# 1R - 85

# REPORTS

# DATE:

# 2006

1R-85
Report
2006

# 2006
# ANNUAL MONITORING REPORT

## RED BYRD #1

SE ¼ NE ¼, SECTION 1, TOWNSHIP 20 SOUTH, RANGE 36 EAST
LEA COUNTY, NEW MEXICO
PLAINS EMS NUMBER: TNM RED BYRD #1
NMOCD REFERENCE NUMBER 1R-0085

PREPARED FOR:

**PLAINS MARKETING, L.P.**
333 Clay Street, Suite 1600
Houston, Texas 77002

NOVA
safety and environmental

PREPARED BY:

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

**March 2007**

Curt D. Stanley
Project Manager

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

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## INTRODUCTION

On behalf of Plains Marketing, L.P. (Plains), NOVA Safety and Environmental (NOVA) is pleased to submit this Annual Monitoring Report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. Beginning on May 29, 2004, project management responsibilities were assumed by NOVA, having previously been managed by Environmental Technology Group, Inc (ETGI). The Red Byrd #1 site, which was formally the responsibility of Texas New Mexico Pipeline Company (TNM), is now the responsibility of Plains. The Release Notification and Corrective Action (Form C-141) is provided as Appendix B. This report is intended to be viewed as a complete document with text, figures, tables and appendices. The report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2006 only. However, historic data tables as well as 2006 laboratory analytical reports are provided on the enclosed data disk. A site location map is provided as Figure 1.

Groundwater monitoring was conducted during each quarter of 2006 to assess the levels and extent of dissolved phase constituents and Phase Separated Hydrocarbon (PSH). The groundwater monitoring events consisted of measuring static water levels in the monitor wells, checking for the presence of PSH and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 foot were not sampled.

## SITE DESCRIPTION AND BACKGROUND INFORMATION

The site is located approximately four miles southwest of the town of Monument, New Mexico in the SE 1/4 of the NE 1/4 of Section 1, Township 20 South, Range 36 East. Evidence of a historical release was brought to the attention of Link Energy (formerly Enron Oil Trading and Transportation (EOTT) who acquired the pipeline from TNM in 1999), by Mr. Red Byrd in January 2000.

Approximately 8,900 cubic yards of impacted soil was excavated, shredded and blended with nutrients. Approximately 3,700 cubic yards of the impacted soil was transported to Plains Lea Station to be used as berm material. Upon completion of excavation activities, confirmation soil samples were collected from the excavation and stockpiles. Review of analytical results indicated soil samples collected from the excavation to be below NMOCD regulatory standards. The excavation was backfilled with the blended soil and approximately 3,500 cubic yards of topsoil was transported onsite and the area was contoured to topographic grade.

Groundwater monitoring and gauging is conducted monthly at site. Approximately 376 gallons (8 barrels) of PSH has been recovered by manual recovery since project inception. All wells are currently sampled on a quarterly schedule.

On March 8 through 10, 2006, NOVA directed the installation of six (6) additional monitor wells (MW-13 through MW-18) and the advancement of one (1) soil boring. The monitor wells were installed to delineate the horizontal extent of groundwater impact at the site. Analytical results of the soil samples collected during the installation of the monitor wells and the advancement of the soil boring, during the 2006 reporting period are provided in Table 3, Concentrations of TPH and BTEX in Soil. Boring logs and monitor well details are provided in Appendix A.

In the fall of 2006, monitor well MW-2 was damaged and could no longer be gauged or sampled. On November 9, 2006, monitor well MW-2 was plugged and abandoned with NMOCD approval and following New Mexico Office of the State Engineer guidelines.

Currently, a total of 17 monitor wells are located on site.

## FIELD ACTIVITIES

A measurable thickness of PSH (0.01 feet) was detected in monitor wells MW-3 and MW-5 during the 1st quarter 2006 sampling event. Monitor wells MW-1 through MW-5 exhibited a hydrocarbon sheen throughout the 1st and 2nd quarters of the 2006 reporting period. Monitor well MW-12 exhibited a sheen during the 4th quarter 2006 reporting period. No measurable PSH was recovered from the Red Byrd #1 release site during the 2006 reporting period.

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 confirmed by NMOCD correspondence dated June 22, 2005.

| NMOCD APPROVED SAMPLING SCHEDULE | | | | | |
|---|---|---|---|---|---|
| **Location** | **Schedule** | **Location** | **Schedule** | **Location** | **Schedule** |
| MW-1 | Quarterly | MW-7 | Quarterly | MW-13 | Quarterly |
| MW-2 | P&A 11/9/06 | MW-8 | Quarterly | MW-14 | Quarterly |
| MW-3 | Quarterly | MW-9 | Quarterly | MW-15 | Quarterly |
| MW-4 | Quarterly | MW-10 | Quarterly | MW-16 | Quarterly |
| MW-5 | Quarterly | MW-11 | Quarterly | MW-17 | Quarterly |
| MW-6 | Quarterly | MW-12 | Quarterly | MW-18 | Quarterly |

The site monitor wells were gauged and sampled on March 17, June 13, September 6 and November 15, 2006. During each sampling event, sampled monitor wells were purged of approximately three well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos pump. Groundwater was allowed to recharge and samples were obtained using disposable Teflon samplers. Water samples were collected in clean glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed of by Key Energy, Lovington, New Mexico utilizing a licensed disposal facility (NMOCD AO SWD-730).

Locations of the monitor wells and the inferred groundwater gradient, which were constructed from measurements collected during the four (4) quarterly monitoring events, are depicted on Figures 2A through 2D, the Inferred Groundwater Gradient Maps. Groundwater elevation data for 2006 is provided as Table 1. Historic groundwater elevation data beginning at project inception is provided on the enclosed data disk.

The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.004 feet/foot to the south-southeast as measured between monitor well MW-1 and MW-9. This is consistent with data presented from earlier in the year. The corrected groundwater elevation has ranged between 3533.12 and 3536.36 feet above mean sea level, in monitor wells MW-15 on September 6, 2006 and MW-13 on March 17, 2006, respectively.

## LABORATORY RESULTS

A measurable thickness of PSH (0.01 feet) was detected in monitor wells MW-3 and MW-5 during the 1st quarter 2006 sampling event. Monitor wells MW-1 through MW-5 exhibited a hydrocarbon sheen throughout the 1st and 2nd quarters of the 2006 reporting period. Monitor well MW-12 exhibited a sheen during the 4th quarter 2006 reporting period.

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

**Monitor well MW-1** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.290 mg/L during the 2nd quarter to 0.658 mg/L during the 1st quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard of 0.01 mg/L during all four (4) quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 4th quarter to <0.2 mg/L during the 1st and 3rd quarter of 2006. Toluene concentrations were below the NMOCD regulatory standard of 0.75 mg/L during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from 0.187 mg/L during the 2nd quarter to 0.406 mg/L during the 1st quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard of 0.75 mg/L during all four (4) quarters of the reporting period. Xylene concentrations ranged from 0.158 mg/L during the 2nd quarter to 0.373 mg/L during the 1st quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard of 0.62 mg/L during all four (4) quarters of the reporting period.

**Monitor well MW-2** was sampled during the 1st and 2nd quarters of 2006 and analytical results indicate benzene concentrations ranged from 0.339 mg/L during the 2nd quarter to 0.670 mg/L during the 1st quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during the 1st and 2nd quarters. Toluene concentrations were below the laboratory method detection limit (MDL) of <0.02 and the NMOCD regulatory standard during the 1st and 2nd quarters. Ethylbenzene concentrations ranged from 0.334 mg/L during the 2nd quarter to 0.580 mg/L during the 1st quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard during the 1st and 2nd quarters. Xylene concentrations ranged from <0.2 mg/L during the 2nd quarter to 0.588 mg/L during the 1st quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard during the 1st and 2nd quarters. Monitor well MW-2 was plugged and abandoned with NMOCD approval on November 9, 2006.

**Monitor well MW-3** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.453 mg/L during the 3rd quarter to 1.240 mg/L during the 1st quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during all four (4) quarters of the reporting period. Toluene concentrations ranged from <0.02 mg/L during the 4th quarter to <0.2 mg/L during the 1st, 2nd and 3rd quarters of 2006. Toluene concentrations were below the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from 0.445 mg/L during the 2nd quarter to 2.590 mg/L during the 1st quarter of 2006. Ethylbenzene concentrations were above the NMOCD regulatory standard of during the 1st quarter of the reporting period. Xylene concentrations ranged from

<0.2 mg/L during the 2nd quarter to 2.300 mg/L during the 1st quarter of 2006. Xylene concentrations were above the NMOCD regulatory standard during the 1st and 3rd quarters of the reporting period.

**Monitor well MW-4** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 1st, 2nd and 3rd quarters to 0.026 mg/L during the 2nd quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during the 2nd quarter of the reporting period. Toluene concentrations ranged from <0.005 mg/L during the 2nd quarter to 0.0392 mg/L during the 1st quarter of 2006. Toluene concentrations were below the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from 0.251 mg/L during the 1st quarter to 0.351 mg/L during the 2nd quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from 0.205 mg/L during the 3rd quarter to 0.238 mg/L during the 2nd quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-5** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.01 mg/L during the 1st quarter to 0.207 mg/L during the 4th quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during the 2nd, 3rd and 4th quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 3rd and 4th quarters to <0.01 mg/L during the 1st quarter of 2006. Toluene concentrations were below the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from 0.202 mg/L during the 2nd quarter to 0.273 mg/L during the 1st quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from 0.199 mg/L during the 2nd quarter to 0.394 mg/L during the 1st quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-6** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.134 mg/L during the 1st quarter to 0.289 mg/L during the 3rd quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during all four (4) quarters of the reporting period. Toluene concentrations were below the MDL of <0.02 and the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0104 mg/L during the 4th quarter to 0.027 mg/L during the 2nd quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 3rd quarter to 0.014 mg/L during the 2nd quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-7** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.030 mg/L during the 1st quarter to 0.0486 mg/L during the 4th quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during all four (4) quarters of the reporting period. Toluene concentrations were below the MDL of <0.001 and the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from 0.004 mg/L during the 2nd, 3rd, and 4th quarters to 0.005 mg/L during the 1st quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations

ranged from 0.003 mg/L during the 1st quarter to 0.007 mg/L during the 3rd quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-8** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 2nd and 3rd quarters to 0.0366 mg/L during the 4th quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during the 1st and 4th quarters of the reporting period. Toluene concentrations were below the MDL of <0.001 and the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from <0.001 mg/L during the 2nd and 3rd quarters to 0.0199 mg/L during the 4th quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from 0.015 mg/L during the 3rd quarter to 0.025 mg/L during the 1st quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-9** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.175 mg/L during the 3rd quarter to 0.400 mg/L during the 4th quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during all four (4) quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 4th quarter to <0.02 mg/L during the 1st and 3rd quarters of 2006. Toluene concentrations were below the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from 0.026 mg/L during the 3rd quarter to 0.122 mg/L during the 1st quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from <0.02 mg/L during the 3rd quarter to 0.078 mg/L during the 1st quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-10** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.138 mg/L during the 3rd quarter to 0.232 mg/L during the 2nd quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during all four (4) quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 4th quarter to <0.01 mg/L during the 1st quarter of 2006. Toluene concentrations were below the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from 0.167 mg/L during the 4th quarter to 0.204 mg/L during the 2nd quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from 0.043 mg/L during the 3rd quarter to 0.0942 mg/L during the 4th quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-11** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 1st quarter to 0.228 mg/L during the 4th quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during the 2nd, 3rd, and 4th quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 1st, 3rd and 4th quarters to <0.02 mg/L during the 2nd quarter of 2006. Toluene concentrations were below the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from <0.001 mg/L during the 1st and 3rd

quarters to 0.0456 mg/L during the 4th quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 3rd quarter to 0.0118 mg/L during the 4th quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-12** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.020 mg/L during the 3rd quarter to 0.132 mg/L during the 4th quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during all four (4) quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 2nd, 3rd and 4th quarters to <0.1 mg/L during the 1st quarter of 2006. Toluene concentrations were below the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from <0.1 mg/L during the 1st quarter to 0.0461 mg/L during the 4th quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from <0.1 mg/L during the 1st quarter to 0.0709 mg/L during the 4th quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-13** is sampled on a quarterly schedule and analytical results indicate benzene, toluene and ethylbenzene concentrations were below the NMOCD regulatory standard during all four (4) quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 1st and 2nd quarters to 0.004 mg/L during the 3rd quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-14** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.005 mg/L during the 1st quarter to 0.020 mg/L during the 3rd quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during the 2nd, 3rd and 4th quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 2nd and 4th quarters to 0.0025 mg/L during the 3rd quarter of 2006. Toluene concentrations were below the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from <0.005 mg/L during the 1st quarter to 0.012 mg/L during the 3rd quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from <0.005 mg/L during the 1st quarter to 0.032 mg/L during the 3rd quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-15** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.477 mg/L during the 1st quarter to 0.698 mg/L during the 3rd quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during all four (4) quarters of the reporting period. Toluene concentrations were below the MDL of <0.02 mg/L and the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from <0.02 mg/L during the 1st quarter to 0.265 mg/L during the 4th quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from <0.02 mg/L during the 1st quarter to 0.265 mg/L during the 4th quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-16** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.146 mg/L during the 3rd quarter to 0.233 mg/L during the 2nd quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during all four (4) quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 1st quarter to <0.2 mg/L during the 2nd quarter of 2006. Toluene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from <0.1 mg/L during the 1st and 3rd quarters to 0.150 mg/L during the 4th quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from <0.1 mg/L during the 1st and 3rd quarters to 0.0110 mg/L during the 4th quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-17** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.017 mg/L during the 3rd quarter to 0.0329 mg/L during the 4th quarter of 2006. Benzene concentrations were above the NMOCD regulatory standard during all four (4) quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 2nd and 4th quarters to 0.001 mg/L during the 3rd quarter of 2006. Toluene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from <0.001 mg/L during the 2nd quarter to 0.022 mg/L during the 4th quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from <0.1 mg/L during the 1st quarter to 0.0174 mg/L during the 4th quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

**Monitor well MW-18** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 1st quarter to 0.009 mg/L during the 2nd and 3rd quarter of 2006. Benzene concentrations were below the NMOCD regulatory standard during all four (4) quarters of the reporting period. Toluene concentrations were below the MDL of <0.001 mg/L and the NMOCD regulatory standard during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from 0.002 mg/L during the 1st quarter to 0.0626 mg/L during the 4th quarter of 2006. Ethylbenzene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 1st quarter to 0.0456 mg/L during the 4th quarter of 2006. Xylene concentrations were below the NMOCD regulatory standard all four (4) quarters of the reporting period.

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

## SUMMARY

This report presents the results of monitoring activities for the 2006 annual monitoring period.. Currently, there are seventeen (17) groundwater monitor wells (MW-1 and MW-3 through MW-

18) on-site. The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.004 feet/foot to the south-southeast.

A measurable thickness of PSH (0.01 feet) was detected in monitor wells MW-3 and MW-5 during the 1st quarter 2006 sampling event. Monitor wells MW-1 through MW-5 exhibited a hydrocarbon sheen throughout the 1st and 2nd quarters of the 2006 reporting period. Monitor wells MW-12 exhibited a sheen during the 4th quarter 2006 reporting period. No measurable PSH was recovered from the Red Byrd #1 release site during the 2006 reporting period. Approximately 376 gallons (8 barrels) of product has been recovered by manual recovery since project inception.

Review of laboratory analytical results generated from analysis of the groundwater samples obtained during the 2006 monitoring period indicates the benzene concentrations were above the NMOCD regulatory standard in sixteen (16) of the eighteen (18) site monitor wells (including monitor well MW-2) at least one of the four quarters of the reporting period.

Analytical results indicate benzene concentrations are generally increasing throughout the site monitor wells. Toluene, ethylbenzene and xylene concentrations are generally stable and are of relatively low magnitude, with the exception of the monitor well MW-3.

## ANTICIPATED ACTIONS

Groundwater monitoring and groundwater sampling will continue in 2007. An Annual Monitoring Report will be submitted to the NMOCD before April 1, 2008.

In 2007, Plains will investigate an area of historic asphaltine near monitor well MW-12. The purpose of the investigation will be to evaluate possible hydrocarbon sources responsible for the continued BTEX constituent impact to the groundwater at the site.

## LIMITATIONS

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

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

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

**DISTRIBUTION**

Copy 1
Ben Stone
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Copy 2:
Larry Johnson and Patricia Caperton
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 1
1625 French Drive
Hobbs, NM 88240

Copy 3:
Camille Reynolds
Plains Marketing, L.P.
3112 Highway 82
Lovington, NM
cjreynolds@paalp.com

Copy 4:
Jeff Dann
Plains Marketing, L.P.
333 Clay Street
Suite 1600
Houston, TX 77002
jpdann@paalp.com

Copy 5:
NOVA Safety and Environmental
2057 Commerce Street
Midland, TX 79703
cstanley@novatraining.cc

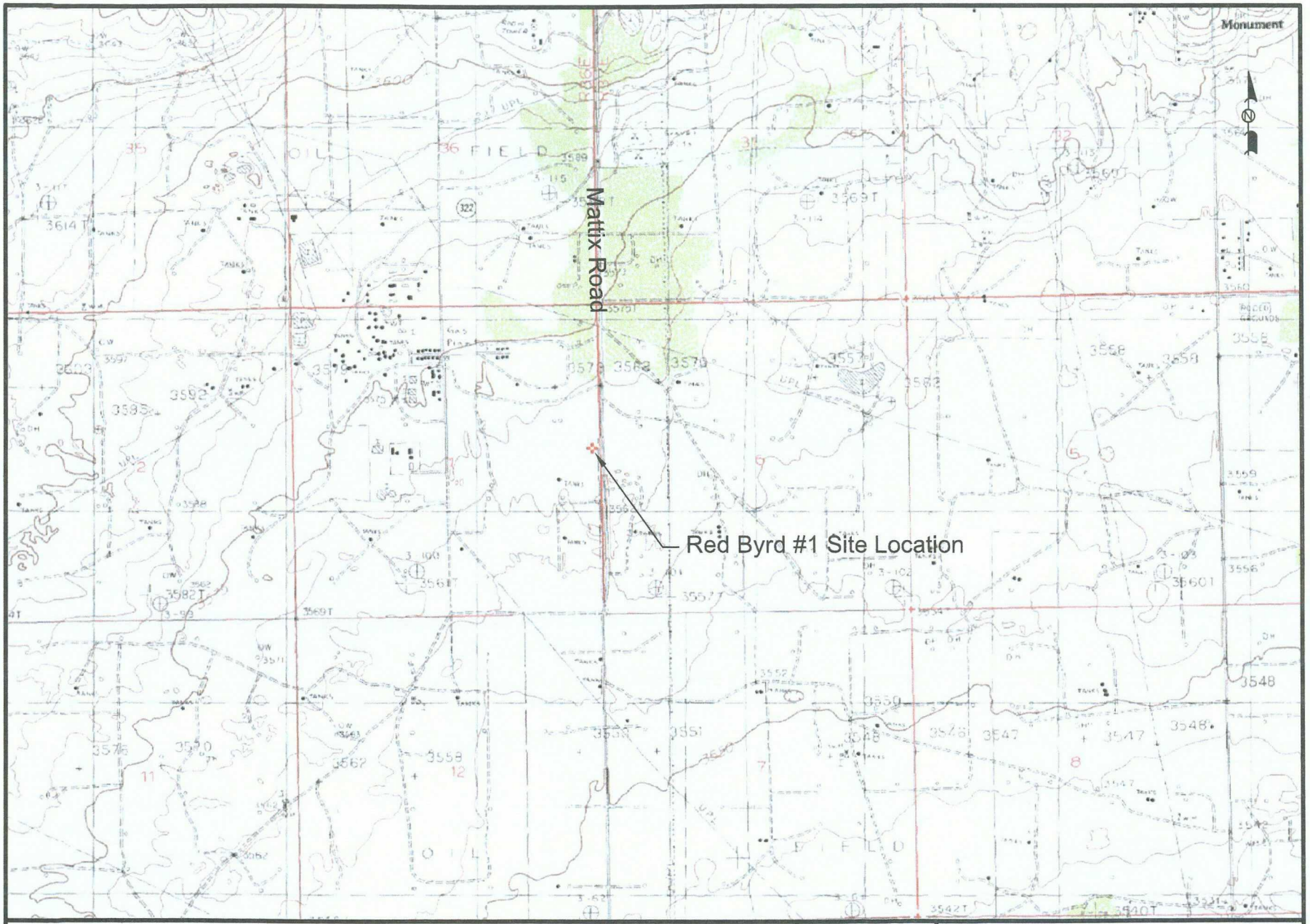
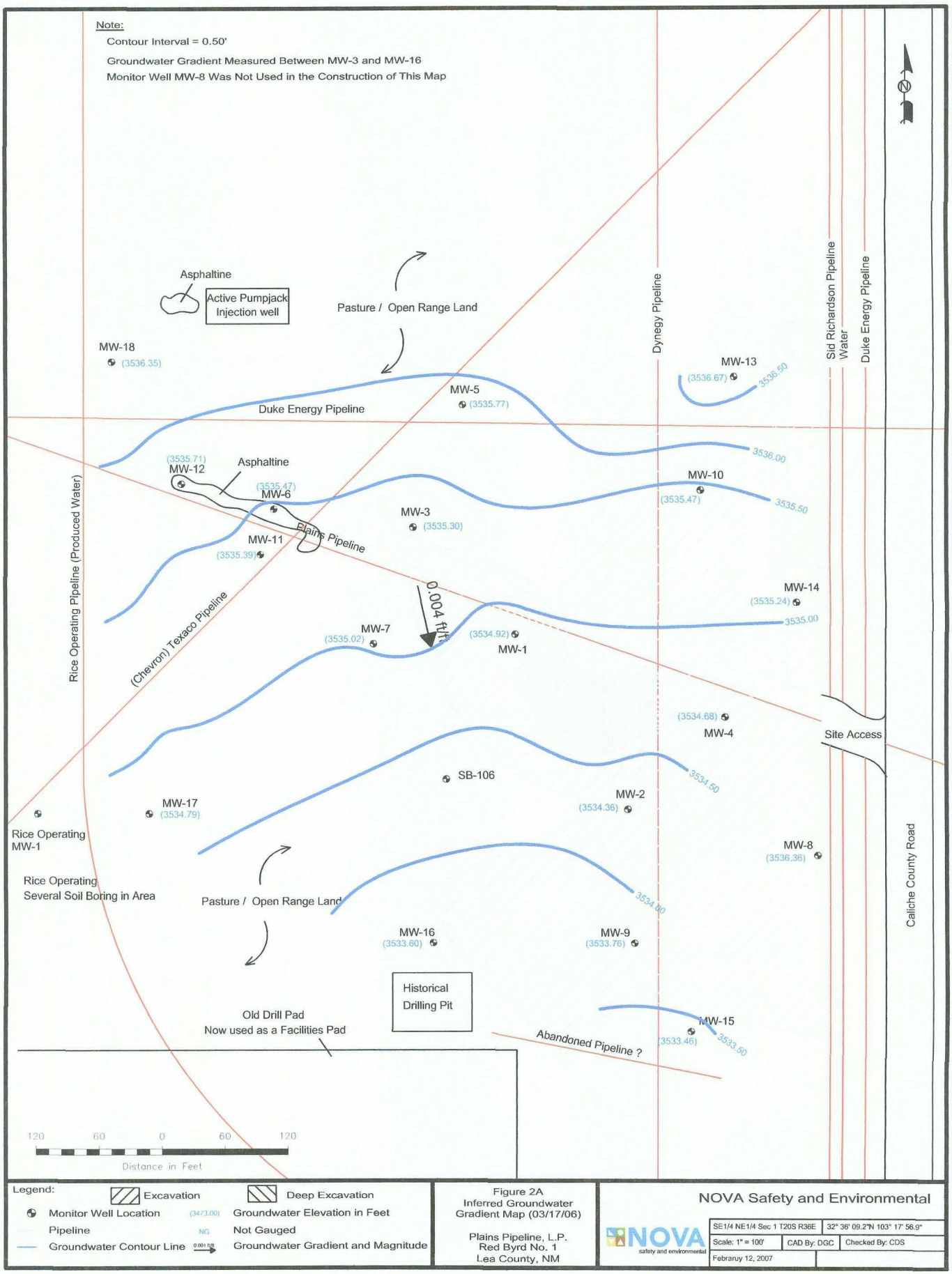



Figure 1
Site Location Map

Plains Marketing, L.P.
Red Byrd No. 1
Lea County, NM

NOVA Safety and Environmental

| | | |
|---|---|---|
| SE1/4 NE1/4 Sec 1 T20S R36E | | 32° 36' 09.2"N 103° 17' 56.9" |
| Scale: NTS | Prep By: CDS | Checked By: TKC |
| | | February 23, 2005 |


Note:
Contour Interval = 0.50'
Groundwater Gradient Measured Between MW-3 and MW-16
Monitor Well MW-8 Was Not Used in the Construction of This Map
N
Asphaltine
Active Pumpjack Injection well
Pasture / Open Range Land
Dynegy Pipeline
Sid Richardson Pipeline
Water
Duke Energy Pipeline
MW-18
(3536.35)
MW-13
(3536.67)
3536.50
MW-5
(3535.77)
Duke Energy Pipeline
3536.00
(3535.71)
MW-12
Asphaltine
(3535.47)
MW-6
MW-10
(3535.47)
3535.50
MW-3
(3535.30)
Plains Pipeline
MW-11
(3535.39)
Rice Operating Pipeline (Produced Water)
(Chevron) Texaco Pipeline
0.004 ft/ft
MW-14
(3535.24)
3535.00
MW-7
(3535.02)
(3534.92)
MW-1
(3534.68)
MW-4
Site Access
SB-106
3534.50
MW-2
(3534.36)
MW-17
(3534.79)
Rice Operating
MW-1
MW-8
(3536.36)
Rice Operating
Several Soil Boring in Area
Pasture / Open Range Land
3534.00
MW-16
(3533.60)
MW-9
(3533.76)
Historical
Drilling Pit
Old Drill Pad
Now used as a Facilities Pad
MW-15
(3533.46)
3533.50
Abandoned Pipeline ?
Caliche County Road
120
60
0
60
120
Distance in Feet
Legend:
Excavation
Deep Excavation
Monitor Well Location
(3473.00) Groundwater Elevation in Feet
Pipeline
NG Not Gauged
Groundwater Contour Line
0.001 ft/ft Groundwater Gradient and Magnitude
Figure 2A
Inferred Groundwater
Gradient Map (03/17/06)
Plains Pipeline, L.P.
Red Byrd No. 1
Lea County, NM
NOVA Safety and Environmental
NOVA safety and environmental
SE1/4 NE1/4 Sec 1 T20S R36E
32° 36' 09.2"N 103° 17' 56.9"
Scale: 1" = 100'
CAD By: DGC
Checked By: CDS
Febraruy 12, 2007

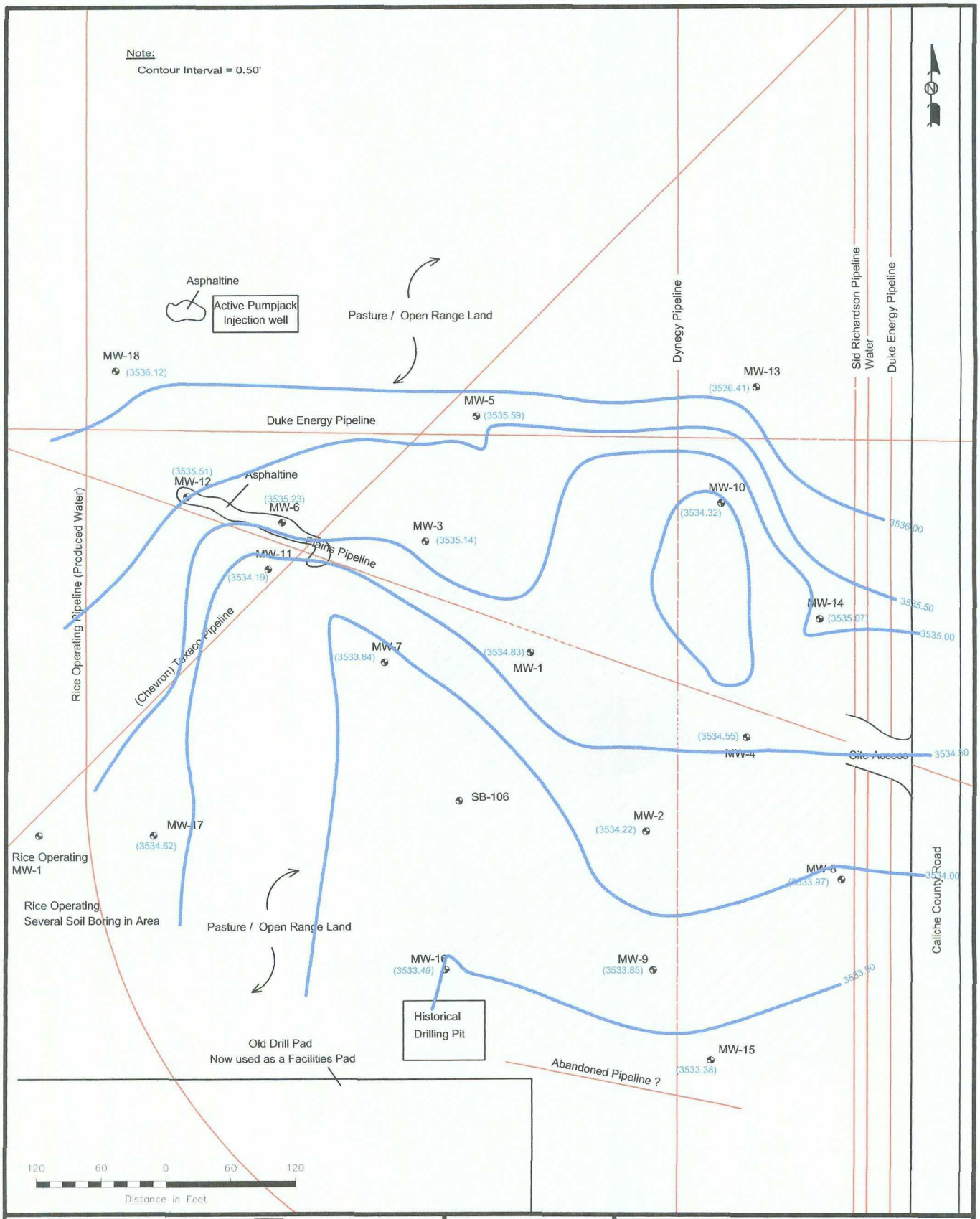
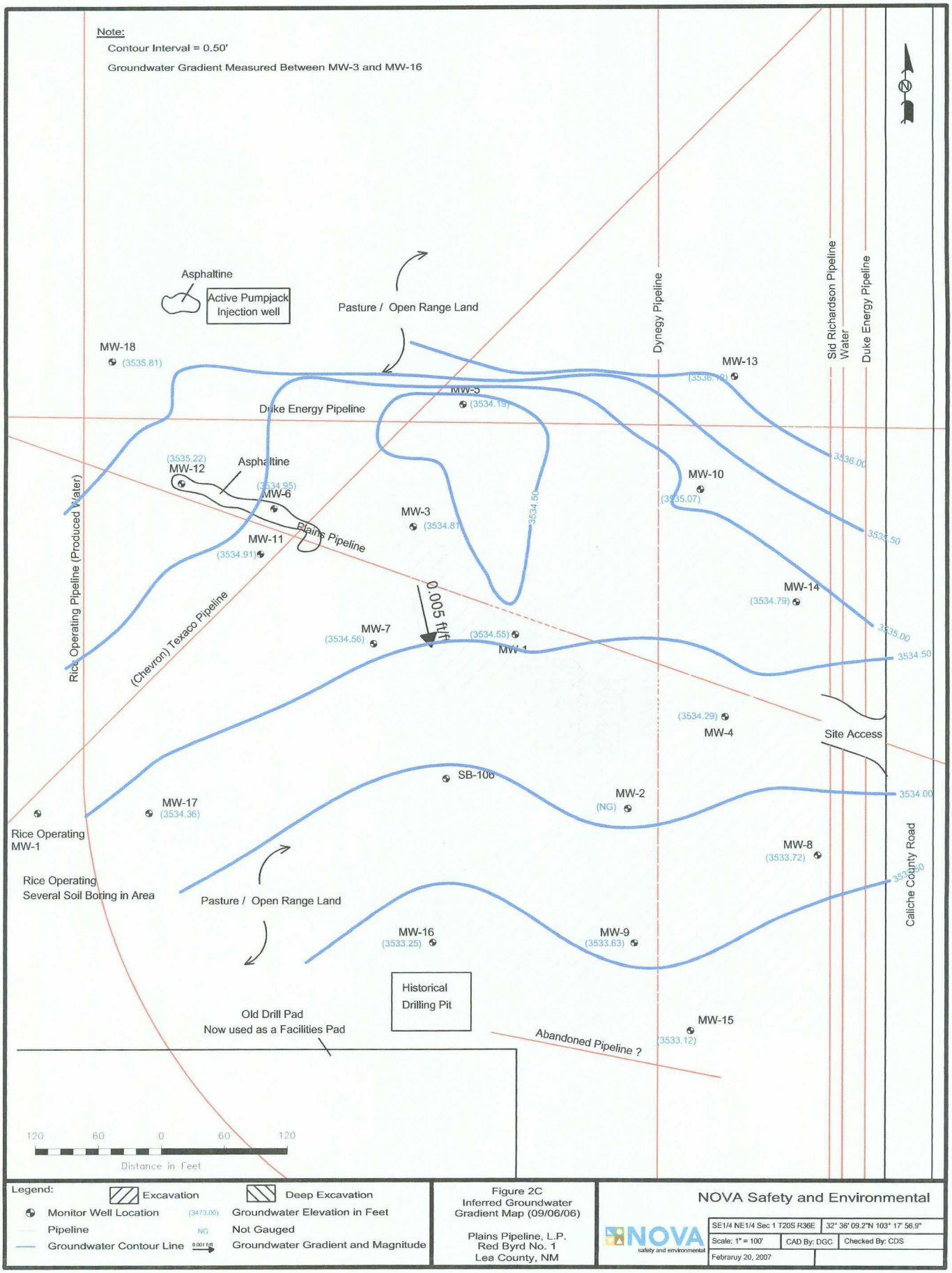



Figure 2B
Inferred Groundwater Gradient Map (06/13/06)

Plains Pipeline, L.P.
Red Byrd No. 1
Lea County, NM

NOVA Safety and Environmental

| | | |
|---|---|---|
| SE1/4 NE1/4 Sec 1 T20S R36E | 32° 36' 09.2"N 103° 17' 56.9" | |
| Scale: 1" = 100' | CAD By: DGC | Checked By: CDS |
| Febraruy 12, 2007 | | |




Legend:

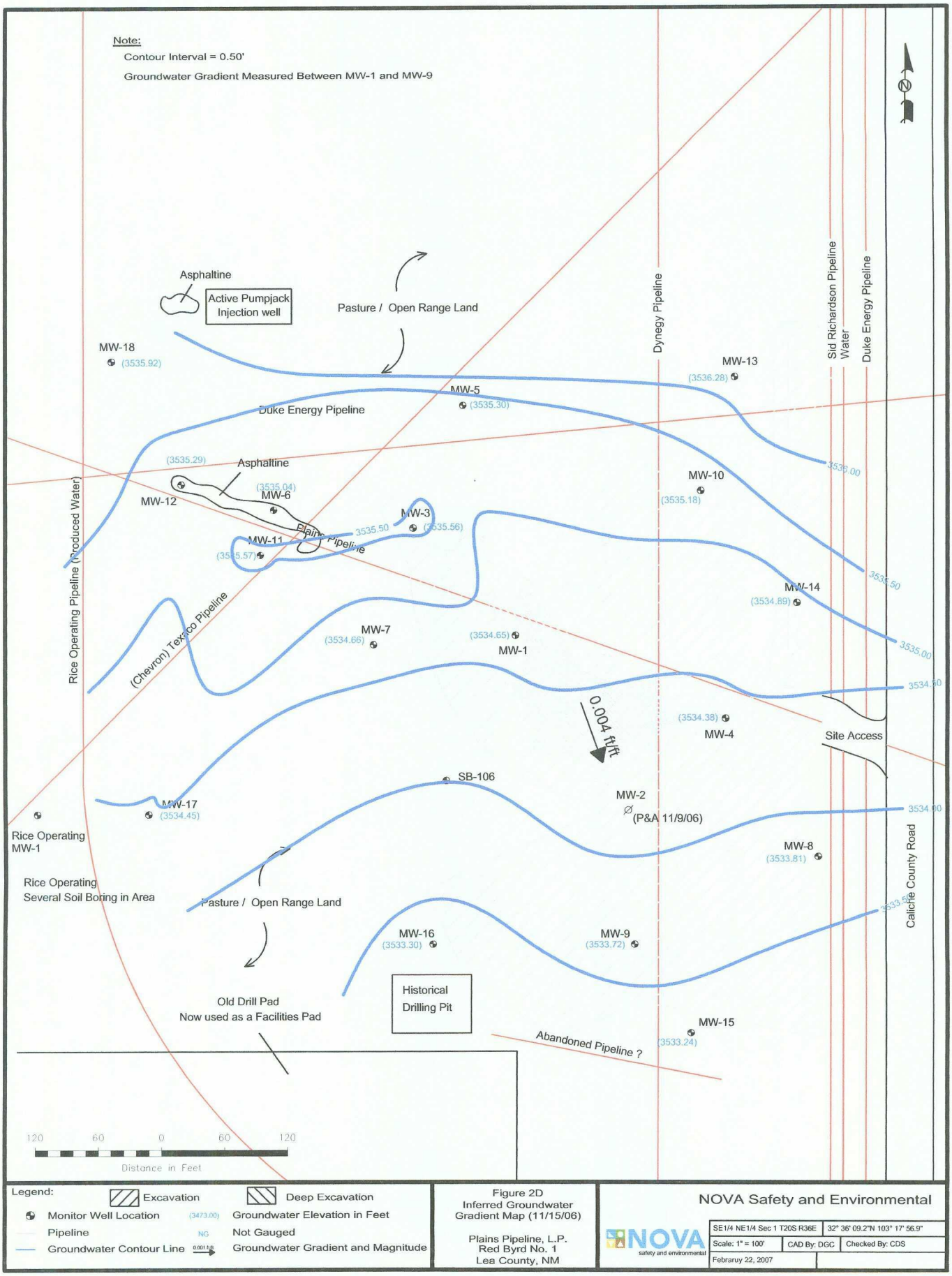
- Excavation
- Deep Excavation
- Monitor Well Location (3473.00) Groundwater Elevation in Feet
- Pipeline NG Not Gauged
- Groundwater Contour Line 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 2C
Inferred Groundwater Gradient Map (09/06/06)

Plains Pipeline, L.P.
Red Byrd No. 1
Lea County, NM

NOVA Safety and Environmental

| | | |
|---|---|---|
| SE1/4 NE1/4 Sec 1 T20S R36E | 32° 36' 09.2"N 103° 17' 56.9" | |
| Scale: 1" = 100' | CAD By: DGC | Checked By: CDS |
| Febraruy 20, 2007 | | |


Note:
Contour Interval = 0.50'
Groundwater Gradient Measured Between MW-1 and MW-9
N
Asphaltine
Active Pumpjack Injection well
Pasture / Open Range Land
Dynegy Pipeline
Sid Richardson Pipeline
Water
Duke Energy Pipeline
MW-18
(3535.92)
MW-13
(3536.28)
MW-5
(3535.30)
Duke Energy Pipeline
3536.00
(3535.29)
Asphaltine
(3535.04)
MW-6
MW-12
MW-10
(3535.18)
MW-3
(3535.56)
3535.50
Plains Pipeline
MW-11
(3535.57)
Rice Operating Pipeline (Produced Water)
3535.50
MW-14
(3534.89)
(Chevron) Texaco Pipeline
MW-7
(3534.66)
(3534.65)
MW-1
3535.00
3534.50
0.004 ft/ft
(3534.38)
MW-4
Site Access
SB-106
MW-2
Ø (P&A 11/9/06)
MW-17
(3534.45)
3534.00
Rice Operating
MW-1
MW-8
(3533.81)
Rice Operating
Several Soil Boring in Area
Pasture / Open Range Land
Caliche County Road
MW-16
(3533.30)
MW-9
(3533.72)
Historical
Drilling Pit
Old Drill Pad
Now used as a Facilities Pad
MW-15
(3533.24)
Abandoned Pipeline ?
120
60
0
60
120
Distance in Feet
Legend:
Excavation
Deep Excavation
Monitor Well Location
(3473.00) Groundwater Elevation in Feet
Pipeline
NG Not Gauged
Groundwater Contour Line
0.001 ft/ft Groundwater Gradient and Magnitude
Figure 2D
Inferred Groundwater
Gradient Map (11/15/06)
Plains Pipeline, L.P.
Red Byrd No. 1
Lea County, NM
NOVA Safety and Environmental
NOVA safety and environmental
SE1/4 NE1/4 Sec 1 T20S R36E
32° 36' 09.2"N 103° 17' 56.9"
Scale: 1" = 100'
CAD By: DGC
Checked By: CDS
Febraruy 22, 2007

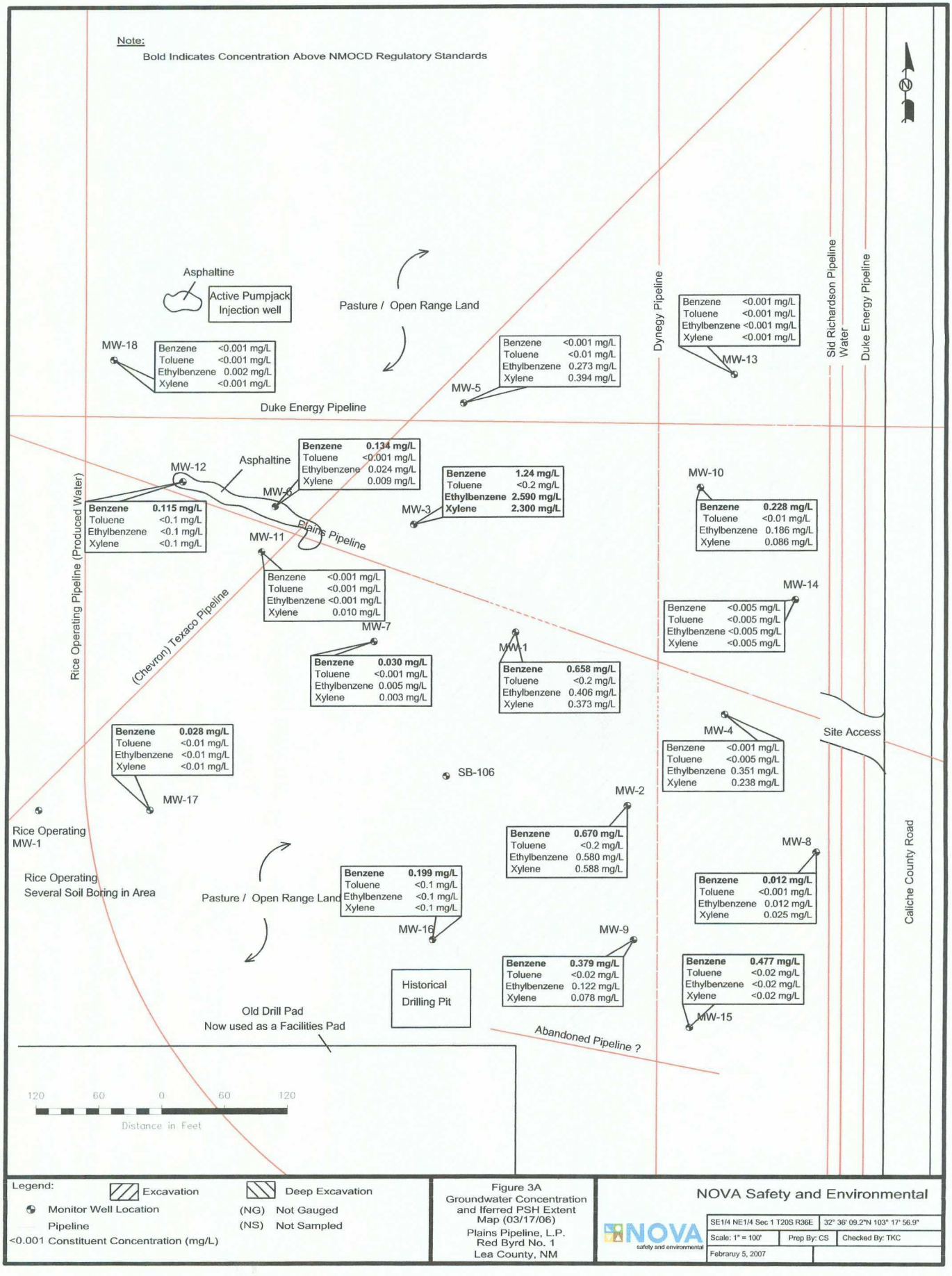



Figure 3A
Groundwater Concentration and Iferred PSH Extent Map (03/17/06)
Plains Pipeline, L.P.
Red Byrd No. 1
Lea County, NM

NOVA Safety and Environmental

| | | |
|---|---|---|
| SE1/4 NE1/4 Sec 1 T20S R36E | 32° 36' 09.2"N 103° 17' 56.9" | |
| Scale: 1" = 100' | Prep By: CS | Checked By: TKC |
| Febraruy 5, 2007 | | |

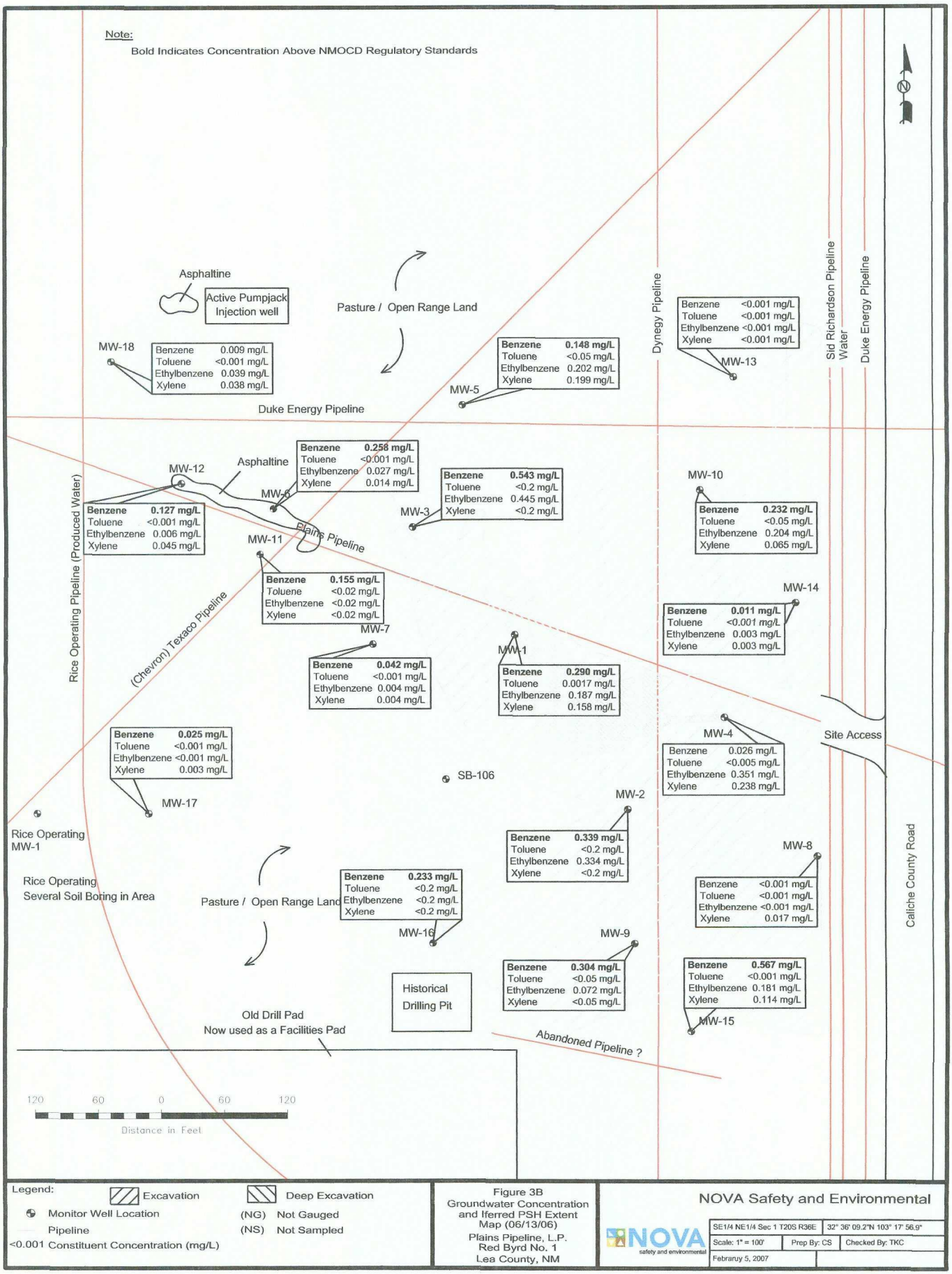
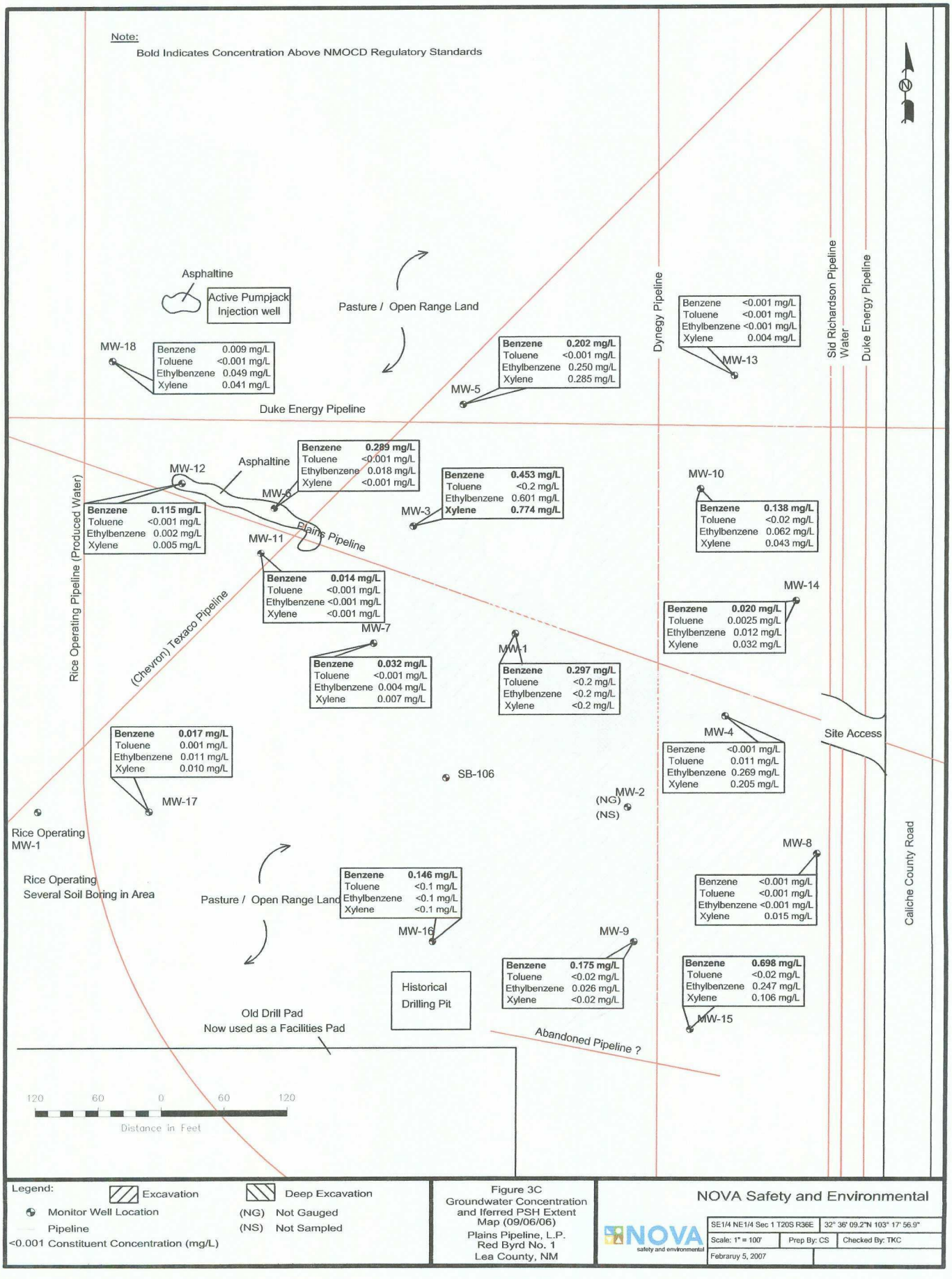
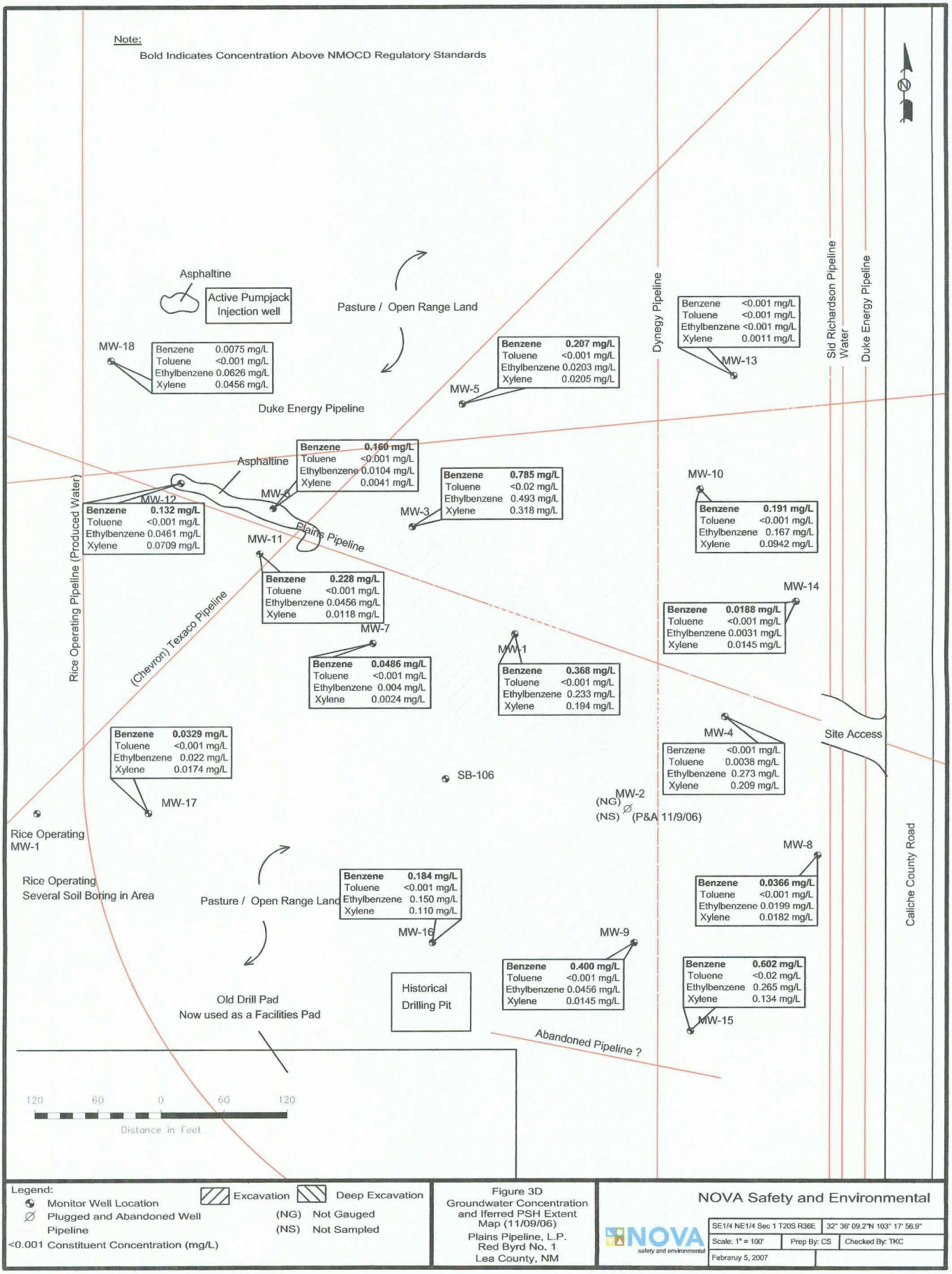



Figure 3B
Groundwater Concentration and Iferred PSH Extent Map (06/13/06)
Plains Pipeline, L.P.
Red Byrd No. 1
Lea County, NM

NOVA Safety and Environmental

| | | |
|---|---|---|
| SE1/4 NE1/4 Sec 1 T20S R36E | | 32° 36' 09.2"N 103° 17' 56.9" |
| Scale: 1" = 100' | Prep By: CS | Checked By: TKC |
| Febraruy 5, 2007 | | |


Note:
Bold Indicates Concentration Above NMOCD Regulatory Standards
Asphaltine
Active Pumpjack Injection well
Pasture / Open Range Land
MW-18
Benzene 0.009 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.049 mg/L
Xylene 0.041 mg/L
MW-5
Benzene 0.202 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.250 mg/L
Xylene 0.285 mg/L
Dynegy Pipeline
Benzene <0.001 mg/L
Toluene <0.001 mg/L
Ethylbenzene <0.001 mg/L
Xylene 0.004 mg/L
MW-13
Sid Richardson Pipeline
Water
Duke Energy Pipeline
Duke Energy Pipeline
MW-12
Asphaltine
Benzene 0.289 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.018 mg/L
Xylene <0.001 mg/L
MW-6
Benzene 0.453 mg/L
Toluene <0.2 mg/L
Ethylbenzene 0.601 mg/L
Xylene 0.774 mg/L
MW-3
MW-10
Benzene 0.138 mg/L
Toluene <0.02 mg/L
Ethylbenzene 0.062 mg/L
Xylene 0.043 mg/L
Benzene 0.115 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.002 mg/L
Xylene 0.005 mg/L
Rice Operating Pipeline (Produced Water)
Plains Pipeline
MW-11
Benzene 0.014 mg/L
Toluene <0.001 mg/L
Ethylbenzene <0.001 mg/L
Xylene <0.001 mg/L
MW-14
Benzene 0.020 mg/L
Toluene 0.0025 mg/L
Ethylbenzene 0.012 mg/L
Xylene 0.032 mg/L
(Chevron) Texaco Pipeline
MW-7
Benzene 0.032 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.004 mg/L
Xylene 0.007 mg/L
MW-1
Benzene 0.297 mg/L
Toluene <0.2 mg/L
Ethylbenzene <0.2 mg/L
Xylene <0.2 mg/L
Site Access
MW-4
Benzene <0.001 mg/L
Toluene 0.011 mg/L
Ethylbenzene 0.269 mg/L
Xylene 0.205 mg/L
Benzene 0.017 mg/L
Toluene 0.001 mg/L
Ethylbenzene 0.011 mg/L
Xylene 0.010 mg/L
MW-17
SB-106
MW-2
(NG)
(NS)
Rice Operating
MW-1
Rice Operating
Several Soil Boring in Area
Pasture / Open Range Land
Benzene 0.146 mg/L
Toluene <0.1 mg/L
Ethylbenzene <0.1 mg/L
Xylene <0.1 mg/L
MW-16
MW-8
Benzene <0.001 mg/L
Toluene <0.001 mg/L
Ethylbenzene <0.001 mg/L
Xylene 0.015 mg/L
Caliche County Road
MW-9
Benzene 0.175 mg/L
Toluene <0.02 mg/L
Ethylbenzene 0.026 mg/L
Xylene <0.02 mg/L
Benzene 0.698 mg/L
Toluene <0.02 mg/L
Ethylbenzene 0.247 mg/L
Xylene 0.106 mg/L
MW-15
Historical
Drilling Pit
Old Drill Pad
Now used as a Facilities Pad
Abandoned Pipeline ?
120 60 0 60 120
Distance in Feet
Legend:
Excavation
Deep Excavation
Monitor Well Location
(NG) Not Gauged
Pipeline
(NS) Not Sampled
<0.001 Constituent Concentration (mg/L)
Figure 3C
Groundwater Concentration and Iferred PSH Extent Map (09/06/06)
Plains Pipeline, L.P.
Red Byrd No. 1
Lea County, NM
NOVA Safety and Environmental
NOVA safety and environmental
SE1/4 NE1/4 Sec 1 T20S R36E
32° 36' 09.2"N 103° 17' 56.9"
Scale: 1" = 100'
Prep By: CS
Checked By: TKC
Febraruy 5, 2007


Note:
Bold Indicates Concentration Above NMOCD Regulatory Standards
Asphaltine
Active Pumpjack Injection well
Pasture / Open Range Land
MW-18
Benzene 0.0075 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.0626 mg/L
Xylene 0.0456 mg/L
Duke Energy Pipeline
MW-5
Benzene 0.207 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.0203 mg/L
Xylene 0.0205 mg/L
Dynegy Pipeline
Benzene <0.001 mg/L
Toluene <0.001 mg/L
Ethylbenzene <0.001 mg/L
Xylene 0.0011 mg/L
MW-13
Sid Richardson Pipeline
Water
Duke Energy Pipeline
Benzene 0.160 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.0104 mg/L
Xylene 0.0041 mg/L
Asphaltine
MW-6
MW-12
Benzene 0.132 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.0461 mg/L
Xylene 0.0709 mg/L
Plains Pipeline
MW-3
Benzene 0.785 mg/L
Toluene <0.02 mg/L
Ethylbenzene 0.493 mg/L
Xylene 0.318 mg/L
MW-10
Benzene 0.191 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.167 mg/L
Xylene 0.0942 mg/L
MW-11
Benzene 0.228 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.0456 mg/L
Xylene 0.0118 mg/L
Rice Operating Pipeline (Produced Water)
(Chevron) Texaco Pipeline
MW-14
Benzene 0.0188 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.0031 mg/L
Xylene 0.0145 mg/L
MW-7
Benzene 0.0486 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.004 mg/L
Xylene 0.0024 mg/L
MW-1
Benzene 0.368 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.233 mg/L
Xylene 0.194 mg/L
Site Access
MW-4
Benzene <0.001 mg/L
Toluene 0.0038 mg/L
Ethylbenzene 0.273 mg/L
Xylene 0.209 mg/L
Benzene 0.0329 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.022 mg/L
Xylene 0.0174 mg/L
MW-17
SB-106
MW-2
(NG)
(NS)
(P&A 11/9/06)
Rice Operating
MW-1
Rice Operating
Several Soil Boring in Area
Pasture / Open Range Land
Benzene 0.184 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.150 mg/L
Xylene 0.110 mg/L
MW-16
MW-8
Benzene 0.0366 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.0199 mg/L
Xylene 0.0182 mg/L
Caliche County Road
MW-9
Benzene 0.400 mg/L
Toluene <0.001 mg/L
Ethylbenzene 0.0456 mg/L
Xylene 0.0145 mg/L
Benzene 0.602 mg/L
Toluene <0.02 mg/L
Ethylbenzene 0.265 mg/L
Xylene 0.134 mg/L
MW-15
Historical
Drilling Pit
Old Drill Pad
Now used as a Facilities Pad
Abandoned Pipeline ?
120 60 0 60 120
Distance in Feet
Legend:
Monitor Well Location
Plugged and Abandoned Well
Pipeline
<0.001 Constituent Concentration (mg/L)
Excavation
Deep Excavation
(NG) Not Gauged
(NS) Not Sampled
Figure 3D
Groundwater Concentration and Iferred PSH Extent Map (11/09/06)
Plains Pipeline, L.P.
Red Byrd No. 1
Lea County, NM
NOVA Safety and Environmental
NOVA safety and environmental
SE1/4 NE1/4 Sec 1 T20S R36E
32° 36' 09.2"N 103° 17' 56.9"
Scale: 1" = 100'
Prep By: CS
Checked By: TKC
Febraruy 5, 2007

# FIGURES

# TABLES

TABLE 1

2006 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
RED BYRD 1
LEA COUNTY, NEW MEXICO

| WELL NUMBER | DATE MEASURED | TOP OF CASING ELEVATION | DEPTH TO PRODUCT | DEPTH TO WATER | PSH THICKNESS | CORRECTED GROUND WATER ELEVATION |
|---|---|---|---|---|---|---|
| MW-1 | 01/11/06 | 3,567.59 | sheen | 32.58 | 0.00 | 3,535.01 |
| | 01/27/06 | 3,567.59 | sheen | 32.65 | 0.00 | 3,534.94 |
| | 02/09/06 | 3,567.59 | sheen | 32.62 | 0.00 | 3,534.97 |
| | 02/24/06 | 3,567.59 | sheen | 32.60 | 0.00 | 3,534.99 |
| | 03/08/06 | 3,567.59 | sheen | 32.58 | 0.00 | 3,535.01 |
| | *03/17/06* | 3,567.59 | - | 32.67 | 0.00 | 3,534.92 |
| | 03/24/06 | 3,567.59 | sheen | 32.63 | 0.00 | 3,534.96 |
| | 03/31/06 | 3,567.59 | sheen | 32.59 | 0.00 | 3,535.00 |
| | 05/04/06 | 3,567.59 | sheen | 32.61 | 0.00 | 3,534.98 |
| | 06/02/06 | 3,567.59 | sheen | 32.71 | 0.00 | 3,534.88 |
| | *06/13/06* | 3,567.59 | - | 32.76 | 0.00 | 3,534.83 |
| | 06/15/06 | 3,567.59 | sheen | 32.75 | 0.00 | 3,534.84 |
| | 06/29/06 | 3,567.59 | sheen | 32.86 | 0.00 | 3,534.73 |
| | 07/12/06 | 3,567.59 | - | 32.89 | 0.00 | 3,534.70 |
| | 08/09/06 | 3,567.59 | - | 34.12 | 0.00 | 3,533.47 |
| | *09/06/06* | 3,567.59 | - | 33.04 | 0.00 | 3,534.55 |
| | 09/17/06 | 3,567.59 | - | 33.01 | 0.00 | 3,534.58 |
| | 10/03/06 | 3,567.59 | - | 33.05 | 0.00 | 3,534.54 |
| | 10/24/06 | 3,567.59 | - | 33.01 | 0.00 | 3,534.58 |
| | *11/15/06* | 3,567.59 | - | 32.94 | 0.00 | 3,534.65 |
| | 11/16/06 | 3,567.59 | - | 32.95 | 0.00 | 3,534.64 |
| | | | | | | |
| MW-2 | 01/11/06 | 3,567.55 | sheen | 33.10 | 0.00 | 3,534.45 |
| | 01/27/06 | 3,567.55 | sheen | 33.22 | 0.00 | 3,534.33 |
| | 02/09/06 | 3,567.55 | sheen | 33.17 | 0.00 | 3,534.38 |
| | 02/24/06 | 3,567.55 | sheen | 33.19 | 0.00 | 3,534.36 |
| | 03/08/06 | 3,567.55 | sheen | 33.15 | 0.00 | 3,534.40 |
| | *03/17/06* | 3,567.55 | - | 33.19 | 0.00 | 3,534.36 |
| | 03/24/06 | 3,567.55 | sheen | 33.15 | 0.00 | 3,534.40 |
| | 03/31/06 | 3,567.55 | sheen | 33.06 | 0.00 | 3,534.49 |
| | 05/04/06 | 3,567.55 | sheen | 33.19 | 0.00 | 3,534.36 |
| | 06/02/06 | 3,567.55 | sheen | 33.28 | 0.00 | 3,534.27 |
| | *06/13/06* | 3,567.55 | - | 33.33 | 0.00 | 3,534.22 |
| | 06/15/06 | 3,567.55 | sheen | 33.28 | 0.00 | 3,534.27 |
| | 06/29/06 | 3,567.55 | sheen | 33.39 | 0.00 | 3,534.16 |
| | 07/12/06 | 3,567.55 | Well Obstructed | | | |
| | 07/26/06 | 3,567.55 | Well Obstructed | | | |
| | 08/09/06 | 3,567.55 | Well Obstructed | | | |
| | *09/06/06* | 3,567.55 | Well Obstructed | | | |
| | 09/17/06 | 3,567.55 | - | 33.55 | | 3,534.00 |

**TABLE 1**

**2006 GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, L.P.**
**RED BYRD 1**
**LEA COUNTY, NEW MEXICO**

| WELL NUMBER | DATE MEASURED | TOP OF CASING ELEVATION | DEPTH TO PRODUCT | DEPTH TO WATER | PSH THICKNESS | CORRECTED GROUND WATER ELEVATION |
|---|---|---|---|---|---|---|
| MW-2 | 10/03/06 | 3,567.55 | - | 33.59 | | 3,533.96 |
| | 10/24/06 | 3,567.55 | - | 33.56 | | 3,533.99 |
| | 11/09/06 | Plugged and Abandoned | | | | |
| | | | | | | |
| MW-3 | 01/11/06 | 3,567.55 | sheen | 32.18 | 0.00 | 3,535.37 |
| | 01/27/06 | 3,567.55 | sheen | 32.29 | 0.00 | 3,535.26 |
| | 02/09/06 | 3,567.55 | sheen | 32.26 | 0.00 | 3,535.29 |
| | 02/24/06 | 3,567.55 | sheen | 32.24 | 0.00 | 3,535.31 |
| | 03/08/06 | 3,567.55 | sheen | 32.20 | 0.00 | 3,535.35 |
| | *03/17/06* | 3,567.55 | 32.25 | 32.26 | 0.01 | 3,535.30 |
| | 03/24/06 | 3,567.55 | sheen | 32.23 | 0.00 | 3,535.32 |
| | 03/31/06 | 3,567.55 | sheen | 32.24 | 0.00 | 3,535.31 |
| | 05/04/06 | 3,567.55 | sheen | 32.26 | 0.00 | 3,535.29 |
| | 06/02/06 | 3,567.55 | sheen | 32.37 | 0.00 | 3,535.18 |
| | *06/13/06* | 3,567.55 | - | 32.41 | 0.00 | 3,535.14 |
| | 06/15/06 | 3,567.55 | sheen | 32.39 | 0.00 | 3,535.16 |
| | 06/29/06 | 3,567.55 | sheen | 32.50 | 0.00 | 3,535.05 |
| | 07/12/06 | 3,567.55 | sheen | 32.55 | 0.00 | 3,535.00 |
| | 08/09/06 | 3,567.55 | - | 32.71 | 0.00 | 3,534.84 |
| | *09/06/06* | 3,567.55 | - | 32.74 | 0.00 | 3,534.81 |
| | 09/17/06 | 3,567.55 | - | 32.76 | 0.00 | 3,534.79 |
| | 10/03/06 | 3,567.55 | - | 32.80 | 0.00 | 3,534.75 |
| | 10/24/06 | 3,567.55 | - | 33.71 | 0.00 | 3,533.84 |
| | *11/15/06* | 3,567.55 | - | 31.99 | 0.00 | 3,535.56 |
| | 11/16/06 | 3,567.55 | - | 32.61 | 0.00 | 3,534.94 |
| | | | | | | |
| MW-4 | 01/11/06 | 3,567.80 | sheen | 33.01 | 0.00 | 3,534.79 |
| | 01/27/06 | 3,567.80 | sheen | 33.13 | 0.00 | 3,534.67 |
| | 02/09/06 | 3,567.80 | sheen | 33.08 | 0.00 | 3,534.72 |
| | 02/24/06 | 3,567.80 | sheen | 33.10 | 0.00 | 3,534.70 |
| | 03/08/06 | 3,567.80 | sheen | 33.05 | 0.00 | 3,534.75 |
| | *03/17/06* | 3,567.80 | - | 33.12 | 0.00 | 3,534.68 |
| | 03/24/06 | 3,567.80 | sheen | 33.09 | 0.00 | 3,534.71 |
| | 03/31/06 | 3,567.80 | sheen | 33.07 | 0.00 | 3,534.73 |
| | 05/04/06 | 3,567.80 | sheen | 33.10 | 0.00 | 3,534.70 |
| | 06/02/06 | 3,567.80 | sheen | 33.19 | 0.00 | 3,534.61 |
| | *06/13/06* | 3,567.80 | - | 33.25 | 0.00 | 3,534.55 |
| | 06/15/06 | 3,567.80 | sheen | 33.22 | 0.00 | 3,534.58 |
| | 06/29/06 | 3,567.80 | sheen | 33.33 | 0.00 | 3,534.47 |
| | 07/12/06 | 3,567.80 | - | 33.35 | 0.00 | 3,534.45 |

**TABLE 1**

**2006 GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, L.P.**
**RED BYRD 1**
**LEA COUNTY, NEW MEXICO**

| WELL NUMBER | DATE MEASURED | TOP OF CASING ELEVATION | DEPTH TO PRODUCT | DEPTH TO WATER | PSH THICKNESS | CORRECTED GROUND WATER ELEVATION |
|---|---|---|---|---|---|---|
| MW-4 | 08/09/06 | 3,567.80 | - | 33.58 | 0.00 | 3,534.22 |
| | *09/06/06* | 3,567.80 | - | 33.51 | 0.00 | 3,534.29 |
| | 09/17/06 | 3,567.80 | - | 33.52 | 0.00 | 3,534.28 |
| | 10/03/06 | 3,567.80 | - | 33.55 | 0.00 | 3,534.25 |
| | 10/24/06 | 3,567.80 | - | 34.40 | 0.00 | 3,533.40 |
| | *11/15/06* | 3,567.80 | - | 33.42 | 0.00 | 3,534.38 |
| | 11/16/06 | 3,567.80 | - | 33.32 | 0.00 | 3,534.48 |
| | | | | | | |
| MW-5 | 01/11/06 | 3,569.50 | sheen | 33.61 | 0.00 | 3,535.89 |
| | 01/27/06 | 3,569.50 | sheen | 33.74 | 0.00 | 3,535.76 |
| | 02/09/06 | 3,569.50 | sheen | 33.70 | 0.00 | 3,535.80 |
| | 02/24/06 | 3,569.50 | sheen | 33.70 | 0.00 | 3,535.80 |
| | 03/08/06 | 3,569.50 | sheen | 33.66 | 0.00 | 3,535.84 |
| | *03/17/06* | 3,569.50 | 33.73 | 33.74 | 0.01 | 3,535.77 |
| | 03/24/06 | 3,569.50 | sheen | 33.71 | 0.00 | 3,535.79 |
| | 03/31/06 | 3,569.50 | sheen | 33.69 | 0.00 | 3,535.81 |
| | 05/04/06 | 3,569.50 | sheen | 33.74 | 0.00 | 3,535.76 |
| | 06/02/06 | 3,569.50 | sheen | 33.84 | 0.00 | 3,535.66 |
| | *06/13/06* | 3,569.50 | - | 33.91 | 0.00 | 3,535.59 |
| | 06/15/06 | 3,569.50 | sheen | 33.86 | 0.00 | 3,535.64 |
| | 06/29/06 | 3,569.50 | sheen | 33.98 | 0.00 | 3,535.52 |
| | 07/12/06 | 3,569.50 | - | 34.02 | 0.00 | 3,535.48 |
| | 08/09/06 | 3,569.50 | - | 33.87 | 0.00 | 3,535.63 |
| | *09/06/06* | 3,569.50 | - | 35.31 | 0.00 | 3,534.19 |
| | 09/17/06 | 3,569.50 | - | 35.30 | 0.00 | 3,534.20 |
| | 10/03/06 | 3,569.50 | - | 35.33 | 0.00 | 3,534.17 |
| | 10/24/06 | 3,569.50 | - | 35.76 | 0.00 | 3,533.74 |
| | *11/15/06* | 3,569.50 | - | 34.20 | 0.00 | 3,535.30 |
| | 11/16/06 | 3,569.50 | - | 34.04 | 0.00 | 3,535.46 |
| | | | | | | |
| MW-6 | *03/17/06* | 3,569.09 | - | 33.62 | 0.00 | 3,535.47 |
| | *06/13/06* | 3,569.09 | - | 33.86 | 0.00 | 3,535.23 |
| | 08/09/06 | 3,569.09 | - | 34.10 | 0.00 | 3,534.99 |
| | *09/06/06* | 3,569.09 | - | 34.14 | 0.00 | 3,534.95 |
| | 09/17/06 | 3,569.09 | - | 34.17 | 0.00 | 3,534.92 |
| | 10/03/06 | 3,569.09 | - | 34.20 | 0.00 | 3,534.89 |
| | 10/24/06 | 3,569.09 | - | 34.09 | 0.00 | 3,535.00 |
| | *11/15/06* | 3,569.09 | - | 34.05 | 0.00 | 3,535.04 |
| | | | | | | |
| MW-7 | *03/17/06* | 3,567.53 | - | 32.51 | 0.00 | 3,535.02 |

**TABLE 1**

**2006 GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, L.P.**
**RED BYRD 1**
**LEA COUNTY, NEW MEXICO**

| WELL NUMBER | DATE MEASURED | TOP OF CASING ELEVATION | DEPTH TO PRODUCT | DEPTH TO WATER | PSH THICKNESS | CORRECTED GROUND WATER ELEVATION |
|---|---|---|---|---|---|---|
| MW-7 | *06/13/06* | 3,567.53 | - | 33.69 | 0.00 | 3,533.84 |
| | *09/06/06* | 3,567.53 | - | 32.97 | 0.00 | 3,534.56 |
| | 10/24/06 | 3,567.53 | - | 32.91 | 0.00 | 3,534.62 |
| | *11/15/06* | 3,567.53 | - | 32.87 | 0.00 | 3,534.66 |
| | | | | | | |
| MW-8 | *03/17/06* | 3,569.79 | - | 33.43 | 0.00 | 3,536.36 |
| | *06/13/06* | 3,569.79 | - | 33.56 | 0.00 | 3,536.23 |
| | 07/12/06 | 3,569.79 | sheen | 33.67 | 0.00 | 3,536.12 |
| | *09/06/06* | 3,569.79 | - | 33.81 | 0.00 | 3,535.98 |
| | 09/17/06 | 3,569.79 | - | 33.75 | 0.00 | 3,536.04 |
| | 10/03/06 | 3,569.79 | - | 33.80 | 0.00 | 3,535.99 |
| | 10/24/06 | 3,569.79 | - | 33.72 | 0.00 | 3,536.07 |
| | *11/15/06* | 3,569.79 | - | 33.72 | 0.00 | 3,536.07 |
| | 11/16/06 | 3,569.79 | - | 33.65 | 0.00 | 3,536.14 |
| | | | | | | |
| MW-9 | *03/17/06* | 3,568.62 | - | 34.86 | 0.00 | 3,533.76 |
| | *06/13/06* | 3,568.62 | - | 34.97 | 0.00 | 3,533.65 |
| | 08/09/06 | 3,568.62 | - | 35.18 | 0.00 | 3,533.44 |
| | *09/06/06* | 3,568.62 | - | 35.19 | 0.00 | 3,533.43 |
| | 09/17/06 | 3,568.62 | - | 35.15 | 0.00 | 3,533.47 |
| | 10/03/06 | 3,568.62 | - | 35.19 | 0.00 | 3,533.43 |
| | 10/24/06 | 3,568.62 | - | 35.12 | 0.00 | 3,533.50 |
| | *11/15/06* | 3,568.62 | - | 35.10 | 0.00 | 3,533.52 |
| | | | | | | |
| MW-10 | *03/17/06* | 3,570.11 | - | 34.64 | 0.00 | 3,535.47 |
| | *06/13/06* | 3,570.11 | - | 35.79 | 0.00 | 3,534.32 |
| | 08/09/06 | 3,570.11 | - | 35.07 | 0.00 | 3,535.04 |
| | *09/06/06* | 3,570.11 | - | 35.04 | 0.00 | 3,535.07 |
| | 09/17/06 | 3,570.11 | - | 35.04 | 0.00 | 3,535.07 |
| | 10/03/06 | 3,570.11 | - | 35.08 | 0.00 | 3,535.03 |
| | 10/24/06 | 3,570.11 | - | 35.00 | 0.00 | 3,535.11 |
| | *11/15/06* | 3,570.11 | - | 34.93 | 0.00 | 3,535.18 |
| | | | | | | |
| MW-11 | *03/17/06* | 3,567.96 | - | 32.57 | 0.00 | 3,535.39 |
| | *06/13/06* | 3,567.96 | - | 33.77 | 0.00 | 3,534.19 |
| | *09/06/06* | 3,567.96 | - | 33.05 | 0.00 | 3,534.91 |
| | 10/24/06 | 3,567.96 | - | 33.00 | 0.00 | 3,534.96 |
| | *11/15/06* | 3,567.96 | - | 32.39 | 0.00 | 3,535.57 |
| | | | | | | |
| MW-12 | *03/17/06* | 3,570.36 | - | 34.65 | 0.00 | 3,535.71 |

**TABLE 1**

**2006 GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, L.P.**
**RED BYRD 1**
**LEA COUNTY, NEW MEXICO**

| WELL NUMBER | DATE MEASURED | TOP OF CASING ELEVATION | DEPTH TO PRODUCT | DEPTH TO WATER | PSH THICKNESS | CORRECTED GROUND WATER ELEVATION |
|---|---|---|---|---|---|---|
| MW-12 | *06/13/06* | 3,570.36 | - | 34.85 | 0.00 | 3,535.51 |
| | 07/12/06 | 3,570.36 | - | 34.94 | 0.00 | 3,535.42 |
| | 08/09/06 | 3,570.36 | - | 35.11 | 0.00 | 3,535.25 |
| | *09/06/06* | 3,570.36 | - | 35.14 | 0.00 | 3,535.22 |
| | 09/17/06 | 3,570.36 | - | 35.06 | 0.00 | 3,535.30 |
| | 10/03/06 | 3,570.36 | - | 35.09 | 0.00 | 3,535.27 |
| | 10/24/06 | 3,570.36 | - | 35.06 | 0.00 | 3,535.30 |
| | *11/15/06* | 3,570.36 | sheen | 35.07 | 0.00 | 3,535.29 |
| | 11/16/06 | 3,570.36 | - | 35.00 | 0.00 | 3,535.36 |
| | | | | | | |
| MW-13 | 03/14/06 | 3,571.78 | - | 35.10 | 0.00 | 3,536.68 |
| | *03/17/06* | 3,571.78 | - | 35.11 | 0.00 | 3,536.67 |
| | *06/13/06* | 3,571.78 | - | 35.37 | 0.00 | 3,536.41 |
| | 07/12/06 | 3,571.78 | - | 35.48 | 0.00 | 3,536.30 |
| | *09/06/06* | 3,571.78 | - | 35.66 | 0.00 | 3,536.12 |
| | 09/17/06 | 3,571.78 | - | 35.66 | 0.00 | 3,536.12 |
| | 10/03/06 | 3,571.78 | - | 35.70 | 0.00 | 3,536.08 |
| | 10/24/06 | 3,571.78 | - | 35.59 | 0.00 | 3,536.19 |
| | *11/15/06* | 3,571.78 | - | 35.50 | 0.00 | 3,536.28 |
| | 11/16/06 | 3,571.78 | - | 35.48 | 0.00 | 3,536.30 |
| | | | | | | |
| MW-14 | 03/14/06 | 3,571.69 | - | 36.43 | 0.00 | 3,535.26 |
| | *03/17/06* | 3,571.69 | - | 36.45 | 0.00 | 3,535.24 |
| | *06/13/06* | 3,571.69 | - | 36.62 | 0.00 | 3,535.07 |
| | 07/12/06 | 3,571.69 | - | 36.73 | 0.00 | 3,534.96 |
| | *09/06/06* | 3,571.69 | - | 36.90 | 0.00 | 3,534.79 |
| | 09/17/06 | 3,571.69 | - | 36.84 | 0.00 | 3,534.85 |
| | 10/03/06 | 3,571.69 | - | 36.89 | 0.00 | 3,534.80 |
| | 10/24/06 | 3,571.69 | - | 36.80 | 0.00 | 3,534.89 |
| | *11/15/06* | 3,571.69 | - | 36.80 | 0.00 | 3,534.89 |
| | 11/16/06 | 3,571.69 | - | 36.70 | 0.00 | 3,534.99 |
| | | | | | | |
| MW-15 | 03/14/06 | 3,569.33 | - | 35.86 | 0.00 | 3,533.47 |
| | *03/17/06* | 3,569.33 | - | 35.87 | 0.00 | 3,533.46 |
| | *06/13/06* | 3,569.33 | - | 35.95 | 0.00 | 3,533.38 |
| | 07/12/06 | 3,569.33 | - | 36.01 | 0.00 | 3,533.32 |
| | 08/09/06 | 3,569.33 | - | 36.18 | 0.00 | 3,533.15 |
| | *09/06/06* | 3,569.33 | - | 36.21 | 0.00 | 3,533.12 |
| | 09/17/06 | 3,569.33 | - | 36.07 | 0.00 | 3,533.26 |
| | 10/03/06 | 3,569.33 | - | 36.10 | 0.00 | 3,533.23 |

**TABLE 1**

**2006 GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, L.P.**
**RED BYRD 1**
**LEA COUNTY, NEW MEXICO**

| WELL NUMBER | DATE MEASURED | TOP OF CASING ELEVATION | DEPTH TO PRODUCT | DEPTH TO WATER | PSH THICKNESS | CORRECTED GROUND WATER ELEVATION |
|---|---|---|---|---|---|---|
| MW-15 | 10/24/06 | 3,569.33 | - | 36.10 | 0.00 | 3,533.23 |
| | *11/15/06* | 3,569.33 | - | 36.09 | 0.00 | 3,533.24 |
| | 11/16/06 | 3,569.33 | - | 36.08 | 0.00 | 3,533.25 |
| | | | | | | |
| MW-16 | 03/14/06 | 3,568.89 | - | 35.29 | 0.00 | 3,533.60 |
| | *03/17/06* | 3,568.89 | - | 35.29 | 0.00 | 3,533.60 |
| | *06/13/06* | 3,568.89 | - | 35.40 | 0.00 | 3,533.49 |
| | 07/12/06 | 3,568.89 | - | 35.51 | 0.00 | 3,533.38 |
| | 08/09/06 | 3,568.89 | - | 35.62 | 0.00 | 3,533.27 |
| | *09/06/06* | 3,568.89 | - | 35.64 | 0.00 | 3,533.25 |
| | 09/17/06 | 3,568.89 | - | 35.65 | 0.00 | 3,533.24 |
| | 10/03/06 | 3,568.89 | - | 35.66 | 0.00 | 3,533.23 |
| | 10/24/06 | 3,568.89 | - | 35.50 | 0.00 | 3,533.39 |
| | *11/15/06* | 3,568.89 | - | 35.59 | 0.00 | 3,533.30 |
| | 11/16/06 | 3,568.89 | - | 35.42 | 0.00 | 3,533.47 |
| | | | | | | |
| MW-17 | 03/13/06 | 3,569.66 | - | 34.86 | 0.00 | 3,534.80 |
| | *03/17/06* | 3,569.66 | - | 34.87 | 0.00 | 3,534.79 |
| | *06/13/06* | 3,569.66 | - | 35.04 | 0.00 | 3,534.62 |
| | 07/12/06 | 3,569.66 | - | 35.12 | 0.00 | 3,534.54 |
| | *09/06/06* | 3,569.66 | | 35.30 | 0.00 | 3,534.36 |
| | 09/17/06 | 3,569.66 | - | 35.28 | 0.00 | 3,534.38 |
| | 10/03/06 | 3,569.66 | - | 35.31 | 0.00 | 3,534.35 |
| | 10/24/06 | 3,569.66 | - | 35.23 | 0.00 | 3,534.43 |
| | *11/15/06* | 3,569.66 | - | 35.21 | 0.00 | 3,534.45 |
| | 11/16/06 | 3,569.66 | - | 35.12 | 0.00 | 3,534.54 |
| | | | | | | |
| MW-18 | 03/13/06 | 3,571.17 | - | 34.81 | 0.00 | 3,536.36 |
| | *03/17/06* | 3,571.17 | - | 34.82 | 0.00 | 3,536.35 |
| | *06/13/06* | 3,571.17 | - | 35.05 | 0.00 | 3,536.12 |
| | 07/12/06 | 3,571.17 | - | 35.14 | 0.00 | 3,536.03 |
| | *09/06/06* | 3,571.17 | - | 35.36 | 0.00 | 3,535.81 |
| | 09/17/06 | 3,571.17 | - | 33.73 | 0.00 | 3,537.44 |
| | 10/03/06 | 3,571.17 | - | 35.77 | 0.00 | 3,535.40 |
| | 10/24/06 | 3,571.17 | - | 35.70 | 0.00 | 3,535.47 |
| | *11/15/06* | 3,571.17 | - | 35.25 | 0.00 | 3,535.92 |
| | 11/16/06 | 3,571.17 | - | 35.20 | 0.00 | 3,535.97 |

*Elevations based on the North American Vertical Datum of 1929.*

## TABLE 2

## 2006 CONCENTRATIONS OF BTEX IN GROUNDWATER

## PLAINS MARKETING, L.P.
## RED BYRD 1
## LEA COUNTY, NM

*All Concentrations are reported in mg/L.*

| SAMPLE LOCATION | SAMPLE DATE | SW 846-8012B,5030 | | | | |
|---|---|---|---|---|---|---|
| | | BENZENE | TOLUENE | ETHYL-BENZENE | m, p - XYLENES | o - XYLENE |
| NMOCD REGULATORY LIMIT | | **0.01** | **0.75** | **0.75** | **0.62** | |
| MW-1 | 03/17/06 | **0.658** | <0.2 | 0.406 | 0.373 | |
| | 06/13/06 | **0.290** | 0.0017 | 0.187 | 0.158 | |
| | 09/06/06 | **0.297** | <0.2 | <0.2 | <0.2 | |
| | 11/15/06 | **0.368** | <0.001 | 0.233 | 0.194 | |
| MW-2 | 03/17/06 | **0.670** | <0.2 | 0.580 | 0.588 | |
| | 06/13/06 | **0.339** | <0.2 | 0.334 | <0.2 | |
| | 09/06/06 | Not Sampled Due to Well Obstruction | | | | |
| | 11/09/06 | Plugged and Abandoned | | | | |
| MW-3 | 03/17/06 | **1.240** | <0.2 | **2.590** | **2.300** | |
| | 06/13/06 | **0.543** | <0.2 | 0.445 | <0.2 | |
| | 09/06/06 | **0.453** | <0.2 | 0.601 | **0.774** | |
| | 11/15/06 | **0.785** | <0.02 | 0.493 | 0.318 | |
| MW-4 | 03/17/06 | <0.001 | 0.0392 | 0.251 | 0.211 | |
| | 06/13/06 | **0.026** | <0.005 | 0.351 | 0.238 | |
| | 09/06/06 | <0.001 | 0.011 | 0.269 | 0.205 | |
| | 11/15/06 | <0.001 | 0.0038 | 0.273 | 0.209 | |
| MW-5 | 03/17/06 | <0.01 | <0.01 | 0.273 | 0.394 | |
| | 06/13/06 | **0.148** | <0.05 | 0.202 | 0.199 | |
| | 09/06/06 | **0.202** | <0.001 | 0.250 | 0.285 | |
| | 11/15/06 | **0.207** | <0.001 | 0.203 | 0.205 | |
| MW-6 | 03/17/06 | **0.134** | <0.001 | 0.024 | 0.009 | |
| | 06/13/06 | **0.258** | <0.001 | 0.027 | 0.014 | |
| | 09/06/06 | **0.289** | <0.001 | 0.018 | <0.001 | |
| | 11/15/06 | **0.160** | <0.001 | 0.0104 | 0.0041 | |
| MW-7 | 03/17/06 | **0.030** | <0.001 | 0.005 | 0.003 | |
| | 06/13/06 | **0.042** | <0.001 | 0.004 | 0.004 | |
| | 09/06/06 | **0.032** | <0.001 | 0.004 | 0.007 | |
| | 11/15/06 | **0.0486** | <0.001 | 0.004 | 0.0024 | |
| MW-8 | 03/17/06 | **0.012** | <0.001 | 0.012 | 0.025 | |

## TABLE 2

## 2006 CONCENTRATIONS OF BTEX IN GROUNDWATER

## PLAINS MARKETING, L.P.
## RED BYRD 1
## LEA COUNTY, NM

*All Concentrations are reported in mg/L.*

| SAMPLE LOCATION | SAMPLE DATE | SW 846-8012B,5030 | | | | |
|---|---|---|---|---|---|---|
| | | BENZENE | TOLUENE | ETHYL-BENZENE | m, p - XYLENES | o - XYLENE |
| NMOCD REGULATORY LIMIT | | **0.01** | **0.75** | **0.75** | **0.62** | |
| MW-8 | 06/13/06 | <0.001 | <0.001 | <0.001 | 0.017 | |
| | 09/06/06 | <0.001 | <0.001 | <0.001 | 0.015 | |
| | 11/15/06 | **0.0366** | <0.001 | 0.0199 | 0.0182 | |
| MW-9 | 03/17/06 | **0.379** | <0.02 | 0.122 | 0.078 | |
| | 06/13/06 | **0.304** | <0.05 | 0.072 | <0.05 | |
| | 09/06/06 | **0.175** | <0.02 | 0.026 | <0.02 | |
| | 11/15/06 | **0.400** | <0.001 | 0.0456 | 0.0145 | |
| MW-10 | 03/17/06 | **0.228** | <0.01 | 0.186 | 0.086 | |
| | 06/13/06 | **0.232** | <0.05 | 0.204 | 0.065 | |
| | 09/06/06 | **0.138** | <0.02 | 0.062 | 0.043 | |
| | 11/15/06 | **0.191** | <0.001 | 0.167 | 0.0942 | |
| MW-11 | 03/17/06 | <0.001 | <0.001 | <0.001 | 0.010 | |
| | 06/13/06 | **0.155** | <0.02 | <0.02 | <0.02 | |
| | 09/06/06 | **0.014** | <0.001 | <0.001 | <0.001 | |
| | 11/15/06 | **0.228** | <0.001 | 0.0456 | 0.0118 | |
| MW-12 | 03/17/06 | **0.115** | <0.1 | <0.1 | <0.1 | |
| | 06/13/06 | **0.127** | <0.001 | 0.006 | 0.045 | |
| | 09/06/06 | **0.020** | <0.001 | 0.002 | 0.005 | |
| | 11/15/06 | **0.132** | <0.001 | 0.0461 | 0.0709 | |
| MW-13 | 03/17/06 | <0.001 | <0.001 | <0.001 | <0.001 | |
| | 06/13/06 | <0.001 | <0.001 | <0.001 | <0.001 | |
| | 09/06/06 | <0.001 | <0.001 | <0.001 | 0.004 | |
| | 11/15/06 | <0.001 | <0.001 | <0.001 | 0.0011 | |
| MW-14 | 03/17/06 | <0.005 | <0.005 | <0.005 | <0.005 | |
| | 06/13/06 | **0.011** | <0.001 | 0.003 | 0.003 | |
| | 09/06/06 | **0.020** | 0.0025 | 0.012 | 0.032 | |
| | 11/15/06 | **0.0188** | <0.001 | 0.0031 | 0.0145 | |
| MW-15 | 03/17/06 | **0.477** | <0.02 | <0.02 | <0.02 | |
| | 06/13/06 | **0.567** | <0.02 | 0.181 | 0.114 | |

## TABLE 2

## 2006 CONCENTRATIONS OF BTEX IN GROUNDWATER

## PLAINS MARKETING, L.P.
## RED BYRD 1
## LEA COUNTY, NM

*All Concentrations are reported in mg/L.*

| SAMPLE LOCATION | SAMPLE DATE | SW 846-8012B,5030 | | | | |
|---|---|---|---|---|---|---|
| | | BENZENE | TOLUENE | ETHYL-BENZENE | m, p - XYLENES | o - XYLENE |
| NMOCD REGULATORY LIMIT | | **0.01** | **0.75** | **0.75** | **0.62** | |
| MW-15 | 09/06/06 | **0.698** | <0.02 | 0.247 | 0.106 | |
| | 11/15/06 | **0.602** | <0.02 | 0.265 | 0.134 | |
| MW-16 | 03/17/06 | **0.199** | <0.1 | <0.1 | <0.1 | |
| | 06/13/06 | **0.233** | <0.2 | <0.2 | <0.2 | |
| | 09/06/06 | **0.146** | <0.1 | <0.1 | <0.1 | |
| | 11/15/06 | **0.184** | <0.001 | 0.150 | 0.110 | |
| MW-17 | 03/17/06 | **0.028** | <0.01 | <0.01 | <0.01 | |
| | 06/13/06 | **0.025** | <0.001 | <0.001 | 0.003 | |
| | 09/06/06 | **0.017** | 0.001 | 0.011 | 0.010 | |
| | 11/15/06 | **0.0329** | <0.001 | 0.022 | 0.0174 | |
| MW-18 | 03/17/06 | <0.001 | <0.001 | 0.002 | <0.001 | |
| | 06/13/06 | 0.009 | <0.001 | 0.039 | 0.038 | |
| | 09/06/06 | 0.009 | <0.001 | 0.049 | 0.041 | |
| | 11/15/06 | 0.0075 | <0.001 | 0.0626 | 0.0456 | |

*Note: m,p and o Xylenes combined when analyzed by Trace Laboratories, Inc. only.*

**TABLE 3**

**2006 CONCENTRATIONS OF TPH AND BTEX IN SOIL**
**PLAINS MARKETING, L.P.**
**RED BYRD 1**
**LEA COUNTY, NM**

*All Concentrations are reported in mg/Kg*

| SAMPLE LOCATION | SAMPLE DATE | SW 846-8015M | | | SW 846-8012B,5030 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | TPH DRO | TPH GRO | Total TPH | BENZENE | TOLUENE | ETHYL-BENZENE | m, p - XYLENES | o - XYLENE | BTEX |
| NMOCD REGULATORY LIMIT | | | | 100 | 10 | | | TOTAL XYLENE | | 50 |
| MW-13 10-15' | 03/08/06 | <50.0 | <1 | <50 | | | | | | |
| MW-13 30-35' | 03/08/06 | <50.0 | <1 | <50 | | | | | | |
| MW-14 10-15' | 03/08/06 | <50.0 | <1 | <50 | | | | | | |
| MW-14 30-35' | 03/08/06 | <50.0 | <1 | <50 | | | | | | |
| MW-14 35-40' | 03/08/06 | <50.0 | 43.4 | 43.4 | <0.01 | <0.01 | 0.041 | <0.01 | | 0.041 |
| MW-15 15-20' | 03/08/06 | <50.0 | <1 | <50 | | | | | | |
| MW-15 30-35' | 03/08/06 | **842** | **1560** | **2402** | <0.1 | <0.1 | 1.860 | 2.320 | | 4.180 |
| MW-16 10-15' | 3/9/2006 | <50.0 | <1 | <50 | | | | | | |
| MW-16 5-10' | 3/9/2006 | <50.0 | <1 | <50 | | | | | | |
| MW-16 30-35' | 3/9/2006 | **649** | **2240** | **2889** | <0.1 | <0.1 | 2.350 | 3.880 | | 6.230 |
| MW-17 0-5' | 3/9/2006 | <50.0 | <1 | <50 | | | | | | |
| MW-17 10-15' | 3/9/2006 | <50.0 | <1 | <50 | | | | | | |
| MW-17 30-35' | 3/9/2006 | **151** | **2040** | **2191** | 1.600 | <0.1 | 3.660 | 4.290 | | 9.550 |
| MW-18 5-10' | 3/9/2006 | <50.0 | <1 | <50 | | | | | | |
| MW-18 20-25' | 3/9/2006 | <50.0 | <1 | <50 | | | | | | |
| MW-18 30-35' | 3/9/2006 | <50.0 | 92.6 | 92.6 | 0.0327 | <0.01 | 0.202 | <0.01 | | 0.235 |
| SB-106 0-5' | 3/9/2006 | <50.0 | <5 | <50 | | | | | | |
| SB-106 10-15' | 3/9/2006 | <50.0 | <1 | <50 | | | | | | |
| SB-106 30-35' | 3/9/2006 | <50.0 | 15.6 | 15.6 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | | |

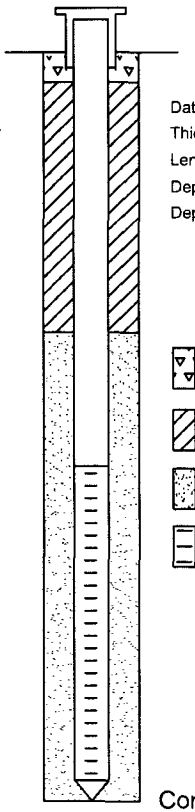
# APPENDICES

# APPENDIX A:
# Boring Logs and Monitor Well Details

# Monitor Well MW-14

| Depth (feet) | PID Reading | Petroleum Odor | Petroleum Stain | Soil Description |
|---|---|---|---|---|
| 0 - 5 | 3.3 | None | None | 0 - 8' - Sand, brown, clayey, very fine grained, moist. |
| 5 - 10 | 1.8 | None | None | 8 - 10' - Caliche, grey and white. |
| 10 - 15 | (2.1) | None | None | 10 - 15' - Sand, brown, very fine grained. |
| 15 - 20 | 2.8 | None | None | |
| 20 - 25 | 5.3 | None | None | |
| 25 - 30 | 4.7 | None | None | 15 - 40' - Sand, reddish-brown, very fine grained. |
| 30 - 35 | (3.1) | Slight | None | |
| 35 - 40 | (30.4) | Moderate | None | |
| 40 - 45 | 13.2 | Moderate | Moderate | 40 - 45' - Sand, reddish-brown, very fine grained, with gravel, moist. |

TD



## Monitor Well Details

Date Drilled 03-08-06
Thickness of Bentonite Seal 15 ft
Length of PVC Well Screen 20 ft
Depth of PVC Well 45 ft
Depth of Exploratory Well 45 ft

Grout Surface Seal

Bentonite Pellet Seal

Sand Pack

Screen

(2.1) Indicates samples selected for Laboratory Analysis.

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

## Completion Notes

1. The monitor well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from below ground surface. (bgs)

Boring Log And Monitor Well Details
Monitor Well MW-14
Red Bryd #1 Lea County, New Mexico
Plains Marketing, L.P.

NOVA safety and environmental

NOVA Safety and Environmental

| CAD By: DGC | Checked By: CDS |
|---|---|
| March 24, 2007 | |

# Monitor Well MW-15

| Depth (feet) | PID Reading | Petroleum Odor | Petroleum Stain |
|---|---|---|---|
| 0 | | | |
| 5 | 4.2 | None | None |
| 10 | 2.7 | None | None |
| 15 | 1.5 | None | None |
| | (9.6) | None | None |
| 20 | 7.7 | None | None |
| 25 | 20.6 | None | None |
| 30 | (474) | Heavy | Heavy |
| 35 | 53.8 | Heavy | Slight |
| 40 | | Heavy | Slight |
| 45 TD | | | |

## Soil Description

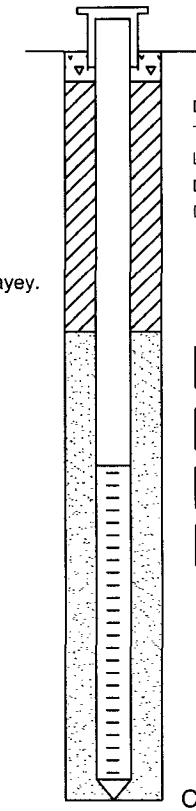
0 - 13' - Sand, brown, clayey, fine grained.

13 - 15' - Caliche, grey and sand, brown, clayey.

15 - 30' - Clay, brown, sandy.

30 - 35' - Clay, brown, sandy, with gravel.

35 - 45' - Clay, brown, sandy.



## Monitor Well Details

Date Drilled 03-08-06
Thickness of Bentonite Seal 15 ft
Length of PVC Well Screen 20 ft
Depth of PVC Well 45 ft
Depth of Exploratory Well 45 ft

Grout Surface Seal

Bentonite Pellet Seal

Sand Pack

Screen

(oval) Indicates samples selected for Laboratory Analysis.

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

## Completion Notes

1. The monitor well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from below ground surface. (bgs)

Boring Log And Monitor Well Details
Monitor Well MW-15
Red Bryd #1 Lea County, New Mexico
Plains Marketing, L.P.

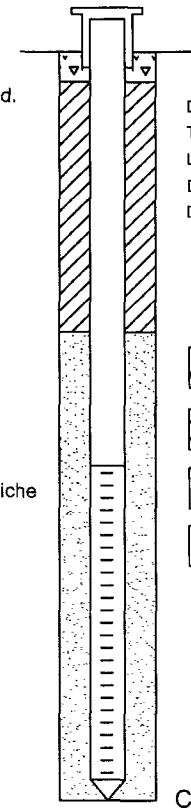
NOVA safety and environmental

NOVA Safety and Environmental

| CAD By: DGC | Checked By: CDS |
|---|---|
| March 24, 2007 | |

# Monitor Well MW-16

| Depth (feet) | PID Reading | Petroleum Odor | Petroleum Stain | Soil Description |
|---|---|---|---|---|
| 0 - 5 | 4.0 | None | None | 0 - 5' - Sand, brown, clayey, very fine grained. |
| 5 - 10 | (7.1) | None | None | 5 - 10' - Caliche, grey, sandy. |
| 10 - 15 | (15.3) | None | None | 10 - 15' - Sand, brown, clayey. |
| 15 - 20 | 11.2 | None | None | 15 - 20' - Sand, brown, clayey, fine grained. |
| 20 - 25 | 5.6 | None | None | 20 - 25' - Sand, brown, clayey, moist. |
| 25 - 30 | 4.5 | None | None | 25 - 31' - Sand, brown, clayey with some caliche fragments. |
| 30 - 35 | (748) | Heavy | Heavy | 31 - 40' - Sand, grey, with gravel. |
| 35 - 40 | 255 | Moderate | Slight | |
| 40 - 45 | 66.5 | Slight | Slight | 40 - 45' - Sand, brown, clayey. |
| TD | | | | |



## Monitor Well Details

Date Drilled 03-09-06
Thickness of Bentonite Seal 15 ft
Length of PVC Well Screen 20 ft
Depth of PVC Well 45 ft
Depth of Exploratory Well 45 ft

Grout Surface Seal
Bentonite Pellet Seal
Sand Pack
Screen

(748) Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

## Completion Notes

1. The monitor well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from below ground surface. (bgs)

Boring Log And Monitor Well Details
Monitor Well MW-16
Red Bryd #1 Lea County, New Mexico
Plains Marketing, L.P.

NOVA safety and environmental

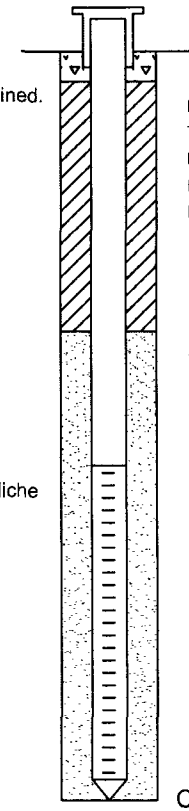
NOVA Safety and Environmental

CAD By: DGC | Checked By: CDS
March 24, 2007

# Monitor Well MW-17

| Depth (feet) | PID Reading | Petroleum Odor | Petroleum Stain | Soil Description |
|---|---|---|---|---|
| 0 - 5 | (12.8) | None | None | 0 - 5' - Clay, brown, sand, silty, very fine grained. |
| 5 - 10 | 3.7 | None | None | 5 - 10' - Caliche, grey, sandy. |
| 10 - 15 | (4.0) | None | None | 10 - 15' - Sand, brown, fine grained. |
| 15 - 20 | 1.5 | None | None | 15 - 20' - Sand, brown, clayey, with some caliche fragments. |
| 20 - 25 | 5.6 | None | None | 20 - 25' - Sand, brown, clayey, moist. |
| 25 - 30 | 16.0 | None | None | 25 - 30' - Sand, brown, clayey with some caliche fragments. |
| 30 - 35 | (153) | Very Heavy | Very Heavy | 30 - 35' - Sand, grey, with gravel. |
| 35 - 40 | 140 | Heavy | Moderate | |
| 40 - 45 | 6.5 | None | None | 35 - 45' - Clay, brown, sandy. |

TD



## Monitor Well Details

Date Drilled 03-10-06
Thickness of Bentonite Seal 15 ft
Length of PVC Well Screen 20 ft
Depth of PVC Well 45 ft
Depth of Exploratory Well 45 ft

Grout Surface Seal
Bentonite Pellet Seal
Sand Pack
Screen

(oval) Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

## Completion Notes

1. The monitor well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from below ground surface. (bgs)

Boring Log And Monitor Well Details
Monitor Well MW-17
Red Bryd #1 Lea County, New Mexico
Plains Marketing, L.P.

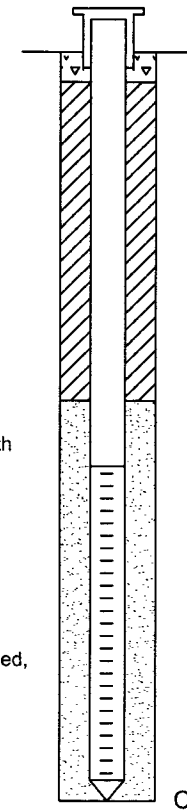
NOVA safety and environmental

NOVA Safety and Environmental

| CAD By: DGC | Checked By: CDS |
|---|---|
| March 24, 2007 | |

# Monitor Well MW-18

| Depth (feet) | PID Reading | Petroleum Odor | Petroleum Stain | Soil Description |
|---|---|---|---|---|
| 0 | 4.7 | None | None | 0 - 5' - Sand, brown, clayey, some caliche fragments at 3'. |
| 5 | (4.8) | None | None | 5 - 10' - Caliche, grey, soft sand, brown. |
| 10 | 3.6 | None | None | |
| 15 | 8.1 | None | None | 10 - 20' - Sand, brown, very fine grained. |
| 20 | (15.2) | None | None | |
| 25 | 7.1 | None | None | 20 - 30' - Sand, brown, very fine grained, with some caliche. |
| 30 | (8.2) | Heavy | Slight | 30 - 35' - Sand, grey to brown, wet. |
| 35 | 34.8 | Slight | None | 35 - 40' - Clay, brown, sandy, very fine grained, some caliche fragments. |
| 40 | 32.2 | Slight | None | 40 - 45' - Clay, brown, sandy, moist. |
| 45 TD | | | | |



## Monitor Well Details

Date Drilled 03-09-06
Thickness of Bentonite Seal 19 ft
Length of PVC Well Screen 20 ft
Depth of PVC Well 45 ft
Depth of Exploratory Well 45 ft

Grout Surface Seal
Bentonite Pellet Seal
Sand Pack
Screen

(4.8) Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

## Completion Notes

1. The monitor well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from below ground surface. (bgs)

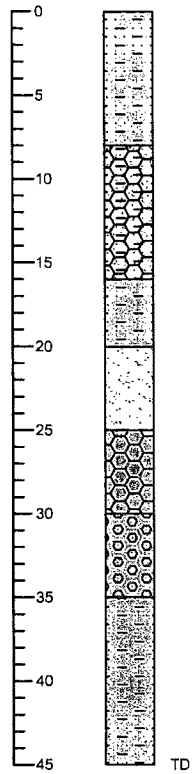
Boring Log And Monitor Well Details
Monitor Well MW-18
Red Bryd #1 Lea County, New Mexico
Plains Marketing, L.P.

NOVA safety and environmental

NOVA Safety and Environmental

| CAD By: DGC | Checked By: CDS |
|---|---|
| March 24, 2007 | |

# Soil Boring SB-106




| Depth (feet) | PID Reading | Petroleum Odor | Petroleum Stain | Soil Description |
|---|---|---|---|---|
| 0 - 5 | (9.3) | None | None | 0 - 8' - Clay, brown, clayey, fine grained. |
| 5 - 10 | 1.5 | None | None | |
| 10 - 15 | (3.5) | None | None | 8 - 16' - Caliche, grey and brown, clayey, sandy. |
| 15 - 20 | 1.9 | None | None | 16 - 20' - Clay, brown, clayey, very fine grained. |
| 20 - 25 | 2.3 | None | None | 20 - 25' - Sand, reddish-brown, fine grained. |
| 25 - 30 | 3.2 | None | None | 25 - 30' - Caliche, grey with some brown sand. |
| 30 - 35 | (162) | Heavy | Heavy | 30 - 35' - Gravel snd sand, brown. |
| 35 - 40 | 19.7 | Moderate | None | 35 - 45' - Clay and sand, brown. |
| 40 - 45 | 24.1 | Slight | None | |

## Soil Boring Details

Date Drilled 03-08-06

Depth ofSoil Boring 45 ft

(  ) Indicates samples selected for Laboratory Analysis.

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

## Completion Notes

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

Soil Boring Log and Details
Soil Boring SB-106
Red Bryd #1 Lea County, New Mexico
Plains Marketing, L.P.

NOVA safety and environmental

NOVA Safety and Environmental

| CAD By: DGC | Checked By: CDS |
|---|---|
| March 24, 2007 | |

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

# Release Notification and Corrective Action

## OPERATOR

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: | Red Byrd # 1 | Facility Type: | Steel Pipeline |

| | | |
|---|---|---|
| Surface Owner: Red Byrd | Mineral Owner | Lease No. |

## LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|---|---|---|---|---|---|---|---|---|
| H | 1 | 20S | 36E | | | | | Lea |

**Latitude** 32° 36' 09.8" N **Longitude** 103° 17' 58.5" W

## NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release: Crude Oil | Volume of Release: Unknown | Volume Recovered |
| Source of Release: Steel Pipeline | Date and Hour of Occurrence | Date and Hour of Discovery |
| Was Immediate Notice Given? Yes ☐ No ☐ Not Required | If YES, To Whom? | |
| By Whom? | Date and Hour | |
| Was a Watercourse Reached? ☐ Yes ☐ No | If YES, Volume Impacting the Watercourse. | |

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

| | | |
|---|---|---|
| Signature: | OIL CONSERVATION DIVISION | |
| Printed Name: Camille Reynolds | Approved by District Supervisor: | |
| Title: Remediation Coordinator | Approval Date: | Expiration Date: |
| E-mail Address: cjreynolds@paalp.com | Conditions of Approval: | Attached ☐ |
| Date: 3/21/2005 Phone: (505)441-0965 | | |

* Attach Additional Sheets If Necessary