465.42	45.29	46.18	0.89	3,420.00
_	10/03/06	3,465.42	45.31	46.19	0.88	3,419.98
	11/20/06	3,465.42	45.34	46.34	1.00	3,419.93
MW-8	03/07/06	3,467.61	-	47.68	0.00	3,419.93
	06/06/06	3,467.61	-	47.76	0,00	3,419.85
	09/15/06	3,467.61	-	47.71	0.00	3,419.90
	11/20/06	3,467.61	-	47.78	0.00	3,419.83
MW-9	03/07/06	3,465.74		45.69	0.00	3,420.05
	06/06/06	3,465.74	-	45.74	0.00	3,420.00
	09/15/06	3,465.74	-	45.72	0.00	3,420.02
	11/20/06	3,465.74		45.78	0.00	3,419.96
MW-12	03/07/06	3466.69		46.83	0.00	3,419.86
	06/06/06	3466.69		46.89	0.00	3,419.80
	09/15/06	3466.69	-	46.86	0.00	3,419.83
	11/20/06	3466.69		46.93	0.00	3,419.76
MW-13	03/07/06	3466.98	-	47.35	0.00	3,419.63
	06/06/06	3466.98		47.42	0.00	3,419.56
	09/15/06	3466.98		47.38	0.00	3,419.60
	11/20/06	3466.98		47.45	0.00	3,419.53

#### 2006 GROUNDWATER ELEVATION DATA

#### PLAINS MARKETING, L.P. HDO 90 - 23 LEA COUNTY, NEW MEXICO

		TOP OF				CORRECTED
WELL	DATE	CASING	<b>DEPTH TO</b>	<b>ДЕРТН ТО</b>	PSH	GROUNDWATER
NUMBER	MEASURED	ELEVATION	PRODUCT	WATER	THICKNESS	ELEVATION
	01/11/06	3466.50	46.95	47.19	0.24	3,419.51
	01/25/06	3466.50	47.00	47.26	0.26	3,419.46
	02/08/06	3466.50	46.95	47.21	0.26	3,419.51
	02/23/06	3466.50	47.03	47.20	0.17	3,419.44
	03/07/06	3466.50	46.97	47.21	0.24	3,419.49
	03/08/06	3466.50	46.96	47.20	0.24	3,419.50
	03/20/06	3466.50	47.00	47.25	0.25	3,419.46
	03/30/06	3466.50	46.98	47.22	0.24	3,419.48
	05/03/06	3466.50	47.01	47.21	0.20	3,419.46
	06/01/06	3466.50	47.03	47.38	0.35	3,419.42
	06/06/06	3466.50	47.04	47.25	0.21	3,419.43
	06/14/06	3466.50	47.03	47.25	0.22	3,419.44
	06/29/06	3466.50	47.08	47.28	0.20	3,419.39
	07/13/06	3466.50	47.08	47.11	0.03	3,419.42
	07/27/06	3466.50	47.09	47.22	0.13	3,419.39
	08/10/06	3466.50	47.10	47.26	0.16	3,419.38
	09/15/06	3466.50	47.03	47.11	0.08	3,419.46
	10/03/06	3466.50	47.05	47.13	0.08	3,419.44
	11/20/06	3466.50	47.10	47.21	0.11	3,419.38
MW-15	03/07/06	3466.10	-	46.29	0.00	3,419.81
	06/06/06	3466.10	-	46.36	0.00	3,419.74
	09/17/06	3466.10	· _	46.28	0.00	3,419.82
	11/20/06	3466.10	-	46.38	0.00	3,419.72
<u>MW-16</u>	03/07/06	3465.93	-	46.34	0.00	3,419.59
	06/06/06	3465.93	<u> </u>	46.46	0.00	3,419.47
·····	09/15/06	3465.93	-	46.38	0.00	3,419.55
	11/20/06	3465.93		46.42	0.00	3,419.51
	0.0.00	1102.00		10.00		
MW-17	03/07/06	3468.68	-	49.23	0.00	3,419.45
	06/06/06	3468.68	-	49.34	0.00	3,419.34
	09/15/06	3468.68	-	49.30	0.00	3,419.38
	11/20/06	3468.68		49.33	0.00	3,419.35
<u>RW-1</u>	01/11/06	3465.02	sheen	45.14	0.00	3,419.88
	01/25/06	3465.02	sheen	45.21	0.00	3,419.81
	02/08/06	3465.02	sheen	45.13	0.00	3,419.89

.

#### 2006 GROUNDWATER ELEVATION DATA

#### PLAINS MARKETING, L.P. HDO 90 - 23 LEA COUNTY, NEW MEXICO

		TOP OF				CORRECTED
WELL	DATE	CASING	DEPTH TO	<b>DEPTH TO</b>	PSH	GROUNDWATER
NUMBER	MEASURED	ELEVATION	PRODUCT	WATER	THICKNESS	ELEVATION
RW-1	02/23/06	3465.02	sheen	45.15	0.00	3,419.87
	03/07/06	3465.02	-	45.16	0.00	3,419.86
	03/08/06	3465.02	sheen	45.13	0.00	3,419.89
	03/20/06	3465.02	sheen	45.16	0.00	3,419.86
	03/30/06	3465.02	-	45.08	0.00	3,419.94
	05/03/06	3465.02	sheen	45.21	0.00	3,419.81
	06/01/06	3465.02	sheen	45.22	0.00	3,419.80
	06/06/06	3465.02	-	45.23	0.00	3,419.79
	06/14/06	3465.02	sheen	45.22	0.00	3,419.80
	07/13/06	3465.02	sheen	45.52	0.00	3,419.50
	07/27/06	3465.02	-	15.46	0.00	3,449.56
	08/10/06	3465.02	sheen	45.27	0.00	3,419.75
	09/15/06	3465.02	-	45.23	0.00	3,419.79
	10/03/06	3465.02	sheen	45.25	0.00	3,419.77
	11/20/06	3465.02	-	45.31	0.00	3,419.71
RW-2	01/11/06	3465.21	sheen	45.28	0.00	3419.93
	01/25/06	3465.21	sheen	45.31	0.00	3419.90
	02/08/06	3465.21	sheen	45.28	0.00	3419.93
a she areas	02/23/06	3465.21	sheen	45.30	0.00	3419.91
	03/0706	3465.21	111 (118 <del>-</del> 117 (119	45.26	0.00	3419.95
	03/08/06	3465.21	sheen	45.27	0.00	3419.94
	03/20/06	3465.21	sheen	45.28	0.00	3419.93
v. 1	03/30/06	3465.21	and the second	45.29	0.00	3419.92
	05/03/06	3465.21	sheen	45.31	0.00	3419.90
	06/01/06	3465.21	sheen	45.33	0.00	3419.88
and the second	06/06/06	3465.21	sheen	45.32	0.00	3419.89
	06/14/06	3465.21	sheen	45.33	0.00	3419.88
	07/13/06	3465.21	sheen	45.38	0.00	3419.83
	07/27/06	3465.21		45.29	<b>0.00</b>	3419.92
	08/10/06	3465.21	sheen	45.48	0.00	3419.73
	09/15/06	3465.21	anti a di terret	45.42	····· 0.00	3419.79
and the second second	10/03/06	3465.21	sheen	45.46	0.00	3419.75
	11/20/06	3465.21		45.49	0.00	3419.72

Note: Elevations based on North American Vertical Datum of 1929.

0

Q

٩

#### 2006 CONCENTRATIONS OF BTEX IN GROUNDWATER

0

0

0

0

8

1

#### PLAINS MARKETING, L.P.

#### HDO 90-23

#### LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/L

SAMDLE	SAMDIE	SW 846-8012B, 5030					
SAMPLE	SAMPLE	BENZENE	TOLUENE	ETHYL-	m, p -	0 -	
LOCATION	DATE	DENZENE	TOLUENE	BENZENE	XYLENES	XYLENE	
NMOCD I	Regulatory	0.01	0.75	0.75	0	67	
Stan	dard	0.01	0.75	0.75	0.	02	
MW-2	03/07/06	4.94	<0.1	2.99	1.	01	
	06/06/06	Not Sampled	due to PSH	in Well			
	09/15/06	Not Sampled	l due to PSH	in Well			
	11/21/06	Not Sampled	l due to PSH	in Well			
MW-3	03/07/06	0.130	< 0.001	0.048	0.0	)19	
	06/06/06	< 0.005	< 0.005	< 0.005	<0	.005	
	09/15/06	0.014	< 0.001	0.107	<0.	.001	
	11/21/06	0.018	< 0.001	0.009	<0.	.001	
<u>MW-4</u>	03/07/06	Not Sampled	l on Current S	Sample Schedu	le		
	06/06/06	< 0.005	< 0.005	< 0.005	<0	.005	
	09/15/06	Not Sampleo	l on Current S	Sample Schedu	le		
	11/21/06	< 0.001	< 0.001	< 0.001	<0	.001	
MW-5	03/07/06	Not Sampled	on Current S	Sample Schedu	le		
	06/06/06	< 0.005	< 0.005	< 0.005	<0	.005	
	09/15/06	Not Sampleo	l on Current S	Sample Schedu	le		
	12/05/06	< 0.001	< 0.001	< 0.001	<0	.001	
MW-6	03/07/06	Not Sampled	due to PSH	in Well			
	06/06/06	Not Sampled	due to PSH	in Well			
	09/15/06	Not Sampled	due to PSH	in Well			
· ·	12/05/06	Not Sampleo	due to PSH	in Well			
MW-8	03/07/06	Not Sample	d on Current S	Sample Schedu	le		
	06/06/06	Not Sampleo	d on Current S	Sample Schedu	le		
	09/15/06	Not Sample	d on Current S	Sample Schedu	le		
	11/21/06	< 0.001	< 0.001	< 0.001	<0	.001	
MW-9	03/07/06	< 0.001	< 0.001	< 0.001	<0	.001	
	06/06/06	< 0.005	< 0.005	< 0.005	<0	.005	
	09/15/06	< 0.001	< 0.001	< 0.001	<0	.001	
	11/21/06	< 0.001	< 0.001	< 0.001	<0	.001	
MW-12	03/07/06	< 0.001	< 0.001	< 0.001	<0	.001	
	06/06/06	< 0.005	< 0.005	< 0.005	<0	.005	
	09/15/06	< 0.001	< 0.001	< 0.001	<0	.001	
	11/21/06	< 0.001	< 0.001	< 0.001	<0	.001	

Page 1 of 2

0

G

¢,

0

•

#### 2006 CONCENTRATIONS OF BTEX IN GROUNDWATER

#### PLAINS MARKETING, L.P.

#### HDO 90-23

#### LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/L

SAMPLE	SAMPLE	SW 846-8012B, 5030				
IOCATION	DATE	BENZENE	TOLUENE	ETHYL-	m, p -	0 -
LOCATION	DATE	DEITE	TODOLINE	BENZENE	XYLENES	XYLENE
NMOCD F Stan	Regulatory dard	0.01	0.75	0.75	0.	62
MW-13	03/07/06	< 0.001	< 0.001	< 0.001	<0.	001
	06/06/06	< 0.005	< 0.005	< 0.005	<0.	005
	09/15/06	< 0.001	< 0.001	< 0.001	<0.	001
	11/21/06	< 0.001	< 0.001	<0.001	0.0	019
MW-14	03/07/06	Not Sampled	l due to PSH	in Well		
	06/06/06	Not Sampled	l due to PSH	in Well		
	09/15/06	Not Sampled	l due to PSH	in Well		
	11/21/06	Not Sampled	l due to PSH	in Well		
MW-15	03/07/06	0.0016	< 0.001	< 0.001	<0.	001
	06/06/06	< 0.005	< 0.005	< 0.005	<0.	005
	09/15/06	< 0.001	< 0.001	< 0.001	<0.	001
	12/05/06	< 0.001	< 0.001	< 0.001	<0.	001
MW-16	03/07/06	< 0.001	< 0.001	< 0.001	<0.	001
	06/06/06	< 0.005	< 0.005	< 0.005	<0.	005
	09/15/06	< 0.001	< 0.001	< 0.001	<0	.001
	11/21/06	< 0.001	< 0.001	< 0.001	<0.	001
MW-17	03/07/06	< 0.001	< 0.001	< 0.001	<0	.001
	06/06/06	< 0.005	< 0.005	< 0.005	<0	.005
	09/15/06	< 0.001	< 0.001	< 0.001	<0	.001
	11/21/06	< 0.001	< 0.001	< 0.001	<0	.001
RW-1	03/07/06	2.98	< 0.2	1.02	0.	713
	06/06/06	3.75	0.024	1.12	1.	050
	09/15/06	1.82	< 0.02	0.44	0.4	473
	11/21/06	2.05	< 0.02	0.83	0.	837
RW-2	03/07/06	< 0.001	< 0.001	0.0043	0.0	007
	06/06/06	< 0.005	< 0.005	< 0.005	<0.	005
	09/15/06	0.162	0.001	0.15	0.0	514
	11/21/06	0.08	< 0.001	0.08	0.	01

# APPENDICES

E

1

() ()

1

A

## APPENDIX A: Release Notification and Corrective Action (Form C-141)

8 6 2 . (2) R **S**. 0 6 3 

a

### OIL CONSERVATION DIVISION

## NOTIFICATION OF FIRE, DREAKS, SPILLS, LEAKS, AND BLOROUTS

THE ALL AND AL	Inc   REG   LL   L4* Tr   F/CILITY   OR FORTA   OISECTION   PECHINEN   R	ARUD ARUD ARUD ARUD ARUD DANNER TOUANTER/C NE DESENTO C. FROM NE/ T LANDRARK	SPILL	LEAX X III NIE X			Totier		.M. 98240
INCOF	ALG ELL 14ª Tr F/CILLIY PC FOTA OIXECTO PCCALACY R	ARUN E MELL E UNK LINE TQUANTER/T NE DESCRIPT GI FROM NE/ T LANDMARK		1.E X		OIL RFY	Толен	•	
WE UP CILITY CATION OF A SECTONI ISTANCE AND IT TOWN ON TE AND HOU OCCURFINGE IS INVEDIAT	14" Tr FACILINY OR FORTA DISECTION POCATION R	UNK Line (QUANTER/C SE DESCRIPT GI FRUG NE/ T LANDMARK		101 A		KC I			
CILITY CATION OF A SECTION STARLE AND IT TOCION IT AND NOU OCCURFICE S INSEDIAT	14 Tr SZCILINY OG FCOTA OIRECH PSCHINCH	UNK LINE (QUANTER7) (SE DESCRIPT GI FRUS NER T LANDMARK	ICIA- ICIA NI	5/2 NR	T				
A FULL OF A SECTION STANCE AND TOUL ON TE AND HOU OCCURENCE S HASSION	C FOATA DIRECTI POCHINEN R	COARTERIO	( <u>10:)</u> N	12 NR		6870			
STRACE AND T TOZI ON ME AND HOU OCCURENCE S HOUSDAT	OIKEEII Pocalaeu R	U.I PRUS NEP T LANDMARK	ו .	··· 3 . 18 . 18.78.86 §	14. september	312. 6	21	37	i Lea
TE AND HOU OCCURFING S TRUSPING	R Ink	LANUTARK		i NYN	of Runi	-A 5 7	Wi N	W AF	1003 18
OCCURFIES S TRASELAT	tink	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -			TOATE AND	NOUR	******	•••• • •	
IS INSOLAT	~ ~ ~ ~	nown			OF DISCO	VERY	3/27	/90 2:	15 P.M.
WYPE PLUCH	E YE	S (KO	LIGT RE	*	IF YES.	NMOCC	- <b>3</b> .	Pritcha	ird
	NMOCC	- M. Cris	ivell		TEATE	37277	90: NH	0CC - :	1.35 P.N.
<u>N</u>	<u>scc</u>	<u>- C. Johr</u>	190n		AND LIOUR	3/28/	901	SCC	ــهـهـ وي
UID LOST	Sour	Crude	· · · ·		OF LOSS	750 B	BLS	COVEREI	
D ANY FLOI	DS REACH	TYES	Trio 🖕	TQUARTI	Y		18-8-275°		
			1	L		***********	man in annin		
Line cla	imped o	££							
SCRIBE AREA	AFFECTI	D AND CLEA	INP ACTI	ON TAKET	**			***************************************	***************************************
45,000 Cattle	sg ft in the	pasture : Area	Land; 4	0,000 i	ng it eg	ulomen	t dama	ev. full :	restoratio
SCRIPTIO:	T FAI	STILLE	1884216	G X	URBAN	Ton	ER•	*****	
INFACE	Sid	IDY ISA		CLAY	ROCKY	UET	x	DAY	5:104
STRIKE CER	ERAL COM	STTICKS FRE	NAILING	(TEAPLO	UNE, PRE	<b>CILIATI</b>	ON, EN	)**	
				55	<b>o</b> ,				
					· · · · · · · · · · · · · · · · · · ·		10 110		- 3.7
NEREDY, CVIN	TITY IN	THE THOSE	A ROLLES	GOVE IS	THE AND	يَسْدُ مَعَدِيتُ 38 94 94 44		> :000 30⊌ 0007.2, 200 5.	
NEMEDY CON		Price three wards	ENTION A	COVE IS	(rut, huv.)	unia 38 5.5 5 5 :	, and 1836,	n ; 600,384 987;37, 380 f	
HEARDY CHR		THE HITOS	Exercise	COVE 15	LE DIST.	Nanag	***	<u>inte</u>	3/26/90
HEREDY CER IOVIEDGE AND		B.L.	LEGAL COLLEGE	EOVE IS <u>EV TIT</u> L SHEETS	IC DIST.	Naneg SARY	<b>8</b> .	OATE	3/26/90