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Darr Angell #4

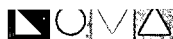
ANNUAL

MONITORING REPORT

YEAR(S):

2009

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**2009  
ANNUAL MONITORING REPORT**

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MAR 25 2010

Environmental Bureau  
Oil Conservation Division

**DARR ANGELL #4**  
**LEA COUNTY, NEW MEXICO**  
**NW ¼ NE ¼ SECTION 11, TOWNSHIP 15 SOUTH, RANGE 37 EAST**  
**SW ¼ SE ¼ SECTION 2, TOWNSHIP 15 SOUTH, RANGE 37 EAST**  
**PLAINS SRS NUMBER: 2001-10876**  
**NMOCD Reference AP-007**

PREPARED FOR:

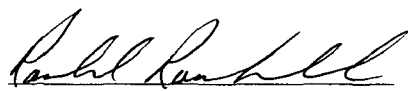
**PLAINS MARKETING, L.P.**  
333 CLAY STREET, SUITE 1600  
HOUSTON, TEXAS 77002

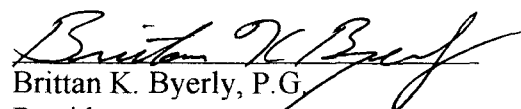


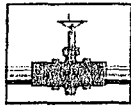
PREPARED BY:

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

**March 2009**

  
Ronald K. Rounsaville  
Senior Project Manager

  
Brittan K. Byerly, P.G.  
President



PLAINS  
ALL AMERICAN

March 22, 2010

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

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Environmental Bureau  
Oil Conservation Division

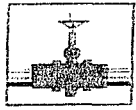
Re: Plains All American – 2009 Annual Monitoring Reports  
12 Sites in Lea County, New Mexico

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:

34 Junc. to Lea Sta.	1R-0386	Section 21, Township 20 South, Range 37 East, Lea County
34 Junction South	1R-0456	Section 02, Township 17 South, Range 36 East, Lea County
Bob Durham	AP-0016	Section 32, Township 19 South, Range 37 East, Lea County
Darr Angell #1	AP-007	Section 11, Township 15 South, Range 37 East, Lea County
Darr Angell #2	AP-007	Section 11, Township 15 South, Range 37 East, Lea County Section 14, Township 15 South, Range 37 East, Lea County
Darr Angell #4	AP-007	Section 11, Township 15 South, Range 37 East, Lea County Section 02, Township 15 South, Range 37 East, Lea County
Denton Station	1R-0234	Section 14, Township 15 South, Range 37 East, Lea County
HDO-90-23	AP-009	Section 06, Township 20 South, Range 37 East, Lea County
SPS-11	GW-0140	Section 18, Township 18 South, Range 36 East, Lea County
TNM 97-04	GW-0294	Section 11, Township 16 South, Range 35 East, Lea County
TNM 97-17	AP-017	Section 21, Township 20 South, Range 37 East, Lea County
TNM 97-18	AP-0013	Section 28, Township 20 South, Range 37 East, Lea County

Nova Safety and Environmental (Nova) prepared these documents and has vouched for their accuracy and completeness, and on behalf of Plains All American, I have personally reviewed the documents and interviewed Nova personnel in 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.



PLAINS  
ALL AMERICAN

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

Sincerely,

Jason Henry  
Remediation Coordinator  
Plains All American

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MAR 25 2010  
Environmental Bureau  
Oil Conservation Division

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosures

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## ENCLOSED ON DATA DISK

2009 Annual Monitoring Report

2009 Tables 1, 2 and 3 – Groundwater Elevation, BTEX, TPH and PAH Concentration Data

2009 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

## **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<sup>st</sup> of each year. Beginning on May 29, 2004, project management responsibilities for the Darr Angell #4 Pipeline Release 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 2009 only. However, historic data tables as well as 2009 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 2009 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. Groundwater from monitor wells containing a thickness of PSH greater than 0.01 foot were sampled during the 4<sup>th</sup> quarter of 2009, as per a NMOCD directive.

## **SITE DESCRIPTION AND BACKGROUND INFORMATION**

The legal description of the site is NW ¼ NE ¼ Section 11, Township 15 South, Range 37 East and SW ¼ SE ¼ Section 2, Township 15 South, Range 37 East. The Darr Angell #4 Release Site is the result of two separate releases originally discovered by EOTT Energy. The dates of discovery are November 9, 1999 and February 2, 2001. According to the 2001 release notification report, an estimated 150 barrels of crude oil was released with 95 barrels recovered. These releases occurred from an 8-inch EOTT pipeline and were attributed to structural failure associated with internal pipeline corrosion. The Release Notification and Corrective Action (Form C-141) is provided in Appendix A.

Following completion of pipeline repair actions, approximately 2,364 cubic yards (cy) of soil was excavated and stockpiled on-site. Of this volume, approximately 684 cubic yards of heavily impacted soil was transported to the Goo-Yea Landfarm (Permit # NM-01-0015) for disposal. Beginning in May 2001, an additional 6,650 cubic yards (cy) of soil was excavated. Stockpiled soil was treated mechanically with a soil shredding machine and fertilizer was incorporated to enhance biodegradation. Previous consultants completed the initial soil remediation and groundwater investigation activities.

In July 2008, monitor well MW-1 was properly plugged and abandoned and replaced with monitor well MW-1A. Currently, sixteen groundwater monitor wells (MW-1A through MW-16) and thirteen product recovery wells (RW-1 through RW-13) are on-site. A pneumatic product recovery system operated onsite throughout 2009. Manual PSH recovery techniques were utilized on a weekly schedule for monitor and recovery wells (exhibiting PSH) not connected to the automated recovery system.

## FIELD ACTIVITIES

### Product Recovery Efforts

A measurable thickness of PSH was recorded in twelve recovery wells (RW-1 through RW-4 and RW-6 through RW-13) during at least one quarter of the reporting period. The average thickness of PSH in the recovery wells displaying PSH was 0.93 feet. The maximum thickness of PSH in monitor wells or recovery wells was 5.77 feet as recorded in monitor well RW-11 on August 19, 2009. PSH data for the 2009 gauging events can be found in Table 1. Approximately 421 gallons (10 barrels) of PSH was recovered from the site by automated and manual methods during the 2009 reporting period. Total recovery since project inception is approximately 12,527 gallons (298 barrels). Recovered PSH was reintroduced into the Plains transportation system at the 34 Junction South Station, near Lovington, New Mexico.

During the 2009 reporting period, automated recovery pumps were located in recovery wells RW-1, RW-2, RW-3, RW-10 and RW-11. Monitor or recovery wells containing PSH and not connected to the automated recovery system are manually bailed on a weekly schedule.

### 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 correspondence dated June 21, 2005.

NMOCD Approved Sampling Schedule					
MW-1A	Annually	MW-11	Annually	RW-4	Quarterly
MW-2	Annually	MW-12	Annually	RW-5	Quarterly
MW-3	Quarterly	MW-13	Annually	RW-6	Quarterly
MW-4	Annually	MW-14	Quarterly	RW-7	Quarterly
MW-5	Annually	MW-15	Quarterly	RW-8	Quarterly
MW-6	Quarterly	MW-16	Quarterly	RW-9	Quarterly
MW-7	Annually			RW10	Quarterly
MW-8	Quarterly	RW-1	Quarterly	RW-11	Quarterly
MW-9	Semi-Annually	RW-2	Quarterly	RW-12	Quarterly
MW-10	Quarterly	RW-3	Quarterly	RW-13	Quarterly

The site monitor wells were gauged and sampled on February 24, May 26, August 19, and December 1, 2009. 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 Grundfos 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 each quarterly sampling event of 2009, are depicted on the

Inferred Groundwater Gradient Maps, Figures 2A-2D. Groundwater elevation data for 2009 is provided as Table 1. Historic groundwater elevation data beginning at project inception is provided on the enclosed data disk.

The most recent Inferred Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.0015 feet/foot to the east as measured between MW-7 and MW-11. This is consistent with data presented on Figures 2A through 2C from earlier in the year. The corrected groundwater elevations ranged between 3728.95 and 3731.99 feet above mean sea level, in MW-4 on December 1, 2009 and in RW-3 on February 24, 2009, respectively.

## **LABORATORY RESULTS**

Recovery well RW-13 contained measurable PSH in the 1<sup>st</sup> quarter of the reporting period and was not sampled. Recovery wells RW-1 through RW-4 and RW-7 through RW-12 contained measurable PSH throughout the reporting period and were not sampled during the first three quarters of 2009. Recovery wells RW-1, RW-3, RW-4, RW-10 and RW-11 were not sampled in the 4<sup>th</sup> quarter due to insufficient groundwater volume in the well following purging of water and PSH.

Groundwater samples obtained during the quarterly sampling events of 2009 were delivered to TraceAnalysis, 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 2009 are summarized in Table 2 and the PAH constituent concentrations for 2009 are summarized in Table 3. Copies of the laboratory reports generated for 2009 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. Analytical results indicate BTEX constituent concentrations were below laboratory method detection limits (MDL) and NMOCD regulatory standards of 0.01 mg/L for benzene, 0.75 mg/L for toluene, 0.75 mg/L for ethylbenzene and 0.62 for xylene, during the 4<sup>th</sup> quarter sampling event. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above MDLs for naphthalene (0.000974 mg/L), which is below WQCC standards.

**Monitor well MW-2** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below laboratory method detection limits (MDL) and NMOCD regulatory standards during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last thirty-four consecutive quarters. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-3** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each



BTEX constituent during all four quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty-one consecutive quarters. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-4** 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 constituent concentrations have been below NMOCD regulatory standards for the last twenty-nine consecutive quarters. PAH analysis during the 4<sup>th</sup> 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 the MDL and NMOCD regulatory standards for each BTEX constituent during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty-eight consecutive quarters. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-6** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during all four quarters of the reporting period. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-7** 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 constituent concentrations have been below NMOCD regulatory standards for the last twenty-eight consecutive quarters. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-8** is sampled on a quarterly schedule. Analytical results indicate benzene concentrations ranged from <0.001 mg/L in the 4<sup>th</sup> quarter to 0.0105 mg/L in the 1<sup>st</sup> quarter of 2009. Benzene concentrations were below NMOCD regulatory standards during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L in the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters to 0.002 mg/L in the 1<sup>st</sup> quarter of 2009. Toluene concentrations were below the NMOCD regulatory standards during the all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0010 mg/L in 4<sup>th</sup> quarter to 0.2160 mg/L in the 1<sup>st</sup> quarter of 2009. Ethylbenzene concentrations were below NMOCD regulatory standards during the all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 3<sup>rd</sup> and 4<sup>th</sup> quarters to 0.1810 mg/L in the 1<sup>st</sup> quarter of 2009. Xylene concentrations were below NMOCD regulatory standards during the all four quarters of the reporting period. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above MDLs for fluorene (0.0617 mg/L), phenanthrene (0.00241 mg/L) and dibenzofuran (0.00402 mg/L), which are below WQCC standards.

**Monitor well MW-9** is sampled on a semi-annual schedule and analytical results indicate benzene, toluene, ethylbenzene and xylene concentrations were below MDL and NMOCD regulatory standards in the 2<sup>nd</sup> and 4<sup>th</sup> quarters of 2009. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last fourteen consecutive quarters. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-10** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during all four quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty-one consecutive quarters. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-11** 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. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty-seven consecutive quarters. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-12** 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 constituent concentrations have been below NMOCD regulatory standards for the last twenty-nine consecutive quarters. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-13** 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. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty-nine consecutive quarters. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-14** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during all four quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty consecutive quarters. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-15** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.1310 mg/L during the 1<sup>st</sup> quarter of 2009. Benzene concentrations were above NMOCD regulatory standards during the

1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup>, 2<sup>nd</sup> and 4<sup>th</sup> quarters to 0.0075 mg/L during the 3<sup>rd</sup> quarter of 2009. Toluene concentrations were below the NMOCD regulatory standards during all four quarters of the reporting period. Ethyl-benzene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.0220 mg/L during the 2<sup>nd</sup> quarter of 2009. Ethyl-benzene concentrations were below the NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from 0.0020 mg/L during the 4<sup>th</sup> quarter to 0.0404 mg/L during the 2<sup>nd</sup> quarter of 2009. Xylene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Monitor well MW-16** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during all four quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty-one consecutive quarters. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

**Recovery well RW-1** is monitored on a quarterly schedule. Recovery well RW-1 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 1.11 feet, 3.24 feet and 0.68 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2009, respectively. RW-1 was not sampled during the 4<sup>th</sup> quarter due to insufficient water volume in the well. PAH analysis was not conducted due to insufficient water volume in the well.

**Recovery well RW-2** is monitored on a quarterly schedule. Recovery well RW-2 was not sampled during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 5.54 feet and 5.37 feet were reported during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2009, respectively. Analytical results indicate benzene concentrations ranged from 1.460 mg/L during the 3<sup>rd</sup> quarter to 3.170 mg/L during the 4<sup>th</sup> quarter of 2009. 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 1.620 mg/L during the 3<sup>rd</sup> quarter to 4.420 mg/L during the 4<sup>th</sup> quarter of 2009. Toluene concentrations were above the NMOCD regulatory standards during 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Ethyl-benzene concentrations ranged from 0.905 mg/L during the 3<sup>rd</sup> quarter to 2.060 mg/L during the 4<sup>th</sup> quarter of 2009. Ethyl-benzene concentrations were above the NMOCD regulatory standards during 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Xylene concentrations ranged from 2.850 mg/L during the 3<sup>rd</sup> quarter to 7.640 mg/L during the 4<sup>th</sup> quarter of 2009. Xylene concentrations were above NMOCD regulatory standards during 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Analytical results indicated a total TPH result of 283.0 mg/L. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for naphthalene (0.808 mg/L), 1-methylnaphthalene (2.17 mg/L) and 2-methylnaphthalene (3.02 mg/L). Additional PAH constituents detected above MDLs include fluorene (0.248 mg/L), phenanthrene (0.336 mg/L) and dibenzofuran (0.145 mg/L), which are below WQCC standards.

**Recovery well RW-3** is monitored on a quarterly schedule. Recovery well RW-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 in the monitor well and was not sampled during the 4<sup>th</sup> quarter due to insufficient water volume in the well. PSH thicknesses of 1.65 feet, 1.65 feet and 1.53 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2009, respectively. PAH analysis was not conducted due to insufficient water volume in the well.

**Recovery well RW-4** is monitored on a quarterly schedule. Recovery well RW-4 was not sampled during any of the four quarterly sampling events due to an absence of groundwater in the recovery well. PAH analysis was not conducted due to an absence of groundwater in the recovery well.

**Recovery well RW-5** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0163 mg/L during the 3<sup>rd</sup> quarter to 0.0240 mg/L during the 2<sup>nd</sup> quarter of 2009. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene concentrations ranged from 0.0146 mg/L during the 4<sup>th</sup> quarter to 0.1060 mg/L during the 2<sup>nd</sup> quarter of 2009. Toluene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.1700 mg/L during the 4<sup>th</sup> quarter to 0.6100 mg/L during the 1<sup>st</sup> quarter of 2009. Ethylbenzene concentrations were below the NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from 0.4810 mg/L during the 4<sup>th</sup> quarter to 0.8060 mg/L during the 2<sup>nd</sup> quarter of 2009. Xylene concentrations were above NMOCD regulatory standards during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of the reporting period. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above MDLs for naphthalene (0.00763 mg/L), 1-methylnaphthalene (0.00624 mg/L), 2-methylnaphthalene (0.00263 mg/L) and dibenzofuran (0.000674 mg/L), which are below WQCC standards.

**Recovery well RW-6** is monitored on a quarterly schedule. Recovery well RW-6 was not sampled during the 1<sup>st</sup> quarter of the reporting period, due to insufficient water volume in the well. Analytical results indicate benzene concentrations ranged from 0.1260 mg/L during the 2<sup>nd</sup> quarter to 0.2730 mg/L during the 4<sup>th</sup> quarter of 2009. Benzene concentrations were above NMOCD regulatory standards during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Toluene concentrations ranged from 0.1430 mg/L during the 2<sup>nd</sup> quarter to 0.5120 mg/L during the 4<sup>th</sup> quarter of 2009. Toluene concentrations were below NMOCD regulatory standards during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Ethylbenzene concentrations ranged from 0.2510 mg/L during the 2<sup>nd</sup> quarter to 1.000 mg/L during the 3<sup>rd</sup> quarter of 2009. Ethylbenzene concentrations were below the NMOCD regulatory standards during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Xylene concentrations ranged from 0.6610 mg/L during the 2<sup>nd</sup> quarter to 2.670 mg/L during the 3<sup>rd</sup> quarter of 2009. Xylene concentrations were above NMOCD regulatory standards during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for naphthalene (0.0382 mg/L), 1-methylnaphthalene (0.0445 mg/L) and 2-methylnaphthalene (0.0553 mg/L). Additional PAH constituents detected above MDLs include fluorene (0.00340 mg/L), phenanthrene (0.00476 mg/L) and dibenzofuran (0.00257 mg/L), which are below WQCC standards.

**Recovery well RW-7** is monitored on a quarterly schedule. Recovery well RW-7 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 0.39 feet, 0.34 feet and 0.09 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2009, respectively. Benzene concentrations were above the NMOCD regulatory standard during the 4<sup>th</sup> quarter of the reporting period with a concentration of 1.210 mg/L. Toluene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 1.380 mg/L. Ethyl-benzene concentrations were below NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.497 mg/L. Xylene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 1.490 mg/L. Analytical results indicated a total TPH result of 17.44 mg/L. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for naphthalene (0.172 mg/L), 1-methylnaphthalene (0.408 mg/L) and 2-methylnaphthalene (0.506 mg/L). Additional PAH constituents detected above MDLs include fluorene (0.0400 mg/L), phenanthrene (0.0570 mg/L) and dibenzofuran (0.0240 mg/L), which are below WQCC standards.

**Recovery well RW-8** is monitored on a quarterly schedule. Recovery well RW-8 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 0.52 feet, 0.51 feet and 0.13 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2009, respectively. Benzene concentrations were above the NMOCD regulatory standard during the 4<sup>th</sup> quarter of the reporting period with a concentration of 1.070 mg/L. Toluene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 1.190 mg/L. Ethyl-benzene concentrations were below NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.466 mg/L. Xylene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 1.470 mg/L. Analytical results indicated a total TPH result of 32.80 mg/L. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for naphthalene (0.0534 mg/L), 1-methylnaphthalene (0.102 mg/L) and 2-methylnaphthalene (0.128 mg/L). Additional PAH constituents detected above MDLs include fluorene (0.0106 mg/L), phenanthrene (0.0145 mg/L) and dibenzofuran (0.00772 mg/L), which are below WQCC standards.

**Recovery well RW-9** is monitored on a quarterly schedule. Recovery well RW-9 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 0.68 feet, 0.67 feet and 0.12 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2009, respectively. Benzene concentrations were above the NMOCD regulatory standard during the 4<sup>th</sup> quarter of the reporting period with a concentration of 2.950 mg/L. Toluene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 1.710 mg/L. Ethyl-benzene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.806 mg/L. Xylene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 2.270 mg/L. Analytical results indicated a total TPH result of 79.70 mg/L. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for naphthalene (0.215 mg/L), 1-methylnaphthalene (0.473 mg/L) and 2-methylnaphthalene (0.625 mg/L). Additional PAH

constituents detected above MDLs include fluorene (0.0488 mg/L), phenanthrene (0.0679 mg/L) and dibenzofuran (0.0320 mg/L), which are below WQCC standards.

**Recovery well RW-10** is monitored on a quarterly schedule. Recovery well RW-10 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 in the monitor well and was not sampled during the 4<sup>th</sup> quarter due to insufficient water volume in the well. PSH thicknesses of 4.21 feet, 0.04 feet and 0.75 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2009, respectively. PAH analysis was not conducted due to insufficient water volume in the well.

**Recovery well RW-11** is monitored on a quarterly schedule. Recovery well RW-11 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 in the monitor well and was not sampled during the 4<sup>th</sup> quarter due to insufficient water volume in the well. PSH thicknesses of 3.77 feet, 5.60 feet and 5.77 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2009, respectively. PAH analysis was not conducted due to insufficient water volume in the well.

**Recovery well RW-12** is monitored on a quarterly schedule. Recovery well RW-12 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 0.36 feet, 0.34 feet and 0.12 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2009, respectively. Benzene concentrations were above the NMOCD regulatory standard during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.513 mg/L. Toluene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.824 mg/L. Ethyl-benzene concentrations were below NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.269 mg/L. Xylene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.863 mg/L. Analytical results indicated a total TPH result of 9.22 mg/L. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for naphthalene (0.049 mg/L), 1-methylnaphthalene (0.112 mg/L) and 2-methylnaphthalene (0.141 mg/L). Additional PAH constituents detected above MDLs include fluorene (0.0127 mg/L), phenanthrene (0.0182 mg/L) and dibenzofuran (0.0081 mg/L), which are below WQCC standards.

**Recovery well RW-13** is monitored on a quarterly schedule. Recovery well RW-13 was not sampled during the 1<sup>st</sup> quarter of the reporting period, due to the presence of PSH. PSH thickness of 0.25 feet was reported during the 1<sup>st</sup> quarter of 2009. Analytical results indicate benzene concentrations ranged from 0.7780 mg/L during the 2<sup>nd</sup> quarter to 1.150 mg/L during the 4<sup>th</sup> quarter of 2009. Benzene concentrations were above NMOCD regulatory standards during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Toluene concentrations ranged from 0.170 mg/L during the 2<sup>nd</sup> quarter to 0.3740 mg/L during the 4<sup>th</sup> quarter of 2009. Toluene concentrations were below NMOCD regulatory standards during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Ethyl-benzene concentrations ranged from 0.3570 mg/L during the 2<sup>nd</sup> quarter to 0.638 mg/L during the 3<sup>rd</sup> quarter of 2009. Ethyl-benzene concentrations were below the NMOCD regulatory standards during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Xylene concentrations ranged from 0.073 mg/L during the 2<sup>nd</sup> quarter to 1.480 mg/L during the 3<sup>rd</sup> quarter of 2009. Xylene concentrations were above NMOCD regulatory standards during the

2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above MDLs for naphthalene (0.00094 mg/L), 1-methylnaphthalene (0.00489 mg/L), 2-methylnaphthalene (0.00337 mg/L), fluorene (0.0013 mg/L), phenanthrene (0.00156 mg/L) and dibenzofuran (0.000891 mg/L), which are below WQCC 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 2009 annual monitoring period. Currently, there are sixteen groundwater monitor wells (MW-1A through MW-16) and thirteen product recovery wells (RW-1 through RW-13) on-site.

Recovery wells RW-1 through RW-4 and RW-7 through RW-12 contained measurable PSH throughout 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. Recovery well RW-13 contained measurable PSH during the 1<sup>st</sup> quarter and was not sampled. Recovery wells RW-1, RW-3, RW-4, RW-10 and RW-11 were not sampled during the 4<sup>th</sup> quarter sampling as per the NMOCD directive, due to insufficient groundwater volume within the wells.

A pneumatic product recovery system operated on-site throughout 2009. Manual PSH recovery techniques were utilized on a weekly schedule for monitor and recovery wells (exhibiting PSH) not connected to the automated system.

Approximately 421 gallons (10 barrels) of PSH was recovered from the site by automated and manual methods during the 2009 reporting period. Total recovery since project inception is approximately 12,527 gallons (298 barrels).

The average thickness of PSH during 2009, in wells containing PSH was 0.93 feet. Fourth quarter groundwater elevation contours (Figure 2D) generated from water level measurements acquired, indicated a general gradient of approximately 0.0015 feet/foot to the east.

Review of laboratory analytical results of the groundwater samples obtained during the 2009 monitoring period indicate the BTEX constituent concentrations are below applicable NMOCD standards in fourteen of the sixteen monitor wells currently on-site. The remaining two monitor wells and thirteen recovery wells contained measurable thicknesses of PSH and were not sampled or exhibited analytical results above the NMOCD regulatory standard during at least one quarterly monitoring event of 2009. Dissolved phase impact appears to be limited to monitor wells MW-8 and MW-15 and recovery wells RW-2, RW-5, RW-6 and RW-13 and to the remaining recovery wells which exhibit PSH. Elevated benzene concentrations exhibited in groundwater samples collected from monitor well MW-15 demonstrated a declining trend during the 2009 reporting period. Monitor wells located upgradient to the north and west of MW-15 (MW-2, MW-9, MW-10 and MW-14) have exhibited concentrations below MDLs for at least the

past fourteen consecutive quarters. Therefore, it appears that the impact to MW-15 could potentially be coming from a separate off-site source.

Groundwater samples from recovery wells RW-2, RW-7, RW-8, RW-9 and RW-12 exhibited elevated TPH concentrations for GRO and DRO. Analytical results on groundwater samples collected indicate PAH concentrations are demonstrating an increasing trend in five recovery wells (RW-2, RW-6, RW-7, RW-8 and RW-9) and a decreasing trend in two monitor wells (MW-6 and MW-8) and three recovery wells (RW-5, RW-12 and RW-13) at the site.

## **ANTICIPATED ACTIONS**

Groundwater monitoring, weekly manual product recovery, automated system PSH recovery and maintenance and system optimization will continue through 2010. An Annual Monitoring Report will be submitted to the NMOCD before April 1, 2011.

Based on the results of the PAH analysis over the past several years, NOVA recommends that further PAH analysis be conducted only on those monitor and recovery wells (MW-8 and RW-5, RW-6 and RW-13) which have historically exhibited elevated constituents near or above the WQCC standards.

## **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.

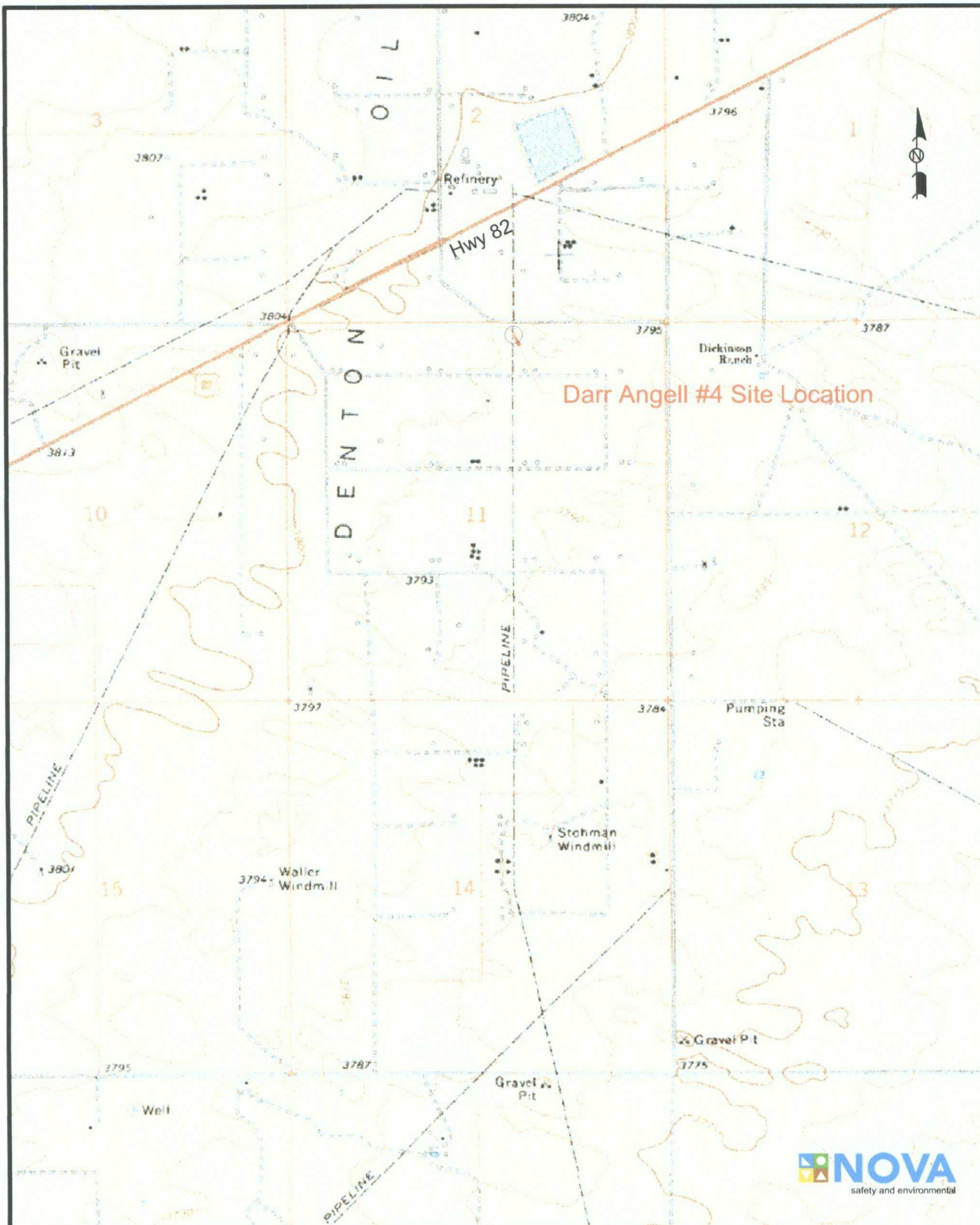
This report has been prepared for the benefit of Plains. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of NOVA and/or Plains.



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## Figures



**Site Location**

USGS Praieview (NM) Topo  
 33° 02' 17.4" N 103° 10' 04.4" W  
 NW 1/4 NE 1/4 Sec 11 T15S R37E  
 SW 1/4 SE 1/4 Sec 2 T15S R37E

NMOCD Ref# AP-007

**Figure 1  
 Site Location Map**

Plains Marketing, L.P.  
 Darr Angell # 4  
 Lea County, NM

**NOVA Safety and Environmental**

Scale: 1"=2000'	Prep By: RKR	Checked By: TKC
September 8, 2008		

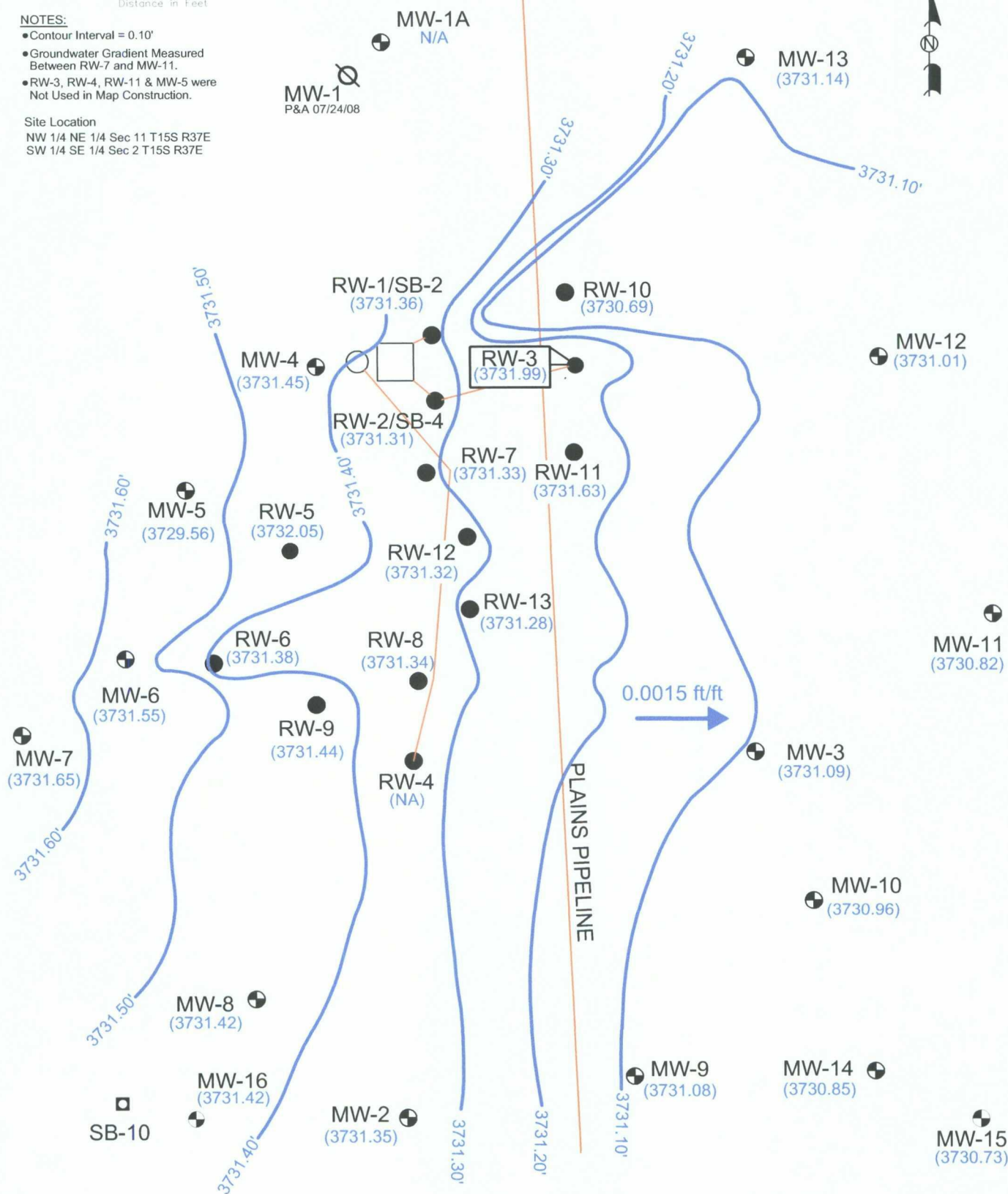


# NOTES:

- Contour Interval = 0.10'
- Groundwater Gradient Measured Between RW-7 and MW-11.
- RW-3, RW-4, RW-11 & MW-5 were Not Used in Map Construction.

## Site Location

NW 1/4 NE 1/4 Sec 11 T15S R37E  
SW 1/4 SE 1/4 Sec 2 T15S R37E



NMOCD Ref# AP-007

## LEGEND:

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Groundwater Elevation Contour Line
- Groundwater Gradient and Magnitude
- (3733.93) Groundwater Elevation (feet)
- Plugged Well
- Poly Tank
- Shed
- (NW) No Groundwater Encountered

Figure 2A  
Inferred Groundwater  
Gradient Map  
(02/24/09)  
Plains Marketing, L.P.  
Darr Angell #4  
Lea County, NM

NOVA Safety and Environmental



Scale: 1"=80'	CAD By: SAT	Checked By: RKR
March 14, 2010	33° 02' 17.4" N 103° 10' 04.4" W	



80 40 0 40 80

Distance in Feet

**NOTES:**

- Contour Interval = 0.20'
- Groundwater Gradient Measured Between MW-7 and MW-11.
- RW-3, RW-4, RW-11 & MW-5 were Not Used in Map Construction.

**Site Location**

NW 1/4 NE 1/4 Sec 11 T15S R37E  
SW 1/4 SE 1/4 Sec 2 T15S R37E

MW-1A  
N/A

MW-1  
P&A 07/24/08

MW-13  
(3730.99)



RW-10  
(3730.37)

RW-1/SB-2  
(3731.34)

MW-4  
(3731.31)

RW-3  
(3731.90)

MW-12  
(3730.86)

RW-2/SB-4  
(3731.18)

MW-5  
(3731.42)

RW-7  
(3731.21)

RW-11  
(3731.17)

RW-5  
(3731.32)

RW-12  
(3731.18)

RW-6  
(3731.24)

RW-8  
(3731.23)

RW-13  
(3731.28)

MW-6  
(3731.39)

RW-9  
(3731.30)

RW-4  
(NA)

0.0015 ft/ft

MW-3  
(3730.91)

MW-7  
(3731.50)

MW-11  
(3730.67)

PLAINS PIPELINE

MW-10  
(3730.79)

MW-8  
(3731.28)

MW-9  
(3730.93)

MW-14  
(3730.65)

SB-10

MW-16  
(3731.31)

MW-2  
(3731.21)

3731.10'

3730.90'

3730.70'

MW-15  
(3730.58)

NMOCD Ref# AP-007

**LEGEND:**

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Groundwater Elevation Contour Line
- 0.001 ft/ft
- Groundwater Gradient and Magnitude
- (3733.93) Groundwater Elevation (feet)
- Plugged Well
- Poly Tank
- Shed
- (NW) No Groundwater Encountered

Figure 2B  
Inferred Groundwater  
Gradient Map  
(05/26/09)  
Plains Marketing, L.P.  
Darr Angell #4  
Lea County, NM

NOVA Safety and Environmental



Scale: 1"=80'

CAD By: SAT

Checked By: RKR

June 19, 2009

33° 02' 17.4" N 103° 10' 04.4" W

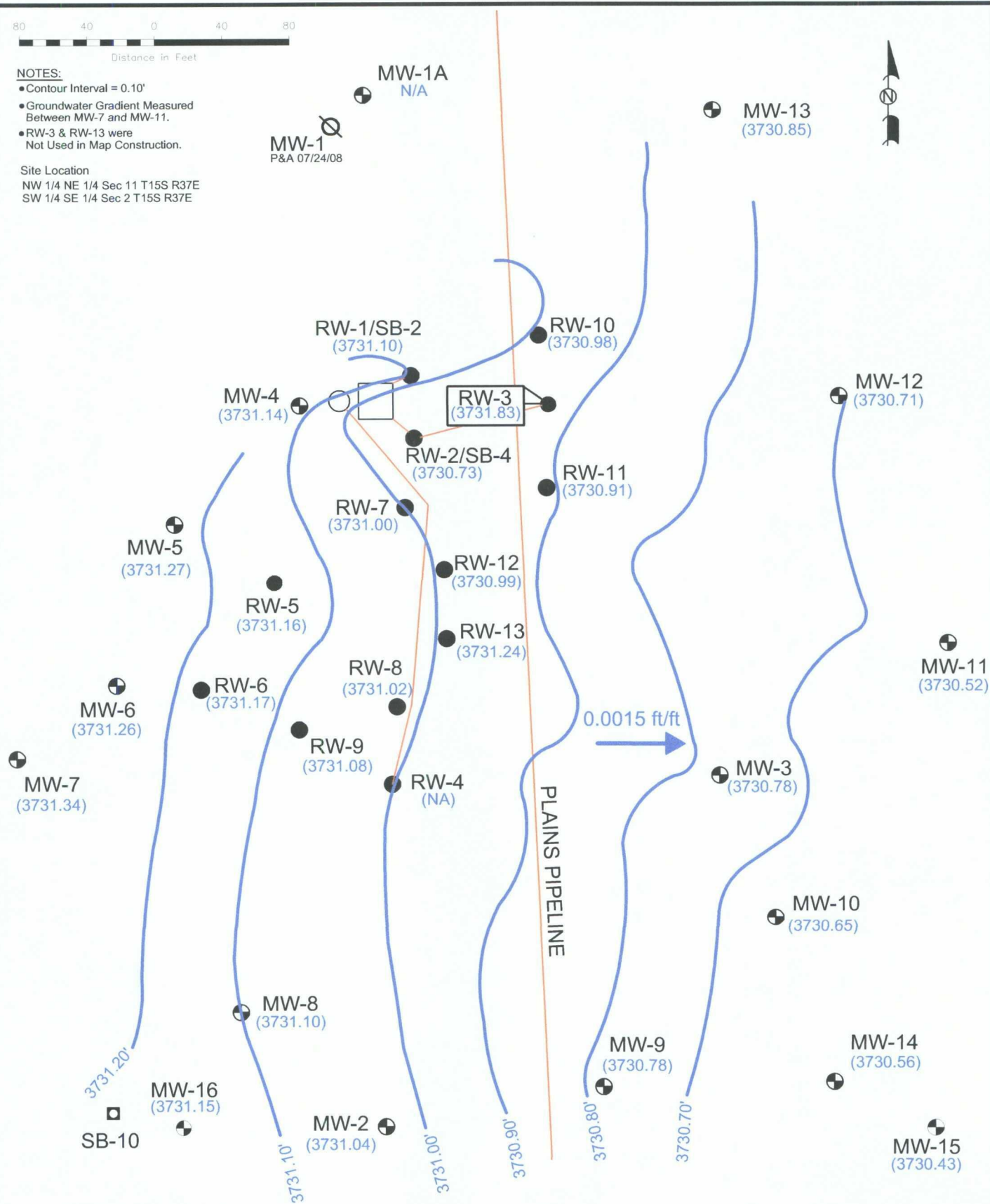


**NOTES:**

- Contour Interval = 0.10'
- Groundwater Gradient Measured Between MW-7 and MW-11.
- RW-3 & RW-13 were Not Used in Map Construction.

**Site Location**

NW 1/4 NE 1/4 Sec 11 T15S R37E  
SW 1/4 SE 1/4 Sec 2 T15S R37E



NMOCD Ref# AP-007

**LEGEND:**

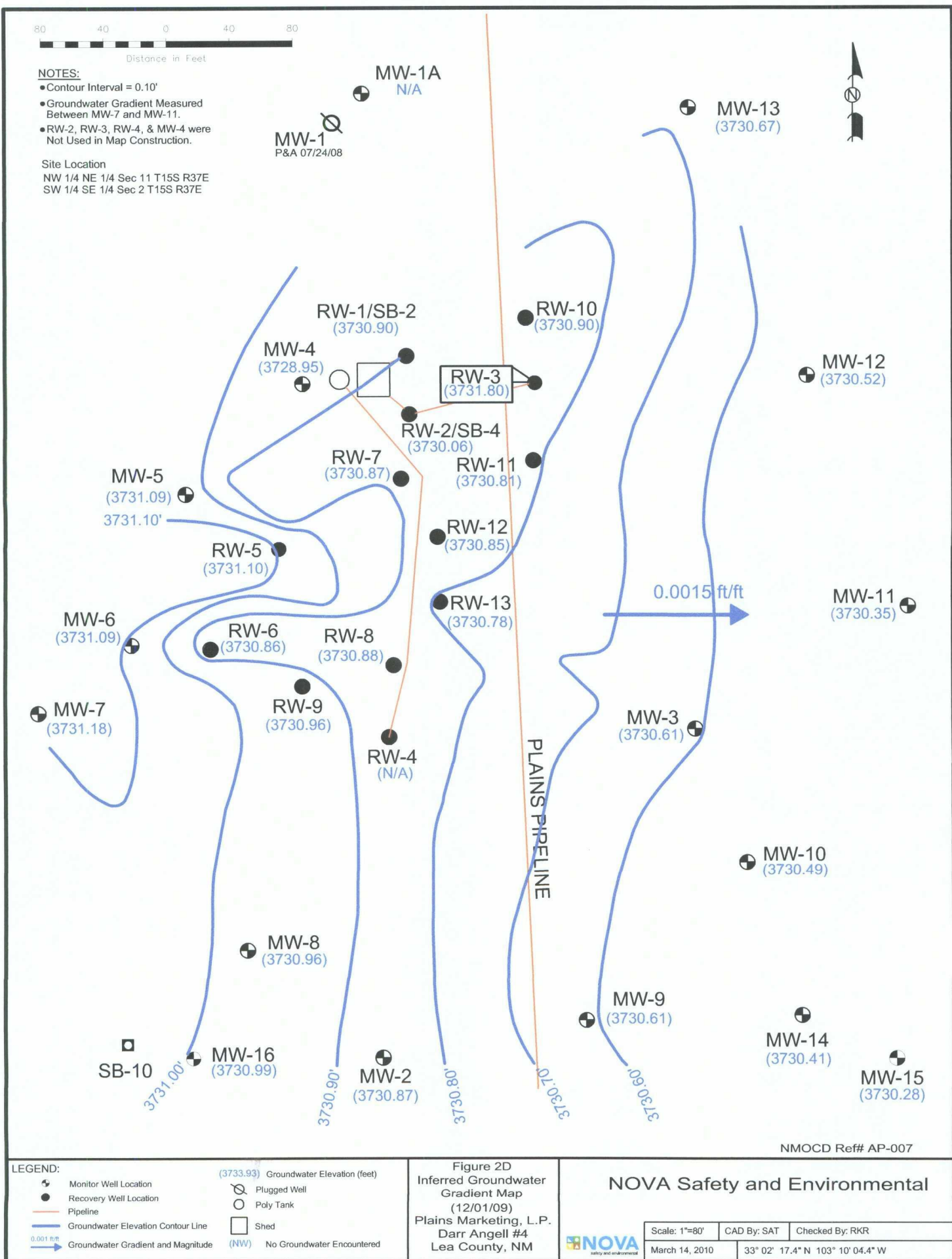
- |  |  |
|--|--|
|  | (3733.93) Groundwater Elevation (feet) |
|  |  |
|  |  |
|  |  |
|  | (NW) No Groundwater Encountered        |

Figure 2C  
Inferred Groundwater  
Gradient Map  
(08/19/09)  
Plains Marketing, L.P.  
Darr Angell #4  
Lea County, NM

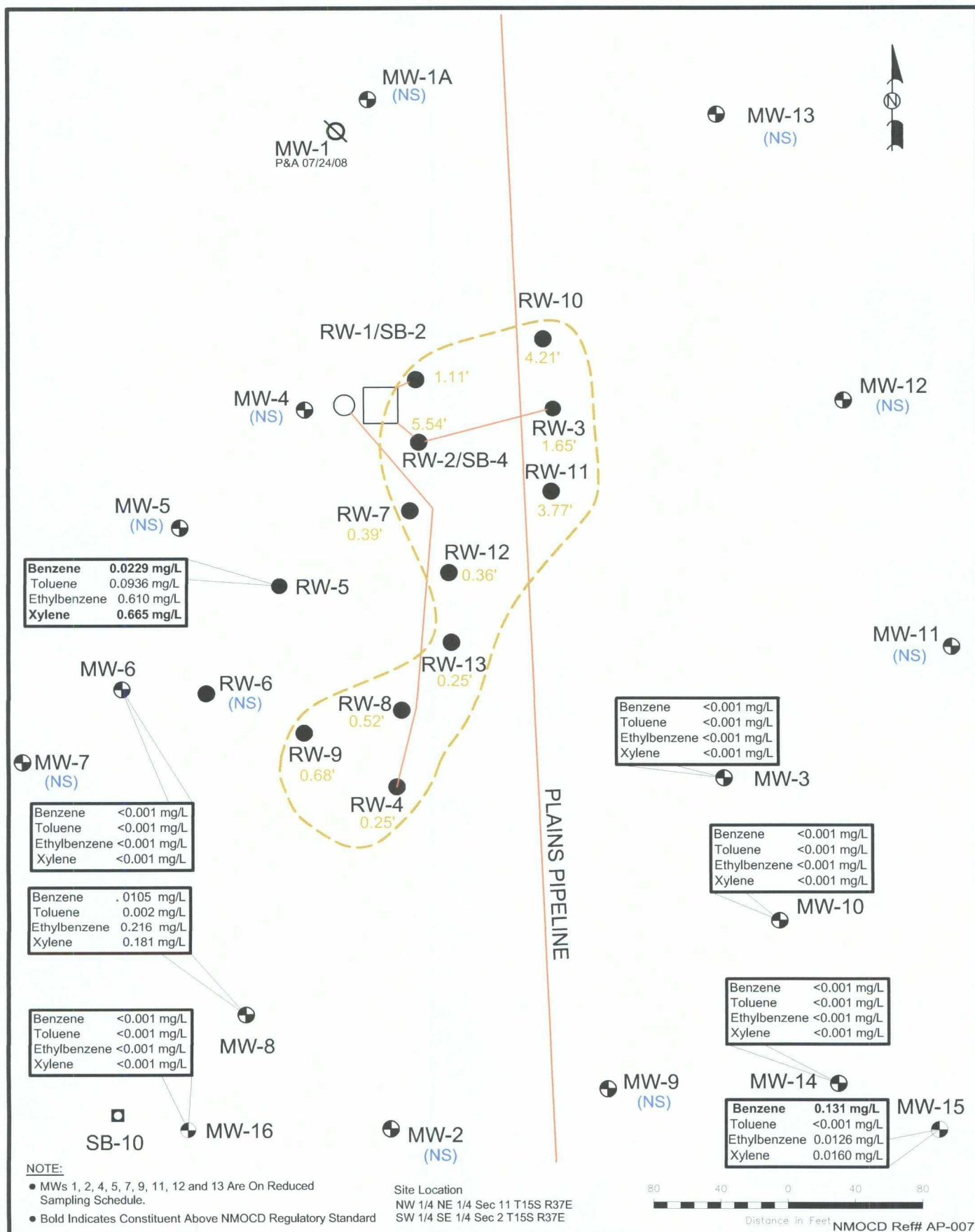
**NOVA Safety and Environmental**



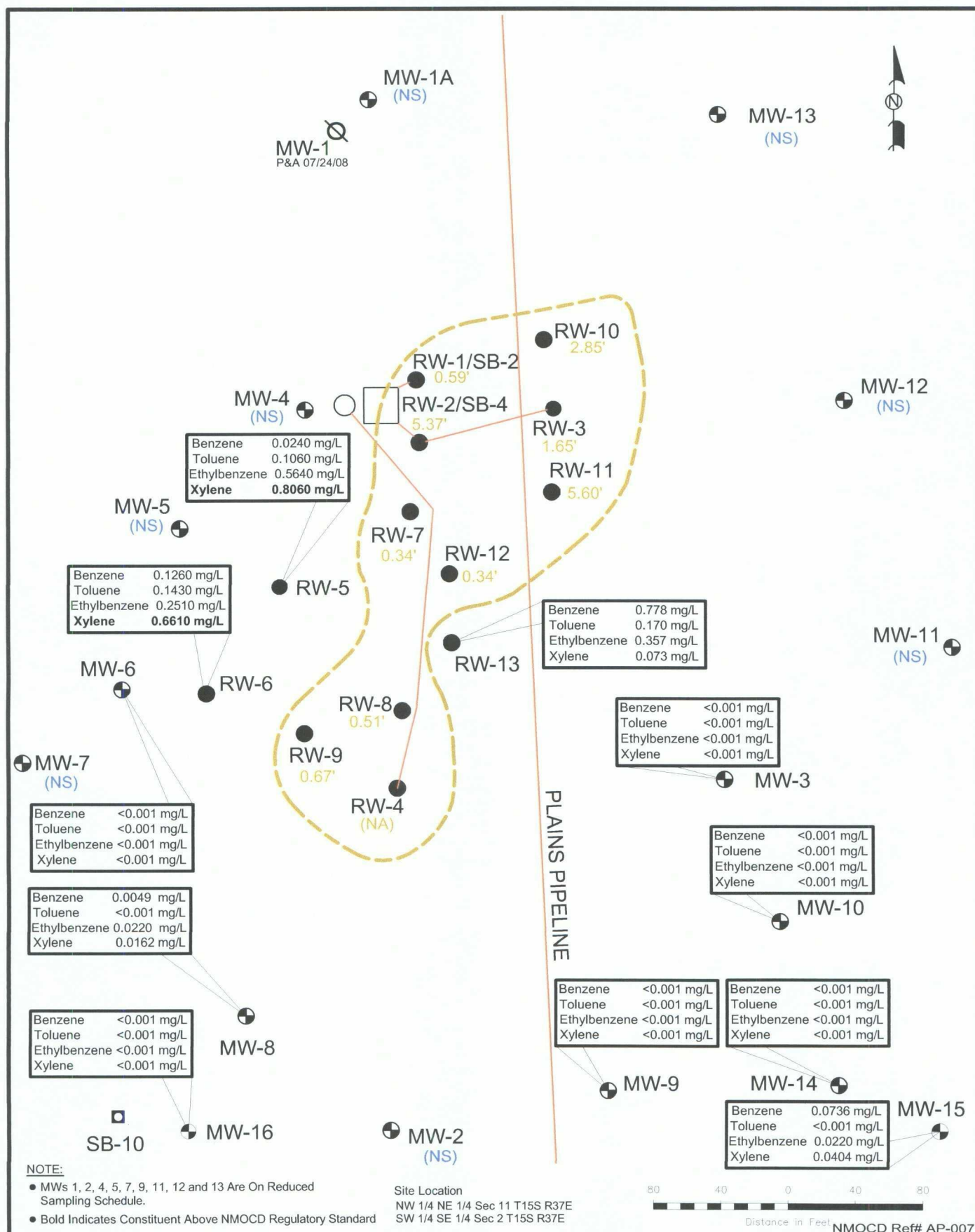
Scale: 1"=80'	CAD By: SAT	Checked By: RKR
October 15, 2009	33° 02' 17.4" N 103° 10' 04.4" W	

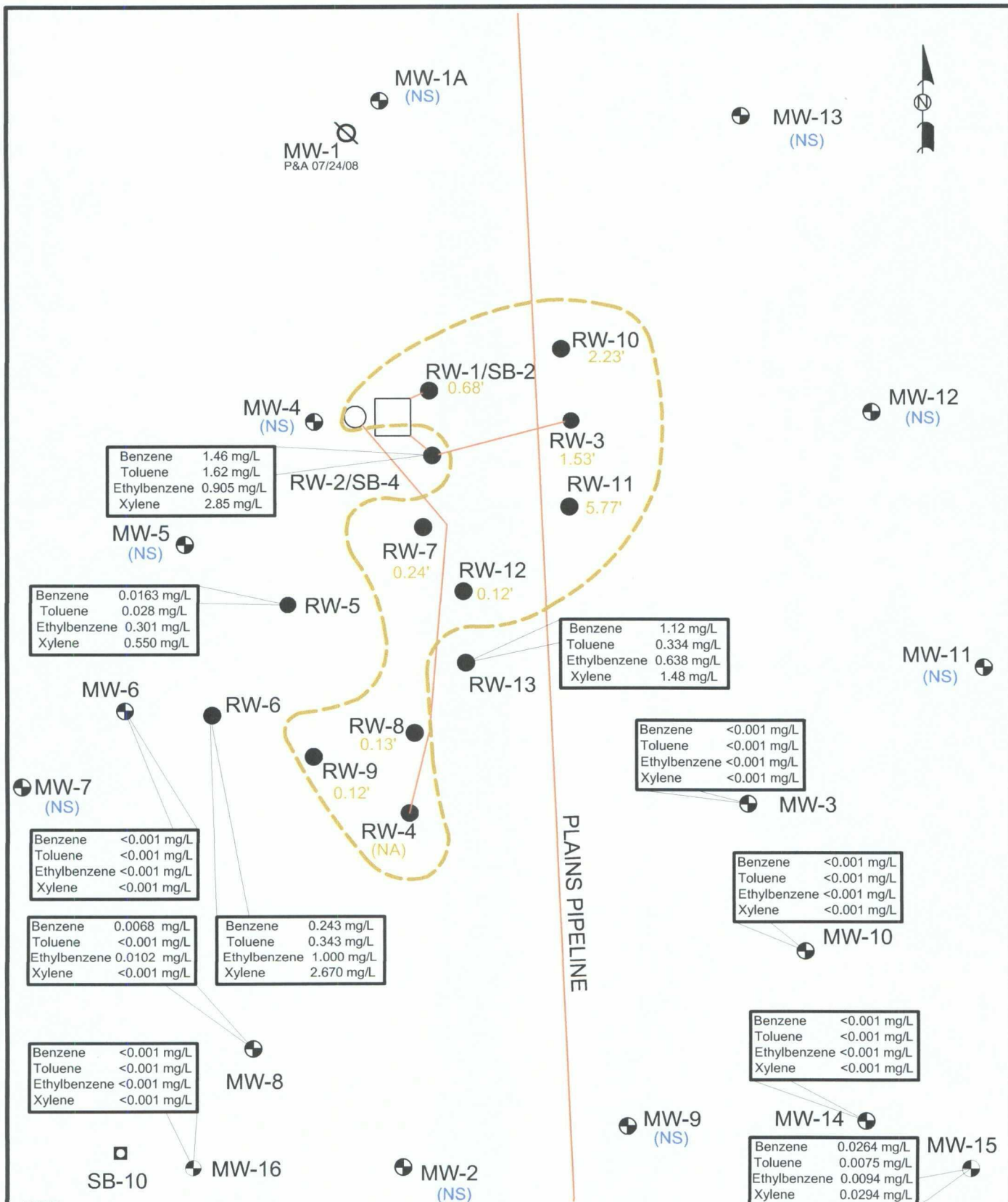












**NOTE:**

- MWs 1, 2, 4, 5, 7, 9, 11, 12 and 13 Are On Reduced Sampling Schedule.
- Bold Indicates Constituent Above NMOCD Regulatory Standard

**LEGEND:**

- Monitoring Well Location
- Recovery Well Location
- Pipeline
- Inferred PSH Extent
- Plugged Well
- Poly Tank
- Shed
- Thickness of PSH (feet)
- (NS) Not Sampled
- (NG) Not Guaged
- <0.001 Constituent Concentration (mg/L)

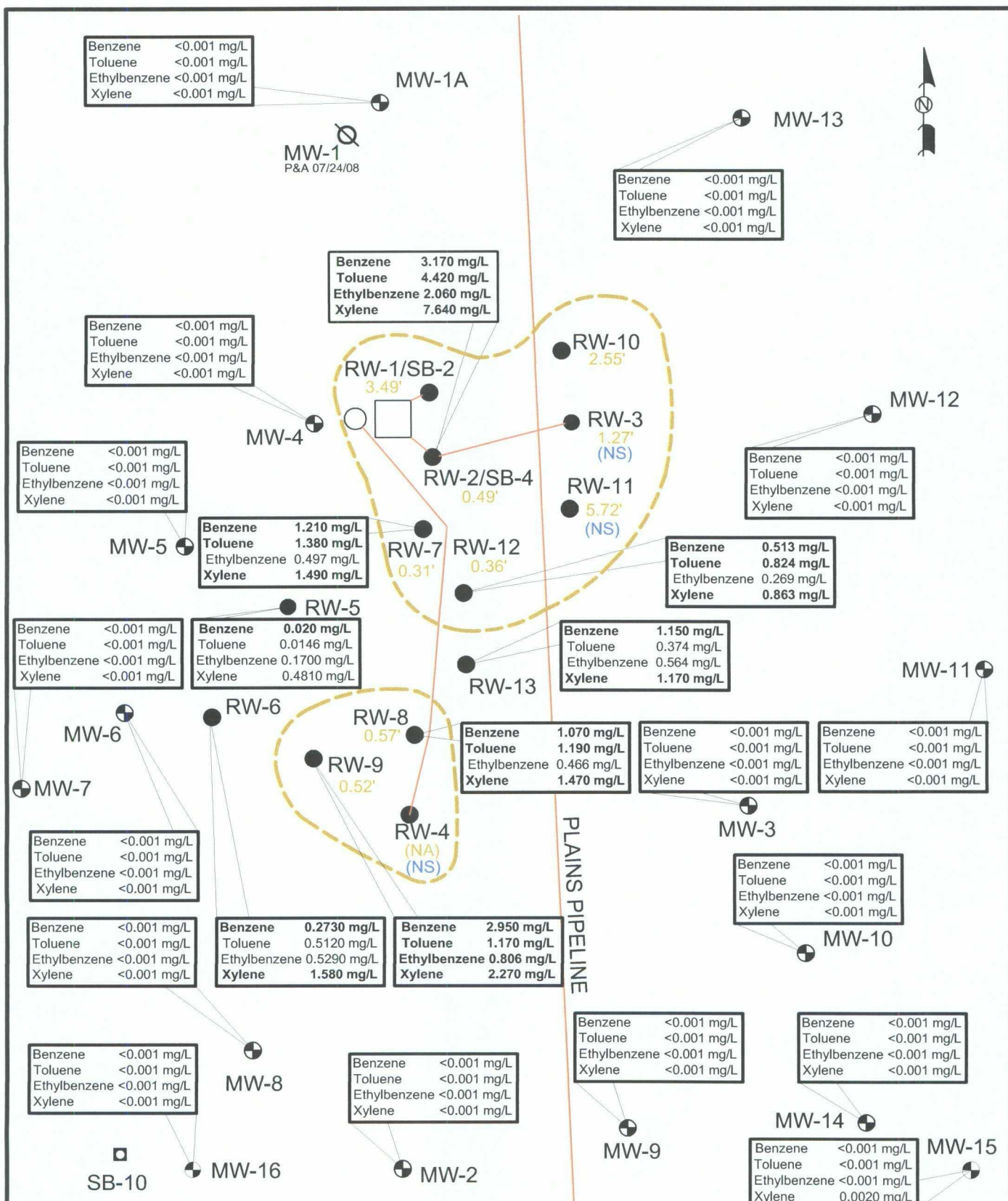
**Site Location**  
NW 1/4 NE 1/4 Sec 11 T15S R37E  
SW 1/4 SE 1/4 Sec 2 T15S R37E

**Figure 3C**  
Groundwater Concentration and Inferred PSH Extent Map (08/19/09)  
Plains Marketing, L.P.  
Darr Angell #4  
Lea County, NM

**NOVA Safety and Environmental**

Scale: 1"=80' CAD By: SAT Checked By: RKR  
October 15, 2009 33° 02' 17.4" N 103° 10' 04.4" W





Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

MW-1A  
MW-1  
P&A 07/24/08

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

MW-13

Benzene 3.170 mg/L  
Toluene 4.420 mg/L  
Ethylbenzene 2.060 mg/L  
Xylene 7.640 mg/L

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

RW-1/SB-2  
3.49'

RW-10  
2.55'

MW-12

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

MW-4

RW-2/SB-4  
0.49'

RW-3  
1.27' (NS)

RW-11  
5.72' (NS)

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

MW-5

Benzene 1.210 mg/L  
Toluene 1.380 mg/L  
Ethylbenzene 0.497 mg/L  
Xylene 1.490 mg/L

RW-7  
0.31'

RW-12  
0.36'

Benzene 0.513 mg/L  
Toluene 0.824 mg/L  
Ethylbenzene 0.269 mg/L  
Xylene 0.863 mg/L

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

MW-6

Benzene 0.020 mg/L  
Toluene 0.0146 mg/L  
Ethylbenzene 0.1700 mg/L  
Xylene 0.4810 mg/L

RW-5

RW-13

Benzene 1.150 mg/L  
Toluene 0.374 mg/L  
Ethylbenzene 0.564 mg/L  
Xylene 1.170 mg/L

MW-11

Benzene 1.070 mg/L  
Toluene 1.190 mg/L  
Ethylbenzene 0.466 mg/L  
Xylene 1.470 mg/L

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

MW-7

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

RW-6

RW-8  
0.57'

RW-9  
0.52'

RW-4  
(NA) (NS)

Benzene 1.070 mg/L  
Toluene 1.190 mg/L  
Ethylbenzene 0.466 mg/L  
Xylene 1.470 mg/L

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

MW-3

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

MW-10

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

Benzene 0.2730 mg/L  
Toluene 0.5120 mg/L  
Ethylbenzene 0.5290 mg/L  
Xylene 1.580 mg/L

Benzene 2.950 mg/L  
Toluene 1.170 mg/L  
Ethylbenzene 0.806 mg/L  
Xylene 2.270 mg/L

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

MW-8

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

MW-9

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene <0.001 mg/L

MW-14

Benzene <0.001 mg/L  
Toluene <0.001 mg/L  
Ethylbenzene <0.001 mg/L  
Xylene 0.0020 mg/L

MW-15

SB-10


MW-16

MW-2

PLAINS PIPELINE

80 40 0 40 80

Distance in Feet NMOCD Ref# AP-007



# Tables

TABLE 1

## 2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW-1A	02/24/09		-	69.11	0.00	0.00
MW-1A	05/26/09		-	69.29	0.00	0.00
MW-1A	08/19/09		-	69.41	0.00	0.00
MW-1A	12/01/09		-	69.59	0.00	0.00
MW - 2	02/24/09	3,796.33	-	64.98	0.00	3,731.35
MW - 2	05/26/09	3,796.33	-	65.12	0.00	3,731.21
MW - 2	08/19/09	3,796.33	-	65.29	0.00	3,731.04
MW - 2	12/01/09	3,796.33	-	65.46	0.00	3,730.87
MW - 3	02/24/09	3,798.10	-	67.01	0.00	3,731.09
MW - 3	05/26/09	3,798.10	-	67.19	0.00	3,730.91
MW - 3	08/19/09	3,798.10	-	67.32	0.00	3,730.78
MW - 3	12/01/09	3,798.10	-	67.49	0.00	3,730.61
MW - 4	02/24/09	3,797.73	-	66.28	0.00	3,731.45
MW - 4	05/26/09	3,797.73	-	66.42	0.00	3,731.31
MW - 4	08/19/09	3,797.73	-	66.59	0.00	3,731.14
MW - 4	12/01/09	3,797.73	-	68.78	0.00	3,728.95
MW - 5	02/24/09	3,797.23	-	67.67	0.00	3,729.56
MW - 5	05/26/09	3,797.23	-	65.81	0.00	3,731.42
MW - 5	08/19/09	3,797.23	-	65.96	0.00	3,731.27
MW - 5	12/01/09	3,797.23	-	66.14	0.00	3,731.09
MW - 6	01/09/09	3,796.51	-	64.92	0.00	3,731.59
MW - 6	01/13/09	3,796.51	-	64.90	0.00	3,731.61
MW - 6	01/20/09	3,796.51	-	64.91	0.00	3,731.60
MW - 6	02/17/09	3,796.51	-	64.91	0.00	3,731.60
MW - 6	02/24/09	3,796.51	-	64.96	0.00	3,731.55
MW - 6	03/03/09	3,796.51	-	64.98	0.00	3,731.53
MW - 6	03/10/09	3,796.51	-	65.03	0.00	3,731.48
MW - 6	03/23/09	3,796.51	-	65.06	0.00	3,731.45
MW - 6	03/31/09	3,796.51	-	65.08	0.00	3,731.43
MW - 6	04/07/09	3,796.51	-	65.03	0.00	3,731.48
MW - 6	04/14/09	3,796.51	-	65.03	0.00	3,731.48
MW - 6	04/21/09	3,796.51	-	65.07	0.00	3,731.44
MW - 6	04/28/09	3,796.51	-	66.05	0.00	3,730.46
MW - 6	05/12/09	3,796.51	-	65.09	0.00	3,731.42
MW - 6	05/19/09	3,796.51	-	65.07	0.00	3,731.44
MW - 6	05/26/09	3,796.51	-	65.12	0.00	3,731.39
MW - 6	05/26/09	3,796.51	-	65.12	0.00	3,731.39
MW - 6	06/09/09	3,796.51	-	65.13	0.00	3,731.38
MW - 6	06/16/09	3,796.51	-	65.13	0.00	3,731.38
MW - 6	06/22/09	3,796.51	-	65.13	0.00	3,731.38
MW - 6	06/30/09	3,796.51	-	65.16	0.00	3,731.35
MW - 6	07/07/09	3,796.51	-	65.16	0.00	3,731.35
MW - 6	07/13/09	3,796.51	-	65.15	0.00	3,731.36
MW - 6	07/16/09	3,796.51	-	65.21	0.00	3,731.30
MW - 6	07/21/09	3,796.51	-	66.19	0.00	3,730.32
MW - 6	07/28/09	3,796.51	-	65.20	0.00	3,731.31

TABLE 1

## 2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 6	08/04/09	3,796.51	-	65.20	0.00	3,731.31
MW - 6	08/13/09	3,796.51	-	65.18	0.00	3,731.33
MW - 6	08/18/09	3,796.51	-	65.23	0.00	3,731.28
MW - 6	08/19/09	3,796.51	-	65.25	0.00	3,731.26
MW - 6	08/24/09	3,796.51	-	65.26	0.00	3,731.25
MW - 6	09/01/09	3,796.51	-	65.23	0.00	3,731.28
MW - 6	09/08/09	3,796.51	-	65.23	0.00	3,731.28
MW - 6	09/14/09	3,796.51	-	65.27	0.00	3,731.24
MW - 6	09/21/09	3,796.51	-	65.30	0.00	3,731.21
MW - 6	09/28/09	3,796.51	-	65.29	0.00	3,731.22
MW - 6	10/04/09	3,796.51	-	65.32	0.00	3,731.19
MW - 6	10/12/09	3,796.51	-	65.30	0.00	3,731.21
MW - 6	10/27/09	3,796.51	-	65.32	0.00	3,731.19
MW - 6	11/02/09	3,796.51	-	65.35	0.00	3,731.16
MW - 6	12/01/09	3,796.51	-	65.42	0.00	3,731.09
MW - 7	02/24/09	3,796.16	-	64.51	0.00	3,731.65
MW - 7	05/26/09	3,796.16	-	64.65	0.00	3,731.51
MW - 7	08/19/09	3,796.16	-	64.82	0.00	3,731.34
MW - 7	12/01/09	3,796.16	-	64.98	0.00	3,731.18
MW - 8	02/24/09	3,795.89	-	64.47	0.00	3,731.42
MW - 8	05/26/09	3,795.89	-	64.61	0.00	3,731.28
MW - 8	08/19/09	3,795.89	-	64.79	0.00	3,731.10
MW - 8	12/01/09	3,795.89	-	64.93	0.00	3,730.96
MW - 9	02/24/09	3,795.66	-	64.58	0.00	3,731.08
MW - 9	05/26/09	3,795.66	-	64.73	0.00	3,730.93
MW - 9	08/19/09	3,795.66	-	64.88	0.00	3,730.78
MW - 9	12/01/09	3,795.66	-	65.05	0.00	3,730.61
MW - 10	02/24/09	3,796.23	-	65.27	0.00	3,730.96
MW - 10	05/26/09	3,796.23	-	65.44	0.00	3,730.79
MW - 10	08/19/09	3,796.23	-	65.58	0.00	3,730.65
MW - 10	12/01/09	3,796.23	-	65.74	0.00	3,730.49
MW - 11	02/24/09	3,796.58	-	65.76	0.00	3,730.82
MW - 11	05/26/09	3,796.58	-	65.91	0.00	3,730.67
MW - 11	08/19/09	3,796.58	-	66.06	0.00	3,730.52
MW - 11	12/01/09	3,796.58	-	66.23	0.00	3,730.35
MW - 12	02/24/09	3,798.03	-	67.02	0.00	3,731.01
MW - 12	05/26/09	3,798.03	-	67.17	0.00	3,730.86
MW - 12	08/19/09	3,798.03	-	67.32	0.00	3,730.71
MW - 12	12/01/09	3,798.03	-	67.51	0.00	3,730.52
MW - 13	02/24/09	3,799.65	-	68.51	0.00	3,731.14
MW - 13	05/26/09	3,799.65	-	68.66	0.00	3,730.99
MW - 13	08/19/09	3,799.65	-	68.80	0.00	3,730.85
MW - 13	12/01/09	3,799.65	-	68.98	0.00	3,730.67

TABLE 1

## 2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 14	02/24/09	3,796.10	-	65.25	0.00	3,730.85
MW - 14	05/26/09	3,796.10	-	65.45	0.00	3,730.65
MW - 14	08/19/09	3,796.10	-	65.54	0.00	3,730.56
MW - 14	12/01/09	3,796.10	-	65.69	0.00	3,730.41
MW-15	02/24/09	3,795.96	-	65.23	0.00	3,730.73
MW-15	05/26/09	3,795.96	-	65.38	0.00	3,730.58
MW-15	08/19/09	3,795.96	-	65.53	0.00	3,730.43
MW-15	11/09/09	3,795.96	-	66.65	0.00	3,729.31
MW-15	11/23/09	3,795.96	-	65.70	0.00	3,730.26
MW-15	11/30/09	3,795.96	-	65.69	0.00	3,730.27
MW-15	12/01/09	3,795.96	-	65.68	0.00	3,730.28
MW-16	02/24/09	3,795.93	-	64.51	0.00	3,731.42
MW-16	05/26/09	3,795.93	-	64.62	0.00	3,731.31
MW-16	08/19/09	3,795.93	-	64.78	0.00	3,731.15
MW-16	12/01/09	3,795.93	-	64.94	0.00	3,730.99
RW - 1	02/24/09	3,797.66	66.13	67.24	1.11	3,731.36
RW - 1	03/23/09	3,797.66	66.03	68.02	1.99	3,731.33
RW - 1	05/26/09	3,797.66	65.83	69.07	3.24	3,731.34
RW - 1	06/23/09	3,797.66	66.42	67.01	0.59	3,731.15
RW - 1	08/19/09	3,797.66	66.46	67.14	0.68	3,731.10
RW - 1	12/01/09	3,797.66	66.24	69.73	3.49	3,730.90
RW - 2	02/24/09	3,797.60	65.46	71.00	5.54	3,731.31
RW - 2	03/23/09	3,797.60	65.46	70.97	5.51	3,731.31
RW - 2	05/26/09	3,797.60	65.61	70.98	5.37	3,731.18
RW - 2	08/19/09	3,797.60	sheen	66.87	0.00	3,730.73
RW - 2	12/01/09	3,797.60	67.47	67.96	0.49	3,730.06
RW - 3	02/24/09	3,798.81	66.57	68.22	1.65	3,731.99
RW - 3	03/23/09	3,798.81	66.47	68.00	1.53	3,732.11
RW - 3	05/26/09	3,798.81	66.59	68.24	1.65	3,731.97
RW - 3	06/23/09	3,798.81	66.63	68.23	1.60	3,731.94
RW - 3	08/19/09	3,798.81	66.75	68.28	1.53	3,731.83
RW - 3	12/01/09	3,798.81	66.82	68.09	1.27	3,731.80
RW - 4	01/09/09	3,798.34	65.89	ND		
RW - 4	01/13/09	3,798.34	65.88	ND		
RW - 4	01/20/09	3,798.34	65.89	ND		
RW - 4	02/02/09	3,798.34	65.93	ND		
RW - 4	02/17/09	3,798.34	65.92	ND		
RW - 4	02/24/09	3,798.34	65.94	ND		
RW - 4	03/03/09	3,798.34	65.95	ND		
RW - 4	03/10/09	3,798.34	65.98	ND		
RW - 4	03/23/09	3,798.34	66.01	ND		
RW - 4	03/31/09	3,798.34	66.00	ND		
RW - 4	04/07/09	3,798.34	66.02	ND		
RW - 4	04/14/09	3,798.34	66.02	ND		
RW - 4	04/21/09	3,798.34	66.06	ND		

TABLE 1

## 2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
RW - 4	04/28/09	3,798.34	66.07	ND		
RW - 4	05/12/09	3,798.34	66.07	ND		
RW - 4	05/19/09	3,798.34	66.09	ND		
RW - 4	05/26/09	3,798.34	66.09	ND		
RW - 4	05/26/09	3,798.34	66.09	ND		
RW - 4	06/09/09	3,798.34	66.12	ND		
RW - 4	06/16/09	3,798.34	66.13	ND		
RW - 4	06/22/09	3,798.34	66.14	ND		
RW - 4	06/23/09	3,798.34	66.29	ND		
RW - 4	06/30/09	3,798.34	66.15	ND		
RW - 4	07/07/09	3,798.34	66.16	ND		
RW - 4	07/13/09	3,798.34	66.18	ND		
RW - 4	07/16/09	3,798.34	66.23	ND		
RW - 4	07/21/09	3,798.34	66.20	ND		
RW - 4	07/28/09	3,798.34	66.20	ND		
RW - 4	08/04/09	3,798.34	66.24	ND		
RW - 4	08/13/09	3,798.34	66.22	ND		
RW - 4	08/18/09	3,798.34	66.44	ND		
RW - 4	08/19/09	3,798.34	66.35	ND		
RW - 4	08/24/09	3,798.34	66.35	ND		
RW - 4	09/01/09	3,798.34	66.26	ND		
RW - 4	09/08/09	3,798.34	66.26	ND		
RW - 4	09/14/09	3,798.34	66.30	ND		
RW - 4	09/21/09	3,798.34	66.31	ND		
RW - 4	09/28/09	3,798.34	66.30	ND		
RW - 4	10/04/09	3,798.34	66.32	ND		
RW - 4	10/12/09	3,798.34	66.34	ND		
RW - 4	10/27/09	3,798.34	66.34	ND		
RW - 4	11/02/09	3,798.34	66.38	ND		
RW - 4	11/09/09	3,798.34	66.38	ND		
RW - 4	11/16/09	3,798.34	60.69	ND		
RW - 4	11/23/09	3,798.34	66.40	ND		
RW - 4	11/30/09	3,798.34	66.42	ND		
RW - 4	12/01/09	3,798.34	66.42	ND		
RW - 5	02/24/09	3,797.60	-	66.13	0.00	3,731.47
RW - 5	05/26/09	3,797.60	-	66.28	0.00	3,731.32
RW - 5	08/19/09	3,797.60	-	66.44	0.00	3,731.16
RW - 5	11/02/09	3,797.60	-	66.56	0.00	3,731.04
RW - 5	11/09/09	3,797.60	-	66.56	0.00	3,731.04
RW - 5	11/23/09	3,797.60	-	66.59	0.00	3,731.01
RW - 5	11/30/09	3,797.60	-	66.50	0.00	3,731.10
RW - 5	12/01/09	3,797.60	-	66.50	0.00	3,731.10
RW - 6	01/09/09	3,797.28	65.68	65.91	0.23	3,731.57
RW - 6	01/13/09	3,797.28	65.65	65.95	0.30	3,731.59
RW - 6	01/20/09	3,797.28	65.68	65.86	0.18	3,731.57
RW - 6	02/02/09	3,797.28	65.91	65.92	0.01	3,731.37
RW - 6	02/17/09	3,797.28	-	65.90	0.00	3,731.38
RW - 6	02/24/09	3,797.28	-	65.90	0.00	3,731.38
RW - 6	03/03/09	3,797.28	-	65.89	0.00	3,731.39



TABLE 1

## 2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
RW - 6	03/10/09	3,797.28	-	65.84	0.00	3,731.44
RW - 6	03/23/09	3,797.28	-	66.06	0.00	3,731.22
RW - 6	03/31/09	3,797.28	-	65.94	0.00	3,731.34
RW - 6	04/07/09	3,797.28	-	65.87	0.00	3,731.41
RW - 6	04/14/09	3,797.28	-	65.99	0.00	3,731.29
RW - 6	04/21/09	3,797.28	-	65.99	0.00	3,731.29
RW - 6	04/28/09	3,797.28	-	66.04	0.00	3,731.24
RW - 6	05/12/09	3,797.28	-	66.14	0.00	3,731.14
RW - 6	05/19/09	3,797.28	-	66.03	0.00	3,731.25
RW - 6	05/26/09	3,797.28	-	66.04	0.00	3,731.24
RW - 6	05/26/09	3,797.28	-	66.04	0.00	3,731.24
RW - 6	06/09/09	3,797.28	-	66.08	0.00	3,731.20
RW - 6	06/16/09	3,797.28	-	66.09	0.00	3,731.19
RW - 6	06/22/09	3,797.28	-	66.07	0.00	3,731.21
RW - 6	06/30/09	3,797.28	-	66.10	0.00	3,731.18
RW - 6	07/07/09	3,797.28	-	66.11	0.00	3,731.17
RW - 6	07/13/09	3,797.28	-	66.11	0.00	3,731.17
RW - 6	07/16/09	3,797.28	-	66.05	0.00	3,731.23
RW - 6	07/21/09	3,797.28	-	66.09	0.00	3,731.19
RW - 6	07/28/09	3,797.28	-	66.13	0.00	3,731.15
RW - 6	08/04/09	3,797.28	-	66.16	0.00	3,731.12
RW - 6	08/13/09	3,797.28	-	66.14	0.00	3,731.14
RW - 6	08/18/09	3,797.28	-	66.24	0.00	3,731.04
RW - 6	08/19/09	3,797.28	-	66.11	0.00	3,731.17
RW - 6	08/24/09	3,797.28	-	66.10	0.00	3,731.18
RW - 6	09/01/09	3,797.28	-	66.11	0.00	3,731.17
RW - 6	09/08/09	3,797.28	-	66.17	0.00	3,731.11
RW - 6	09/14/09	3,797.28	-	66.14	0.00	3,731.14
RW - 6	09/21/09	3,797.28	-	66.24	0.00	3,731.04
RW - 6	09/28/09	3,797.28	-	66.18	0.00	3,731.10
RW - 6	10/04/09	3,797.28	-	66.23	0.00	3,731.05
RW - 6	10/12/09	3,797.28	-	66.20	0.00	3,731.08
RW - 6	10/27/09	3,797.28	-	66.23	0.00	3,731.05
RW - 6	11/02/09	3,797.28	-	66.30	0.00	3,730.98
RW - 6	11/09/09	3,797.28	-	66.32	0.00	3,730.96
RW - 6	11/16/09	3,797.28	-	66.25	0.00	3,731.03
RW - 6	11/23/09	3,797.28	-	66.28	0.00	3,731.00
RW - 6	11/30/09	3,797.28	-	66.42	0.00	3,730.86
RW - 6	12/01/09	3,797.28	-	66.42	0.00	3,730.86
RW - 7	01/09/09	3,797.43	65.93	66.52	0.59	3,731.38
RW - 7	01/13/09	3,797.43	65.94	66.23	0.29	3,731.43
RW - 7	01/20/09	3,797.43	65.92	66.35	0.43	3,731.42
RW - 7	02/02/09	3,797.43	65.91	66.62	0.71	3,731.38
RW - 7	02/17/09	3,797.43	65.94	66.66	0.72	3,731.35
RW - 7	02/24/09	3,797.43	66.02	66.41	0.39	3,731.33
RW - 7	03/03/09	3,797.43	66.02	66.39	0.37	3,731.34
RW - 7	03/10/09	3,797.43	66.04	66.48	0.44	3,731.30
RW - 7	03/23/09	3,797.43	66.01	66.80	0.79	3,731.26
RW - 7	03/31/09	3,797.43	66.06	66.48	0.42	3,731.29
RW - 7	04/07/09	3,797.43	66.08	66.48	0.40	3,731.27

TABLE 1

## 2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
RW - 7	04/14/09	3,797.43	66.07	66.49	0.42	3,731.28
RW - 7	04/21/09	3,797.43	66.11	66.51	0.40	3,731.24
RW - 7	04/28/09	3,797.43	66.12	66.53	0.41	3,731.23
RW - 7	05/12/09	3,797.43	66.07	66.78	0.71	3,731.22
RW - 7	05/19/09	3,797.43	66.13	66.48	0.35	3,731.23
RW - 7	05/26/09	3,797.43	66.15	66.49	0.34	3,731.21
RW - 7	05/26/09	3,797.43	66.15	66.49	0.34	3,731.21
RW - 7	06/09/09	3,797.43	66.11	66.79	0.68	3,731.18
RW - 7	06/16/09	3,797.43	66.22	66.57	0.35	3,731.14
RW - 7	06/22/09	3,797.43	66.22	66.54	0.32	3,731.15
RW - 7	06/23/09	3,797.43	66.29	66.36	0.07	3,731.13
RW - 7	06/30/09	3,797.43	66.22	66.54	0.32	3,731.15
RW - 7	07/07/09	3,797.43	66.23	66.56	0.33	3,731.13
RW - 7	07/13/09	3,797.43	66.23	66.51	0.28	3,731.14
RW - 7	07/16/09	3,797.43	66.29	66.48	0.19	3,731.10
RW - 7	07/21/09	3,797.43	66.30	66.55	0.25	3,731.08
RW - 7	07/28/09	3,797.43	66.24	66.64	0.40	3,731.11
RW - 7	08/04/09	3,797.43	66.31	66.61	0.30	3,731.06
RW - 7	08/13/09	3,797.43	66.30	66.59	0.29	3,731.07
RW - 7	08/18/09	3,797.43	66.31	66.55	0.24	3,731.07
RW - 7	08/19/09	3,797.43	66.41	66.50	0.09	3,731.00
RW - 7	08/24/09	3,797.43	66.32	66.58	0.26	3,731.06
RW - 7	09/01/09	3,797.43	66.35	66.69	0.34	3,731.01
RW - 7	09/08/09	3,797.43	66.35	66.67	0.32	3,731.02
RW - 7	09/14/09	3,797.43	66.38	66.67	0.29	3,730.99
RW - 7	09/21/09	3,797.43	66.40	66.75	0.35	3,730.96
RW - 7	09/28/09	3,797.43	66.38	66.70	0.32	3,730.99
RW - 7	10/04/09	3,797.43	66.40	66.73	0.33	3,730.96
RW - 7	10/12/09	3,797.43	66.43	66.74	0.31	3,730.94
RW - 7	10/27/09	3,797.43	66.41	66.71	0.30	3,730.96
RW - 7	11/02/09	3,797.43	66.46	66.75	0.29	3,730.91
RW - 7	11/09/09	3,797.43	66.46	66.82	0.36	3,730.90
RW - 7	11/16/09	3,797.43	66.46	66.76	0.30	3,730.91
RW - 7	11/23/09	3,797.43	66.48	66.80	0.32	3,730.89
RW - 7	11/30/09	3,797.43	66.50	66.81	0.31	3,730.87
RW - 7	12/01/09	3,797.43	66.50	66.81	0.31	3,730.87
RW - 8	01/09/09	3,798.33	66.81	67.53	0.72	3,731.41
RW - 8	01/13/09	3,798.33	66.87	67.20	0.33	3,731.41
RW - 8	01/20/09	3,798.33	66.85	67.33	0.48	3,731.41
RW - 8	02/02/09	3,798.33	66.82	67.67	0.85	3,731.38
RW - 8	02/17/09	3,798.33	66.82	67.76	0.94	3,731.37
RW - 8	02/24/09	3,798.33	66.91	67.43	0.52	3,731.34
RW - 8	03/03/09	3,798.33	66.93	67.43	0.50	3,731.33
RW - 8	03/10/09	3,798.33	66.95	67.46	0.51	3,731.30
RW - 8	03/23/09	3,798.33	66.91	67.80	0.89	3,731.29
RW - 8	03/31/09	3,798.33	66.96	67.46	0.50	3,731.30
RW - 8	04/07/09	3,798.33	66.95	67.46	0.51	3,731.30
RW - 8	04/14/09	3,798.33	66.99	67.46	0.47	3,731.27
RW - 8	04/21/09	3,798.33	67.01	67.50	0.49	3,731.25
RW - 8	04/28/09	3,798.33	67.01	67.47	0.46	3,731.25

TABLE 1

## 2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
RW - 8	05/12/09	3,798.33	66.96	67.84	0.88	3,731.24
RW - 8	05/19/09	3,798.33	67.05	67.52	0.47	3,731.21
RW - 8	05/26/09	3,798.33	67.02	67.53	0.51	3,731.23
RW - 8	05/26/09	3,798.33	67.02	67.53	0.51	3,731.23
RW - 8	06/09/09	3,798.33	67.00	67.90	0.90	3,731.20
RW - 8	06/16/09	3,798.33	67.09	67.59	0.50	3,731.17
RW - 8	06/22/09	3,798.33	67.12	67.52	0.40	3,731.15
RW - 8	06/23/09	3,798.33	67.19	67.30	0.11	3,731.12
RW - 8	06/30/09	3,798.33	67.12	67.58	0.46	3,731.14
RW - 8	07/07/09	3,798.33	67.13	67.62	0.49	3,731.13
RW - 8	07/13/09	3,798.33	67.14	67.58	0.44	3,731.12
RW - 8	07/16/09	3,798.33	67.14	67.36	0.22	3,731.16
RW - 8	07/21/09	3,798.33	67.14	67.70	0.56	3,731.11
RW - 8	07/28/09	3,798.33	67.11	67.65	0.54	3,731.14
RW - 8	08/04/09	3,798.33	67.14	67.68	0.54	3,731.11
RW - 8	08/13/09	3,798.33	67.19	67.67	0.48	3,731.07
RW - 8	08/18/09	3,798.33	67.22	67.58	0.36	3,731.06
RW - 8	08/19/09	3,798.33	67.29	67.42	0.13	3,731.02
RW - 8	08/24/09	3,798.33	67.20	67.65	0.45	3,731.06
RW - 8	09/01/09	3,798.33	67.16	67.76	0.60	3,731.08
RW - 8	09/08/09	3,798.33	67.21	67.82	0.61	3,731.03
RW - 8	09/14/09	3,798.33	67.24	67.71	0.47	3,731.02
RW - 8	09/21/09	3,798.33	67.26	67.81	0.55	3,730.99
RW - 8	09/28/09	3,798.33	67.26	67.82	0.56	3,730.99
RW - 8	10/04/09	3,798.33	67.23	67.75	0.52	3,731.02
RW - 8	10/12/09	3,798.33	67.26	67.78	0.52	3,730.99
RW - 8	10/27/09	3,798.33	67.27	67.88	0.61	3,730.97
RW - 8	11/02/09	3,798.33	67.31	67.83	0.52	3,730.94
RW - 8	11/09/09	3,798.33	67.30	67.85	0.55	3,730.95
RW - 8	11/16/09	3,798.33	67.33	67.90	0.57	3,730.91
RW - 8	11/23/09	3,798.33	67.33	67.90	0.57	3,730.91
RW - 8	11/30/09	3,798.33	67.36	67.93	0.57	3,730.88
RW - 8	12/01/09	3,798.33	67.36	67.93	0.57	3,730.88
RW - 9	01/09/09	3,797.99	66.36	67.21	0.85	3,731.50
RW - 9	01/13/09	3,797.99	66.29	67.43	1.14	3,731.53
RW - 9	01/20/09	3,797.99	66.40	67.05	0.65	3,731.49
RW - 9	02/02/09	3,797.99	66.33	67.45	1.12	3,731.49
RW - 9	02/17/09	3,797.99	66.32	67.63	1.31	3,731.47
RW - 9	02/24/09	3,797.99	66.45	67.13	0.68	3,731.44
RW - 9	03/03/09	3,797.99	66.45	67.16	0.71	3,731.43
RW - 9	03/10/09	3,797.99	66.45	67.13	0.68	3,731.44
RW - 9	03/23/09	3,797.99	66.41	67.69	1.28	3,731.39
RW - 9	03/31/09	3,797.99	66.56	67.20	0.64	3,731.33
RW - 9	04/07/09	3,797.99	66.53	67.23	0.70	3,731.36
RW - 9	04/14/09	3,797.99	66.52	67.23	0.71	3,731.36
RW - 9	04/21/09	3,797.99	66.54	67.23	0.69	3,731.35
RW - 9	04/28/09	3,797.99	66.56	67.28	0.72	3,731.32
RW - 9	05/12/09	3,797.99	66.46	67.71	1.25	3,731.34
RW - 9	05/15/09	3,797.99	66.58	67.25	0.67	3,731.31
RW - 9	05/26/09	3,797.99	66.59	67.26	0.67	3,731.30

TABLE 1

## 2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
RW - 9	05/26/09	3,797.99	66.59	67.26	0.67	3,731.30
RW - 9	06/09/09	3,797.99	66.53	67.76	1.23	3,731.28
RW - 9	06/16/09	3,797.99	66.62	67.29	0.67	3,731.27
RW - 9	06/22/09	3,797.99	66.60	67.18	0.58	3,731.30
RW - 9	06/23/09	3,797.99	66.70	66.83	0.13	3,731.27
RW - 9	06/30/09	3,797.99	66.65	67.29	0.64	3,731.24
RW - 9	07/07/09	3,797.99	66.67	67.33	0.66	3,731.22
RW - 9	07/13/09	3,797.99	66.64	67.20	0.56	3,731.27
RW - 9	07/16/09	3,797.99	66.74	67.04	0.30	3,731.21
RW - 9	07/21/09	3,797.99	66.72	67.18	0.46	3,731.20
RW - 9	07/28/09	3,797.99	66.62	67.41	0.79	3,731.25
RW - 9	08/04/09	3,797.99	66.72	67.35	0.63	3,731.18
RW - 9	08/13/09	3,797.99	66.72	67.33	0.61	3,731.18
RW - 9	08/18/09	3,797.99	66.79	67.17	0.38	3,731.14
RW - 9	08/19/09	3,797.99	66.89	67.01	0.12	3,731.08
RW - 9	08/24/09	3,797.99	66.77	67.26	0.49	3,731.15
RW - 9	09/01/09	3,797.99	66.72	67.32	0.60	3,731.18
RW - 9	09/08/09	3,797.99	66.72	67.63	0.91	3,731.13
RW - 9	09/14/09	3,797.99	67.74	67.83	0.09	3,730.24
RW - 9	09/21/09	3,797.99	66.82	67.32	0.50	3,731.10
RW - 9	09/28/09	3,797.99	66.82	67.30	0.48	3,731.10
RW - 9	10/04/09	3,797.99	66.80	67.38	0.58	3,731.10
RW - 9	10/12/09	3,797.99	66.83	67.28	0.45	3,731.09
RW - 9	10/27/09	3,797.99	66.86	67.42	0.56	3,731.05
RW - 9	11/02/09	3,797.99	66.92	67.38	0.46	3,731.00
RW - 9	11/09/09	3,797.99	66.86	67.38	0.52	3,731.05
RW - 9	11/16/09	3,797.99	66.58	67.39	0.81	3,731.29
RW - 9	11/23/09	3,797.99	66.92	67.45	0.53	3,730.99
RW - 9	11/30/09	3,797.99	66.95	67.47	0.52	3,730.96
RW - 9	12/01/09	3,797.99	66.95	67.47	0.52	3,730.96
RW - 10	02/24/09	3,799.10	67.78	71.99	4.21	3,730.69
RW - 10	03/23/09	3,799.10	67.66	69.50	1.84	3,731.16
RW - 10	05/26/09	3,799.10	68.69	68.73	0.04	3,730.40
RW - 10	06/22/09	3,799.10	67.69	69.89	2.20	3,731.08
RW - 10	06/23/09	3,799.10	67.85	68.75	0.90	3,731.12
RW - 10	06/30/09	3,799.10	67.54	70.33	2.79	3,731.14
RW - 10	07/07/09	3,799.10	67.49	70.34	2.85	3,731.18
RW - 10	07/13/09	3,799.10	67.58	70.16	2.58	3,731.13
RW - 10	07/16/09	3,799.10	67.76	69.34	1.58	3,731.10
RW - 10	07/21/09	3,799.10	67.68	70.49	2.81	3,731.00
RW - 10	07/28/09	3,799.10	67.45	70.87	3.42	3,731.14
RW - 10	08/04/09	3,799.10	67.56	70.49	2.93	3,731.10
RW - 10	08/13/09	3,799.10	67.59	70.28	2.69	3,731.11
RW - 10	08/18/09	3,799.10	67.71	69.94	2.23	3,731.06
RW - 10	08/19/09	3,799.10	68.01	68.76	0.75	3,730.98
RW - 10	08/24/09	3,799.10	67.64	70.10	2.46	3,731.09
RW - 10	09/01/09	3,799.10	67.63	70.50	2.87	3,731.04
RW - 10	09/08/09	3,799.10	67.63	70.39	2.76	3,731.06
RW - 10	09/14/09	3,799.10	67.67	70.15	2.48	3,731.06
RW - 10	09/21/09	3,799.10	67.68	70.36	2.68	3,731.02

TABLE 1

## 2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
RW - 10	09/28/09	3,799.10	67.69	70.39	2.70	3,731.01
RW - 10	10/04/09	3,799.10	67.67	70.36	2.69	3,731.03
RW - 10	10/12/09	3,799.10	67.70	70.33	2.63	3,731.01
RW - 10	10/27/09	3,799.10	67.68	70.49	2.81	3,731.00
RW - 10	11/02/09	3,799.10	67.81	70.22	2.41	3,730.93
RW - 10	11/09/09	3,799.10	67.80	70.40	2.60	3,730.91
RW - 10	11/16/09	3,799.10	67.76	70.36	2.60	3,730.95
RW - 10	11/23/09	3,799.10	67.78	70.37	2.59	3,730.93
RW - 10	11/30/09	3,799.10	67.82	70.37	2.55	3,730.90
RW - 10	12/01/09	3,799.10	67.82	70.37	2.55	3,730.90
RW - 11	02/24/09	3,796.65	64.45	68.22	3.77	3,731.63
RW - 11	03/23/09	3,796.65	64.67	70.35	5.68	3,731.13
RW - 11	05/26/09	3,796.65	64.64	70.24	5.60	3,731.17
RW - 11	06/23/09	3,796.65	64.65	70.21	5.56	3,731.17
RW - 11	08/19/09	3,796.65	64.87	70.64	5.77	3,730.91
RW - 11	12/01/09	3,796.65	64.98	70.70	5.72	3,730.81
RW - 12	01/09/09	3,798.13	66.67	67.19	0.52	3,731.38
RW - 12	01/13/09	3,798.13	66.62	67.25	0.63	3,731.42
RW - 12	01/20/09	3,798.13	66.58	67.01	0.43	3,731.49
RW - 12	02/02/09	3,798.13	66.66	67.27	0.61	3,731.38
RW - 12	02/17/09	3,798.13	66.68	67.39	0.71	3,731.34
RW - 12	02/24/09	3,798.13	66.76	67.12	0.36	3,731.32
RW - 12	03/03/09	3,798.13	66.75	67.13	0.38	3,731.32
RW - 12	03/10/09	3,798.13	66.80	67.16	0.36	3,731.28
RW - 12	03/23/09	3,798.13	66.76	67.45	0.69	3,731.27
RW - 12	03/31/09	3,798.13	66.81	67.15	0.34	3,731.27
RW - 12	04/07/09	3,798.13	66.83	67.18	0.35	3,731.25
RW - 12	04/14/09	3,798.13	66.83	67.17	0.34	3,731.25
RW - 12	04/21/09	3,798.13	66.85	67.21	0.36	3,731.23
RW - 12	04/28/09	3,798.13	66.88	67.23	0.35	3,731.20
RW - 12	05/12/09	3,798.13	66.83	67.45	0.62	3,731.21
RW - 12	05/15/09	3,798.13	66.88	67.23	0.35	3,731.20
RW - 12	05/26/09	3,798.13	66.90	67.24	0.34	3,731.18
RW - 12	05/26/09	3,798.13	66.90	67.24	0.34	3,731.18
RW - 12	06/09/09	3,798.13	66.87	67.54	0.67	3,731.16
RW - 12	06/16/09	3,798.13	66.93	67.32	0.39	3,731.14
RW - 12	06/22/09	3,798.13	66.96	67.27	0.31	3,731.12
RW - 12	06/23/09	3,798.13	67.00	67.08	0.08	3,731.12
RW - 12	06/30/09	3,798.13	66.96	67.30	0.34	3,731.12
RW - 12	07/07/09	3,798.13	66.96	67.29	0.33	3,731.12
RW - 12	07/13/09	3,798.13	66.99	67.29	0.30	3,731.10
RW - 12	07/16/09	3,798.13	67.02	67.23	0.21	3,731.08
RW - 12	07/21/09	3,798.13	67.02	67.25	0.23	3,731.08
RW - 12	07/28/09	3,798.13	67.00	67.41	0.41	3,731.07
RW - 12	08/04/09	3,798.13	67.02	67.37	0.35	3,731.06
RW - 12	08/13/09	3,798.13	67.04	67.33	0.29	3,731.05
RW - 12	08/18/09	3,798.13	67.05	67.30	0.25	3,731.04
RW - 12	08/19/09	3,798.13	67.12	67.24	0.12	3,730.99
RW - 12	08/24/09	3,798.13	67.05	67.35	0.30	3,731.04

TABLE 1

## 2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
RW - 12	09/01/09	3,798.13	67.07	67.44	0.37	3,731.00
RW - 12	09/08/09	3,798.13	67.09	67.40	0.31	3,730.99
RW - 12	09/14/09	3,798.13	67.10	67.40	0.30	3,730.99
RW - 12	09/21/09	3,798.13	67.10	67.43	0.33	3,730.98
RW - 12	09/28/09	3,798.13	67.13	67.49	0.36	3,730.95
RW - 12	10/04/09	3,798.13	67.12	67.47	0.35	3,730.96
RW - 12	10/12/09	3,798.13	67.15	67.48	0.33	3,730.93
RW - 12	10/27/09	3,798.13	67.16	67.55	0.39	3,730.91
RW - 12	11/02/09	3,798.13	67.20	67.50	0.30	3,730.89
RW - 12	11/09/09	3,798.13	67.20	67.55	0.35	3,730.88
RW - 12	11/16/09	3,798.13	67.23	67.57	0.34	3,730.85
RW - 12	11/23/09	3,798.13	67.21	67.60	0.39	3,730.86
RW - 12	11/30/09	3,798.13	67.23	67.59	0.36	3,730.85
RW - 12	12/01/09	3,798.13	67.23	67.59	0.36	3,730.85
RW - 13	01/09/09	3,798.52	67.12	67.38	0.26	3,731.36
RW - 13	01/13/09	3,798.52	67.09	67.43	0.34	3,731.38
RW - 13	01/20/09	3,798.52	67.12	67.37	0.25	3,731.36
RW - 13	02/02/09	3,798.52	67.11	67.51	0.40	3,731.35
RW - 13	02/17/09	3,798.52	67.15	67.52	0.37	3,731.31
RW - 13	02/24/09	3,798.52	67.20	67.45	0.25	3,731.28
RW - 13	03/03/09	3,798.52	67.19	67.27	0.08	3,731.32
RW - 13	03/10/09	3,798.52	-	67.41	0.00	3,731.11
RW - 13	03/23/09	3,798.52	67.46	67.47	0.01	3,731.06
RW - 13	03/31/09	3,798.52	-	67.39	0.00	3,731.13
RW - 13	04/07/09	3,798.52	-	67.35	0.00	3,731.17
RW - 13	04/14/09	3,798.52	-	67.42	0.00	3,731.10
RW - 13	04/21/09	3,798.52	-	67.46	0.00	3,731.06
RW - 13	04/28/09	3,798.52	-	67.42	0.00	3,731.10
RW - 13	05/12/09	3,798.52	-	67.52	0.00	3,731.00
RW - 13	05/19/09	3,798.52	67.39	67.41	0.02	3,731.13
RW - 13	05/26/09	3,798.52	-	67.42	0.00	3,731.10
RW - 13	05/26/09	3,798.52	-	67.24	0.00	3,731.28
RW - 13	06/09/09	3,798.52	-	67.48	0.00	3,731.04
RW - 13	06/16/09	3,798.52	-	67.50	0.00	3,731.02
RW - 13	06/22/09	3,798.52	-	67.53	0.00	3,730.99
RW - 13	06/30/09	3,798.52	-	67.50	0.00	3,731.02
RW - 13	07/07/09	3,798.52	-	67.52	0.00	3,731.00
RW - 13	07/13/09	3,798.52	-	67.55	0.00	3,730.97
RW - 13	07/16/09	3,798.52	-	67.50	0.00	3,731.02
RW - 13	07/21/09	3,798.52	67.49	67.50	0.01	3,731.03
RW - 13	07/28/09	3,798.52	-	67.53	0.00	3,730.99
RW - 13	08/04/09	3,798.52	-	67.58	0.00	3,730.94
RW - 13	08/06/09	3,798.52	-	67.60	0.00	3,730.92
RW - 13	08/13/09	3,798.52	-	67.66	0.00	3,730.86
RW - 13	08/18/09	3,798.52	-	67.61	0.00	3,730.91
RW - 13	08/19/09	3,798.52	-	67.28	0.00	3,731.24
RW - 13	08/24/09	3,798.52	67.55	67.58	0.03	3,730.97
RW - 13	09/01/09	3,798.52	-	67.56	0.00	3,730.96
RW - 13	09/08/09	3,798.52	-	67.68	0.00	3,730.84
RW - 13	09/14/09	3,798.52	-	67.65	0.00	3,730.87

TABLE 1

## 2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
RW - 13	09/21/09	3,798.52	-	67.67	0.00	3,730.85
RW - 13	09/28/09	3,798.52	-	67.62	0.00	3,730.90
RW - 13	10/04/09	3,798.52	-	67.65	0.00	3,730.87
RW - 13	10/12/09	3,798.52	-	67.62	0.00	3,730.90
RW - 13	10/27/09	3,798.52	-	67.64	0.00	3,730.88
RW - 13	11/02/09	3,798.52	-	67.65	0.00	3,730.87
RW - 13	11/09/09	3,798.52	-	67.81	0.00	3,730.71
RW - 13	11/16/09	3,798.52	-	67.73	0.00	3,730.79
RW - 13	11/23/09	3,798.52	-	67.85	0.00	3,730.67
RW - 13	11/30/09	3,798.52	-	67.74	0.00	3,730.78
RW - 13	12/01/09	3,798.52	-	67.74	0.00	3,730.78

\* Complete Historical data tables are presented on the attached CD.

ND - No Measurable depth to groundwater

TABLE 2

## 2009 - CONCENTRATIONS OF BTEX AND TPH IN GROUNDWATER

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

All concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8260b				
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
NMOCD Regulatory Limit				0.01	0.75	0.75	0.62	
MW - 1A	02/24/09			Not Sampled on Current Sample Schedule				
MW - 1A	05/26/09			Not Sampled on Current Sample Schedule				
MW - 1A	08/19/09			Not Sampled on Current Sample Schedule				
MW - 1A	12/01/09			<0.001	<0.001	<0.001	<0.001	
MW - 2	02/24/09			Not Sampled on Current Sample Schedule				
MW - 2	05/26/09			Not Sampled on Current Sample Schedule				
MW - 2	08/19/09			Not Sampled on Current Sample Schedule				
MW - 2	12/01/09			<0.001	<0.001	<0.001	<0.001	
MW - 3	02/24/09			<0.001	<0.001	<0.001	<0.001	
MW - 3	05/26/09			<0.001	<0.001	<0.001	<0.001	
MW - 3	08/19/09			<0.001	<0.001	<0.001	<0.001	
MW - 3	12/01/09			<0.001	<0.001	<0.001	<0.001	
MW - 4	02/24/09			Not Sampled on Current Sample Schedule				
MW - 4	05/26/09			Not Sampled on Current Sample Schedule				
MW - 4	08/19/09			Not Sampled on Current Sample Schedule				
MW - 4	12/01/09			<0.001	<0.001	<0.001	<0.001	
MW - 5	02/24/09			Not Sampled on Current Sample Schedule				
MW - 5	05/26/09			Not Sampled on Current Sample Schedule				
MW - 5	08/19/09			Not Sampled on Current Sample Schedule				
MW - 5	12/01/09			<0.001	<0.001	<0.001	<0.001	
MW - 6	02/24/09			<0.001	<0.001	<0.001	<0.001	
MW - 6	05/26/09			<0.001	<0.001	<0.001	<0.001	
MW - 6	08/19/09			<0.001	<0.001	<0.001	<0.001	
MW - 6	12/01/09			<0.001	<0.001	<0.001	<0.001	
MW - 7	02/24/09			Not Sampled on Current Sample Schedule				
MW - 7	05/26/09			Not Sampled on Current Sample Schedule				
MW - 7	08/19/09			Not Sampled on Current Sample Schedule				
MW - 7	12/01/09			<0.001	<0.001	<0.001	<0.001	
MW - 8	02/24/09			0.0105	0.0020	0.2160	0.1810	
MW - 8	05/26/09			0.0049	<0.001	0.0220	0.0162	
MW - 8	08/19/09			0.0068	<0.001	0.0102	<0.001	
MW - 8	12/01/09			<0.001	<0.001	0.0010	<0.001	
MW - 9	02/24/09			Not Sampled on Current Sample Schedule				
MW - 9	05/26/09			<0.001	<0.001	<0.001	<0.001	
MW - 9	08/19/09			Not Sampled on Current Sample Schedule				
MW - 9	12/01/09			<0.001	<0.001	<0.001	<0.001	



TABLE 2

## 2009 - CONCENTRATIONS OF BTEX AND TPH IN GROUNDWATER

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

*All concentrations are reported in mg/L*

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8260b				
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
NMOCD Regulatory Limit				0.01	0.75	0.75	0.62	
MW - 10	02/24/09			<0.001	<0.001	<0.001	<0.001	
MW - 10	05/26/09			<0.001	<0.001	<0.001	<0.001	
MW - 10	08/19/09			<0.001	<0.001	<0.001	<0.001	
MW - 10	12/01/09			<0.001	<0.001	<0.001	<0.001	
MW - 11	02/24/09			Not Sampled on Current Sample Schedule				
MW - 11	05/26/09			Not Sampled on Current Sample Schedule				
MW - 11	08/19/09			Not Sampled on Current Sample Schedule				
MW - 11	12/01/09			<0.001	<0.001	<0.001	<0.001	
MW - 12	02/24/09			Not Sampled on Current Sample Schedule				
MW - 12	05/26/09			Not Sampled on Current Sample Schedule				
MW - 12	08/19/09			Not Sampled on Current Sample Schedule				
MW - 12	12/01/09			<0.001	<0.001	<0.001	<0.001	
MW - 13	02/24/09			Not Sampled on Current Sample Schedule				
MW - 13	05/26/09			Not Sampled on Current Sample Schedule				
MW - 13	08/19/09			Not Sampled on Current Sample Schedule				
MW - 13	12/01/09			<0.001	<0.001	<0.001	<0.001	
MW - 14	02/24/09			<0.001	<0.001	<0.001	<0.001	
MW - 14	05/26/09			<0.001	<0.001	<0.001	<0.001	
MW - 14	08/19/09			<0.001	<0.001	<0.001	<0.001	
MW - 14	12/01/09			<0.001	<0.001	<0.001	<0.001	
MW - 15	02/24/09			0.1310	<0.001	0.0126	0.0160	
MW - 15	05/26/09			0.0736	<0.001	0.0220	0.0404	
MW - 15	08/19/09			0.0264	0.0075	0.0094	0.0249	
MW - 15	12/02/09			<0.001	<0.001	<0.001	0.0020	
MW - 16	02/24/09			<0.001	<0.001	<0.001	<0.001	
MW - 16	05/26/09			<0.001	<0.001	<0.001	<0.001	
MW - 16	08/19/09			<0.001	<0.001	<0.001	<0.001	
MW - 16	12/01/09			<0.001	<0.001	<0.001	<0.001	
RW - 1	02/24/09			Not Sampled Due to PSH in Well				
RW - 1	05/26/09			Not Sampled Due to PSH in Well				
RW - 1	08/19/09			Not Sampled Due to PSH in Well				
RW - 1	12/02/09			Not Sampled Due to Insufficient Water in Well				
RW - 2	02/24/09			Not Sampled Due to PSH in Well				
RW - 2	05/26/09			Not Sampled Due to PSH in Well				
RW - 2	08/19/09			1.460	1.620	0.905	2.85	
RW - 2	12/02/09	183.0	100.0	3.170	4.420	2.060	7.64	

TABLE 2

## 2009 - CONCENTRATIONS OF BTEX AND TPH IN GROUNDWATER

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8260b				
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
NMOCD Regulatory Limit				0.01	0.75	0.75	0.62	
RW - 3	02/24/09			Not Sampled Due to PSH in Well				
RW - 3	05/26/09			Not Sampled Due to PSH in Well				
RW - 3	08/19/09			Not Sampled Due to PSH in Well				
RW - 3	12/02/09			Not Sampled Due to Insufficient Water in Well				
RW - 4	02/24/09			Not Sampled Due to PSH in Well				
RW - 4	05/26/09			Not Sampled Due to PSH in Well				
RW - 4	08/19/09			Not Sampled Due to PSH in Well				
RW - 4	12/02/09			Not Sampled Due to Insufficient Water in Well				
RW - 5	02/24/09			0.0229	0.0936	0.6100	0.6650	
RW - 5	05/26/09			0.0240	0.1060	0.5640	0.8060	
RW - 5	08/19/09			0.0163	0.0280	0.3010	0.5500	
RW - 5	12/02/09			0.0200	0.0146	0.1700	0.4810	
RW - 6	02/24/09			Not Sampled Due to Insufficient Water in Well				
RW - 6	05/26/09			0.1260	0.1430	0.2510	0.661	
RW - 6	08/19/09			0.2430	0.3430	1.0000	2.670	
RW - 6	12/02/09			0.2730	0.5120	0.5290	1.580	
RW - 7	02/24/09			Not Sampled Due to PSH in Well				
RW - 7	05/26/09			Not Sampled Due to PSH in Well				
RW - 7	08/19/09			Not Sampled Due to PSH in Well				
RW - 7	12/02/09	7.70	9.74	1.210	1.380	0.497	1.490	
RW - 8	02/24/09			Not Sampled Due to PSH in Well				
RW - 8	05/26/09			Not Sampled Due to PSH in Well				
RW - 8	08/19/09			Not Sampled Due to PSH in Well				
RW - 8	12/02/09	18.20	14.60	1.070	1.190	0.466	1.470	
RW - 9	02/24/09			Not Sampled Due to PSH in Well				
RW - 9	05/26/09			Not Sampled Due to PSH in Well				
RW - 9	08/19/09			Not Sampled Due to PSH in Well				
RW - 9	12/02/09	21.40	58.30	2.950	1.710	0.806	2.270	
RW - 10	02/24/09			Not Sampled Due to PSH in Well				
RW - 10	05/26/09			Not Sampled Due to PSH in Well				
RW - 10	08/19/09			Not Sampled Due to PSH in Well				
RW - 10	12/02/09			Not Sampled Due to Insufficient Water in Well				
RW - 11	02/24/09			Not Sampled Due to PSH in Well				
RW - 11	05/26/09			Not Sampled Due to PSH in Well				
RW - 11	08/19/09			Not Sampled Due to PSH in Well				
RW - 11	12/02/09			Not Sampled Due to Insufficient Water in Well				

TABLE 2

## 2009 - CONCENTRATIONS OF BTEX AND TPH IN GROUNDWATER

PLAINS MARKETING, L.P.  
DARR ANGELL 4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

*All concentrations are reported in mg/L*

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8260b				
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
NMOCD Regulatory Limit				0.01	0.75	0.75	0.62	
RW - 12	02/24/09			Not Sampled Due to PSH in Well				
RW - 12	05/26/09			Not Sampled Due to PSH in Well				
RW - 12	08/19/09			Not Sampled Due to PSH in Well				
RW - 12	12/02/09	9.22	<5.00	0.513	0.824	0.269	0.863	
RW - 13	02/24/09			Not Sampled Due to PSH in Well				
RW - 13	05/26/09			0.778	0.170	0.357	0.073	
RW - 13	08/19/09			1.120	0.334	0.638	1.480	
RW - 13	12/02/09			1.150	0.374	0.564	1.170	

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

TABLE 3

## POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.  
DARR ANGELL #4  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER AP-007

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																	
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	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.	MW-1A	12/03/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	
		12/01/09	<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-2	12/03/08	<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	
		12/01/09	<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-3	12/03/08	<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	
		12/01/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	
	MW-4	12/03/08	<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	
		12/01/09	<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	12/03/08	<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	
		12/01/09	<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	12/03/08	<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		
	12/01/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184		
MW-7	12/03/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184		
	12/01/09	<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-8	12/03/08	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192		
	12/01/09	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917		
MW-9	12/03/08	<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		
	12/01/09	<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-10	12/03/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184		
	12/01/09	<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		

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.  
DARR ANGELL #4  
LEA COUNTY, NEW MEXICO  
NMOCID REFERENCE NUMBER AP-007

[illegible]

## TABLE 3

DARR ANGELL #4

**NMOCD REFERENCE NUMBER AP-007**

*All water concentrations are reported in mg/L.*

Page 3 of 3

## Appendices

Appendix A  
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**

x 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	Darr Angell # 4	Facility Type:	Steel Pipeline

Surface Owner:	Darr Angell	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
B	11	15S	37E					Lea

**Latitude** 33 degrees 02' 17.4 N **Longitude** 103 degrees 10' 04.4" W

**NATURE OF RELEASE**

Type of Release:	Crude Oil	Volume of Release:	150 bbls	Volume Recovered	95 bbls
Source of Release:	Steel Pipeline	Date and Hour of Occurrence	02/02/2001	Date and Hour of Discovery	02/02/2001 05:15 AM
Was Immediate Notice Given?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Sylvia Dickey - NMOCD		
By Whom?	Wayne Brunette	Date and Hour	02/02/01 05:20 AM		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* Internal corrosion of the pipeline.

Describe Area Affected and Cleanup Action Taken.\* The impacted soil was excavated and stockpiled on plastic. The aerial extent of surface impact was approximately 80' x 150'.

**NOTE: This information was obtained from historical EOTT files, Plains acquired EOTT/Link on April 1, 2004 and Plains assumes this information to be correct.**

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>OIL CONSERVATION DIVISION</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