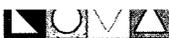


1R - 456

**Annual GW Mon.  
REPORTS**

**DATE:**

**2007**



2007  
ANNUAL MONITORING REPORT

RECEIVED

2008 APR 1 PM 2 08

**34 JUNCTION SOUTH STATION**  
LEA COUNTY, NEW MEXICO  
NW ¼ SW ¼ SECTION 2, TOWNSHIP 17 SOUTH, RANGE 36 EAST  
PLAINS SRS NUMBER: 2005-00138  
NMOCD Reference 1R-0456

PREPARED FOR:

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



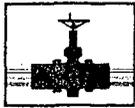
PREPARED BY:

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

**March 2008**

  
Ronald K. Rounsaville  
Project Manager

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



RECEIVED

March 28, 2008

2008 APR 1 PM 2 07

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

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

Dear Mr. Hansen:

Plains All American is an operator of crude oil pipelines and terminal facilities in the state of New Mexico. Plains All American actively monitors certain historical release sites exhibiting groundwater impacts, consistent with assessments and work plans developed in consultation with the New Mexico Oil Conservation Division (NMOCD). In accordance with the rules and regulations of the NMOCD, Plains All American hereby submits our Annual Monitoring reports for the following sites:

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

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

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

Sincerely,

A handwritten signature in cursive script that reads "Camille Reynolds".

Camille Reynolds  
Remediation Coordinator  
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosures

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Figure 3A – Groundwater Concentration and Inferred PSH Extent Map March 19, 2007

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3D – Groundwater Concentration and Inferred PSH Extent Map November 12, 2007

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

### ENCLOSED ON DATA DISK

2007 Annual Monitoring Report

2007 Tables 1, 2, 3 and 4

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

Boring Log and Monitor Well Details

Electronic Copies of Laboratory Reports

Historic Groundwater Elevation Data Tables

Historic BTEX Concentration Tables

## **INTRODUCTION**

On behalf of Plains Marketing, L.P. (Plains), NOVA Safety and Environmental (NOVA) is pleased to submit this Annual Monitoring Report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. Beginning on or about August 8, 2006, project management responsibilities were assumed by NOVA, having previously been managed by Basin Environmental Service Technologies, LLC, (Basin). 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 2007 only. However, historic data tables as well as 2007 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 2007 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 legal description of the site is NW¼, SW¼, Section 2, Township 17 South, Range 36 East. The site is located on property owned by the State of New Mexico. The site latitude is 32° 51' 42.4" North and the site longitude is 103° 19' 54.4" West. Please reference Figure 1 for a Site Location Map. On June 10, 2005, Basin responded to a pipeline release on behalf of Plains. The release occurred as a result of the mechanical malfunction of an air eliminator check valve at an operational secondary metering station. Emergency response activities included the repair of the affected check valve and excavation of the hydrocarbon impacted soil. Approximately 15 barrels of crude oil were released from the pipeline and 0.5 barrels were recovered, resulting in a net loss of 14.5 barrels. The visibly stained surface area covers an area approximately 20 feet long by 20 feet wide. Excavation activities during the initial response activities covered an area within the fenced station approximately 20 feet long by 20 feet wide and one to four feet below ground surface (bgs). Approximately 100 cubic yards (cy) of excavated soil was placed on a polyethylene liner for future remedial activities. Please reference Appendix B for The Release Notification and Corrective Action (Form C-141).

Currently, there are twelve (12) monitor wells and one (1) recovery well (RW-1) on site. An automated PSH recovery system, consisting of pneumatic skimmer pumps installed in monitor wells MW-3 and MW-9 and recovery well RW-1 was operational during the reporting period of 2007. Recovered PSH is temporarily stored in a poly tank and periodically re-injected into the Plains Pipeline transportation system located at the 34 Junction Metering Station.

*A Stage 1 and Stage 2 Abatement Plan* was submitted to the NMOCD in October 2006. The NMOCD has accepted the Abatement Plan as administratively complete and public notice is pending.

## RECENT FIELD ACTIVITIES

A measurable thickness of PSH was detected in monitor wells MW-3, MW-4 (3<sup>rd</sup> and 4<sup>th</sup> quarters), MW-8 (1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters), MW-9, and MW-10 (2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters) and in recovery well RW-1 during the 2007 reporting period. The average thickness of PSH in monitor and recovery wells containing PSH during 2007 was 3.49 feet, with a maximum thickness of 8.39 feet occurring in monitor well MW-9 on July 6, 2007. Approximately 274 gallons (approximately 7 barrels) of PSH was recovered from the site during the 2007 reporting period. Approximately 2,348 gallons (approximately 59 barrels) of PSH have been recovered since the project inception. Measurable thicknesses of PSH are recorded in Table 1 and Figures 3A through 3D.

Quarterly monitoring events for the reporting period were performed according to the following sampling schedule.

NMOCD APPROVED SAMPLING SCHEDULE					
Location	Schedule	Location	Schedule	Location	Schedule
MW-1	Quarterly	MW-6	Quarterly	MW-11	Quarterly
MW-2	Quarterly	MW-7	Quarterly	MW-12	Quarterly
MW-3	Quarterly	MW-8	Quarterly		
MW-4	Quarterly	MW-9	Quarterly	RW-1	Quarterly
MW-5	Quarterly	MW-10	Quarterly		

The site monitor wells were gauged and sampled on March 19, May 31, August 29, and November 12, 2007. 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 at a licensed disposal facility.

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 2007 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 0.009 feet/foot to the east-northeast as measured between monitor well MW-8 and MW-5. This is consistent with data presented from earlier in the year. The corrected groundwater elevation has ranged between 3,789.46 and 3,792.58 feet above mean sea level, in monitor wells MW-12 on November 12, 2007 and MW-8 on November 21, 2007, respectively.

## LABORATORY RESULTS

Monitor wells MW-3, MW-9 and recovery well RW-1 contained PSH during all four quarters of the reporting period and were not sampled during the reporting period of 2007. Monitor well MW-4 contained PSH during the 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2007 and was not sampled. Monitor well

MW-8 contained PSH during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2007 and was not sampled. Monitor well MW-10 contained PSH during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period and was not sampled.

All groundwater samples collected during the reporting period were delivered to TraceAnalysis, Inc. in Lubbock, Texas for Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) analysis using EPA Method SW 846-8021b. Analytical results of BTEX constituent concentrations for 2007 are summarized on Table 2. Historical BTEX constituent concentrations and copies of the laboratory reports for 2007 are provided on the enclosed data disk. The quarterly groundwater analytical results are depicted on the Groundwater Concentration and Inferred PSH Extent Maps, Figures 3A-3D.

**Monitor well MW-1** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below laboratory method detection limits (MDL) and the NMOCD regulatory standards of 0.01 mg/L for benzene, 0.75 mg/L for toluene, 0.75 mg/L for ethylbenzene and 0.62 mg/L for xylene during all four quarters of the reporting period.

**Monitor well MW-2** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below MDL and the NMOCD regulatory standards during all four quarters of the reporting period.

**Monitor well MW-3** is monitored on a quarterly schedule. Monitor well MW-3 was not sampled during the four quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 6.66 feet, 0.75 feet, 1.15 feet and 4.41 feet were reported during the four quarters of 2007, respectively.

**Monitor well MW-4** is monitored / sampled on a quarterly schedule. Monitor well MW-4 was not sampled during the 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 0.98 feet and 0.07 feet were reported during the 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2007, respectively. Analytical results from groundwater samples collected during the 1<sup>st</sup> and 2<sup>nd</sup> quarters indicate benzene concentrations ranged from 2.49 mg/L during the 1<sup>st</sup> quarter to 6.27 mg/L during the 2<sup>nd</sup> quarter of 2007. Benzene concentrations were above NMOCD regulatory standards during the first two quarters of the reporting period. Toluene concentrations ranged from 1.86 mg/L during the 1<sup>st</sup> quarter to 3.8 mg/L during the 2<sup>nd</sup> quarter of 2007. Toluene concentrations were above NMOCD regulatory standards during the first two quarters of the reporting period. Ethylbenzene concentrations ranged from 0.282 mg/L during the 1<sup>st</sup> quarter to 0.302 mg/L during the 2<sup>nd</sup> quarter of 2007. Ethylbenzene concentrations were below NMOCD regulatory standards during the first two quarters of the reporting period. Xylene concentrations ranged from 0.95 mg/L during the 1<sup>st</sup> quarter to 0.981 mg/L during the 2<sup>nd</sup> quarter of 2007. Xylene concentrations were above NMOCD regulatory standards during the first two quarters of the reporting period.

**Monitor well MW-5** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.163 mg/L during the 1<sup>st</sup> quarter to 6.1 mg/L during the 4<sup>th</sup> quarter of 2007. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0359 mg/L during the 1<sup>st</sup> quarter to 0.451 mg/L during the 4<sup>th</sup>

quarter of 2007. Ethylbenzene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from <0.2 mg/L during the 4<sup>th</sup> quarter to 0.635 mg/L during the 3<sup>rd</sup> quarter of 2007. Xylene concentrations were below NMOCD regulatory standards, with the exception of the 3<sup>rd</sup> quarter of the reporting period.

**Monitor well MW-6** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below MDL and the NMOCD regulatory standards during all four quarters of the reporting period.

**Monitor well MW-7** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below MDL and the NMOCD regulatory standards during all four quarters of the reporting period.

**Monitor well MW-8** is monitored / sampled on a quarterly schedule. Monitor well MW-8 was not sampled during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 0.37 feet, 0.75 feet and 0.28 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2007, respectively. Analytical results from groundwater samples collected during the 4<sup>th</sup> quarter indicate benzene concentrations were above the NMOCD regulatory standard with a concentration of 1.24 mg/L. Toluene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter with a concentration of 0.769 mg/L. Ethylbenzene concentrations were below NMOCD regulatory standards during the 4<sup>th</sup> quarter with a concentration of 0.266 mg/L. Xylene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter with a concentration of 0.737 mg/L.

**Monitor well MW-9** is monitored on a quarterly schedule. Monitor well MW-9 was not sampled during the four quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 5.82 feet, 7.71 feet, 8.05 feet and 7.74 feet were reported during the four quarters of 2007, respectively.

**Monitor well MW-10** is monitored / sampled on a quarterly schedule. Monitor well MW-10 was not sampled during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 0.49 feet, 1.22 feet and 3.29 feet were reported during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2007, respectively. Analytical results from groundwater samples collected during the 1<sup>st</sup> quarter indicate benzene concentrations were above the NMOCD regulatory standard with a concentration of 5.3 mg/L. Toluene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter with a concentration of 1.98 mg/L. Ethylbenzene concentrations were below NMOCD regulatory standards during the 4<sup>th</sup> quarter with a concentration of 0.401 mg/L. Xylene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter with a concentration of 1.27 mg/L.

**Monitor well MW-11** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below MDL and the NMOCD regulatory standards during all four quarters of the reporting period.

**Monitor well MW-12** is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below MDL and the NMOCD regulatory standards during all four quarters of the reporting period.

**Recovery well RW-1** is monitored on a quarterly schedule. Recovery well RW-1 was not sampled during the four quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 6.82 feet, 7.34 feet, 6.95 feet and 7.14 feet were reported during the four quarters of 2007, respectively.

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

## **SUMMARY**

This report presents the results of monitoring activities for the 2007 annual monitoring period. Twelve (12) groundwater monitor wells (MW-1 through MW-12) and one (1) PSH recovery wells (RW-1) are currently on-site. An automated recovery system was operational during the 2007 reporting period. The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of 0.009 feet/foot to the east-northeast.

Six monitor and recovery wells (MW-3, MW-4, MW-8, MW-9, MW-10 and RW-1) contained measurable thicknesses of PSH during the reporting period. The average thickness of PSH in monitor and recovery wells exhibiting PSH during 2007 was 3.49 feet. Approximately 274 gallons (approximately 7 barrels) of PSH was recovered from the site during the 2007 reporting period. Approximately 2,348 gallons (approximately 59 barrels) of PSH have been recovered since the project inception

Review of laboratory analytical results of the groundwater samples obtained during the 2007 monitoring period indicates the BTEX constituent concentrations are below applicable NMOCD standards in six of the thirteen monitor and recovery wells currently on-site. The remaining seven monitor and recovery wells contained measurable thicknesses of PSH and were not sampled or exhibited analytical results above the NMOCD regulatory standard during at least one quarterly monitoring event of 2007. Review of the analytical results indicates the horizontal extent of groundwater impact appears to be delineated at this time.

## **ANTICIPATED ACTIONS**

Groundwater monitoring and groundwater sampling will continue in 2008. The onsite automated recovery system will continue to operate and may be modified, as conditions require. An Annual Monitoring Report will be submitted to the NMOCD before April 1, 2009.

A *Stage 1 and Stage 2 Abatement Plan* was submitted to the NMOCD in October 2006. The NMOCD has accepted the Abatement Plan as administratively complete and public notice is pending.

## **LIMITATIONS**

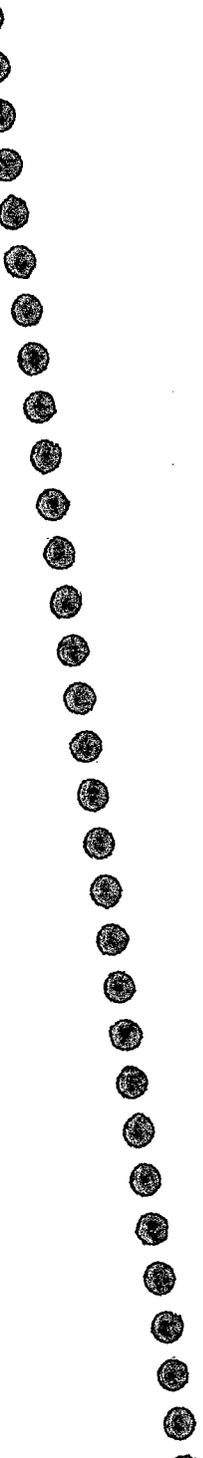
NOVA has prepared this Annual Monitoring Report to the best of its ability. No other warranty, expressed or implied, is made or intended.

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

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

## **DISTRIBUTION**

- Copy 1      Ed Hansen  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505
- Copy 2:      Larry Johnson  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division, District 1  
1625 French Drive  
Hobbs, NM 88240
- Copy 3:      Thaddeus Kostrubala  
New Mexico State Land Office  
P.O. Box 1148  
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Houston, TX 77002  
jpdann@paalp.com
- Copy 6:      NOVA Safety and Environmental  
2057 Commerce Street  
Midland, TX 79703  
rrounsaville@novatraining.cc



Figures

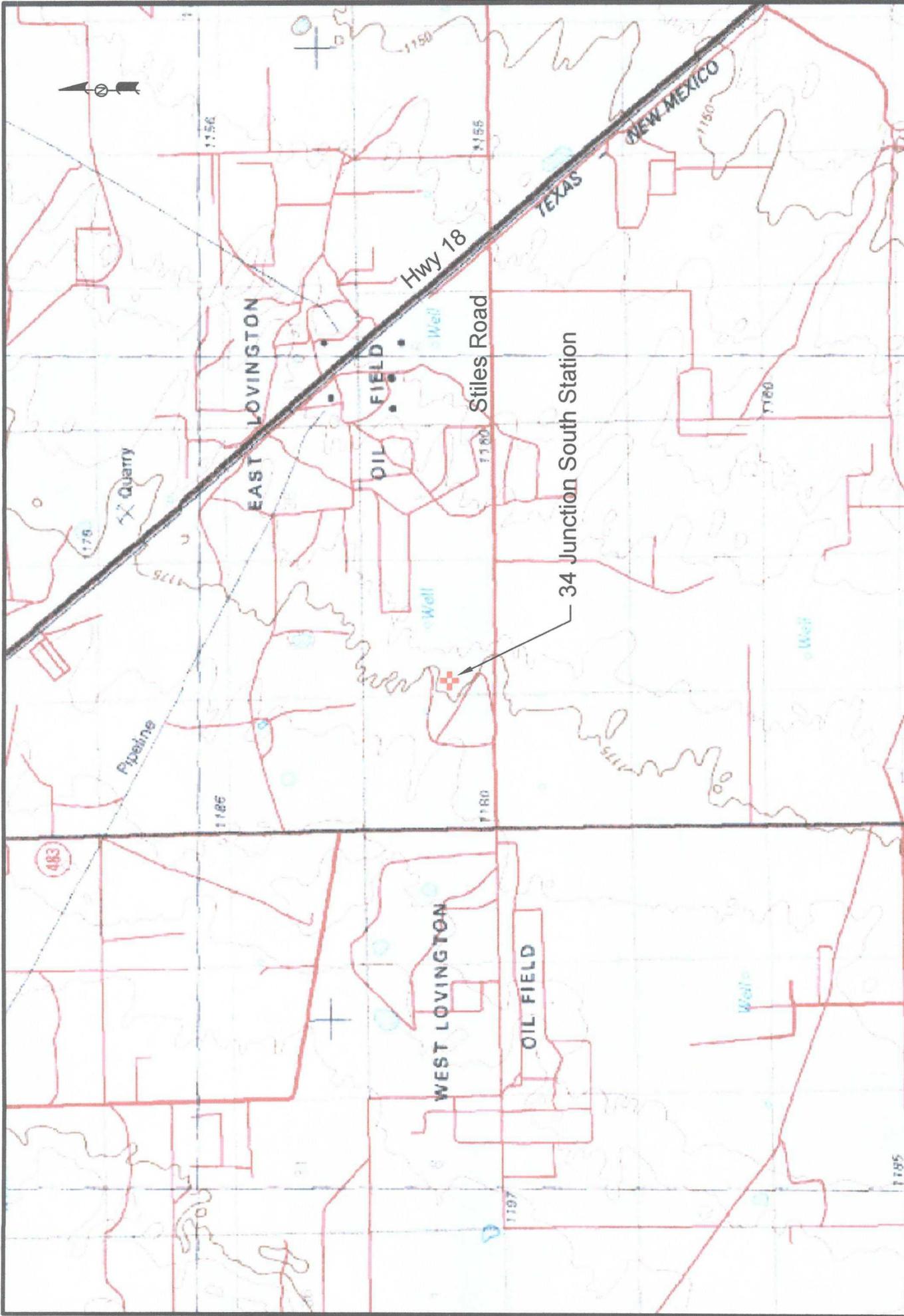


Figure 1  
 Site Location Map  
 Plains Marketing, L.P.  
 34 Junction South Station  
 Lea County, NM

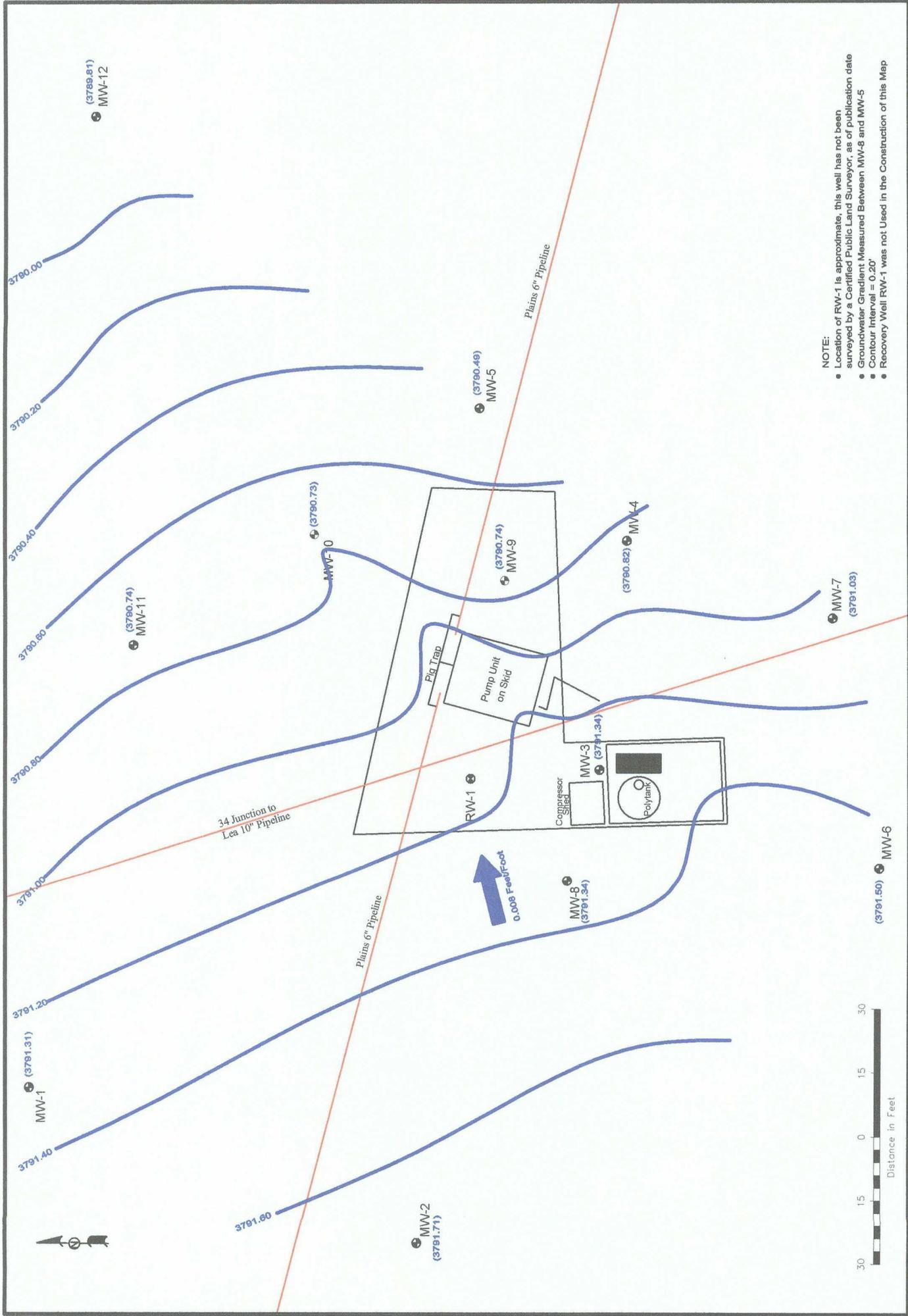
NMOCD Reference #1R-0456

NOVA Safety and Environmental

NOVA  
 safety and environmental

Scale: 1" = 4000'  
 October 17, 2008  
 Prep By: CDS | Checked By: TKC  
 Lat: 32° 51' 42.47N Long: 103° 19' 54.4W

4000 2000 0 2000 4000  
 Distance in Feet



NOTE:

- Location of RW-1 is approximate, this well has not been surveyed by a Certified Public Land Surveyor, as of publication date
- Groundwater Gradient Measured Between MW-8 and MW-5
- Contour Interval = 0.20'
- Recovery Well RW-1 was not used in the Construction of this Map

**Legend:**

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Groundwater Elevation (Feet)
- Groundwater Elevation Contour Line
- Groundwater Direction and Magnitude

Distance in Feet

0 15 30

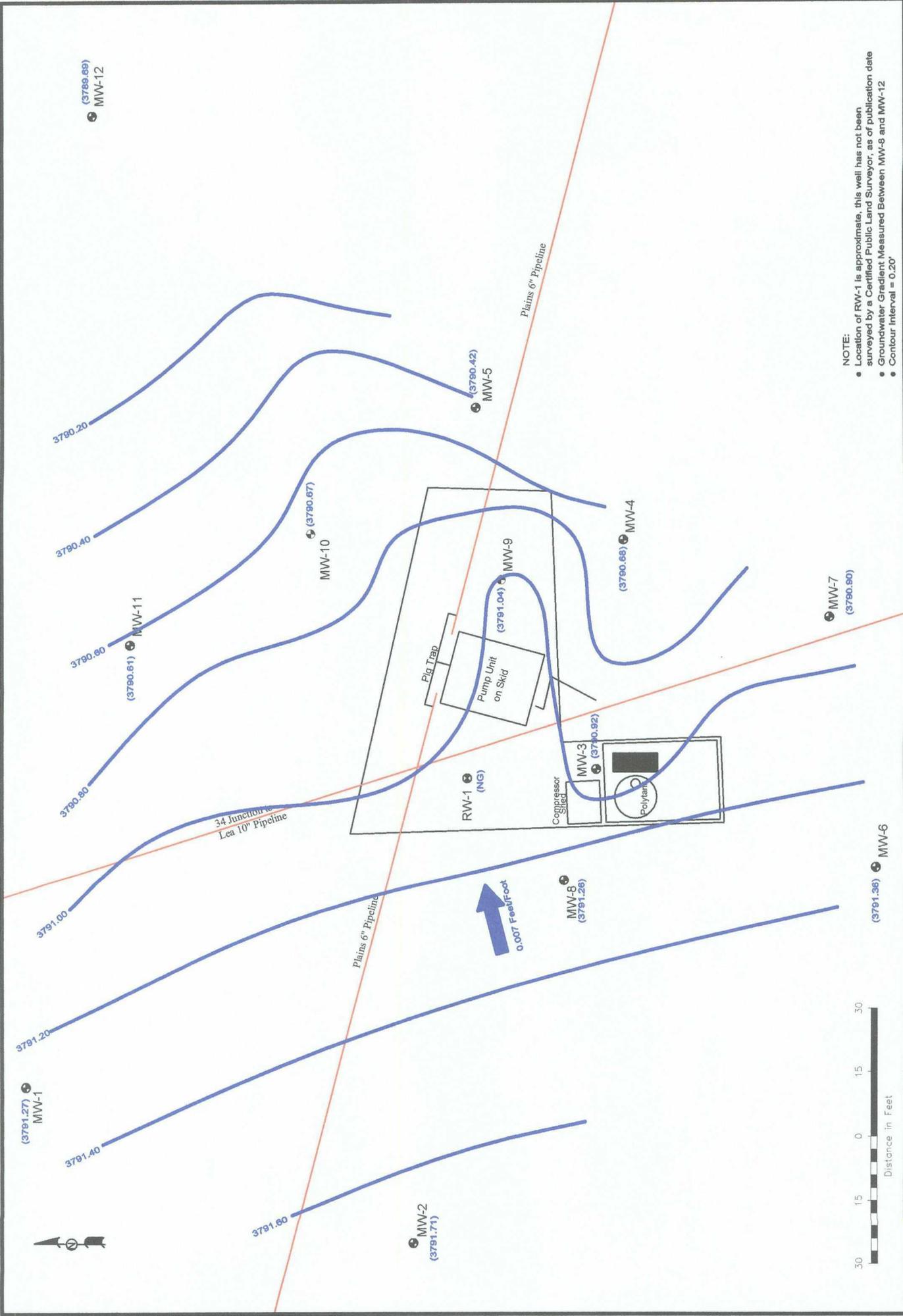
30 15 0 15 30

Figure 2A  
Inferred Groundwater  
Gradient Map (03/19/07)  
Plains Marketing, L.P.  
34 Junction to South  
Station  
Lea County, NM

NMOC Reference No. 1R-0456

NOVA Safety and Environmental

Scale: 1" = 30'  
October 26, 2007  
CAD By: DGC  
Checked By: CDS



NOTE:

- Location of RW-1 is approximate, this well has not been surveyed by a Certified Public Land Surveyor, as of publication date
- Groundwater Gradient Measured Between MW-8 and MW-12
- Contour Interval = 0.20'

**Figure 2B**  
 Inferred Groundwater Gradient Map (05/31/07)  
 Plains Marketing, L.P.  
 34 Junction South Station  
 Lea County, NM

NMOCDC Reference No. 1R-0456

NOVA Safety and Environmental  
 Scale: 1" = 30'  
 September 6, 2007  
 CAD By: DGC  
 Checked By: CDS

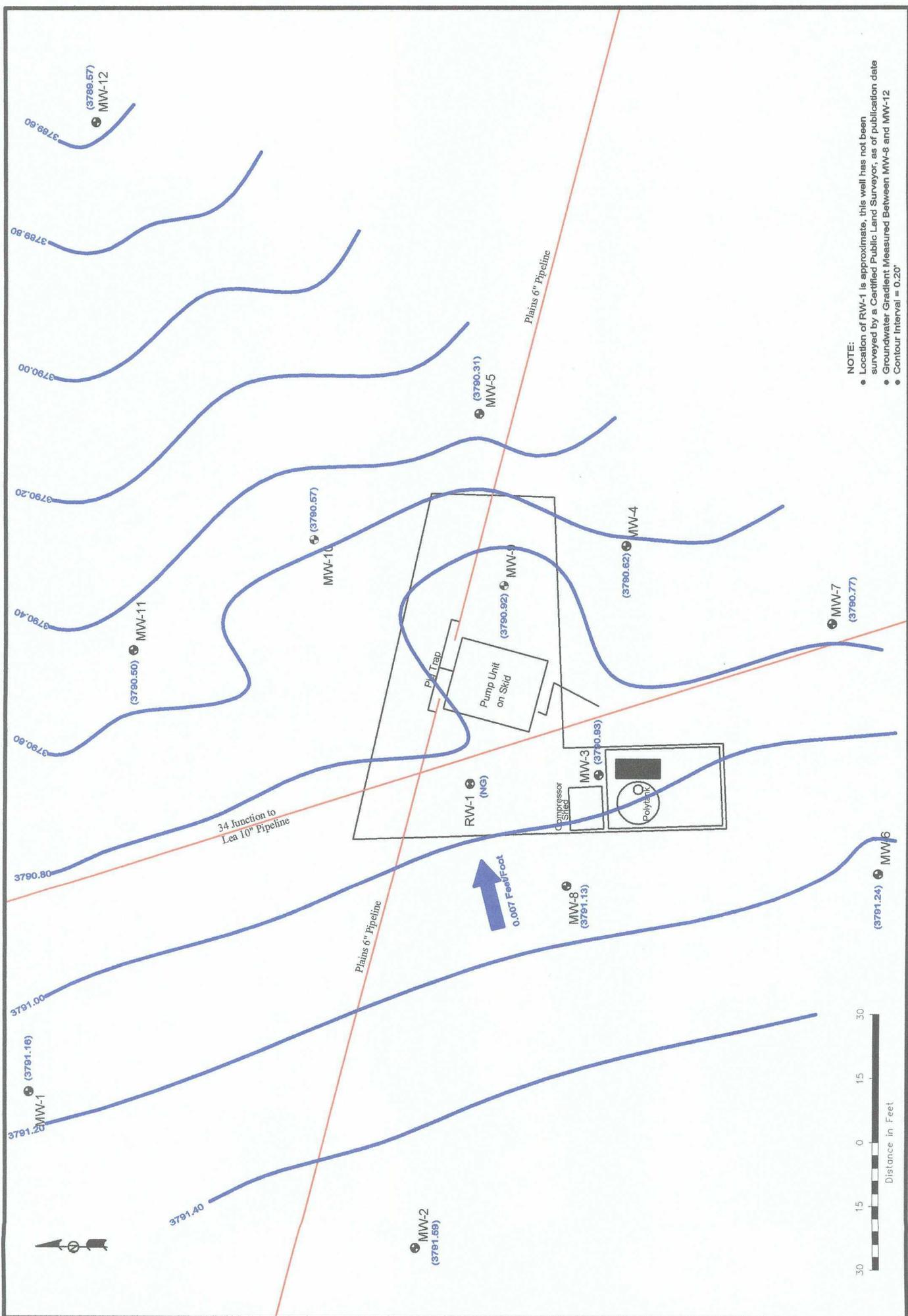
NOVA safety and environmental

Legend:

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Groundwater Elevation (Feet)
- Groundwater Elevation Contour Line
- Groundwater Direction and Magnitude
- Not Gauged (NG)

Distance in Feet

30 15 0 15 30



**NOTE:**

- Location of RW-1 is approximate, this well has not been surveyed by a Certified Public Land Surveyor, as of publication date
- Groundwater Gradient Measured Between MW-8 and MW-12
- Contour Interval = 0.20'

**Figure 2C**  
**Inferred Groundwater Gradient Map (08/29/07)**  
 Plains Marketing, L.P.  
 34 Junction South  
 Lea County, NM

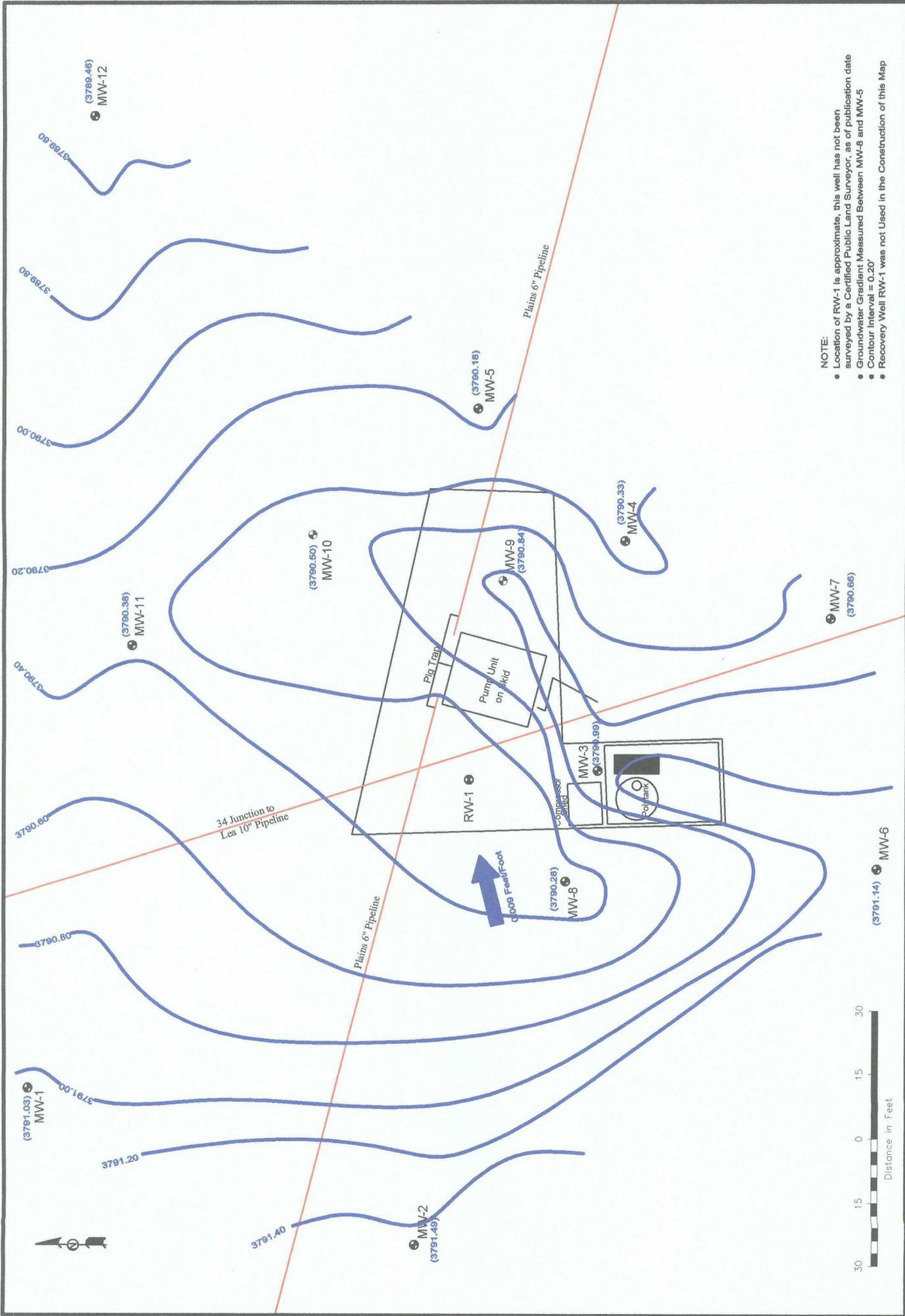
**NOVA Safety and Environmental**  
 Scale: 1" = 30'  
 CAD By: DCC  
 September 8, 2007  
 Checked By: CCS

**Legend:**

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Groundwater Elevation (Feet)
- Groundwater Elevation Contour Line
- Groundwater Direction and Magnitude
- Not Gauged (NG)

NMCCD Reference No. 1R-0456





**NOTE:**

- Location of RW-1 is approximate, this well has not been surveyed by a Certified Public Land Surveyor, as of publication date
- Groundwater Gradient Measured Between MW-8 and MW-5
- Contour Interval = 0.20
- Recovery Well RW-1 was not Used in the Construction of this Map

**Legend:**

- Monitor Well Location
- Recovery Well Location
- Pipeline
- (3791.68) Groundwater Elevation (Feet)
- Groundwater Direction and Magnitude
- Groundwater Elevation Contour Line

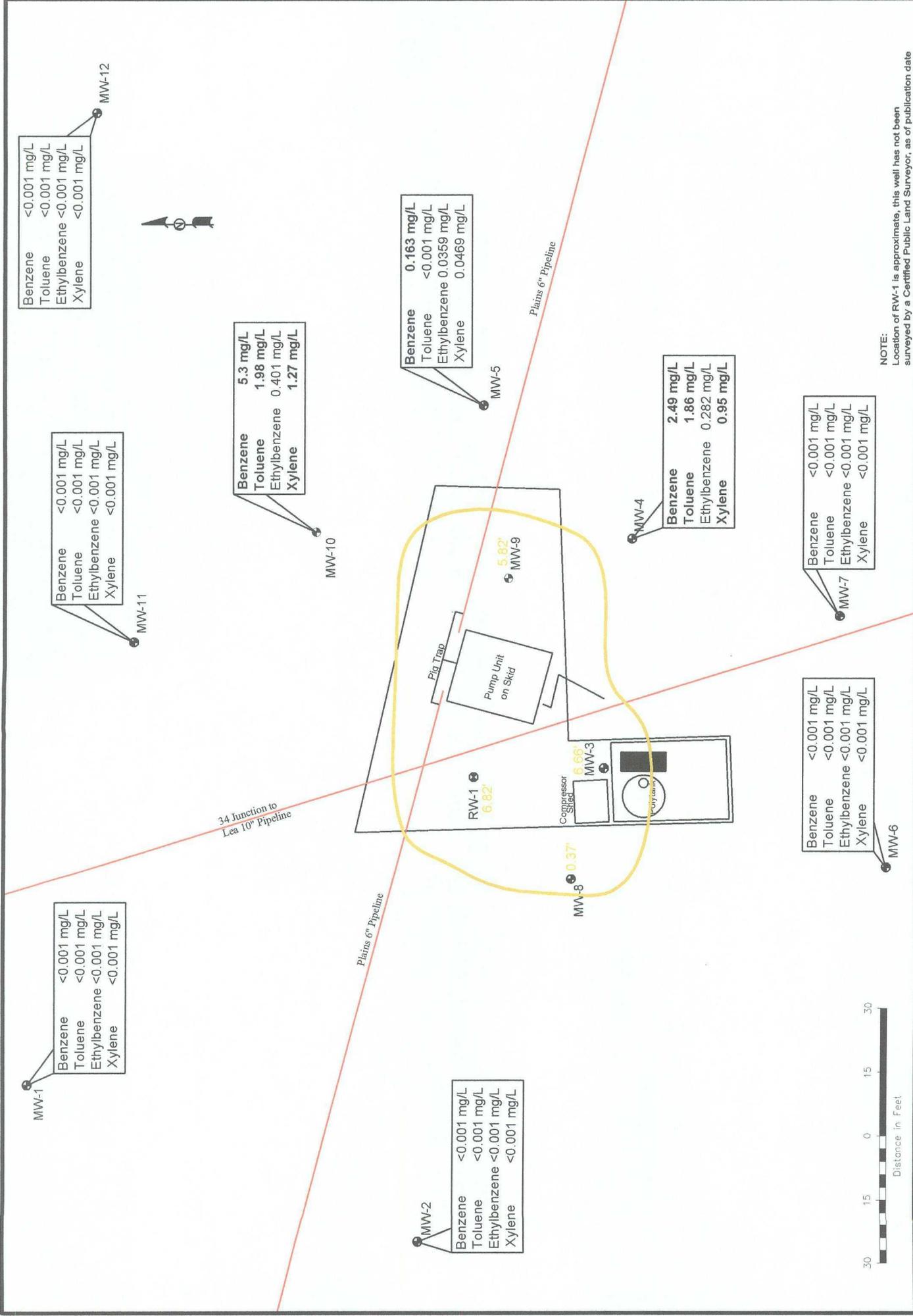
**Scale:** 1" = 30'

**Distance in Feet:** 0, 15, 30

**Figure 2D**  
**Inferred Groundwater Gradient Map (1/17/2007)**  
 Plains Marketing, L.P.  
 34 Junction South  
 Lea County, NM

**NOVA Safety and Environmental**  
 CAD By: DGC  
 Checked By: CDB  
 September 6, 2007

**NIMOC Reference No. 1R-0456**



NOTE:  
Location of RW-1 is approximate, this well has not been surveyed by a Certified Public Land Surveyor, as of publication date

**NOVA Safety and Environmental**

Scale: 1" = 30'  
February 11, 2008  
CAD By: DGC  
Checked By: CBS

Figure 3A  
Inferred PSH and  
Dissolved Phase Extent  
at the 34 Junction P.  
Plains 6" Pipeline  
34 Junction South Station  
Lea County, NM

NMOCOD Reference No. 1R-0456

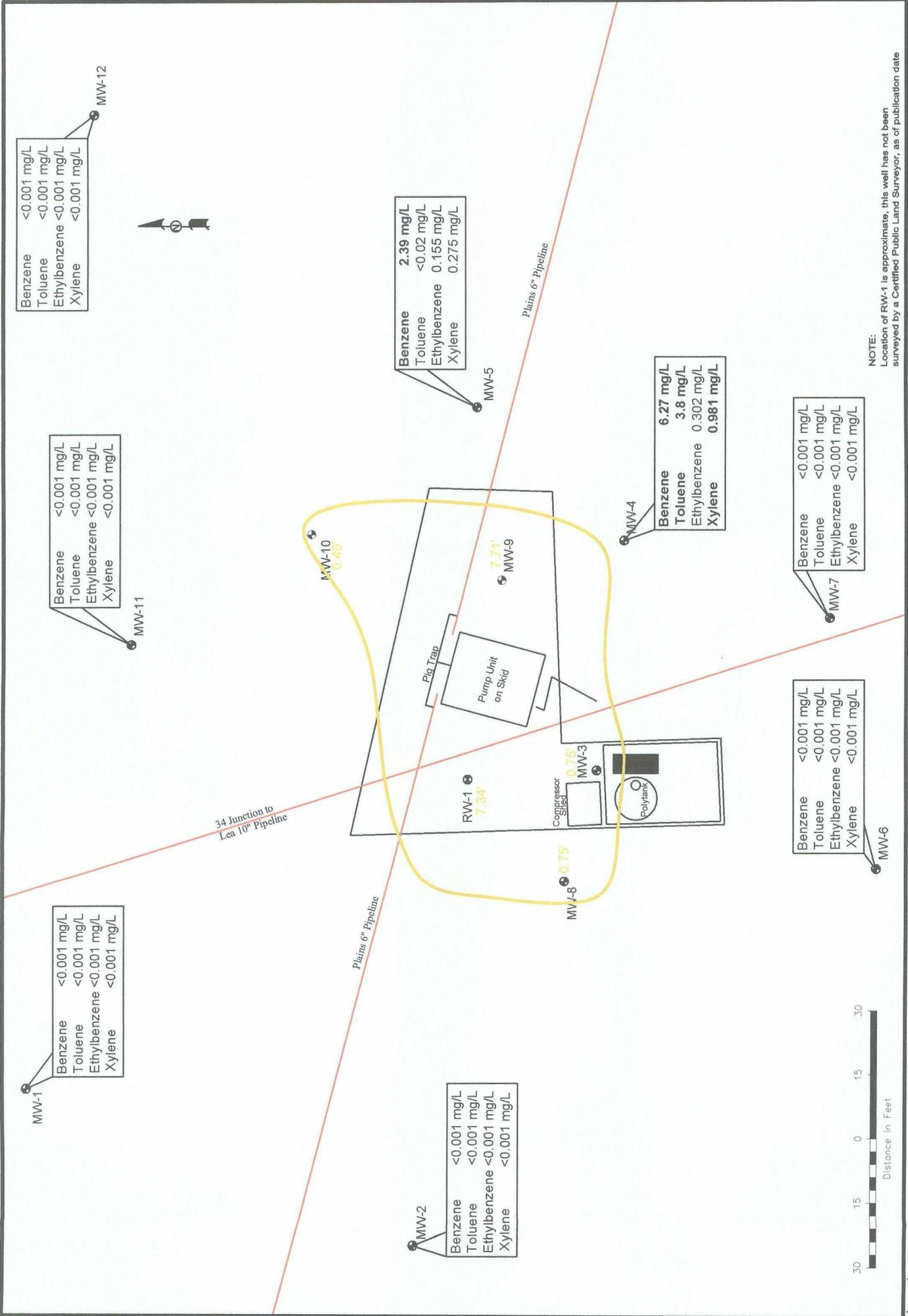
**Legend:**

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Inferred PSH Extent
- PSH Thickness (in feet)
- Constituent Concentration (mg/L)

0.18' <0.001

Distance in Feet

0 15 30



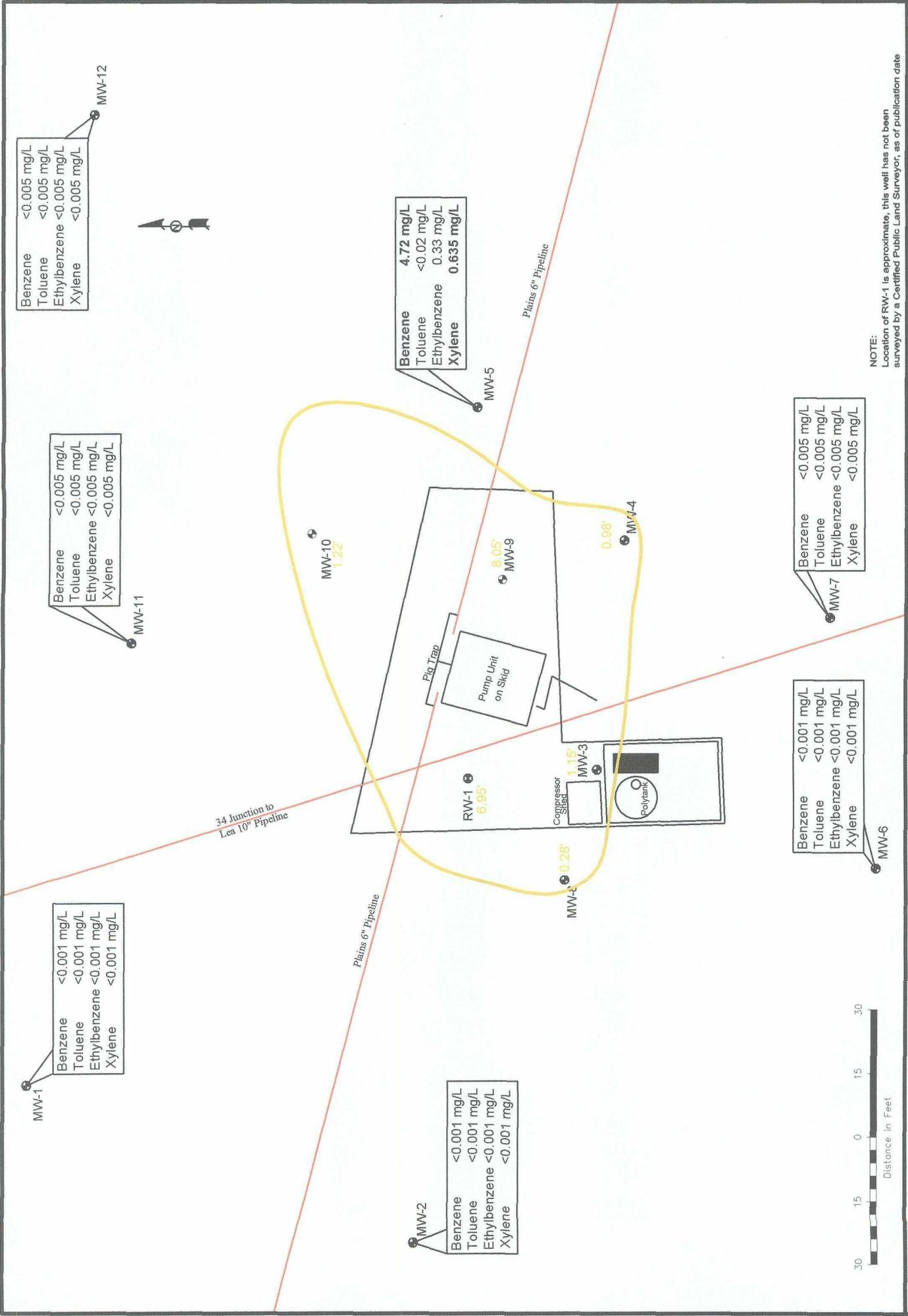
**NOTE:**  
 Location of RW-1 is approximate, this well has not been surveyed by a Certified Public Land Surveyor, as of publication date

**NOVA Safety and Environmental**

Scale: 1" = 30'  
 CAD By: DDC  
 Checked By: CCS  
 March 23, 2007

Figure 3B  
 Inferred PSH and Dissolved Phase Extent Map (05/31/07)  
 Plains Marketing, L.P.  
 34 Junction South Station  
 Lea County, NM

NMOCED Reference No. 1R-0456



**NOVA Safety and Environmental**

Scale: 1" = 30'

January 11, 2008

Checked By: CCS

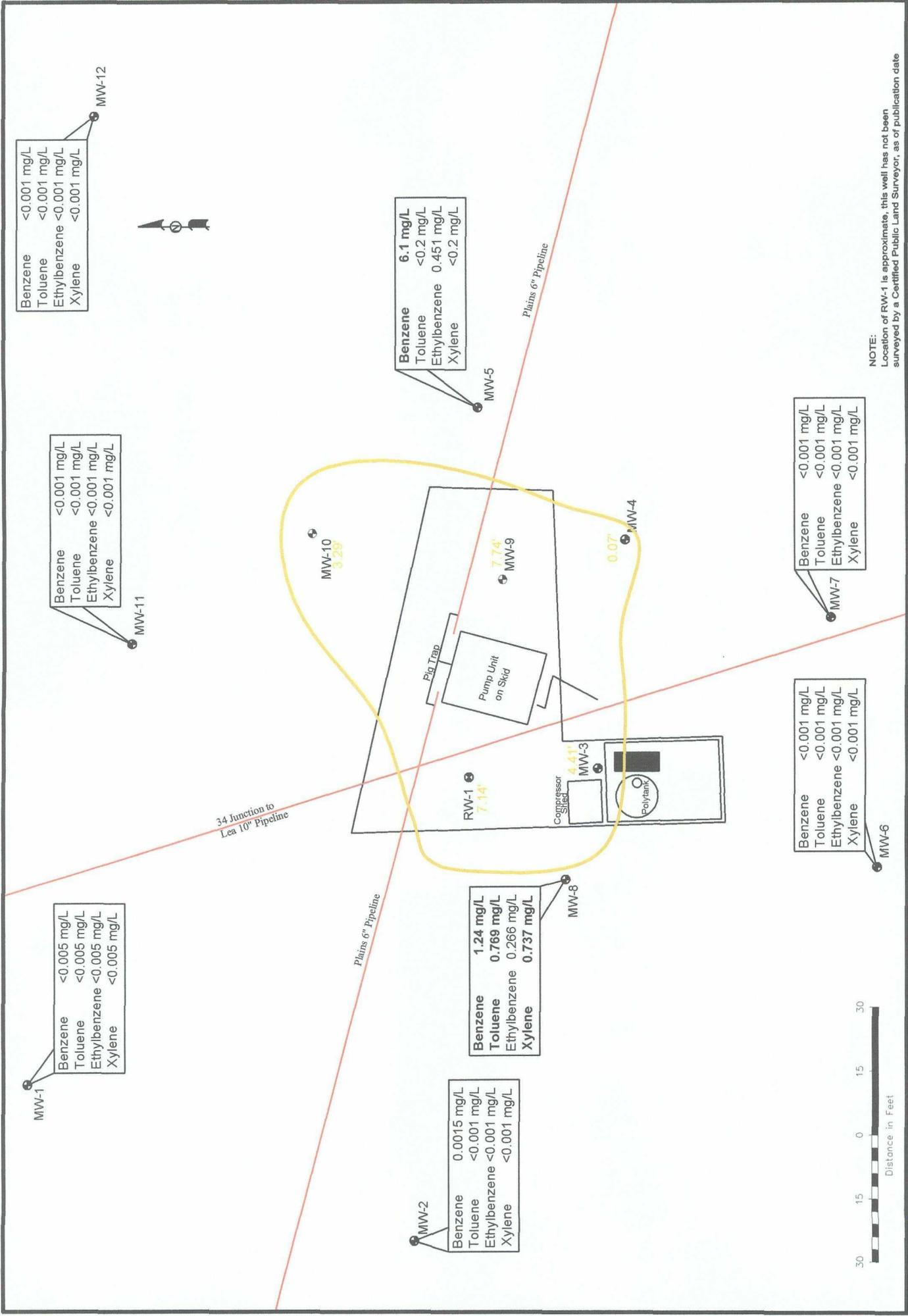
NOVA safety and environmental

Figure 3C  
Inferred PSH Extent  
Dispersed Map (08/29/07)  
Plains Marketing, L.P.  
34 Junction South Station  
Lea County, NM

NIMCOCD Reference No. 1R-0456

Legend:

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Inferred PSH Extent
- PSH Thickness (in feet)
- Constituent Concentration (mg/L)



**Legend:**

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Inferred PSH Extent
- PSH Thickness (in feet)
- Constituent Concentration (mg/L)

0.18'  
 <0.001

NMCCD Reference No. 1R-0456

Figure 3D  
 Inferred Phase Extent  
 Discharge Point  
 Map (11/12/07)  
 Plains Marketing, L.P.  
 34 Junction South Station  
 Lea County, NM

**NOVA Safety and Environmental**

Scale: 1" = 30'  
 CAD By: DOC  
 Checked By: CBS  
 January 25, 2008

**NOTE:**  
 Location of RW-1 is approximate, this well has not been surveyed by a Certified Public Land Surveyor, as of publication date

MW-12  
 Benzene <0.001 mg/L  
 Toluene <0.001 mg/L  
 Ethylbenzene <0.001 mg/L  
 Xylene <0.001 mg/L

MW-11  
 Benzene <0.001 mg/L  
 Toluene <0.001 mg/L  
 Ethylbenzene <0.001 mg/L  
 Xylene <0.001 mg/L

MW-5  
 Benzene 6.1 mg/L  
 Toluene <0.2 mg/L  
 Ethylbenzene 0.451 mg/L  
 Xylene <0.2 mg/L

MW-7  
 Benzene <0.001 mg/L  
 Toluene <0.001 mg/L  
 Ethylbenzene <0.001 mg/L  
 Xylene <0.001 mg/L

MW-6  
 Benzene <0.001 mg/L  
 Toluene <0.001 mg/L  
 Ethylbenzene <0.001 mg/L  
 Xylene <0.001 mg/L

MW-8  
 Benzene 1.24 mg/L  
 Toluene 0.769 mg/L  
 Ethylbenzene 0.266 mg/L  
 Xylene 0.737 mg/L

MW-2  
 Benzene 0.0015 mg/L  
 Toluene <0.001 mg/L  
 Ethylbenzene <0.001 mg/L  
 Xylene <0.001 mg/L

34 Junction to Lea 10" Pipeline

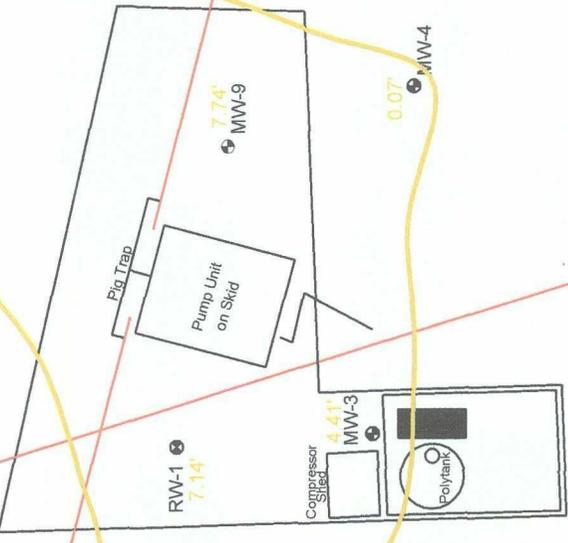
Plains 6" Pipeline

Plains 6" Pipeline

MW-10  
 3.25'

MW-9  
 7.74'

MW-4  
 0.07'





# Tables

TABLE 1

2007 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 34 JUNCTION SOUTH STATION  
 LEA COUNTY, NEW MEXICO  
 PLAINS EMS NO. 2005-00138  
 NMOCD REFERENCE NUMBER 1R-0456

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 1	03/19/07	3,850.68	-	59.37	0.00	3,791.31
	05/31/07	3,850.68	-	59.41	0.00	3,791.27
	08/29/07	3,850.68	-	59.52	0.00	3,791.16
	11/12/07	3,850.68	-	59.65	0.00	3,791.03
MW-2	03/19/07	3,850.67	-	58.88	0.00	3,791.79
	05/31/07	3,850.67	-	58.96	0.00	3,791.71
	08/29/07	3,850.67	-	59.08	0.00	3,791.59
	11/12/07	3,850.67	-	59.18	0.00	3,791.49
MW-3	01/05/07	3,850.43	59.05	59.63	0.58	3,791.29
	01/10/07	3,850.43	59.05	59.54	0.49	3,791.31
	01/12/07	3,850.43	59.71	66.23	6.52	3,789.74
	01/16/07	3,850.43	57.93	64.60	6.67	3,791.50
	01/25/07	3,850.43	57.94	64.75	6.81	3,791.47
	01/26/07	3,850.43	59.33	63.53	4.20	3,790.47
	01/29/07	3,850.43	57.91	64.63	6.72	3,791.51
	02/01/07	3,850.43	57.96	64.63	6.67	3,791.47
	02/06/07	3,850.43	58.17	63.63	5.46	3,791.44
	02/09/07	3,850.43	57.99	64.58	6.59	3,791.45
	02/13/07	3,850.43	57.95	64.64	6.69	3,791.48
	02/16/07	3,850.43	58.35	62.77	4.42	3,791.42
	02/20/07	3,850.43	58.11	64.59	6.48	3,791.35
	02/21/07	3,850.43	57.98	64.64	6.66	3,791.45
	02/22/07	3,850.43	57.96	64.66	6.70	3,791.47
	02/28/07	3,850.43	59.27	59.58	0.31	3,791.11
	03/02/07	3,850.43	59.15	59.79	0.64	3,791.18
	03/06/07	3,850.43	58.16	64.35	6.19	3,791.34
	03/14/07	3,850.43	58.06	65.66	7.60	3,791.23
	03/19/07	3,850.43	58.09	64.75	6.66	3,791.34
	03/19/07	3,850.43	58.09	64.74	6.65	3,791.34
	04/02/07	3,850.43	58.12	64.81	6.69	3,791.31
	04/09/07	3,850.43	59.30	59.41	0.11	3,791.11
	04/12/07	3,850.43	59.19	60.28	1.09	3,791.08
	04/16/07	3,850.43	59.92	61.02	1.10	3,790.35
	04/24/07	3,850.43	59.16	60.49	1.33	3,791.07
	04/26/07	3,850.43	59.01	60.51	1.50	3,791.20
	04/30/07	3,850.43	59.41	63.04	3.63	3,790.48
05/04/07	3,850.43	59.68	59.74	0.06	3,790.74	
05/16/07	3,850.43	58.82	60.09	1.27	3,791.42	
05/18/07	3,850.43	59.16	60.24	1.08	3,791.11	
05/21/07	3,850.43	59.25	60.33	1.08	3,791.02	
05/29/07	3,850.43	59.40	60.15	0.75	3,790.92	
05/31/07	3,850.43	59.40	60.15	0.75	3,790.92	
06/05/07	3,850.43	59.36	60.29	0.93	3,790.93	
06/07/07	3,850.43	59.47	59.90	0.43	3,790.90	
06/11/07	3,850.43	59.42	60.07	0.65	3,790.91	
06/13/07	3,850.43	59.36	60.12	0.76	3,790.96	
06/18/07	3,850.43	59.29	60.14	0.85	3,791.01	
06/21/07	3,850.43	59.41	60.02	0.61	3,790.93	
07/02/07	3,850.43	59.40	60.14	0.74	3,790.92	
07/06/07	3,850.43	59.12	60.05	0.93	3,791.17	
07/13/07	3,850.43	59.34	60.35	1.01	3,790.94	
07/17/07	3,850.43	59.40	60.09	0.69	3,790.93	

TABLE 1

2007 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 34 JUNCTION SOUTH STATION  
 LEA COUNTY, NEW MEXICO  
 PLAINS EMS NO. 2005-00138  
 NMOCD REFERENCE NUMBER 1R-0456

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-3	07/25/07	3,850.43	59.29	60.41	1.12	3,790.97
	08/09/07	3,850.43	59.22	63.34	4.12	3,790.59
	08/13/07	3,850.43	58.27	62.13	3.86	3,791.58
	08/15/07	3,850.43	59.33	60.56	1.23	3,790.92
	08/24/07	3,850.43	58.32	61.50	3.18	3,791.63
	08/29/07	3,850.43	59.33	60.48	1.15	3,790.93
	09/17/07	3,850.43	59.39	60.71	1.32	3,790.84
	09/25/07	3,850.43	59.42	60.69	1.27	3,790.82
	09/27/07	3,850.43	59.64	59.88	0.24	3,790.75
	10/03/07	3,850.43	59.47	60.36	0.89	3,790.83
	10/10/07	3,850.43	59.01	60.24	1.23	3,791.24
	10/16/07	3,850.43	58.48	60.14	1.66	3,791.70
	11/12/07	3,850.43	58.78	63.19	4.41	3,790.99
11/28/07	3,850.43	58.79	62.28	3.49	3,791.12	
12/13/07	3,850.43	58.58	65.14	6.56	3,790.87	
MW - 4	03/19/07	3,850.26		59.44	0.00	3,790.82
	05/31/07	3,850.26		59.58	0.00	3,790.68
	08/29/07	3,850.26	59.49	60.47	0.98	3,790.62
	09/17/07	3,850.26	59.49	60.69	1.20	3,790.59
	09/19/07	3,850.26	59.63	60.05	0.42	3,790.57
	09/25/07	3,850.26	59.64	60.09	0.45	3,790.55
	09/27/07	3,850.26	59.68	60.00	0.32	3,790.53
	10/03/07	3,850.26	59.82	59.86	0.04	3,790.43
	10/10/07	3,850.26	sheen	59.92	0.00	3,790.34
	10/12/07	3,850.26	sheen	59.86	0.00	3,790.40
	10/16/07	3,850.26	sheen	59.88	0.00	3,790.38
	10/23/07	3,850.26	sheen	59.84	0.00	3,790.42
	10/26/07	3,850.26	sheen	59.91	0.00	3,790.35
	10/29/07	3,850.26	sheen	59.84	0.00	3,790.42
	11/12/07	3,850.26	59.92	59.99	0.07	3,790.33
11/14/07	3,850.26	59.90	60.00	0.10	3,790.35	
11/16/07	3,850.26	sheen	59.96	0.00	3,790.30	
11/21/07	3,850.26	59.99	60.06	0.07	3,790.26	
11/28/07	3,850.26	59.90	59.93	0.03	3,790.36	
11/30/07	3,850.26	sheen	59.95	0.00	3,790.31	
12/13/07	3,850.26	59.92	59.99	0.07	3,790.33	
MW-5	03/19/07	3,849.77	-	59.28	0.00	3,790.49
	05/31/07	3,849.77	-	59.35	0.00	3,790.42
	08/29/07	3,849.77	-	59.46	0.00	3,790.31
	11/12/07	3,849.77	-	59.59	0.00	3,790.18
MW-6	03/19/07	3,851.10	-	59.60	0.00	3,791.50
	05/31/07	3,851.10	-	59.74	0.00	3,791.36
	08/29/07	3,851.10	-	59.86	0.00	3,791.24
	11/12/07	3,851.10	-	59.96	0.00	3,791.14
MW-7	03/19/07	3,847.03	-	56.00	0.00	3,791.03
	05/31/07	3,847.03	-	56.13	0.00	3,790.90
	08/29/07	3,847.03	-	56.26	0.00	3,790.77
	11/12/07	3,847.03	-	56.37	0.00	3,790.66

TABLE 1

## 2007 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 34 JUNCTION SOUTH STATION  
 LEA COUNTY, NEW MEXICO  
 PLAINS EMS NO. 2005-00138  
 NMOCD REFERENCE NUMBER 1R-0456

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-8	01/10/07	3,851.00	59.20	59.56	0.36	3,791.75
	01/12/07	3,851.00	59.76	60.02	0.26	3,791.20
	01/16/07	3,851.00	59.74	60.08	0.34	3,791.21
	01/25/07	3,851.00	59.52	60.01	0.49	3,791.41
	01/26/07	3,851.00	sheen	59.71	0.00	3,791.29
	01/29/07	3,851.00	sheen	59.72	0.00	3,791.28
	02/01/07	3,851.00	sheen	59.65	0.00	3,791.35
	02/06/07	3,851.00	sheen	59.78	0.00	3,791.22
	02/09/07	3,851.00	sheen	59.76	0.00	3,791.24
	02/13/07	3,851.00	59.62	59.69	0.07	3,791.37
	02/16/07	3,851.00	sheen	59.65	0.00	3,791.35
	02/20/07	3,851.00	59.59	59.76	0.17	3,791.38
	02/28/07	3,851.00	59.60	59.89	0.29	3,791.36
	03/02/07	3,851.00	59.62	59.78	0.16	3,791.36
	03/06/07	3,851.00	59.61	59.85	0.24	3,791.35
	03/14/07	3,851.00	59.62	59.89	0.27	3,791.34
	03/19/07	3,851.00	59.60	59.97	0.37	3,791.34
	03/19/07	3,851.00	59.60	59.97	0.37	3,791.34
	04/02/07	3,851.00	59.62	60.02	0.40	3,791.32
	04/09/07	3,851.00	59.61	60.09	0.48	3,791.32
	04/16/07	3,851.00	59.62	59.99	0.37	3,791.32
	04/24/07	3,851.00	59.61	60.09	0.48	3,791.32
	04/30/07	3,851.00	59.64	60.07	0.43	3,791.30
	05/04/07	3,851.00	59.68	59.92	0.24	3,791.28
	05/11/07	3,851.00	59.65	60.10	0.45	3,791.28
	05/16/07	3,851.00	59.67	60.11	0.44	3,791.26
	05/18/07	3,851.00	59.74	59.90	0.16	3,791.24
	05/31/07	3,851.00	59.63	60.38	0.75	3,791.26
	06/05/07	3,851.00	59.59	60.57	0.98	3,791.26
	06/07/07	3,851.00	59.58	60.65	1.07	3,791.26
	06/11/07	3,851.00	59.72	60.00	0.28	3,791.24
	06/13/07	3,851.00	59.76	59.93	0.17	3,791.21
	06/18/07	3,851.00	59.74	60.05	0.31	3,791.21
	06/21/07	3,851.00	59.75	60.01	0.26	3,791.21
	07/02/07	3,851.00	59.74	60.15	0.41	3,791.20
	07/06/07	3,851.00	59.70	60.29	0.59	3,791.21
	07/13/07	3,851.00	59.67	60.57	0.90	3,791.20
	07/17/07	3,851.00	59.78	60.06	0.28	3,791.18
	07/25/07	3,851.00	59.76	60.18	0.42	3,791.18
	07/30/07	3,851.00	59.78	60.11	0.33	3,791.17
	08/06/07	3,851.00	59.77	60.19	0.42	3,791.17
	08/09/07	3,851.00	59.82	60.06	0.24	3,791.14
	08/13/07	3,851.00	59.81	60.12	0.31	3,791.14
	08/15/07	3,851.00	59.83	60.04	0.21	3,791.14
	08/24/07	3,851.00	59.85	60.07	0.22	3,791.12
	08/29/07	3,851.00	59.83	60.11	0.28	3,791.13
	09/17/07	3,851.00	59.81	60.40	0.59	3,791.10
	09/19/07	3,851.00	59.91	60.09	0.18	3,791.06
	09/25/07	3,851.00	59.87	60.19	0.32	3,791.08
	09/27/07	3,851.00	59.92	60.03	0.11	3,791.06
	10/03/07	3,851.00	sheen	60.04	0.00	3,790.96
	10/10/07	3,851.00	sheen	60.29	0.00	3,790.71
	10/12/07	3,851.00	sheen	60.16	0.00	3,790.84
	10/16/07	3,851.00	sheen	60.18	0.00	3,790.82

TABLE 1

2007 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 34 JUNCTION SOUTH STATION  
 LEA COUNTY, NEW MEXICO  
 PLAINS EMS NO. 2005-00138  
 NMOCD REFERENCE NUMBER 1R-0456

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-8	10/23/07	3,851.00	sheen	60.20	0.00	3,790.80
	10/26/07	3,851.00	sheen	60.20	0.00	3,790.80
	10/29/07	3,851.00	sheen	60.17	0.00	3,790.83
	11/12/07	3,851.00	sheen	60.72	0.00	3,790.28
	11/14/07	3,851.00	60.58	60.61	0.03	3,790.42
	11/16/07	3,851.00	sheen	60.24	0.00	3,790.76
	11/21/07	3,851.00	sheen	58.42	0.00	3,792.58
	11/28/07	3,851.00	sheen	60.25	0.00	3,790.75
	11/30/07	3,851.00	sheen	60.17	0.00	3,790.83
	12/13/07	3,851.00	sheen	60.32	0.00	3,790.68
MW-9	01/05/07	3,851.04	58.77	65.78	7.01	3,791.22
	01/10/07	3,851.04	58.60	66.11	7.51	3,791.31
	01/12/07	3,851.04	58.67	61.38	2.71	3,791.96
	01/16/07	3,851.04	58.67	66.37	7.70	3,791.22
	01/25/07	3,851.04	58.78	65.93	7.15	3,791.19
	01/26/07	3,851.04	58.07	64.35	6.28	3,792.03
	01/29/07	3,851.04	59.25	63.84	4.59	3,791.10
	02/01/07	3,851.04	59.31	63.64	4.33	3,791.08
	02/09/07	3,851.04	59.20	64.24	5.04	3,791.08
	02/13/07	3,851.04	59.46	64.75	5.29	3,790.79
	02/16/07	3,851.04	59.45	63.18	3.73	3,791.03
	02/20/07	3,851.04	59.05	64.97	5.92	3,791.10
	02/22/07	3,851.04	58.96	65.35	6.39	3,791.12
	02/28/07	3,851.04	59.11	64.77	5.66	3,791.08
	03/02/07	3,851.04	59.68	62.46	2.78	3,790.94
	03/06/07	3,851.04	59.42	65.19	5.77	3,790.75
	03/14/07	3,851.04	59.46	65.19	5.73	3,790.72
	03/19/07	3,851.04	59.43	65.25	5.82	3,790.74
	03/19/07	3,851.04	59.43	65.25	5.82	3,790.74
	04/02/07	3,851.04	59.35	65.69	6.34	3,790.74
	04/09/07	3,851.04	59.22	66.21	6.99	3,790.77
	04/12/07	3,851.04	59.17	66.50	7.33	3,790.77
	04/16/07	3,851.04	59.17	66.58	7.41	3,790.76
	04/24/07	3,851.04	59.24	66.31	7.07	3,790.74
	04/26/07	3,851.04	58.82	66.32	7.50	3,791.10
	04/30/07	3,851.04	59.10	67.03	7.93	3,790.75
	05/04/07	3,851.04	58.78	66.68	7.90	3,791.08
	05/11/07	3,851.04	58.88	66.20	7.32	3,791.06
	05/16/07	3,851.04	58.82	66.60	7.78	3,791.05
	05/18/07	3,851.04	59.22	64.74	5.52	3,790.99
05/21/07	3,851.04	59.25	64.65	5.40	3,790.98	
05/29/07	3,851.04	58.84	66.55	7.71	3,791.04	
05/31/07	3,851.04	58.84	66.55	7.71	3,791.04	
06/05/07	3,851.04	58.89	66.29	7.40	3,791.04	
06/07/07	3,851.04	59.91	62.03	2.12	3,790.81	
06/11/07	3,851.04	60.31	60.32	0.01	3,790.73	
06/13/07	3,851.04	59.69	62.94	3.25	3,790.86	
06/18/07	3,851.04	60.29	60.34	0.05	3,790.74	
06/21/07	3,851.04	59.52	63.62	4.10	3,790.91	
07/02/07	3,851.04	58.86	66.56	7.70	3,791.03	
07/06/07	3,851.04	58.73	67.12	8.39	3,791.05	
08/13/07	3,851.04	59.81	60.12	0.31	3,791.18	
08/29/07	3,851.04	58.91	66.96	8.05	3,790.92	

TABLE 1

2007 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 34 JUNCTION SOUTH STATION  
 LEA COUNTY, NEW MEXICO  
 PLAINS EMS NO. 2005-00138  
 NMOCD REFERENCE NUMBER 1R-0456

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-9	10/26/07	3,851.04	59.04	66.79	7.75	3,790.84
	11/12/07	3,851.04	59.04	66.78	7.74	3,790.84
	11/21/07	3,851.04	59.11	66.82	7.71	3,790.77
	11/28/07	3,851.04	59.09	66.89	7.80	3,790.78
	11/30/07	3,851.04	59.47	65.38	5.91	3,790.68
	12/13/07	3,851.04	59.07	67.04	7.97	3,790.77
MW-10	03/19/07	3,851.07	-	60.34	0.00	3,790.73
	05/31/07	3,851.07	60.33	60.82	0.49	3,790.67
	06/01/07	3,851.07	60.34	60.83	0.49	3,790.66
	06/05/07	3,851.07	60.41	60.54	0.13	3,790.64
	06/07/07	3,851.07	60.41	60.50	0.09	3,790.65
	06/11/07	3,851.07	60.38	60.51	0.13	3,790.67
	06/13/07	3,851.07	60.41	60.60	0.19	3,790.63
	06/18/07	3,851.07	60.42	60.66	0.24	3,790.61
	06/21/07	3,851.07	60.43	60.62	0.19	3,790.61
	07/02/07	3,851.07	60.41	60.77	0.36	3,790.61
	07/13/07	3,851.07	60.36	61.11	0.75	3,790.60
	07/17/07	3,851.07	60.45	60.76	0.31	3,790.57
	08/29/07	3,851.07	60.32	61.54	1.22	3,790.57
	10/26/07	3,851.07	60.30	62.28	1.98	3,790.47
	11/12/07	3,851.07	60.08	63.37	3.29	3,790.50
	11/28/07	3,851.07	Well Obstructed			
11/30/07	3,851.07	Well Obstructed				
12/13/07	3,851.07	60.31	62.56	2.25	3,790.42	
MW-11	03/19/07	3,850.96	-	60.22	0.00	3,790.74
	05/31/07	3,850.96	-	60.35	0.00	3,790.61
	08/29/07	3,850.96	-	60.46	0.00	3,790.50
	11/12/07	3,850.96	-	60.58	0.00	3,790.38
MW-12	03/19/07	3,850.45	-	60.64	0.00	3,789.81
	05/31/07	3,850.45	-	60.76	0.00	3,789.69
	08/29/07	3,850.45	-	60.88	0.00	3,789.57
	11/12/07	3,850.45	-	60.99	0.00	3,789.46
RW-1	01/05/07	-	59.81	59.96	0.15	-
	01/10/07	-	58.90	59.45	0.55	-
	01/12/07	-	59.21	62.72	3.51	-
	01/16/07	-	57.78	64.54	6.76	-
	01/25/07	-	57.85	64.40	6.55	-
	01/26/07	-	57.76	64.64	6.88	-
	01/29/07	-	57.81	64.48	6.67	-
	02/01/07	-	57.83	64.47	6.64	-
	02/06/07	-	57.77	64.78	7.01	-
	02/09/07	-	57.81	64.68	6.87	-
	02/13/07	-	57.79	64.67	6.88	-
	02/16/07	-	58.15	65.04	6.89	-
	02/20/07	-	57.71	65.15	7.44	-
	02/21/07	-	57.74	65.03	7.29	-
	02/22/07	-	57.82	64.71	6.89	-
	02/28/07	-	57.81	64.75	6.94	-
03/02/07	-	57.85	64.64	6.79	-	
03/06/07	-	57.80	64.82	7.02	-	

TABLE 1

2007 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 34 JUNCTION SOUTH STATION  
 LEA COUNTY, NEW MEXICO  
 PLAINS EMS NO. 2005-00138  
 NMOCD REFERENCE NUMBER 1R-0456

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
RW-1	03/14/07	-	57.82	64.81	6.99	-
	03/19/07	-	57.86	64.68	6.82	-
	04/02/07	-	57.91	64.72	6.81	-
	04/09/07	-	58.03	64.71	6.68	-
	04/12/07	-	57.84	64.84	7.00	-
	04/16/07	-	57.89	64.68	6.79	-
	04/24/07	-	57.88	64.77	6.89	-
	04/26/07	-	57.78	65.24	7.46	-
	04/30/07	-	57.87	64.86	6.99	-
	05/04/07	-	57.91	64.85	6.94	-
	05/11/07	-	57.92	64.90	6.98	-
	05/16/07	-	57.84	65.29	7.45	-
	05/18/07	-	57.92	64.82	6.90	-
	05/21/07	-	57.94	64.86	6.92	-
	05/29/07	-	57.85	65.19	7.34	-
	05/31/07	-	57.85	65.19	7.34	-
	06/01/07	-	57.90	65.05	7.15	-
	06/07/07	-	59.22	59.46	0.24	-
	06/11/07	-	59.22	59.39	0.17	-
	06/13/07	-	59.08	59.99	0.91	-
	06/18/07	-	58.73	61.36	2.63	-
	06/21/07	-	58.34	63.19	4.85	-
	07/02/07	-	59.10	64.63	5.53	-
	07/06/07	-	57.94	65.24	7.30	-
	08/29/07	-	58.09	65.04	6.95	-
	10/26/07	-	58.12	65.33	7.21	-
	11/12/07	-	58.14	65.28	7.14	-
	11/21/07	-	58.17	65.36	7.19	-
	11/28/07	-	58.18	65.36	7.18	-
	11/30/07	-	58.25	64.75	6.50	-
	12/13/07	-	58.05	66.00	7.95	-

TABLE 2

## 2007 CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
 JUNCTION 34 SOUTH STATION  
 LEA COUNTY, NEW MEXICO  
 PLAINS EMS NO. 2005-00138  
 NMOCD REFERENCE NUMBER 1R-0456

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030				
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)
NMOCD REGULATORY LIMIT		0.01	0.75	0.75	0.62	
MW-1	03/19/07	<0.001	<0.001	<0.001	<0.001	
	05/31/07	<0.001	<0.001	<0.001	<0.001	
	08/29/07	<0.001	<0.001	<0.001	<0.001	
	11/12/07	<0.005	<0.005	<0.005	<0.005	
MW-2	03/19/07	<0.001	<0.001	<0.001	<0.001	
	05/31/07	<0.001	<0.001	<0.001	<0.001	
	08/29/07	<0.001	<0.001	<0.001	<0.001	
	11/12/07	0.0015	<0.001	<0.001	<0.001	
MW-3	03/19/07	Not Sampled Due to PSH in Well				
	05/31/07	Not Sampled Due to PSH in Well				
	08/29/07	Not Sampled Due to PSH in Well				
	11/12/07	Not Sampled Due to PSH in Well				
MW-4	03/19/07	2.49	1.86	0.282	0.95	
	05/31/07	6.27	3.8	0.302	0.981	
	08/29/07	Not Sampled Due to PSH in Well				
	11/12/07	Not Sampled Due to PSH in Well				
MW-5	03/19/07	0.163	<0.001	0.0359	0.0469	
	05/31/07	2.39	<0.02	0.155	0.275	
	08/29/07	4.72	<0.02	0.33	0.635	
	11/12/07	6.1	<0.2	0.451	<0.2	
MW-6	03/19/07	<0.001	0.001	<0.001	<0.001	
	05/31/07	<0.001	0.001	<0.001	<0.001	
	08/29/07	<0.001	0.001	<0.001	<0.001	
	11/12/07	<0.001	0.001	<0.001	<0.001	
MW-7	03/19/07	<0.001	<0.001	<0.001	<0.001	
	05/31/07	<0.001	<0.001	<0.001	<0.001	
	08/29/07	<0.005	<0.005	<0.005	<0.005	
	11/12/07	<0.001	<0.001	<0.001	<0.001	
MW-8	03/19/07	Not Sampled Due to PSH in Well				
	05/31/07	Not Sampled Due to PSH in Well				
	08/29/07	Not Sampled Due to PSH in Well				
	11/12/07	1.24	0.769	0.266	0.737	
MW-9	03/19/07	Not Sampled Due to PSH in Well				
	05/31/07	Not Sampled Due to PSH in Well				
	08/29/07	Not Sampled Due to PSH in Well				
	11/12/07	Not Sampled Due to PSH in Well				
MW-10	03/19/07	5.3	1.98	0.401	1.27	
	05/31/07	Not Sampled Due to PSH in Well				
	08/29/07	Not Sampled Due to PSH in Well				
	11/12/07	Not Sampled Due to PSH in Well				

TABLE 2

2007 CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
 JUNCTION 34 SOUTH STATION  
 LEA COUNTY, NEW MEXICO  
 PLAINS EMS NO. 2005-00138  
 NMOCD REFERENCE NUMBER IR-0456

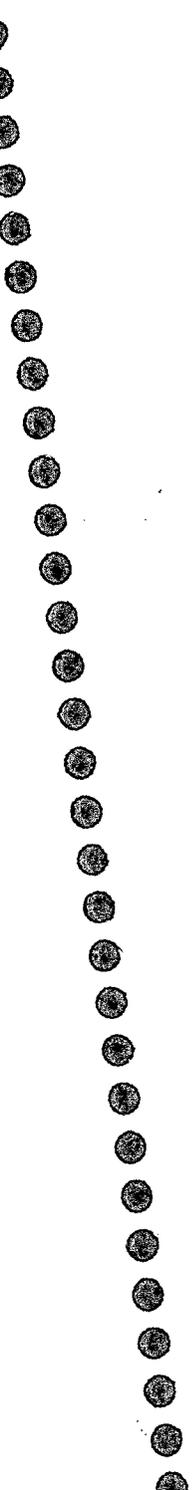
SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030				
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)
<b>NMOCD REGULATORY LIMIT</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>	
MW-11	03/19/07	<0.001	<0.001	<0.001	<0.001	
	05/31/07	<0.001	<0.001	<0.001	<0.001	
	08/29/07	<0.005	<0.005	<0.005	<0.005	
	11/12/07	<0.001	<0.001	<0.001	<0.001	
MW-12	03/19/07	<0.001	<0.001	<0.001	<0.001	
	05/31/07	<0.001	<0.001	<0.001	<0.001	
	08/29/07	<0.005	<0.005	<0.005	<0.005	
	11/12/07	<0.001	<0.001	<0.001	<0.001	
RW-1	03/19/07	Not Sampled Due to PSH in Well				
	05/31/07	Not Sampled Due to PSH in Well				
	08/29/07	Not Sampled Due to PSH in Well				
	11/12/07	Not Sampled Due to PSH in Well				

Bold indicates constituent exceeds NMOCD regulatory limits

\* indicates well contained measurable thicknesses of PSH which was recovered before sampling



## Appendices



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

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

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

**Release Notification and Corrective Action**

**OPERATOR**  Initial Report  Final Report

Name of Company Plains Marketing, LP		Contact Camille Reynolds
Address 5805 East Hwy. 80, Midland, TX 79706		Telephone No. 505-441-0965
Facility Name 34 Junction South Station		Facility Type Meter Facility
Surface Owner State Land Office	Mineral Owner	Lease No.

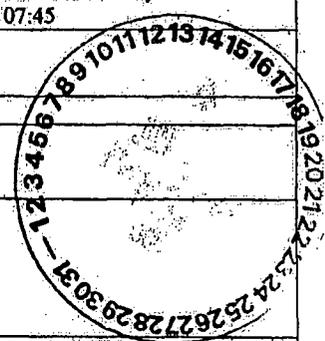
**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	2	17S	36E					Lea

Latitude 32° 51' 42.4" Longitude 103° 19' 54.4"

**NATURE OF RELEASE**

Type of Release Crude Oil	Volume of Release 15 barrels	Volume Recovered .5 barrels
Source of Release Malfunction of check valve on air eliminator	Date and Hour of Occurrence 6-10-05 @ 07:00	Date and Hour of Discovery 6-10-05 @ 07:45
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Paul Sheely	
By Whom? Camille Reynolds	Date and Hour 6-10-05 @ 13:31	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	



If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* Mechanical malfunction of check valve on air eliminator resulted in release. Isolated air eliminator off of metering system. The station produces approximately 100 barrels of sweet crude oil per day. The pressure on the line is <10 psi and the gravity on the sweet crude is 42.5, the H2S content is <10 ppm.

Describe Area Affected and Cleanup Action Taken.\* The impacted soil was excavated and stockpiled on plastic. Aerial extent of surface impact was 1,620 square feet.

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: <i>Camille Reynolds</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Camille Reynolds	Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	Expiration Date:
E-mail Address: cjreynolds@paalp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6-13-05	Phone: 505-441-0965	

\* Attach Additional Sheets If Necessary