1R - 463

Annual GW Mon. REPORTS

DATE:

2009

2009 ANNUAL REPORT
D S HUGH
PLAINS SRS NO.: 2000-10807
UL-K, SECTION 26, T21S, R37E
Lea County, New Mexico
NMOCD No.: IR-0463

RECEIVED
MAR 31 2010
Environmental Bureau
Oil Conservation Division

PREPARED FOR

PLAINS PIPELINE, L.P.

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HOUSTON, TEXAS 77002

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Project No. 205071.00

March 2010

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March 30, 2010

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

Re: 2009 Annual Reports for
Vacuum to Jal 14" Mainline #3
Vacuum to Jal 14" Mainline #5
D S Hugh
Hugh Gathering

Dear Mr. Hansen:

Please find enclosed one copy each of the 2009 Annual Report required to be submitted to the New Mexico Oil Conservation Division (NMOCD). Annual Reports for the year 2009 were prepared by Premier Environmental Services, Inc. (Premier) on behalf of Plains Pipeline, L.P. (Plains) for the following Plains' sites located in Lea County, New Mexico:

- Vacuum to Jal 14" Mainline #3; NMOCD # 1R - 455; Plains SRS # 2003 - 00117
- Vacuum to Jal 14" Mainline #5; NMOCD # 1R - 0464; Plains SRS # 2003 - 00134
- D S Hugh; NMOCD # 1R - 0463; Plains SRS # 2000 - 10807
- Hugh Gathering; NMOCD # AP-0041; Plains SRS # 2002 - 10235

If you have any questions or concerns, please feel free to call us at (281) 240-5200 extension 2703.

Yours very truly,

Chan Patel
Senior Project Manager

Steven M Sellepack
Project Geologist

cc: Larry Johnson (NMOCD Hobbs)
Mr. Jeffrey Dann, P.G. (Plains)
Local Plains Representative
Premier Environmental Services

Attachments

2009 Annual Report - Vacuum to Jal 14" Mainline #3
2009 Annual Report - Vacuum to Jal 14" Mainline #5
2009 Annual Report - D S Hugh
2009 Annual Report - Hugh Gathering

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DISCLAIMER

Premier has examined and relied upon the file information provided by Plains and Environmental Plus, Inc. (EPI). Premier has not conducted an independent examination of the information contained in the Plains files; furthermore, we assume the genuineness of the documents reviewed and that the information provided in these documents to be true and accurate. Premier has prepared this report using the level of care and professionalism in the industry for similar projects under similar conditions. Premier will not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time this report was prepared. Premier believes the conclusions stated herein are factual, but no guarantee is made or implied.

EXECUTIVE SUMMARY

On November 10, 2000, a 4 inch steel pipeline at the D S Hugh 4 inch Gathering line Site (site), SRS No. 2000-10807 released approximately 20 barrels of crude oil into the subsurface. This pipeline was formerly owned by EOTT Energy, LLC (EOTT) and is currently owned by Plains Pipeline, L.P. (Plains). The site is located in Unit Letter K, T21S, R37E, Section 26 of Lea County, New Mexico, approximately two miles east of Eunice, New Mexico (**Figure 1, Appendix A**) or more specifically at latitude 32° 26' 48" N and longitude 103° 08' 07" W. Approximately five barrels of product were reported to be recovered. The affected area was reported to be approximately 200 feet by 15 feet, and product stayed within the pipeline right of way. The leak was repaired and affected soil was excavated and temporarily placed on a plastic liner. The initial response notification form (**Form No. C-141, Appendix D**), prepared by Plains, provides documentation of reporting the release to Larry Johnson with the New Mexico Oil Conservation Division (NMOCD). Initial soil remediation activities were completed by Environmental Plus Inc. In April 2005 Premier Environmental Services (Premier) personnel completed site investigation. Details can be found in Premier's *2005 Annual Report*. Site investigation and remediation activities continued in 2005 and 2006.

Site delineation activities in 2005 included the installation of five soil borings and collection of soil samples within and adjacent to the flow path of the release. Based on findings of the September 2005 investigation, and the surface expression of the release, three groundwater monitor wells (MW-1 through MW-3) were installed in December 2005. Total Petroleum Hydrocarbon (TPH) concentrations in soil from monitor well MW-1 were above 100 mg/kg from the surface to the first water bearing zone at a depth of 45 feet bgs. A phase-separated hydrocarbon (PSH) sheen was observed in groundwater samples from monitor well MW-1. In May 2006, further soil investigation was conducted by Premier to delineate the extent of hydrocarbon contamination in soil. During this investigation, monitor wells MW-4 through MW-7 were installed.

A *Soil Remediation Plan* was submitted to and approved by the NMOCD in May 2006. The remediation plan was implemented in October 2006 and a *Soil Closure Report* was submitted in March 2007. Details of the activities can be found in the following reports submitted to the NMOCD:

- April 13, *2006 Groundwater Delineation Investigation* – March 2006 (letter report to Plains)
- May 2006 *Soil Remediation Plan*
- June 6, 2006 *Soil Investigation Results* (letter report to Plains)

- March 2007 *Soil Closure Report*

During 2009, groundwater remediation was conducted on a weekly basis through phase separated hydrocarbons (PSH) recovery while groundwater monitoring was completed on a quarterly basis.

Throughout 2009, weekly gauging and recovery activities from monitor wells with hydrocarbon sheen were conducted. Approximately 1,940 gallons of dissolved phase groundwater and eight gallons of PSH were recovered from wells with PSH or hydrocarbon sheen. Field activities also include monthly gauging, and quarterly sampling and analysis of groundwater from monitor wells MW-2 through MW-7. The variations in PSH thickness and the trends are discussed further in **Section 2.4** of this report.

Monthly gauging data of the monitor wells indicated a relatively flat groundwater gradient with no significant fluctuations during 2009. The groundwater flow, based on the gauging data collected during 2009, was trending east southeast at an approximate average gradient of 0.0018 feet/foot across the site based on the groundwater elevations measured between monitor wells MW-3 and MW-6 during the quarterly groundwater sampling events. The groundwater gradient and flow direction across the site during 2009 were similar to the gradient direction observed during the previous four years.

Groundwater analytical data indicate that benzene concentrations exceed NMOCD remediation criteria in groundwater samples collected from monitor well MW-4 during all the four quarterly sampling events in 2009. All other concentrations for parameters analyzed were below NMOCD remediation criteria for the wells sampled.

During the second quarter of 2009, groundwater samples from the well with PSH or hydrocarbon sheen (MW-1) were collected and analyzed for benzene, toluene, ethylbenzene and total xylene (BTEX) constituents, polynuclear aromatic hydrocarbons (PAHs) and total petroleum hydrocarbons (TPH). Only benzene was detected at concentrations that exceed the NMOCD remediation criteria of 0.01 mg/L from monitor well MW-1. Monitor well MW-1 was not sampled during the remaining sampling events due to the presence of hydrocarbon sheen. Hydrocarbon recovery in monitor well MW-1 continued throughout 2009 using a submersible pump or disposable hand bailers.

Plume stability analysis was completed for the data obtained from the years 2008 and 2009 to establish baseline benzene plume characteristics. Comparison between the 2008 and 2009 plume characteristics indicate that there is a decreasing trend. The calculated benzene plume mass for 2009 indicated a decrease greater than 85 percent when compared to the plume mass calculated for 2008. The areal extent of the plume also decreased by approximately 60 percent and a plume average concentration decrease of approximately 70 percent. However, this evaluation is limited to just two sampling events,

2008 and 2009 and benzene data reported above the remediation criteria only from two monitor wells on site, MW-1 and MW-4. Therefore, the trends presented here are only preliminary and are not conclusive. Further details and the findings of the plume stability study are presented in **Section 2.10, Figures 5 through 8, Appendix B**.

1.0 INTRODUCTION AND SITE HISTORY

Premier Environmental Services, Inc. (Premier) was retained by Plains Pipeline, L.P. (Plains) to conduct site investigations and remediation activities at the D.S. Hugh Gathering 4 inch Site (site) (SRS No: 2000-10807).

The leak that occurred at the site on November 10, 2000, was apparently caused by corrosion of a pipeline. The site is located in T21S, R37E, Section 26 of Lea County, New Mexico, approximately two miles east of Eunice, New Mexico (**Figure 1, Appendix A**). At the time of the release, the pipeline was owned by EOTT, Inc. The pipeline is currently owned by Plains. The release was reported by EOTT to Ms. Donna Williams at the NMOCD on November 10, 2000 at 2:25 P.M. Approximately five barrels of product were reported as recovered out of the approximately 20 barrels reportedly released into the subsurface.

The leak was repaired and affected soil was excavated and temporarily placed on a plastic liner. Delineation was initiated at the site in 2005 through the collection of soil and groundwater samples from soil borings and groundwater monitor wells. Soil and groundwater delineation continued with a groundwater investigation in March 2006. Additional soil and groundwater investigation was conducted in May 2006 to delineate the extent of hydrocarbon contamination in the groundwater. During this investigation, monitor wells MW-4 through MW-7 were advanced (**Figure 2, Appendix A**).

A *Soil Remediation Plan* dated May 2006, was prepared, submitted and approved by NMOCD in a letter dated June 12, 2006. The objective of the *Soil Remediation Plan* was to excavate the most contaminated soil, isolate and control residual chemicals of concern (COCs) in the soil and to prevent further impact to groundwater by the placement of an impermeable liner at the base of the excavation. The remediation plan was implemented in October 2006 and a closure report submitted in March 2007. Details of these activities are described in the reports listed in the *Executive Summary*. Soil remediation was completed in 2006 based on an NMOCD approved work plan, and documented in the March 2007 *Soil Closure Report.*

A quarterly groundwater monitoring program for this site was implemented in 2006 and continues to date. At the request of NMOCD, the wells with measurable PSH or sheen were sampled annually and analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX), total petroleum hydrocarbons (TPH) and polynuclear aromatic hydrocarbons (PAHs) for 2008 and 2009.

2.1 Site Cleanup Goals (Groundwater)

Based on standards outlined in New Mexico Water Quality Control Commission, the remediation criteria for groundwater at the site are as follows:

Benzene	0.010 mg/L
Toluene	0.750 mg/L
Ethylbenzene	0.750 mg/L
Total xylenes	0.620 mg/L
PAHs[1, 2]	0.03 mg/L
Benzo-a-pyrene[2]	0.0007 mg/L

1 – PAHs: Total naphthalenes plus monomethyl naphthalenes
2 – PAH remediation standards will be used as target concentrations only upon PSH removal.

In addition to using these concentrations as the target cleanup goals in groundwater at the site, PSH removal is also an integral part of on-going remediation activities at the site.

2.2 2009 Groundwater Activities

Groundwater at the site was evaluated throughout 2009 by conducting weekly gauging of all monitor wells; and quarterly groundwater sampling and analysis from six monitor wells. Groundwater samples collected were analyzed for BTEX constituents. It was observed that monitor well, MW-1, contained measurable PSH thickness or a hydrocarbon sheen. Starting second quarter of 2008, all wells containing PSH or sheen were required to be sampled annually and groundwater analyzed for BTEX, PAH and TPH constituents. Groundwater samples were collected from these wells with PSH and hydrocarbon sheen and submitted for laboratory analysis during the second quarter of 2009 sampling event.

During each quarterly groundwater sampling event, prior to purging the wells, depth to PSH and water level measurements were collected from each well using an electric oil/water interface probe. The oil/water interface probe was decontaminated before use in each well to prevent cross-contamination. Prior to collecting groundwater samples from each well, approximately three well volumes of water were purged from each well using dedicated poly vinyl chloride bailers.

After purging was completed, groundwater samples were collected using new disposable bailer. All samples collected during the quarterly groundwater sampling events were

poured directly into a laboratory provided container and placed in a cooler on ice and shipped under Chain of Custody to Trace Analysis, Inc. in Lubbock, Texas for chemical analysis. All purge water was placed in labeled 55-gallon drums and stored on-site and then transferred into the 1,000 gallon on-site storage tank.

2.3 2009 Groundwater Gauging and PSH Recovery Activities

Groundwater gauging and PSH removal activities continued on a weekly basis at the site in 2009. Recovery activities include removing PSH and dissolved phase hydrocarbons by hand bailing, submersible pumps and the use of adsorbent socks in monitor wells MW-1 and MW-4.

The hydrocarbon sheen was observed throughout 2009 in monitor well MW-1 with an average measurable sheen PSH thickness of 0.11 ft. The maximum measurable PSH thickness (0.45 ft) was observed in monitor well MW-1 during the month of December 2009. The PSH thickness variation did not indicate any particular trend. As part of source reduction activities, PSH is being recovered on a weekly basis from this well. No PSH or hydrocarbon sheen is observed in other wells on site.

PSH and groundwater with dissolved phase hydrocarbons was recovered during the quarter using absorbent socks and a pump. During PSH recovery activities, typically, 1 to 2 gallons of PSH and 10 to 20 gallons of groundwater with dissolved phase hydrocarbons were removed from each well. All fluids removed from the recovery wells at the site were initially placed into labeled 55-gallon drums and later transferred into an onsite storage tank.

Based on PSH gauging and recovery data in **Table 1, Appendix B**, approximately 1,940 gallons of dissolved phase hydrocarbons and 8 gallons of PSH were recovered from the two monitor wells MW-1 and MW-4 during 2009. A summary of PSH and dissolved phase hydrocarbons recovered on a monthly basis in 2009 is presented in **Table 5, Appendix B**. The volume of PSH recovered from absorbent socks could not be quantified.

A 1000-gallon poly tank has been placed at the site for the purpose of holding dissolved phase hydrocarbon and any PSH entrained in the groundwater. The tank was placed in a lined, bermed secondary containment area and the fluids were removed two times in 2009 during the months of March and October 2009. The fluids removed were transported to a permitted disposal well facility by Key Energy Services.

2.4 1st Quarter 2009 – Groundwater Monitoring Activities

Monitor wells with PSH were gauged on a weekly basis. The weekly gauging data showed minimal fluctuation in groundwater elevations during this quarter. The groundwater flow is consistently trending east-southeast at an approximate gradient across the site of 0.002

feet/foot as measured between monitor wells MW-3 and MW-6 (February 17, 2009, **Figure 3-A, Appendix A**). The groundwater gradient and flow direction during the first quarter of 2009 is consistent with previous gauging events conducted during 2008. Groundwater gauging and the PSH recovery data are presented in **Table 1, Appendix B**.

Measurable PSH thickness was only observed in monitor well MW-1 during the first quarter of 2009. The PSH recovery activities from monitor wells MW-1 and MW-4 resulted in removal of approximately 345 gallons of dissolved phase groundwater and 3 gallons of PSH during the first quarter of 2009.

Groundwater samples collected from monitor wells MW-2 through MW-7 were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX). Monitor well MW-1 was not sampled due to the presence of PSH. Only benzene concentration in the groundwater sample collected from monitor well MW-4 was reported above the NMOCD standards (**Figure 4-A, Appendix A**). The NMOCD Remediation criterion for benzene is 0.01 mg/L. The other BTEX constituents were reported from the groundwater sample collected from monitor well MW-4 were higher than the laboratory reporting limit (RLs) but below the NMOCD remediation criteria. Analytical results are summarized in **Table 2, Appendix B**. Laboratory analytical reports are presented in **Appendix C**.

2.5 2nd Quarter 2009 – Groundwater Monitoring Activities

Monitor wells with PSH were gauged weekly and the gauging data showed minimal fluctuation in groundwater elevations during this quarter. The groundwater flow is consistently trending east-southeast at an approximate gradient across the site of 0.0018 feet/foot as measured between monitor wells MW-3 and MW-6 (May 19, 2009, **Figure 3-B, Appendix A**).

Groundwater was sampled for BTEX on May 19, 2009 from monitor wells MW-2 through MW-7. The only constituent detected above the NMOCD standard was benzene in the groundwater sample collected from monitor well MW-4, at a concentration of 0.338 mg/L (**Figure 4-B, Appendix A**). The NMOCD remediation criterion for benzene is 0.01 mg/L. Analytical results are summarized in **Table 2, Appendix B.** Laboratory analytical reports are presented in **Appendix C**. Other BTEX constituents analyzed were reported at concentration above the laboratory RLs but below the NMOCD remediation criteria.

To meet the NMOCD requirement to annually sample wells with PSH, groundwater sample was collected from monitor well MW-1 and analyzed for BTEX, TPH and PAHs during this quarter. The analytical results reported all BTEX constituents above the laboratory RLs, with benzene exceeding the remediation criteria of 0.01 mg/L in monitor well MW-1 (see **Figure 4-B, Appendix A**). Groundwater sample collected from monitor well MW-1 was also analyzed for PAH and TPH constituents during this quarter.

The PAH analyses of the dissolved phase hydrocarbons in samples from wells with PSH or hydrocarbon sheen is evaluated for screening purposes only. PAH concentrations should be evaluated for compliance only after the PSH is permanently removed and BTEX constituent concentrations in the dissolved phase plume indicate a stable or reducing dissolved phase plume.

As part of the PAH concentration evaluation process, detected constituents (associated with crude oil) were compared directly to the New Mexico Water Quality Control Commission (WQCC) groundwater standards for PAHs. The PAHs detected above the laboratory RLs, naphthalene, phenanthrene, dibenzofuran, 1-methylnapthalene and 2-methylnaphthalene were all below the available New Mexico Water Quality Standards for PAHs (see **Table 3, Appendix B**). Since, all the detected PAHs are below the groundwater standards and none of the others were detected above the laboratory method detection limits, they are not considered a concern at this time. Monitoring of PAHs is scheduled to continue in 2010.

TPH (C_6-C_{10} and C_{10}-C_{28}) detected in the groundwater samples are also reported in **Table 4, Appendix B**. There are no standards for TPH in groundwater in New Mexico.

Groundwater gauging and PSH recovery activities continued at the site on a weekly basis during the second quarter of 2009 (**Table 1, Appendix B**). These activities resulted in a recovery of approximately 438 gallons of dissolved phase hydrocarbons and approximately 1 gallon of PSH from the two monitor wells. PSH recovered using absorbent socks could not be quantified. No measurable PSH was observed in any other on-site monitor wells.

2.6 3rd Quarter 2009 – Groundwater Monitoring Activities

During third quarter of 2009 weekly gauging/product recovery were conducted for monitor well(s) with hydrocarbon sheen. Quarterly sampling activities for the analysis of groundwater from monitor wells MW-2 through MW-7 was completed on August 26, 2009.

The weekly gauging data showed minimal fluctuation in groundwater elevations during this period. The groundwater flow is consistently trending east-southeast at an approximate gradient across the site of 0.0017 feet/foot as measured between monitor wells MW-3 and MW-6 (**Figure 3-C, Appendix A**). The groundwater gradient and flow direction during the third quarter of 2009 are consistent with the gauging data previously collected. Groundwater gauging data is summarized in **Table 1, Appendix B**. A hydrocarbon sheen to a maximum measurable PSH thickness of 0.3 ft was observed in monitor well MW-1 during the third quarter of 2009.

The hydrocarbon recovery activities resulted in a recovery of approximately 480 gallons of dissolved phase hydrocarbon and 1 gallon of PSH from the two monitor wells during the

third quarter of 2009. Fluids volumes recovered from wells with absorbent socks could not be quantified. No measurable PSH was observed in any other on-site monitor wells.

The only constituent detected above NMOCD remediation criteria during the third quarter of 2009 groundwater sampling event was benzene at a concentration of 0.301 mg/L in groundwater sample collected from monitor well MW-4; located southeast, and hydraulically downgradient of monitor well MW-1 (**Figure 4-C, Appendix A**). The NMOCD remediation criterion for benzene is 0.01 mg/L. Groundwater samples collected from other monitor wells on site reported all BTEX constituents below the laboratory RLs. All analytical results are summarized on **Table 2, Appendix B** and laboratory analytical reports are presented in **Appendix C**.

2.7 4th Quarter 2009 – Groundwater Monitoring Activities

During fourth quarter of 2009, weekly gauging/product recovery was conducted from wells with hydrocarbon sheen. Quarterly sampling and analysis of groundwater from monitor wells MW-2 through MW-7 were completed on November 17, 2009. The weekly gauging data showed minimal fluctuation in groundwater elevations during this period. The groundwater flow is trending southeast at an approximate gradient across the site of 0.0017 feet/foot as measured between monitor wells MW-3 and MW-6 (Figure 3-D, Appendix A). This is consistent with previous quarters. Groundwater gauging data are presented in Table 1, Appendix B. A hydrocarbon sheen to a maximum measurable PSH thickness of 0.45 ft was observed in monitor well MW-1 during the fourth quarter of 2009.

The hydrocarbon recovery activities resulted in a recovery of approximately 679 gallons of dissolved phase hydrocarbon and 3 gallons of PSH from the two monitor wells during the fourth quarter of 2009. No measurable PSH was observed in any other on-site monitor wells.

Groundwater was sampled on November 17, 2009 from monitor wells MW-2 through MW-6. Monitor well MW-1 was not sampled due to presence of measurable PSH on groundwater. Benzene was detected in groundwater from monitor well MW-4 at a concentration of 0.112 mg/L, exceeding the NMOCD remediation criteria of 0.01 mg/L for benzene. All other BTEX constituent concentrations were reported above the laboratory RLs but below NMOCD remediation criteria. The benzene concentrations in monitor well MW-4 continue to decrease when compared to previous quarterly analytical results (**Figure 4-D, Appendix A**). Analytical results are summarized on **Table 2, Appendix B**. Laboratory analytical reports are presented in **Appendix C**.

2.8 Plume Stability Analysis

Understanding plume stability is an important step in the remedial planning process for a site. For instance, an increasing plume could potentially migrate to human or environmental receptors, whereas a stable or decreasing plume may not pose an imminent threat to human health and the environment.

The size of a contaminant plume is influenced by a variety of physical, chemical, and biological processes. Groundwater contaminant plumes are typically limited in size due to a combination of these processes, as well as by other hydrologic and geologic features (streams, clay layers, etc.). When a plume has reached a point of dynamic equilibrium (i.e., steady state), the mass loading to the plume from a source is equal to the rate of the mass lost from the plume by physical, chemical, biological, or in some cases anthropogenic processes. This analysis was conducted in order to understand the overall stability of the benzene plume in terms of its area, average concentration, mass, and center of mass.

The plume stability analysis completed for the site includes the development of benzene concentration isopleth maps for the years 2008 and 2009. An average of the benzene concentrations reported in the four quarterly groundwater sampling events was used for all the wells with no PSH. Since the wells with PSH have been sampled only during the second quarter groundwater sampling events in 2008 and 2009, the benzene concentrations reported during this sampling event were used in plume evaluation. The plume characteristics such as plume area, average concentration, plume mass, and plume centers of mass were calculated for each event using numerical methods and engineering principles.

A summary of the plume characteristics such as the plume mass, plume area and average concentration of benzene in the plume have been calculated and are summarized in **Figure 5, Appendix B**. The plume centers of mass for the two years are presented in **Figure 6, Appendix B**. A shift in the plume center of mass in the downgradient groundwater flow direction was observed from 2008 to 2009. The two benzene isopleths maps for 2008 and 2009 are presented in **Figures 7 and 8, Appendix B**, respectively.

The current area affected by the benzene plume, in the case of evaluation of groundwater data from wells with PSH, in 2009 quarterly groundwater sampling events is less than that of 2008 by approximately 60 percent. The total mass of the benzene plume in 2009 is approximately 0.4 lbs less than the total mass computed in 2008 which is more than an 85 percent reduction during the one year period. As such, these benzene plume trend analysis are not considered conclusive due to the limited number of sampling events and also due to the number of wells with detected concentrations of benzene. **Table 2.1** below

provides a summary of plume characteristics. The center of mass of the plume **Figure 6, Appendix B** displays a shift to the southeast.

Table 2.1 Summary of Plume Stability Characteristics

Date	Area (Acres)	Average Conc. (µg/l)	Mass (lbs)
2008	0.48	123.3	0.487
2009	0.19	42.3	0.066

The analytical data collected for the site (**Table 2, Appendix B**) indicates that the benzene plume at the site is decreasing in size and concentration. The benzene concentrations reported during the quarterly groundwater sampling events from the downgradient well, monitor well MW-4 was evaluated individually. **Figure 9, Appendix B** presents a graph depicting the benzene concentration over time along with the NMOCD remediation criteria in monitor well MW-4. The graph indicates a decreasing trend in the benzene concentration beginning the first quarter of 2008 (February 27, 2008).

The plume characteristic data coupled with the analytical and gauging data indicate that the plume is decreasing in size. The plume area average concentration and mass display a decrease from 2008 to 2009. The plume center has shifted to the southeast indicating a shrinking plume. **Figure 10, Appendix B** displays the PSH thickness data for monitor well MW-1. As such, the PSH thickness observed in monitor well MW-1 appears to be consistent with an average PSH thickness of 0.3 ft.

In order to evaluate if groundwater level elevations display a correlation to the PSH thickness observed in monitor well MW-1, groundwater levels in MW-3 were plotted along with the PSH thickness observed in monitor well MW-1 on **Figure 10, Appendix B**. These data do not display a visual correlation whereby a fluctuation in groundwater level appears to cause a change in PSH thickness.

3.0 CONCLUSIONS

During 2009, weekly gauging and product recovery activities, and quarterly sampling and analysis of groundwater from monitor wells MW-2 through MW-7 were completed. Monitor well MW-1 was sampled only in the second quarter of 2009 to meet an NMOCD requirement. In all four quarters of groundwater sampling and analyses, the only constituent found above the NMOCD standard was benzene, in groundwater from monitor well MW-4. All other concentrations of COCs, in the wells sampled, were below NMOCD regulatory criteria.

Based on these data, the dissolved phase hydrocarbon plume appears to be diminishing in size since early 2006, when benzene concentrations were present in monitor well MW-7. This is also demonstrated by the plume stability analysis completed for the site to establish baseline plume characteristics using the 2008 and 2009 benzene concentration data. The initial plume characteristics indicated a decreasing plume area, plume mass and average plume concentration for benzene. However, no assertive trend analysis could be completed at this time as there are only two sampling events and only two wells reported benzene concentration greater than the remediation criteria at the site. Additional sampling events will be necessary at this time to establish trends.

Natural attenuation is currently the primary process affecting the perimeter of the plume. Furthermore, the removal of PSH and dissolved phase hydrocarbons is reducing the mass of hydrocarbons in the central part of the plume.

During 2009, approximately 1,940 gallons of dissolved phase hydrocarbons were recovered from the site. A small volume of PSH, approximately eight gallons, was also recovered.

The decrease in dissolved phase hydrocarbon concentrations are attributable to the removal of affected soils in the surface and shallow subsurface soil, placement of a liner, and removal of dissolved phase hydrocarbons and PSH via manually bailing and natural attenuation.

4.0 2010 PROPOSED ACTIVITIES

Premier proposes to continue weekly PSH recovery operations through removal of total fluids using manual bailers, electric pumps, and absorbent socks in wells with PSH as necessary, with monthly gauging and quarterly groundwater sampling to monitor hydrocarbons in groundwater.

Plume stability analysis and data evaluation will be completed for the quarterly data obtained during the 2010 sampling events. A statistical trend analysis will be performed using Mann-Kendall Test on the calculated values to assess the benzene plume stability as more data becomes available. A summary of the plume stability study will also be presented in the 2010 Annual Report.

DISTRIBUTION

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APPENDIX A

Figures

Figure 1 – Site Location Map
Figure 2 – Site Map
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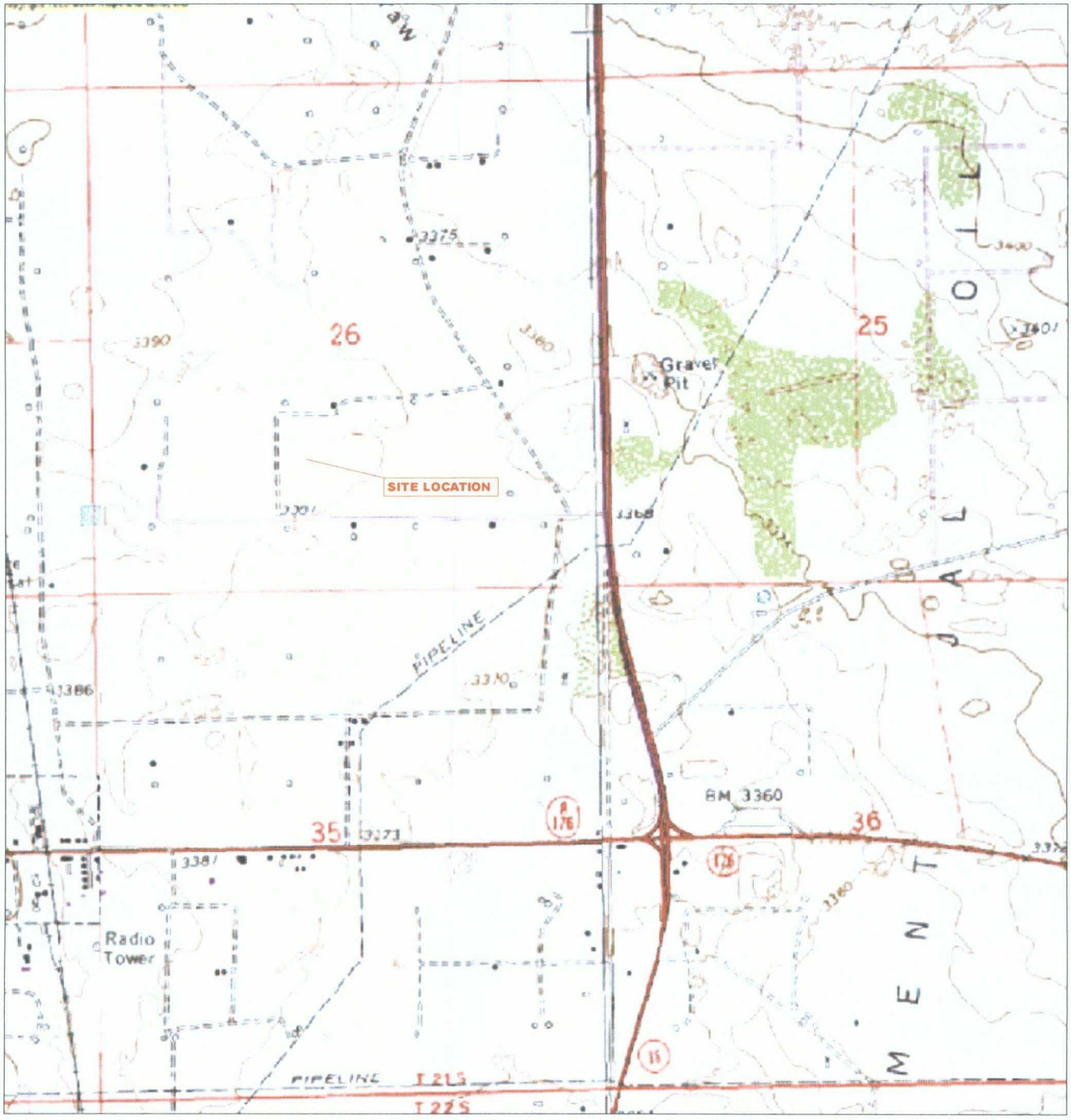
Figure 6 – Benzene Plume Center of Mass Summary 2008 and 2009
Figure 7 – 2008 Benzene Isopleth Map
Figure 8 – 2009 Benzene Isopleth Map
Figure 9 – Benzene Concentration Trend in Monitor Well MW-4
Figure 10 – Groundwater Elevation and PSH Thickness Data



Eunice Quadrangle
32°26'48"N Latitude & 103°08'07"W Longitude

1/2 1/4 0 1/4 1/2
Distance in Miles

PREMIER
ENVIRONMENTAL SERVICES, INC.

Figure 1
Site Location Map
Plains Pipeline, L.P.
D.S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00	CK:	DATE: 3/10

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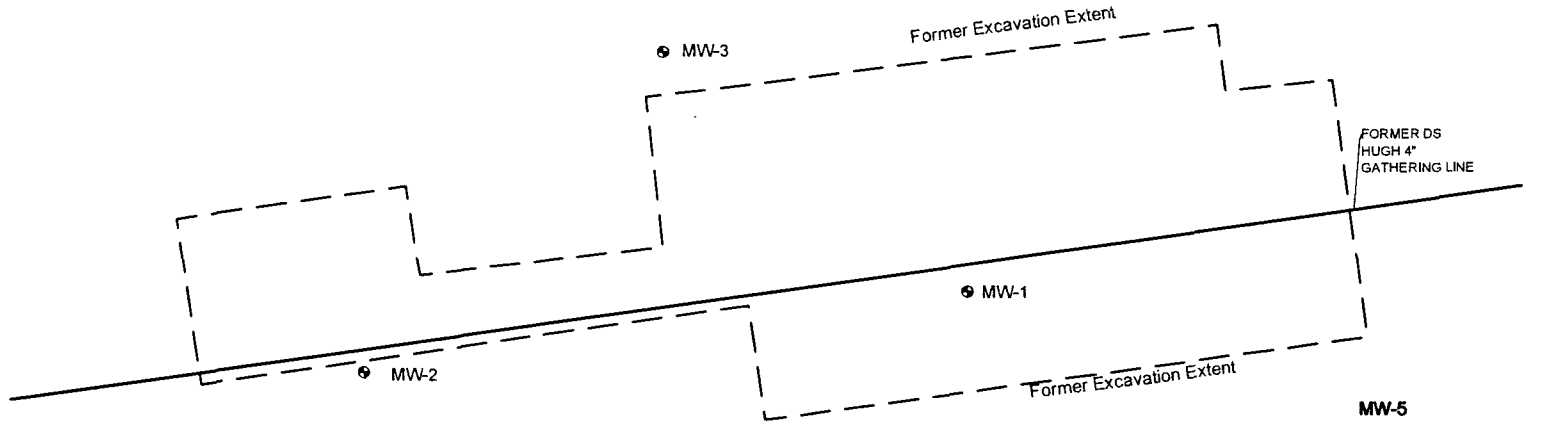

LEGEND:

MW- - MONITOR WELL LOCATIONS

— — — - FORMER EXCAVATION EXTENT

0 40

FEET

PREMIER ENVIRONMENTAL SERVICES, INC.

Figure 2
Site Map
Plains Pipeline, L.P.
D.S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00	CK: CBP	DATE: 02/10

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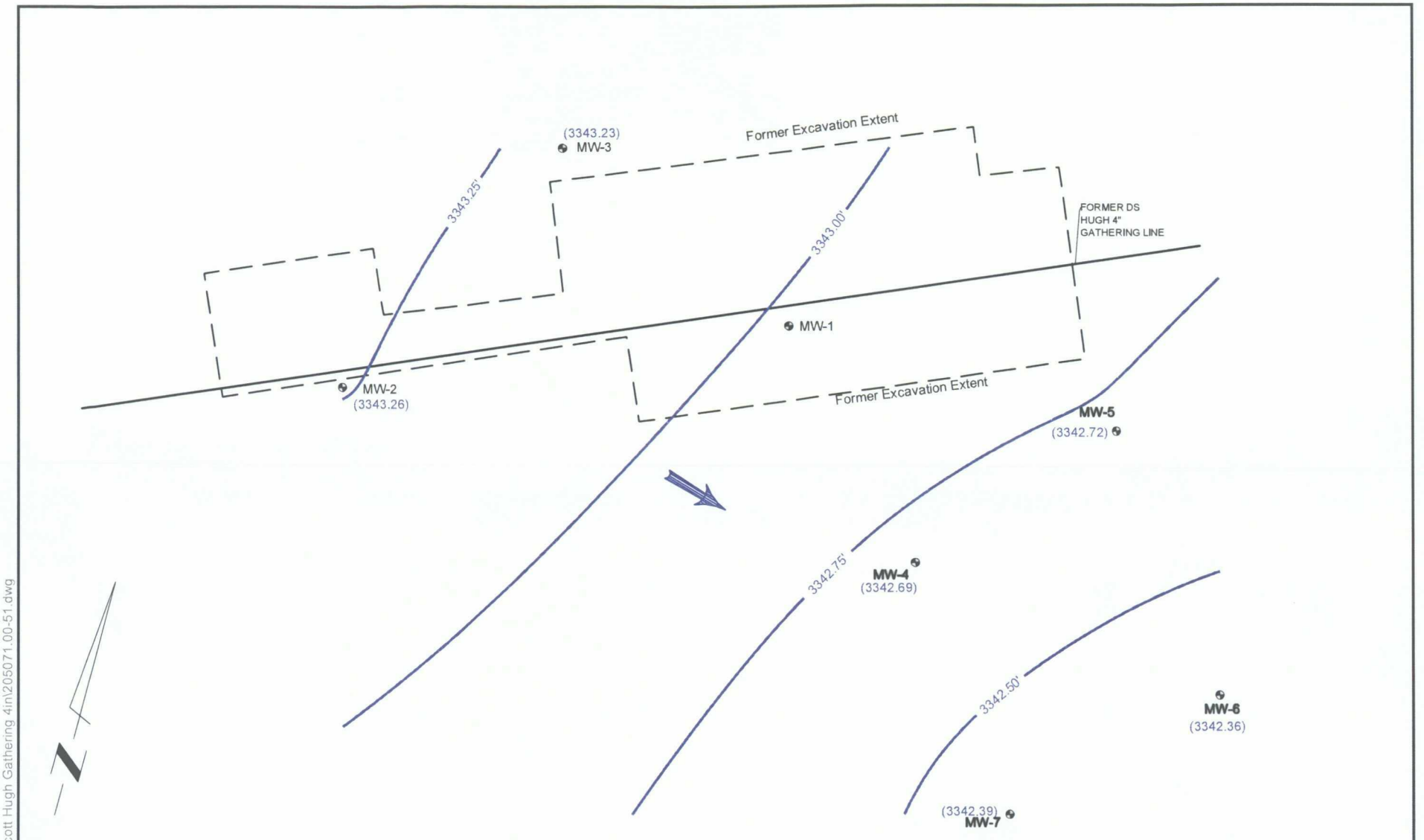

LEGEND:

- MW- - MONITOR WELL LOCATIONS
- — — — - FORMER EXCAVATION EXTENT
- (3343.05) - Corrected Ground Water Elevation, ft.
- –3342.15– - Ground Water Elevation Contour, ft. Contour Interval=0.25 ft.
- → - Apparent Ground Water Flow Direction

Note: MW1 not used to contour due to sock in well.

0 40
FEET

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ENVIRONMENTAL SERVICES, INC.

Figure 3A
1st Quarter 2009 - Groundwater Gradient Map
February 17, 2009
Plains Pipeline, L.P.
D.S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00	CK: CBP	DATE: 02/10

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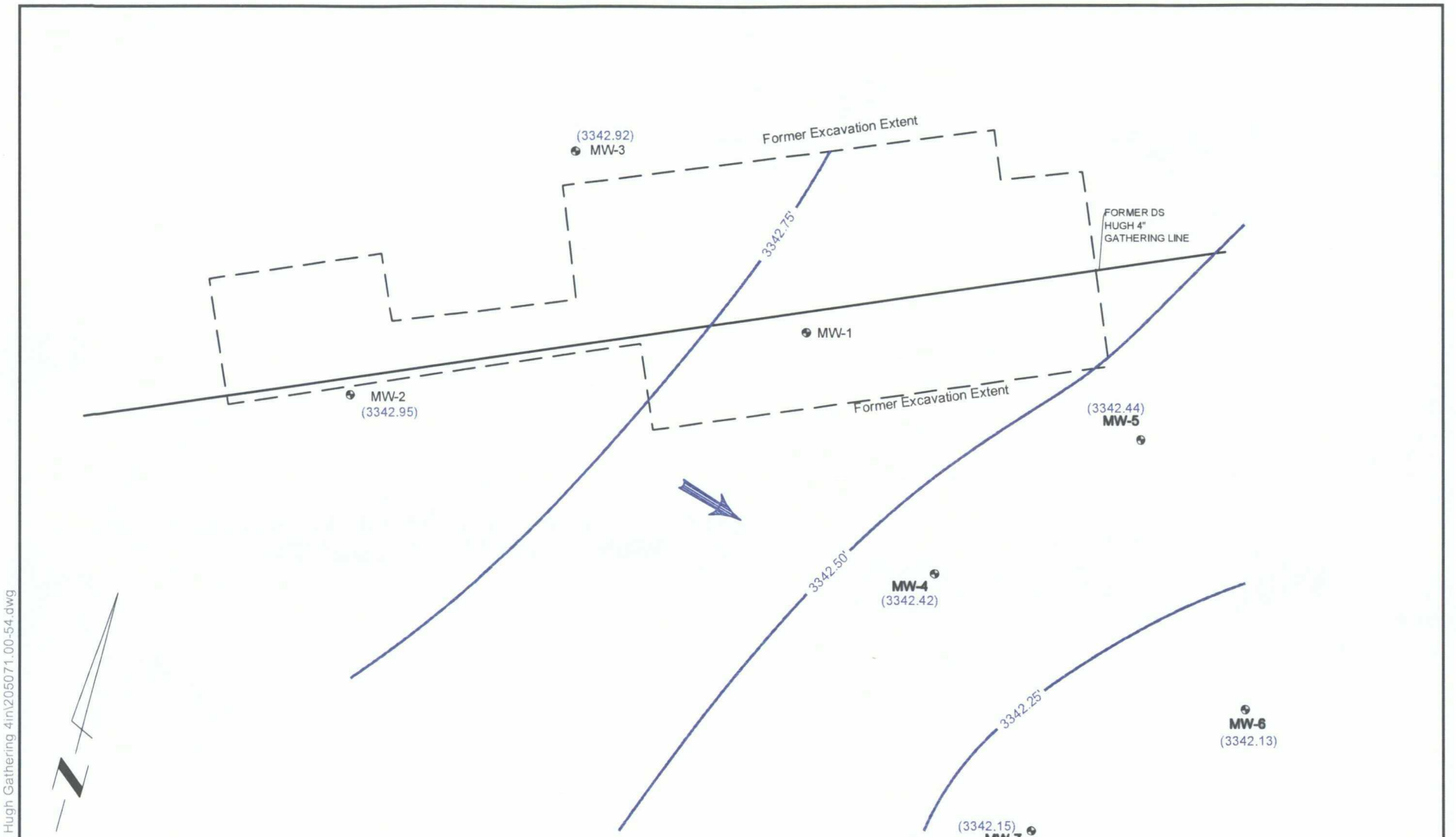

LEGEND:

- MW- - MONITOR WELL LOCATIONS
- — — — - FORMER EXCAVATION EXTENT
- (3343.05) - Corrected Ground Water Elevation, ft.
- 3342.15 - Ground Water Elevation Contour, ft. Contour Interval=0.25 ft.
- → - Apparent Ground Water Flow Direction

Note: MW1 not used to contour due to sock in well.

0 40
FEET

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Figure 3B
2nd Quarter 2009 - Groundwater Gradient Map
May 19, 2009
Plains Pipeline, L.P.
D.S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00	CK: CBP	DATE: 02/10

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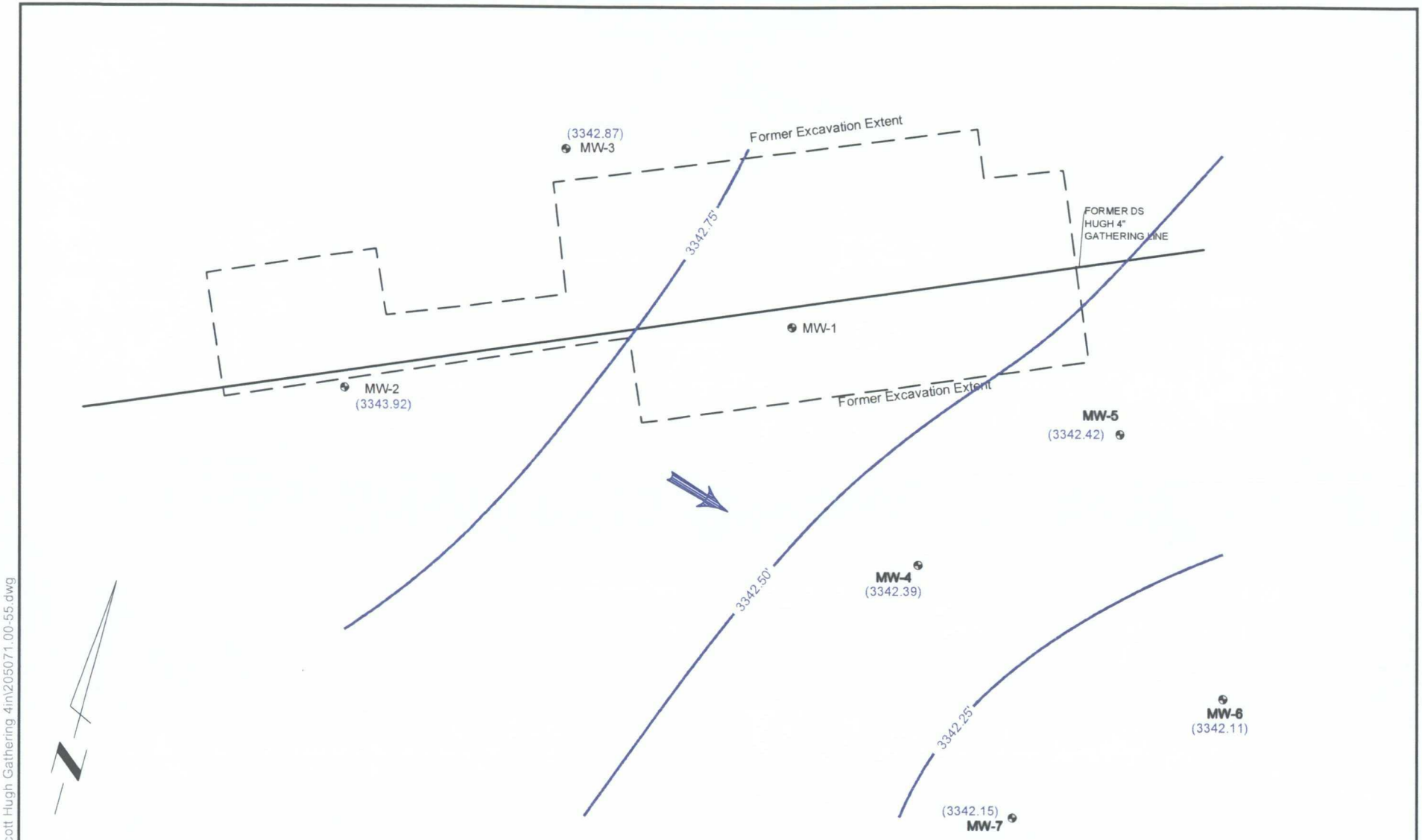

LEGEND:

- MW- - MONITOR WELL LOCATIONS
- — — — - FORMER EXCAVATION EXTENT
- (3343.05) - Corrected Ground Water Elevation, ft.
- 3342.15 - Ground Water Elevation Contour, ft. Contour Interval=0.25 ft.
- Apparent Ground Water Flow Direction

Note: MW1 not used to contour due to sock in well.

0 40
FEET

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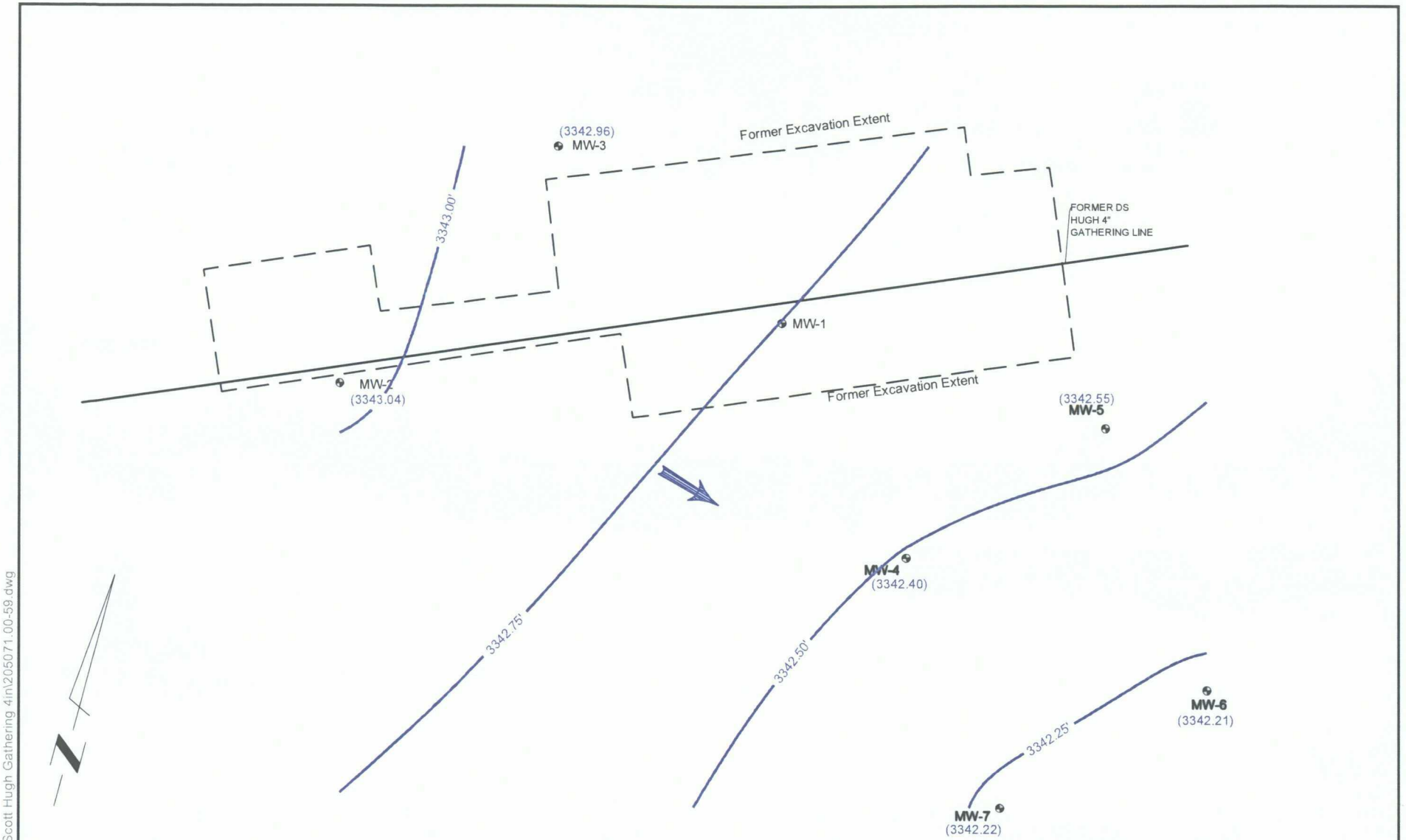
ENVIRONMENTAL SERVICES, INC.

Figure 3C
3rd Quarter 2009 - Groundwater Gradient Map
August 26, 2009
Plains Pipeline, L.P.
D.S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00	CK: CBP	DATE: 02/10

P:\PROJECT FILES\CAD Files\Delrose Scott Hugh Gathering 4in\205071.00-55.dwg



LEGEND:

- MW- - MONITOR WELL LOCATIONS
- — — — - FORMER EXCAVATION EXTENT
- (3343.05) - Corrected Ground Water Elevation, ft.
- 3342.15 - Ground Water Elevation Contour, ft. Contour Interval=0.25 ft.
- → - Apparent Ground Water Flow Direction

Note: MW1 not used to contour due to sock in well.

0 40
FEET

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ENVIRONMENTAL SERVICES, INC.

Figure 3D
4th Quarter 2009 - Groundwater Gradient Map
November 17, 2009
Plains Pipeline, L.P.
D.S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00	CK: CBP	DATE: 02/10

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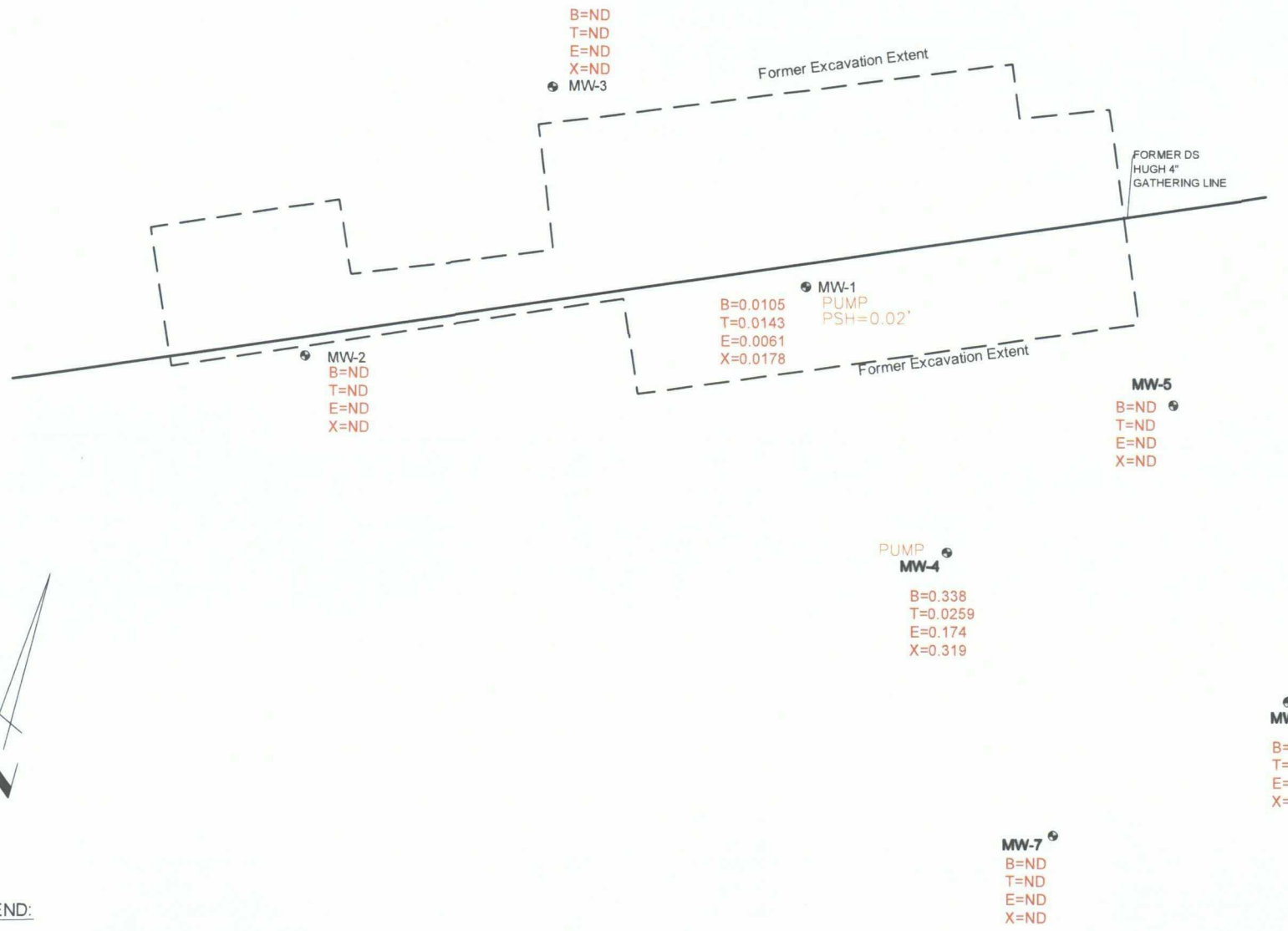

LEGEND:

MW- - MONITOR WELL LOCATIONS

— — — - FORMER EXCAVATION EXTENT

All Concentrations in mg/L.

B - Benzene

T - Toluene

E - Ethylbenzene

X - Xylenes

ND - Concentration below Lab SDLs

0 40

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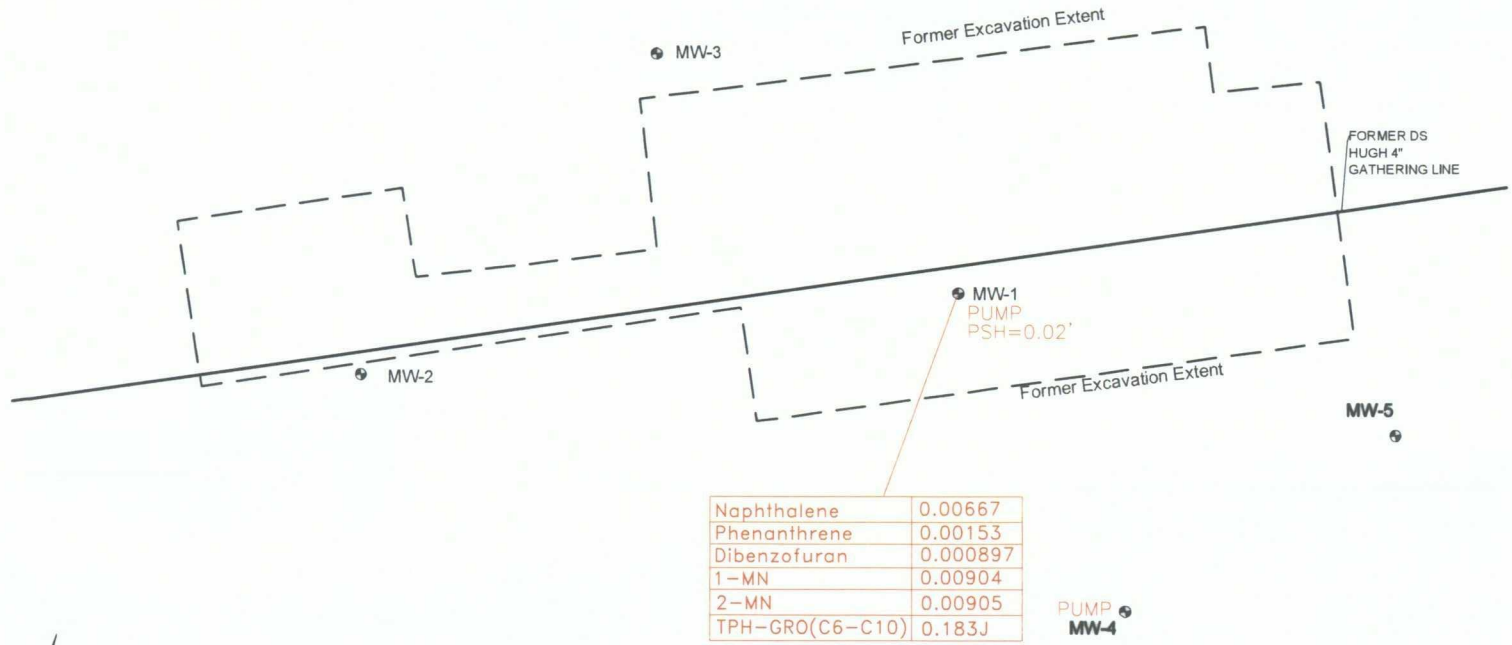
PREMIER ENVIRONMENTAL SERVICES, INC.

Figure 4B(i)
2nd Quarter 2009 - Contaminant Concentration Map
May 19, 2009
Plains Pipeline, L.P.
D.S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00	CK: CBP	DATE: 02/10

P:\PROJECT FILES\CAD Files\Delrose Scott Hugh Gathering 4in\205071.00-52.dwg



Naphthalene	0.00667
Phenanthrene	0.00153
Dibenzofuran	0.000897
1-MN	0.00904
2-MN	0.00905
TPH-GRO(C6-C10)	0.183J

PUMP
MW-4

MW-6

MW-7

LEGEND:

MW- - MONITOR WELL LOCATIONS

— — — - FORMER EXCAVATION EXTENT

1-MN: 1-MethylNaphthalene
2-MN: 2-MethylNaphthalene
J=Indicates an Estimated Value
All Concentrations in mg/L.

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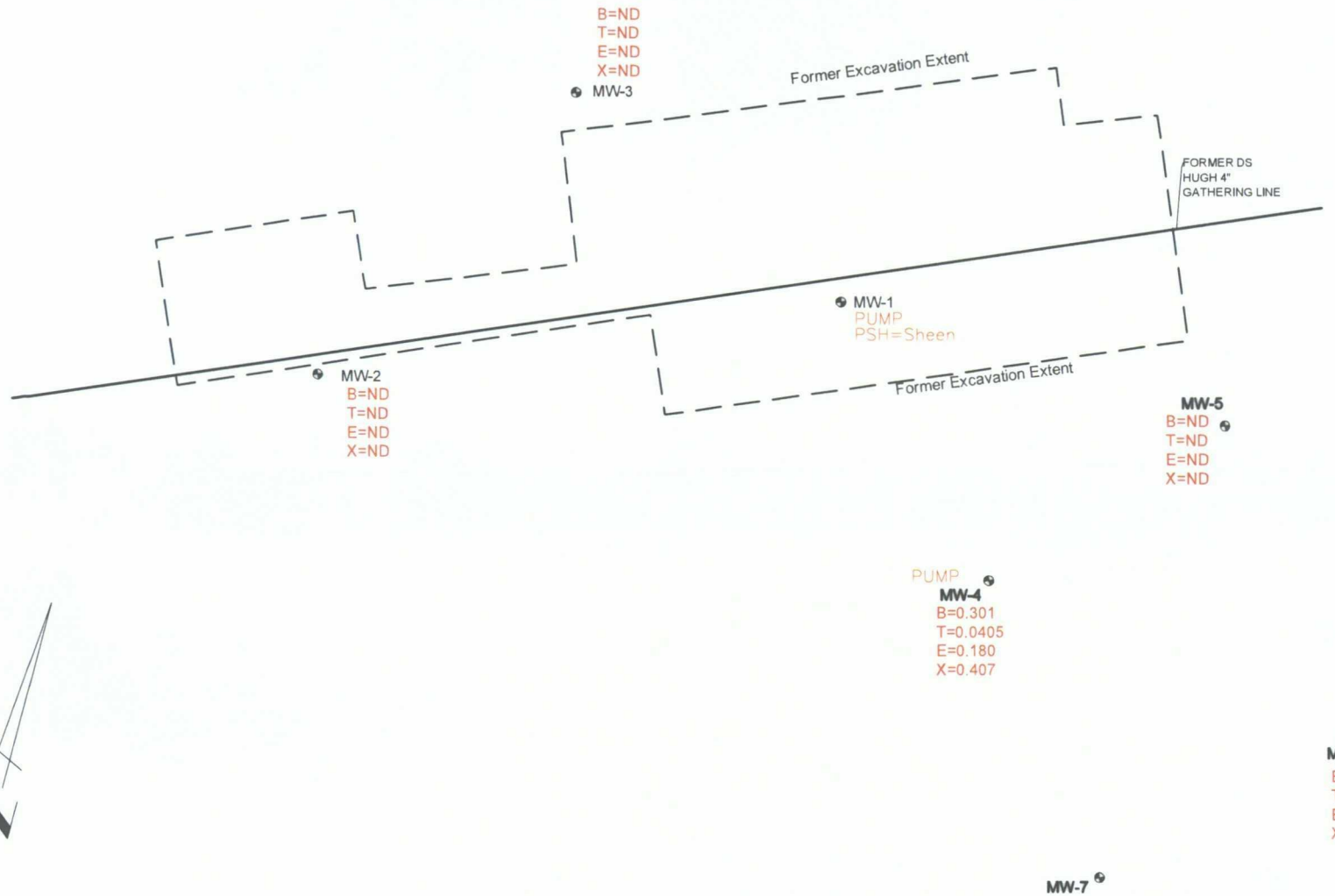
ENVIRONMENTAL SERVICES, INC.

Figure 4B(ii)
2nd Quarter 2009 - PAH Contaminant Concentration Map
Summary of Detections
May 19, 2009
Plains Pipeline, L.P.
D.S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00	CK: CBP	DATE: 02/10

P:\PROJECT FILES\CAD Files\Delrose Scott Hugh Gathering 4in\205071.00-53.dwg



LEGEND:

MW- - MONITOR WELL LOCATIONS

— — — - FORMER EXCAVATION EXTENT

All Concentrations in mg/L.

B - Benzene

T - Toluene

E - Ethylbenzene

X - Xylenes

ND - Concentration below Lab SDLs

0 40

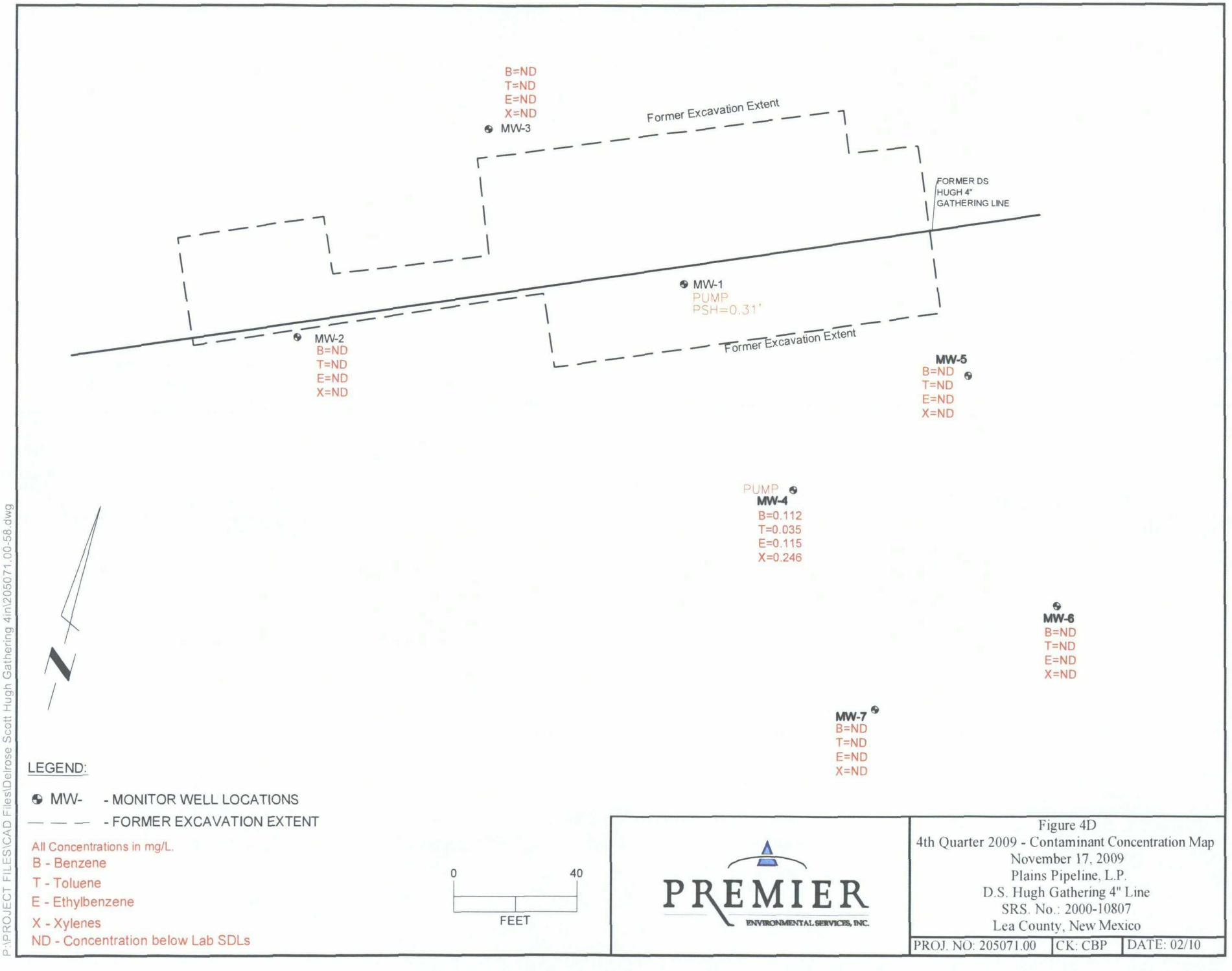
FEET

PREMIER ENVIRONMENTAL SERVICES, INC.

Figure 4C
3rd Quarter 2009 - Contaminant Concentration Map
August 26, 2009
Plains Pipeline, L.P.
D.S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00	CK: CBP	DATE: 02/10

P:\PROJECT FILES\CAD Files\Delrose Scott Hugh Gathering 4in\205071.00-56.dwg


B=ND
T=ND
E=ND
X=ND
MW-3
Former Excavation Extent
FORMER DS
HUGH 4"
GATHERING LINE
MW-1
PUMP
PSH=0.31'
MW-2
B=ND
T=ND
E=ND
X=ND
Former Excavation Extent
MW-5
B=ND
T=ND
E=ND
X=ND
PUMP
MW-4
B=0.112
T=0.035
E=0.115
X=0.246
MW-6
B=ND
T=ND
E=ND
X=ND
MW-7
B=ND
T=ND
E=ND
X=ND
LEGEND:
MW- - MONITOR WELL LOCATIONS
- - - - FORMER EXCAVATION EXTENT
All Concentrations in mg/L.
B - Benzene
T - Toluene
E - Ethylbenzene
X - Xylenes
ND - Concentration below Lab SDLs
0
40
FEET
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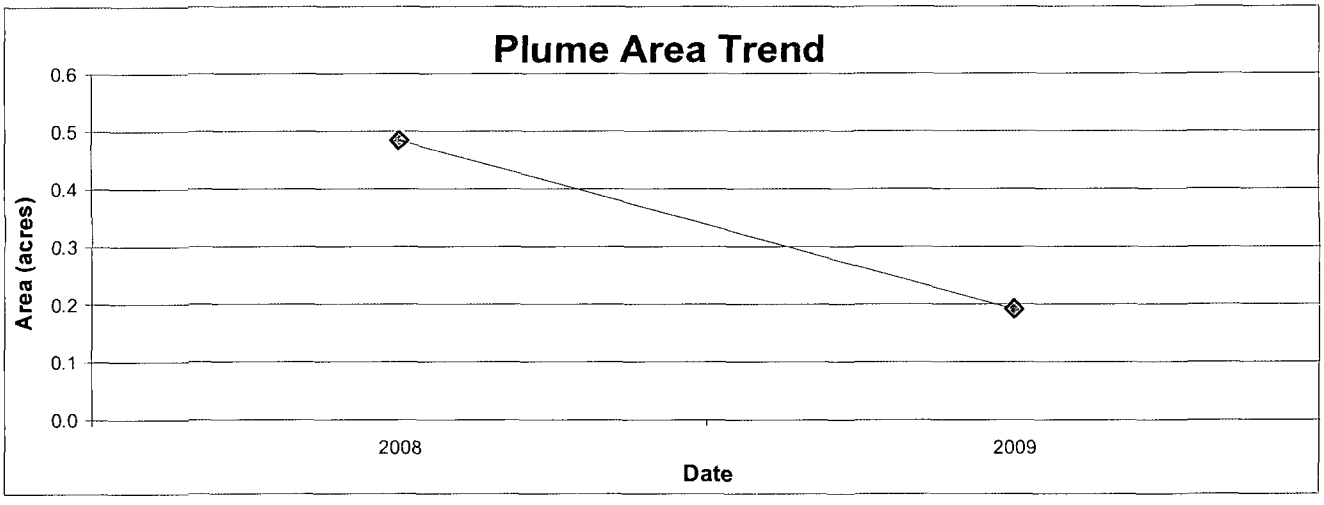
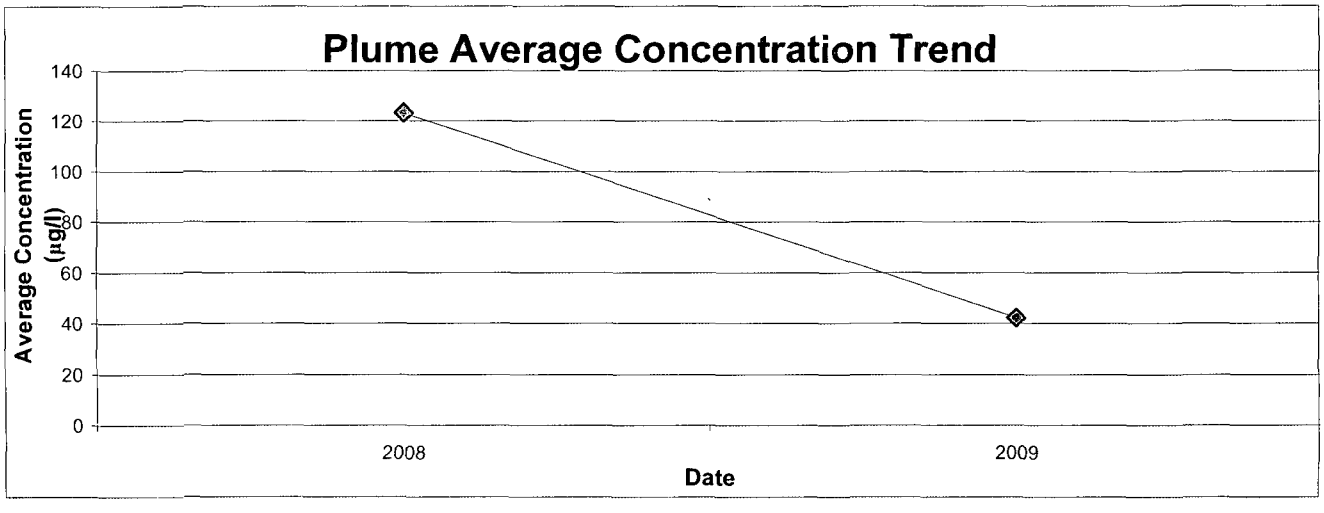
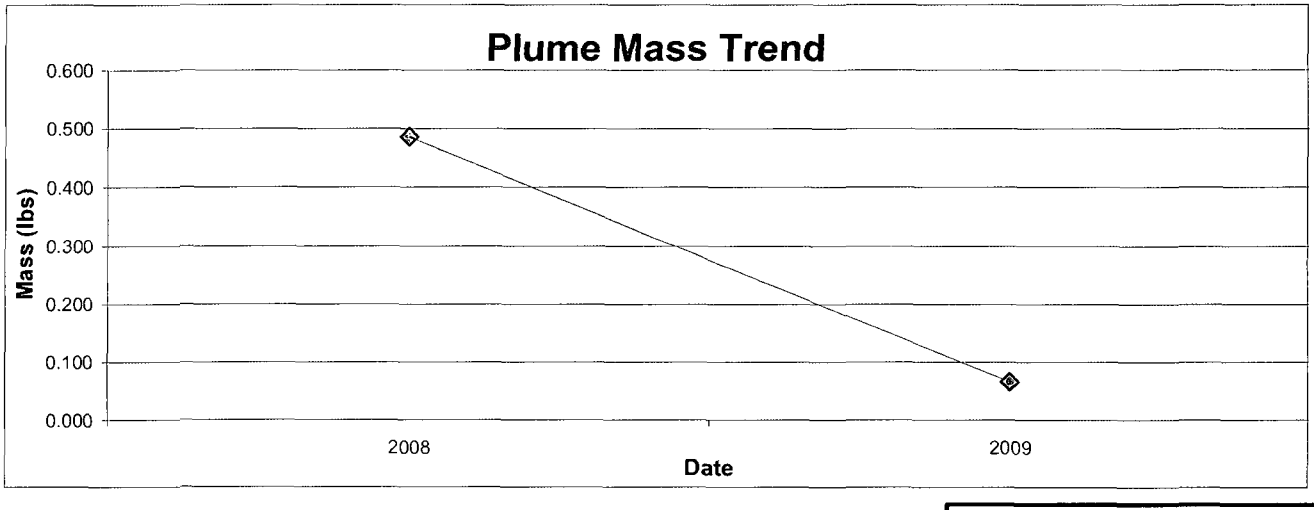
ENVIRONMENTAL SERVICES, INC.
Figure 4D
4th Quarter 2009 - Contaminant Concentration Map
November 17, 2009
Plains Pipeline, L.P.
D.S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico
PROJ. NO: 205071.00
CK: CBP
DATE: 02/10
P:\PROJECT FILES\CAD Files\Delrose Scott Hugh Gathering 4in\205071.00-58.dwg







Summary of Plume Stability Characteristics

Date	Area (Acres)	Average Conc. (µg/l)	Mass (lbs)
2008	0.48	123.3	0.487
2009	0.19	42.28	0.07

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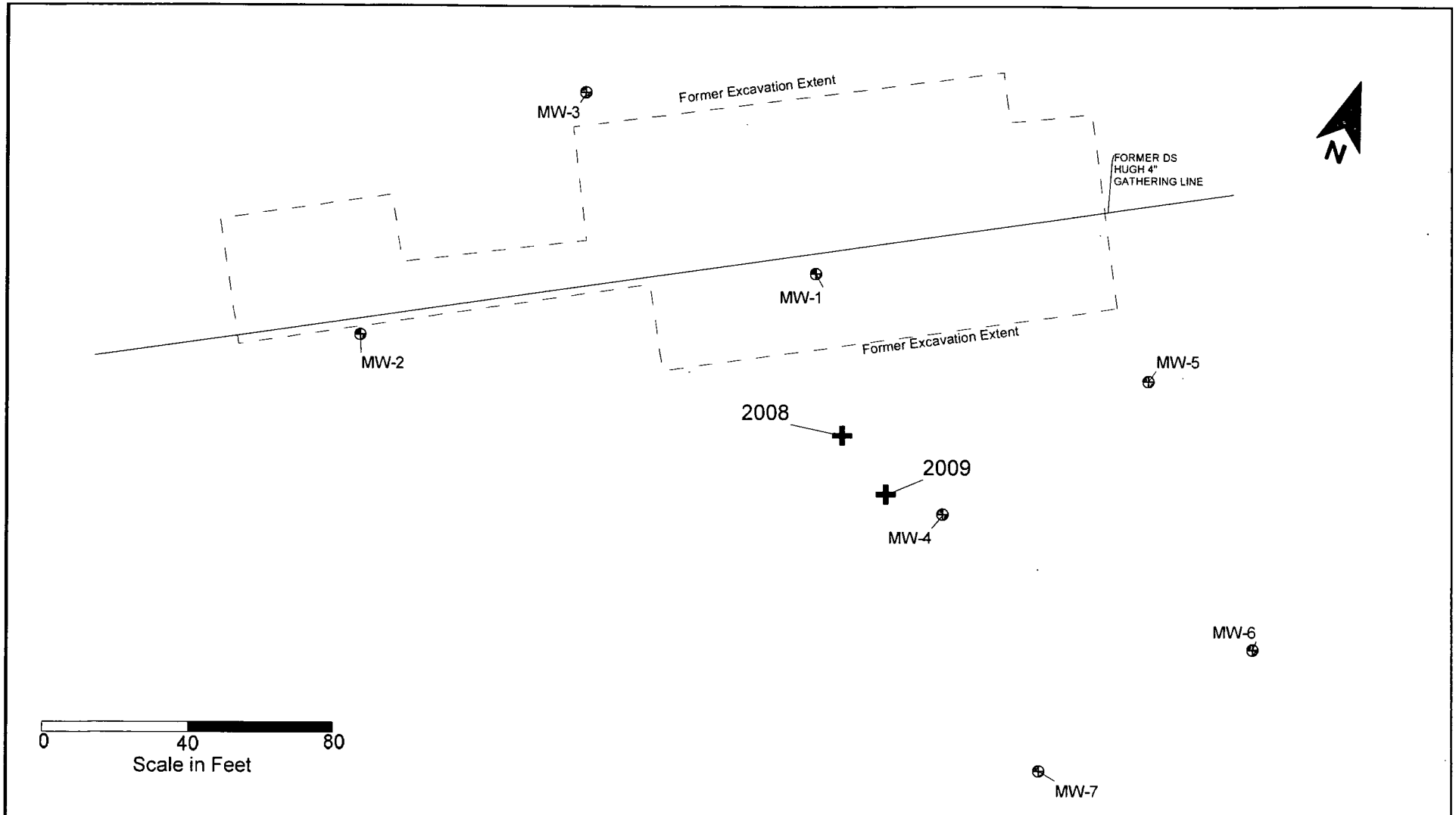
Figure 5
Benzene Plume Stability Analysis
Summary 2008 and 2009
Plains Pipeline, L.P.
D. S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00 | CK: CBP | DATE: 03/10



LEGEND:

MW ⊕ - MW - Monitor Wells

✚ - Plume Center of Mass

[2] - Benzene Concentration in ug/L

ND - Non-Detect

NS - Well not sampled

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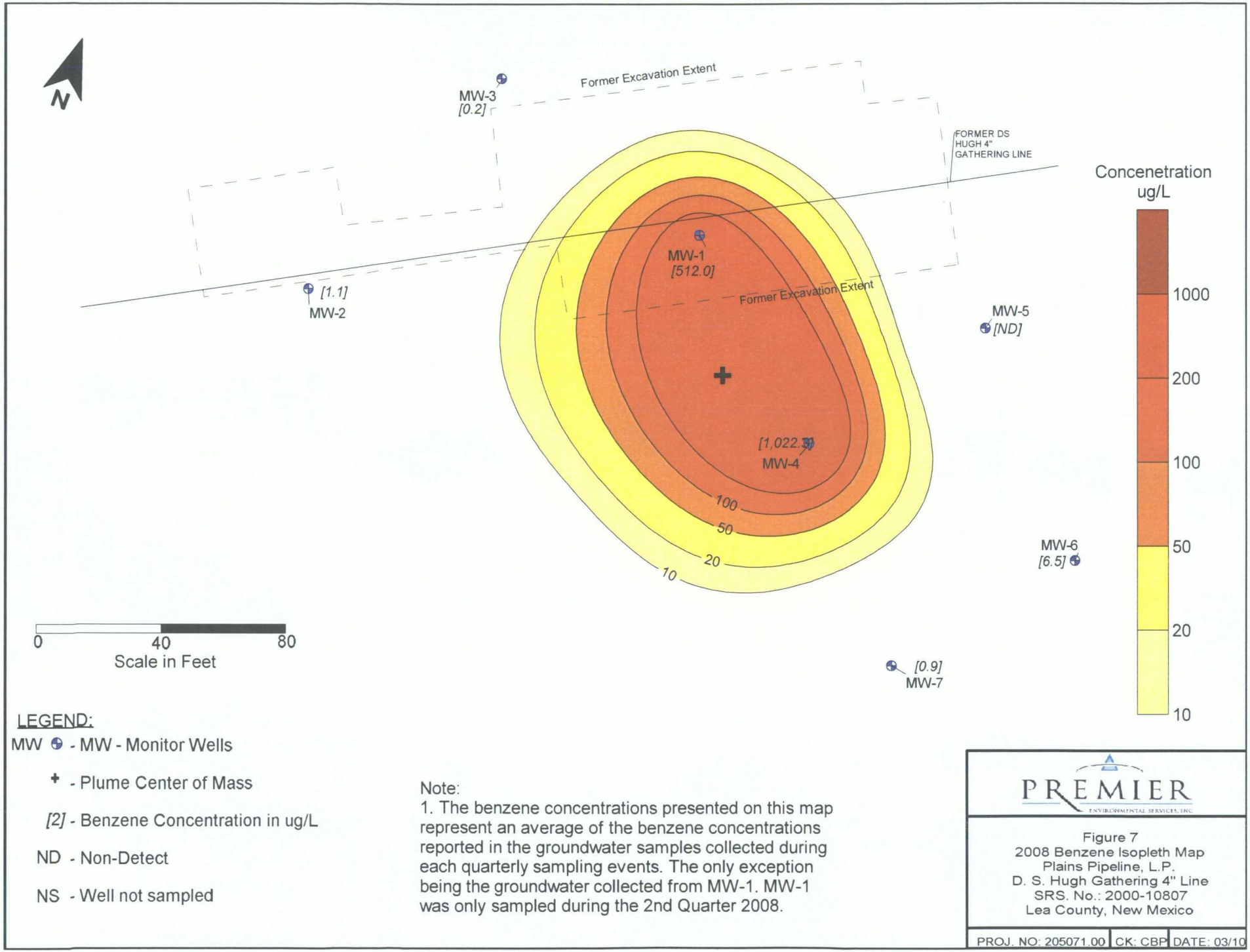
Figure 6
Benzene Plume Center of Mass
Summary 2008 and 2009
Plains Pipeline, L.P.
D. S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00	CK: CBP	DATE: 03/10



LEGEND:

MW ⊕ - MW - Monitor Wells

✚ - Plume Center of Mass

[2] - Benzene Concentration in ug/L

ND - Non-Detect

NS - Well not sampled

Note:

1. The benzene concentrations presented on this map represent an average of the benzene concentrations reported in the groundwater samples collected during each quarterly sampling events. The only exception being the groundwater collected from MW-1. MW-1 was only sampled during the 2nd Quarter 2008.

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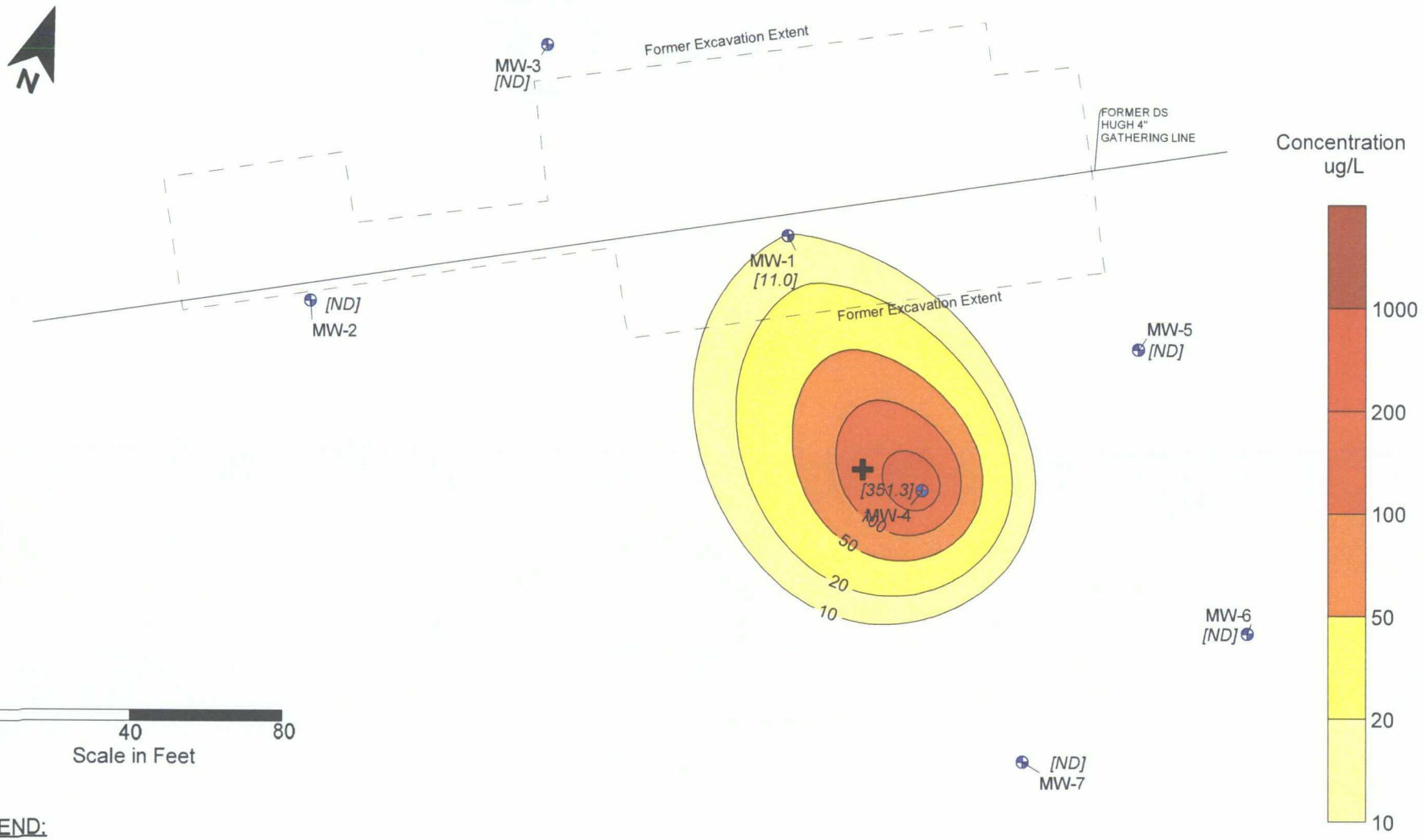
Figure 7
2008 Benzene Isopleth Map
Plains Pipeline, L.P.
D. S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00	CK: CBP	DATE: 03/10



LEGEND:

MW - MW - Monitor Wells

\+ - Plume Center of Mass

[2] - Benzene Concentration in ug/L

ND - Non-Detect

NS - Well not sampled

Note:
The benzene concentrations presented on this map represent an average of the concentrations reported in the groundwater samples collected during each quarterly sampling event. The only exceptions are the concentration reported in groundwater sample collected from MW-1. This well was only sampled during the 2nd Quarter 2009.

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Figure 8
2009 Benzene Isopleth Map
Plains Pipeline, L.P.
D. S. Hugh Gathering 4" Line
SRS. No.: 2000-10807
Lea County, New Mexico

PROJ. NO: 205071.00	CK: CBP	DATE: 03/10

Figure 9
Benzene Concentration Trend in Monitor Well MW-4
Plains Pipeline, L.P.
D.S. Hugh Gathering 4" Line
SRS No.: 2000-10807
Lea County, New Mexico

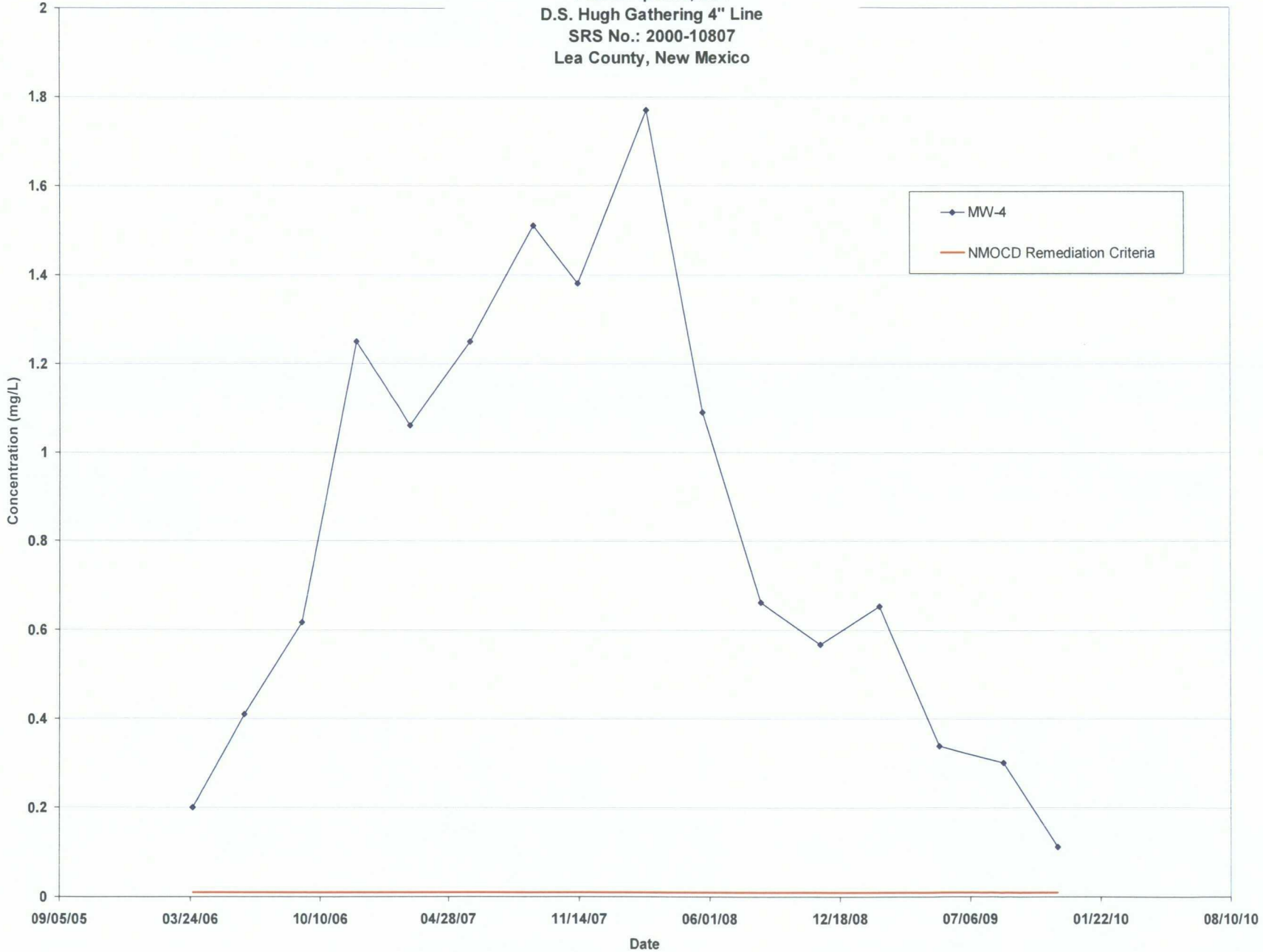
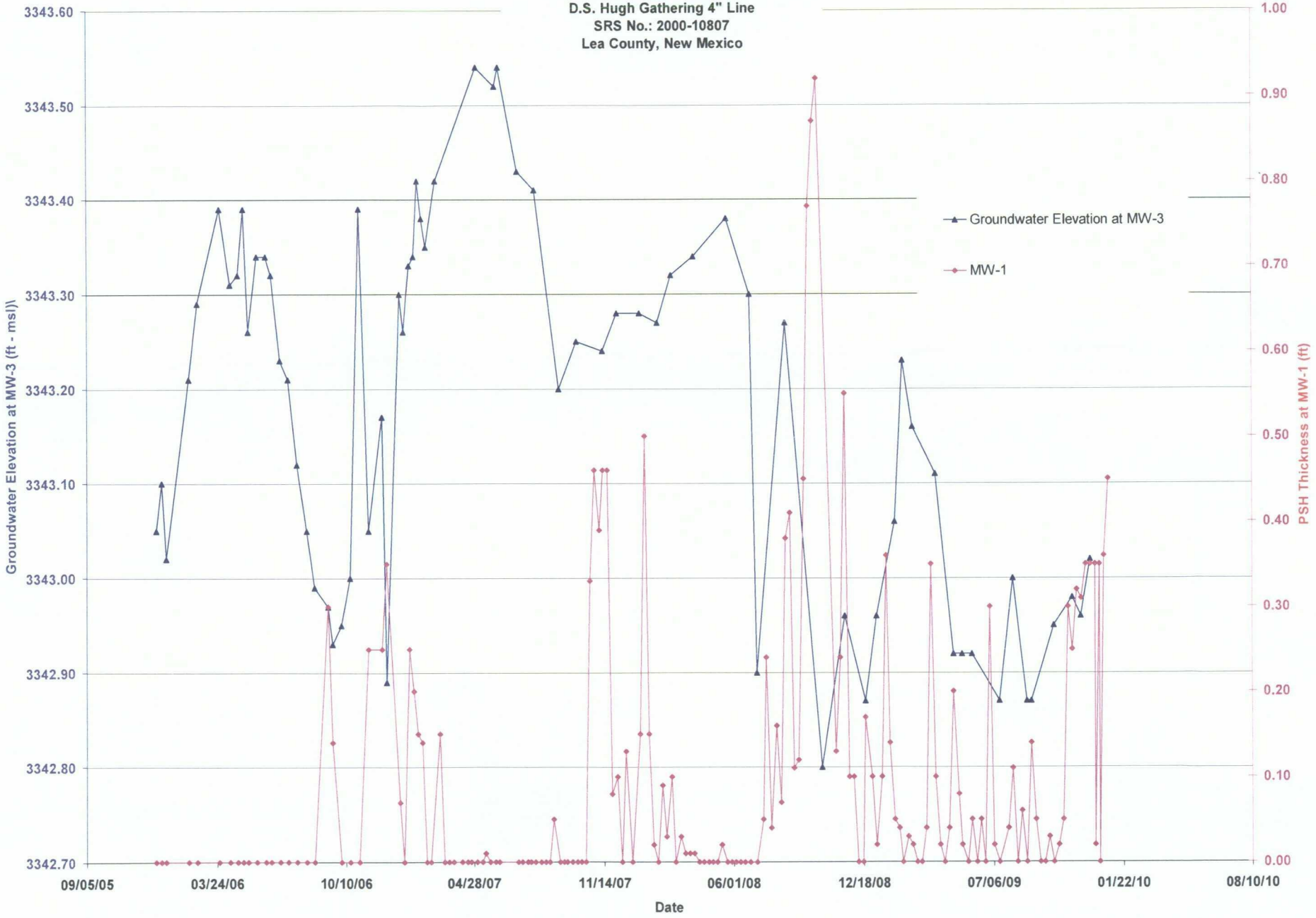


Figure 10
Groundwater Elevation and PSH Thickness Data
Plains Pipeline, L.P.
D.S. Hugh Gathering 4" Line
SRS No.: 2000-10807
Lea County, New Mexico



APPENDIX B

Tables

Table 1 – 2009 Groundwater Elevation and PSH Gauging Data

Table 2 – Historical Groundwater Elevation Data
(Available on CD attached to back cover)

Table 3 – Groundwater Sample Analytical Results

Table 4 – Groundwater Analytical Results for Polynuclear Aromatic Hydrocarbons (PAHs) from wells with Sheen/PSH

Table 5 – 2009 Monthly PSH and Dissolved Phase Groundwater Recovery Data

TABLE 1
2009 GROUNDWATER ELEVATION and PSH GAUGING DATA
Plains Pipeline, L.P.
SRS No. 2000-10807
D. S. Hugh Site
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery		Corrected Groundwater Elevation (ft)
								PSH (gallons)	Water (gallons)	
MW-1	01/07/09	3389.00	58.68	45.80	45.82	0.02	Sock	0.25	9.75	3343.20
	01/07/09	3389.00	58.68	45.78	45.79	0.01	Sock	NA	NA	3343.22
	01/15/09	3389.00	58.68	45.79	45.89	0.10	Hand Bailed	0.50	9.5	3343.20
	01/15/09	3389.00	58.68	45.83	45.84	0.01	NA	NA	NA	3343.17
	01/22/09	3389.00	58.68	45.67	46.03	0.36	Hand Bailed	1.00	13	3343.28
	01/22/09	3389.00	58.68	45.74	45.74	0.00	Install New Sock	NA	NA	3343.26
	01/28/09	3389.00	58.68	45.67	45.81	0.14	Pump	0.50	14.5	3343.31
	01/28/09	3389.00	58.68	45.70	45.70	0.00	NA	NA	NA	3343.30
	02/04/09	3389.00	58.77	45.69	45.74	0.05	Pump	0.25	19.75	3343.30
	02/04/09	3389.00	58.77	45.69	45.69	0.00	NA	NA	NA	3343.31
	02/11/09	3389.00	58.77	45.63	45.67	0.04	Pump	0.25	21.75	3343.36
	02/11/09	3389.00	58.77	46.58	46.58	0.00	NA	NA	NA	3342.42
	02/17/09	3389.00	58.77	45.59	45.59	0.00	NA	NA	NA	3343.41
	02/25/09	3389.00	58.77	45.57	45.60	0.03	Pump	0.10	19.75	3343.43
	02/25/09	3389.00	58.77	45.67	45.67	0.00	NA	NA	NA	3343.33
	03/04/09	3389.00	58.77	45.58	45.60	0.02	Pump	0.10	9.9	3343.42
	03/04/09	3389.00	58.77	45.61	45.61	0.00	NA	NA	NA	3343.39
	03/11/09	3389.00	58.77	45.67	45.67	0.00	Pump	0.00	10	3343.33
	03/11/09	3389.00	58.77	45.73	45.73	0.00	NA	NA	NA	3343.27
	03/18/09	3389.00	58.77	45.63	45.63	0.00	Pump	0.00	10	3343.37
	03/18/09	3389.00	58.77	45.89	45.89	0.00	NA	NA	NA	3343.11
	03/25/09	3389.00	58.77	45.69	45.73	0.04	Pump	0.25	14.75	3343.30
	03/25/09	3389.00	58.77	46.37	46.37	0.00	NA	NA	NA	3342.63
	04/01/09	3389.00	58.77	45.60	45.95	0.35	Pump	0.25	9.75	3343.35
	04/01/09	3389.00	58.77	45.67	45.67	0.00	NA	NA	NA	3343.33
	04/08/09	3389.00	58.77	45.65	45.75	0.10	Pump	0.10	16.9	3343.34
	04/08/09	3389.00	58.77	45.72	45.72	0.00	NA	NA	NA	3343.28
	04/15/09	3389.00	58.77	45.69	45.71	0.02	Pump	0.00	15	3343.31
	04/15/09	3389.00	58.77	45.88	45.88	0.00	NA	NA	NA	3343.12
	04/22/09	3389.00	58.77	45.72	45.72	0.00	Pump	0.00	15	3343.28
	04/22/09	3389.00	58.77	45.72	45.72	0.00	NA	NA	NA	3343.28
	04/29/09	3389.00	58.77	45.78	45.82	0.04	Pump	Sheen	15	3343.21
	04/29/09	3389.00	58.77	46.44	46.44	0.00	NA	NA	NA	3342.56
	05/06/09	3389.00	58.77	45.82	46.02	0.20	Pump	0.50	15	3343.15
	05/06/09	3389.00	58.77	46.39	46.39	0.00	NA	NA	NA	3342.61
	05/14/09	3389.00	58.77	45.84	45.92	0.08	Pump	Sheen	20	3343.15
	05/14/09	3389.00	58.77	46.48	46.48	0.00	NA	NA	NA	3342.52
	05/19/09	3389.00	58.77	45.88	45.90	0.02	Pump	Sheen	30	3343.12
	05/28/09	3389.00	58.77	45.79	45.79	0.00	Pump	0.00	15	3343.21
	05/28/09	3389.00	58.77	46.13	46.13	0.00	NA	NA	NA	3342.87
	06/03/09	3389.00	58.77	45.88	45.93	0.05	Pump	Sheen	15	3343.11
	06/03/09	3389.00	58.77	45.92	45.92	0.00	NA	NA	NA	3343.08
	06/11/09	3389.00	58.77	45.93	45.93	0.00	Pump	0.00	10	3343.07
	06/11/09	3389.00	58.77	46.15	46.15	0.00	NA	NA	NA	3342.85
	06/17/09	3389.00	58.77	46.00	46.05	0.05	Pump	0.00	15	3342.99
	06/17/09	3389.00	58.77	46.62	46.62	0.00	NA	NA	NA	3342.38
	06/23/09	3389.00	58.77	45.96	45.96	0.00	Pump/new sock	0.00	20	3343.04
	06/23/09	3389.00	58.77	46.85	46.85	0.00	NA	NA	NA	3342.15
	07/01/09	3389.00	58.77	45.91	46.21	0.30	Pump	0.25	19.75	3343.05
	07/01/09	3389.00	58.77	46.80	46.80	0.00	NA	NA	NA	3342.20
	07/07/09	3389.00	58.77	45.91	45.93	0.02	Pump	0.25	14.75	3343.09
	07/07/09	3389.00	58.77	46.58	46.58	0.00	NA	NA	NA	3342.42
	07/15/09	3389.00	58.77	45.88	45.88	0.00	Pump	0.00	20	3343.12
	07/15/09	3389.00	58.77	46.71	46.71	0.00	NA	NA	NA	3342.29

TABLE 1
2009 GROUNDWATER ELEVATION and PSH GAUGING DATA
Plains Pipeline, L.P.
SRS No. 2000-10807
D. S. Hugh Site
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery		Corrected Groundwater Elevation (ft)
								PSH (gallons)	Water (gallons)	
MW-1	07/29/09	3389.00	58.77	45.88	45.92	0.04	Pump	0.25	19.75	3343.11
	07/29/09	3389.00	58.77	46.82	46.82	0.00	NA	NA	NA	3342.18
	08/05/09	3389.00	58.77	45.01	45.12	0.11	Pump	0.25	19.75	3343.97
	08/05/09	3389.00	58.77	46.93	46.93	0.00	New sock	NA	NA	3342.07
	08/12/09	3389.00	58.77	45.75	45.75	0.00	Pump	0.00	20	3343.25
	08/12/09	3389.00	58.77	46.90	46.90	0.00	Flip sock	NA	NA	3342.10
	08/19/09	3389.00	58.77	45.74	45.80	0.06	NA	Sheen	20	3343.25
	08/19/09	3389.00	58.77	45.87	45.87	0.00	NA	NA	NA	3343.13
	08/26/09	3389.00	58.77	45.65	45.65	0.00	NA	NA	NA	3343.35
	09/02/09	3389.00	58.77	45.81	45.95	0.14	New sock	0.25	19.75	3343.17
	09/02/09	3389.00	58.77	45.91	45.91	0.00	NA	NA	NA	3343.09
	09/09/09	3389.00	58.77	45.80	45.85	0.05	Flip sock	0.25	19.75	3343.19
	09/09/09	3389.00	58.77	45.98	45.98	0.00	NA	NA	NA	3343.02
	09/16/09	3389.00	58.77	45.88	45.88	0.00	Pump	0.00	20	3343.12
	09/16/09	3389.00	58.77	46.63	46.63	0.00	NA	NA	NA	3342.37
	09/23/09	3389.00	58.77	45.83	45.83	0.00	Flip sock/pump	0.00	20	3343.17
	09/23/09	3389.00	58.77	46.52	46.52	0.00	NA	NA	NA	3342.48
	09/30/09	3389.00	58.77	45.87	45.90	0.03	New sock/pump	0.00	10	3343.13
	09/30/09	3389.00	58.77	46.51	46.51	0.00	AM	NA	NA	3342.49
	09/30/09	3389.00	58.77	45.80	45.81	0.01	NA	0.00	10	3343.20
	09/30/09	3389.00	58.77	46.73	46.73	0.00	PM	NA	NA	3342.27
	10/07/09	3389.00	58.77	45.90	45.90	0.00	Flip sock/pump	0.00	10	3343.10
	10/07/09	3389.00	58.77	46.71	46.71	0.00	AM	NA	NA	3342.29
	10/07/09	3389.00	58.77	45.87	45.87	0.00	NA	0.00	10	3343.13
	10/07/09	3389.00	58.77	46.76	46.76	0.00	PM	NA	NA	3342.24
	10/14/09	3389.00	58.77	45.80	45.82	0.02	New sock/pump	Sheen	10	3343.20
	10/14/09	3389.00	58.77	46.23	46.23	0.00	AM	NA	NA	3342.77
	10/14/09	3389.00	58.77	45.75	45.76	0.01	NA	Sheen	10	3343.25
	10/14/09	3389.00	58.77	46.60	46.60	0.00	PM	NA	NA	3342.40
	10/21/09	3389.00	58.77	45.75	45.80	0.05	NA	0.25	9.75	3343.24
	10/21/09	3389.00	58.77	46.35	46.35	0.00	NA	NA	NA	3342.65
	10/29/09	3389.00	58.77	45.73	46.03	0.30	NA	0.25	45	3343.23
	10/29/09	3389.00	58.77	46.20	46.20	0.00	NA	NA	NA	3342.80
	11/04/09	3389.00	58.77	45.74	45.99	0.25	AM	0.25	20	3343.22
	11/04/09	3389.00	58.77	46.06	46.06	0.00	NA	NA	NA	3342.94
	11/04/09	3389.00	58.77	45.78	45.81	0.03	PM	Sheen	20	3343.22
	11/04/09	3389.00	58.77	46.10	46.10	0.00	NA	NA	NA	3342.90
	11/11/09	3389.00	58.77	45.72	46.04	0.32	AM	0.25	19.75	3343.23
	11/11/09	3389.00	58.77	46.85	46.85	0.00	NA	NA	NA	3342.15
	11/11/09	3389.00	58.77	45.76	45.77	0.01	PM	Sheen	20	3343.24
	11/11/09	3389.00	58.77	46.34	46.34	0.00	NA	NA	NA	3342.66
	11/18/09	3389.00	58.77	45.68	45.99	0.31	PM	0.25	19.75	3343.27
	11/18/09	3389.00	58.77	46.38	46.38	0.00	NA	NA	NA	3342.62
	11/25/09	3389.00	58.77	45.70	46.05	0.35	NA	0.25	29.75	3343.25
	11/25/09	3389.00	58.77	46.33	46.33	0.00	NA	NA	NA	3342.67
	12/02/09	3389.00	58.77	45.68	46.03	0.35	NA	0.25	34.75	3343.27
	12/02/09	3389.00	58.77	46.52	46.52	0.00	NA	NA	NA	3342.48
	12/09/09	3389.00	58.77	45.70	46.05	0.35	NA	0.50	20	3343.25
	12/09/09	3389.00	58.77	46.49	46.49	0.00	NA	NA	NA	3342.51
	12/09/09	3389.00	58.77	45.77	45.79	0.02	NA	Sheen	30	3343.23
	12/09/09	3389.00	58.77	46.77	46.77	0.00	NA	NA	NA	3342.23
	12/16/09	3389.00	58.77	45.79	46.14	0.35	NA	Sheen	25	3343.16
	12/16/09	3389.00	58.77	46.52	46.52	0.00	NA	NA	NA	3342.48

TABLE 1
2009 GROUNDWATER ELEVATION and PSH GAUGING DATA
Plains Pipeline, L.P.
SRS No. 2000-10807
D. S. Hugh Site
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery		Corrected Groundwater Elevation (ft)
								PSH (gallons)	Water (gallons)	
MW-1	12/16/09	3389.00	58.77	45.80	45.81	0.01	NA	Sheen	25	3343.20
	12/16/09	3389.00	58.77	46.90	46.90	0.00	NA	NA	NA	3342.10
	12/23/09	3389.00	58.77	45.74	46.10	0.36	NA	0.25	24.75	3343.21
	12/23/09	3389.00	58.77	46.29	46.29	0.00	NA	NA	NA	3342.71
	12/23/09	3389.00	58.77	45.76	45.77	0.01	NA	Sheen	25	3343.24
	12/23/09	3389.00	58.77	46.62	46.62	0.00	NA	NA	NA	3342.38
	12/30/09	3389.00	58.77	45.76	46.21	0.45	NA	Sheen	30	3343.17
	12/30/09	3389.00	58.77	46.43	46.43	0.00	NA	NA	NA	3342.57
	12/30/09	3389.00	58.77	45.76	46.02	0.26	NA	Sheen	20	3343.20
	12/30/09	3389.00	58.77	46.68	46.68	0.00	NA	NA	NA	3342.32
MW-2	01/07/09	3388.28	59.19	NA	45.25	NA	NA	NA	NA	3343.03
	02/04/09	3388.28	59.38	NA	45.19	NA	NA	NA	NA	3343.09
	02/17/09	3388.28	59.32	NA	45.02	NA	NA	NA	NA	3343.26
	03/04/09	3388.28	59.32	NA	45.07	NA	NA	NA	NA	3343.21
	04/08/09	3388.28	59.32	NA	45.13	NA	NA	NA	NA	3343.15
	05/06/09	3388.28	59.32	NA	45.31	NA	NA	NA	NA	3342.97
	05/19/09	3388.28	59.32	NA	45.33	NA	NA	NA	NA	3342.95
	06/03/09	3388.28	59.32	NA	45.34	NA	NA	NA	NA	3342.94
	07/15/09	3388.28	59.32	NA	45.35	NA	NA	NA	NA	3342.93
	08/05/09	3388.28	59.32	NA	45.27	NA	NA	NA	NA	3343.01
	08/26/09	3388.28	59.32	NA	45.36	NA	NA	NA	7	3342.92
	09/02/09	3388.28	59.32	NA	45.38	NA	NA	NA	NA	3342.90
	10/07/09	3388.28	59.32	NA	45.31	NA	NA	NA	NA	3342.97
	11/04/09	3388.28	59.32	NA	45.29	NA	NA	NA	NA	3342.99
	11/17/09	3388.28	59.32	NA	45.24	NA	NA	NA	NA	3343.04
	12/02/09	3388.28	59.32	NA	45.23	NA	NA	NA	NA	3343.05
MW-3	01/07/09	3388.62	59.71	NA	45.66	NA	NA	NA	NA	3342.96
	02/04/09	3388.62	59.75	NA	45.56	NA	NA	NA	NA	3343.06
	02/17/09	3388.62	59.30	NA	45.39	NA	NA	NA	NA	3343.23
	03/04/09	3388.62	59.30	NA	45.46	NA	NA	NA	NA	3343.16
	04/08/09	3388.62	59.30	NA	45.51	NA	NA	NA	NA	3343.11
	05/06/09	3388.62	59.30	NA	45.70	NA	NA	NA	NA	3342.92
	05/19/09	3388.62	59.30	NA	45.70	NA	NA	NA	7	3342.92
	06/03/09	3388.62	59.30	NA	45.70	NA	NA	NA	NA	3342.92
	07/15/09	3388.62	59.30	NA	45.75	NA	NA	NA	NA	3342.87
	08/05/09	3388.62	59.30	NA	45.62	NA	NA	NA	NA	3343.00
	08/26/09	3388.62	59.70	NA	45.75	NA	NA	NA	7	3342.87
	09/02/09	3388.62	59.70	NA	45.75	NA	NA	NA	NA	3342.87
	10/07/09	3388.62	59.70	NA	45.67	NA	NA	NA	NA	3342.95
	11/04/09	3388.62	59.70	NA	45.64	NA	NA	NA	NA	3342.98
	11/17/09	3388.62	59.70	NA	45.66	NA	NA	NA	NA	3342.96
	12/02/09	3388.62	59.70	NA	45.60	NA	NA	NA	NA	3343.02
MW-4	01/07/09	3388.92	58.93	NA	46.49	NA	Pump	NA	20	3342.43
	01/07/09	3388.92	58.93	NA	46.51	NA	NA	NA	NA	3342.41
	01/15/09	3388.92	58.93	NA	46.49	NA	Pump	NA	15	3342.43
	01/15/09	3388.92	58.93	NA	46.51	NA	NA	NA	NA	3342.41
	01/22/09	3388.92	58.93	NA	46.43	NA	Pump	0	12	3342.49
	01/22/09	3388.92	58.93	NA	46.45	NA	NA	NA	NA	3342.47
	01/28/09	3388.92	58.93	NA	46.41	NA	Pump	0	15	3342.51
	01/28/09	3388.92	58.93	NA	46.43	NA	NA	NA	NA	3342.49

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Plains Pipeline, L.P.
SRS No. 2000-10807
D. S. Hugh Site
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery		Corrected Groundwater Elevation (ft)
								PSH (gallons)	Water (gallons)	
MW-4	02/04/09	3388.92	58.99	NA	46.39	NA	Pump	0	10	3342.53
	02/04/09	3388.92	58.99	NA	46.41	NA	NA	NA	NA	3342.51
	02/11/09	3388.92	58.99	NA	46.35	NA	Pump	0	20	3342.57
	02/11/09	3388.92	58.99	NA	46.36	NA	NA	NA	NA	3342.56
	02/17/09	3388.92	58.92	NA	46.23	NA	Sample		NA	3342.69
	02/25/09	3388.92	58.92	NA	46.29	NA	Pump	0	20	3342.63
	02/25/09	3388.92	58.92	NA	46.31	NA	NA	NA	NA	3342.61
	03/04/09	3388.92	58.92	NA	46.30	NA	Pump	0	20	3342.62
	03/04/09	3388.92	58.92	NA	46.35	NA	NA	NA	NA	3342.57
	03/11/09	3388.92	58.92	NA	46.38	NA	Pump	0	20	3342.54
	03/11/09	3388.92	58.92	NA	46.41	NA	NA	NA	NA	3342.51
	03/18/09	3388.92	58.92	NA	46.33	NA	Pump	0	20	3342.59
	03/18/09	3388.92	58.92	NA	46.45	NA	NA	NA	NA	3342.47
	03/25/09	3388.92	58.92	NA	46.37	NA	Pump	0	20	3342.55
	03/25/09	3388.92	58.92	NA	46.42	NA	NA	NA	NA	3342.50
	04/01/09	3388.92	58.92	NA	46.33	NA	Pump	0	20	3342.59
	04/01/09	3388.92	58.92	NA	46.35	NA	NA	NA	NA	3342.57
	04/15/09	3388.92	58.92	NA	46.38	NA	Pump	0	20	3342.54
	04/15/09	3388.92	58.92	NA	46.35	NA	NA	NA	NA	3342.57
	04/22/09	3388.92	58.92	NA	46.34	NA	Pump	0	20	3342.58
	04/22/09	3388.92	58.92	NA	46.34	NA	NA	NA	NA	3342.58
	04/29/09	3388.92	58.92	NA	46.44	NA	Pump	0	20	3342.48
	04/29/09	3388.92	58.92	NA	46.47	NA	NA	NA	NA	3342.45
	05/06/09	3388.92	58.92	NA	46.48	NA	Pump	0	20	3342.44
	05/06/09	3388.92	58.92	NA	46.59	NA	NA	NA	NA	3342.33
	05/14/09	3388.92	58.92	NA	46.50	NA	Pump	0	20	3342.42
	05/14/09	3388.92	58.92	NA	46.51	NA	NA	NA	NA	3342.41
	05/19/09	3388.92	58.92	NA	46.50	NA	NA	NA	6	3342.42
	05/28/09	3388.92	58.92	NA	46.48	NA	Pump	0	20	3342.44
	05/28/09	3388.92	58.92	NA	46.52	NA	NA	NA	NA	3342.40
	06/03/09	3388.92	58.92	NA	46.50	NA	Pump	0	20	3342.42
	06/03/09	3388.92	58.92	NA	46.52	NA	NA	NA	NA	3342.40
	06/11/09	3388.92	58.92	NA	46.47	NA	Pump	0	20	3342.45
	06/11/09	3388.92	58.92	NA	46.50	NA	NA	NA	NA	3342.42
	06/17/09	3388.92	58.92	NA	46.62	NA	Pump	0	20	3342.30
	06/17/09	3388.92	58.92	NA	46.65	NA	NA	NA	NA	3342.27
	06/23/09	3388.92	58.92	NA	46.62	NA	Pump	0	20	3342.30
	06/23/09	3388.92	58.92	NA	46.70	NA	NA	NA	NA	3342.22
	07/01/09	3388.92	58.92	NA	46.58	NA	Pump	0	20	3342.34
	07/01/09	3388.92	58.92	NA	46.58	NA	NA	NA	NA	3342.34
	07/07/09	3388.28	59.32	NA	46.54	NA	NA	NA	20	3341.74
	07/07/09	3388.28	59.32	NA	46.56	NA	NA	NA	NA	3341.72
	07/15/09	3388.92	58.92	NA	46.55	NA	Pump	0	20	3342.37
	07/15/09	3388.92	58.92	NA	46.55	NA	NA	NA	NA	3342.37
	07/29/09	3388.92	58.92	NA	46.49	NA	Pump	0	20	3342.43
	07/29/09	3388.92	58.92	NA	46.47	NA	NA	NA	NA	3342.45
	08/05/09	3388.92	58.92	NA	46.42	NA	Pump	0	20	3342.50
	08/05/09	3388.92	58.92	NA	46.92	NA	NA	NA	NA	3342.00
	08/12/09	3388.92	58.92	NA	46.48	NA	Pump	0	20	3342.44
	08/12/09	3388.92	58.92	NA	46.68	NA	NA	NA	NA	3342.24
	08/19/09	3388.92	58.92	NA	46.46	NA	Pump	0	20	3342.46
	08/19/09	3388.92	58.92	NA	46.50	NA	NA	NA	NA	3342.42
	08/26/09	3388.92	58.90	NA	46.53	NA	NA	NA	6	3342.39

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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery		Corrected Groundwater Elevation (ft)
								PSH (gallons)	Water (gallons)	
MW-4	09/02/09	3388.92	58.90	NA	46.55	NA	Pump	0	20	3342.37
	09/02/09	3388.92	58.90	NA	46.60	NA	NA	NA	NA	3342.32
	09/09/09	3388.92	58.90	NA	46.50	NA	Pump	0	20	3342.42
	09/09/09	3388.92	58.90	NA	46.51	NA	NA	NA	NA	3342.41
	09/16/09	3388.92	58.90	NA	46.51	NA	Pump	0	20	3342.41
	09/16/09	3388.92	58.90	NA	46.53	NA	NA	NA	NA	3342.39
	09/23/09	3388.92	58.90	NA	46.48	NA	Pump	0	20	3342.44
	09/23/09	3388.92	58.90	NA	46.50	NA	NA	NA	NA	3342.42
	09/30/09	3388.92	58.90	NA	46.47	NA	Pump	0	20	3342.45
	09/30/09	3388.92	58.90	NA	46.48	NA	NA	NA	NA	3342.44
	10/07/09	3388.92	58.90	NA	46.47	NA	Pump	0	20	3342.45
	10/07/09	3388.92	58.90	NA	46.48	NA	NA	NA	NA	3342.44
	10/12/09	3388.92	58.90	NA	46.43	NA	Pump	0	20	3342.49
	10/12/09	3388.92	58.90	NA	46.49	NA	NA	NA	NA	3342.43
	10/29/09	3388.92	58.90	NA	46.41	NA	Pump	0	20	3342.51
	10/29/09	3388.92	58.90	NA	46.42	NA	NA	NA	NA	3342.50
	11/04/09	3388.92	58.90	NA	46.44	NA	Pump	0	20	3342.48
	11/04/09	3388.92	58.90	NA	46.45	NA	NA	NA	NA	3342.47
	11/17/09	3388.92	58.90	NA	46.43	NA	Pump	0	20	3342.49
	11/25/09	3388.92	58.90	NA	46.43	NA	Pump	0	20	3342.49
	11/25/09	3388.92	58.90	NA	46.43	NA	NA	NA	NA	3342.49
	12/02/09	3388.92	58.90	NA	46.39	NA	Pump	0	20	3342.53
	12/02/09	3388.92	58.90	NA	46.40	NA	NA	NA	NA	3342.52
	12/09/09	3388.92	58.90	NA	46.42	NA	Pump	0	20	3342.50
	12/09/09	3388.92	58.90	NA	46.41	NA	NA	NA	NA	3342.51
	12/16/09	3388.92	58.90	NA	46.46	NA	Pump	0	20	3342.46
	12/16/09	3388.92	58.90	NA	46.40	NA	NA	NA	NA	3342.52
	12/23/09	3388.92	58.90	NA	46.39	NA	Pump	0	20	3342.53
	12/23/09	3388.92	58.90	NA	46.42	NA	NA	NA	NA	3342.50
	12/30/09	3388.92	58.90	NA	46.39	NA	Pump	0	20	3342.53
	12/30/09	3388.92	58.90	NA	46.42	NA	NA	NA	NA	3342.50
MW-5	01/07/09	3389.40	59.11	NA	46.87	NA	NA	NA	NA	3342.53
	02/04/09	3389.40	59.17	NA	46.84	NA	NA	NA	NA	3342.56
	02/17/09	3389.40	59.12	NA	46.68	NA	NA	NA	NA	3342.72
	03/04/09	3389.40	59.12	NA	46.69	NA	NA	NA	NA	3342.71
	04/08/09	3389.40	59.12	NA	46.77	NA	NA	NA	NA	3342.63
	05/06/09	3389.40	59.12	NA	46.93	NA	NA	NA	NA	3342.47
	05/19/09	3389.40	59.12	NA	46.96	NA	NA	NA	NA	3342.44
	06/03/09	3389.40	59.12	NA	46.93	NA	NA	NA	NA	3342.47
	07/15/09	3389.40	59.12	NA	46.55	NA	NA	NA	NA	3342.85
	08/05/09	3389.40	59.12	NA	46.84	NA	NA	NA	NA	3342.56
	08/26/09	3389.40	59.12	NA	46.98	NA	NA	NA	6	3342.42
	09/02/09	3389.40	59.12	NA	46.99	NA	NA	NA	NA	3342.41
	10/07/09	3389.40	59.12	NA	46.89	NA	NA	NA	NA	3342.51
	11/04/09	3389.40	59.12	NA	46.85	NA	NA	NA	NA	3342.55
	11/17/09	3389.40	59.12	NA	46.85	NA	NA	NA	NA	3342.55
	12/02/09	3389.40	59.12	NA	46.82	NA	NA	NA	NA	3342.58

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								PSH (gallons)	Water (gallons)	
MW-6	01/07/09	3389.72	57.16	NA	47.54	NA	NA	NA	NA	3342.18
	02/04/09	3389.72	57.14	NA	47.53	NA	NA	NA	NA	3342.19
	02/17/09	3389.72	57.33	NA	47.36	NA	NA	NA	NA	3342.36
	03/04/09	3389.72	57.33	NA	47.37	NA	NA	NA	NA	3342.35
	04/08/09	3389.72	57.33	NA	47.43	NA	NA	NA	NA	3342.29
	05/06/09	3389.72	57.33	NA	47.60	NA	NA	NA	NA	3342.12
	05/19/09	3389.72	57.33	NA	47.59	NA	NA	NA	5	3342.13
	06/03/09	3389.72	57.33	NA	47.58	NA	NA	NA	5	3342.14
	07/15/09	3389.72	57.33	NA	47.65	NA	NA	NA	5	3342.07
	08/05/09	3389.72	57.33	NA	47.51	NA	NA	NA	NA	3342.21
	08/26/09	3389.72	57.45	NA	47.61	NA	NA	NA	5	3342.11
	09/02/09	3389.72	57.45	NA	47.63	NA	NA	NA	NA	3342.09
	10/07/09	3389.72	57.45	NA	47.55	NA	NA	NA	NA	3342.17
	11/04/09	3389.72	57.45	NA	47.51	NA	NA	NA	NA	3342.21
	11/17/09	3389.72	57.45	NA	47.51	NA	NA	NA	NA	3342.21
	12/02/09	3389.72	57.45	NA	47.47	NA	NA	NA	NA	3342.25
MW-7	01/07/09	3389.28	55.53	NA	47.05	NA	NA	NA	NA	3342.23
	02/04/09	3389.28	55.48	NA	47.05	NA	NA	NA	NA	3342.23
	02/17/09	3389.28	55.82	NA	46.89	NA	NA	NA	NA	3342.39
	03/04/09	3389.28	55.82	NA	46.90	NA	NA	NA	NA	3342.38
	04/08/09	3389.28	55.82	NA	46.90	NA	NA	NA	NA	3342.38
	05/07/09	3389.28	55.82	NA	47.11	NA	NA	NA	NA	3342.17
	05/19/09	3389.28	55.82	NA	47.13	NA	NA	NA	5	3342.15
	06/03/09	3389.28	55.82	NA	47.11	NA	NA	NA	NA	3342.17
	07/15/09	3389.28	55.82	NA	47.17	NA	NA	NA	NA	3342.11
	08/05/09	3389.28	55.82	NA	47.07	NA	NA	NA	NA	3342.21
	08/26/09	3389.28	55.45	NA	47.13	NA	NA	NA	5	3342.15
	09/02/09	3389.28	55.45	NA	47.17	NA	NA	NA	NA	3342.11
	10/07/09	3389.28	55.45	NA	47.10	NA	NA	NA	NA	3342.18
	11/04/09	3389.28	55.45	NA	47.08	NA	NA	NA	NA	3342.20
	11/17/09	3389.28	55.45	NA	47.06	NA	NA	NA	NA	3342.22
	12/02/09	3389.28	55.45	NA	47.03	NA	NA	NA	NA	3342.25

NA: Not Applicable
NG: Not Gauged

TABLE 2

Historical Groundwater Elevation Data

(Available on CD attached to back cover)

TABLE 3
GROUNDWATER SAMPLE ANALYTICAL RESULTS
Plains Pipeline, L.P.
SRS No. 2000-10807
D. S. Hugh Site
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L
MW-1	12/21/05	NS	NS	NS	NS	NS
MW-1	03/28/06	NS	NS	NS	NS	NS
MW-1	06/15/06	NS	NS	NS	NS	NS
MW-1	09/12/06	NS	NS	NS	NS	NS
MW-1	03/01/07	NS	NS	NS	NS	NS
MW-1	05/22/08	T22302-1	**0.512**	0.439	0.141	0.323
MW-1	05/19/09	196690	**0.0105**	0.0143	0.0061	0.0178
MW-2	12/21/05	T12186-1	<0.002	<0.002	<0.002	<0.006
MW-2	03/28/06	T13038-1	<0.00038	<0.00036	<0.00035	<0.00072
MW-2	06/15/06	T13864-1	<0.00038	<0.00036	<0.00035	<0.00072
MW-2	09/12/06	T14673-1	<0.00035	<0.00020	<0.00033	<0.00036
MW-2	12/06/06	T15625-1	<0.00035	<0.00020	<0.00033	<0.00036
MW-2	03/01/07	T16518-1	<0.00035	<0.00020	<0.00033	<0.00036
MW-2	06/01/07	T17666-1	<0.00021	<0.00023	<0.00035	<0.00055
MW-2	09/07/07	T18804-1	<0.00021	<0.00023	<0.00035	<0.00055
MW-2	11/13/07	T19746-1	<0.0005	<0.0005	<0.0005	<0.001
MW-2	02/27/08	T21042-1	0.00077 J	<0.00023	0.00085 J	0.00068 J
MW-2	05/22/08	T22302-2	0.00029 J	<0.00023	<0.00035	<0.0055
MW-2	08/20/08	T23537-1	<0.0005	<0.0005	<0.0005	<0.001
MW-2	11/19/08	180051	0.00230	<0.00100	0.00180	0.00130
MW-2	02/17/09	187738	<0.001	<0.001	<0.001	<0.001
MW-2	05/19/09	196691	<0.000133	<0.000281	<0.000535	<0.000960
MW-2	08/26/09	208335	<0.000133	<0.000281	<0.000535	<0.000960
MW-2	11/17/09	215429	<0.000160	<0.000332	<0.000230	<0.000143
MW-3	12/21/05	T12186-2	<0.002	<0.002	<0.002	<0.006
MW-3	03/28/06	T13038-2	<0.00038	<0.00036	<0.00035	<0.00072
MW-3	06/15/06	T13864-2	<0.00038	<0.00036	<0.00035	<0.00072
MW-3	09/12/06	T14673-2	<0.00035	<0.00020	<0.00033	<0.00036
MW-3	12/06/06	T15625-2	<0.00035	<0.00020	<0.00033	<0.00036
MW-3	03/01/07	T16518-2	<0.00035	<0.00020	<0.00033	<0.00036
MW-3	06/01/07	T17666-2	<0.00021	<0.00023	<0.00035	<0.00055
MW-3	09/07/07	T18804-2	<0.00021	<0.00023	<0.00035	<0.00055
MW-3	11/13/07	T19746-2	<0.0005	<0.0005	<0.0005	<0.001
MW-3	02/27/08	T21042-2	0.00021 J	<0.00023	<0.00035	<0.00055
MW-3	05/22/08	T22302-3	<0.00021	<0.00023	<0.00035	<0.00055
MW-3	08/20/08	T23537-2	<0.0005	<0.0005	<0.0005	<0.001
MW-3	11/19/08	180052	<0.00100	<0.00100	<0.00100	<0.00100
MW-3	02/17/09	187739	<0.001	<0.001	<0.001	<0.001
MW-3	05/19/09	196692	<0.000149	<0.000188	<0.000178	<0.000163
MW-3	08/26/09	208336	<0.000133	<0.000281	<0.000535	<0.000960
MW-3	11/17/09	215430	<0.000160	<0.000332	<0.000230	<0.000143
MW-4	03/28/06	T13038-3	**0.2**[a]	0.0535	0.0384	0.115
MW-4	06/15/06	T13864-3	**0.41**[a]	0.0926	0.144[a]	0.403[a]
MW-4	09/12/06	T14673-3	**0.617**[a]	0.025	0.232[a]	0.208
MW-4	12/06/06	T15625-3	**1.25**[a]	0.196	0.581[a]	0.818
MW-4	03/01/07	T16518-3	**1.06**	0.186	0.294	0.195
MW-4	06/01/07	T17666-3	**1.25**	0.0195 J	0.349	0.192
MW-4	09/07/07	T18804-3	**1.51**	0.0554	0.317	0.295
MW-4	11/13/07	T19746-3	**1.38**[a]	0.0251	0.256	0.22

TABLE 3
GROUNDWATER SAMPLE ANALYTICAL RESULTS
Plains Pipeline, L.P.
SRS No. 2000-10807
D. S. Hugh Site
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L
MW-4	02/27/08	T21042-3	**1.77**	0.0882	0.532	0.792
MW-4	05/22/08	T22302-4	**1.09**	0.0215	0.291	0.254
MW-4	08/20/08	T23537-3	**0.662**[a]	0.0161	0.207[a]	0.249
MW-4	11/19/08	180053	**0.567**	0.0398	0.205	0.326
MW-4	02/17/09	187740	**0.654**	0.0451	0.196	0.507
MW-4	05/19/09	196693	**0.338**	0.0259	0.174	0.319
MW-4	08/26/09	208337	**0.301**	0.0405	0.180	0.407
MW-4	11/17/09	215431	**0.112**	0.0350	0.115	0.246
MW-5	03/28/06	T13038-4	<0.00038	<0.00036	<0.00035	<0.00072
MW-5	06/15/06	T13864-4	<0.00038	<0.00036	<0.00035	<0.00072
MW-5	09/12/06	T14673-4	<0.00035	<0.00020	<0.00033	<0.00036
MW-5	12/06/06	T15625-4	<0.00035	<0.00020	<0.00033	<0.00036
MW-5	03/01/07	T16518-4	<0.00035	<0.00020	<0.00033	<0.00036
MW-5	06/01/07	T17666-4	<0.00021	<0.00023	<0.00035	<0.00055
MW-5	09/07/07	T18804-4	<0.00021	<0.00023	<0.00035	<0.00055
MW-5	11/13/07	T19746-4	<0.0005	<0.0005	<0.0005	<0.001
MW-5	02/27/08	T21042-4	<0.00021	<0.00023	<0.00035	<0.00055
MW-5	05/22/08	T22302-5	<0.00021	<0.00023	<0.00035	<0.00055
MW-5	08/20/08	T23537-4	<0.0005	<0.0005	<0.0005	<0.001
MW-5	11/19/08	180054	<0.00100	<0.00100	<0.00100	<0.00100
MW-5	02/17/09	187741	<0.00100	<0.00100	<0.00100	<0.00100
MW-5	05/19/09	196694	<0.000149	<0.000188	<0.000178	<0.000163
MW-5	08/26/09	208338	<0.000133	<0.000281	<0.000535	<0.000960
MW-5	11/17/09	215432	<0.000133	<0.000281	<0.000535	<0.000960
MW-6	06/15/06	T13864-5	<0.00038	<0.00036	<0.00035	<0.00072
MW-6	09/12/06	T14673-5	<0.00035	<0.00020	<0.00033	<0.00036
MW-6	12/06/06	T15625-5	<0.00035	<0.00020	<0.00033	<0.00036
MW-6	03/01/07	T16518-5	<0.00035	<0.00020	<0.00033	<0.00036
MW-6	06/01/07	T17666-5	<0.00021	<0.00023	<0.00035	0.0014 J
MW-6	09/07/07	T18804-5	<0.00021	<0.00023	<0.00035	<0.00055
MW-6	11/13/07	T19746-5	<0.0005	<0.0005	<0.0005	<0.001
MW-6	02/27/08	T21042-5	<0.00021	<0.00023	<0.00035	<0.00055
MW-6	05/22/08	T22302-6	<0.00021	<0.00023	<0.00035	<0.00055
MW-6	08/20/08	T23537-5	0.0065	<0.0005	0.0037	<0.001
MW-6	11/19/08	180055	<0.00100	<0.00100	<0.00100	<0.00100
MW-6	02/17/09	187742	<0.00100	<0.00100	<0.00100	<0.00100
MW-6	05/19/09	196695	<0.000149	<0.000188	<0.000178	<0.000163
MW-6	08/26/09	208339	<0.000133	<0.000281	<0.000535	<0.000960
MW-6	11/17/09	215433	<0.000133	<0.000281	<0.000535	<0.000960
MW-7	06/15/06	T13864-6	<0.00038	<0.00036	<0.00035	<0.00072
MW-7	09/12/06	T14673-6	**0.0163**	<0.00020	<0.00033	0.0036
MW-7	12/06/06	T15625-6	**0.011**	<0.00020	<0.00033	0.004
MW-7	03/01/07	T16518-6	<0.00035	<0.00020	<0.00033	0.0053
MW-7	06/01/07	T17666-6	<0.00021	<0.00023	<0.00035	<0.00055
MW-7	09/07/07	T18804-6	<0.00021	<0.00023	<0.00035	<0.00055
MW-7	11/13/07	T19746-6	<0.0005	<0.0005	<0.0005	<0.001
MW-7	02/27/08	T21042-6	<0.00021	<0.00023	<0.00035	<0.00055
MW-7	05/22/08	T22302-7	<0.00021	<0.00023	<0.00035	<0.00055
MW-7	08/20/08	T23537-6	0.00086 J	<0.0005	0.00054 J	<0.001
MW-7*	11/19/08	180056	NS	NS	NS	NS
MW-7	02/17/09	187743	<0.00100	<0.00100	<0.00100	<0.00100

TABLE 3
GROUNDWATER SAMPLE ANALYTICAL RESULTS
Plains Pipeline, L.P.
SRS No. 2000-10807
D. S. Hugh Site
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L
MW-7	05/19/09	196696	<0.000149	<0.000188	<0.000178	<0.000163
MW-7	08/26/09	208340	<0.000133	<0.000281	<0.000535	<0.000960
MW-7	11/17/09	215434	<0.000133	<0.000281	<0.000535	<0.000960

(a) = Result is from Run #2
Concentration in **Bold** = above NMOCD Remediation Criteria
Note: MW-1 not sampled due to presence of hydrocarbon sheen (NS)
J = Estimated vlue
* MW-7 was not sampled in 4th Quarter 2008, due to root growth in the well
NA = Not requested for analysis

TABLE 4
GROUNDWATER ANALYTICAL RESULTS for
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs) from wells with Sheen/PSH
Plains Pipeline, L.P.
SRS No. 2000-10807
D S Hugh
Lea County, New Mexico

Monitoring Well	Sample Date	Lab Report #	Acenaphthylene	Acenaphthene	Flourene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo[a]-anthracene	Chrysene	Benzo[b]-fluoranthene	Benzo[a]-pyrene	Dibenzofuran	Dibenz[a,h]-anthracene	Benzo[g,h,i]-perylene	Benzo(k)fluoranthene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total naphthalenes	TPH-GRO (C6-C10)	TPH DRO (C10-C28)
Units			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)
Other regulatory limits (Tap Water)*			NA	365	243	0.91	1100	1830	1460	183	0.91	29.1	0.91	0.7**		0.091	NA	9.1				30**	NA	NA
MW-1	5/22/2008	T22302-1	<1.6	<1.5	<2.1	<2.4	<1.6	<1.8	<1.6	<1.1	<1.4	<1.3	<1.5	<1.6	NA	<1.3	<2.5	<1.6	10.7	NA	10.2	20.9	5.56	2.2
MW-1	5/19/2009	9052214	<0.0707	<0.131	<0.0525	<0.0801	1.53	<0.0808	<0.0880	<0.0458	<0.0302	<0.0913	<0.0631	<0.0506	0.897	<0.0558	<0.0628	<0.0765	6.67	9.04	9.05	24.76	0.183 J	<0.876

< = Not Detected
Tap Water* = NMED Tap Water Soil screening levels for residential scenarios.
** = NM Water Quality Standard
J = Indicates an Estimated Value
NA = Not requested for analysis

TABLE 5
2009 MONTHLY PSH AND DISSOLVED PHASE GROUNDWATER RECOVERY DATA
Plains Pipeline, L.P.
SRS No. 2000-10807
D. S. Hugh Site
Lea County, New Mexico

Month	Volume of PSH recovered in gallons	Volume of dissolved phase groundwater recovered in gallons
January	2.25	108.75
February	0.60	111.25
March	0.35	124.65
April	0.35	151.65
May	0.50	146.00
June	0.00	140.00
July	0.75	154.25
August	0.25	125.75
September	0.50	199.50
October	0.50	154.75
November	1.00	189.25
December	1.00	334.50
Total	8.05	1940.30

APPENDIX C

2009 Analytical Laboratory Reports

(Available on CD attached to back cover)

1st Quarter 2009 Analytical Reports – 9021802

2nd Quarter 2009 Analytical Reports – 9052214

3rd Quarter 2009 Analytical Reports – 9082803

4th Quarter 2009 Analytical Reports – 9112014

APPENDIX D

C-141 NMOCD Release Notification Form

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 Marketing, LP	Contact Daniel Bryant
Address 5805 East Hwy. 80, Midland, TX 79706	Telephone No. 432-686-1769
Facility Name D. S. Hugh Gathering	Facility Type Steel Pipeline

Surface Owner Delrose Scott	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
K	26	21S	37E					Lea

Latitude 32° 26' 48" **Longitude** 103° 08' 07"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 20 barrels	Volume Recovered 5 barrels
Source of Release Steel Pipeline	Date and Hour of Occurrence 11/10/2000	Date and Hour of Discovery 11/10/2000 13:20
Was Immediate Notice Given? Yes ☒ No ☐ Not Required	If YES, To Whom? Donna Williams	
By Whom? Wayne Brunette	Date and Hour 11/10/2000 14:25	
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.* Pipeline was clamped to mitigate the release during initial response activities.

Describe Area Affected and Cleanup Action Taken.*
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.

Signature: Daniel Bryant	OIL CONSERVATION DIVISION	
Printed Name: Daniel Bryant	Approved by District Supervisor:	
Title: Environmental Coordinator	Approval Date:	Expiration Date:
E-mail Address: dmbryant@paalp.com	Conditions of Approval:	Attached ☐
Date: 4/7/2006 Phone:432-686-1769		

* Attach Additional Sheets If Necessary