1R - 103

Annual GW Mon. REPORTS

DATE:

2009

2009
ANNUAL MONITORING REPORT

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Environmental Bureau
Oil Conservation Division

LF-59
LEA COUNTY, NEW MEXICO
NW ¼ SW ¼ SECTION 32, TOWNSHIP 19 SOUTH, RANGE 37 EAST
PLAINS SRS NUMBER: TNM-LF-59
NMOCD FILE NUMBER: 1R-0103

Prepared For:

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NOVA
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February 2010

Ronald K. Rounsaville
Senior Project Manager

Brittan K. Byerly, P.G.
President

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ENCLOSED ON DATA DISK

INTRODUCTION

On behalf of Plains Marketing, L.P. (Plains), NOVA Safety and Environmental (NOVA) is pleased to submit this Annual Monitoring Report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. Beginning on May 29, 2004, project management responsibilities were assumed by NOVA. The LF-59 Pipeline Release Site (the site), which was formerly the responsibility of Enron Oil Trading and Transportation (EOTT), is now the responsibility of Plains. The Release Notification and Corrective Action Form (C-141) is provided as Appendix A. 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 2009 only. However, historic data tables as well as 2009 laboratory analytical reports are provided on the enclosed disk. For reference, the Site Location Map is provided as Figure 1.

Groundwater monitoring was conducted during each quarter of 2009 to assess the levels and extent of dissolved phase constituents and Phase Separated Hydrocarbon (PSH). Each groundwater monitoring event consisted of measuring static water levels in monitor wells, checking for the presence of PSH on the water column and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 foot were sampled as per a NMOCD directive.

SITE DESCRIPTION AND BACKGROUND INFORMATION

The LF-59 Site occurred as two separate releases of unknown volumes on unknown dates. The release occurred from an 8-inch pipeline and was attributed to structural failure associated with internal pipeline corrosion. Approximately 6,900 cubic yards of impacted soil was excavated, sorted, shredded and combined with fertilizer to enhance bioremediation rates. Approximately 550 cubic yards of caliche rock was also stockpiled on-site as a result of the previously referenced soil treatment activity. The soil was spread onto an on-site treatment cell for aeration in March 2003. Soil in the treatment cell was sampled for baseline concentrations of Total Petroleum Hydrocarbon (TPH) and Benzene, Toluene, Ethyl-benzene and Xylene (BTEX) constituent concentrations using EPA Methods 8015M and 8260b, respectively. The treatment cell was resampled on September 7, 2005. Analytical results of this sampling event indicate Total Petroleum Hydrocarbons (TPH) concentrations have decreased to levels ranging between <50 to 115 mg/Kg total TPH.

A *Soil Closure Strategy and Site Restoration Work Plan* (Work Plan) was submitted to the NMOCD in July 2006. The Work Plan proposed soil remediation activities intended to progress the site toward an NMOCD approved closure.

On September 20, 2007, Plains received approval from the NMOCD to commence the activities outlined in the Work Plan. Following the completion of the soil remediation activities, a *Soil Closure Request* dated February 2009 was submitted to the NMOCD for approval. On February 19, 2009, Plains received an email from the NMOCD approving the *Soil Closure Request* at the LF-59 release site.

As required by the NMOCD, groundwater monitoring and sampling has continued at the site.

Currently, eight groundwater monitor wells (MW-1 through MW-8) are on-site.

FIELD ACTIVITIES

Groundwater Monitoring

Quarterly monitoring events for the reporting period were performed according to the following sampling schedule, which was approved by the NMOCD in correspondence dated April 28, 2004.

NMOCD Approved Sampling Schedule			
MW-1	Quarterly	MW-5	Annually
MW-2	Quarterly	MW-6	Annually
MW-3	Annually	MW-7	Semi-Annually
MW-4	Quarterly	MW-8	Quarterly

The site monitor wells were gauged and sampled on the following dates: February 6, May 7, August 4, and November 9, 2009. During each sampling event, sampled monitor wells were purged of a minimum of three well volumes of water or until the wells failed to produce water using a PVC bailer or electric Grundfos pump. Groundwater was allowed to recharge and samples were collected using disposable Teflon samplers. Water samples were placed in clean, glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed at a licensed disposal facility.

Locations of the monitor wells and the inferred groundwater gradient, which were constructed from measurements collected during the four quarterly monitoring events, are depicted on Figures 2A through 2D, the Inferred Groundwater Gradient Maps. Groundwater elevation data for 2009 is provided as Table 1. Historic groundwater elevation data beginning at project inception is provided on the enclosed data disk.

The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.020 feet/foot to the southwest as measured between groundwater monitor wells MW-3 and MW-7. This is consistent with data presented on Figures 2A and 2B from earlier in the year. The corrected groundwater elevations ranged between 3,546.41 and 3,553.55 feet above mean sea level, in MW-7 on May 7, 2009 and MW-5 on August 4, 2009, respectively.

LABORATORY RESULTS

Groundwater samples obtained during the quarterly sampling events of 2009 were delivered to TraceAnalysis, Inc. in Midland, Texas for determination of Benzene, Toluene, Ethyl-benzene and Xylene (BTEX) constituent concentrations by EPA Method 8021B, and Polynuclear Aromatic Hydrocarbons (PAH) concentrations by EPA Method 8270C. A listing of BTEX constituent concentrations for 2009 are summarized in Table 2 and the PAH constituent concentrations for 2009 are summarized in Table 3. Copies of the laboratory reports generated

for 2009 are provided on the enclosed data disk. The quarterly groundwater sample results for BTEX constituent concentrations are depicted on Figures 3A through 3D.

Monitor well MW-1 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.006 mg/L during the 4th quarter to 0.0197 mg/L during the 3rd quarter of the reporting period. Benzene concentrations were above the NMOCD regulatory standard of 0.01 mg/L during the 1st, 2nd and 3rd quarters of 2009. Toluene concentrations were below laboratory method detection limits (MDL) and NMOCD regulatory standard of 0.75 mg/L during all four quarters of the reporting period. Ethyl-benzene concentrations were below the NMOCD regulatory standard of 0.75 mg/L during all four quarters of 2009. Xylene concentrations ranged from <0.001 mg/L during the 1st, 3rd and 4th quarters to 0.007 mg/L during the 2nd quarter of the reporting period. Xylene concentrations were below NMOCD during all four quarters of 2009. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

Monitor well MW-2 is sampled on a quarterly schedule and analytical results indicate benzene, toluene, ethyl-benzene and xylene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

Monitor well MW-3 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standard for each constituent during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last thirty-one consecutive quarters. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

Monitor well MW-4 is sampled on a quarterly schedule and analytical results indicate benzene, toluene, ethyl-benzene and xylene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above MDLs for 1-methylnaphthalene (0.00173 mg/L) and phenanthrene (0.00078 mg/L), which are below the WQCC standards.

Monitor well MW-5 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standard for each constituent during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty-eight consecutive quarters. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last thirty-one consecutive quarters. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

Monitor well MW-6 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standard for each constituent during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty-six

consecutive quarters. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

Monitor well MW-7 is sampled on a semi-annual schedule and analytical results indicate benzene and toluene concentrations were below the MDL and NMOCD regulatory standard for each constituent during the 2nd and 4th quarter sampling event. Ethyl-benzene concentrations ranged from <0.001 mg/L during the 4th quarter to 0.0062 mg/L during the 2nd quarter of 2009. Ethyl-benzene concentrations were below the NMOCD regulatory standards during the 2nd and 4th quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 4th quarter to 0.0088 mg/L during the 2nd quarter of 2009. Xylene concentrations were below the NMOCD regulatory standards during 2nd and 4th quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty-seven consecutive quarters. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

Monitor well MW-8 is sampled on a quarterly schedule and analytical results indicate benzene and ethyl-benzene concentrations were below the MDL and NMOCD regulatory standard for each constituent during all four quarterly sampling events. Toluene concentrations ranged from <0.001 mg/L during the 1st, 2nd and 4th quarters to 0.0048 mg/L during the 3rd quarter of 2009. Toluene concentrations were below the NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 1st, 2nd and 4th quarters to 0.0152 mg/L during the 3rd quarter of 2009. Xylene concentrations were below the 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 eighteen consecutive quarters. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

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 four groundwater monitoring and sampling events for the annual monitoring period of calendar year 2009. Eight groundwater monitor wells (MW-1 through MW-8) are currently on-site. During the reporting period, no measurable thickness of PSH was detected in any of the site monitor wells.

The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.020 feet/foot to the southwest as measured between groundwater monitor wells MW-3 and MW-7. This is consistent with data presented on Figures 2A and 2B from earlier in the year.

A review of the laboratory analytical results for groundwater samples collected from monitor well MW-1 indicates benzene concentrations were slightly above the NMOCD regulatory standard during the 1st, 2nd and 3rd quarters of the reporting period and toluene, ethylbenzene and

xylene concentrations were below NMOCD regulatory standards. Groundwater samples collected from the remaining seven monitor wells exhibited BTEX constituent concentrations below the NMOCD regulatory standard during all four quarters of the reporting period. Review of PAH analysis indicates a decreasing trend in constituent concentrations in monitor wells MW-1 and MW-4 as compared to the 2008 PAH analytical data.

Dissolved phase impact above the NMOCD regulatory standard appears to be limited to monitor well MW-1 and is demonstrating a declining trend.

ANTICIPATED ACTIONS

Plains submitted a request to the NMOCD in March, 2008 to approve the plugging and abandoning of monitor well MW-6. To date, Plains has not received a reply from the NMOCD on this request.

Based on the results of the PAH analysis over the past several years, NOVA recommends that no further PAH analysis be conducted on at the site.

Groundwater monitoring and quarterly sampling will continue through 2010. An annual groundwater monitoring report will be submitted by April 1, 2011.

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

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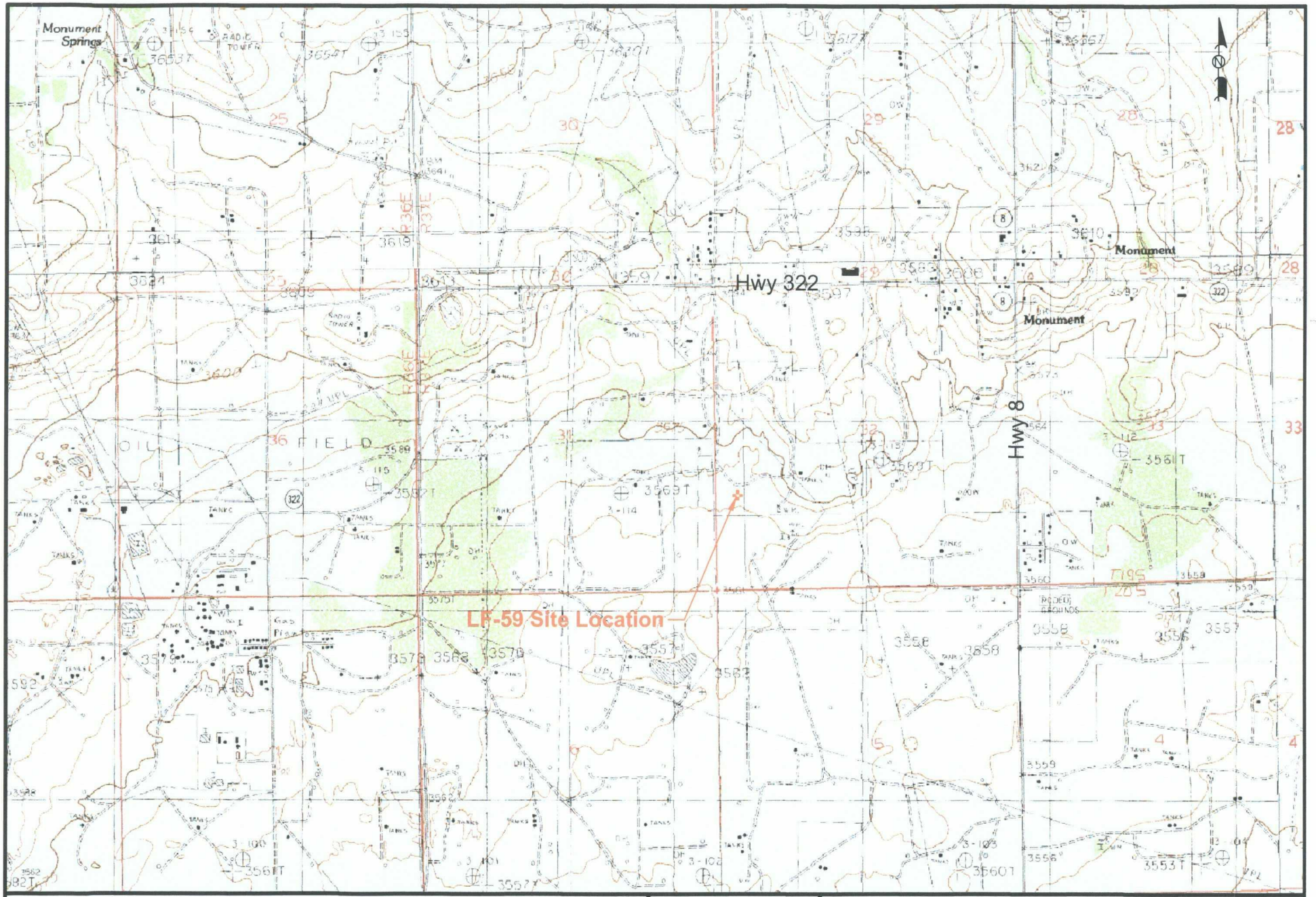
Figures



NW 1/4 SW 1/4 Sec 32 T19S, R37E
32° 36' 50.1" N
103° 16' 47.6" W

NMOCD Reference # 1R-0103

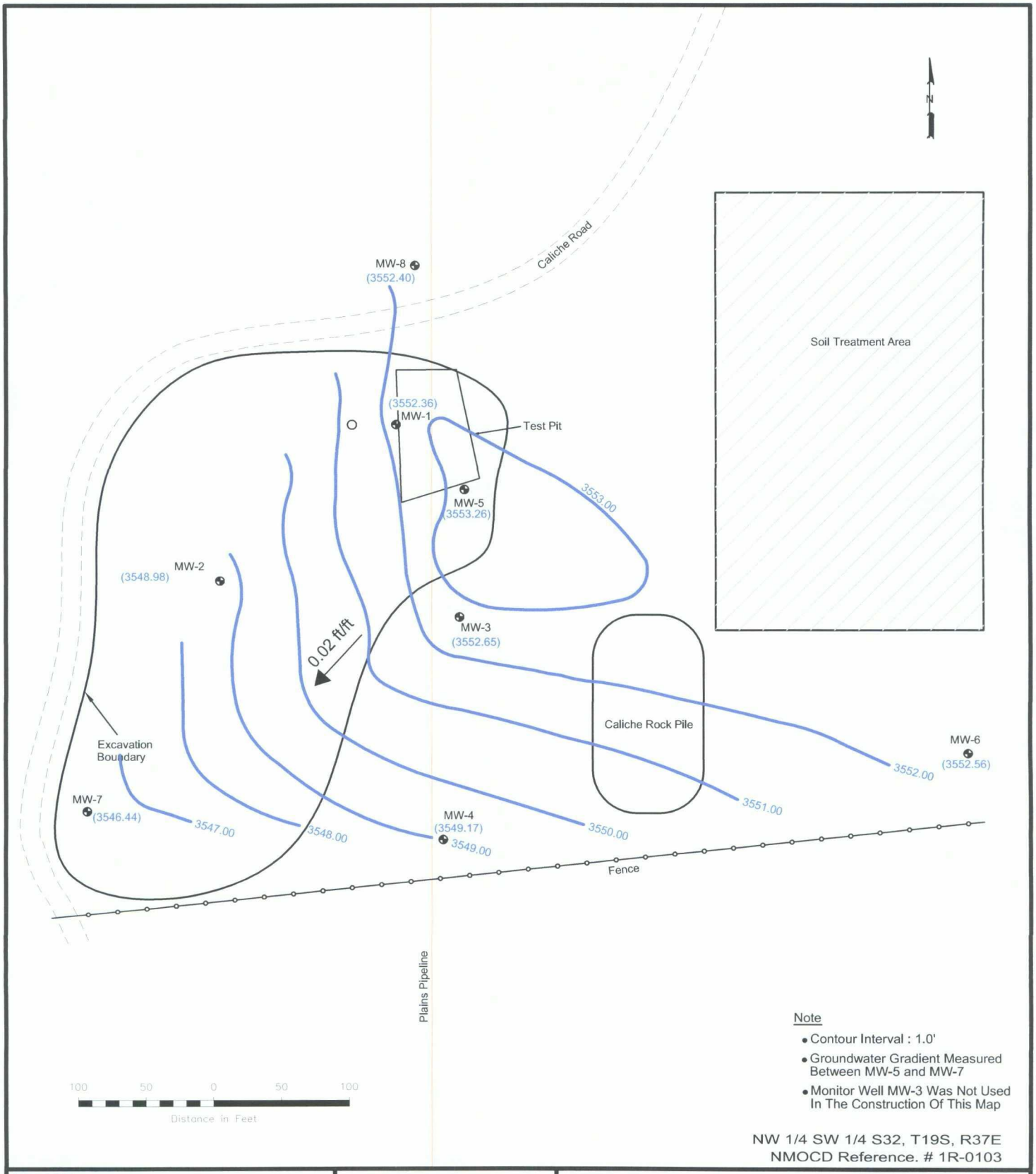
Figure 1
Site Location Map

Plains Marketing, L.P.
LF - 59
Monument, NM

NOVA Safety and Environmental

NOVA safety and environmental

Scale: NTS	Prep By: DPM	Checked By: MRE
February 15, 2005		



Note

- Contour Interval : 1.0'
- Groundwater Gradient Measured Between MW-5 and MW-7
- Monitor Well MW-3 Was Not Used In The Construction Of This Map

NW 1/4 SW 1/4 S32, T19S, R37E
NMOCD Reference. # 1R-0103

LEGEND:

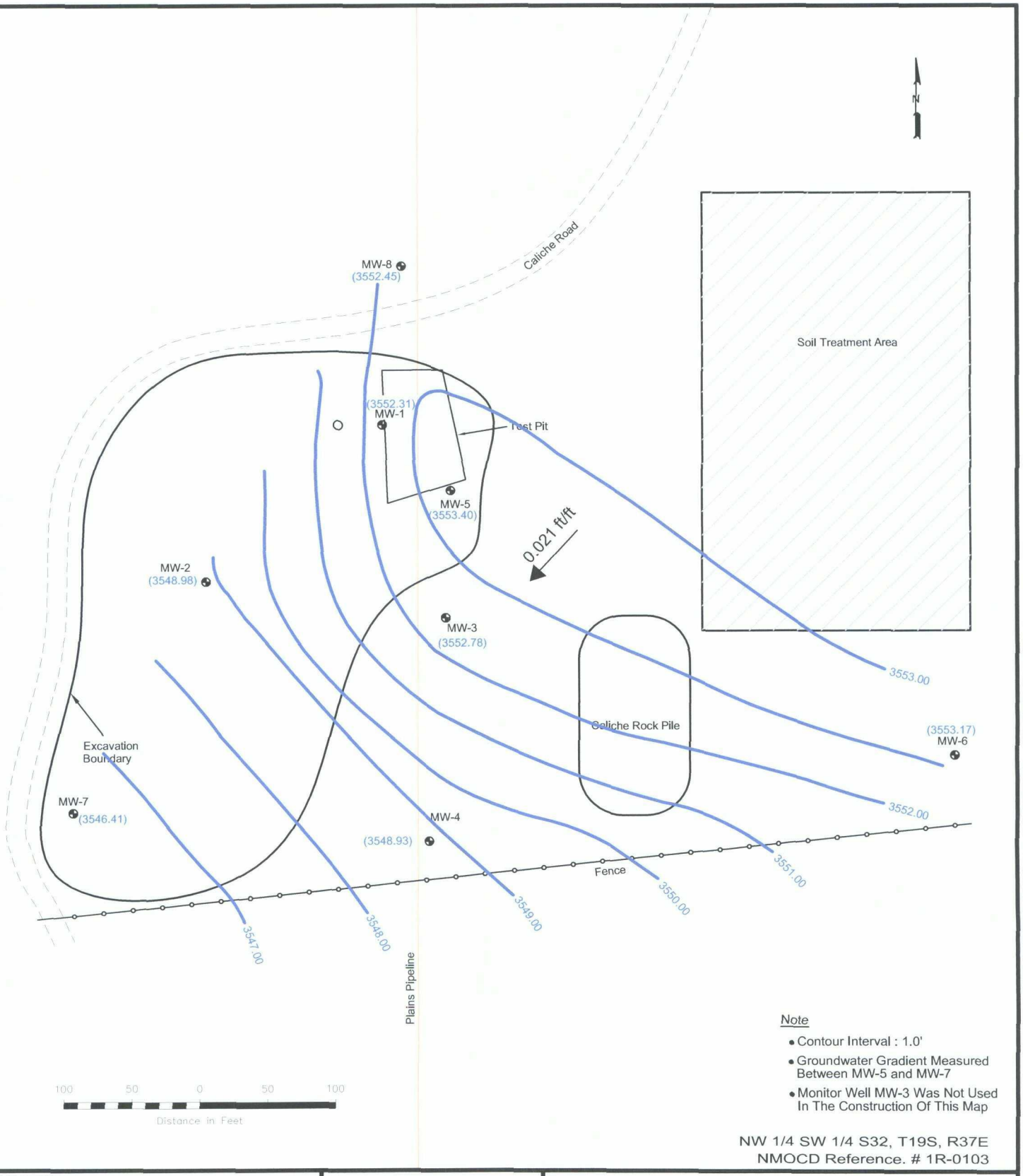
- Monitor Well Location
- (3547.11) Groundwater Elevation in Feet
- Groundwater Elevation Contour Line
- 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 2A
NMOCD
Inferred Groundwater
Gradient Map
(02/06/09)
Plains Marketing, L.P.
LF - 59
Monument, NM

NOVA Safety and Environmental

NOVA safety and environmental

Lat. 32° 36' 50.1"N Long 103° 16' 49.6"W		Scale: 1"=100'
NW1/4 SW1/4 Sec32 T19S R37E	CAD By: SAT	Checked By: TJL
February 24, 2009		



Note

- Contour Interval : 1.0'
- Groundwater Gradient Measured Between MW-5 and MW-7
- Monitor Well MW-3 Was Not Used In The Construction Of This Map

NW 1/4 SW 1/4 S32, T19S, R37E
NMOCD Reference. # 1R-0103

LEGEND:

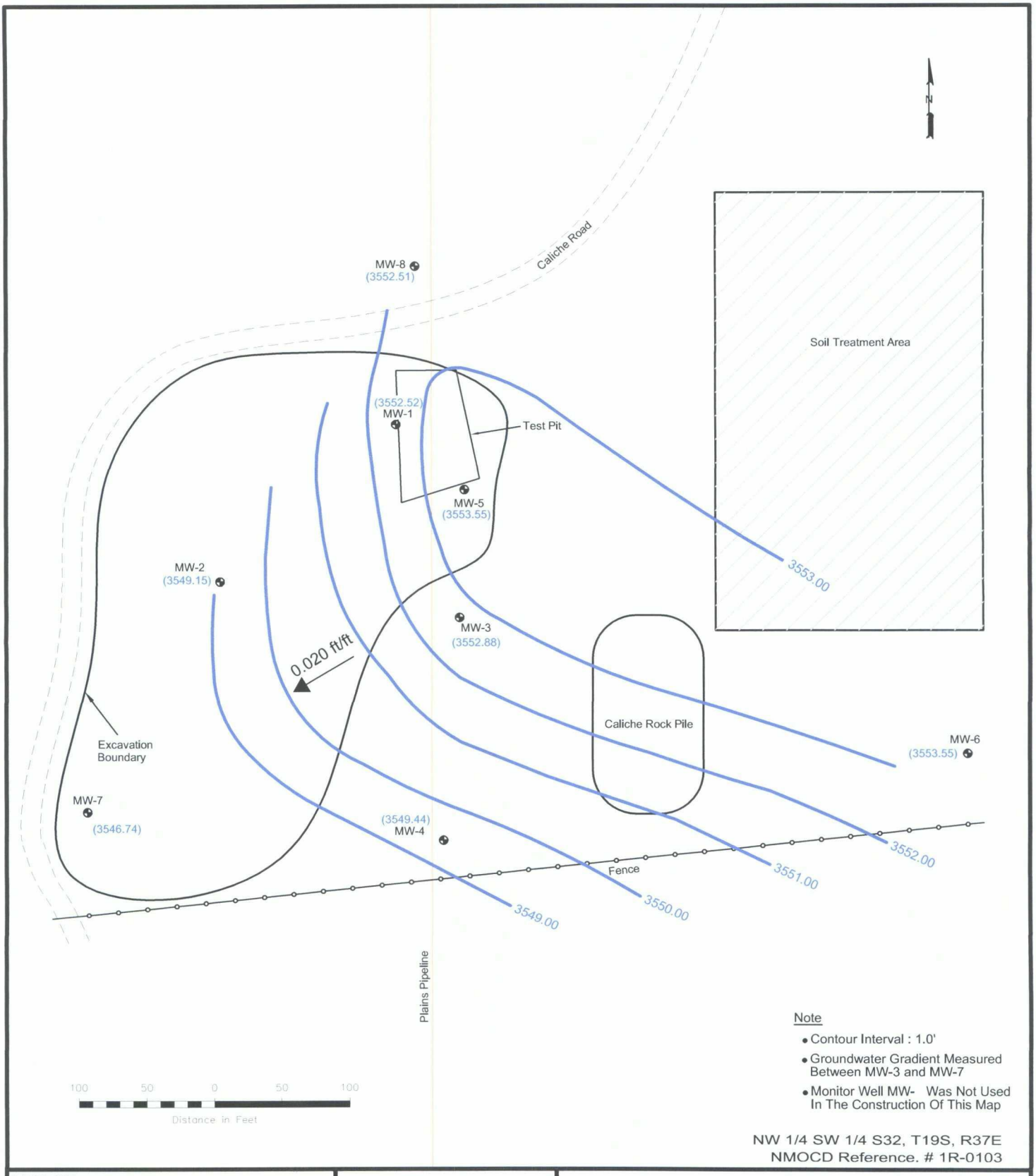
- Monitor Well Location
- (3547.11) Groundwater Elevation in Feet
- Groundwater Elevation Contour Line
- 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 2B
Inferred Groundwater Gradient Map
(05/07/09)
Plains Marketing, L.P.
LF - 59
Monument, NM

NOVA Safety and Environmental

NOVA safety and environmental

Lat. 32° 36' 50.1"N Long 103° 16' 49.6"W		Scale: 1"=100'
NW1/4 SW1/4 Sec32 T19S R37E	CAD By: SAT	Checked By: RKR
August 18, 2009		



Note

- Contour Interval : 1.0'
- Groundwater Gradient Measured Between MW-3 and MW-7
- Monitor Well MW- Was Not Used In The Construction Of This Map

NW 1/4 SW 1/4 S32, T19S, R37E
NMOCD Reference. # 1R-0103

LEGEND:

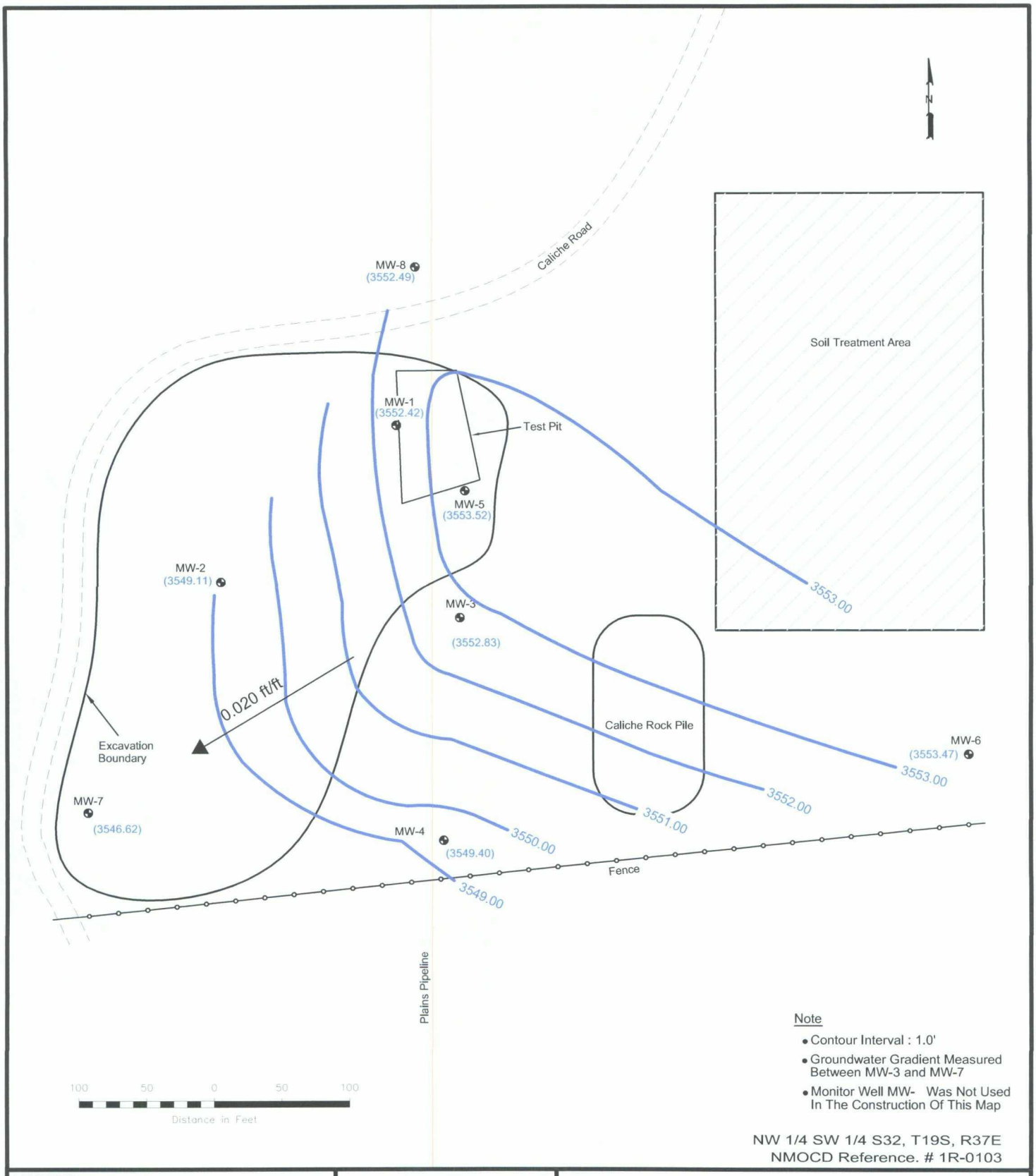
- Monitor Well Location
- (3547.11) Groundwater Elevation in Feet
- Groundwater Elevation Contour Line
- 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 2C
Inferred Groundwater Gradient Map
(08/04/09)
Plains Marketing, L.P.
LF - 59
Monument, NM

NOVA Safety and Environmental

NOVA safety and environmental

Lat. 32° 36' 50.1"N Long 103° 16' 49.6"W		Scale: 1"=100'
NW1/4 SW1/4 Sec32 T19S R37E	CAD By: SAT	Checked By: RKR
September 18, 2009		



Note

- Contour Interval : 1.0'
- Groundwater Gradient Measured Between MW-3 and MW-7
- Monitor Well MW- Was Not Used In The Construction Of This Map

NW 1/4 SW 1/4 S32, T19S, R37E
NMOCD Reference. # 1R-0103

LEGEND:

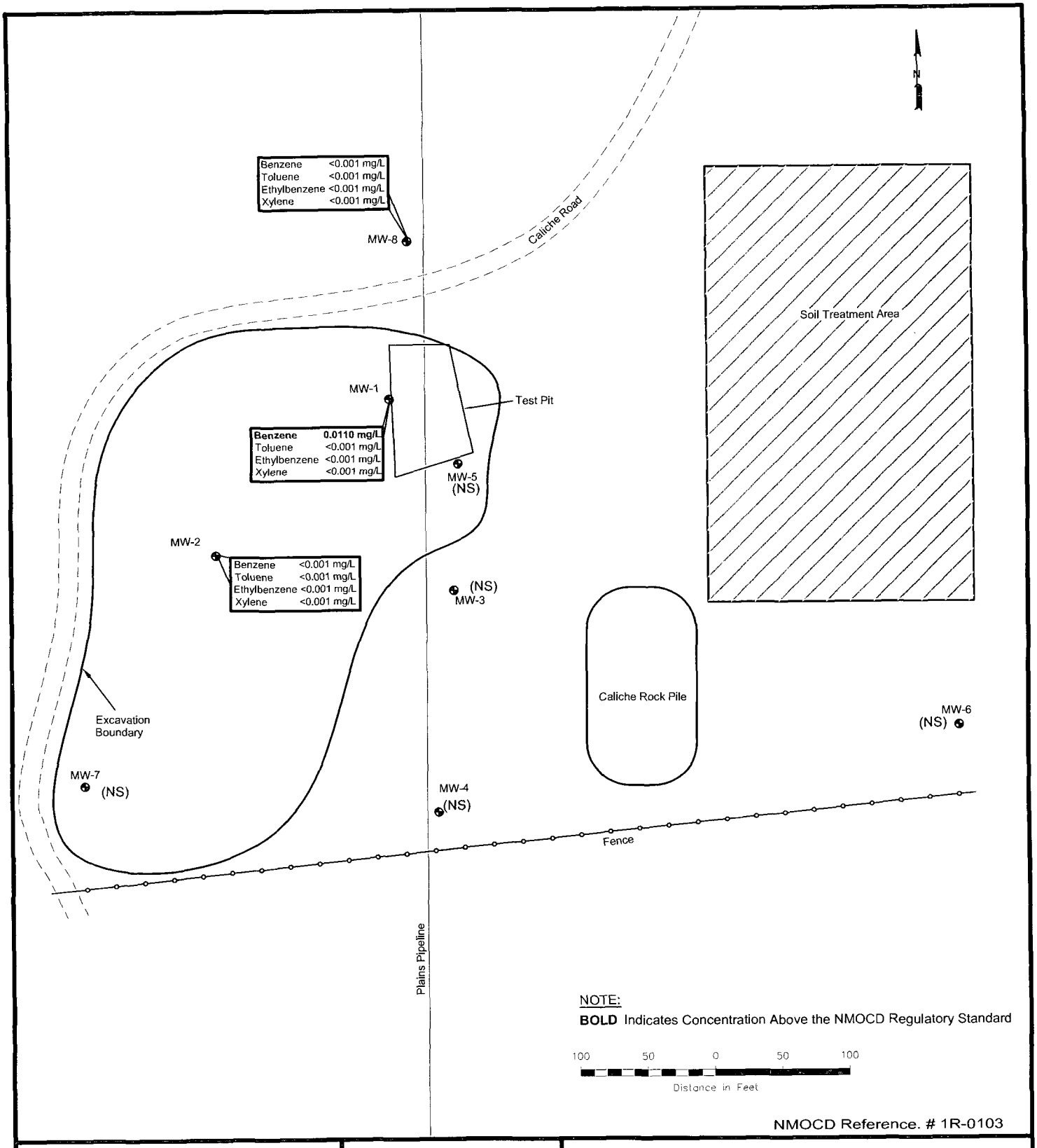
- Monitor Well Location
- (3547.11) Groundwater Elevation in Feet
- Groundwater Elevation Contour Line
- 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 2D
Inferred Groundwater Gradient Map
(11/09/09)
Plains Marketing, L.P.
LF - 59
Monument, NM

NOVA Safety and Environmental

NOVA safety and environmental

Lat. 32° 36' 50.1"N Long 103° 16' 49.6"W		Scale: 1"=100'
NW1/4 SW1/4 Sec32 T19S R37E	CAD By: SAT	Checked By: RKR
December 16, 2009		



LEGEND:

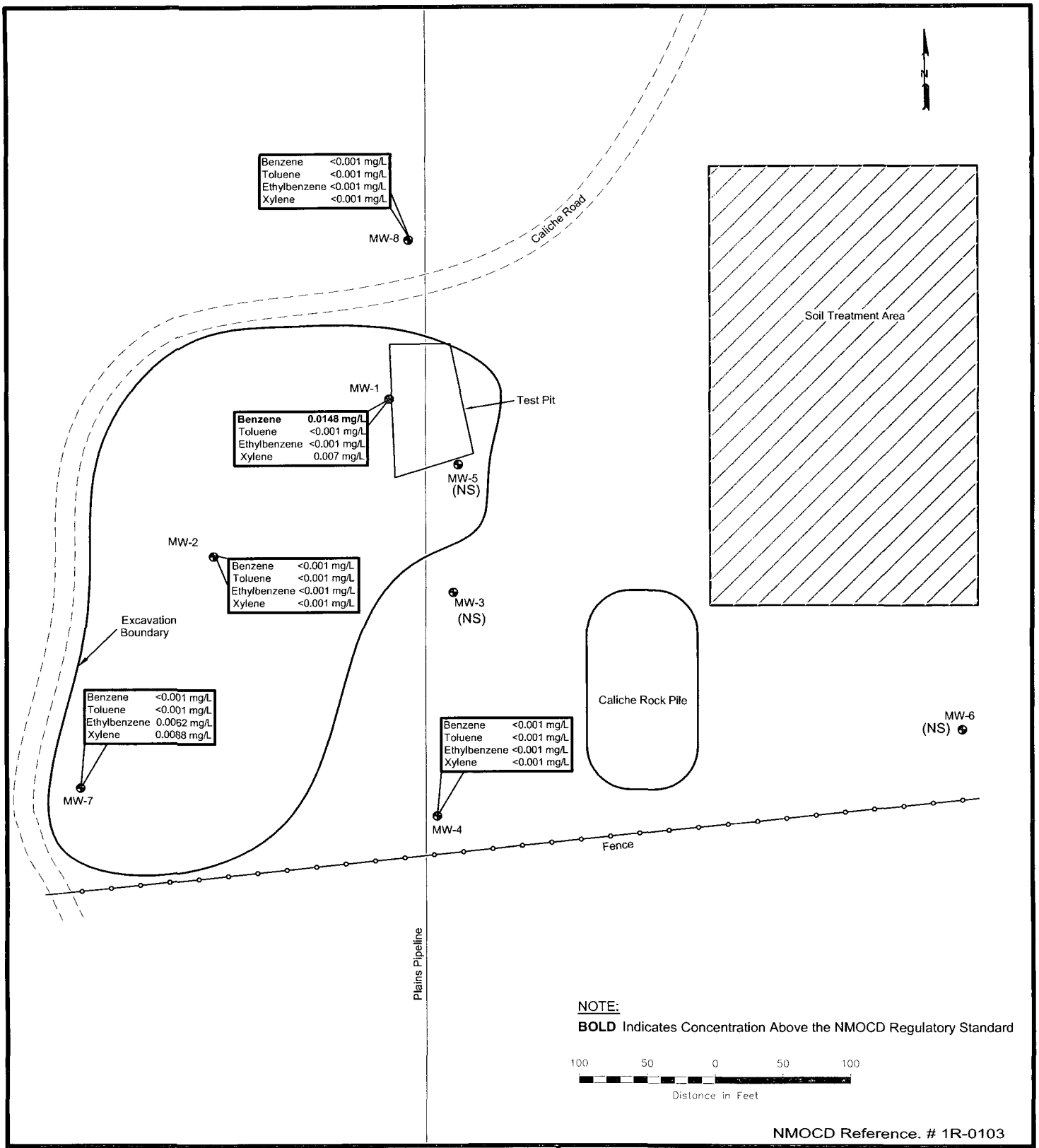
- Monitor Well Location
- <0.001 Constituent Concentration (mg/L)
- (NS) Not Sampled

Figure 3A
NMOCD
Groundwater Concentration
Inferred PSH Extent
Map (02/06/09)
Plains Marketing, L.P.
LF - 59
Monument, NM

NOVA Safety and Environmental

NOVA safety and environmental

Lat. 32° 36' 50.1"N Long 103° 16' 49.6"W		Scale: 1"=100'
NW1/4 SW1/4 Sec32 T19S R37E	CAD By: SAT	Checked By: TJL
February 24, 2009		



NMOCD Reference. # 1R-0103

LEGEND:

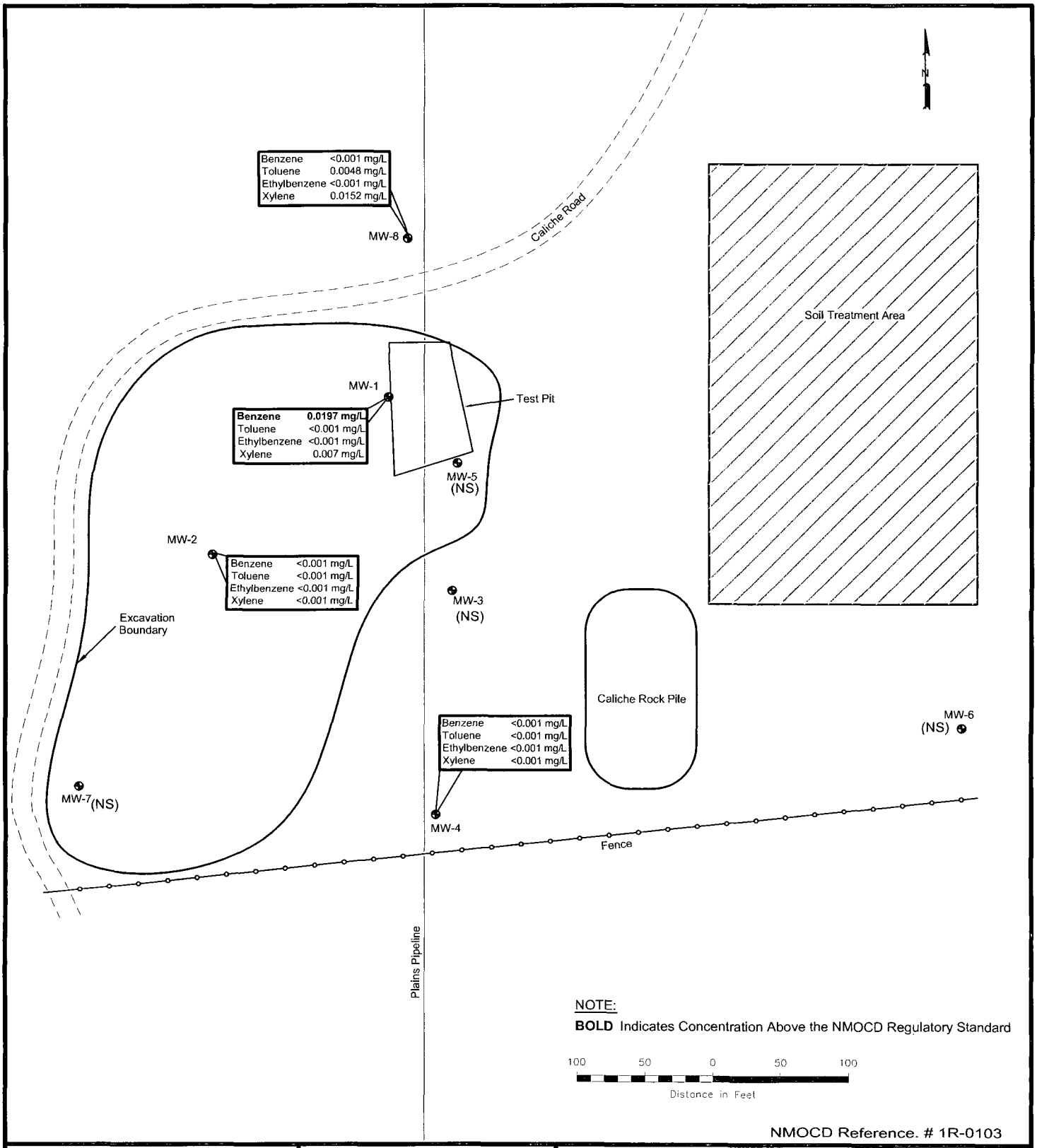
⊕	Monitor Well Location
<0.001	Constituent Concentration (mg/L)
(NS)	Not Sampled

Figure 3B
Groundwater Concentration
Inferred PSH Extent
(05/07/09)
Plains Marketing, L.P.
LF - 59
Monument, NM

NOVA Safety and Environmental

NOVA safety and environmental

Lat. 32° 36' 50.1"N Long 103° 16' 49.6"W		Scale: 1"=100'
NW1/4 SW1/4 Sec32 T19S R37E	CAD By: SAT	Checked By: RKR
August 18, 2009		



NMOCD Reference. # 1R-0103

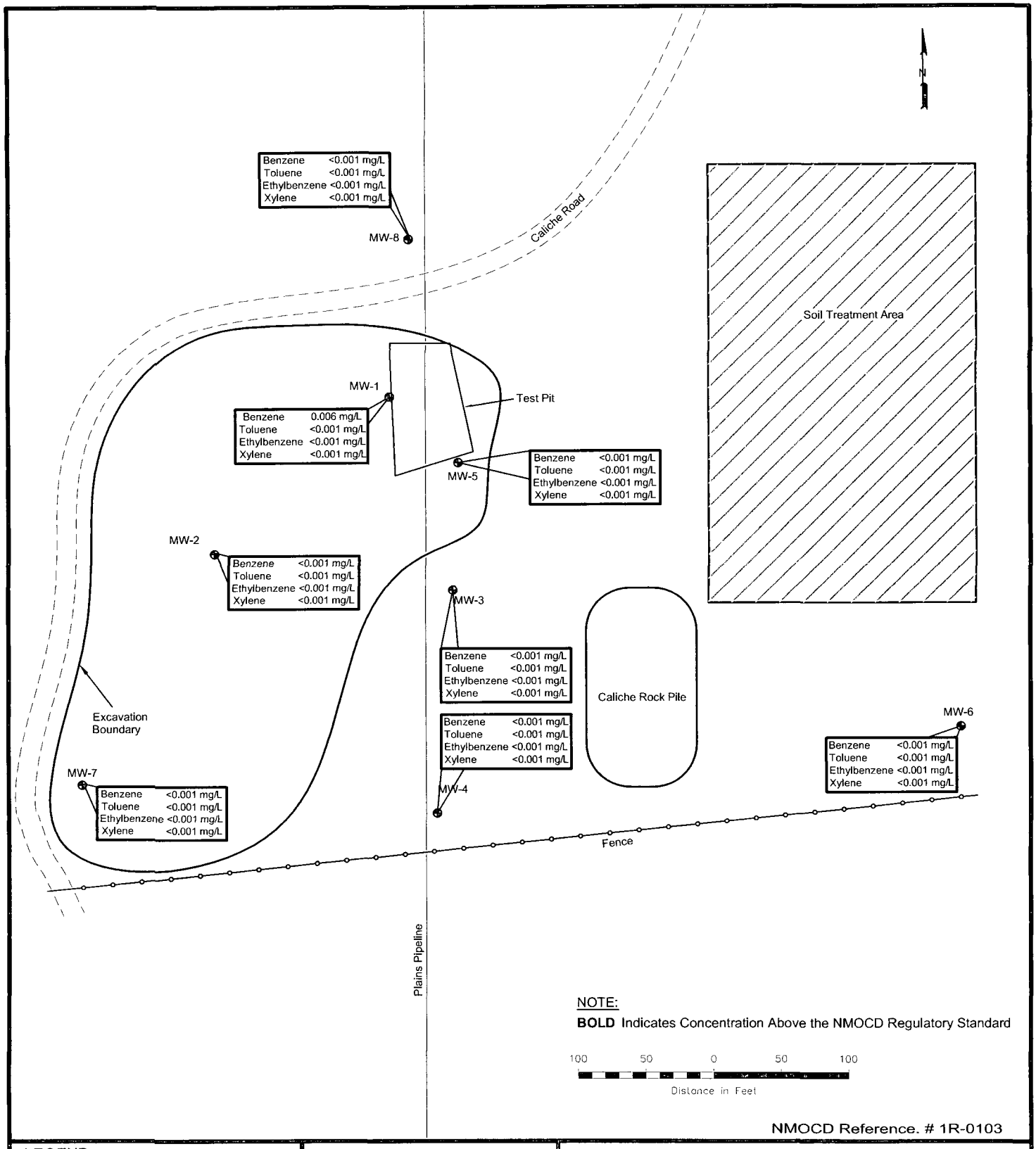
LEGEND:

⊕	Monitor Well Location
<0.001	Constituent Concentration (mg/L)
(NS)	Not Sampled

Figure 3C
Groundwater Concentration
Inferred PSH Extent
(08/04/09)
Plains Marketing, L.P.
LF - 59
Monument, NM

NOVA Safety and Environmental

Lat. 32° 36' 50.1"N Long 103° 16' 49.6"W		Scale: 1"=100'
NW1/4 SW1/4 Sec32 T19S R37E	CAD By: SAT	Checked By: RKR
September 18, 2009		



NMOCD Reference. # 1R-0103

LEGEND:

⊕	Monitor Well Location
<0.001	Constituent Concentration (mg/L)
(NS)	Not Sampled

Figure 3D
Groundwater Concentration
Inferred PSH Extent
(11/09/09)
Plains Marketing, L.P.
LF - 59
Monument, NM

NOVA Safety and Environmental

NOVA safety and environmental

Lat. 32° 36' 50.1"N Long 103° 16' 49.6"W		Scale: 1"=100'
NW1/4 SW1/4 Sec32 T19S R37E	CAD By: SAT	Checked By: RKR
December 16, 2009		

Tables

TABLE 1

2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 1	01/07/09	3,572.21	-	19.83	0.00	3,552.38
MW - 1	01/12/09	3,572.21	-	18.81	0.00	3,553.40
MW - 1	01/15/09	3,572.21	-	19.86	0.00	3,552.35
MW - 1	01/19/09	3,572.21	-	19.83	0.00	3,552.38
MW - 1	01/21/09	3,572.21	-	19.87	0.00	3,552.34
MW - 1	01/29/09	3,572.21	-	19.86	0.00	3,552.35
MW - 1	*02/06/09*	3,572.21	-	19.85	0.00	3,552.36
MW - 1	02/17/09	3,572.21	-	19.87	0.00	3,552.34
MW - 1	02/23/09	3,572.21	-	19.94	0.00	3,552.27
MW - 1	03/02/09	3,572.21	-	19.92	0.00	3,552.29
MW - 1	03/05/09	3,572.21	-	21.01	0.00	3,551.20
MW - 1	03/09/09	3,572.21	-	20.03	0.00	3,552.18
MW - 1	03/17/09	3,572.21	-	21.01	0.00	3,551.20
MW - 1	03/18/09	3,572.21	-	21.02	0.00	3,551.19
MW - 1	03/26/09	3,572.21	-	19.95	0.00	3,552.26
MW - 1	03/30/09	3,572.21	-	20.02	0.00	3,552.19
MW - 1	04/06/09	3,572.21	-	19.97	0.00	3,552.24
MW - 1	04/13/09	3,572.21	-	21.03	0.00	3,551.18
MW - 1	04/16/09	3,572.21	-	19.96	0.00	3,552.25
MW - 1	04/20/09	3,572.21	-	19.93	0.00	3,552.28
MW - 1	04/23/09	3,572.21	-	21.04	0.00	3,551.17
MW - 1	04/27/09	3,572.21	-	21.03	0.00	3,551.18
MW - 1	04/30/09	3,572.21	-	19.92	0.00	3,552.29
MW - 1	*05/07/09*	3,572.21	-	19.90	0.00	3,552.31
MW - 1	05/21/09	3,572.21	-	19.72	0.00	3,552.49
MW - 1	05/26/09	3,572.21	-	19.76	0.00	3,552.45
MW - 1	06/02/09	3,572.21	-	19.74	0.00	3,552.47
MW - 1	06/08/09	3,572.21	-	19.78	0.00	3,552.43
MW - 1	06/17/09	3,572.21	-	21.02	0.00	3,551.19
MW - 1	06/29/09	3,572.21	-	21.01	0.00	3,551.20
MW - 1	07/07/09	3,572.21	-	19.74	0.00	3,552.47
MW - 1	07/14/09	3,572.21	-	19.67	0.00	3,552.54
MW - 1	07/21/09	3,572.21	-	19.56	0.00	3,552.65
MW - 1	07/27/09	3,572.21	-	19.68	0.00	3,552.53
MW - 1	07/30/09	3,572.21	-	19.65	0.00	3,552.56
MW - 1	*08/04/09*	3,572.21	-	19.69	0.00	3,552.52
MW - 1	08/06/09	3,572.21	-	19.66	0.00	3,552.55
MW - 1	08/19/09	3,572.21	-	19.70	0.00	3,552.51
MW - 1	08/27/09	3,572.21	-	19.71	0.00	3,552.50
MW - 1	08/31/09	3,572.21	-	19.72	0.00	3,552.49
MW - 1	09/10/09	3,572.21	-	19.66	0.00	3,552.55
MW - 1	09/17/09	3,572.21	-	19.65	0.00	3,552.56
MW - 1	09/25/09	3,572.21	-	19.63	0.00	3,552.58
MW - 1	09/29/09	3,572.21	-	19.78	0.00	3,552.43
MW - 1	10/06/09	3,572.21	-	19.71	0.00	3,552.50
MW - 1	10/19/09	3,572.21	-	19.79	0.00	3,552.42
MW - 1	10/26/09	3,572.21	-	19.86	0.00	3,552.35
MW - 1	11/06/09	3,572.21	-	19.68	0.00	3,552.53
MW - 1	*11/09/09*	3,572.21	-	19.79	0.00	3,552.42

TABLE 1

2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 2	*02/06/09*	3,571.46	-	22.48	0.00	3,548.98
MW - 2	04/13/09	3,571.46	-	21.02	0.00	3,550.44
MW - 2	*05/07/09*	3,571.46	-	22.49	0.00	3,548.97
MW - 2	07/07/09	3,571.46	-	22.39	0.00	3,549.07
MW - 2	*08/04/09*	3,571.46	-	22.31	0.00	3,549.15
MW - 2	*11/09/09*	3,571.46	-	22.35	0.00	3,549.11
MW - 3	*02/06/09*	3,573.46	-	20.81	0.00	3,552.65
MW - 3	*05/07/09*	3,573.46	-	20.68	0.00	3,552.78
MW - 3	*08/04/09*	3,573.46	-	20.58	0.00	3,552.88
MW - 3	*11/09/09*	3,573.46	-	20.63	0.00	3,552.83
MW - 4	01/07/09	3,570.15	-	20.86	0.00	3,549.29
MW - 4	01/12/09	3,570.15	-	19.87	0.00	3,550.28
MW - 4	01/15/09	3,570.15	-	20.89	0.00	3,549.26
MW - 4	01/19/09	3,570.15	-	20.87	0.00	3,549.28
MW - 4	01/21/09	3,570.15	-	20.94	0.00	3,549.21
MW - 4	01/29/09	3,570.15	-	20.89	0.00	3,549.26
MW - 4	*02/06/09*	3,570.15	-	20.98	0.00	3,549.17
MW - 4	02/17/09	3,570.15	-	21.10	0.00	3,549.05
MW - 4	02/23/09	3,570.15	-	21.13	0.00	3,549.02
MW - 4	03/02/09	3,570.15	-	21.13	0.00	3,549.02
MW - 4	03/05/09	3,570.15	-	20.00	0.00	3,550.15
MW - 4	03/09/09	3,570.15	-	21.05	0.00	3,549.10
MW - 4	03/17/09	3,570.15	-	21.03	0.00	3,549.12
MW - 4	03/18/09	3,570.15	-	21.04	0.00	3,549.11
MW - 4	03/26/09	3,570.15	-	21.05	0.00	3,549.10
MW - 4	03/30/09	3,570.15	-	20.99	0.00	3,549.16
MW - 4	04/06/09	3,570.15	-	21.23	0.00	3,548.92
MW - 4	04/16/09	3,570.15	-	21.02	0.00	3,549.13
MW - 4	04/20/09	3,570.15	-	21.25	0.00	3,548.90
MW - 4	04/23/09	3,570.15	-	21.02	0.00	3,549.13
MW - 4	04/27/09	3,570.15	-	21.02	0.00	3,549.13
MW - 4	04/30/09	3,570.15	-	21.01	0.00	3,549.14
MW - 4	*05/07/09*	3,570.15	-	21.20	0.00	3,548.95
MW - 4	05/21/09	3,570.15	-	21.10	0.00	3,549.05
MW - 4	05/26/09	3,570.15	-	20.84	0.00	3,549.31
MW - 4	06/02/09	3,570.15	-	20.80	0.00	3,549.35
MW - 4	06/08/09	3,570.15	-	20.77	0.00	3,549.38
MW - 4	06/17/09	3,570.15	-	20.98	0.00	3,549.17
MW - 4	06/29/09	3,570.15	-	20.99	0.00	3,549.16
MW - 4	07/07/09	3,570.15	-	20.73	0.00	3,549.42
MW - 4	07/14/09	3,570.15	-	20.72	0.00	3,549.43
MW - 4	07/21/09	3,570.15	-	20.83	0.00	3,549.32
MW - 4	07/27/09	3,570.15	-	20.68	0.00	3,549.47
MW - 4	07/30/09	3,570.15	-	20.72	0.00	3,549.43
MW - 4	*08/04/09*	3,570.15	-	20.71	0.00	3,549.44
MW - 4	08/06/09	3,570.15	-	20.75	0.00	3,549.40
MW - 4	08/19/09	3,570.15	-	20.78	0.00	3,549.37
MW - 4	08/27/09	3,570.15	-	20.72	0.00	3,549.43

TABLE 1

2009 - GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 4	08/31/09	3,570.15	-	20.73	0.00	3,549.42
MW - 4	09/10/09	3,570.15	-	20.77	0.00	3,549.38
MW - 4	09/17/09	3,570.15	-	20.78	0.00	3,549.37
MW - 4	09/25/09	3,570.15	-	20.20	0.00	3,549.95
MW - 4	09/29/09	3,570.15	-	20.85	0.00	3,549.30
MW - 4	10/06/09	3,570.15	-	20.81	0.00	3,549.34
MW - 4	10/19/09	3,570.15	-	20.78	0.00	3,549.37
MW - 4	10/26/09	3,570.15	-	20.74	0.00	3,549.41
MW - 4	11/06/09	3,570.15	-	20.70	0.00	3,549.45
MW - 4	*11/09/09*	3,570.15	-	20.75	0.00	3,549.40
MW - 5	*02/06/09*	3,572.92	-	19.66	0.00	3,553.26
MW - 5	*05/07/09*	3,572.92	-	19.52	0.00	3,553.40
MW - 5	*08/04/09*	3,572.92	-	19.37	0.00	3,553.55
MW - 5	*11/09/09*	3,572.92	-	19.40	0.00	3,553.52
MW - 6	*02/06/09*	3,572.11	-	19.55	0.00	3,552.56
MW - 6	*05/07/09*	3,572.11	-	18.94	0.00	3,553.17
MW - 6	*08/04/09*	3,572.11	-	18.56	0.00	3,553.55
MW - 6	*11/09/09*	3,572.11	-	18.64	0.00	3,553.47
MW - 7	*02/06/09*	3,569.75	-	23.31	0.00	3,546.44
MW - 7	*05/07/09*	3,569.75	-	23.34	0.00	3,546.41
MW - 7	*08/04/09*	3,569.75	-	23.01	0.00	3,546.74
MW - 7	*11/09/09*	3,569.75	-	23.13	0.00	3,546.62
MW - 8	*02/06/09*	3,573.59	-	21.19	0.00	3,552.40
MW - 8	*05/07/09*	3,573.59	-	21.14	0.00	3,552.45
MW - 8	*08/04/09*	3,573.59	-	21.08	0.00	3,552.51
MW - 8	*11/09/09*	3,573.59	-	21.10	0.00	3,552.49

** Complete Historical Tables are provided on the attached CD.*

TABLE 2

2009 - CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD Reference Number 1R-0103

All results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p-XYLENES	o-XYLENE
NMOCD Regulatory Limit		**0.01**	**0.75**	**0.75**	**0.62**	
MW - 1	02/06/09	**0.0110**	<0.001	<0.001	<0.001	
MW - 1	05/07/09	**0.0148**	<0.001	<0.001	0.0070	
MW - 1	08/04/09	**0.0197**	<0.001	<0.001	<0.001	
MW - 1	11/09/09	0.0060	<0.001	<0.001	<0.001	
MW - 2	02/06/09	<0.001	<0.001	<0.001	<0.001	
MW - 2	05/07/09	<0.001	<0.001	<0.001	<0.001	
MW - 2	08/04/09	<0.001	<0.001	<0.001	<0.001	
MW - 2	11/09/09	<0.001	<0.001	<0.001	<0.001	
MW - 3	02/06/09	Not Sampled on Current Sample Schedule				
MW - 3	05/07/09	Not Sampled on Current Sample Schedule				
MW - 3	08/04/09	Not Sampled on Current Sample Schedule				
MW - 3	11/09/09	<0.001	<0.001	<0.001	<0.001	
MW - 4	02/06/09	<0.001	<0.001	<0.001	<0.001	
MW - 4	05/07/09	<0.001	<0.001	<0.001	<0.001	
MW - 4	08/04/09	<0.001	<0.001	<0.001	<0.001	
MW - 4	11/09/09	<0.001	<0.001	<0.001	<0.001	
MW - 5	02/06/09	Not Sampled on Current Sample Schedule				
MW - 5	05/07/09	Not Sampled on Current Sample Schedule				
MW - 5	08/04/09	Not Sampled on Current Sample Schedule				
MW - 5	11/09/09	<0.001	<0.001	<0.001	<0.001	
MW - 6	02/06/09	Not Sampled on Current Sample Schedule				
MW - 6	05/07/09	Not Sampled on Current Sample Schedule				
MW - 6	08/04/09	Not Sampled on Current Sample Schedule				
MW - 6	11/09/09	<0.001	<0.001	<0.001	<0.001	
MW - 7	02/06/09	Not Sampled on Current Sample Schedule				
MW - 7	05/07/09	<0.001	<0.001	0.0062	0.0088	
MW - 7	08/04/09	Not Sampled on Current Sample Schedule				
MW - 7	11/09/09	<0.001	<0.001	<0.001	<0.001	
MW - 8	02/06/09	<0.001	<0.001	<0.001	<0.001	
MW - 8	05/07/09	<0.001	<0.001	<0.001	<0.001	
MW - 8	08/04/09	<0.001	0.0048	<0.001	0.0152	
MW - 8	11/09/09	<0.001	<0.001	<0.001	<0.001	

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

TABLE 3

POLYCYCLIC AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.
TNM LF-59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																		
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.					0.0001 mg/L	0.0007 mg/L	0.0002 mg/L		0.0002 mg/L	0.0002 mg/L	0.0003 mg/L			0.0004 mg/L	0.03 mg/L			0.03 mg/L		
MW-1	11/07/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.0006	<0.000183	0.00214	0.000691	<0.000183	0.00479	0.00232	<0.000183
	11/09/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-2	11/07/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/09/09	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
MW-3	11/07/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/09/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-4	11/07/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.00207	<0.000185	0.000684	0.00103	<0.000185	0.00413	0.000546	0.00128
	11/09/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00078	<0.000184	0.00173	<0.000184	<0.000184
MW-5	11/07/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/09/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-6	11/07/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	11/09/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-7	11/07/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/09/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-8	11/07/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/09/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184

Appendices

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

811 South First
Artesia, NM 88210
(505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
(505) 827-7131

Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

STATE Byrd LF. 1999-59

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: LOTT Energy Pipeline	Contact: Lennah Frost
Address: PO Box 1660	Telephone No.: 915/6843467
Facility Name:	Facility Type: Pipeline

Surface Owner	Mineral Owner	Lease No.
State of New Mexico		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	32	19S	37E					Lea

NATURE OF RELEASE

Type of Release: Crude oil	Volume of Release: 260 bbls / Volume Recovered: 200 bbls
Source of Release: Crude oil Pipeline	Date and Hour of Occurrence: 7/18/99 1pm / Date and Hour of Discovery: 7/18/99 1pm
Was Immediate Notice Given? ☑ Yes ☐ No ☐ Not Required	If YES, To Whom? Chris Williams
By Whom? Lennah Frost	Date and Hour: 7/18/99 - 2:30p
Was a Watercourse Reached? ☐ Yes ☒ No	If Yes, Volume Impacting the Watercourse:

If a Watercourse was Impacted, Describe Fully. (Attach Additional Sheets If Necessary)

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary)
Internal Corrosion - Leak Clamped off will replace pipe ASAP

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)
Spill occurred in a previously remediated site. Will evaluate for Cleanup this week

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 contaminations 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: Lennah Frost	OIL CONSERVATION DIVISION
Printed Name: Lennah Frost	Approved by District Supervisor:
Title: Sr. ENV. ENG	Approval Date: / Expiration Date:
Date: 7-20-99 Phone: 915/6843467	Conditions of Approval: / Attached ☐