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Annual GW Mon. REPORTS

DATE: 2007

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2007
ANNUAL MONITORING REPORT

JUNCTION 34 TO LEA
LEA COUNTY, NEW MEXICO
NW ¼ SW ¼, SECTION 21, TOWNSHIP 20 SOUTH, RANGE 37 EAST
PLAINS SRS NUMBER: 2002-10286
NMOCD Reference # 1R-0386

PREPARED FOR:

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

NOVA
safety and environmental

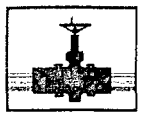
PREPARED BY:

NOVA Safety and Environmental
2057 Commerce
Midland, Texas 79703

March 2008

Curt D. Stanley
Project Manager

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



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2008 APR 1 PM 2 07

March 28, 2008

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

3112 West Highway 82 • Lovington, NM 88260 • (505) 396-3341

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,

Camille Reynolds

Camille Reynolds
Remediation Coordinator
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosures

TABLE OF CONTENTS

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 January 16, 2007, project management responsibilities were assumed by NOVA. The site was previously managed by Environmental Plus, Inc. (EPI). This report is intended to be viewed as a complete document with figures, appendices, tables and text. The report presents the results of the four quarterly groundwater monitoring events conducted in calendar year 2007. For reference, the Site Location Map is provided as Figure 1.

Groundwater monitoring was conducted during each quarter of 2007 to assess the extent of dissolved phase constituents and Phase Separated Hydrocarbon (PSH). Each groundwater monitor event consisted of measuring static water levels in the monitor wells, checking for the presence of PSH on the water column, and the 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 Junction 34 to Lea (2002-10286) release site is located approximately 10-miles northwest of Eunice in Lea County, New Mexico. The site is located in the NW ¼ SW ¼, Section 21, Township 20 South, Range 37 East. The Release Notification and Corrective Action (Form C-141) submitted by EOTT reported approximately 300 barrels of crude oil released with 190 barrels recovered. The release is reported to have been due to internal corrosion of the pipeline. The release covered approximately 10,769 square feet of pipeline right-of-way, caliche road and land owned by the Deck Estate. Upon discovery of the release on November 6, 2002, a contractor and EOTT personnel mobilized to the site, exposed the pipeline and installed a pipe repair clamp. Hydrocarbon impacted soil excavated during the emergency response activities was transported to an NMOCD approved land farm. In February 2003, hydrocarbon impacted soil, previously identified by the advancement of nine soil borings, was excavated to a depth of approximately twenty five (25) below ground surface (bgs). The excavated soil was stockpiled on site for future remediation.

On August 22, 2007, monitor well MW-11, was installed to further delineate the down gradient extent of hydrocarbon impact at the site. Analytical results of the soil samples collected during the installation of the monitor wells and are provided in Table 3, Concentrations of TPH and BTEX in Soil. Laboratory reports are provided on the enclosed data disk.

Currently, there are eleven groundwater monitor wells (MW-1 through MW-11) on site.

RECENT FIELD ACTIVITIES

During the 2007 reporting period, PSH was reported in one monitor well (MW-3) during the 3rd quarter sampling event. Gauging data for the 2007 monitoring events is provided in Table 1 and on Figures 3A through 3D.

Quarterly monitoring events for the reporting period were performed according to the following sampling schedule, which was approved by the NMOCD.

NMOCD Approved Sampling Schedule							
MW-1	Quarterly	MW-4	Annual	MW-7	Quarterly	MW-10	Quarterly
MW-2	Quarterly	MW-5	Quarterly	MW-8	Quarterly	MW-11	Quarterly
MW-3	Quarterly	MW-6	Quarterly	MW-9	Quarterly		

The site monitor wells were gauged and sampled on March 20, June 4, August 22, and November 29, 2007. During each sampling event, monitor wells were purged of a minimum of three well volumes of water or until the wells failed to produce water. Purging was performed using a disposable polyethylene bailer for each well or electrical Grundfos pump and dedicated tubing. Groundwater was allowed to recharge and samples were 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 quarterly sampling events performed in 2007, are depicted on the Inferred Groundwater Gradient Maps, Figures 2A-2D. 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 0.008 feet/foot to the south-southeast as measured between monitor wells MW-5 and MW-9. This is consistent with data presented on Figures 2A through 2C from earlier in the year.

LABORATORY RESULTS

During the 2007 reporting period, PSH was reported in one monitor well (MW-3) during the 3rd quarter sampling event.

All groundwater samples collected during the reporting period were delivered to TraceAnalysis, Inc. of Lubbock, Texas for Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) constituent 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 Groundwater Concentration and Inferred PSH Extent Maps, Figures 3A-3D.

Monitor well MW-1 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.346 during the 2nd quarter to 0.819 mg/L during the 3rd quarter. **Benzene** concentrations were above the **NMOCD regulatory standard of 0.01 mg/L** during all four quarters of the reporting period. Toluene concentrations ranged from <0.01 mg/L during the 1st quarter to 0.0109 mg/L during the 4th quarter. **Toluene** concentrations were below the **NMOCD regulatory standard of 0.75 mg/L** during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.568 mg/L during the 2nd quarter to 1.04 mg/L during the 3rd quarter. **Ethylbenzene** concentrations were above the **NMOCD regulatory standard of 0.75 mg/L** during the 3rd and 4th quarters of the reporting period. Xylene concentrations ranged from <0.05 during the 2nd quarter to 0.23 mg/L during the 4th quarter of 2007. **Xylene** concentrations were below **regulatory standard of 0.62 mg/L** during all four quarters of the reporting period.

Monitor well MW-2 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.1 mg/L during the 2nd quarter to 0.56 mg/L during the 1st quarter. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below the laboratory method detection limit (MDL) and NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.316 mg/L during the 4th quarter to 0.717 mg/L during the 1st quarter. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from <0.01 mg/L during the 2nd quarter to 0.448 mg/L during the 1st quarter of 2007. Xylene concentrations were below regulatory standard during all four quarters of the reporting period.

Monitor well MW-3 is sampled on a quarterly schedule and was not sampled during the 3rd quarter of 2007, due to the reported presence of PSH in the monitor well. A PSH thickness of 0.04 feet was reported in the 3rd quarter of 2007. The monitor well was sampled in the 1st, 2nd and 4th quarters of the reporting period. Analytical results indicate benzene concentrations ranged from <0.5 mg/L during the 2nd quarter to 5.88 mg/L during the 1st quarter. Benzene concentrations were above the NMOCD regulatory standard during the 1st, 2nd and 4th quarters of the reporting period. Toluene concentrations ranged from <0.5 mg/L during the 2nd quarter to 0.0205 mg/L during the 4th quarter. Toluene concentrations were below the NMOCD regulatory standard during the 1st, 2nd and 4th quarters of the reporting period. Ethylbenzene concentrations ranged from <0.5 mg/L during the 2nd quarter to 7.05 mg/L during the 1st quarter. Ethylbenzene concentrations were below the NMOCD regulatory standard during the 2nd and 4th quarters of the reporting period. Xylene concentrations ranged from <0.5 mg/L during the 2nd quarter to 3.93 mg/L during the 1st quarter of 2007. Xylene concentrations were below regulatory standard during the 1st, 2nd and 4th quarters of the reporting period.

Monitor well MW-4 is sampled on an annual schedule and analytical results indicate all constituents of BTEX were below the MDL and NMOCD regulatory standards during the 4th quarter 2007 sampling event. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last sixteen consecutive quarters.

Monitor well MW-5 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0057/L during the 3rd quarter to 0.0176/L during the 4th quarter. Benzene concentrations were above the NMOCD regulatory standard during the 4th quarter of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 1st, 2nd and 3rd quarters to 0.0016 mg/L during the 4th quarter. Toluene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0079/L during the 3rd quarter to 0.0273 mg/L during the 4th quarter. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 1st, 2nd, and 3rd quarters to 0.0212 mg/L during the 4th quarter of 2007. Xylene concentrations were below regulatory standard during all four quarters of the reporting period.

Monitor well MW-6 is sampled on a quarterly schedule and analytical results indicate benzene, toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last thirteen consecutive quarters.

Monitor well MW-7 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.836 mg/L during the 1st quarter to 1.47 mg/L during the 4th quarter. Benzene concentrations were above the NMOCD regulatory standard all four quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.702 mg/L during the 2nd quarter to 0.984 mg/L during the 4th quarter. Ethylbenzene concentrations were above the NMOCD regulatory standard during the 1st, 3rd and 4th quarters of the reporting period. Xylene concentrations ranged from 0.275 mg/L during the 3rd quarter to 0.94 mg/L during the 1st quarter. Xylene concentrations were above the NMOCD regulatory standard during the 1st quarter of the reporting period.

Monitor well MW-8 is sampled on a quarterly schedule and analytical results indicate benzene, toluene and xylene concentrations were below the MDL and NMOCD regulatory standard all four quarters of the reporting period. Ethylbenzene concentrations ranged from <0.001 mg/L during the 2nd and 3rd quarters to 0.0121 mg/L during the 1st quarter. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last eight consecutive quarters.

Monitor well MW-9 is sampled on a quarterly schedule and analytical results indicate benzene, toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last eight consecutive quarters.

Monitor well MW-10 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0432 mg/L during the 4th quarter to 1.1 mg/L during the 1st quarter.

Benzene concentrations were above the NMOCD regulatory standard all four quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0266 mg/L during the 4th quarter to 0.165 mg/L during the 2nd quarter. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from 0.0066 mg/L during the 4th quarter to 0.0425 mg/L during the 1st quarter. Xylene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period.

Monitor well MW-11 (installed on August 16, 2007) is sampled on a quarterly schedule and analytical results indicate benzene, toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards during the 3rd and 4th quarter sampling event.

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. Currently, there are eleven groundwater monitor wells (MW-1 through MW-11) on site. The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.008 feet/foot to the south-southeast.

During the 2007 reporting period, PSH was reported in one monitor well (MW-3) during the 3rd quarter sampling event.

Review of the laboratory analytical results of the groundwater samples obtained during this annual reporting period indicate BTEX constituent concentrations are below the applicable NMOCD regulatory standards in five of the eleven monitor wells on site.

ANTICIPATED ACTIONS

Quarterly monitoring and groundwater sampling will continue in 2008. Gauging will continue on a monthly schedule and will be adjusted according to site conditions. An Annual Monitoring Report will be submitted to the NMOCD by April 1, 2009.

A *Soil Closure Proposal* was submitted to the NMOCD in June 2006. The work plan proposes soil remediation activities intended to progress the site toward an NMOCD approved closure. In February 2008, an Addendum to 34 Junction to Lea Soil Closure Proposal was submitted to the NMOCD, this addendum modified the soil closure strategy proposed at the site. On February 19, 2008, Plains received an email approving the addendum to the soil closure proposal.

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 and information generated by EPI. 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

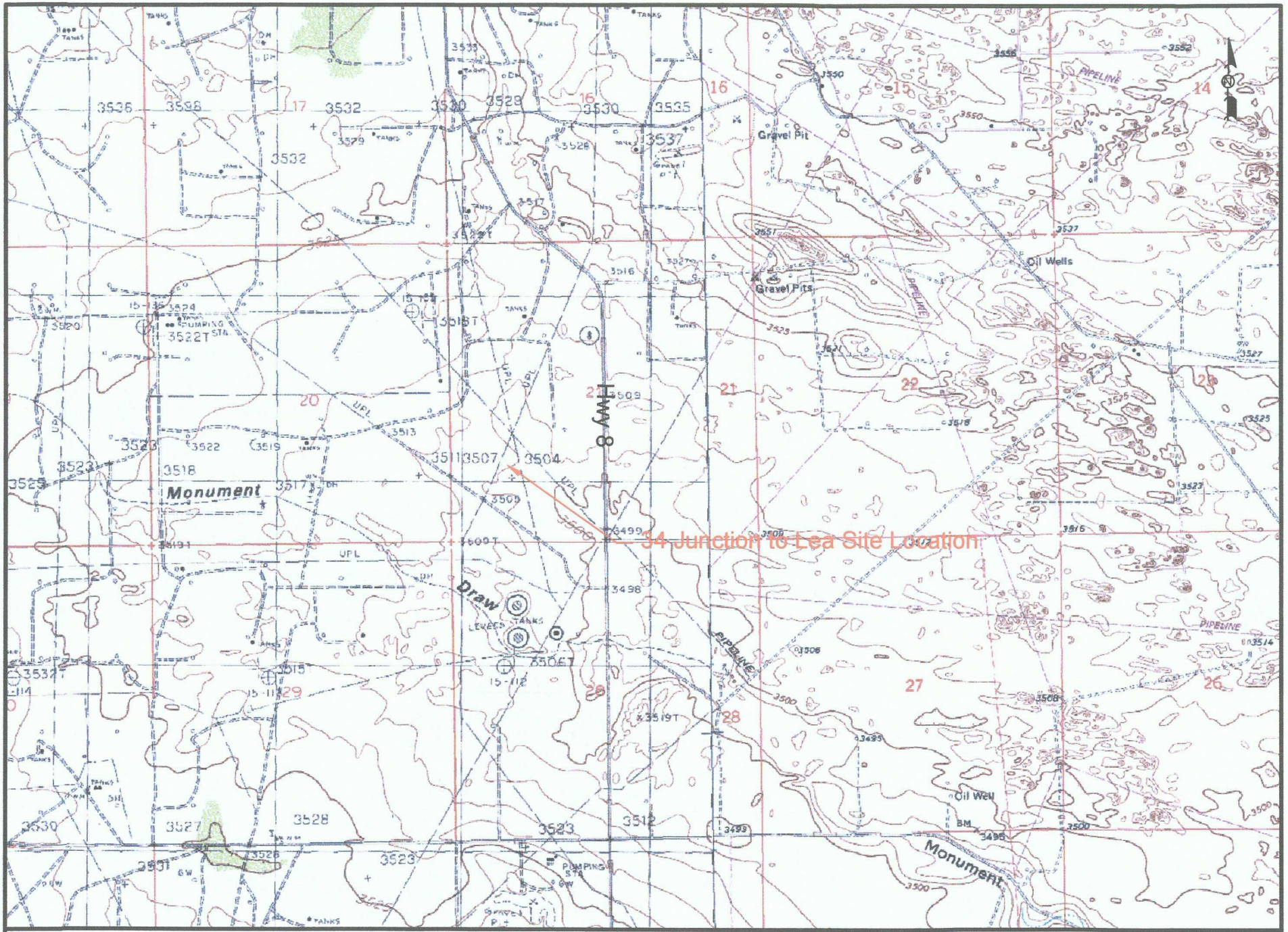
Copy 2: Larry Johnson
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 1
1625 French Drive
Hobbs, NM 88240

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

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

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

Figures



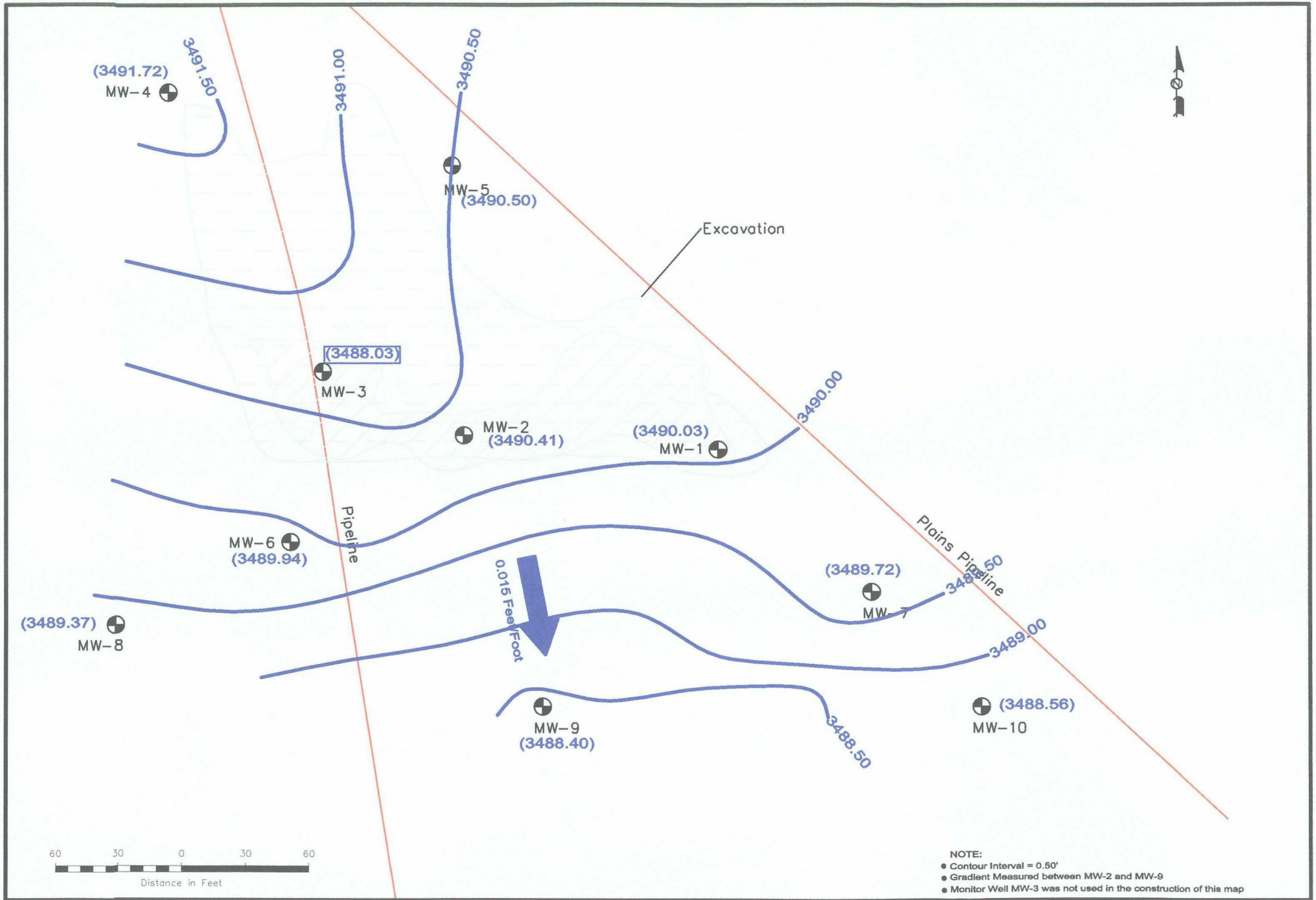
Lat. N32° 33' 18.8"N Long. W103° 15' 39.7"W

NMOCD Reference # 1R-0386

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

NOVA Safety and Environmental

NOVA safety and environmental	Scale: NTS	Drawn By: CDS	Prepared By: CDS
	March 24, 2007	NW1/4 SW1/4 Sec 21 T20S R37E


(3491.72)
MW-4
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3491.00
3490.50
MW-5
(3490.50)
Excavation
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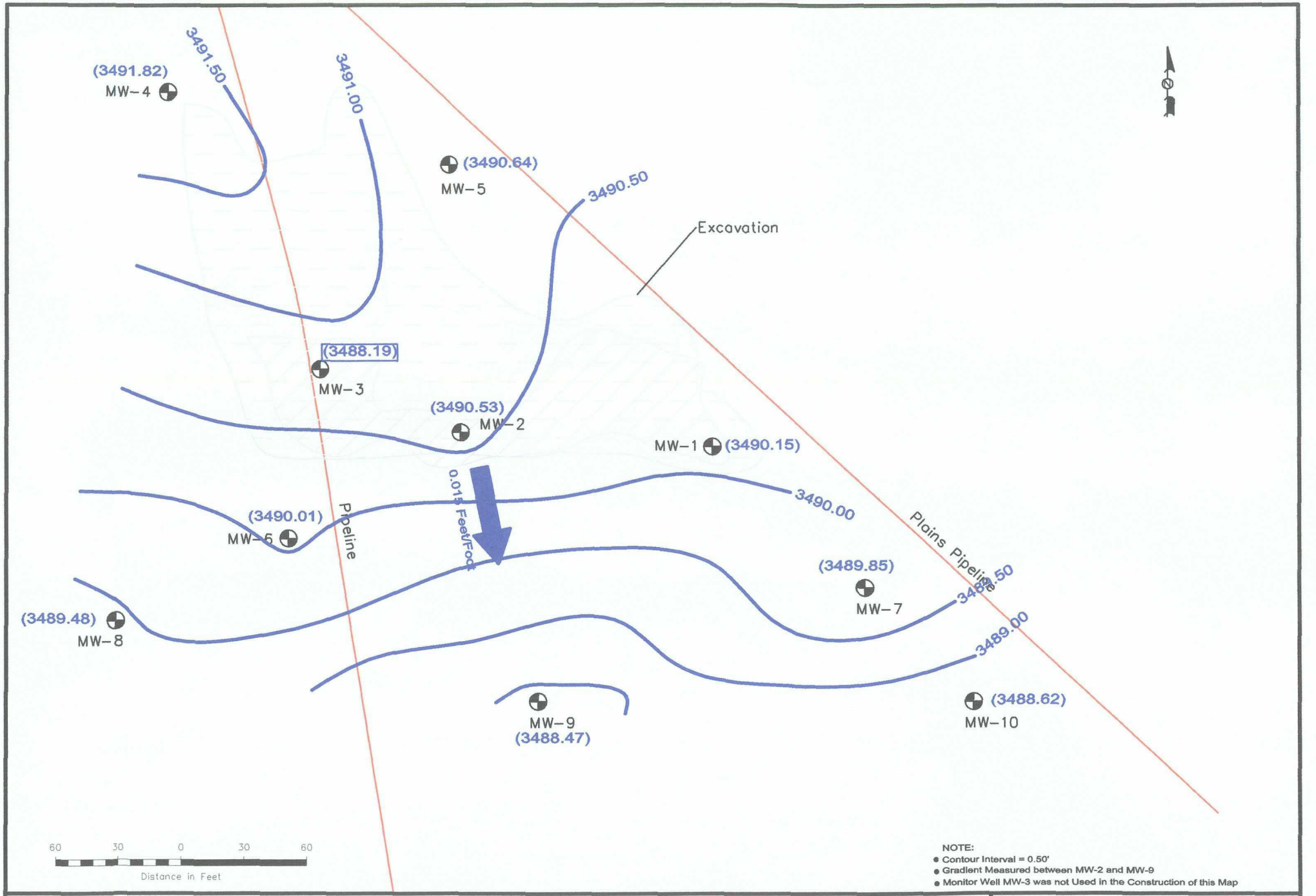
MW-3
MW-2
(3490.41)
(3490.03)
MW-1
3490.00
MW-6
(3489.94)
Pipeline
Plains Pipeline
0.015 Feet/Foot
(3489.72)
MW-7
3489.50
3489.00
(3489.37)
MW-8
MW-9
(3488.40)
3488.50
(3488.56)
MW-10
60 30 0 30 60
Distance in Feet
NOTE:
• Contour Interval = 0.50'
• Gradient Measured between MW-2 and MW-9
• Monitor Well MW-3 was not used in the construction of this map
Legend:
Monitor Well Location
(3791.69) Grounwater Elevation (Feet)
Grounwater Elevation Contour Line
0.008 Feet/Foot
Groundwater Direction and Magnitude
Pipeline
NMOCD Ref# 1R-0386
Figure 2A
Groundwater Gradient Map (03/20/07)
Plains Marketing, L.P.
34 Junction to Lea
Lea County, NM
NOVA Safety and Environmental
NOVA safety and environmental
Scale: 1" = 60'
CAD By: DGC
Checked By: CDS
February 28, 2008



NOTE:
- Contour Interval = 0.50'
- Gradient Measured between MW-2 and MW-9
- Monitor Well MW-3 was not Used in the Construction of this Map

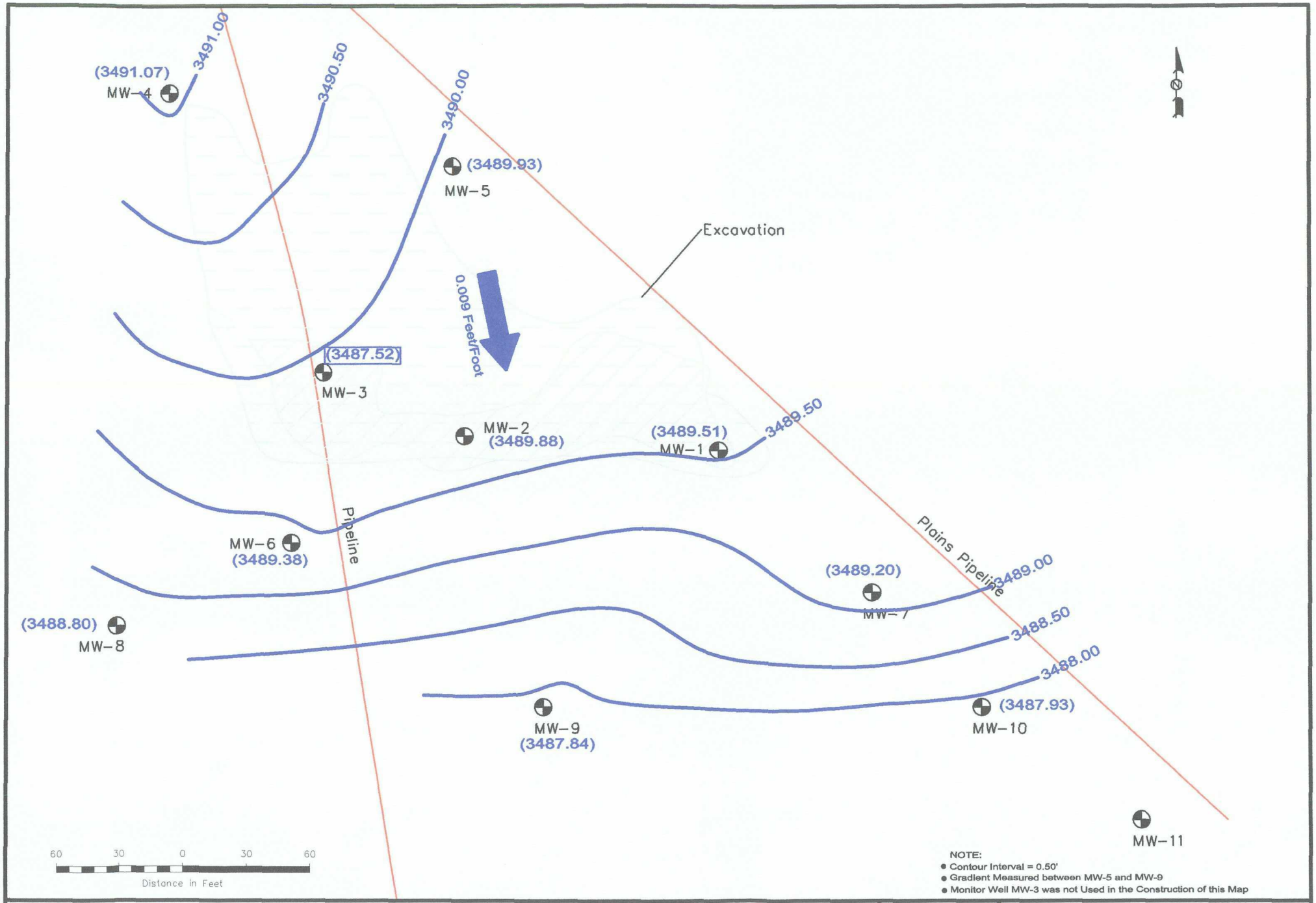
Legend:
- Monitor Well Location
- (3791.69) Grounwater Elevation (Feet)
- Grounwater Elevation Contour Line
- Groundwater Direction and Magnitude
- Pipeline

NMOCD Ref# 1R-0386

Figure 2B
Groundwater Gradient Map (06/04/07)
Plains Marketing, L.P.
34 Junction to Lea
Lea County, NM

NOVA Safety and Environmental

Scale: 1" = 60'	CAD By: DGC	Checked By: CDS
February 28, 2008		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MW-4
3491.00
3490.50
3490.00
(3489.93)
MW-5
Excavation
0.009 Feet/Foot
(3487.52)
MW-3
MW-2
(3489.88)
(3489.51)
MW-1
3489.50
Pipeline
MW-6
(3489.38)
Plains Pipeline
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MW-10
MW-9
(3487.84)
MW-11
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Distance in Feet
NOTE:
Contour Interval = 0.50'
Gradient Measured between MW-5 and MW-9
Monitor Well MW-3 was not Used in the Construction of this Map
Legend:
Monitor Well Location
(3791.69) Grounwater Elevation (Feet)
Grounwater Elevation Contour Line
Groundwater Direction and Magnitude
Pipeline
NMOCD Ref# 1R-0386
Figure 2C
Groundwater Gradient Map (08/22/07)
Plains Marketing, L.P.
34 Junction to Lea
Lea County, NM
NOVA Safety and Environmental
NOVA
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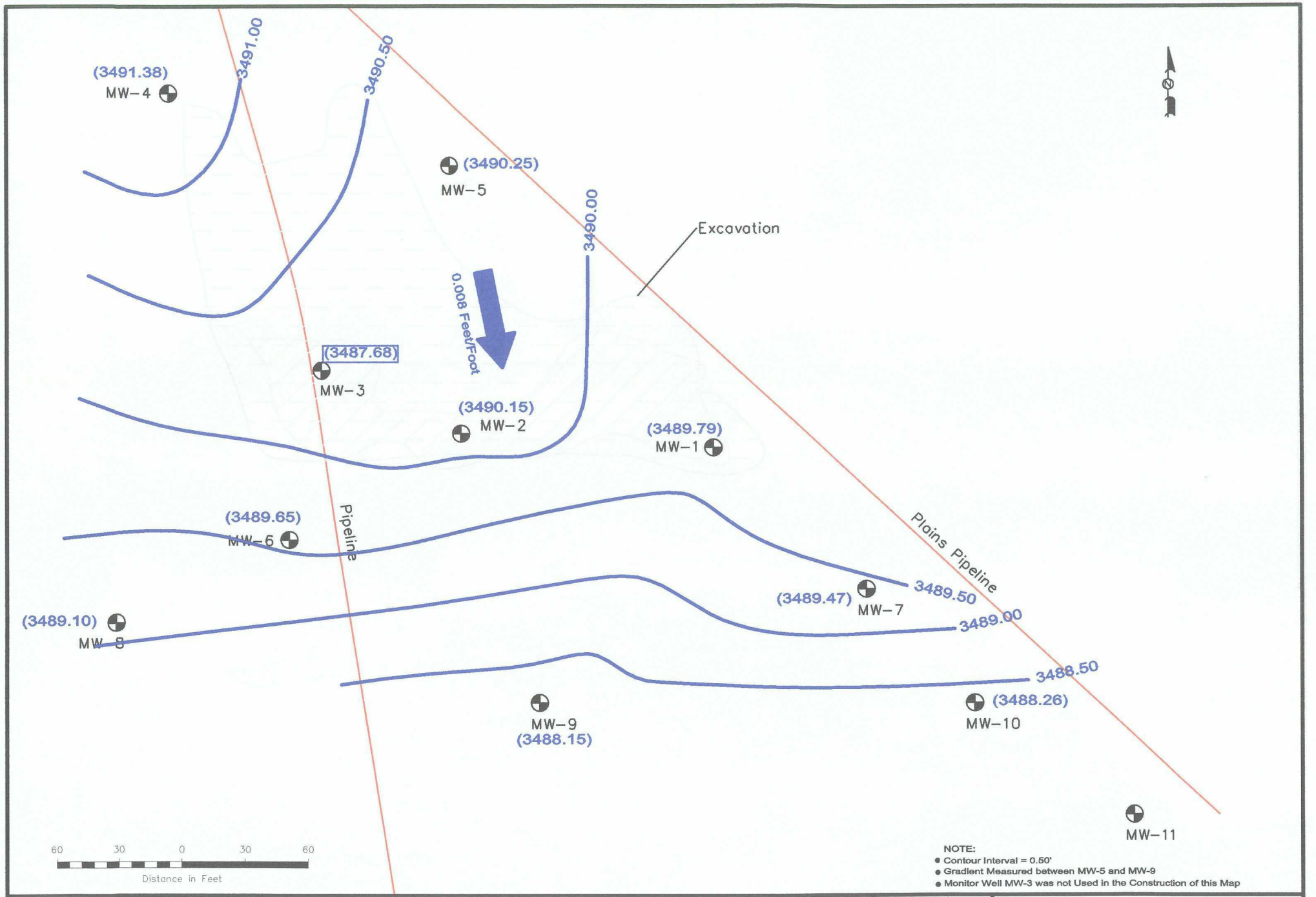
Checked By: CDS
March 12, 2008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MW-4
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3490.50
(3490.25)
MW-5
3490.00
Excavation
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(3487.68)
MW-3
(3490.15)
MW-2
(3489.79)
MW-1
(3489.65)
MW-6
Pipeline
Plains Pipeline
3489.50
(3489.47)
MW-7
(3489.10)
MW-8
3489.00
3488.50
MW-9
(3488.15)
(3488.26)
MW-10
MW-11
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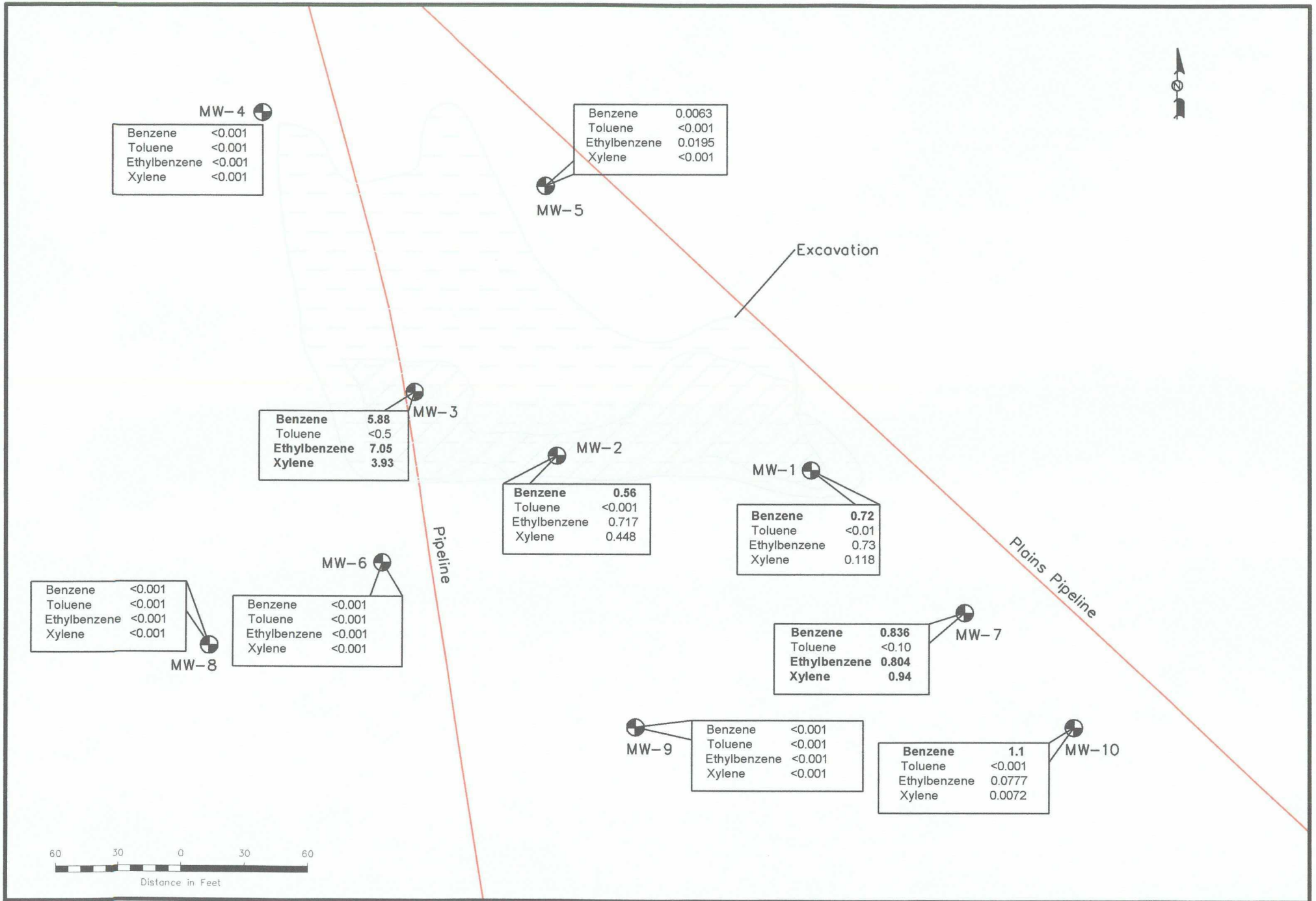
Distance in Feet
NOTE:
• Contour Interval = 0.50'
• Gradient Measured between MW-5 and MW-9
• Monitor Well MW-3 was not Used in the Construction of this Map
Legend:
Monitor Well Location
(3791.69) Grounwater Elevation (Feet)
Grounwater Elevation Contour Line
Groundwater Direction and Magnitude
Pipeline
NMOCD Ref# 1R-0386
Figure 2D
Groundwater Gradient Map (11/29/07)
Plains Marketing, L.P.
34 Junction to Lea
Lea County, NM
NOVA Safety and Environmental
NOVA
Scale: 1" = 60'
CAD By: DGC
Checked By: CDS
March 12, 2008



Legend:

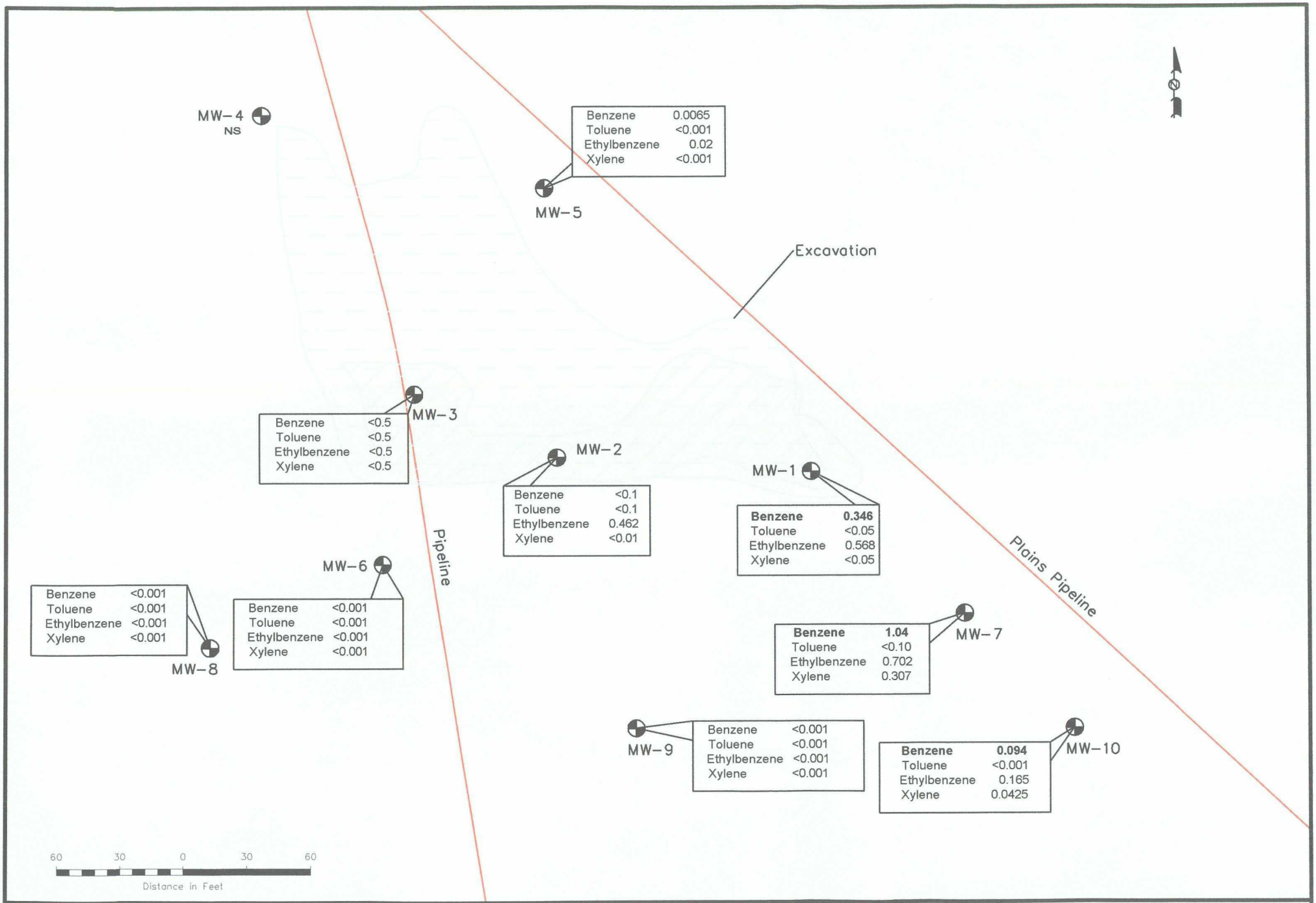
- Monitor Well Location
- Pipeline
- Inferred PSH Extent
- 0.18' PSH Thickness (In feet)
- <0.001 Constituent Concentration (mg/L)
- NS Not Sampled

NMOCD Ref# 1R-0386

Figure 3A
Inferred PSH and Dissolved Phase Extent Map (03/20/07)
Plains Marketing, L.P.
34 Junction to Lea
Lea County, NM

NOVA Safety and Environmental

Scale: 1" = 60'	CAD By: DGC	Checked By: CDS
February 28, 2008		



Legend:

- Monitor Well Location
- Pipeline
- Inferred PSH Extent
- 0.18' PSH Thickness (in feet)
- <0.001 Constituent Concentration (mg/L)
- NS Not Sampled

NMOCD Ref# 1R-0386

Figure 3B
Inferred PSH and Dissolved Phase Extent Map (06/04/07)
Plains Marketing, L.P.
34 Junction to Lea
Lea County, NM

NOVA Safety and Environmental

Scale: 1" = 60'	CAD By: DGC	Checked By: CDS
February 28, 2008		

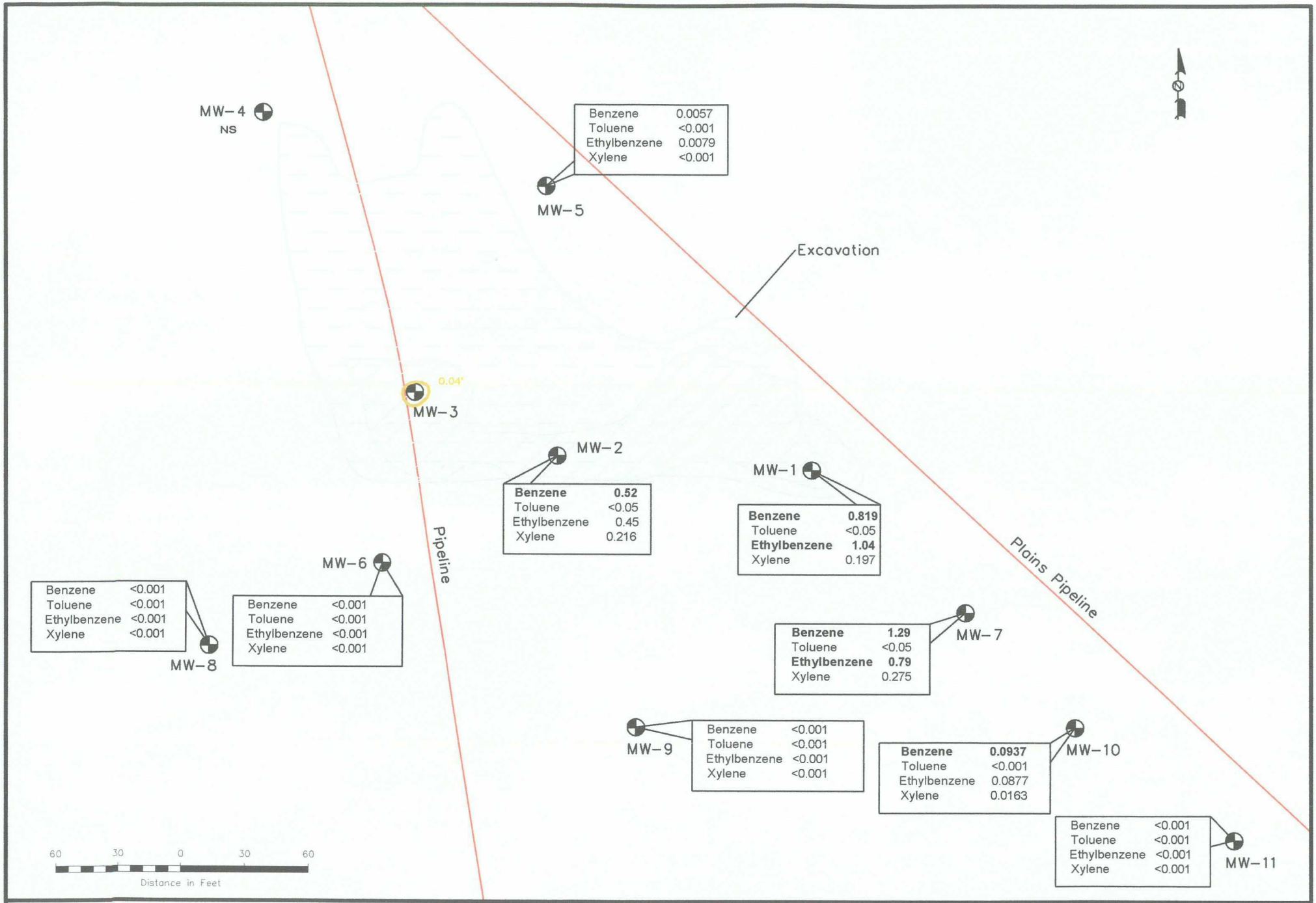
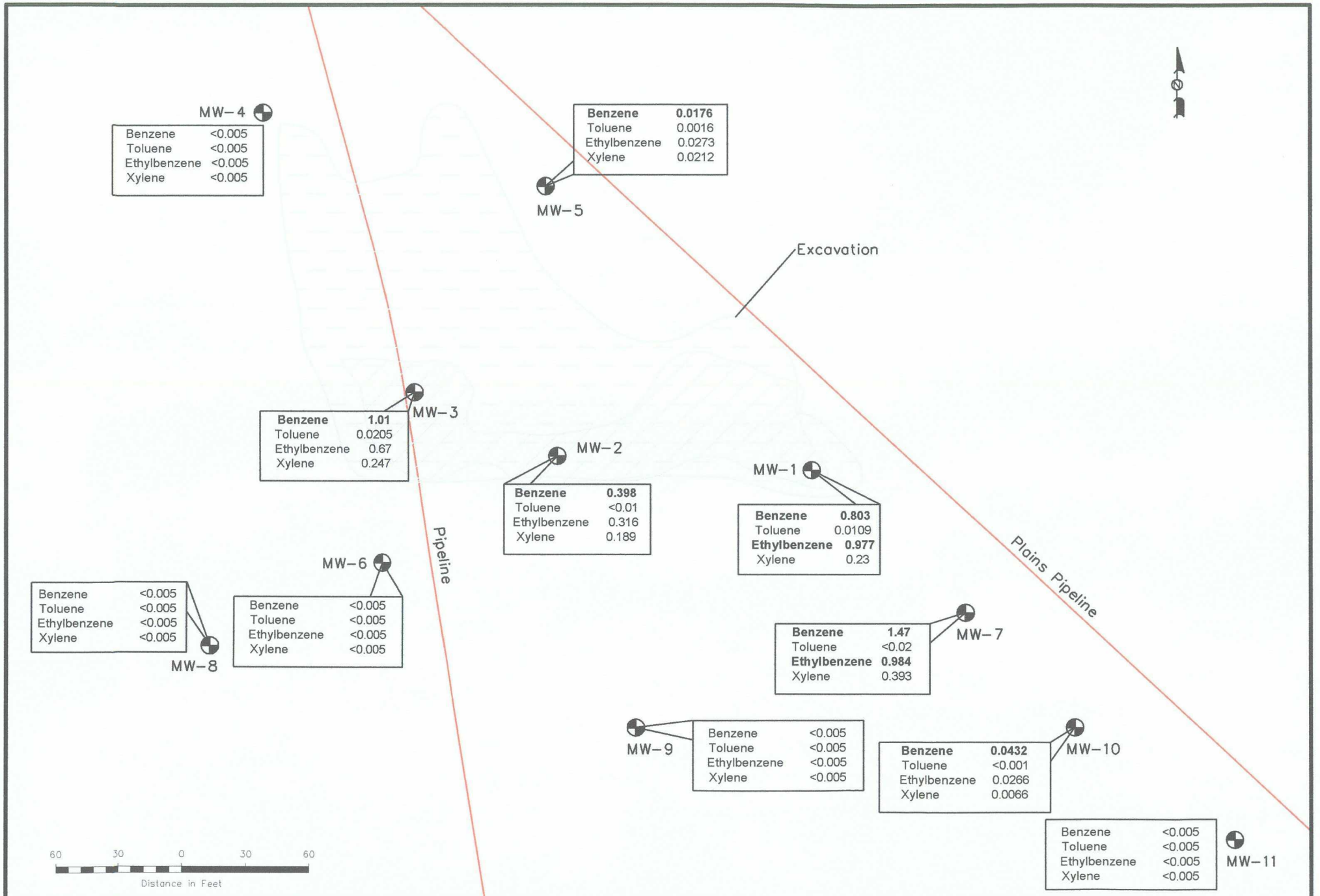


Figure 3C
Inferred PSH and Dissolved Phase Extent Map (08/22/07)
Plains Marketing, L.P.
34 Junction to Lea
Lea County, NM

NOVA Safety and Environmental

Scale: 1" = 60'	CAD By: DGC	Checked By: CDS
February 28, 2008		



Legend:

- Monitor Well Location
- Pipeline
- Inferred PSH Extent
- 0.18' PSH Thickness (In feet)
- <0.001 Constituent Concentration (mg/L)
- NS Not Sampled

NMOCD Ref# 1R-0386

Figure 3D
Inferred PSH and Dissolved Phase Extent Map (11/29/07)
Plains Marketing, L.P.
34 Junction to Lea
Lea County, NM

NOVA Safety and Environmental

Scale: 1" = 60'	CAD By: DGC	Checked By: CDS
February 5, 2008		

Tables

TABLE 1

2007 Ground Water Elevation Data

Plains Marketing, L.P.
34 Junction to Lea
Plains EMS #2002-10286
NMOCD Reference Number 1R-0386

Well Number	Date Measured	Casing Well Elevation	Depth To Product	Depth To Water	PSH Thickness	Corrected Groundwater Elevation
MW-1	01/04/07	3,508.17	-	18.57	0.00	3,489.60
	02/16/07	3,508.17	-	18.81	0.00	3,489.36
	03/20/07	3,508.17	-	18.14	0.00	3,490.03
	06/04/07	3,508.17	-	18.02	0.00	3,490.15
	08/22/07	3,508.17	-	18.66	0.00	3,489.51
	11/29/07	3,508.17	-	18.38	0.00	3,489.79
MW-2	01/04/07	3,501.45	-	11.29	0.00	3,490.16
	02/16/07	3,501.45	-	11.11	0.00	3,490.34
	03/20/07	3,501.45	-	11.04	0.00	3,490.41
	06/04/07	3,501.45	-	10.92	0.00	3,490.53
	08/22/07	3,501.45	-	11.57	0.00	3,489.88
	11/29/07	3,501.45	-	11.30	0.00	3,490.15
MW-3	01/04/07	3,495.97	-	8.21	0.00	3,487.76
	02/16/07	3,495.97		8.01	0.00	3,487.96
	03/20/07	3,495.97	-	7.89	0.00	3,488.08
	06/04/07	3,495.97	-	7.78	0.00	3,488.19
	08/22/07	3,495.97	8.44	8.48	0.04	3,487.52
	10/10/07	3,495.97	Sheen	8.32	0.00	3,487.65
	11/29/07	3,495.97	Sheen	8.29	0.00	3,487.68
MW-4	01/04/07	3,509.01	-	17.57	0.00	3,491.44
	02/16/07	3,509.01	-	17.42	0.00	3,491.59
	03/20/07	3,509.01	-	17.29	0.00	3,491.72
	06/04/07	3,509.01	-	17.19	0.00	3,491.82
	08/22/07	3,509.01	-	17.94	0.00	3,491.07
	11/29/07	3,509.01	-	17.63	0.00	3,491.38
MW-5	01/04/07	3,508.74	-	18.46	0.00	3,490.28
	02/16/07	3,508.74	-	18.24	0.00	3,490.50
	03/20/07	3,508.74	-	18.24	0.00	3,490.50
	06/04/07	3,508.74	-	18.10	0.00	3,490.64
	08/22/07	3,508.74	-	18.81	0.00	3,489.93
	11/29/07	3,508.74	-	18.49	0.00	3,490.25
MW-6	02/16/07	3,509.76	-	19.89	0.00	3,489.87
	03/20/07	3,509.76	-	19.82	0.00	3,489.94
	06/04/07	3,509.76	-	19.75	0.00	3,490.01
	08/22/07	3,509.76	-	20.38	0.00	3,489.38
	11/29/07	3,509.76	-	20.11	0.00	3,489.65
MW-7	01/04/07	3,507.38	-	17.77	0.00	3,489.61
	02/16/07	3,507.38	-	17.69	0.00	3,489.69
	03/20/07	3,507.38	-	17.66	0.00	3,489.72
	06/04/07	3,507.38	-	17.53	0.00	3,489.85
	08/22/07	3,507.38	-	18.18	0.00	3,489.20
	11/29/07	3,507.38	-	17.89	0.00	3,489.49
MW-8	01/04/07	3,512.14	-	22.92	0.00	3,489.22
	02/16/07	3,512.14	-	22.81	0.00	3,489.33
	03/20/07	3,512.14	-	22.77	0.00	3,489.37
	06/04/07	3,512.14	-	22.66	0.00	3,489.48

TABLE 1

2007 Ground Water Elevation Data

Plains Marketing, L.P.
34 Junction to Lea
Plains EMS #2002-10286
NMOCD Reference Number 1R-0386

Well Number	Date Measured	Casing Well Elevation	Depth To Product	Depth To Water	PSH Thickness	Corrected Groundwater Elevation
MW-8	*08/22/07*	3,512.14	-	23.34	0.00	3,488.80
	11/29/07	3,512.14	-	23.04	0.00	3,489.10
MW-9	01/04/07	3,509.34	-	21.11	0.00	3,488.23
	02/16/07	3,509.34	-	20.99	0.00	3,488.35
	03/20/07	3,509.34	-	20.94	0.00	3,488.40
	06/04/07	3,509.34	-	20.87	0.00	3,488.47
	08/22/07	3,509.34	-	21.50	0.00	3,487.84
	11/29/07	3,509.34	-	21.19	0.00	3,488.15
MW-10	01/04/07	3,506.66	-	18.28	0.00	3,488.38
	02/16/07	3,506.66	-	18.16	0.00	3,488.50
	03/20/07	3,506.66	-	18.10	0.00	3,488.56
	06/04/07	3,506.66	-	18.04	0.00	3,488.62
	08/22/07	3,506.66	-	18.73	0.00	3,487.93
	11/29/07	3,506.66	-	18.40	0.00	3,488.26
MW-11	*08/22/07*	-	-	20.71	0.00	
	11/29/07	-	-	20.35	0.00	

* Corrected Groundwater Elevation = Top of Casing Elevation - (Depth to Water Below Top of Casing - (SG)(PSH Thickness).

TABLE 2

2007 Concentrations of BTEX in Groundwater

Plains Marketing, L.P.
34 Junction to Lea
Plains SRS# 2002-10286
NMOCD Reference # 1R-0386

Sample Location	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	m,p-Xylenes (mg/L)	o-Xylene (mg/L)	Total Xylenes (mg/L)
NMOCD Regulatory Limit		**0.01**	**0.75**	**0.75**			**0.62**
MW-1	03/20/07	**0.720**	<0.01	0.73	0.118		0.118
	06/04/07	**0.346**	<0.05	0.568	<0.05		<0.05
	08/22/07	**0.819**	<0.05	**1.04**	0.197		0.197
	11/29/07	**0.803**	0.0109	**0.977**	0.23		0.23
MW-2	03/20/07	**0.560**	<0.001	0.717	0.448		0.448
	06/04/07	<0.1	<0.1	0.462	<0.01		<0.01
	08/22/07	**0.520**	<0.05	0.45	0.216		0.216
	11/29/07	**0.398**	<0.01	0.316	0.189		0.189
MW-3	03/20/07	**5.880**	<.5	**7.05**	3.93		**3.93**
	06/04/07	<0.5	<0.5	<0.5	<0.5		<0.5
	08/22/07	Not Sampled Due to PSH in Well					
	11/29/07	**1.010**	0.0205	0.67	0.247		0.247
MW-4	03/20/07	<0.001	<0.001	<0.001	<0.001		<0.001
	06/04/07	Not Sampled on Current Sample Schedule					
	08/22/07	Not Sampled on Current Sample Schedule					
	11/29/07	<0.005	<0.005	<0.005	<0.005		<0.005
MW-5	03/20/07	0.006	<0.001	0.0195	<0.001		<0.001
	06/04/07	0.007	<0.001	0.02	<0.001		<0.001
	08/22/07	0.006	<0.001	0.0079	<0.001		<0.001
	11/29/07	**0.018**	0.0016	0.0273	0.0212		0.0212
MW-6	03/20/07	<0.001	<0.001	<0.001	<0.001		<0.001
	06/04/07	<0.001	<0.001	<0.001	<0.001		<0.001
	08/22/07	<0.001	<0.001	<0.001	<0.001		<0.001
	11/29/07	<0.005	<0.005	<0.005	<0.005		<0.005
MW-7	03/20/07	**0.836**	<0.1	**0.804**	0.94		**0.94**
	06/04/07	**1.040**	<0.1	0.702	0.307		0.307
	08/22/07	**1.290**	<0.05	**0.79**	0.275		0.275
	11/29/07	**1.470**	<0.02	**0.984**	0.393		0.393
MW-8	03/20/07	<0.001	<0.001	0.0121	<0.001		<0.001
	06/04/07	<0.001	<0.001	<0.001	<0.001		<0.001
	08/22/07	<0.001	<0.001	<0.001	<0.001		<0.001
	11/29/07	<0.005	<0.005	<0.005	<0.005		<0.005
MW-9	03/20/07	<0.001	<0.001	<0.001	<0.001		<0.001
	06/04/07	<0.001	<0.001	<0.001	<0.001		<0.001
	08/22/07	<0.001	<0.001	<0.001	<0.001		<0.001
	11/29/07	<0.005	<0.005	<0.005	<0.005		<0.005
MW-10	03/20/07	**1.100**	<0.001	0.0777	0.0072		0.0072
	06/04/07	**0.094**	<0.001	0.165	0.0425		0.0425
	08/22/07	**0.094**	<0.001	0.0877	0.0163		0.0163
	11/29/07	**0.043**	<0.001	0.0266	0.0066		0.0066
MW-11	08/22/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	11/29/07	<0.005	<0.005	<0.005	<0.005		<0.005

TABLE 3
2007 CONCENTRATIONS OF TPH AND BTEX IN SOIL

JUNCTION 34 TO LEA
PLAINS MARKETING, L.P.
LEA COUNTY, NM
NMOCD Reference Number 1R-0386
All concentrations reported in mg/Kg

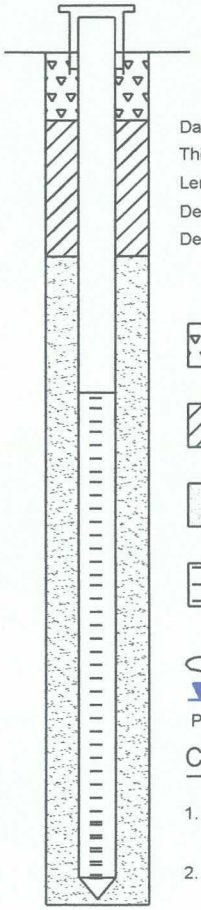
SAMPLE LOCATIONS	SAMPLE DATE	SAMPLE DEPTH (FEET)	Methods: EPA SW 846-8021B, 5030				TOTAL BTEX (mg/Kg)	Methods: EPA SW 846-8015M		
			BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	m,p,o-XYLENE (mg/Kg)		GRO C_6-C_{10} (mg/Kg)	DRO >C_{10}-C_{25} (mg/Kg)	TPH >C_6-C_{25} (mg/Kg)
NMOCD REGULATORY STANDARD			**10**				**50**			**100**
MW-11@10'	08/17/07	10'	<0.01	<0.01	<0.01	<0.01	<0.01	<1	<50.0	<50.0
MW-11@15'	08/17/07	15'	<0.01	<0.01	<0.01	<0.01	<0.01	<1	<50.0	<50.0

Bold indicates concentration above NMOCD regulatory levels

Appendix A
Monitor Well Logs

Monitor Well MW-11

Depth (feet)	PID	Hydrocarbon Odor	Hydrocarbon Stain	Soil Description
0				
	1.0	None	None	Sand, brown to tan, very fine grained.
5				
	(0.0)	None	None	Sand, tan, very fine grained.
10				
	(0.1)	None	None	Sand, tan, very fine grained, moist.
15				
	0.0	None	None	Sand, tan, very fine grained, wet.
20				
25				TD



Monitoring Well Details

Date Drilled	August 16, 2007
Thickness of Bentonite Seal	4 ft
Length of PVC Well Screen	15 ft
Depth of PVC Well	25 ft
Depth of Exploratory Well	25 ft

Grout Surface Seal

Bentonite Pellet Seal

Sand Pack

Screen

(0.0) Indicates samples selected for laboratory analysis.

Indicates the groundwater level measured on date of initial gauging event.

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

Completion Notes

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

NMOCD Reference # 1R-0386

Boring Log And Monitoring Well Details

Monitor Well - 11

Plains Marketing, L.P. Junction 34 to Lea Station Lea County

NOVA safety and environmental

NOVA Safety and Environmental

Scale: NTS	Prep By: CR	Checked By: KD
January 25, 2008		

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

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised March 17, 1999

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 **EOTT Energy LLC**	Contact **Frank Hernandez**
Address PO Box 1660 5805 East Highway 80 Midland, Texas 79702	Telephone No. 915.638.3799
Facility Name Juction JCT 34 Line to Lea #2002-10286	Facility Type 10" Steel Pipeline

Surface Owner Deck Estate	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: Lea Lat. 32 32' 20.828"N Lon. 103 15' 38.480"W
21	21	T20S	R37E					

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 300 bbls barrels	Volume Recovered 190 bbls barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 11-06-02 @ 11:00 AM	Date and Hour of Discovery 11-6-02 @ 4:00 PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Paul Sheeley	
By Whom? Pat McCasland, EPI	Date and Hour 11-07-02 @ 6:30 AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Pipe repair clamp installed.

Describe Area Affected and Cleanup Action Taken.*
Site will be delineated and a remediation plan developed. Remedial Goals: TPH 8015m = 100 mg/Kg, Benzene = 10 mg/Kg, and BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg.

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: Frank Hernandez	**OIL CONSERVATION DIVISION**	
Printed Name: Frank Hernandez	Approved by District Supervisor:	
Title: District Environmental Supervisor	Approval Date:	Expiration Date:
Date: 9-10-02 Phone: 915.638.3799	Conditions of Approval:	Attached ☐

* Attach Additional Sheets If Necessary