

AP - 012

**ANNUAL  
MONITORING REPORT**

**YEAR(S):**  
2005



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**  
Governor  
**Joanna Prukop**  
Cabinet Secretary

**Mark E. Fesmire, P.E.**  
Director  
Oil Conservation Division

April 19, 2006

Ms. Camille Reynolds  
Plains Marketing, L.P.  
3112 West Highway 82  
Lovington, NM 88260

RE: 2005 Annual Monitoring Report  
Plains TNM 98-05A Site  
NE/4 NW/4 Section 26, Township 21 South, Range 37 East  
Lea County, New Mexico  
Plains EMS Number: TNM 98-05A  
NMOCD File Number: AP-0012

Dear Ms. Reynolds:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed the above report submitted on behalf of Plains Marketing, L.P. (Plains) by NOVA Safety and Environmental. This report is hereby accepted and approved with the following understandings and conditions:

Plains will continue to monitor the groundwater at the site and report the associated activities during 2006 on the 2006 Annual Monitoring Report due to be submitted to this office by April 1, 2007.

NMOCD approval does not relieve Plains of liability should its operations at this site prove to have been harmful to public health or the environment. Nor does it relieve Plains of its responsibility to comply with the rules and regulations of any other governmental agency.

If you have any questions, contact me at (505) 476-3492 or [ed.martin@state.nm.us](mailto:ed.martin@state.nm.us)

NEW MEXICO OIL CONSERVATION DIVISION

Edwin E. Martin  
Environmental Bureau

Copy: NMOCD, Hobbs  
Curt Stanley, NOVA

2005  
ANNUAL MONITORING REPORT

*AP-12*

TNM 98-05A  
NE 1/4 NW 1/4 OF SECTION 26, TOWNSHIP 21 SOUTH, RANGE 37 EAST  
LEA COUNTY, NEW MEXICO  
PLAINS EMS NUMBER: TNM-98-05A  
NMOCD Reference AP-12

*Report is on  
the L-Drive*

Prepared for:

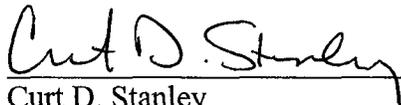
**PLAINS MARKETING L.P.**  
333 Clay Street, Suite 1600  
Houston, Texas 77002



Prepared By:

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

March 2006

  
Curt D. Stanley  
Project Manager

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

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**ENCLOSED ON DATA DISK**

2005 Annual Report (Text)

2005 Tables

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

Electronic Copy of Laboratory Reports

Historical Groundwater Elevation Tables

Historical Groundwater BTEX Analytical Results

## **INTRODUCTION**

NOVA Safety and Environmental (NOVA) on behalf of Plains Pipeline, L.P. (Plains) has prepared this 2005 Annual Groundwater Monitoring Report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. Beginning on May 29, 2004, project management responsibilities were assumed by NOVA, having previously been managed by Environmental Technology Group, Inc. (ETGI). This report is intended to be viewed as a complete document with figures, attachments, tables, and text. The report presents the results of four quarterly groundwater monitoring/sampling events conducted at the TNM 98-05A crude oil release site (the site), located in Lea County, New Mexico. The site, formerly the responsibility of Enron Oil Trading and Transportation (EOTT) is now the responsibility of Plains. For reference, the Site Location Map is provided as Figure 1.

Groundwater gauging and sampling was conducted during each quarter of 2005 to assess the levels and extent of Phase Separated Hydrocarbons (PSH) and dissolved phase constituents. The groundwater monitoring events consisted of measuring static water levels in the monitor wells, and purging and sampling of each well exhibiting sufficient recharge. Monitor wells are not sampled if a measurable thickness of PSH is detected during gauging activities. Manual product abatement is performed on a monthly basis on monitor wells known to contain a measurable thickness of PSH.

## **SITE DESCRIPTION AND BACKGROUND INFORMATION**

The site is located approximately two miles northeast of the town of Eunice, New Mexico. The legal description of the site is Section 26, Township 21 South, Range 37 East (Figure 1). On February 5, 1998 an estimated 38 barrels of crude oil was released from a six (6) inch crude oil pipeline. Approximately four (4) barrels were recovered during the emergency response activities. The release was attributed to internal corrosion of the pipeline. The Release Notification and Corrective Action Form (C-141) is provided as Appendix A. Approximately 3,300 cubic yards of impacted soil was excavated and applied to an on-site treatment cell. In December 2004, a Site Restoration Work Plan and Proposed Soil Closure Strategy Report was submitted to the NMOCD. The report was approved by the NMOCD in a letter dated June 2, 2005. In October 2005, additional excavation along the east sidewall was completed, the excavation was backfilled with remediated treatment cell soil and the site was graded to match the surrounding topography. In December 2005, a Soil Closure Request was submitted to the NMOCD and this request was approved by the NMOCD in a letter dated January 31, 2006. Plains will take no further action with regard to soil remediation at the TNM-98-05A site, unless directed by the NMOCD.

During the October 2005 excavation backfilling activities, monitor well MW-4 was damaged. The damaged monitor well (MW-4) was not sampled during the fourth quarter 2005 sampling event. Plains will submit a written request to plug and abandon monitor well MW-4 in the first quarter of 2006.

During the October 2005 excavation backfilling activities, the upper fifteen (15) feet of casing in

monitor well MW-1 was inadvertently pushed out of vertical alignment. The vertical displacement of the casing did not allow a standard size bailer to be used for groundwater sampling during the fourth quarter of 2005. On January 12, 2006, monitor well MW-1 was sampled utilizing a small diameter bailer and the analytical results are presented in this 2005 Annual Monitoring Report.

There are currently eleven monitor wells on-site. Monitor well MW-11 was installed on December 1, 2004 for delineation purposes. Manual product recovery (when present) is being conducted on a monthly basis.

**FIELD ACTIVITIES**

During the reporting period, a measurable thickness of PSH was detected in monitor wells MW-2 and MW-11 \* on January 10, 2005 and September 7, 2005, respectively. A sheen was reported in monitor wells MW-1, MW-2, MW-4, MW-9 and MW-10 throughout most of the reporting period. PSH thicknesses ranged from 0.01 feet in monitor well MW-11 \* to a maximum of 0.08 feet observed in monitor well MW-2. Table 1 displays the groundwater gauging and PSH thickness data for the reporting period. Historic groundwater elevation data beginning at project inception is provided on the enclosed data disk.

*\* Monitor well MW-11 gauging data collected on September 7, 2005 indicates a PSH thickness of 0.01 feet; this appears to be incongruous based on prior and subsequent data and historical trends.*

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. The table below illustrates the current groundwater sampling schedule approved by the NMOCD.

<b>Sample Location</b>	<b>Sampling Schedule</b>
MW-1	Quarterly
MW-2	Quarterly
MW-3	Quarterly
MW-4	Quarterly
MW-5	Annual
MW-6	Semi-annual
MW-7	Semi-annual
MW-8	Annual
MW-9	Quarterly
MW-10	Quarterly
MW-11	Quarterly

Quarterly sampling events for the calendar year 2005 were performed on March 7, June 7, September 7, and December 14. Each quarterly sampling event consisted of gauging all wells and purging and sampling monitor wells as per the approved sampling schedule. Monitor wells containing a measurable thickness of PSH were not sampled. During each sampling event, the

monitor wells were purged of approximately three well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos Pump. Groundwater was allowed to recharge and samples were obtained using disposable Teflon samplers. Water samples were collected in clean glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed of by Key Energy of Lovington, New Mexico, utilizing a licensed disposal facility (NMOCD AO SWD-730).

The inferred groundwater gradient is depicted on Figures 2A through 2D. Groundwater elevation contours, generated from gauging data acquired during each quarterly sampling event of 2005, indicates a general groundwater gradient of 0.002 feet/foot to the southeast, as measured between monitor wells MW-5 and MW-6. Groundwater elevation data for the calendar year 2005 is provided in Table 1. Historic groundwater elevation data beginning at project inception is enclosed on the enclosed data disk.

## **LABORATORY RESULTS**

Monitor wells MW-1 and MW-4 were not sampled in the fourth quarter of 2005, due to damage sustained during backfilling activities. Monitor well MW-11 was not sampled in the third quarter of 2005, due to gauging data collected on September 8, 2005, indicating a PSH thickness of 0.01 feet. The third quarter gauging data collected at monitor well MW-11 appears to be congruous based on prior and subsequent data and historical trends.

Groundwater samples collected during the 2005 groundwater sampling events were delivered to Trace Analysis, Inc. of Lubbock, Texas for determination of Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations by EPA Method SW846-8021b.

Review of laboratory analytical results generated from analysis of the groundwater samples obtained during the 2005 monitoring period indicates benzene and BTEX constituent concentrations are below NMOCD regulatory standards in monitor wells MW-3, MW-5, MW-6, MW-7 and MW-8 and MW-11. The results indicate the benzene concentration was above regulatory standards in monitor wells MW-4 during the second and third quarters and MW-9 during the first, second and third quarters, but below BTEX constituent regulatory standards. As discussed above, monitor wells MW-1 and MW-4 could not be sampled in the fourth quarter 2005 due to damage sustained during excavation backfilling operations. The data indicates benzene and BTEX constituent concentrations above regulatory standards were detected in monitor wells MW-1, MW-2 and MW-10 in all quarters of 2005. Monitor well MW-1 was sampled on January 12, 2006, utilizing a small diameter bailer and the analytical results are presented in this 2005 Annual Monitoring Report.

A listing of BTEX constituent concentrations for each 2005 quarterly sampling event is summarized in Table 2. Copies of the laboratory reports generated during this reporting period are provided on the enclosed data disk. Quarterly groundwater sample results reflecting benzene and BTEX constituent concentrations and inferred PSH extent maps are depicted on Figures 3A through 3D.

## SUMMARY

This report presents the results of four groundwater monitoring and sampling events for the annual monitoring period of calendar year 2005. Detectable or measurable amounts of PSH were encountered in two (2) of the eleven (11) on site monitor wells (MW-2 and MW-11\*) during this reporting period.

*\* Monitor well MW-11 gauging data collected on September 7, 2005 indicates a PSH thickness of 0.01 feet; this appears to be incongruous based on prior and subsequent data and historical trends.*

Groundwater elevation contours, generated from water level measurements acquired during the quarterly sampling events of 2005, indicated a general gradient to the southeast.

Benzene and BTEX constituent concentrations were below NMOCD regulatory standards in six (6) of the eleven (11) site monitor wells during the reporting period. Benzene concentrations were above NMOCD regulatory standards, but below the BTEX constituent concentration guidelines for a least two (2) quarters of 2005, in two (2) of the eleven (11) site monitor wells. Benzene and BTEX constituent concentrations were above the NMOCD regulatory standards in three (3) of the eleven (11) site monitor wells. Monitor well MW-1 was not sampled on December 14, 2005 due to damage sustained during backfilling operations, but was sampled on January 12, 2006 with NMOCD approval and the analytical results are presented in this 2005 Annual Monitoring Report.

## ANTICIPATED ACTIONS

Plains will continue to monitor and perform quarterly groundwater sampling activities at the site. Plains will submit a groundwater and site closure request to the NMOCD when groundwater analytical results demonstrate groundwater contaminant concentrations are below the regulatory standards for the required eight (8) consecutive quarters.

## LIMITATIONS

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

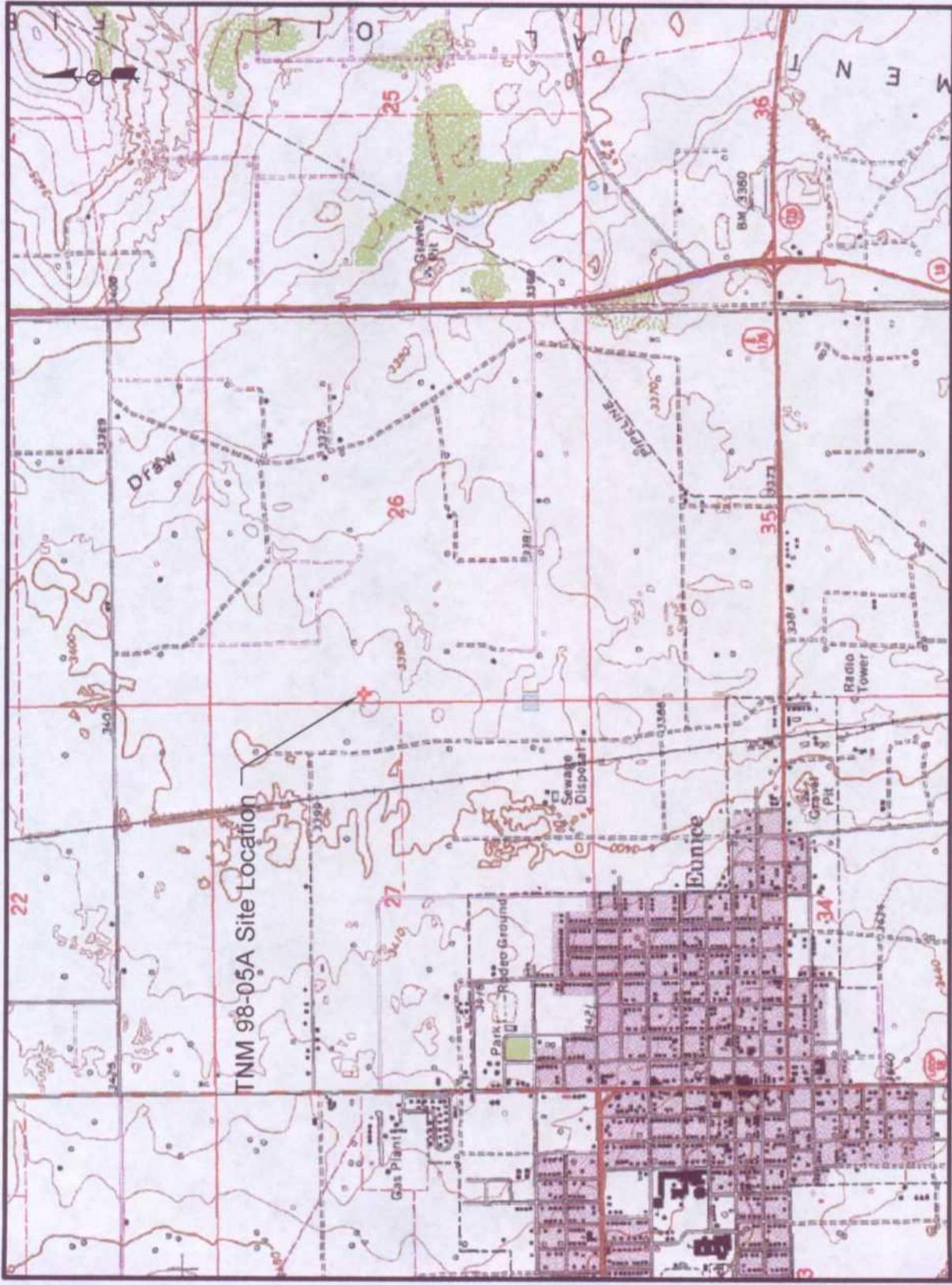
NOVA has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. NOVA has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that 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 Martin  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
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New Mexico Energy, Minerals and Natural Resources Department  
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Midland, TX 79703  
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Figures

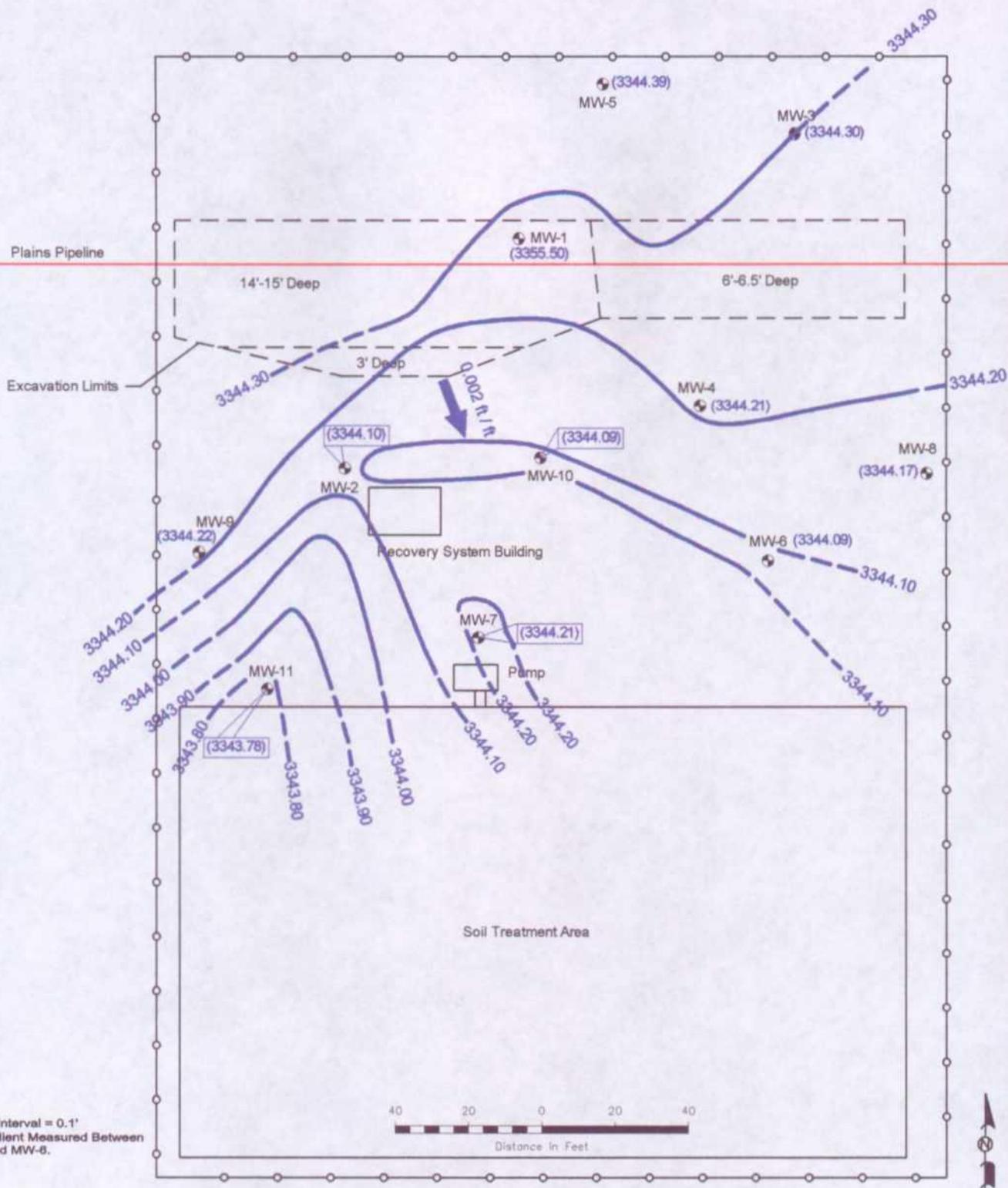


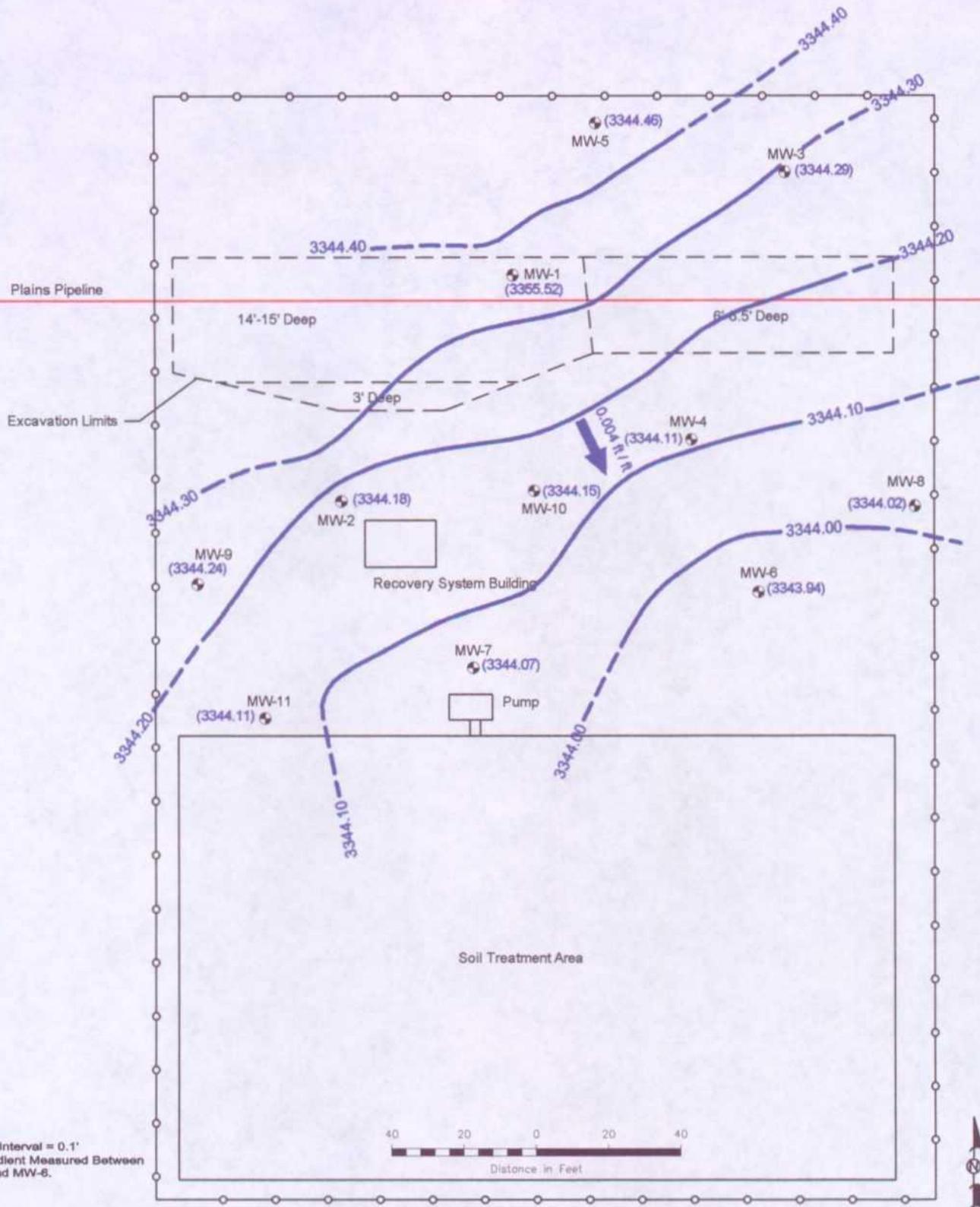
TNM 98-05A Site Location

Figure 1  
 Site Location Map  
 Plains Marketing, L.P.  
 TNM 98-05A  
 Lea County, NM

**NOVA**  
 safety and environmental

Scale: NTS  
 Prep By: CDE  
 Checked By: CE  
 February 24, 2005  
 NE1/4 NW1/4 Sec 26 T21S R37E  
 Lat: N32° 27' 03.1" Long: W102° 02' 26.2"





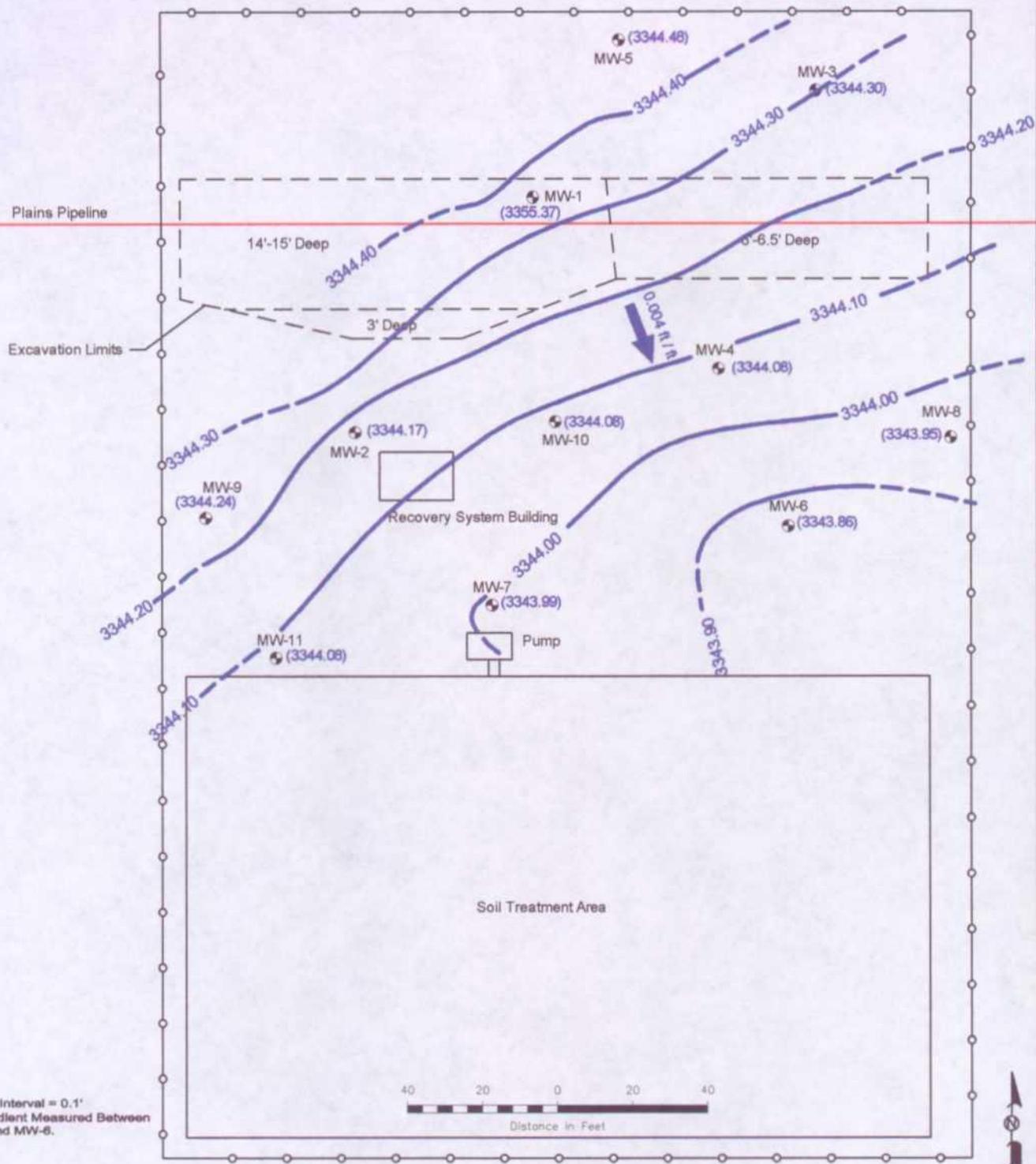
**NOTE:**  
 ● Contour Interval = 0.1'  
 ● GW Gradient Measured Between MW-5 and MW-6.

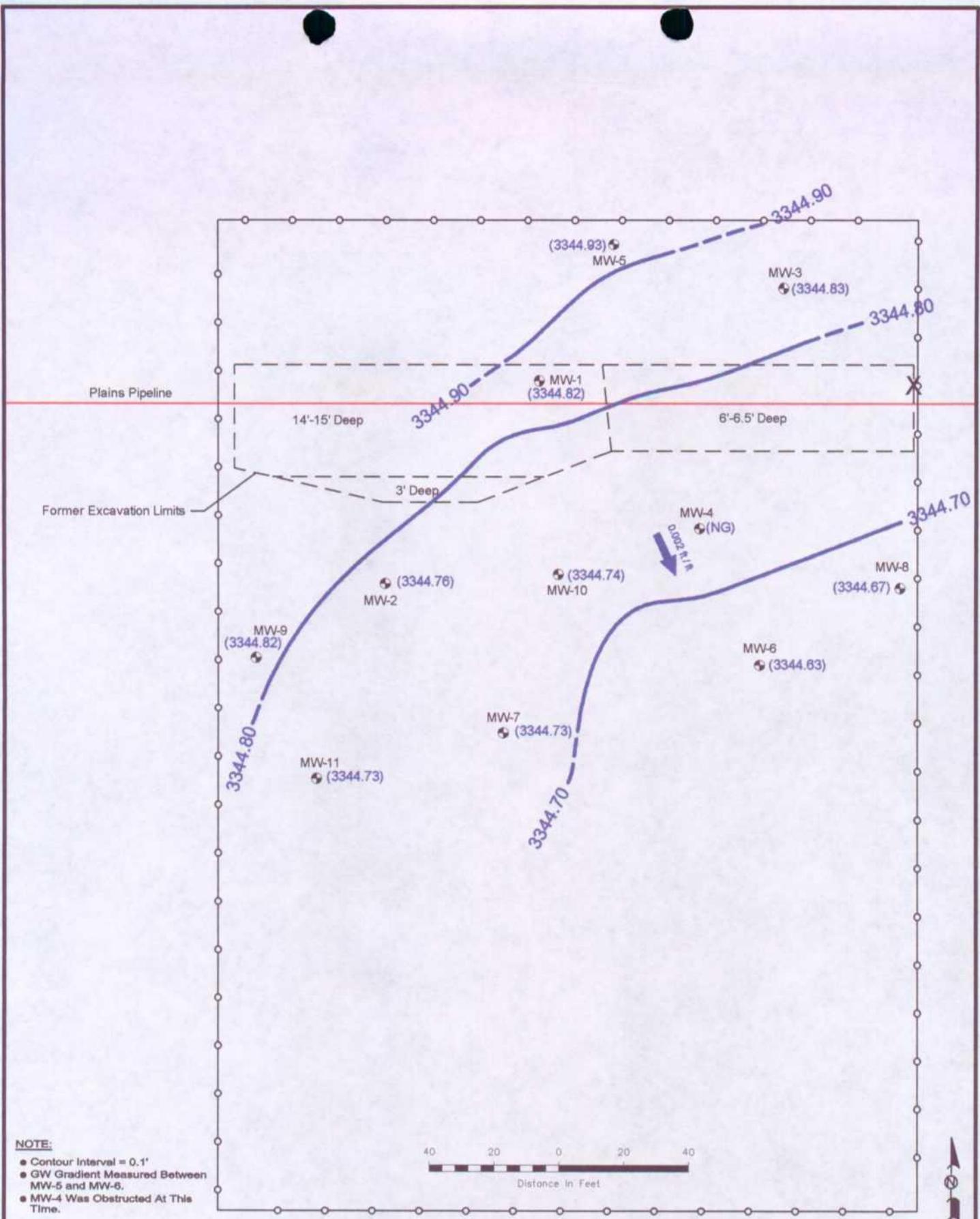
- Legend:**
- Monitor Well Location
  - Fence
  - Pipeline
  - Groundwater Gradient Contour Line
  - - - Excavation Limits
  - (3344.02) Groundwater Elevation (feet)
  - 0.004 ft/ft Groundwater Gradient Direction and Magnitude

Figure 2B  
 Inferred Groundwater  
 Gradient Map (6/7/05)  
 Plains Marketing, L.P.  
 TNM98-05A  
 Lea County, NM

NOVA Safety and Environmental

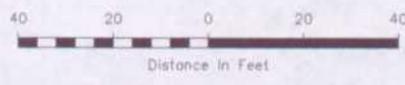
NE1/4 NW1/4 Sec 28 T21S R37E		32° 27' 03.9"N 103° 08' 26.2"W	
Scale: 1" = 40'	Prep By: DPM	Checked By: CDS	
July 6, 2005			





**NOTE:**

- Contour Interval = 0.1'
- GW Gradient Measured Between MW-5 and MW-6.
- MW-4 Was Obstructed At This Time.

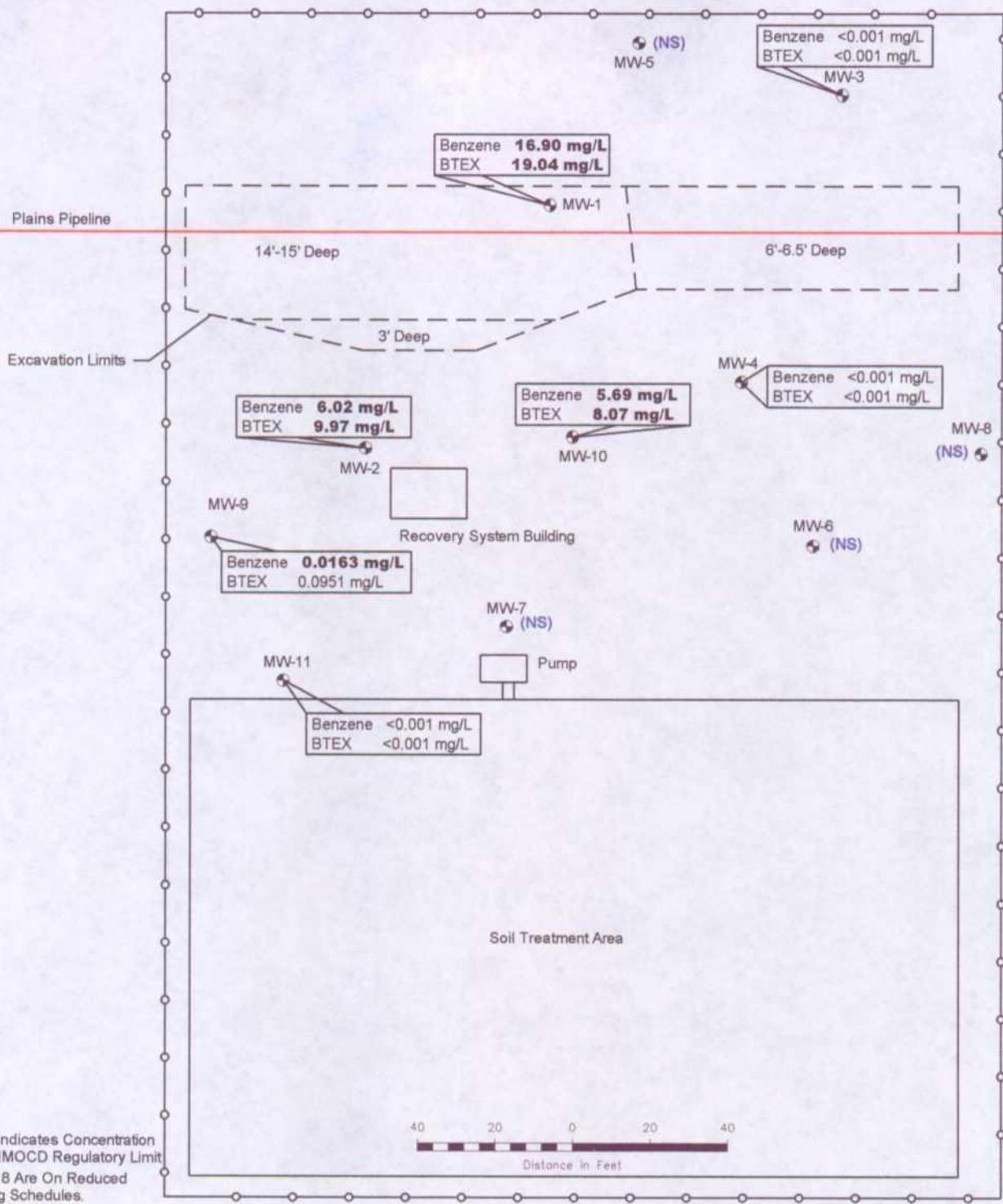


●	Monitor Well Location	(3344.82)	Groundwater Elevation (feet)
○	Fence	0.002 ft/ft	Groundwater Gradient Direction and Magnitude
—	Pipeline	(NG)	Not Gauged
---	Excavation Limits		

Figure 2D  
 Inferred Groundwater Gradient Map (12/14/05)  
 Plains Marketing, L.P.  
 TNM98-05A  
 Lea County, NM

**NOVA Safety and Environmental**

NE1/4 NW1/4 Sec 26 T21S R37E 32° 27' 03.9"N 103° 08' 29.2"W  
 Scale: 1" = 40' Prep By: DPM Checked By: CDS  
 January 03, 2006



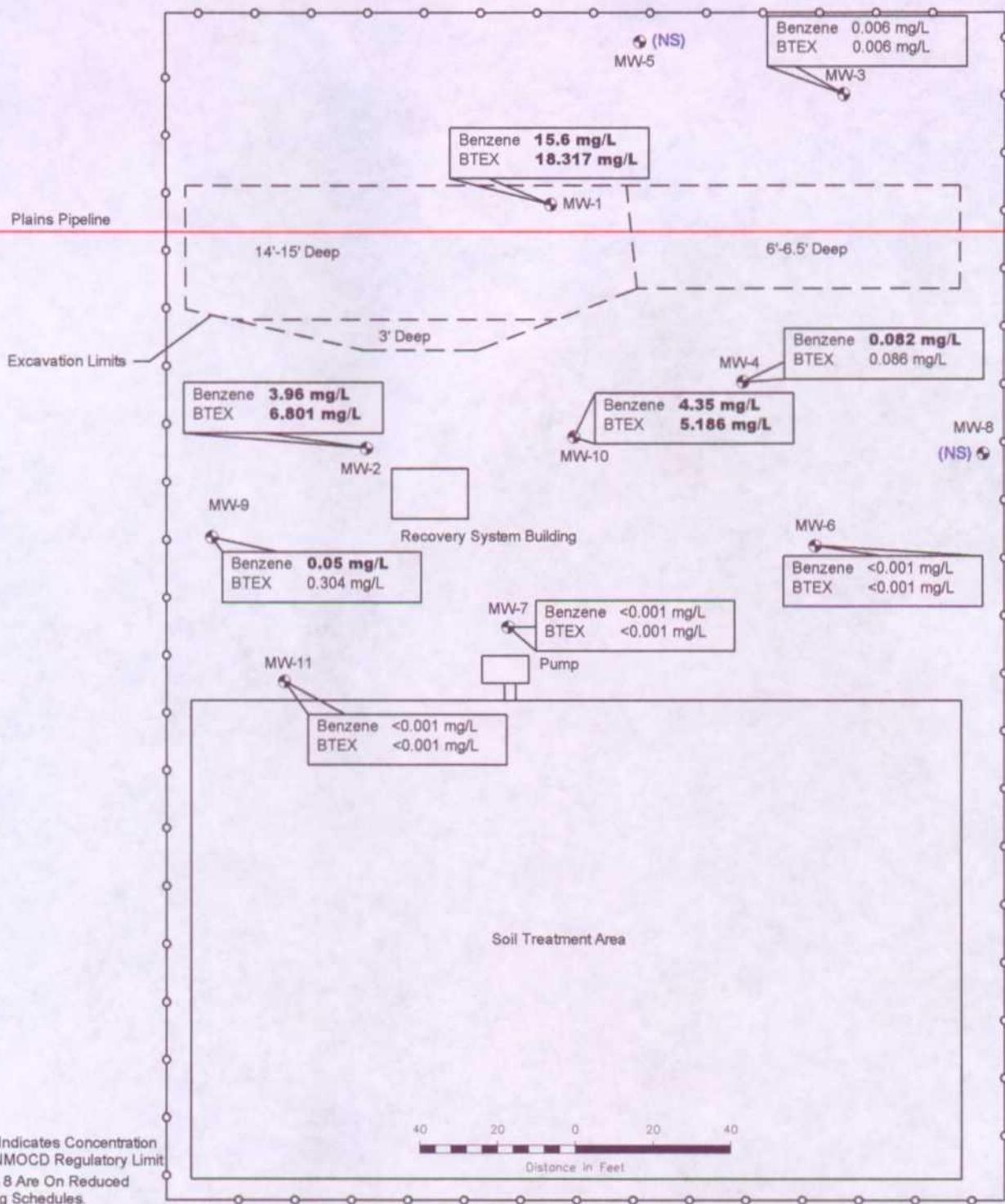
**Legend:**

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

**Figure 3A**  
Groundwater Concentration and Inferred PSH Extent Map (3/7/05)  
Plains Marketing, L.P.  
TNM98-05A  
Lea County, NM

**NOVA Safety and Environmental**

NE1/4 NW1/4 Sec 26 T215 R37E 32° 27' 03.8"N 103° 08' 29.2"W  
Scale: 1" = 40' Prep By: OPM Checked By: MRE  
May 19, 2005



**NOTE:**

- **BOLD** Indicates Concentration Above NMOCD Regulatory Limit
- MWs 5 - 8 Are On Reduced Sampling Schedules.

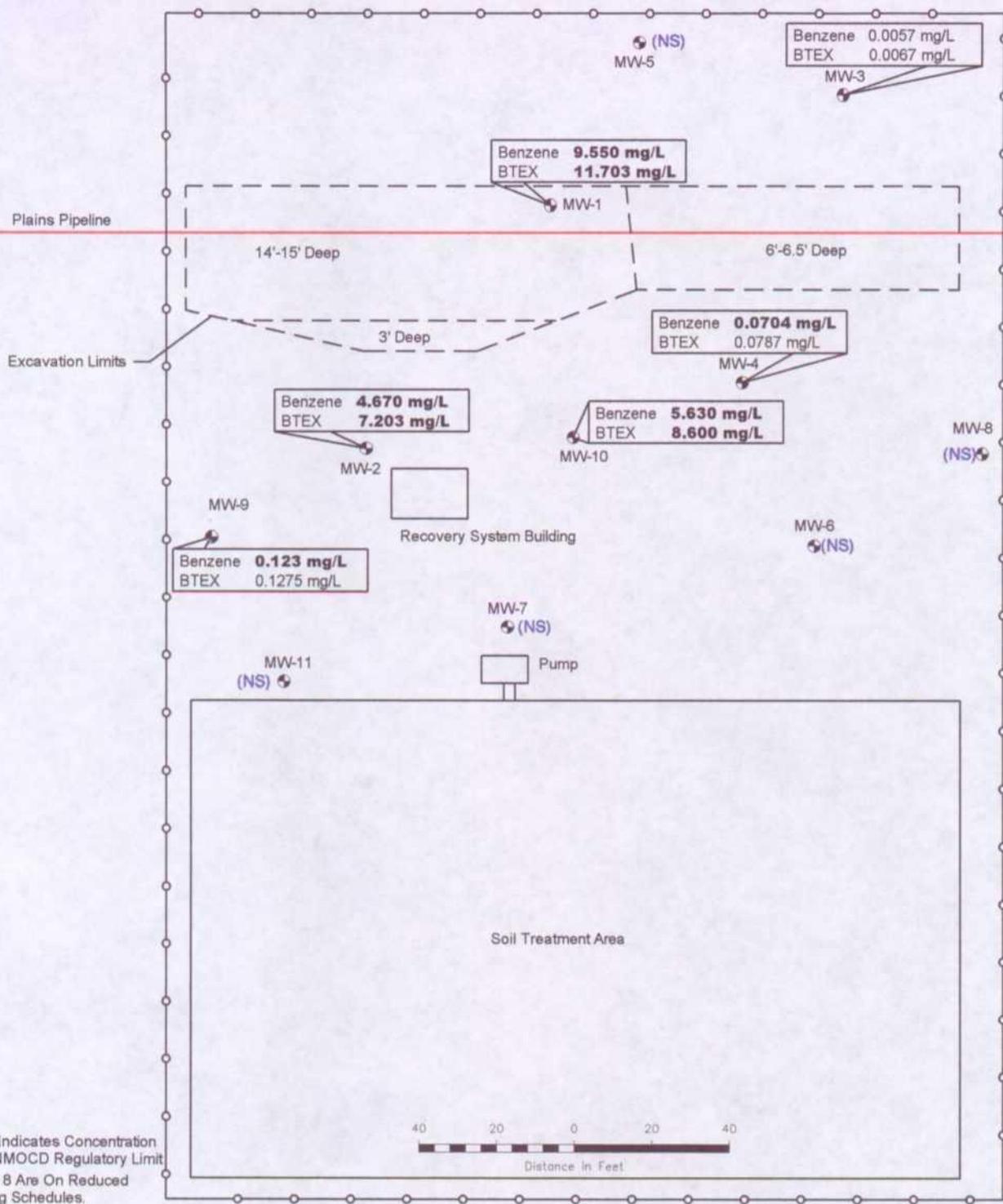
Legend:	Monitor Well Location	<0.001	Constituent Concentration (mg/L)
○	Fence	(NS)	Not Sampled
—	Pipeline		
- - -	Excavation Limits		

Figure 3B  
Groundwater Concentration  
and Inferred PSH Extent  
Map (6/7/05)  
Plains Marketing, L.P.  
TNM98-05A  
Lea County, NM

NOVA Safety and Environmental



NE1/4 NW1/4 Sec 28 T21S R37E	32° 27' 03.9"N 103° 08' 20.2"W
Scale: 1" = 40'	Prep By: DPM
Checked By: CDS	
June 20, 2005	

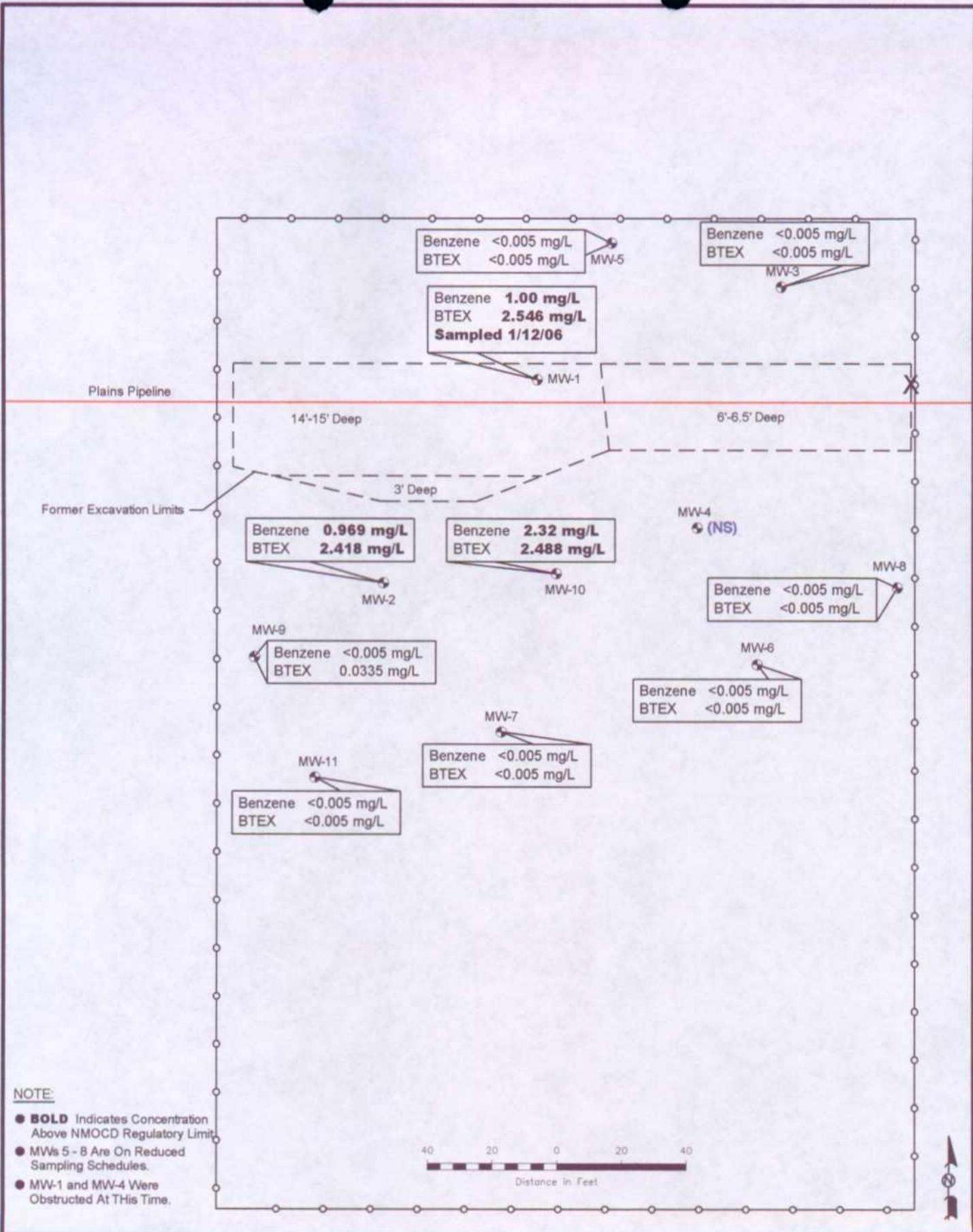


Legend:	
	Monitor Well Location
	Fence
	Pipeline
	Excavation Limits
	Inferred PSH Extents
0.123	Constituent Concentration (mg/L)
0.01'	Depth of PSH (feet)
(NS)	Not Sampled

Figure 3C  
Groundwater Concentration  
and Inferred PSH Extent  
Map (9/7/05)  
Plains Marketing, L.P.  
TNM98-05A  
Lea County, NM

**NOVA Safety and Environmental**

NE1/4 NW1/4 Sec 26 T21S R37E	32° 27' 03.9"N 103° 08' 26.2"W
Scale: 1" = 40'	Prep By: DPM
September 26, 2005	Checked By: MRE



**NOTE:**

- **BOLD** Indicates Concentration Above NMOCD Regulatory Limit.
- MWs 5 - 8 Are On Reduced Sampling Schedules.
- MW-1 and MW-4 Were Obstructed At This Time.

Legend:	Monitor Well Location	<0.001	Constituent Concentration (mg/L)
○	Fence	(NS)	Not Sampled
—	Pipeline		
- - -	Excavation Limits		

**Figure 3D**  
Groundwater Concentration and Inferred PSH Extent Map (12/14/05)  
Plains Marketing, L.P.  
TNM98-05A  
Lea County, NM

**NOVA Safety and Environmental**

NE1/4 NW1/4 Sec 26 T21S R37E 32° 27' 03.9"N 103° 06' 29.2"W

Scale: 1" = 40' Prep By: DPM Checked By: CDS

January 03, 2006

Tables

TABLE 1

## 2005 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, LP  
TNM 98-05A  
LEA COUNTY, NEW MEXICO

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW-1	01/03/05	3390.57	sheen	35.01	0.00	3,355.56
	01/10/05	3390.57	sheen	35.21	0.00	3,355.36
	01/17/05	3390.57	sheen	35.19	0.00	3,355.38
	01/24/05	3390.57	sheen	35.17	0.00	3,355.40
	01/31/05	3390.57	sheen	35.29	0.00	3,355.28
	02/07/05	3390.57	sheen	35.21	0.00	3,355.36
	02/14/05	3390.57	sheen	35.28	0.00	3,355.29
	02/21/05	3390.57	sheen	35.25	0.00	3,355.32
	02/28/05	3390.57	sheen	35.29	0.00	3,355.28
	03/07/05	3390.57	-	35.07	0.00	3,355.50
	03/07/05	3390.57	sheen	35.07	0.00	3,355.50
	03/16/05	3390.57	sheen	35.00	0.00	3,355.57
	03/21/05	3390.57	sheen	34.95	0.00	3,355.62
	03/28/05	3390.57	sheen	35.04	0.00	3,355.53
	04/04/05	3390.57	sheen	35.07	0.00	3,355.50
	04/13/05	3390.57	sheen	35.09	0.00	3,355.48
	04/18/05	3390.57	sheen	35.10	0.00	3,355.47
	05/23/05	3390.57	sheen	35.24	0.00	3,355.33
	06/07/05	3390.57	-	35.05	0.00	3,355.52
	06/21/05	3390.57	sheen	35.20	0.00	3,355.37
	07/26/05	3390.57	sheen	35.05	0.00	3,355.52
08/25/05	3390.57	sheen	35.23	0.00	3,355.34	
09/07/05	3390.57	sheen	35.20	0.00	3,355.37	
09/26/05	3390.57	sheen	35.35	0.00	3,355.22	
Monitor well riser was extended and resurveyed - note elevation change						
	11/14/05	3391.62	sheen	49.84	0.00	3,341.78
	12/14/05	3391.62	-	46.80	0.00	3,344.82
	12/28/05	3391.62	sheen	46.55	0.00	3,345.07
MW-2	01/03/05	3390.85	sheen	46.59	0.00	3,344.26
	01/10/05	3390.85	47.10	47.18	0.08	3,343.74
	01/17/05	3390.85	sheen	46.76	0.00	3,344.09
	01/24/05	3390.85	sheen	46.82	0.00	3,344.03
	01/31/05	3390.85	sheen	46.89	0.00	3,343.96
	02/07/05	3390.85	sheen	46.81	0.00	3,344.04
	02/14/05	3390.85	sheen	46.93	0.00	3,343.92
	02/21/05	3390.85	sheen	46.87	0.00	3,343.98
	02/28/05	3390.85	sheen	46.90	0.00	3,343.95
	03/07/05	3390.85	-	46.75	0.00	3,344.10
	03/07/05	3390.85	sheen	46.75	0.00	3,344.10
	03/16/05	3390.85	sheen	46.58	0.00	3,344.27
	03/21/05	3390.85	sheen	46.52	0.00	3,344.33
	03/28/05	3390.85	sheen	46.67	0.00	3,344.18
	04/04/05	3390.85	sheen	46.66	0.00	3,344.19
	04/13/05	3390.85	sheen	46.67	0.00	3,344.18
	04/18/05	3390.85	sheen	46.64	0.00	3,344.21
	05/23/05	3390.85	sheen	46.89	0.00	3,343.96
	06/07/05	3390.85	-	46.67	0.00	3,344.18
	06/21/05	3390.85	sheen	46.83	0.00	3,344.02
	07/26/05	3390.85	sheen	46.69	0.00	3,344.16
08/25/05	3390.85	sheen	46.71	0.00	3,344.14	
09/07/05	3390.85	-	46.68	0.00	3,344.17	
09/26/05	3390.85	sheen	46.78	0.00	3,344.07	
11/14/05	3390.85	sheen	46.51	0.00	3,344.34	
12/14/05	3390.85	-	46.09	0.00	3,344.76	
12/28/05	3390.85	sheen	45.81	0.00	3,345.04	
MW-3	03/07/05	3391.08	-	46.78	0.00	3,344.30
	06/07/05	3391.08	-	46.79	0.00	3,344.29
	09/07/05	3391.08	-	46.78	0.00	3,344.30
	12/14/05	3391.08	-	46.25	0.00	3,344.83
MW-4	12/20/05	3390.81	sheen	46.77	0.00	3,344.04
	12/30/04	3390.81	sheen	46.50	0.00	3,344.31
	01/03/05	3390.81	sheen	46.54	0.00	3,344.27
	01/10/05	3390.81	sheen	46.66	0.00	3,344.15
	01/17/05	3390.81	sheen	46.78	0.00	3,344.03
	01/24/05	3390.81	sheen	46.82	0.00	3,343.99
	01/31/05	3390.81	sheen	46.92	0.00	3,343.89
	02/07/05	3390.81	sheen	46.88	0.00	3,343.93

TABLE 1

## 2005 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, LP  
TNM 98-05A  
LEA COUNTY, NEW MEXICO

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW-4	02/14/05	3390.81	sheen	46.89	0.00	3,343.92
	02/21/05	3390.81	sheen	46.92	0.00	3,343.89
	02/28/05	3390.81	sheen	46.96	0.00	3,343.85
	03/07/05	3390.81	-	46.60	0.00	3,344.21
	03/07/05	3390.81	sheen	46.60	0.00	3,344.21
	03/16/05	3390.81	sheen	46.89	0.00	3,343.92
	03/21/05	3390.81	sheen	46.54	0.00	3,344.27
	03/28/05	3390.81	sheen	46.66	0.00	3,344.15
	04/04/05	3390.81	sheen	46.63	0.00	3,344.18
	04/13/05	3390.81	sheen	46.65	0.00	3,344.16
	04/18/05	3390.81	-	46.63	0.00	3,344.18
	05/23/05	3390.81	sheen	46.93	0.00	3,343.88
	06/07/05	3390.81	-	46.70	0.00	3,344.11
	06/21/05	3390.81	sheen	46.90	0.00	3,343.91
	07/26/05	3390.81	sheen	46.68	0.00	3,344.13
	08/25/05	3390.81	sheen	46.69	0.00	3,344.12
09/07/05	3390.81	sheen	46.73	0.00	3,344.08	
09/26/05	3390.81	sheen	46.88	0.00	3,343.93	
Monitor well was damaged during backfilling operations						
	11/14/05		sheen	46.49	0.00	
Monitor well was repaired and resurveyed - note change in elevation						
		3390.94	-		0.00	3,390.94
	12/14/05	3390.94	Could not Sample - obstructed			
	12/28/05	3391.94	DRY	43.40		3,348.54
MW-5	03/07/05	3391.53	-	47.14	0.00	3,344.39
	06/07/05	3391.53	-	47.07	0.00	3,344.46
	09/07/05	3391.53	-	47.05	0.00	3,344.48
	12/14/05	3391.53	-	46.60	0.00	3,344.93
MW-6	03/07/05	3391.14	-	47.05	0.00	3,344.09
	06/07/05	3391.14	-	47.20	0.00	3,343.94
	09/07/05	3391.14	-	47.28	0.00	3,343.86
	12/14/05	3391.14	-	46.51	0.00	3,344.63
MW-7	03/07/05	3391.21	-	47.00	0.00	3,344.21
	06/07/05	3391.21	-	47.14	0.00	3,344.07
	09/07/05	3391.21	-	47.22	0.00	3,343.99
	12/14/05	3391.21	-	46.48	0.00	3,344.73
MW-8	03/07/05	3391.14	-	46.97	0.00	3,344.17
	06/07/05	3391.14	-	47.12	0.00	3,344.02
	09/07/05	3391.14	-	47.19	0.00	3,343.95
	12/14/05	3391.14	-	46.47	0.00	3,344.67
MW-9	03/07/05	3391.47	-	47.25	0.00	3,344.22
	06/07/05	3391.47	sheen	47.23	0.00	3,344.24
	09/07/05	3391.47	sheen	47.23	0.00	3,344.24
	12/14/05	3391.47	-	46.65	0.00	3,344.82
MW-10	01/03/05	3391.26	sheen	46.97	0.00	3,344.29
	01/10/05	3391.26	sheen	47.17	0.00	3,344.09
	01/17/05	3391.26	sheen	47.19	0.00	3,344.07
	01/24/05	3391.26	sheen	47.22	0.00	3,344.04
	01/31/05	3391.26	sheen	47.32	0.00	3,343.94
	02/07/05	3391.26	sheen	47.26	0.00	3,344.00
	02/14/05	3391.26	sheen	47.30	0.00	3,343.96
	02/21/05	3391.26	sheen	47.31	0.00	3,343.95
	02/28/05	3391.26	sheen	47.33	0.00	3,343.93
	03/07/05	3391.26	-	47.17	0.00	3,344.09
	03/07/05	3391.26	sheen	47.17	0.00	3,344.09
	03/16/05	3391.26	sheen	47.00	0.00	3,344.26
	03/21/05	3391.26	sheen	46.94	0.00	3,344.32
	03/28/05	3391.26	sheen	47.07	0.00	3,344.19
	04/04/05	3391.26	sheen	46.10	0.00	3,345.16
	04/13/05	3391.26	sheen	46.13	0.00	3,345.13
	04/18/05	3391.26	sheen	47.02	0.00	3,344.24
	05/23/05	3391.26	sheen	47.30	0.00	3,343.96
	06/07/05	3391.26	sheen	47.11	0.00	3,344.15
	06/21/05	3391.26	sheen	47.27	0.00	3,343.99

TABLE 1

2005 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, LP  
 TNM 98-05A  
 LEA COUNTY, NEW MEXICO

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION	
MW-10	07/26/05	3391.26	sheen	47.04	0.00	3,344.22	
	08/25/05	3391.26	sheen	47.14	0.00	3,344.12	
	09/07/05	3391.26	-	47.18	0.00	3,344.08	
	09/26/05	3391.26	sheen	47.25	0.00	3,344.01	
	11/14/05	3391.26	sheen	46.95	0.00	3,344.31	
	12/14/05	3391.26	-	46.52	0.00	3,344.74	
MW-11	03/07/05	3390.73	-	46.95	0.00	3,343.78	
	06/07/05	3390.73	-	46.62	0.00	3,344.11	
	*	09/07/05	3390.73	46.65	46.66	0.01	3,344.08
		09/26/05	3390.73	sheen	46.78	0.00	3,343.95
		12/14/05	3390.73	-	46.00	0.00	3,344.73

\* Monitor well MW-11 gauging data collected on September 7, 2006 indicates a PSH thickness of 0.01 feet, this data appears to be incongruous based on prior and subsequent data and historical trends.

TABLE 2

## 2005 CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
TNM 98-05 A  
LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030			
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES
NMOCD REGULATORY LIMITS		0.01	0.75	0.75	0.62
MW-1	03/07/05	16.900	<0.1	1.500	0.644
	06/07/05	15.6	<0.2	1.91	0.807
	09/07/05	9.6	<0.2	1.60	0.553
	12/14/05	Not Sampled			
	01/12/06	1.0	0.242	0.77	0.534
MW-2	03/07/05	6.020	1.510	1.170	1.270
	06/07/05	3.96	0.371	1.34	1.13
	09/07/05	4.67	0.283	1.21	1.04
	12/14/05	0.969	0.327	0.699	0.423
MW-3	03/07/05	<0.001	<0.001	<0.001	<0.001
	06/07/05	0.0064	<0.001	<0.001	<0.001
	09/07/05	0.0057	<0.001	<0.001	0.001
	12/14/05	<0.005	<0.005	<0.005	<0.005
MW-4	03/07/05	<0.001	<0.001	<0.001	<0.001
	06/07/05	0.0821	0.0023	<0.001	0.0019
	09/07/05	0.0704	0.0045	0.001	0.0024
	12/14/05	Not Sampled - well damaged			
MW-5	03/07/05	Not Sampled Due to Sample Reduction			
	06/07/05	Not Sampled Due to Sample Reduction			
	09/07/05	Not Sampled Due to Sample Reduction			
	12/14/05	<0.005	<0.005	<0.005	<0.005
MW-6	03/07/05	Not Sampled Due to Sample Reduction			
	06/07/05	<0.001	<0.001	<0.001	<0.001
	09/07/05	Not Sampled Due to Sample Reduction			
	12/14/05	<0.005	<0.005	<0.005	<0.005
MW-7	03/07/05	Not Sampled Due to Sample Reduction			
	06/07/05	<0.001	<0.001	<0.001	<0.001
	09/07/05	Not Sampled Due to Sample Reduction			
	12/14/05	<0.005	<0.005	<0.005	<0.005

TABLE 2

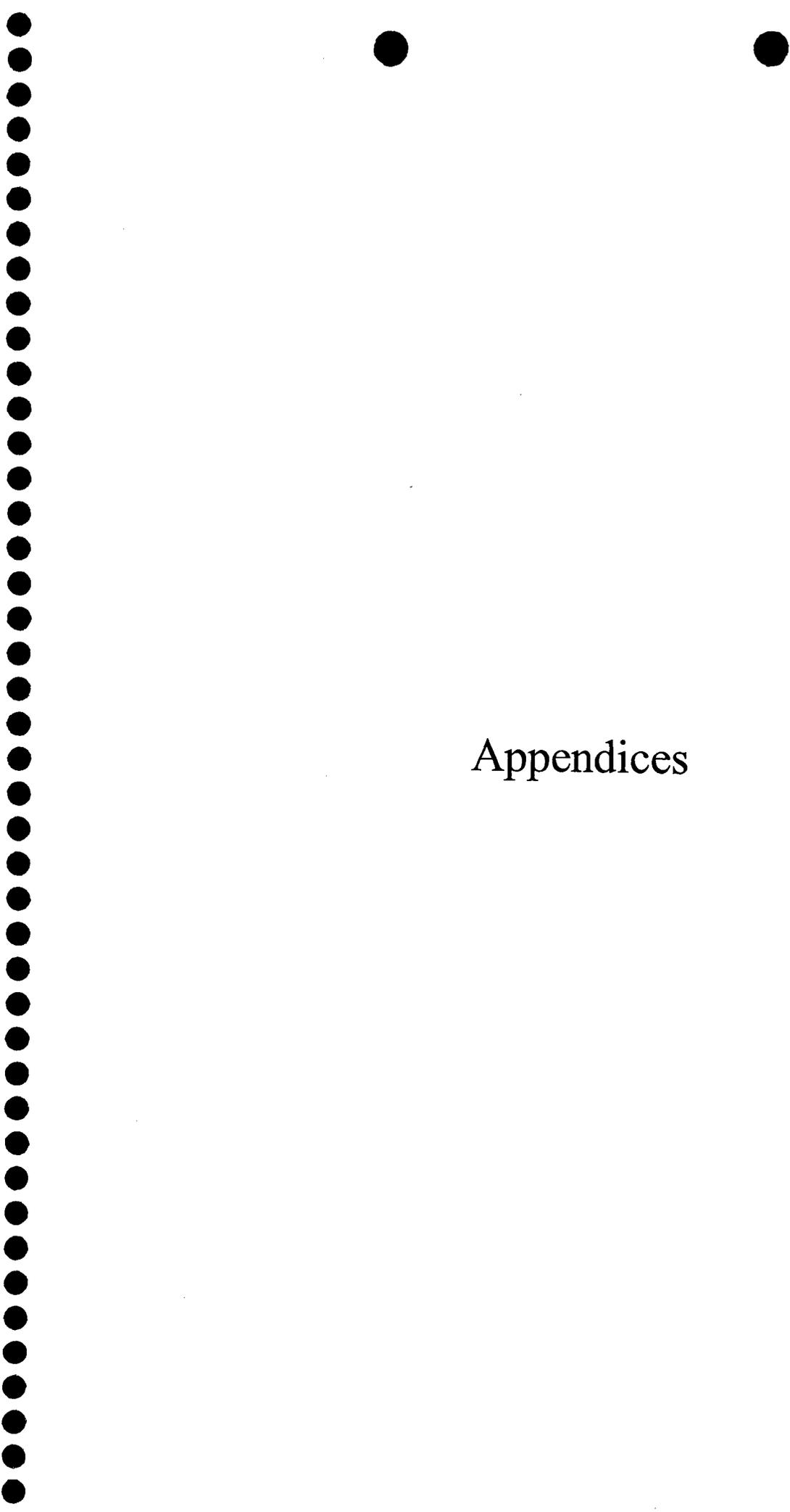
2005 CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
 TNM 98-05 A  
 LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
NMOCD REGULATORY LIMITS		0.01	0.75	0.75	0.62	
MW-8	03/07/05	Not Sampled Due to Sample Reduction				
	06/07/05	Not Sampled Due to Sample Reduction				
	09/07/05	Not Sampled Due to Sample Reduction				
	12/14/05	<0.005	<0.005	<0.005	<0.005	
MW-9	03/07/05	<b>0.016</b>	<0.005	0.024	0.055	
	06/07/05	<b>0.0499</b>	0.0183	0.0856	0.150	
	09/07/05	<b>0.0123</b>	0.0073	0.0454	0.063	
	12/14/05	<0.005	<0.005	0.0186	0.0149	
MW-10	03/07/05	<b>5.690</b>	0.491	<b>0.984</b>	<b>0.908</b>	
	06/07/05	<b>4.35</b>	0.0618	0.510	<b>0.264</b>	
	09/07/05	<b>5.63</b>	<0.2	<b>1.790</b>	<b>1.180</b>	
	12/14/05	<b>2.32</b>	<0.05	<0.05	0.168	
MW-11	03/07/05	<0.001	<0.001	<0.001	<0.001	
	06/07/05	<0.001	<0.001	<0.001	<0.001	
	09/07/05	Not Sampled				
	12/14/05	<0.005	<0.005	<0.005	<0.005	

Concentrations in bold exceed NMOCD Groundwater Cleanup Limits



# Appendices

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

District I - (505) 393-6161  
 P.O. Box 1940  
 Hobbs, NM 88241-1980  
 District II - (505) 748-1243  
 111 South First  
 Las Alamos, NM 88210  
 District III - (505) 834-6178  
 300 Rio Hondo Road  
 Las Alamos, NM 87410  
 District IV - (505) 827-7131

**State of New Mexico**  
**Energy - Minerals and Natural Resources Department**  
**Oil Conservation Division**  
 2040 South Pacheco Street  
 Santa Fe, New Mexico 87505  
 (505) 827-7131

Form C-141  
 Originated 2/13/97

98-05A

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 Texas-New Mexico Pipe Line Company		Contact Edwin H. Gripp
Address Box 60028		Telephone No. 915-947-9000
Facility Name San Angelo, TX    76906	Facility Type pipe line	
Surface Owner Nadine Owen	Mineral Owner	Lease No.

**LOCATION OF RELEASE**

Unit/Lease	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	26	21S	37E					Lea

**NATURE OF RELEASE**

Type of Release Sour Crude	Volume of Release 38 barrels	Volume Recovered 4 barrels
Source of Release 6" gathering line	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 2/5/98; 10:25 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If Yes, To Whom? Linda Williams (Clerk #4)	
By Whom? Johnny W. Chapman	Date and Hour 2/5/98; 3:00 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If Yes, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully:  
 N/A

Describe Cause of Problem and Remedial Action Taken:  
 Internal Corrosion  
 Leak successfully clamped off.

Describe Area Affected and Cleanup Action Taken:  
 Approximately 1260 sq.ft. pasture land.  
 Contaminated soil will be excavated and put on plastic.

Describe General Conditions Prevailing (Temperature, Precipitation, etc.):  
 Cloudy; 60 degrees

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>E. H. Gripp</i> Printed Name: Edwin H. Gripp Title: District Manager Date: 2/12/98    Phone: 915-947-9000	<b>OIL CONSERVATION DIVISION</b>	
Approved by District Supervisor	Approval Date	Expiration Date
Conditions of Approval:		Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary

State Oil Commission      Hazardous Waste Section



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

April 19, 2006

Ms. Camille Reynolds  
Plains Marketing, L.P.  
3112 West Highway 82  
Lovington, NM 88260

RE: 2005 Annual Monitoring Report  
Plains TNM 98-05B Site  
NE/4 NW/4 Section 26, Township 21 South, Range 37 East  
Lea County, New Mexico  
Plains EMS Number: TNM 98-05B  
NMOCD File Number: AP-0012

Dear Ms. Reynolds:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed the above report submitted on behalf of Plains Marketing, L.P. (Plains) by NOVA Safety and Environmental. This report is hereby accepted and approved with the following understandings and conditions:

Plains will continue to monitor the groundwater at the site and report the associated activities during 2006 on the 2006 Annual Monitoring Report due to be submitted to this office by April 1, 2007.

NMOCD approval does not relieve Plains of liability should its operations at this site prove to have been harmful to public health or the environment. Nor does it relieve Plains of its responsibility to comply with the rules and regulations of any other governmental agency.

If you have any questions, contact me at (505) 476-3492 or [ed.martin@state.nm.us](mailto:ed.martin@state.nm.us)

NEW MEXICO OIL CONSERVATION DIVISION

Edwin E. Martin  
Environmental Bureau

Copy: NMOCD, Hobbs  
Curt Stanley, NOVA

2005  
ANNUAL MONITORING REPORT

**TNM 98-05B**  
NE ¼ NW ¼ of SECTION 26, TOWNSHIP 21 SOUTH, RANGE 37 EAST  
LEA COUNTY, NEW MEXICO  
PLAINS EMS: TNM-98-05B-KNOWN  
NMOCD Reference AP-012

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 2006

  
Curt D. Stanley  
Project Manager

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

## TABLE OF CONTENTS

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### FIGURES

Figure 1 – Site Location Map

Figure 2A – Inferred Groundwater Gradient Map March 7, 2005

Figure 2B – Inferred Groundwater Gradient Map June 24, 2005

Figure 2C – Inferred Groundwater Gradient Map September 7, 2005

Figure 2D – Inferred Groundwater Gradient Map December 2, 2005

Figure 3A – Groundwater Concentration Map March 7, 2005

Figure 3B – Groundwater Concentration Map June 24, 2005

Figure 3C – Groundwater Concentration Map September 7, 2005

Figure 3D - Groundwater Concentration Map December 2, 2005

### TABLES

Table 1 – 2005 Groundwater Elevation Data

Table 2 – 2005 Concentrations of BTEX in Groundwater

### APPENDICES

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

**ENCLOSED ON DATA DISK**

2005 Annual Report (Text)

2005 Tables 1 and 2 (Groundwater Elevation and BTEX Concentration Data)

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

2005 Laboratory Reports

Historical Groundwater Elevation Data

Historic Groundwater Analytical Results

## **INTRODUCTION**

NOVA Safety and Environmental (NOVA) on behalf of Plains Pipeline, L.P. (Plains) has prepared this 2005 Annual Groundwater Monitoring Report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. Beginning on May 29, 2004, project management responsibilities were assumed by NOVA, having previously been managed by Environmental Technology Group, Inc. (ETGI). This report is intended to be viewed as a complete document with figures, attachments, tables, and text. The report presents the results of four quarterly groundwater monitoring/sampling events conducted at the TNM 98-05B (also known as TNM 98-05) crude oil release site (the site), located in Lea County, New Mexico. The site, formerly the responsibility of Enron Oil Trading and Transportation (EOTT) who became Link Energy, is now the responsibility of Plains. For reference, the Site Location Map is provided as Figure 1.

Groundwater monitoring was conducted during each quarter of 2005 to assess the levels and extent of dissolved phase hydrocarbons. The groundwater monitoring events consisted of measuring static water levels in the monitor wells, and purging and sampling of each well exhibiting sufficient recharge. Phase Separated Hydrocarbons (PSH) were not detected in any of the on site monitor wells, during the reporting period.

## **SITE DESCRIPTION AND BACKGROUND INFORMATION**

The site is located approximately two (2) miles northeast of the town of Eunice, New Mexico in Section 26, Township 21 South, Range 37 East (Figure 1). The release occurred on February 4, 1998 while the pipeline was operated by Texas New Mexico Pipeline Company (TNM). An estimated 49 barrels of crude oil was released from the pipeline, of which approximately three barrels were recovered during the emergency response activities. The release was attributed to external corrosion of the pipeline.

In summary, investigative and remedial activities have included a shallow soil investigation utilizing a Geo-Probe<sup>®</sup> soil boring machine, a deeper soil investigation utilizing a drilling rig, excavation of crude oil affected soils, and a groundwater investigation whereby ten (10) monitor wells were installed at the site.

In February 2005, NOVA on behalf of Plains, submitted a Site Restoration Work Plan and Proposed Soil Closure Strategy Report to the NMOCD. This report proposed field activities necessary to complete soil remediation and restore surface conditions at the TNM 98-05B site. On April 6, 2005, Plains received NMOCD approval to initiate the above referenced work plan. On May 19 and 20, 2005, Plains contractors excavated previously identified impacted soil from the sidewalls and floor of the excavation. On June 1, 2005, additional impacted soil was removed from the floor of the excavation. Analytical results from confirmation soil samples collected from the sidewalls and floor of the excavation indicated Total Petroleum Hydrocarbon (TPH) and Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations were below the NMOCD regulatory standards. On June 20-22, 2005, the excavation was backfilled with stockpiled on-site soil and the surface was contoured to fit the surrounding topography. On September 7, 2005, additional confirmation soil samples collected from the surface of the former

excavation indicated BTEX constituent concentrations and TPH were below NMOCD regulatory standards.

On July 5, 2005, monitor wells MW-6 through MW-10 were plugged and abandoned with NMOCD approval by a licensed State of New Mexico water well driller. The monitor wells were plugged as directed by the NMOCD. There are currently five (5) monitor wells (MW-1 through MW-5) on site

In September, 2005, a Soil Closure Request was submitted to the NMOCD and soil closure was approved by the NMOCD in correspondence to Plains, dated November 3, 2005.

### FIELD ACTIVITIES

During the reporting period, no PSH was encountered in any of the site monitor wells.

Quarterly monitoring events for the reporting period were performed according to the following sampling schedule, which was approved by the NMOCD in correspondence dated April 28, 2004 and amended by NMOCD correspondence dated June 21, 2005:

Sample Location	Sampling Schedule
MW-1	Quarterly
MW-2	Quarterly
MW-3	Quarterly
MW-4	Quarterly
MW-5	Quarterly
MW-6	Plugged and Abandoned (July 5, 2005)
MW-7	Plugged and Abandoned (July 5, 2005)
MW-8	Plugged and Abandoned (July 5, 2005)
MW-9	Plugged and Abandoned (July 5, 2005)
MW-10	Plugged and Abandoned (July 5, 2005)

Quarterly sampling events for the calendar year 2005 were performed on March 7, June 24, September 7 and December 2. Each quarterly sampling event consisted of gauging all wells (MW-1 through MW-10 in the first quarter and MW-1 through MW-5 in second, third and fourth quarters) and purging and sampling monitor wells as per the approved sampling schedule. During each sampling event, the monitor wells were purged of approximately three well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos Pump. Groundwater was allowed to recharge and samples were obtained using disposable Teflon samplers. Water samples were collected in clean glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed of by Key Energy of Hobbs, New Mexico, utilizing a licensed disposal facility (NMOCD AO SWD-730).

The inferred groundwater gradient, constructed from measurements collected from the monitor wells during each quarterly sampling event, is depicted on Figures 2A through 2D. Groundwater elevation contours, generated from gauging data acquired during each quarterly sampling event

of 2005, indicates a general groundwater gradient of 0.002 feet/foot to the southeast as measured between monitor wells MW-2 and MW-4. Groundwater elevation data for the calendar year 2005 is provided in Table 1. Historic groundwater elevation data beginning at project inception is provided on the enclosed data disk.

## **LABORATORY RESULTS**

Groundwater samples collected during the 2005 sampling events were delivered to Trace Analysis, Inc. of Lubbock, Texas for determination BTEX constituent concentrations by EPA Method SW846-8021b.

Analytical results of BTEX constituent analysis is summarized in Table 2. Copies of the laboratory reports generated during this reporting period are provided on the enclosed data disk. Quarterly groundwater sample results reflecting benzene and BTEX constituent concentrations and inferred PSH extent maps are depicted on Figures 3A through 3D.

Review of laboratory analytical results generated from analysis of the groundwater samples obtained during the 2005 monitoring period indicate that benzene and BTEX constituent concentrations are below NMOCD regulatory standards (New Mexico Administrative Code 20.6.2.3103) in all monitor wells with the exception of MW-1. The benzene concentration in MW-1 was above the NMOCD regulatory standard during the second and third quarterly sampling events of 2005. All wells exhibited total BTEX constituent concentrations below applicable NMOCD regulatory standards.

## **SUMMARY**

This report presents the results of annual monitoring and sampling for 2005. Monitor wells MW-6 through MW-10 were plugged and abandoned on June 5, 2005 per NMOCD approval. Currently, there are five (5) monitor wells (MW-1 through MW-5) on site. No detectable or measurable amounts of PSH were encountered during the monitoring events conducted during this reporting period.

Groundwater elevation contours, generated from water level measurements acquired during the quarterly sampling events of 2005, indicated a general gradient of 0.002 feet/foot to the southeast.

Review of laboratory analytical results generated from analysis of the groundwater samples obtained during the 2005 monitoring period indicates benzene and BTEX constituent concentrations are below NMOCD regulatory standards in monitor wells MW-2, MW-3, MW-4, MW-6, MW-7, MW-8, MW-9, and MW-10. As stated above, monitor wells MW-6 through MW-10 were plugged and abandoned with NMOCD approval on July 5, 2005. Monitor well MW-1 exhibited benzene concentrations of 0.0122 mg/L and 0.0162 mg/L on June 24, 2005 and September 7, 2005, respectively. There was no PSH measured in any of the monitor wells during the reporting period.

The dissolved phase impact appears to be decreasing, as illustrated in the fourth quarter analytical results from monitor wells MW-1, MW-2 and MW-5.

### **ANTICIPATED ACTIONS**

Monitor well gauging, sampling will continue in 2006.

Plains will submit a Site Closure Request to the NMOCD when groundwater analytical results demonstrate groundwater contaminant concentrations are below the regulatory standards for the required eight (8) consecutive events.

### **LIMITATIONS**

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

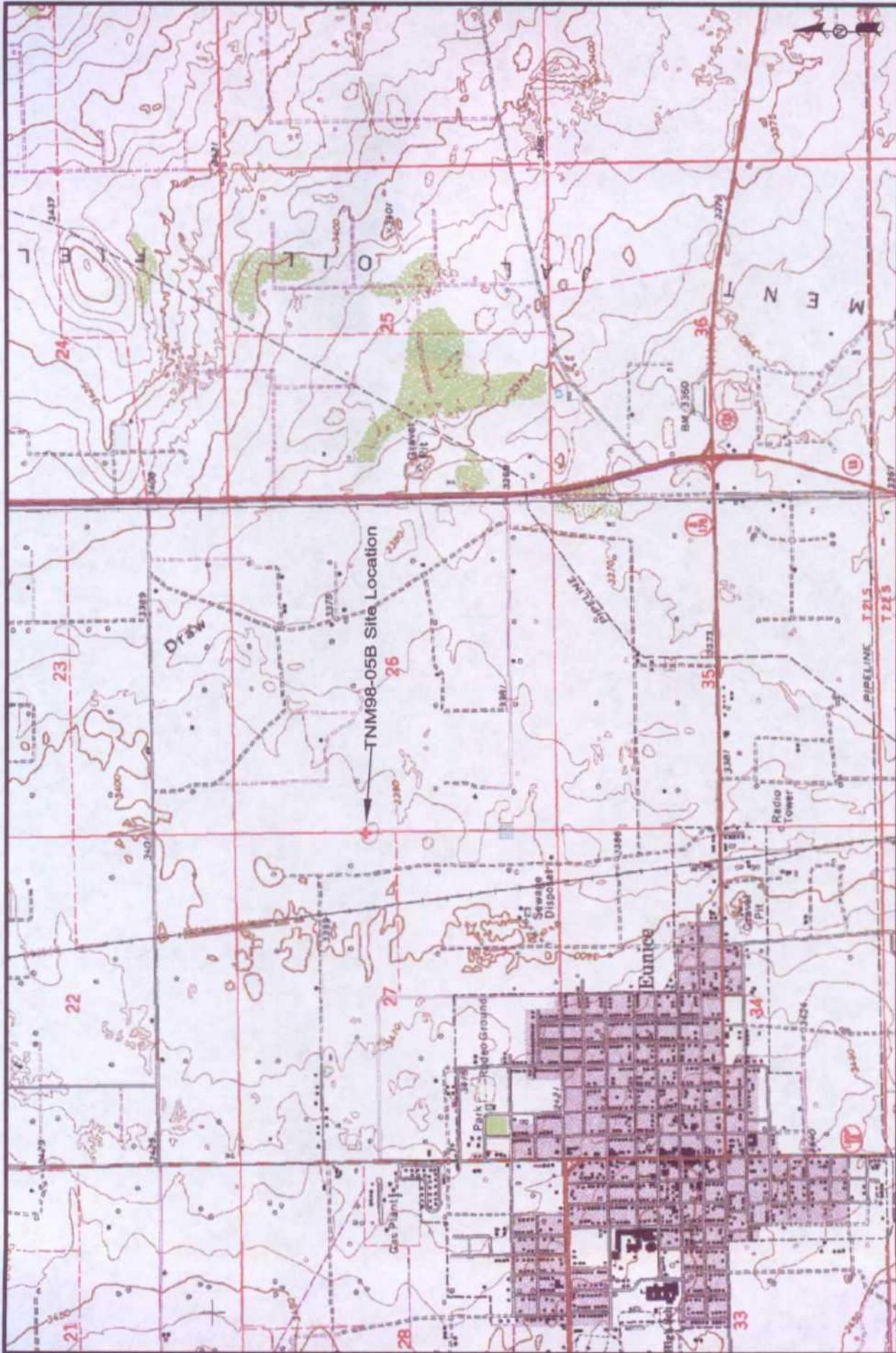
NOVA has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. NOVA has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that 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 Martin  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505
- Copy 2:      Larry Johnson and Paul Sheeley  
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



NE 1/4, NW 1/4, Sec. 26, T21S, R37E  
 32° 27' 03.6" N, 103° 08' 30.3" W

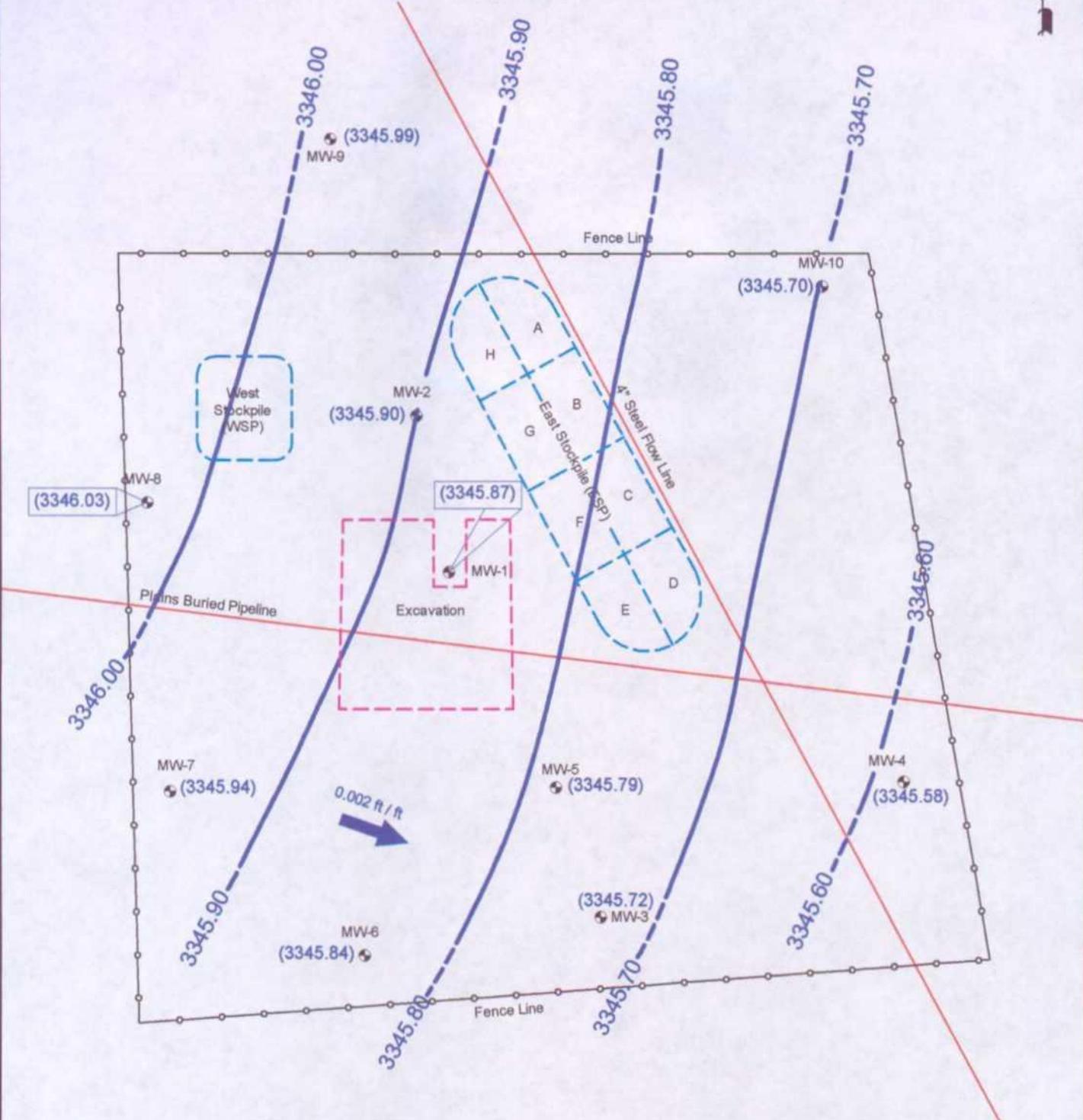
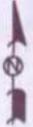
Figure 1  
 Site Location Map  
 Plains Marketing, L.P.  
 TNM98-05B  
 Lea County, NM

NOVA Safety and Environmental



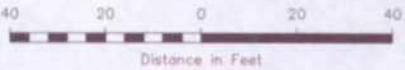
Scale: NTS  
 Prep By: CCS  
 Checked By: TMC

December 21, 2004



**NOTE:**

- Contour Interval = 0.1'
- Groundwater Gradient Measured Between MW-4 and MW-8

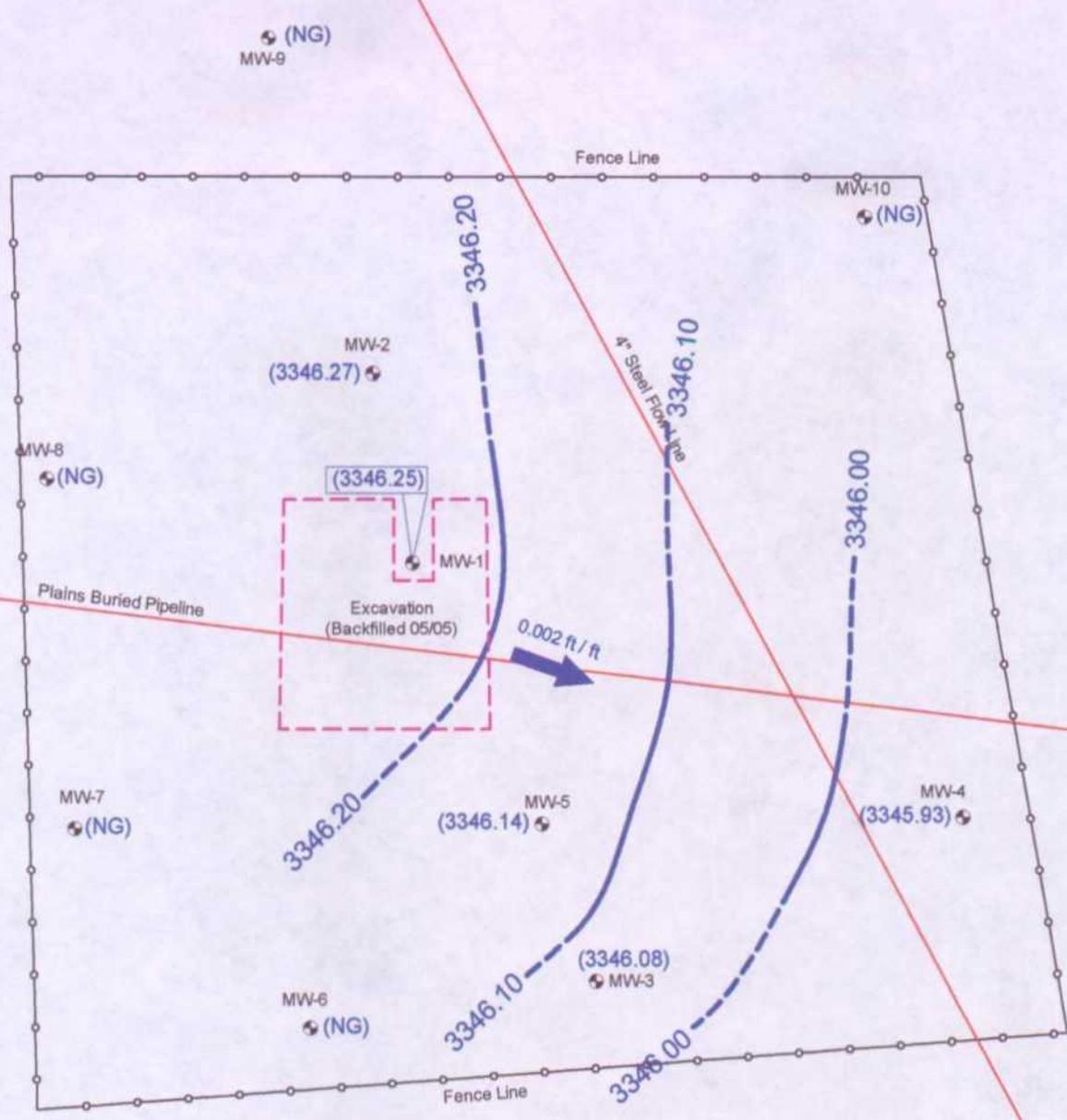
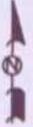


	Monitor Well Location	(3345.84)	Groundwater Elevation (feet)
	Fence	0.002 ft/ft	Groundwater Gradient Direction & Magnitude
	Pipeline		Excavation
	Groundwater Contour Line		Stockpile

Figure 2A  
 Inferred Groundwater  
 Gradient Map (3/7/05)  
 Plains Marketing, L.P.  
 TNM98-05B  
 Lea County, NM

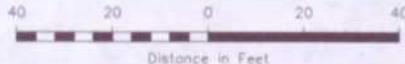
**NOVA Safety and Environmental**

Scale: 1" = 40'	Prep By: DPM	Checked By: MRE
May 17, 2005		



**NOTE:**

- Contour Interval = 0.1'
- Groundwater Gradient Measured Between MW-2 and MW-4
- Wells Which Were Not Gauged Were Approved For Plugging and Abandonment At This Time.

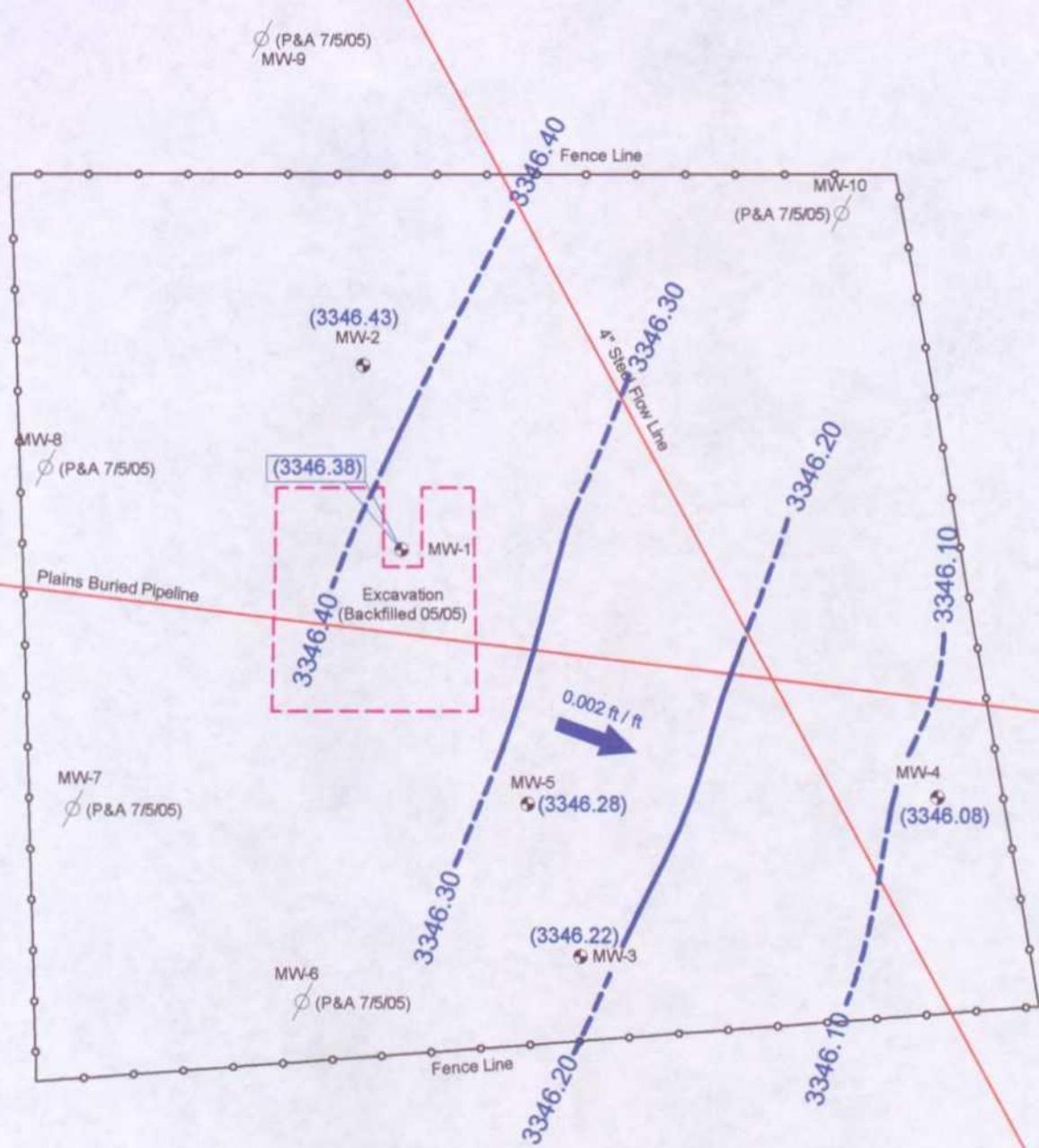


	Monitor Well Location	(3346.14)	Groundwater Elevation (feet)
	Fence	0.002 ft/r	Groundwater Gradient Direction & Magnitude
	Pipeline		Excavation
	Groundwater Contour Line	(NG)	Not Gauged

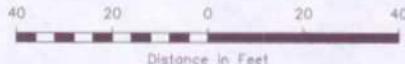
Figure 2B  
 Inferred Groundwater  
 Gradient Map (6/24/05)  
 Plains Marketing, L.P.  
 TNM98-05B  
 Lea County, NM

**NOVA Safety and Environmental**

Scale: 1" = 40'    Prep By: DPM    Checked By: CDS  
 July 6, 2005



**NOTES:**  
 • Contour Interval = 0.10'  
 • MW-6, MW-7, MW-8, MW-9, and MW-10 Were Plugged and Abandoned July 05, 2005 Per NMOCD Approval  
 • Groundwater Gradient Measured Between MW-2 and MW-4

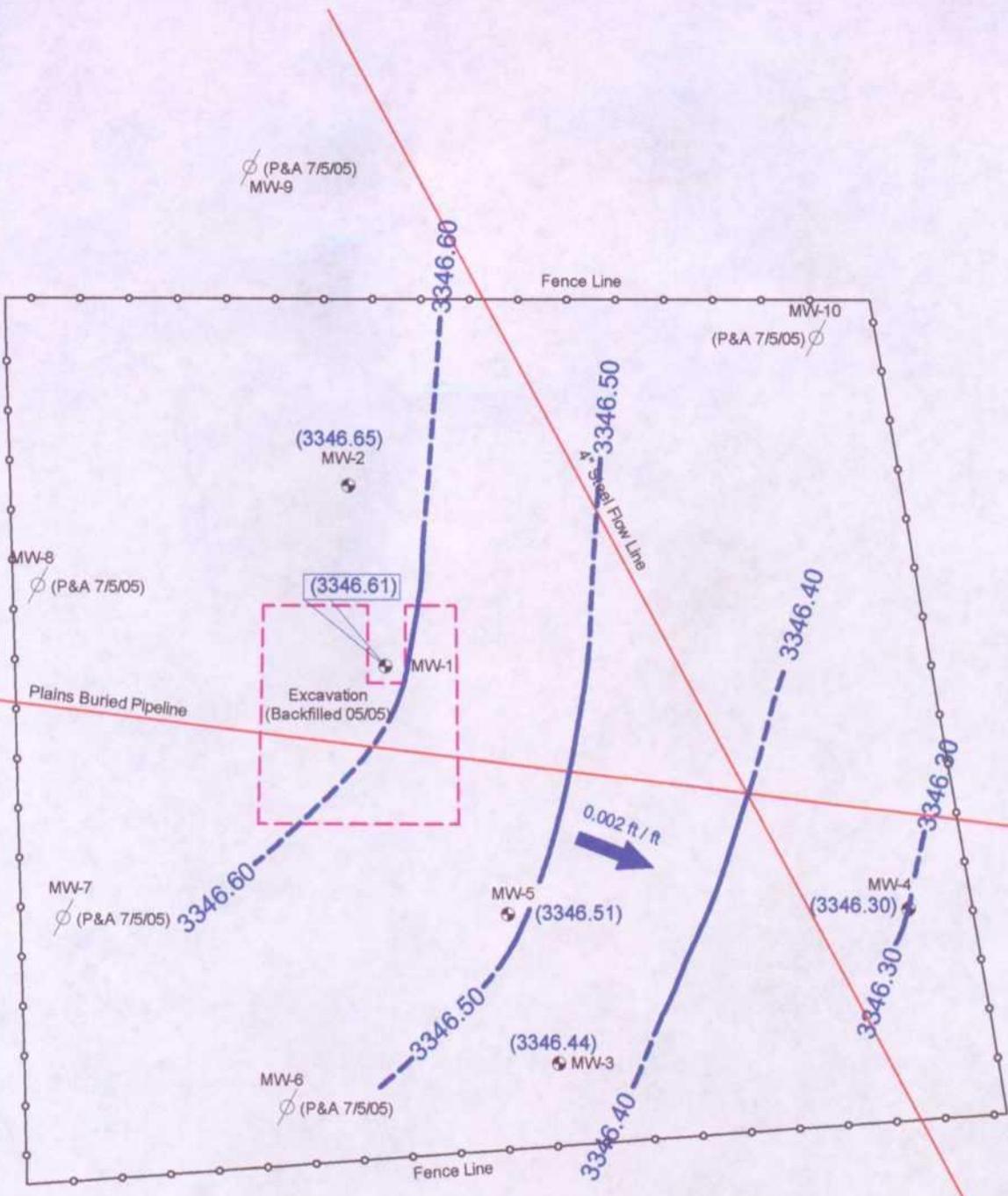


	Monitor Well Location	(3346.38)	Groundwater Elevation (feet)
	P & A Well Location	0.002 ft/R	Groundwater Gradient Direction & Magnitude
	Fence		Excavation
	Pipeline		
	Groundwater Contour Line		

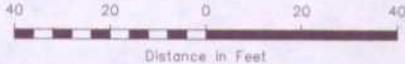
Figure 2C  
 Inferred Groundwater Gradient Map (9/7/05)  
 Plains Marketing, L.P.  
 TNM98-05B  
 Lea County, NM

NOVA Safety and Environmental

Scale: 1" = 40'	Prep By: DPM	Checked By: MRE
October 06, 2005		



**NOTES:**  
 • Contour Interval = 0.10'  
 • MW-6, MW-7, MW-8, MW-9, and MW-10 Were Plugged and Abandoned July 05, 2005 Per NMOCDD Approval  
 • Groundwater Gradient Measured Between MW-2 and MW-4

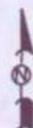


	Monitor Well Location	(3346.61)	Groundwater Elevation (feet)
	P & A Well Location	0.002 ft/R	Groundwater Gradient Direction & Magnitude
	Fence		Excavation
	Pipeline		
	Groundwater Contour Line		

Figure 2D  
 Inferred Groundwater  
 Gradient Map (12/2/05)  
 Plains Marketing, L.P.  
 TNM98-05B  
 Lea County, NM

NOVA Safety and Environmental

Scale: 1" = 40'	Prep By: DPM	Checked By: CDS
December 15, 2005		



Benzene <0.001 mg/L  
BTEX <0.001 mg/L  
MW-9

Fence Line  
MW-10  
Benzene <0.001 mg/L  
BTEX <0.001 mg/L

Benzene 0.0014 mg/L  
BTEX 0.0014 mg/L  
MW-2

MW-8  
Benzene 0.0065 mg/L  
BTEX 0.0065 mg/L

Benzene <0.001 mg/L  
BTEX <0.001 mg/L  
MW-1  
Excavation  
(Backfilled 05/05)

Plains Buried Pipeline

MW-7  
Benzene <0.001 mg/L  
BTEX <0.001 mg/L

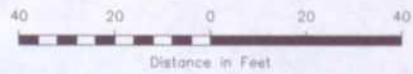
MW-5  
Benzene 0.0054 mg/L  
BTEX 0.0166 mg/L

Benzene <0.001 mg/L  
BTEX <0.001 mg/L  
MW-4

MW-6  
Benzene <0.001 mg/L  
BTEX <0.001 mg/L

MW-3  
(NS)

Fence Line

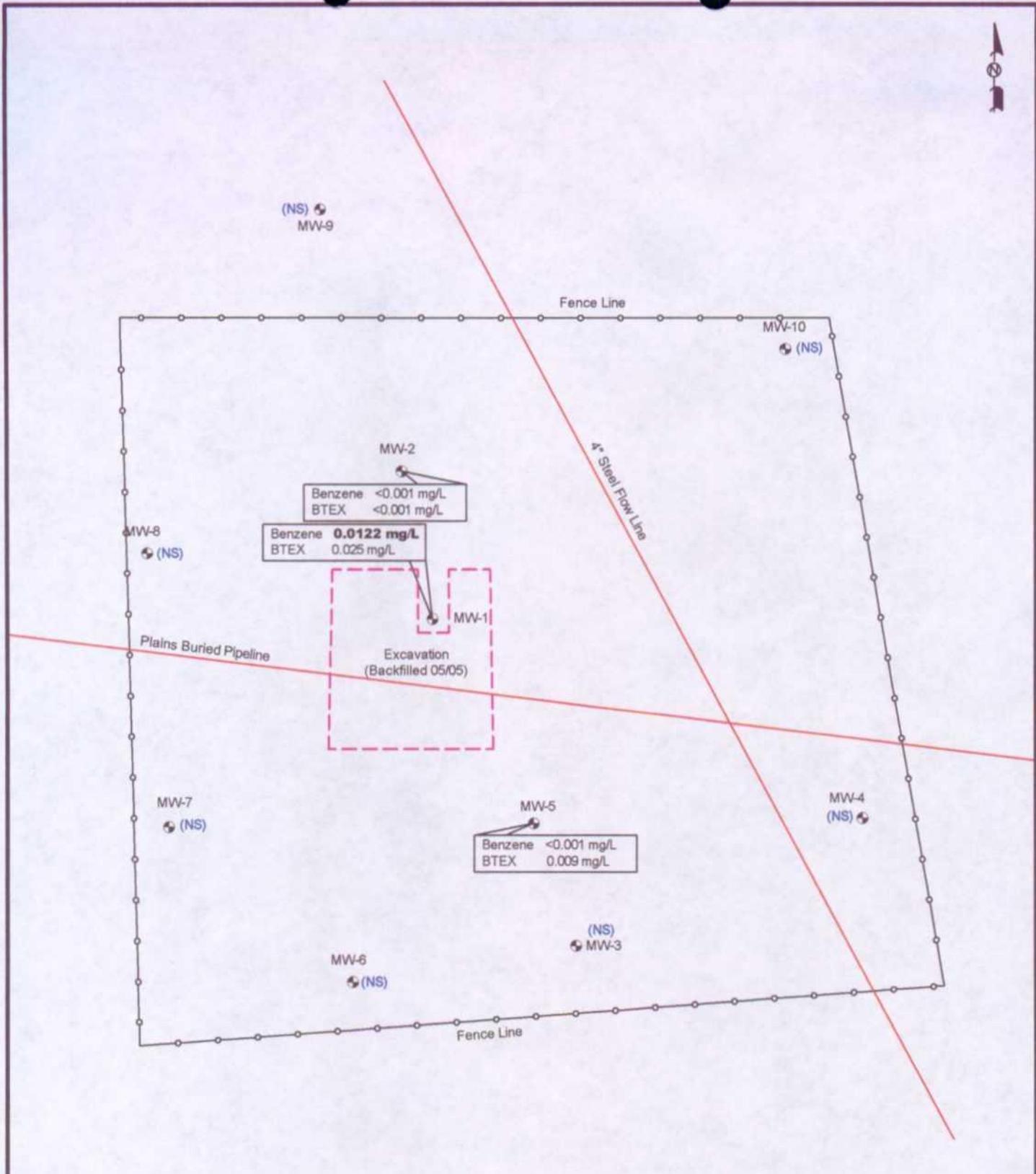


	Monitor Well Location	<0.001	Constituent Concentration (mg/L)
	Fence	Excavation	(NS) Not Sampled
	Pipeline	Stockpile	

Figure 3A  
Groundwater Concentration  
and Inferred PSH Extent  
Map (3/7/05)  
Plains Marketing, L.P.  
TNM98-05B  
Lea County, NM

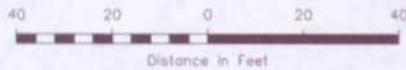
NOVA Safety and Environmental

Scale: 1" = 40'  
Prep By: DPM  
Checked By: MRE  
May 17, 2006



**NOTE**

● **BOLD** Indicates Concentration Above NMOCD Regulatory Limit



●	Monitor Well Location	<0.001	Constituent Concentration (mg/L)
○	Fence	<b>0.0122</b>	Excavation (NS) Not Sampled
—	Pipeline		

Figure 3B  
Groundwater Concentration  
and Inferred PSH Extent  
Map (6/24/05)  
Plains Marketing, L.P.  
TNM98-05B  
Lea County, NM

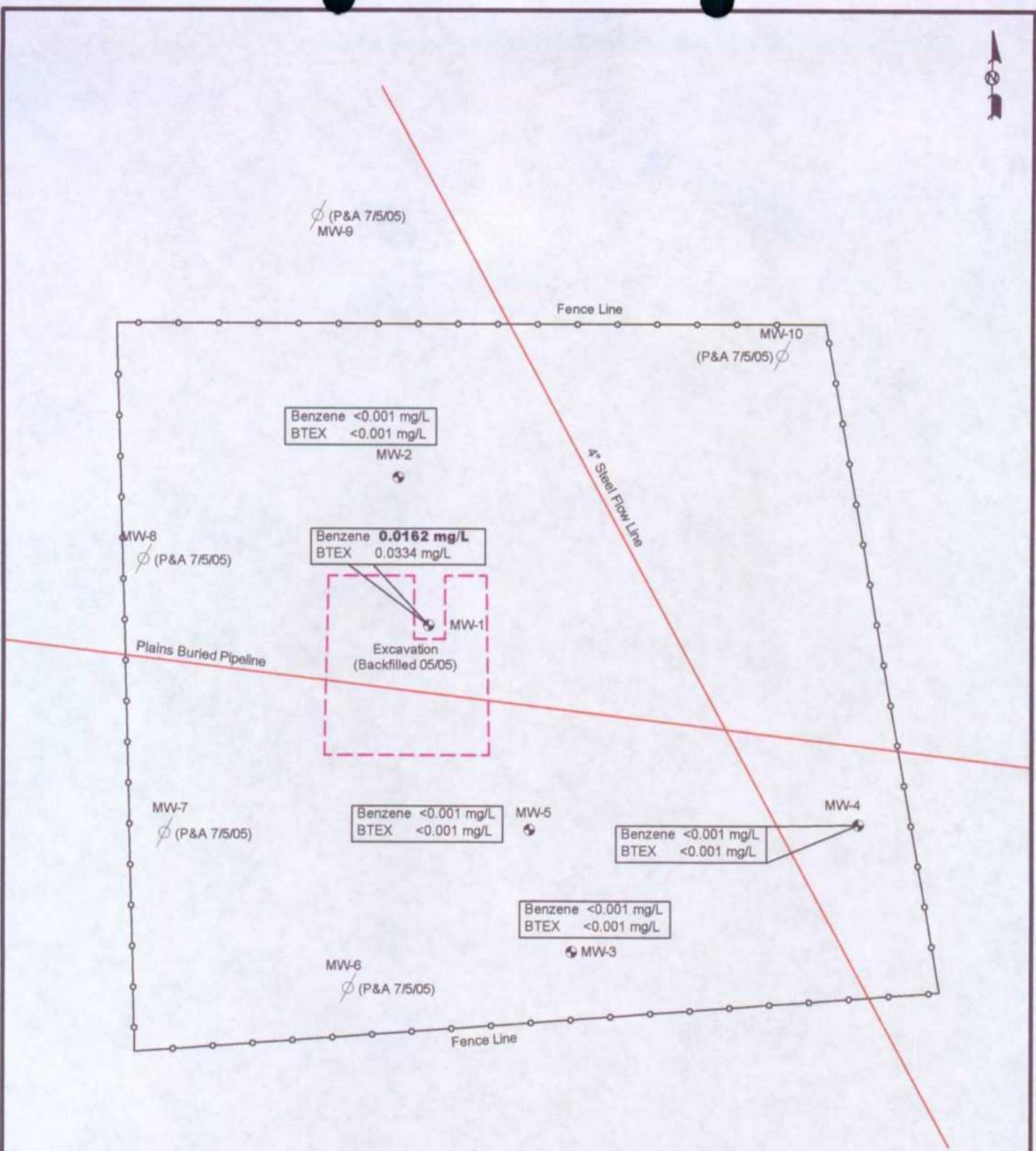
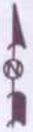
NOVA Safety and Environmental



Scale: 1" = 40'  
July 25, 2005

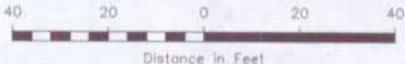
Prep By: DPM

Checked By: CDG



**NOTES:**

- MW-6, MW-7, MW-8, MW-9, and MW-10 Were Plugged and Abandoned July 2005 Per NMOCD Approval
- BOLD** Indicates Concentration Above NMOCD Limit

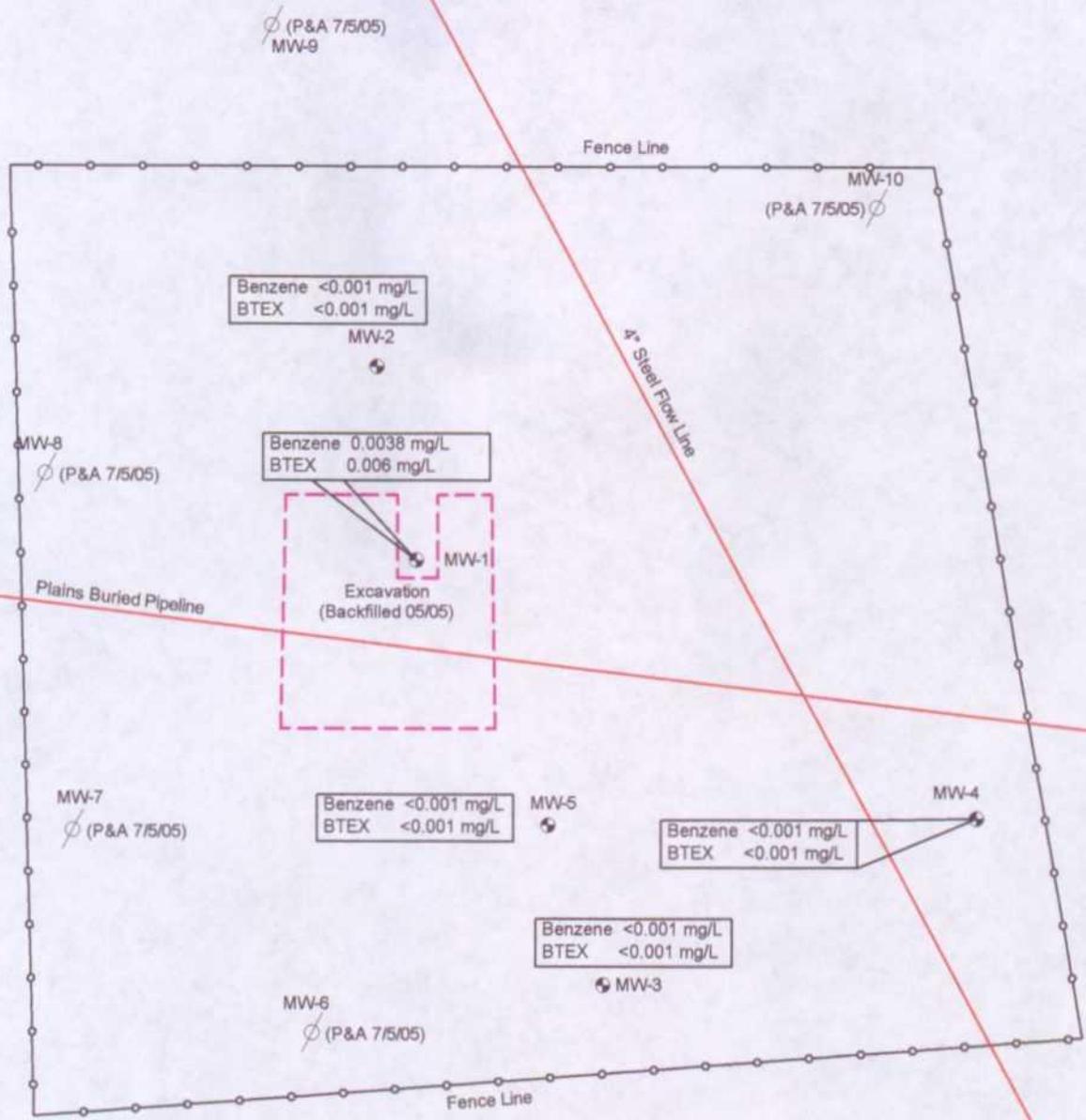
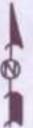


Legend:	
	Monitor Well Location
	P & A Well Location
	Fence
	Pipeline
<b>&lt;0.001</b>	Constituent Concentration (mg/L)
	Excavation

Figure 3C  
Groundwater Concentration  
and Inferred PSH Extent  
Map (9/7/05)  
Plains Marketing, L.P.  
TNM98-05B  
Lea County, NM

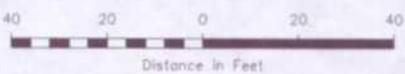
**NOVA Safety and Environmental**

Scale: 1" = 40'	Prep By: DPM	Checked By: MRE
September 29, 2005		



**NOTES:**

• MW-8, MW-7, MW-6, MW-9, and MW-10 Were Plugged and Abandoned July 2005 Per NMOCD Approval



Legend:	
	Monitor Well Location
	P & A Well Location
	Fence
	Pipeline
<0.001	Constituent Concentration (mg/L)
	Excavation

Figure 3D  
Groundwater Concentration  
and Inferred PSH Extent  
Map (12/2/05)  
Plains Marketing, L.P.  
TNM98-05B  
Lea County, NM

NOVA Safety and Environmental



Scale: 1" = 40'	Prep By: DPM	CDS
December 16, 2005		

Tables

TABLE 1

2005 GROUNDWATER ELEVATION DATA

Plains Marketing, LP  
 TNM 98-05B  
 LEA COUNTY, NEW MEXICO

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	GROUND WATER ELEVATION
MW-1	03/07/05	3393.95	-	48.08	0.00	3345.87
	06/24/05	3393.95	-	47.70	0.00	3346.25
	09/07/05	3393.95	-	47.57	0.00	3346.38
	12/02/05	3393.95	-	47.34	0.00	3346.61
MW-2	03/07/05	3394.75	-	48.85	0.00	3345.90
	06/24/05	3394.75	-	48.48	0.00	3346.27
	09/07/05	3394.75	-	48.32	0.00	3346.43
	12/02/05	3394.75	-	48.10	0.00	3346.65
MW-3	03/07/05	3393.58	-	47.86	0.00	3345.72
	06/24/05	3393.58	-	47.50	0.00	3346.08
	09/07/05	3393.58	-	47.36	0.00	3346.22
	12/02/05	3393.58	-	47.14	0.00	3346.44
MW-4	03/07/05	3394.98	-	49.40	0.00	3345.58
	06/24/05	3394.98	-	49.05	0.00	3345.93
	09/07/05	3394.98	-	48.90	0.00	3346.08
	12/02/05	3394.98	-	48.68	0.00	3346.30
MW-5	03/07/05	3393.47	-	47.68	0.00	3345.79
	06/24/05	3393.47	-	47.33	0.00	3346.14
	09/07/05	3393.47	-	47.19	0.00	3346.28
	12/02/05	3393.47	-	46.96	0.00	3346.51
MW-6	03/07/05	3393.41	-	47.57	0.00	3345.84
	07/05/05	Plugged and Abandoned				
MW-7	03/07/05	3392.96	-	47.02	0.00	3345.94
	07/05/05	Plugged and Abandoned				
MW-8	07/05/05	Plugged and Abandoned				
MW-9	03/07/05	3396.20	-	58.21	0.00	3337.99
	07/05/05	Plugged and Abandoned				
MW-10	03/07/05	3396.23	-	50.53	0.00	3345.70
	07/05/05	Plugged and Abandoned				

Elevations based on the North American Vertical Datum of 1929.

TABLE 2

## 2005 CONCENTRATIONS OF BTEX IN GROUNDWATER

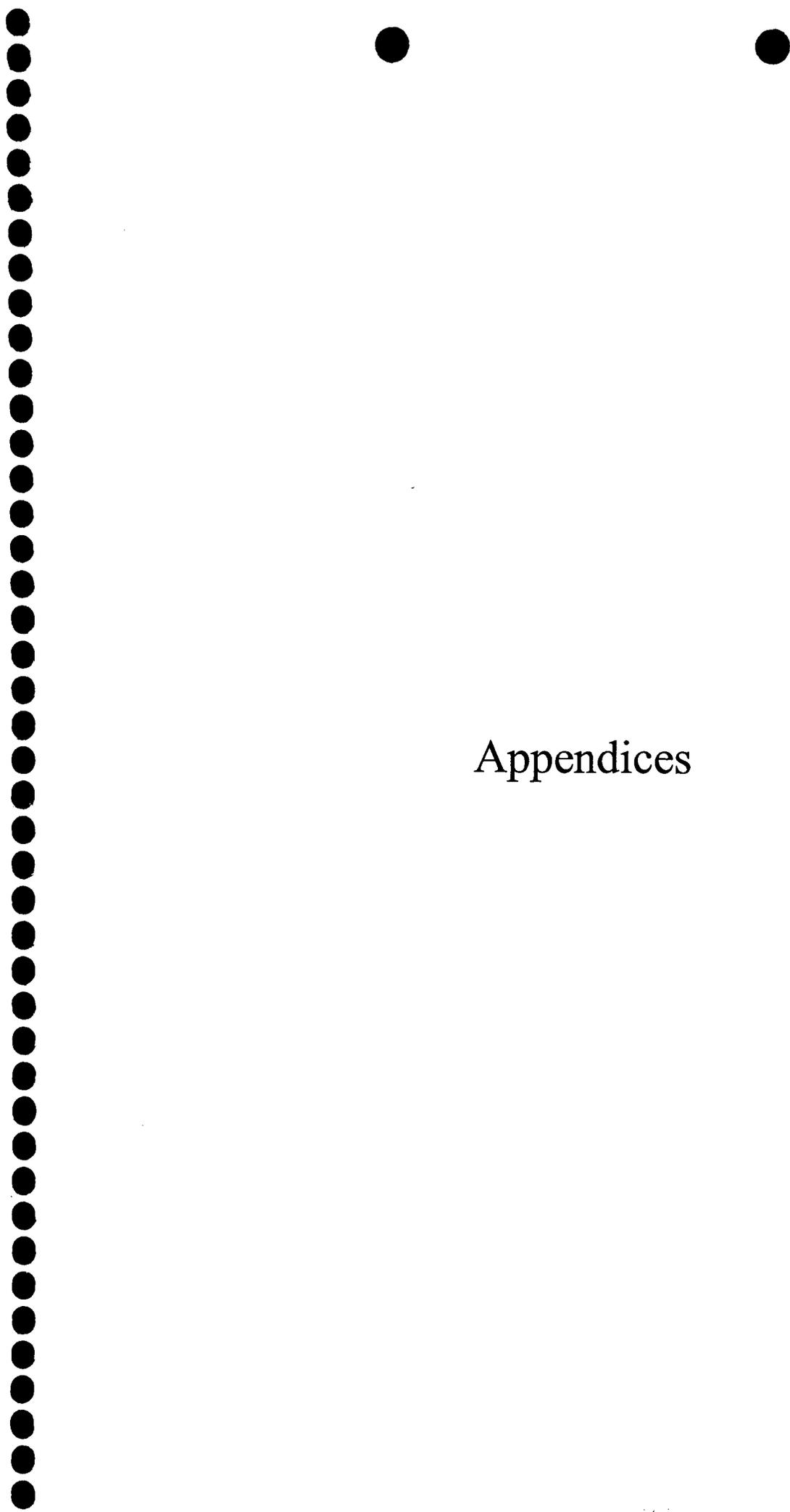
PLAINS MARKETING, L.P.  
TNM 98-05B  
LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
New Mexico Regulatory Standard		0.01 mg/L	0.75 mg/L	0.75 mg/L	Total Xylenes 0.62 mg/L	
MW-1	03/07/05	<0.001	<0.001	<0.001	<0.001	
	06/24/05	0.0122	<0.001	0.002	0.011	
	09/07/05	0.0162	<0.001	0.003	0.015	
	12/02/05	0.0038	<0.001	<0.001	0.002	
MW-2	03/07/05	0.0014	<0.001	<0.001	<0.001	
	06/24/05	<0.001	<0.001	<0.001	<0.001	
	09/07/05	<0.001	<0.001	<0.001	<0.001	
	12/02/05	<0.001	<0.001	<0.001	<0.001	
MW-3	03/07/05	Not Sampled Due to Sample Reduction				
	06/24/05	Not Sampled Due to Sample Reduction				
	09/07/05	<0.001	<0.001	<0.001	<0.001	
	12/02/05	<0.001	<0.001	<0.001	<0.001	
MW-4	03/07/05	<0.001	<0.001	<0.001	<0.001	
	06/24/05	Not Sampled Due to Sample Reduction				
	09/07/05	<0.001	<0.001	<0.001	<0.001	
	12/02/05	<0.001	<0.001	<0.001	<0.001	
MW-5	03/07/05	0.0054	<0.001	<0.001	0.011	
	06/24/05	<0.001	<0.001	<0.001	0.009	
	09/07/05	<0.001	<0.001	<0.001	<0.001	
	12/02/05	<0.001	<0.001	<0.001	<0.001	
MW-6	03/07/05	<0.001	<0.001	<0.001	<0.001	
	06/24/05	Not Sampled Due to Sample Reduction				
	07/05/05	Plugged and Abandoned				
MW-7	03/07/05	<0.001	<0.001	<0.001	<0.001	
	06/24/05	Not Sampled Due to Sample Reduction				
	07/05/05	Plugged and Abandoned				
MW-8	03/07/05	0.0065	<0.001	<0.001	<0.001	
	06/24/05	Not Sampled Due to Sample Reduction				
	07/05/05	Plugged and Abandoned				
MW-9	03/07/05	<0.001	<0.001	<0.001	<0.001	
	06/24/05	Not Sampled Due to Sample Reduction				
	07/05/05	Plugged and Abandoned				
MW-10	03/07/05	<0.001	<0.001	<0.001	<0.001	
	06/24/05	Not Sampled Due to Sample Reduction				
	07/05/05	Plugged and Abandoned				

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

Note: EB denotes equipment blank collected during sampling event.



# Appendices

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

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1501 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
20 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 TNM 98-05B	Facility Type 6" Steel Pipeline
Surface Owner Delrose Scott	Mineral Owner
Lease No.	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	26	21S	37E					Lea

Latitude 32° 27' 03.8" Longitude 103° 08' 30.3"

**NATURE OF RELEASE**

Type of Release Crude Oil	Volume of Release 49 barrels	Volume Recovered 3 barrels
Source of Release 6" Steel Pipeline	Date and Hour of Occurrence 02-05-1998	Date and Hour of Discovery 02-05-1998
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Linda Williams	
By Whom? Johnny Chapman	Date and Hour 02-05-1998 @15:00	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

Was a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* External corrosion of 6 inch pipeline.

Describe Area Affected and Cleanup Action Taken.\* Aerial extent of surface impact was approximately 100 x 30 feet.  
**NOTE: This information was obtained from historical EOTT/Link files, Plains acquired EOTT/Link on April 1, 2004 and Plains assumes this information to be correct. The release occurred during the time the pipeline was owned and operated by Texas-New Mexico Pipeline Company.**

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.

**OIL CONSERVATION DIVISION**

Signature:	Approved by District Supervisor:		
Printed Name: Camille Reynolds	Approval Date:	Expiration Date:	
Title: Remediation Coordinator	Conditions of Approval:		
Email Address: cgreynolds@paalp.com			Attached <input type="checkbox"/>
Date: 02/03/2005	Phone: 505-441-0965		

Attach Additional Sheets If Necessary

**Martin, Ed, EMNRD**

To: Camille J Reynolds  
Subject: RE: TNM 98-05A release site monitor wells

This activity is approved. Monitor well MW-4 may be plugged and abandoned.

Ed Martin  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 S. St. Francis  
Santa Fe, NM 87505  
Phone: 505-476-3492  
Fax: 505-476-3462  
email: ed.martin@state.nm.us

AP-12

-----Original Message-----  
From: Camille J Reynolds [mailto:cjreynolds@paalp.com]  
Sent: Monday, January 09, 2006 12:11 PM  
To: Martin, Ed, EMNRD  
Subject: TNM 98-05A release site monitor wells

Ed:

This e-mail is in reference to our phone conversation this morning regarding the groundwater monitoring wells located at the TNM 98-05A release site located in Sec.26, T21S, R37E in Lea County, NM. As per our discussion monitor well MW-4 was damaged during recent soil remediation activities and can no longer be utilized for groundwater monitoring due to the fact there is no water in the well. The PVC was apparently broken when the monitor well was struck. As indicated by the attached site map there are 2 monitor wells down gradient from MW-4. As shown on the groundwater chemistry table both of these monitor wells (MW-6 and MW-8) are below NMOCD guidelines for concentrations of BTEX. At this time Plains would like to request permission to plug and abandon MW-4.

Monitor well MW-1 is the release point monitor at this location. During backfilling activities this monitor well was extended from approximately 15 feet bgs to grade (see site map). The PVC of this monitor well was somehow bent during backfilling. Despite our best efforts we have been unable to bail the well with a regular size bailer. I have asked Nova (oversight for the site) to try using a smaller bailer to collect a groundwater sample since it was not sampled during the last quarterly sampling event. I will let you know the outcome of the sampling event. Please contact me with any questions or concerns, and as always thanks for your time and consideration.

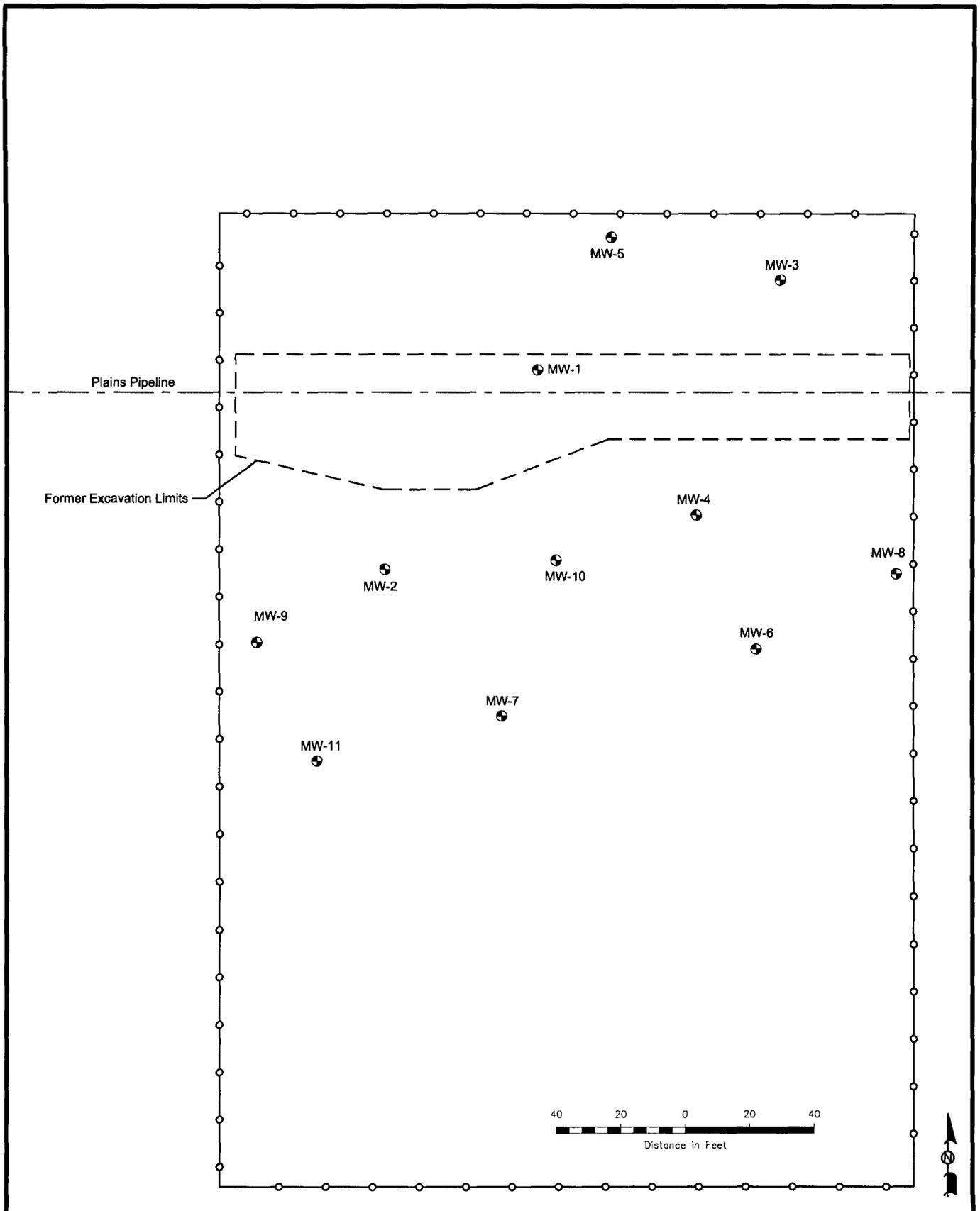
Sincerely,  
Camille

<<98-05A site map analyticals.pdf>>

#####  
Attention:  
The information contained in this message and/or attachments is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. If you received this in error, please contact the Plains Service Desk at 713-646-4444 and delete the material from any system and destroy any copies.

This footnote also confirms that this email message has been scanned for Viruses and Content and cleared.

#####



**Legend:**

	Monitor Well Location		Former Excavation Limits
	Fence		Confirmation Sample Location
	Pipeline		

Figure 3  
 Site Map  
 After Backfilling Activities  
 Plains Marketing, L.P.  
 TNM98-05A  
 Lea County, NM

**NOVA Safety and Environmental**

**NOVA**  
 safety and environmental

NE1/4 NW1/4 Sec 26 T21S R37E	32° 27' 03.9"N 103° 08' 29.2"W
Scale: 1" = 40'	Prep By: DPM
March 15, 2005	Checked By: CDS

TABLE 2

## CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
TNM 98-05 A  
LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030			
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES o - XYLENE
NMOCD Groundwater		0.01	0.75	0.75	0.62
MW-1	02/09/04	4.090	0.020	1.470	0.547
	05/04/04	5.470	0.058	1.540	0.353
	12/04/04	16.200	0.590	1.500	1.560
	03/07/05	16.900	<0.1	1.500	0.644
	06/07/05	15.6	<0.2	1.91	0.807
	09/07/05	9.6	<0.2	1.60	0.553
MW-2	05/04/04	7.280	0.525	0.884	0.553
	03/07/05	6.020	1.510	1.170	1.270
	06/07/05	3.96	0.371	1.34	1.13
	09/07/05	4.67	0.283	1.21	1.04
MW - 3	03/09/00	0.015	0.012	0.002	0.002
	05/11/00	0.056	0.048	0.006	0.004
	09/12/00	0.056	0.048	0.006	0.005
	12/14/00	0.013	0.014	0.002	0.002
	03/21/01	0.073	0.074	0.011	0.009
	05/30/01	0.069	<0.005	<0.005	<0.005
	09/25/01	0.008	0.007	0.001	0.001
	11/17/01	0.002	0.003	<0.001	0.001
	02/20/02	0.022	0.025	0.004	0.003
	05/20/02	0.040	0.041	0.008	0.006
	09/24/02	0.040	0.030	0.007	0.005
	11/13/02	0.045	0.042	0.006	0.005
	02/06/03	0.004	0.007	0.002	0.001
	05/08/03	0.005	0.008	0.002	0.001
	08/19/03	0.005	0.004	<0.001	<0.001
	11/07/03	<0.001	<0.001	<0.001	<0.002
	02/09/04	0.007	0.009	0.002	<0.002
05/04/04	0.002	0.001	<0.001	<0.002	
08/23/04	<0.001	0.001	<0.001	<0.002	
12/04/04	<0.001	0.001	<0.001	<0.001	
03/07/05	<0.001	<0.001	<0.001	<0.001	
06/07/05	0.0064	<0.001	<0.001	<0.001	
09/07/05	0.0057	<0.001	<0.001	0.001	

TABLE 2

## CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
TNM 98-05 A  
LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030			
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES o - XYLENE
NMOCD Groundwater		0.01	0.75	0.75	0.62
MW - 4	03/09/00	0.152	0.066	0.019	0.012
	05/11/00	0.285	0.110	0.032	0.014
	09/12/00	0.269	0.068	0.026	0.006
	12/14/00	0.246	0.021	0.009	0.008
	03/21/01	0.189	0.086	0.020	0.011
	05/30/01	0.107	<0.005	0.019	<0.005
	09/25/01	0.463	0.028	0.009	0.010
	11/17/01	0.335	0.020	0.007	0.007
	02/20/02	1.090	0.046	0.011	0.008
	05/20/02	0.919	0.041	0.008	0.016
	09/24/02	0.117	0.020	0.003	0.003
	11/13/02	0.082	0.073	0.010	0.011
	02/06/03	0.002	0.004	<0.001	0.001
	05/08/03	0.016	0.002	<0.001	<0.001
	08/19/03	0.031	0.002	<0.001	<0.001
	11/07/03	0.004	<0.001	<0.001	0.003
	02/09/04	0.370	0.003	0.005	0.004
	05/04/04	0.013	<0.001	<0.001	<0.002
	08/23/04	<0.001	<0.001	<0.001	<0.002
	12/04/04	0.006	<0.001	<0.001	<0.001
	03/07/05	<0.001	<0.001	<0.001	<0.001
	06/07/05	0.0821	0.0023	<0.001	0.0019
	09/07/05	0.0704	0.0045	0.001	0.0024
MW - 5	03/09/00	0.001	0.001	<0.001	0.001
	05/11/00	<0.001	<0.001	<0.001	<0.001
	09/12/00	<0.001	<0.001	<0.001	<0.001
	12/14/00	<0.001	<0.001	<0.001	<0.001
	03/21/01	<0.001	<0.001	<0.001	<0.001
	05/30/01	<0.005	<0.005	<0.005	<0.005
	09/25/01	<0.001	<0.001	<0.001	<0.001
	11/17/01	<0.001	<0.001	<0.001	<0.001
	02/20/02	<0.001	<0.001	<0.001	<0.001
	05/20/02	<0.001	<0.001	<0.001	<0.001
	09/24/02	0.003	<0.001	<0.001	<0.001
	11/13/02	0.002	0.001	<0.001	<0.001
	02/06/03	<0.001	<0.001	<0.001	<0.001

TABLE 2

CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
TNM 98-05 A  
LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030			
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES o - XYLENE
NMOCD Groundwater		0.01	0.75	0.75	0.62
	05/08/03	<0.001	<0.001	<0.001	<0.001
	08/19/03	<0.001	<0.001	<0.001	<0.001
	11/07/03	<0.001	<0.001	<0.001	<0.002
	02/09/04	<0.001	<0.001	<0.001	<0.002
	12/04/04	<0.001	<0.001	<0.001	<0.001
	06/07/05	Not Sampled due to sample reduction			
<b>MW - 6</b>					
	03/09/00	<0.001	<0.001	<0.001	<0.001
	05/11/00	<0.001	<0.001	<0.001	<0.001
	09/12/00	<0.001	<0.001	<0.001	<0.001
	12/14/00	<0.001	<0.001	<0.001	<0.001
	03/21/01	<0.001	<0.001	<0.001	<0.001
	05/30/01	<0.005	<0.005	<0.005	<0.005
	09/25/01	<0.001	<0.001	<0.001	<0.001
	11/17/01	<0.001	<0.001	<0.001	<0.001
	02/20/02	0.001	<0.001	<0.001	<0.001
	05/20/02	<0.001	<0.001	<0.001	<0.001
	09/24/02	<0.001	<0.001	<0.001	<0.001
	11/13/02	<0.001	<0.001	<0.001	<0.001
	02/06/03	<0.001	<0.001	<0.001	<0.001
	05/08/03	<0.001	<0.001	<0.001	<0.001
	08/19/03	<0.001	<0.001	<0.001	<0.001
	11/07/03	<0.001	<0.001	<0.001	<0.002
	02/09/04	<0.001	<0.001	<0.001	<0.002
	12/04/04	<0.001	<0.001	<0.001	<0.001
	06/07/05	<0.001	<0.001	<0.001	<0.001
<b>MW - 7</b>					
	03/09/00	<0.001	<0.001	<0.001	<0.001
	05/11/00	<0.001	<0.001	<0.001	<0.001
	09/12/00	<0.001	<0.001	<0.001	<0.001
	12/14/00	<0.001	<0.001	<0.001	<0.001
	03/21/01	<0.001	<0.001	<0.001	<0.001
	05/30/01	<0.005	<0.005	<0.005	<0.005
	09/25/01	<0.001	<0.001	<0.001	<0.001
	11/17/01	<0.001	<0.001	<0.001	<0.001
	02/20/02	<0.001	<0.001	<0.001	<0.001
	05/20/02	<0.001	<0.001	<0.001	<0.001

TABLE 2

CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
 TNM 98-05 A  
 LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
<b>NMOCD Groundwater</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>	
	09/24/02	<0.001	<0.001	<0.001	<0.001	
	11/13/02	<0.001	<0.001	<0.001	<0.001	
	02/06/03	<0.001	<0.001	<0.001	<0.001	
	05/08/03	<0.001	<0.001	<0.001	<0.001	
	08/19/03	<0.001	<0.001	<0.001	<0.001	
	11/07/03	<0.001	<0.001	<0.001	<0.002	
	02/09/04	<0.001	<0.001	<0.001	<0.002	
	12/04/04	<0.001	<0.001	<0.001	<0.001	
	06/07/05	<0.001	<0.001	<0.001	<0.001	
<b>MW - 8</b>						
	03/09/00	0.001	<0.001	0.001	<0.001	
	05/11/00	<0.001	<0.001	<0.001	<0.001	
	09/12/00	<0.001	<0.001	<0.001	<0.001	
	12/14/00	<0.001	<0.001	<0.001	<0.001	
	03/21/01	<0.001	<0.001	<0.001	<0.001	
	05/30/01	<0.005	<0.005	<0.005	<0.005	
	09/25/01	0.001	<0.001	<0.001	<0.001	
	11/17/01	<0.001	<0.001	<0.001	<0.001	
	02/20/02	0.005	<0.001	0.002	<0.001	
	05/20/02	<0.001	<0.001	<0.001	<0.001	
	09/24/02	<0.001	<0.001	<0.001	<0.001	
	11/13/02	0.002	<0.001	<0.001	<0.001	
	02/06/03	<0.001	<0.001	<0.001	<0.001	
	05/08/03	<0.001	<0.001	<0.001	<0.001	
	08/19/03	<0.001	<0.001	<0.001	<0.001	
	11/07/03	<0.001	<0.001	<0.001	<0.002	
	02/09/04	<0.001	<0.001	<0.001	<0.002	
	12/04/04	<0.001	<0.001	<0.001	<0.001	
	06/07/05	Not Sampled due to sample reduction				
<b>MW - 9</b>						
	03/09/00	<b>0.029</b>	0.009	0.028	0.021	
	05/11/00	<b>0.056</b>	0.034	0.008	0.009	
	09/12/00	<b>0.232</b>	0.031	0.006	0.004	
	12/14/00	<b>0.030</b>	0.015	0.003	0.002	
	03/21/01	<b>0.158</b>	0.081	0.016	0.012	
	05/30/01	<b>0.532</b>	<0.005	<0.005	<0.005	
	09/25/01	<b>0.490</b>	0.212	0.161	0.029	

TABLE 2

CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
 TNM 98-05 A  
 LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030			
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES o - XYLENE
NMOCD Groundwater		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>
	11/17/01	<b>0.014</b>	0.047	0.025	0.008
	02/20/02	<b>0.158</b>	0.042	0.046	0.011
	05/08/03	<b>0.446</b>	0.188	0.369	0.392
	08/19/03	<b>0.060</b>	0.005	0.043	0.069
	11/07/03	<b>0.076</b>	0.001	0.003	0.008
	02/09/04	<b>0.015</b>	0.013	0.009	0.020
	05/04/04	<b>0.303</b>	0.011	0.057	0.039
	08/23/04	<b>0.049</b>	<0.001	0.006	<0.002
	12/04/04	<b>0.005</b>	<0.001	0.002	0.003
	03/07/05	<b>0.016</b>	<0.005	0.024	0.055
	06/07/05	<b>0.0499</b>	0.0183	0.0856	0.150
	09/07/05	<b>0.0123</b>	0.0073	0.0454	0.063
MW-10	05/04/04	<b>4.230</b>	0.199	<b>0.888</b>	<b>0.779</b>
	03/07/05	<b>5.690</b>	0.491	<b>0.984</b>	<b>0.908</b>
	06/07/05	<b>4.35</b>	0.0618	0.510	<b>0.264</b>
	09/07/05	<b>5.63</b>	<0.2	<b>1.790</b>	<b>1.180</b>
MW-11	12/10/04	<0.001	<0.001	<0.001	<0.001
	03/07/05	<0.001	<0.001	<0.001	<0.001
	06/07/05	<0.001	<0.001	<0.001	<0.001
EB - 1	09/21/00	<0.001	<0.001	<0.001	<0.001
	12/14/00	<0.001	<0.001	<0.001	<0.001
	03/21/01	<0.001	<0.001	<0.001	<0.001
	05/30/01	<0.005	<0.005	<0.005	<0.005
	11/17/01	<0.001	<0.001	<0.001	<0.001
	02/20/02	<0.001	<0.001	<0.001	<0.001
	05/20/02	<0.001	<0.001	<0.001	<0.001
	09/24/02	<0.001	<0.001	<0.001	<0.001

Concentrations in bold exceed NMOCD Groundwater Cleanup Limits



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

January 31, 2006

Ms. Camille Reynolds  
Plains Marketing, L.P.  
3112 West Highway 82  
Lovington, NM 88260

RE: Soil Closure Request, Dated December 2005, for the TNM 98-05A Site  
Located in Section 26, Township 21 South, Range 37 East  
NMPM, Lea County, New Mexico  
Plains EMS Number: TNM-98-05A  
NMOCD Reference AP-012

Dear Ms. Reynolds:

The New Mexico Oil Conservation Division (NMOCD) has reviewed the report shown above, submitted on behalf of Plains Marketing, L.P. (Plains) by NOVA Safety and Environmental. The request for soil closure is hereby approved with the following understandings and conditions:

1. Plains has excavated the east sidewall of the pre-existing excavation and removed approximately 100 cubic yards of contaminated soil. Such excavation continued until samples for total petroleum hydrocarbons (TPH) showed the results contained in Table 1 of Appendix A of the request.
2. A 20-mil thick polyurethane liner was installed as described in section 2.2 of the request.
3. Backfilling at the site was as described in section 2.3 of the request.
4. Groundwater monitoring at the site will continue until closure is approved by the NMOCD.

If you have any questions, contact Ed Martin at (505) 476-3492 or [ed.martin@state.nm.us](mailto:ed.martin@state.nm.us)

NEW MEXICO OIL CONSERVATION DIVISION

A handwritten signature in black ink, appearing to read "Roger C. Anderson".

Roger C. Anderson  
Environmental Bureau Chief

Copy: NMOCD, Hobbs  
Curt Stanley, NOVA



**PLAINS  
PIPELINE**

December 16, 2005

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

**RECEIVED**

DEC 20 2005

**OIL CONSERVATION  
DIVISION**

Re: Plains Pipeline Soil Closure Request  
TNM 98-05A Release Site  
Section 21, T21S, R37E  
Lea County, New Mexico

Dear Mr. Martin:

Please find attached for your approval the Soil Closure Request, dated December 2005, for the TNM 98-05A site located in Section 21 of Township 21 South, and Range 37 East of Lea County, New Mexico. The Soil Closure Request details site activities conducted as per NMOCD request for soil closure of the site.

Should you have any questions or comments, please contact me at (505) 441-0965.

Sincerely,

Camille Reynolds  
Remediation Coordinator  
Plains All American Pipeline

Enclosure

**SOIL CLOSURE REQUEST**

AP-12

**TNM 98-05A**  
**Section 26, Township 21 South, Range 37 East**  
**Lea County, New Mexico**  
**PLAINS EMS NUMBER: TNM-98-05A**

Prepared For:

**Plains Marketing, LP**  
**333 Clay Street, Suite 1600**  
**Houston, Texas 77002**

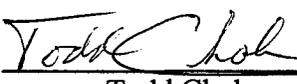


Prepared By:

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

**December 2005**

  
Curt D. Stanley  
Project Manager

  
Todd Choban  
Vice President, Technical Services

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- FIGURE 2: Site Map Prior to Backfilling Activities
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### Tables

- TABLE 1: TPH and BTEX Concentrations – Excavation and Soil Treatment Cell

### Appendices

- APPENDIX A: Laboratory Reports
- APPENDIX B: Photographic Documentation
- APPENDIX C: Release Notification and Corrective Action (Form C-141)

## **1.0 INTRODUCTION**

NOVA Safety and Environmental (NOVA) is pleased to submit this Soil Closure Request for the TNM-98 05A crude oil release site. The TNM 98-05A crude oil release site, formerly the responsibility of Enron Oil Trading and Transportation (EOTT) is now the responsibility of Plains Marking L.P. (Plains).

The site is located approximately two miles northeast of the town of Eunice, New Mexico in Section 26, Township 21 South, Range 37 East. A site location map is included as Figure 1. On February 2, 1998 an estimated 38 barrels of crude oil was released from a Texas-New Mexico (TNM) six (6) inch diameter steel pipeline. Approximately four (4) barrels were recovered during emergency response activities. The release was attributed to external corrosion of the pipeline.

Recent site activities at the TNM 98-05A site were proposed by Plains in the Site Restoration Work Plan and Proposed Soil Closure Strategy Report dated December 2004. This work plan was approved by the New Mexico Oil Conservation Division (NMOCD) in a letter dated June 2, 2005.

## **2.0 SUMMARY OF RECENT FIELD ACTIVITIES**

### **2.1 Excavation and Sampling Activities**

On October 24, 2005, a backhoe was utilized to excavate additional impacted soil from the east sidewall of the existing excavation. The impacted soil had been identified during previous excavation activities. A site map is included as Figure 2. Approximately 100 cubic yards of overburden and hydrocarbon impacted soil was removed from the east sidewall of the excavation during this activity. The determination of impacted versus non impacted soil was made through visual and olfactory means. A Photo-Ionization Detector (PID) was utilized in the field to further evaluate the sidewall soil. Upon completion of excavation activities a discrete confirmation sample was collected from the east sidewall of the excavation. See Figure 3 for location of the sample. A five point composite sample was also collected from the stockpiled soil removed from the excavation on October 24, 2005. The samples were delivered to Environment Lab of Texas (ELOT) of Odessa, Texas for determination of total petroleum hydrocarbons (TPH) using EPA method 8015 modified (DRO/GRO). The analytical results of this sampling event are shown in Table 1 and laboratory reports are included in Appendix A. The analytical results indicate the collected samples were below the reporting threshold of 10 mg/Kg TPH.

On October 25, 2005, efforts were focused on removing soil which had sloughed from the other sidewalls. This soil was stockpiled to be used as backfill material. The excavation sidewalls were squared and the floor was smoothed to prepare for the woven polyurethane liner (liner) installation.

## **2.2 Woven Polyurethane Liner Installation**

On October 26, 2005, approximately 720 cy of non-impacted sand was transported to the site. Approximately 350 cy of sand was placed in the excavation to cushion and protect the liner from damage. The sand was spread and compacted to a thickness of approximately one (1) foot. The sand was mounded beneath the six (6) inch pipeline to allow water to be channeled to the edges of the liner. Photographic documentation of the bottom sand installation is included in Appendix B.

The liner was supplied and installed by Akome Inc. of Hobbs, New Mexico. The liner is 7,200 square feet of black woven polyurethane, twenty (20) millimeters (mil) thick. The installation required the liner to be sewn and sealed together in three (3) areas. The remaining 370 cy of sand stockpiled on site was placed on top of the liner to protect it from damage during backfilling activities. The sand was compacted to a thickness of approximately one (1) foot. Monitor well MW-1 is located within the confines of the excavation and was fitted with a forty (40) mil protective boot. The boot was glued and taped to the liner to maintain an impermeable liner seal. Photographic documentation of the liner installation is included in Appendix B.

The polyvinylchloride (PVC) casing in monitor well MW-1 was extended approximately fifteen (15) feet to allow for continued groundwater sampling and monitoring after excavation backfilling. After the excavation was backfilled the monitor well casing was trimmed to the proper height and resurveyed.

## **2.3 Excavation Backfilling and Site Restoration**

On October 26, 2005, backfilling of the excavation began. The plastic liner beneath the existing treatment cell was removed and disposed. The aeration system within the treatment cell, consisting of one (1) inch PVC perforated pipe was also removed and disposed. Approximately 3,300 cubic yards of soil from the treatment cell was transported, in stages into the excavation and compacted in twelve (12) inch lifts. There was adequate moisture in the treatment cell, allowing for effective compaction and no additional water was transported to the site. Backfilling of the excavation continued until November 4, 2005. Backfill soil was mounded above the former excavation to allow for ground settling over time. All materials used in the automated recovery system were excavated and transported offsite. The ground surface was graded to as near original contours as practical. The site will be reseeded in the spring of 2006, when adequate moisture allows, with grass acceptable to the landowner. Photographic documentation is included as Appendix B.

## **3.0 SOIL CLOSURE REQUEST**

Plains respectfully request the NMOCD consider this site for soil closure. Groundwater monitoring and sampling will continue at the site until groundwater conditions meet closure standards. A groundwater and site closure request will follow after eight consecutive quarterly groundwater sampling events have demonstrated hydrocarbon concentrations are

below NMOCB regulatory guidelines. Form C-141, Release Notification and Corrective Action is included as Appendix C.

#### **4.0 QA/QC PROCEDURES**

##### **4.1 Soil Sampling**

Soil samples were collected utilizing single-use, disposable, latex gloves. Representative soil samples were divided into two separate portions using clean, disposable gloves and clean sampling tools. One portion of the soil sample was placed in a disposable sample bag. The bag was labeled and sealed for headspace analysis using a photo ionization detector (PID) calibrated to a 100-ppm isobutylene standard. Each sample was allowed to volatilize for approximately thirty minutes at ambient temperature prior to conducting the analysis.

The other portion of the soil sample was placed in a sterile glass container equipped with a Teflon-lined lid furnished by the analytical laboratory. The container was filled to capacity to limit the amount of headspace present. Each container was labeled and placed on ice in an insulated cooler. Upon selection of samples for analysis, the cooler was sealed for shipment to the laboratory. Proper chain-of-custody documentation was maintained throughout the sampling process.

Soil samples were delivered to ELOT, in Midland, Texas for TPH analyses using the methods described below. All samples were analyzed within approved holding times following the collection date.

- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO;

Results of laboratory analysis of the soil samples are summarized in Table 1, and the laboratory reports are provided as Appendix A.

##### **4.2 Decontamination of Equipment**

Soil sampling tools such as small hand shovels were washed with Liqui-Nox<sup>®</sup> detergent and rinsed with distilled water between collection of soil samples.

##### **4.3 Laboratory Protocol**

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

#### **5.0 LIMITATIONS**

Nova Safety and Environmental has prepared this Soil Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

Nova Safety and Environmental has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Nova Safety and Environmental 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 Safety and Environmental has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Nova Safety and Environmental 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 Pipeline Company. 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 Safety and Environmental and/or Plains Pipeline Company.

**DISTRIBUTION**

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Figures

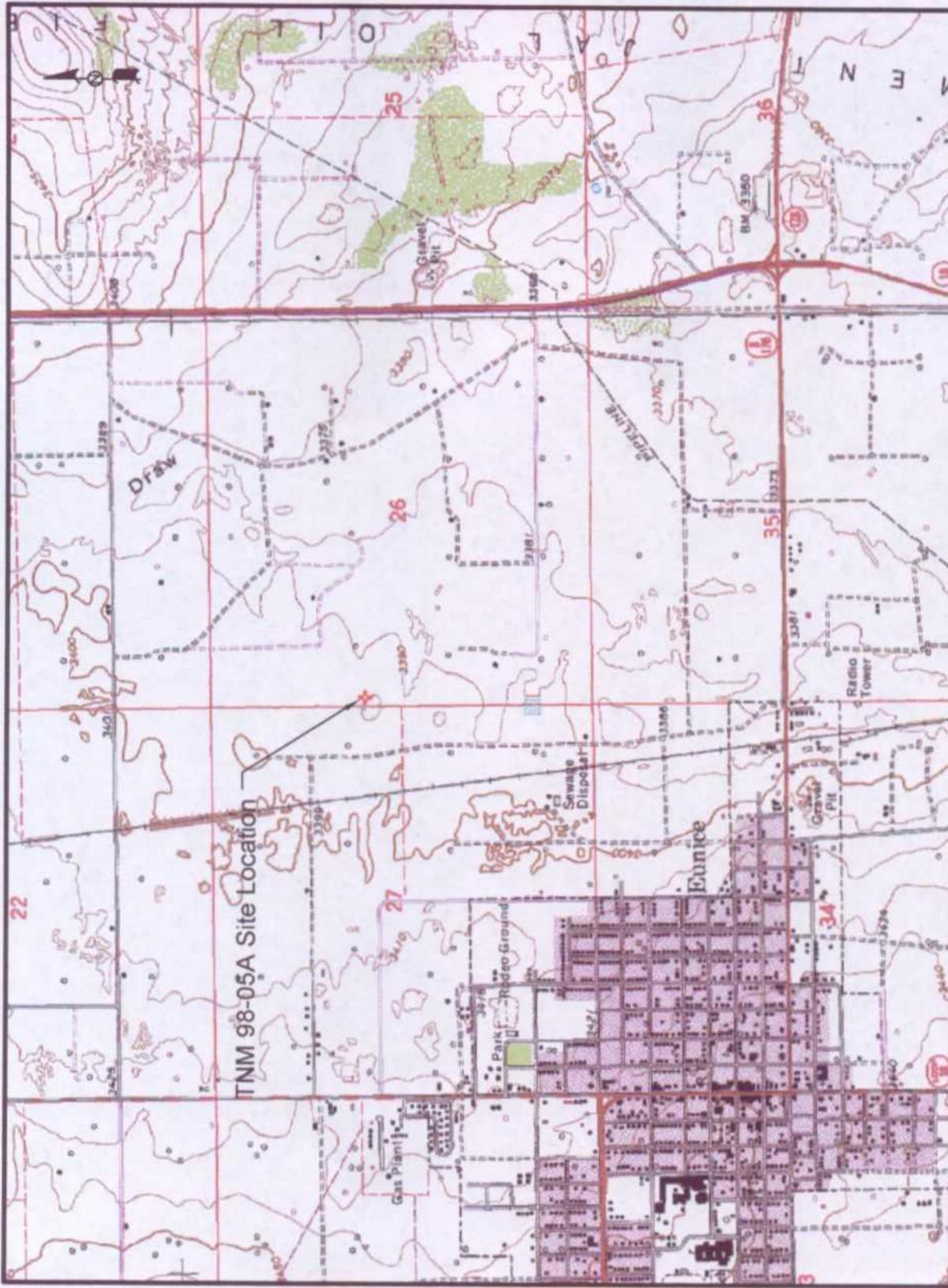
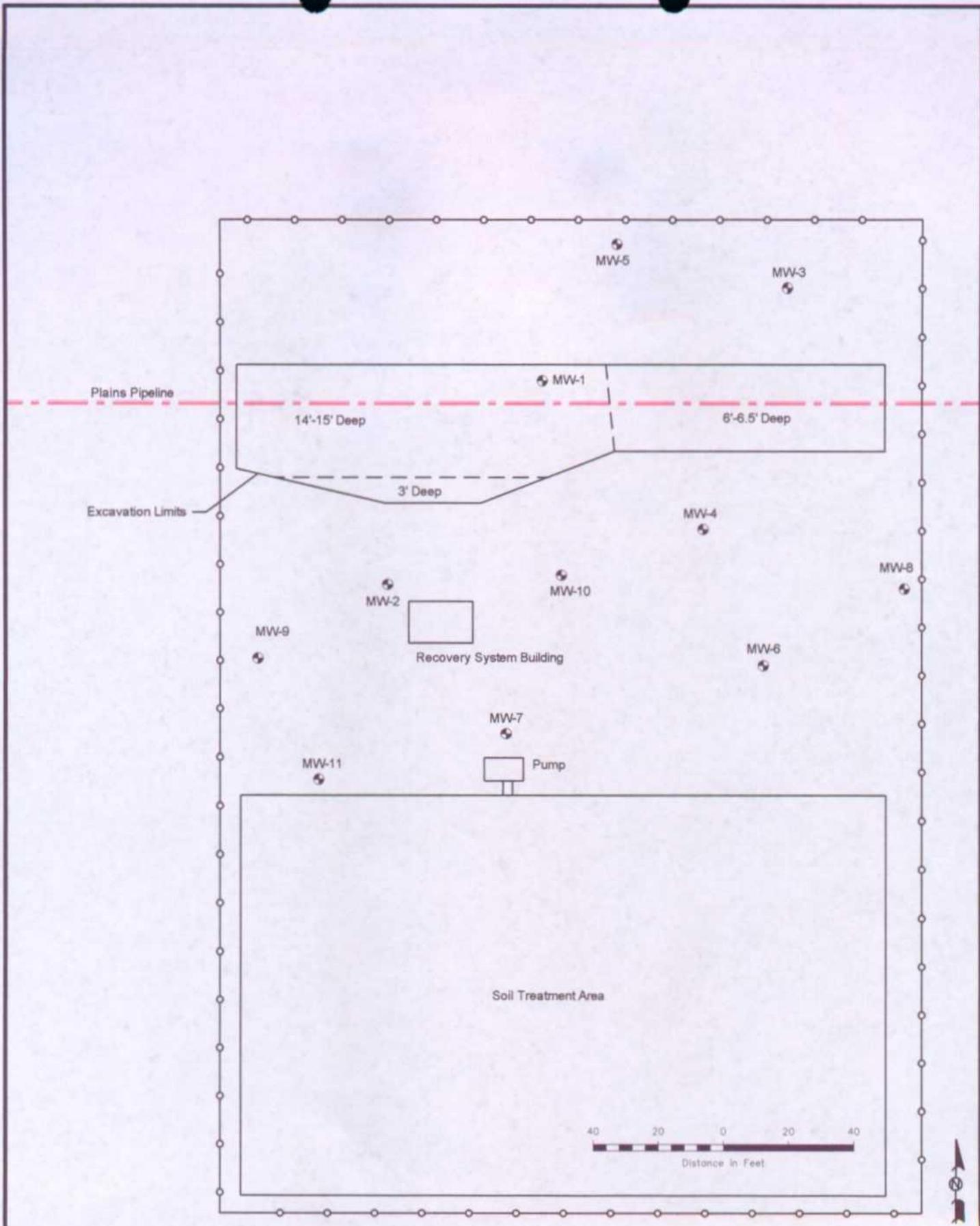


Figure 1  
 Site Location Map  
 Plains Marketing, L.P.  
 TNM 98-05A  
 Lea County, NM

NOVA  
 safety and environmental

NOVA Safety and Environmental  
 Scale: NTS  
 Prep By: CDS  
 Checked By: CE  
 February 24, 2006  
 NE 1/4 NW 1/4 Sec 26 T21S R2E  
 Lat. N32° 27' 03.8" Long. W107° 08' 26.2"



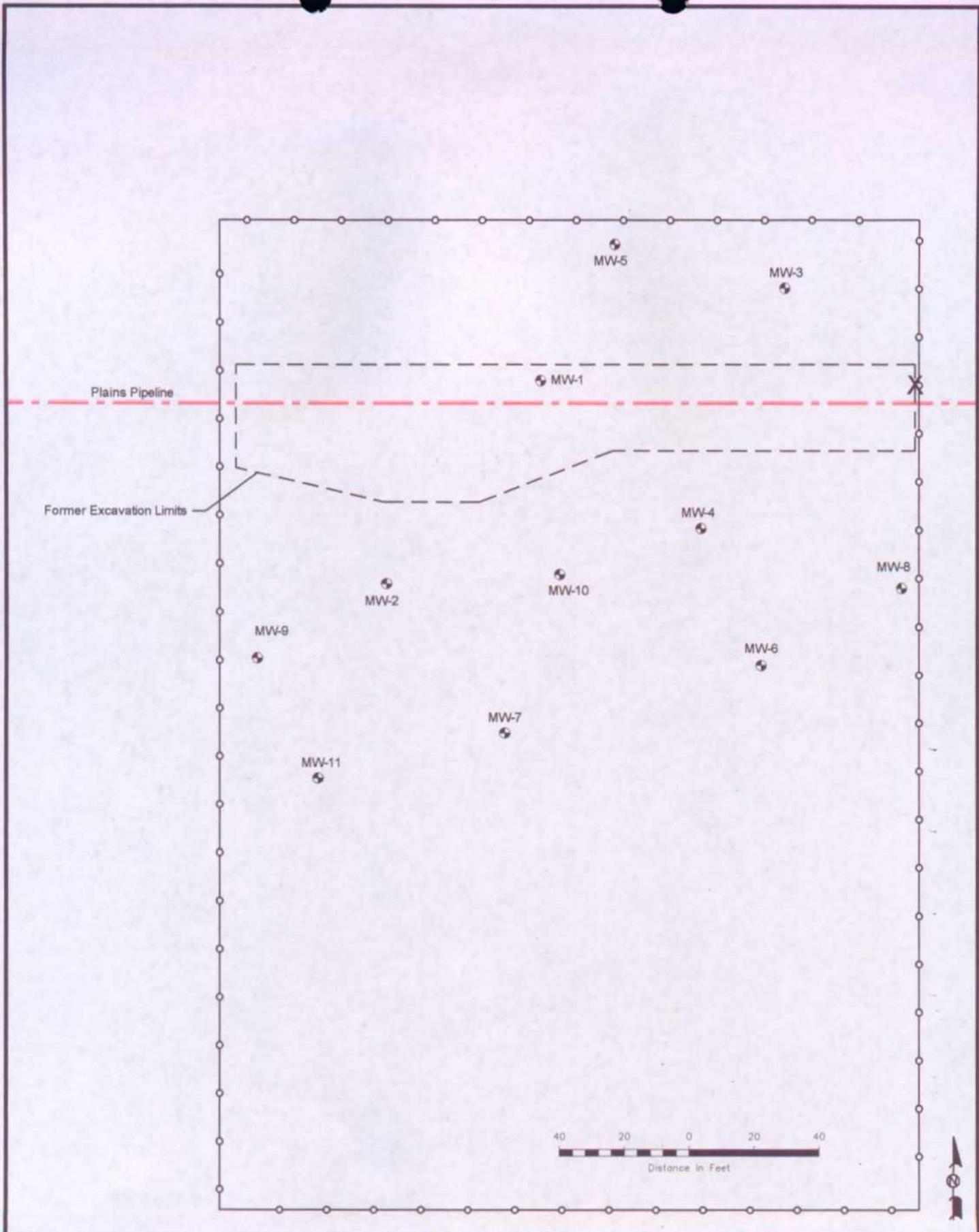
Legend:

	Monitor Well Location		Excavation Limits
	Fence		
	Pipeline		

Figure 2  
 Site Map  
 Prior to Backfilling Activities  
 Plains Marketing, L.P.  
 TNM98-05A  
 Lea County, NM

**NOVA Safety and Environmental**

NE1/4 NW1/4 Sec 28 T21N R37E		32° 27' 03.9"N 102° 08' 29.2"W	
Scale: 1" = 40'	Prep By: DPM	Checked By: CDS	
March 15, 2005			



<p><b>Legend:</b></p> <ul style="list-style-type: none"> <li> Monitor Well Location</li> <li> Fence</li> <li> Pipeline</li> <li> Former Excavation Limits</li> <li> Confirmation Sample Location</li> </ul>	<p><b>Figure-3 Site Map After Backfilling Activities</b></p> <p>Plains Marketing, L.P. TNM98-05A Lea County, NM</p>	<p><b>NOVA Safety and Environmental</b></p>  <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">NE1/4 NW1/4 Sec 28 T21S R37E</td> <td colspan="2">32° 27' 03.6"N 103° 08' 20.2"W</td> </tr> <tr> <td>Scale: 1" = 40'</td> <td>Prep. By: DPM</td> <td colspan="2">Checked By: CDS</td> </tr> <tr> <td colspan="2">March 10, 2005</td> <td colspan="2"></td> </tr> </table>	NE1/4 NW1/4 Sec 28 T21S R37E		32° 27' 03.6"N 103° 08' 20.2"W		Scale: 1" = 40'	Prep. By: DPM	Checked By: CDS		March 10, 2005			
NE1/4 NW1/4 Sec 28 T21S R37E		32° 27' 03.6"N 103° 08' 20.2"W												
Scale: 1" = 40'	Prep. By: DPM	Checked By: CDS												
March 10, 2005														

Table

**TABLE 1**

**SOIL CONCENTRATIONS OF BTEX AND TPH - EXCAVATION and SOIL TREATMENT CELL  
TNM 98-05A  
PLAINS MARKETING, L.P.**

*All concentrations are in mg/Kg*

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030				EPA SW 846-8015M		
		BENZENE	TOLUENE	ETHYL-	TOTAL	GRO	DRO	TOTAL TPH
				BENZENE	XYLENES	C6-C10	>C10-C28	C6-C28
<b>Initial Excavation Composites</b>								
Excavation Walls	05/08/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	0.0
Excavation Bottom	05/08/02	<0.025	<0.025	<0.025	<0.025	<10.0	39.3	39.3
<b>Excavation Soil Samples</b>								
Excavation Westside Wall	11/14/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	0.0
Excavation Southside Wall	11/14/02	<0.025	0.079	0.065	0.263	<10.0	<10.0	0.0
Excavation Northside Wall	11/14/02	<0.025	0.028	0.026	0.084	<10.0	29.8	29.8
Excavation Eastside Wall	11/14/02	<0.025	0.035	0.034	0.100	<10.0	831	<b>831.0</b>
<b>Bio Treatment Cell - Soil Samples</b>								
Bio-Mound North East	05/08/02	<0.025	<0.025	<0.025	0.116	868	1680	2,548.0
Bio-Mound North West	05/08/02	0.060	0.268	0.080	0.326	349	392	741.0
Bio-Mound South East	05/08/02	<0.025	0.191	0.092	0.225	405	559	964.0
Bio-Mound South West	05/08/02	<0.025	0.142	0.090	0.440	848	1260	2,108.0
S.W. Biomound Comp	11/14/02	<0.025	0.042	0.040	0.142	22.7	1530	1,552.7
N.W. Biomound Comp	11/14/02	<0.025	<0.025	<0.025	0.043	37.4	1480	1,517.4
S. E. Biomound Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	39.6	2180	2,219.6
N. E. Biomound Comp	11/14/02	<0.025	<0.025	<0.025	<0.025	75.7	2260	2,335.7
N.E. Biomound - 1	03/04/03	na	na	na	na	124	1460	1,584.0
N.W. Biomound - 2	03/04/03	na	na	na	na	115	1890	2,005.0
S.W. Biomound - 3	03/04/03	na	na	na	na	52.6	1250	1,302.6
S.E. Biomound - 4	03/04/03	na	na	na	na	24.8	658	682.8
N.E. Biomound - 5	06/30/03	na	na	na	na	52.8	561	613.8
N.W. Biomound - 6	06/30/03	na	na	na	na	130	2280	2,410.0
S.E. Biomound - 7	06/30/03	na	na	na	na	67.9	1680	1,747.9
S.W. Biomound - 8	06/30/03	na	na	na	na	29.4	578	607.4
N.E. Biomound - 9	09/18/03	na	na	na	na	22.3	1140	1,162.3
S.E. Biomound - 10	09/18/03	na	na	na	na	<10.0	747	747.0
N.W. Biomound - 11	09/18/03	na	na	na	na	<10.0	1020	1,020.0
S.W. Biomound - 12	09/18/03	na	na	na	na	14.6	1770	1,784.6
N.E. Biomound - 13	12/31/03	na	na	na	na	18.7	1100	1,118.7
N.W. Biomound - 14	12/31/03	na	na	na	na	21.7	979	1,000.7
S.E. Biomound - 15	12/31/03	na	na	na	na	17.6	1550	1,567.6
S.W. Biomound - 16	12/31/03	na	na	na	na	<10.0	1000	1,000.0
NE Quad 0-6-in	08/27/04	na	na	na	na	<10	<10	<10
NE Quad 1 ft.	08/27/04	na	na	na	na	24.4	1,010	1,030
NE Quad 2 ft.	08/27/04	na	na	na	na	49.7	1,820	1,870
NW Quad 0-6-in	08/27/04	na	na	na	na	11.4	1,080	1,090
NW Quad 1 ft.	08/27/04	na	na	na	na	J(7.55)	553	553
NW Quad 2 ft.	08/27/04	na	na	na	na	12	147	159
SW Quad 6-in	08/27/04	na	na	na	na	<20	340	340
SW Quad 1 ft.	08/27/04	na	na	na	na	<10	<10	<10
SW Quad 2 ft.	08/27/04	na	na	na	na	35.8	1,610	1,650
SE Quad 0-6-in	08/27/04	na	na	na	na	J(8.82)	547	547
SE Quad 1 ft.	08/27/04	na	na	na	na	<10	<10	<10
SE Quad 2 ft.	08/27/04	na	na	na	na	<10	<10	<10
NE Quad 0-6-in	04/22/05	na	na	na	na	<1	924	924
NE Quad 1 ft.	04/22/05	na	na	na	na	3	536	539
NE Quad 2 ft.	04/22/05	na	na	na	na	11	1080	1091
NW Quad 0-6-in	04/22/05	na	na	na	na	<2	1040	1040

# TABLE 1

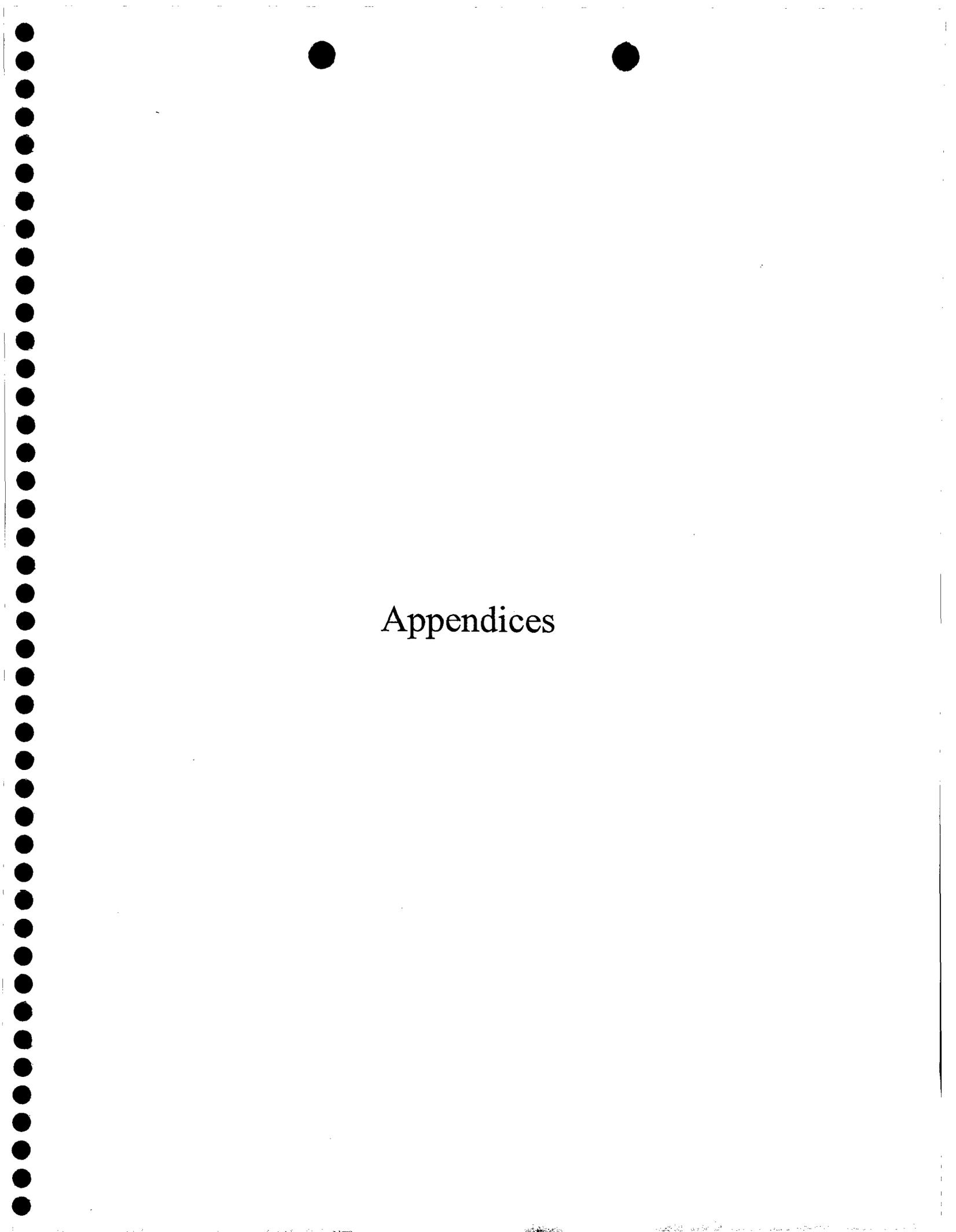
SOIL CONCENTRATIONS OF BTEX AND TPH - EXCAVATION and SOIL TREATMENT CELL  
TNM 98-05A  
PLAINS MARKETING, L.P.

*All concentrations are in mg/Kg*

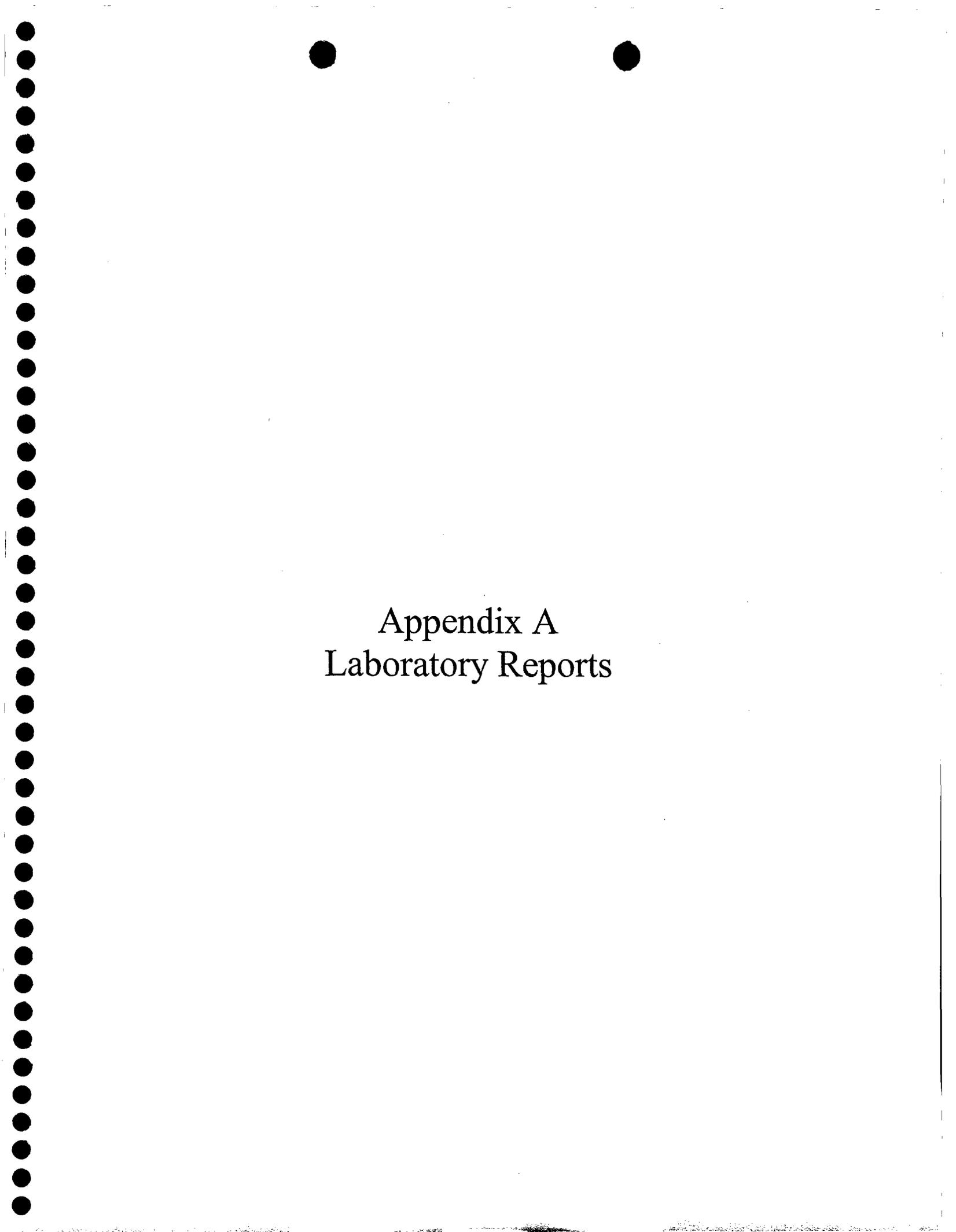
SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030				EPA SW 846-8015M		
		BENZENE	TOLUENE	ETHYL-	TOTAL	GRO	DRO	TOTAL TPH
				BENZENE	XYLENES	C6-C10	>C10-C28	C6-C28
NW Quad 1 ft.	04/22/05	na	na	na	na	<2	580	580
NW Quad 2 ft.	04/22/05	na	na	na	na	6	524	530
SW Quad 6-in	04/22/05	na	na	na	na	<5	988	988
SW Quad 1 ft.	04/22/05	na	na	na	na	<1	495	495
SW Quad 2 ft.	04/22/05	na	na	na	na	<1	340	340
SE Quad 0-6-in	04/22/05	na	na	na	na	<2	758	758
SE Quad 1 ft.	04/22/05	na	na	na	na	<2	467	467
SE Quad 2 ft.	04/22/05	na	na	na	na	<2	674	674
ESW-1	10/24/05	na	na	na	na	<10	<10	<10
SP-New	10/24/05	na	na	na	na	<10	<10	<10

na = not analyzed

ND = Non Detect



# Appendices



Appendix A  
Laboratory Reports

# ANALYTICAL REPORT

## Prepared for:

Camille Reynolds  
Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240

Project: TNM 98-05A  
Order#: G0203314  
Report Date: 05/13/2002

### Certificates

US EPA Laboratory Code TX00158

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240  
505/397/4701

Order#: G0203314  
Project: EOT 2026C  
Project Name: TNM 98-05A  
Location: Eunice, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
203314-01	Excavation Walls	Soil	5/8/02 13:50	5/9/02 10:30	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 0 C		
	8015M					
	8021B/5030 BTEX					
203314-02	Excavation Bottom	Soil	5/8/02 14:00	5/9/02 10:30	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 0 C		
	8015M					
	8021B/5030 BTEX					
203314-03	Bio-Mound North East	Soil	5/8/02 14:30	5/9/02 10:30	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 0 C		
	8015M					
	8021B/5030 BTEX					
203314-04	Bio-Mound North West	Soil	5/8/02 14:15	5/9/02 10:30	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 0 C		
	8015M					
	8021B/5030 BTEX					
203314-05	Bio-Mound South East	Soil	5/8/02 14:45	5/9/02 10:30	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 0 C		
	8015M					
	8021B/5030 BTEX					
203314-06	Bio-Mound South West	Soil	5/8/02 15:00	5/9/02 10:30	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 0 C		
	8015M					
	8021B/5030 BTEX					

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240

Order#: G0203314  
Project: EOT 2026C  
Project Name: TNM 98-05A  
Location: Eunice, NM

Lab ID: 0203314-01  
Sample ID: Excavation Walls

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		5/9/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
DRO, >C12-C35	<10.0	10.0
GRO, C6-C12	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

### 8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001667-02		5/9/02 19:47	1	25	CK	8021B

Parameter	Result µg/kg	RL
Benzene	<25.0	25.0
Ethylbenzene	<25.0	25.0
Toluene	<25.0	25.0
p/m-Xylene	<25.0	25.0
o-Xylene	<25.0	25.0

Lab ID: 0203314-02  
Sample ID: Excavation Bottom

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		5/9/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
DRO, >C12-C35	39.3	10.0
GRO, C6-C12	<10.0	10.0
TOTAL, C6-C35	39.3	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 6

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0203314  
 Project: EOT 2026C  
 Project Name: TNM 98-05A  
 Location: Eunice, NM

Lab ID: 0203314-02  
 Sample ID: Excavation Bottom

### 8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
0001667-02		5/9/02 20:09	1	25	CK	8021B

Parameter	Result µg/kg	RL
Benzene	<25.0	25.0
Ethylbenzene	<25.0	25.0
Toluene	<25.0	25.0
p/m-Xylene	<25.0	25.0
o-Xylene	<25.0	25.0

Lab ID: 0203314-03  
 Sample ID: Bio-Mound North East

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		5/9/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
DRO, >C12-C35	1680	10.0
GRO, C6-C12	868	10.0
TOTAL, C6-C35	2548	10.0

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0203314  
 Project: EOT 2026C  
 Project Name: TNM 98-05A  
 Location: Eunice, NM

Lab ID: 0203314-03  
 Sample ID: Bio-Mound North East

### 8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
0001667-02		5/9/02 20:31	1	25	CK	8021B

Parameter	Result µg/kg	RL
Benzene	<25.0	25.0
Ethylbenzene	<25.0	25.0
Toluene	<25.0	25.0
p/m-Xylene	58.1	25.0
o-Xylene	58.0	25.0

Lab ID: 0203314-04  
 Sample ID: Bio-Mound North West

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		5/9/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
DRO, >C12-C35	392	10.0
GRO, C6-C12	349	10.0
TOTAL, C6-C35	741	10.0

DL = Diluted out    N/A = Not Applicable    RL = Reporting Limit

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0203314  
 Project: EOT 2026C  
 Project Name: TNM 98-05A  
 Location: Eunice, NM

Lab ID: 0203314-04  
 Sample ID: Bio-Mound North West

### 8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
0001667-02		5/9/02 20:53	1	25	CK	8021B

Parameter	Result µg/kg	RL
Benzene	60.0	25.0
Ethylbenzene	80.0	25.0
Toluene	268	25.0
p/m-Xylene	154	25.0
o-Xylene	172	25.0

Lab ID: 0203314-05  
 Sample ID: Bio-Mound South East

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		5/9/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
DRO, >C12-C35	559	10.0
GRO, C6-C12	405	10.0
TOTAL, C6-C35	964	10.0

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0203314  
 Project: EOT 2026C  
 Project Name: TNM 98-05A  
 Location: Eunice, NM

Lab ID: 0203314-05  
 Sample ID: Bio-Mound South East

### 8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
0001667-02		5/9/02 21:16	1	25	CK	8021B

Parameter	Result µg/kg	RL
Benzene	<25.0	25.0
Ethylbenzene	92.2	25.0
Toluene	191	25.0
p/m-Xylene	174	25.0
o-Xylene	50.6	25.0

Lab ID: 0203314-06  
 Sample ID: Bio-Mound South West

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		5/9/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
DRO, >C12-C35	1260	10.0
GRO, C6-C12	848	10.0
TOTAL, C6-C35	2108	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240

Order#: G0203314  
Project: EOT 2026C  
Project Name: TNM 98-05A  
Location: Eunice, NM

Lab ID: 0203314-06  
Sample ID: Bio-Mound South West

### 8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001667-02		5/9/02 21:38	1	25	CK	8021B

Parameter	Result µg/kg	RL
Benzene	<25.0	25.0
Ethylbenzene	90.1	25.0
Toluene	142	25.0
p/m-Xylene	192	25.0
o-Xylene	248	25.0

Approval: Roland K Tuttle 5-14-02  
Raland K. Tuttle, Lab Director, QA Officer      Date  
Celey D. Keene, Org. Tech. Director  
Jeanne McMurrey, Inorg. Tech. Director  
Sandra Biezugbe, Lab Tech.  
Sara Molina, Lab Tech.

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8015M

Order#: G0203314

<i>BLANK</i>	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0001644-02			<10.0		
<i>MS</i>	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0203314-01	0	952	1170	122.9%	
<i>MSD</i>	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0203314-01	0	952	1010	106.1%	14.7%
<i>SRM</i>	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0001644-05		1000	1140	114.%	

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0203314

<b>BLANK</b>							
	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	Benzene-µg/kg	0001667-02			<25.0		
	Ethylbenzene-µg/kg	0001667-02			<25.0		
	Toluene-µg/kg	0001667-02			<25.0		
	p/m-Xylene-µg/kg	0001667-02			<25.0		
	o-Xylene-µg/kg	0001667-02			<25.0		
<b>MS</b>							
	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	Benzene-µg/kg	0203305-01	0	100	107	107.0%	
	Ethylbenzene-µg/kg	0203305-01	0	100	110	110.0%	
	Toluene-µg/kg	0203305-01	0	100	108	108.0%	
	p/m-Xylene-µg/kg	0203305-01	0	200	228	114.0%	
	o-Xylene-µg/kg	0203305-01	0	100	109	109.0%	
<b>MSD</b>							
	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	Benzene-µg/kg	0203305-01	0	100	106	106.0%	0.9%
	Ethylbenzene-µg/kg	0203305-01	0	100	108	108.0%	1.8%
	Toluene-µg/kg	0203305-01	0	100	107	107.0%	0.9%
	p/m-Xylene-µg/kg	0203305-01	0	200	226	113.0%	0.9%
	o-Xylene-µg/kg	0203305-01	0	100	108	108.0%	0.9%
<b>SRM</b>							
	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	Benzene-µg/kg	0001667-05		100	112	112.0%	
	Ethylbenzene-µg/kg	0001667-05		100	112	112.0%	
	Toluene-µg/kg	0001667-05		100	114	114.0%	
	p/m-Xylene-µg/kg	0001667-05		200	229	114.5%	
	o-Xylene-µg/kg	0001667-05		100	110	110.0%	



For Use On  
**EOTT ENERGY CORP.** Projects Only

2540 West Midland  
 Hobbs, NM 88242  
 Tel (505) 397-4882  
 Fax (505) 397-4701

5805  
 Midland,  
 TX 79702  
 Tel  
 Fax  
 EOTT ENERGY CORP.  
 East Business 20  
 TX 79702  
 (915) 687-3400  
 (915) 582-2781

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**ANALYSIS REQUEST**  
 (Circle or Specify Method No.)

TPH 8015M GRO/DRO	
TPH 418.1/7X 1005	
PAH 8270C (8100 New Mexico only)	
Total Metals Ag As Ba Cd Cr Pb Se Hg 5010B/7470	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
Volatiles 8260B	
Semi Volatiles 8270C	
TDS 160.1	
Calcions/Anions 375.4/325.3	

REMARKS: Rec 0°C  
 INVOICE EOTT  
 FAX RESULTS TO 140805  
 RUSH

LAB # (Lab Use Only)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATION METHOD				SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCL	HNO <sub>3</sub>	NaHSO <sub>4</sub>	ICE	NONE	DATE	TIME
020331401	EXCAVATION WALLS	1	100	X							X		5-8	1350
02	EXCAVATION BOTTOM													1400
03	BIO-MOUND NORTH EAST													1430
04	BIO-MOUND NORTH WEST													1415
05	BIO-MOUND SOUTH EAST													1445
06	BIO-MOUND SOUTH WEST													1500

Project Manager: CAMILLE LEYNOLDS  
 Project Name: TMM 58-05A  
 Project Location: FUNICE NM

EOTT Leak Number: \_\_\_\_\_  
 ETGI Project Number: 507 2926C  
 Sampler Signature: [Signature]

Relinquished by: [Signature] Date: 5-9-02 Time: 1030  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received at Lab by: [Signature] Date: 5-9-2 Time: 1030

# ANALYTICAL REPORT

## Prepared for:

Camille Reynolds  
Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240

**Project:** TNM 98-05A

**PO#:** EO2026

**Order#:** G0205068

**Report Date:** 11/22/2002

### Certificates

US EPA Laboratory Code TX00158

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240  
505/397/4701

Order#: G0205068  
Project: EO2026  
Project Name: TNM 98-05A  
Location: Eunice, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time Collected</u>	<u>Date / Time Received</u>	<u>Container</u>	<u>Preservative</u>
0205068-01	Excavation Westside wall	SOIL	11/14/02 15:25	11/19/02 17:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 2.0C		
0205068-02	Excavation Southside wall	SOIL	11/14/02 15:22	11/19/02 17:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 2.0C		
0205068-03	Excavation Northside wall	SOIL	11/14/02 15:17	11/19/02 17:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 2.0C		
0205068-04	Excavation Eastside wall	SOIL	11/14/02 15:33	11/19/02 17:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 2.0C		
0205068-05	S.W. Biomound Comp	SOIL	11/14/02 15:07	11/19/02 17:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 2.0C		
0205068-06	N.W. Biomound Comp	SOIL	11/14/02 14:57	11/19/02 17:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 2.0C		
0205068-07	S.E. Biomound Comp	SOIL	11/14/02 15:02	11/19/02 17:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0C		

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240  
505/397/4701

Order#: G0205068  
Project: EO2026  
Project Name: TNM 98-05A  
Location: Eunice, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
	8015M 8021B/5030 BTEX					
205068-08	N.E. Biomound Comp	SOIL	11/14/02 14:51	11/19/02 17:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0C		
	8015M 8021B/5030 BTEX					

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0205068  
 Project: EO2026  
 Project Name: TNM 98-05A  
 Location: Eunice, NM

Lab ID: 0205068-01  
 Sample ID: Excavation Westside wall

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	107%	70	130
1-Chlorooctadecane	103%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
0003839-02		11/21/02 10:35	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	86%	80	120
Bromofluorobenzene	91%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0205068  
 Project: EO2026  
 Project Name: TNM 98-05A  
 Location: Eunice, NM

Lab ID: 0205068-02  
 Sample ID: Excavation Southside wall

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	108%	70	130
1-Chlorooctadecane	102%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
0003839-02		11/21/02 11:32	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	0.065	0.025
Toluene	0.079	0.025
p/m-Xylene	0.221	0.025
o-Xylene	0.042	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	95%	80	120
Bromofluorobenzene	100%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 2 of 8

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0205068  
 Project: EO2026  
 Project Name: TNM 98-05A  
 Location: Eunice, NM

Lab ID: 0205068-03  
 Sample ID: Excavation Northside wall

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	29.8	10.0
TOTAL, C6-C35	29.8	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	115%	70	130
1-Chlorooctadecane	111%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
0003839-02		11/21/02 11:51	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	0.026	0.025
Toluene	0.028	0.025
p/m-Xylene	0.084	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	90%	80	120
Bromofluorobenzene	100%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0205068  
 Project: EO2026  
 Project Name: TNM 98-05A  
 Location: Eunice, NM

Lab ID: 0205068-04  
 Sample ID: Excavation Eastside wall

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	831	10.0
TOTAL, C6-C35	831	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	120%	70	130
1-Chlorooctadecane	121%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
0003839-02		11/21/02 12:10	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	0.034	0.025
Toluene	0.035	0.025
p/m-Xylene	0.100	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	90%	80	120
Bromofluorobenzene	98%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0205068  
 Project: EO2026  
 Project Name: TNM 98-05A  
 Location: Eunice, NM

Lab ID: 0205068-05  
 Sample ID: S.W. Biomound Comp

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	22.7	10.0
DRO, >C12-C35	1,530	10.0
TOTAL, C6-C35	1,553	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	118%	70	130
1-Chlorooctadecane	120%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
0003839-02		11/21/02 12:29	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	0.040	0.025
Toluene	0.042	0.025
p/m-Xylene	0.114	0.025
o-Xylene	0.028	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	87%	80	120
Bromofluorobenzene	80%	80	120

DL = Diluted out    N/A = Not Applicable    RL = Reporting Limit

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0205068  
 Project: EO2026  
 Project Name: TNM 98-05A  
 Location: Eunice, NM

Lab ID: 0205068-06  
 Sample ID: N.W. Biomound Comp

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	37.4	10.0
DRO, >C12-C35	1,480	10.0
TOTAL, C6-C35	1,517	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	122%	70	130
1-Chlorooctadecane	126%	70	130

### 8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
0003839-02		11/21/02 12:48	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	0.043	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	88%	80	120
Bromofluorobenzene	82%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 6 of 8

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0205068  
 Project: EO2026  
 Project Name: TNM 98-05A  
 Location: Eunice, NM

Lab ID: 0205068-07  
 Sample ID: S.E. Biomound Comp

### 8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	39.6	10.0
DRO, >C12-C35	2,180	10.0
TOTAL, C6-C35	2,220	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	110%	70	130
1-Chlorooctadecane	110%	70	130

### 8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0003839-02		11/21/02 13:47	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	91%	80	120
Bromofluorobenzene	93%	80	120

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240

Order#: G0205068  
Project: EO2026  
Project Name: TNM 98-05A  
Location: Eunice, NM

Lab ID: 0205068-08  
Sample ID: N.E. Biomound Comp

### 8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		11/21/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	75.7	10.0
DRO, >C12-C35	2,260	10.0
TOTAL, C6-C35	2,336	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	105%	70	130
1-Chlorooctadecane	103%	70	130

### 8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0003839-02		11/21/02 14:06	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	89%	80	120
Bromofluorobenzene	87%	80	120

Approval: Raland K Tuttle 11-22-02  
Raland K. Tuttle, Lab Director, QA Officer      Date  
Celey D. Keene, Org. Tech. Director  
Jeanne McMurrey, Inorg. Tech. Director  
Sandra Biezugbe, Lab Tech.  
Sara Molina, Lab Tech.

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8015M

Order#: G0205068

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	TOTAL, C6-C35-mg/kg	0003842-02			<10.0		
<b>CONTROL</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	TOTAL, C6-C35-mg/kg	0003842-03		952	980	102.9%	
<b>CONTROL DUP</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	TOTAL, C6-C35-mg/kg	0003842-04		952	1070	112.4%	8.8%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	TOTAL, C6-C35-mg/kg	0003842-05		1000	988	98.8%	

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0205068

<b>BLANK</b>							
	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	Benzene-mg/kg	0003839-02			<0.025		
	Ethylbenzene-mg/kg	0003839-02			<0.025		
	Toluene-mg/kg	0003839-02			<0.025		
	m-Xylene-mg/kg	0003839-02			<0.025		
	p-Xylene-mg/kg	0003839-02			<0.025		
<b>MS</b>							
	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	Benzene-mg/kg	0205068-01	0	0.1	0.092	92.%	
	Ethylbenzene-mg/kg	0205068-01	0	0.1	0.098	98.%	
	Toluene-mg/kg	0205068-01	0	0.1	0.096	96.%	
	p/m-Xylene-mg/kg	0205068-01	0	0.2	0.208	104.%	
	o-Xylene-mg/kg	0205068-01	0	0.1	0.099	99.%	
<b>MSD</b>							
	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	Benzene-mg/kg	0205068-01	0	0.1	0.094	94.%	2.2%
	Ethylbenzene-mg/kg	0205068-01	0	0.1	0.100	100.%	2.%
	Toluene-mg/kg	0205068-01	0	0.1	0.097	97.%	1.%
	p/m-Xylene-mg/kg	0205068-01	0	0.2	0.211	105.5%	1.4%
	o-Xylene-mg/kg	0205068-01	0	0.1	0.100	100.%	1.%
<b>SRM</b>							
	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	Benzene-mg/kg	0003839-05		0.1	0.094	94.%	
	Ethylbenzene-mg/kg	0003839-05		0.1	0.100	100.%	
	Toluene-mg/kg	0003839-05		0.1	0.098	98.%	
	p/m-Xylene-mg/kg	0003839-05		0.2	0.212	106.%	
	o-Xylene-mg/kg	0003839-05		0.1	0.100	100.%	



# ANALYTICAL REPORT

## Prepared for:

Camille Reynolds  
Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240

**Project:** TNM 98-05A

**PO#:** EO 2026

**Order#:** G0305917

**Report Date:** 03/11/2003

### Certificates

US EPA Laboratory Code TX00158

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240  
505/397/4701

Order#: G0305917  
Project: TNM 98-05A  
Project Name: TNM 98-05A  
Location: Lea County, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time Collected</u>	<u>Date / Time Received</u>	<u>Container</u>	<u>Preservative</u>
0305917-01	NE Biomound-1	SOIL	3/4/03 13:20	3/7/03 16:03	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.5 C		
0305917-02	NW Biomound-2	SOIL	3/4/03 13:42	3/7/03 16:03	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.5 C		
0305917-03	SW Biomound-3	SOIL	3/4/03 14:08	3/7/03 16:03	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.5 C		
0305917-04	SE Biomound-4	SOIL	3/4/03 13:53	3/7/03 16:03	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.5 C		

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0305917  
 Project: TNM 98-05A  
 Project Name: TNM 98-05A  
 Location: Lea County, NM

Lab ID: 0305917-01  
 Sample ID: NE Biomound-1

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor	CK	8015M
		3/10/03	1	1		

Parameter	Result mg/kg	RL
GRO, C6-C12	124	10.0
DRO, >C12-C35	1,460	10.0
TOTAL, C6-C35	1,584	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	110%	70	130
1-Chlorooctadecane	119%	70	130

Lab ID: 0305917-02  
 Sample ID: NW Biomound-2

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor	CK	8015M
		3/10/03	1	1		

Parameter	Result mg/kg	RL
GRO, C6-C12	115	10.0
DRO, >C12-C35	1,890	10.0
TOTAL, C6-C35	2,005	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	122%	70	130
1-Chlorooctadecane	140%	70	130

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0305917  
 Project: TNM 98-05A  
 Project Name: TNM 98-05A  
 Location: Lea County, NM

Lab ID: 0305917-03  
 Sample ID: SW Biomound-3

**8015M**

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor	CK	8015M
		3/10/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	52.6	10.0
DRO, >C12-C35	1,250	10.0
TOTAL, C6-C35	1,303	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	107%	70	130
1-Chlorooctadecane	123%	70	130

Lab ID: 0305917-04  
 Sample ID: SE Biomound-4

**8015M**

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor	CK	8015M
		3/10/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	24.8	10.0
DRO, >C12-C35	658	10.0
TOTAL, C6-C35	683	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	108%	70	130
1-Chlorooctadecane	109%	70	130

Approval: Raland K. Tuttle 3-11-03  
 Raland K. Tuttle, Lab Director, QA Officer      Date  
 Celey D. Keene, Org. Tech. Director  
 Jeanne McMurrey, Inorg. Tech. Director  
 Sandra Biezugbe, Lab Tech.  
 Sara Molina, Lab Tech.

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8015M

Order#: G0305917

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004897-02			<10.0		
<b>MS</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0305917-04	683	952	1660	102.6%	
<b>MSD</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0305917-04	683	952	1540	90.0%	7.5%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004897-05		1000	855	85.5%	

# CASE NARRATIVE

## ENVIRONMENTAL LAB OF TEXAS

**Prepared for:**

Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240

**Order#:** G0305917

**Project:** TNM 98-05A

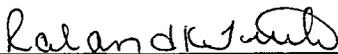
The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

SAMPLE ID	LAB ID	MATRIX	Date Collected	Date Received
NE Biomound-1	0305917-01	SOIL	03/04/2003	03/07/2003
NW Biomound-2	0305917-02	SOIL	03/04/2003	03/07/2003
SW Biomound-3	0305917-03	SOIL	03/04/2003	03/07/2003
SE Biomound-4	0305917-04	SOIL	03/04/2003	03/07/2003

Surrogate recoveries on the 8015M TPH are outside control limits due to matrix interference from coeluting compounds. (0305917-02)

The enclosed results of analyses are representative of the samples as received by the laboratory. Environmental Lab of Texas makes no representations or certifications as to the methods of sample collection, sample identification, or transportation handling procedures used prior to our receipt of samples. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved By:

  
Environmental Lab of Texas I, Ltd.

Date:

3-11-03



# ANALYTICAL REPORT

## Prepared for:

Camille Reynolds  
Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240

Project: TNM 98-05 A

PO#:

Order#: G0306894

Report Date: 07/09/2003

### Certificates

US EPA Laboratory Code TX00158

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240  
505/397/4701

Order#: G0306894  
Project: EO 2026  
Project Name: TNM 98-05 A  
Location: Lea County N.M.

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time Collected</u>	<u>Date / Time Received</u>	<u>Container</u>	<u>Preservative</u>
0306894-01	NE Biomound 5	SOIL	6/30/03 9:50	7/3/03 10:23	4 oz glass	ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 14.5 C		
0306894-02	NW Biomound 6	SOIL	6/30/03 10:15	7/3/03 10:23	4 oz glass	ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 14.5 C		
0306894-03	SE Biomound 7	SOIL	6/30/03 10:41	7/3/03 10:23	4 oz glass	ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 14.5 C		
0306894-04	SW Biomound 8	SOIL	6/30/03 11:08	7/3/03 10:23	4 oz glass	ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 14.5 C		

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240

Order#: G0306894  
Project: EO 2026  
Project Name: TNM 98-05 A  
Location: Lea County N.M.

Lab ID: 0306894-01  
Sample ID: NE Biomound 5

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		7/7/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	52.8	10.0
DRO, >C12-C35	561	10.0
TOTAL, C6-C35	614	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	111%	70	130
1-Chlorooctadecane	108%	70	130

Lab ID: 0306894-02  
Sample ID: NW Biomound 6

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		7/7/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	130	10.0
DRO, >C12-C35	2,280	10.0
TOTAL, C6-C35	2410	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	106%	70	130
1-Chlorooctadecane	108%	70	130

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 2

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0306894  
 Project: EO 2026  
 Project Name: TNM 98-05 A  
 Location: Lea County N.M.

Lab ID: 0306894-03  
 Sample ID: SE Biomound 7

**8015M**

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		7/7/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	67.9	10.0
DRO, >C12-C35	1,680	10.0
TOTAL, C6-C35	1748	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	105%	70	130
1-Chlorooctadecane	107%	70	130

Lab ID: 0306894-04  
 Sample ID: SW Biomound 8

**8015M**

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		7/7/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	29.4	10.0
DRO, >C12-C35	578	10.0
TOTAL, C6-C35	607	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	107%	70	130
1-Chlorooctadecane	105%	70	130

Approval: Jeanne McMurrey 07-10-03  
 Raland K. Tuttle, Lab Director, QA Officer Date  
 Celey D. Keene, Org. Tech. Director  
 Jeanne McMurrey, Inorg. Tech. Director  
 Sandra Biezugbe, Lab Tech.  
 Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 2 of 2

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8015M

Order#: G0306894

<b>BLANK</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	SOIL	0006104-02			<10.0		
<b>CONTROL</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	SOIL	0006104-03		952	791	83.1%	
<b>CONTROL DUP</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	SOIL	0006104-04		952	800	84%	1.1%
<b>CRM</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	SOIL	0006104-05		1000	953	95.3%	



**FILE**

# ANALYTICAL REPORT

**Prepared for:**

Camille Reynolds  
Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240

**Project:** TNM 98-05A

**PO#:**

**Order#:** G0307500

**Report Date:** 09/23/2003

**Certificates**

US EPA Laboratory Code TX00158

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240  
 505/397/4701

Order#: G0307500  
 Project: EO 2026  
 Project Name: TNM 98-05A  
 Location: Lea County, N.M.

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time Collected</u>	<u>Date / Time Received</u>	<u>Container</u>	<u>Preservative</u>
0307500-01	Northeast Quad Biomound-9	SOIL	9/18/2003 10:24	9/19/2003 13:00	4 oz glass	ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 1.0 C		
0307500-02	Southeast Quad Biomound-10	SOIL	9/18/2003 10:38	9/19/2003 13:00	4 oz glass	ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 1.0 C		
0307500-03	Northwest Quad Biomound-11	SOIL	9/18/2003 10:47	9/19/2003 13:00	4 oz glass	ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 1.0 C		
0307500-04	Southwest Quad Biomound-12	SOIL	9/18/2003 10:59	9/19/2003 13:00	4 oz glass	ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 1.0 C		

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0307500  
 Project: EO 2026  
 Project Name: TNM 98-05A  
 Location: Lea County, N.M.

Lab ID: 0307500-01  
 Sample ID: Northeast Quad Biomound-9

**8015M**

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		9/20/2003	1	1	JLH	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	22.3	10.0
DRO, >C12-C35	1,140	10.0
TOTAL, C6-C35	1,162	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	98%	70	130
1-Chlorooctadecane	81%	70	130

Lab ID: 0307500-02  
 Sample ID: Southeast Quad Biomound-10

**8015M**

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		9/20/2003	1	1	JLH	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	747	10.0
TOTAL, C6-C35	747	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	98%	70	130
1-Chlorooctadecane	79%	70	130

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 2

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0307500  
 Project: EO 2026  
 Project Name: TNM 98-05A  
 Location: Lea County, N.M.

Lab ID: 0307500-03  
 Sample ID: Northwest Quad Biomound-11

**8015M**

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		9/20/2003	1	1	JLH	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	1,020	10.0
TOTAL, C6-C35	1,020	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	103%	70	130
1-Chlorooctadecane	86%	70	130

Lab ID: 0307500-04  
 Sample ID: Southwest Quad Biomound-12

**8015M**

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		9/20/2003	1	1	JLH	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	14.6	10.0
DRO, >C12-C35	1,770	10.0
TOTAL, C6-C35	1,785	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	100%	70	130
1-Chlorooctadecane	81%	70	130

Approval: Jeanne McMurrey 09-24-03  
 Raland K. Tuffe, Lab Director, QA Officer Date  
 Celey D. Keene, Org. Tech. Director  
 Jeanne McMurrey, Inorg. Tech. Director  
 Sandra Biezugbe, Lab Tech.  
 Sara Molina, Lab Tech.

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8015M

Order#: G0307500

<i><b>BLANK</b></i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0006892-02			<10.0		
<i><b>CONTROL</b></i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0006892-03		2000	1624	81.2%	
<i><b>CONTROL DIIP</b></i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0006892-04		2000	1618	80.9%	0.4%
<i><b>SRM</b></i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0006892-05		1000	924	92.4%	



# ANALYTICAL REPORT

## Prepared for:

Camille Reynolds  
Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240

Project: TNM 98-05A

PO#:

Order#: G0308259

Report Date: 01/02/2004

### Certificates

US EPA Laboratory Code TX00158

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240  
505/397/4701

Order#: G0308259  
Project: EO 2026  
Project Name: TNM 98-05A  
Location: Lea County, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time Collected</u>	<u>Date / Time Received</u>	<u>Container</u>	<u>Preservative</u>
0308259-01	NE Biomond-13	SOIL	12/31/03 9:00	12/31/03 11:25	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 2.5 C		
0308259-02	NW Biomond-14	SOIL	12/31/03 9:17	12/31/03 11:25	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 2.5 C		
0308259-03	SE Biomond-15	SOIL	12/31/03 9:34	12/31/03 11:25	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 2.5 C		
0308259-04	SW Biomound-16	SOIL	12/31/03 9:10	12/31/03 11:25	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 2.5 C		

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
Environmental Technology Group, Inc.  
2540 W. Marland  
Hobbs, NM 88240

Order#: G0308259  
Project: EO 2026  
Project Name: TNM 98-05A  
Location: Lea County, NM

Lab ID: 0308259-01  
Sample ID: NE Biomond-13

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		12/31/03	1	1	JLH	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	18.7	10.0
DRO, >C12-C35	1,100	10.0
TOTAL, C6-C35	1,119	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	84%	70	130
1-Chlorooctadecane	79%	70	130

Lab ID: 0308259-02  
Sample ID: NW Biomond-14

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		12/31/03	1	1	JLH	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	21.7	10.0
DRO, >C12-C35	979	10.0
TOTAL, C6-C35	1,001	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	84%	70	130
1-Chlorooctadecane	81%	70	130

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Camille Reynolds  
 Environmental Technology Group, Inc.  
 2540 W. Marland  
 Hobbs, NM 88240

Order#: G0308259  
 Project: EO 2026  
 Project Name: TNM 98-05A  
 Location: Lea County, NM

Lab ID: 0308259-03  
 Sample ID: SE Biomond-15

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		12/31/03	1	1	JLH	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	17.6	10.0
DRO, >C12-C35	1,550	10.0
TOTAL, C6-C35	1,568	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	121%	70	130
1-Chlorooctadecane	121%	70	130

Lab ID: 0308259-04  
 Sample ID: SW Biomound-16

### 8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		12/31/03	1	1	JLH	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	1,000	10.0
TOTAL, C6-C35	1,000	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	103%	70	130
1-Chlorooctadecane	103%	70	130

Approval: Raland K Tuttle 1-02-04  
 Raland K. Tuttle, Lab Director, QA Officer      Date  
 Celey D. Keene, Org. Tech. Director  
 Jeanne McMurrey, Inorg. Tech. Director  
 Sandra Biezugbe, Lab Tech.  
 Sara Molina, Lab Tech.

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8015M

Order#: G0308259

<b>BLANK</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	SOIL	0007869-02			<10.0		
<b>CONTROL</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	SOIL	0007869-03		952	871	91.5%	
<b>MS</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	SOIL	0308259-01	1120	952	1995	91.9%	
<b>MSD</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	SOIL	0308259-01	1120	952	2116	104.6%	5.9%
<b>SRM</b>		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	SOIL	0007869-05		1000	1013	101.3%	



## Summary Report

Curt Stanley  
 Nova Safety & Environmental  
 2057 Commerce St.  
 Midland, TX 79703

Report Date: May 9, 2005

Work Order: 5042711

Project Location: Eunice  
 Project Name: 9805-A  
 Project Number: TNM 9805-A

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
60989	NE Quad 0-6	soil	2005-04-22	14:30	2005-04-27
60990	NE Quad 1'	soil	2005-04-22	14:50	2005-04-27
60991	NE Quad 2'	soil	2005-04-22	15:20	2005-04-27
60992	NW Quad 0-6	soil	2005-04-22	14:35	2005-04-27
60993	NW Quad 1'	soil	2005-04-22	14:55	2005-04-27
60994	NW Quad 2'	soil	2005-04-22	15:30	2005-04-27
60995	SW Quad 0-6	soil	2005-04-22	14:40	2005-04-27
60996	SW Quad 1'	soil	2005-04-22	15:00	2005-04-27
60997	SW Quad 2'	soil	2005-04-22	15:40	2005-04-27
60998	SE Quad 0-6	soil	2005-04-22	14:45	2005-04-27
60999	SE Quad 1'	soil	2005-04-22	15:10	2005-04-27
61000	SE Quad 2'	soil	2005-04-22	15:50	2005-04-27

Sample - Field Code	TPH DRO	TPH GRO
	DRO (mg/Kg)	GRO (mg/Kg)
60989 - NE Quad 0-6	924	<1.00
60990 - NE Quad 1'	536	2.75
60991 - NE Quad 2'	1080	10.8
60992 - NW Quad 0-6	1040	<2.00
60993 - NW Quad 1'	580	<2.00
60994 - NW Quad 2'	524	5.63
60995 - SW Quad 0-6	988	<5.00
60996 - SW Quad 1'	495	<1.00
60997 - SW Quad 2'	340	<1.00
60998 - SE Quad 0-6	758	<2.00
60999 - SE Quad 1'	467	<2.00
61000 - SE Quad 2'	674	<2.00

Sample: 60991 - NE Quad 2'

Param	Flag	Result	Units	RL
Benzene		<0.0100	mg/Kg	0.00100
Toluene		<0.0100	mg/Kg	0.00100
Ethylbenzene		<0.0100	mg/Kg	0.00100

continued ...

Report Date: May 9, 2005  
TNM 9805-A

Work Order: 5042711  
9805-A

Page Number: 2 of 2  
Eunice

*sample 60991 continued ...*

Param	Flag	Result	Units	RL
Xylene		<0.0100	mg/Kg	0.00100

# TRACE ANALYSIS, INC.

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Lubbock, Texas 79424  
El Paso, Texas 79932

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E-Mail: lab@traceanalysis.com

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## Analytical and Quality Control Report

Curt Stanley  
Nova Safety & Environmental  
2057 Commerce St.  
Midland, TX 79703

Report Date: May 9, 2005

Work Order: 5042711

Project Location: Eunice  
Project Name: 9805-A  
Project Number: TNM 9805-A

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
60989	NE Quad 0-6	soil	2005-04-22	14:30	2005-04-27
60990	NE Quad 1'	soil	2005-04-22	14:50	2005-04-27
60991	NE Quad 2'	soil	2005-04-22	15:20	2005-04-27
60992	NW Quad 0-6	soil	2005-04-22	14:35	2005-04-27
60993	NW Quad 1'	soil	2005-04-22	14:55	2005-04-27
60994	NW Quad 2'	soil	2005-04-22	15:30	2005-04-27
60995	SW Quad 0-6	soil	2005-04-22	14:40	2005-04-27
60996	SW Quad 1'	soil	2005-04-22	15:00	2005-04-27
60997	SW Quad 2'	soil	2005-04-22	15:40	2005-04-27
60998	SE Quad 0-6	soil	2005-04-22	14:45	2005-04-27
60999	SE Quad 1'	soil	2005-04-22	15:10	2005-04-27
61000	SE Quad 2'	soil	2005-04-22	15:50	2005-04-27

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 14 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

## Analytical Report

**Sample: 60989 - NE Quad 0-6**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 17715	Date Analyzed: 2005-04-27	Analyzed By: DS
Prep Batch: 15614	Sample Preparation: 2005-04-27	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		924	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		217	mg/Kg	5	30.0	145	62.8 - 115

**Sample: 60989 - NE Quad 0-6**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 17745	Date Analyzed: 2005-04-28	Analyzed By: JG
Prep Batch: 15640	Sample Preparation: 2005-04-28	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.850	mg/Kg	10	0.100	85	10 - 160
4-Bromofluorobenzene (4-BFB)		0.848	mg/Kg	10	0.100	85	10 - 174

**Sample: 60990 - NE Quad 1'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 17715	Date Analyzed: 2005-04-27	Analyzed By: DS
Prep Batch: 15614	Sample Preparation: 2005-04-27	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		536	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		170	mg/Kg	1	150	113	62.8 - 115

**Sample: 60990 - NE Quad 1'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 17745	Date Analyzed: 2005-04-28	Analyzed By: JG
Prep Batch: 15640	Sample Preparation: 2005-04-28	Prepared By: JG

<sup>1</sup>High surrogate recovery due to peak interference.





**Sample: 60993 - NW Quad 1'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 17745	Date Analyzed: 2005-04-28	Analyzed By: JG
Prep Batch: 15640	Sample Preparation: 2005-04-28	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	20	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.812	mg/Kg	20	0.100	41	10 - 160
4-Bromofluorobenzene (4-BFB)		0.736	mg/Kg	20	0.100	37	10 - 174

**Sample: 60994 - NW Quad 2'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 17715	Date Analyzed: 2005-04-27	Analyzed By: DS
Prep Batch: 15614	Sample Preparation: 2005-04-27	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		524	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		133	mg/Kg	1	150	89	62.8 - 115

**Sample: 60994 - NW Quad 2'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 17745	Date Analyzed: 2005-04-28	Analyzed By: JG
Prep Batch: 15640	Sample Preparation: 2005-04-28	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		5.63	mg/Kg	20	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.716	mg/Kg	20	0.100	36	10 - 160
4-Bromofluorobenzene (4-BFB)		0.741	mg/Kg	20	0.100	37	10 - 174

**Sample: 60995 - SW Quad 0-6**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 17715	Date Analyzed: 2005-04-27	Analyzed By: DS
Prep Batch: 15614	Sample Preparation: 2005-04-27	Prepared By: DS





**Sample: 60998 - SE Quad 0-6**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 17800	Date Analyzed: 2005-04-30	Analyzed By: AG
Prep Batch: 15680	Sample Preparation: 2005-04-30	Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	20	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.06	mg/Kg	20	0.100	53	10 - 160
4-Bromofluorobenzene (4-BFB)		0.957	mg/Kg	20	0.100	48	10 - 174

**Sample: 60999 - SE Quad 1'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 17715	Date Analyzed: 2005-04-27	Analyzed By: DS
Prep Batch: 15614	Sample Preparation: 2005-04-27	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		467	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		147	mg/Kg	1	150	98	62.8 - 115

**Sample: 60999 - SE Quad 1'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 17800	Date Analyzed: 2005-04-30	Analyzed By: AG
Prep Batch: 15680	Sample Preparation: 2005-04-30	Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	20	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.719	mg/Kg	20	0.100	36	10 - 160
4-Bromofluorobenzene (4-BFB)		0.647	mg/Kg	20	0.100	32	10 - 174

**Sample: 61000 - SE Quad 2'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 17715	Date Analyzed: 2005-04-27	Analyzed By: DS
Prep Batch: 15614	Sample Preparation: 2005-04-27	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		674	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	<sup>9</sup>	220	mg/Kg	1	150	147	62.8 - 115

Sample: 61000 - SE Quad 2'

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 17800	Date Analyzed: 2005-04-30	Analyzed By: AG
Prep Batch: 15680	Sample Preparation: 2005-04-30	Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	20	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.732	mg/Kg	20	0.100	37	10 - 160
4-Bromofluorobenzene (4-BFB)		0.745	mg/Kg	20	0.100	37	10 - 174

Method Blank (1) QC Batch: 17715

Parameter	Flag	MDL Result	Units	RL
DRO		<7.24	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		103	mg/Kg	1	150	69	62.8 - 115

Method Blank (1) QC Batch: 17745

Parameter	Flag	MDL Result	Units	RL
GRO		<0.381	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	10	0.100	102	81.8 - 109
4-Bromofluorobenzene (4-BFB)		0.875	mg/Kg	10	0.100	88	50.7 - 113

Method Blank (1) QC Batch: 17800

<sup>9</sup>High surrogate recovery due to peak interference.

Parameter	Flag	MDL Result	Units	RL
GRO		<0.381	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.996	mg/Kg	10	0.100	100	81.8 - 109
4-Bromofluorobenzene (4-BFB)		0.849	mg/Kg	10	0.100	85	50.7 - 113

Method Blank (1) QC Batch: 17919

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00333	mg/Kg	0.001
Toluene		<0.00353	mg/Kg	0.001
Ethylbenzene		<0.00339	mg/Kg	0.001
Xylene		<0.0103	mg/Kg	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.829	mg/Kg	10	0.100	83	74.5 - 114
4-Bromofluorobenzene (4-BFB)		0.793	mg/Kg	10	0.100	79	36.6 - 112

Laboratory Control Spike (LCS-1) QC Batch: 17715

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	206	199	mg/Kg	1	250	<7.24	82	3	68.4 - 128	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	110	107	mg/Kg	1	150	73	72	62.8 - 115

Laboratory Control Spike (LCS-1) QC Batch: 17745

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	8.45	8.51	mg/Kg	10	1.00	<0.381	84	1	72 - 124	21

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.02	1.00	mg/Kg	10	0.100	102	100	80.4 - 113
4-Bromofluorobenzene (4-BFB)	0.915	0.902	mg/Kg	10	0.100	92	90	72.2 - 119

Laboratory Control Spike (LCS-1) QC Batch: 17800

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	8.01	8.22	mg/Kg	10	1.00	<0.381	80	3	72 - 124	21

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.988	0.970	mg/Kg	10	0.100	99	97	80.4 - 113
4-Bromofluorobenzene (4-BFB)	0.919	0.914	mg/Kg	10	0.100	92	91	72.2 - 119

**Laboratory Control Spike (LCS-1) QC Batch: 17919**

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.934	0.952	mg/Kg	10	0.100	<0.0333	93	2	79.8 - 114	20
Toluene	0.925	0.938	mg/Kg	10	0.100	<0.0353	92	1	79.7 - 115	20
Ethylbenzene	0.912	0.931	mg/Kg	10	0.100	<0.0339	91	2	78.7 - 116	20
Xylene	2.69	2.74	mg/Kg	10	0.300	<0.103	90	2	78.7 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.828	0.841	mg/Kg	10	0.100	83	84	76.6 - 114
4-Bromofluorobenzene (4-BFB)	0.831	0.839	mg/Kg	10	0.100	83	84	72 - 111

**Matrix Spike (MS-1) QC Batch: 17800 Spiked Sample: 60998**

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	7.43	7.69	mg/Kg	20	1.00	<0.763	37	3	10 - 182	19.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.773	0.765	mg/Kg	20	0.1	39	38	10 - 160
4-Bromofluorobenzene (4-BFB)	0.825	0.815	mg/Kg	20	0.1	41	41	10 - 174

**Standard (ICV-1) QC Batch: 17715**

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	202	81	75 - 125	2005-04-27

**Standard (CCV-1) QC Batch: 17715**

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	200	80	75 - 125	2005-04-27

Standard (CCV-2) QC Batch: 17715

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	204	81	75 - 125	2005-04-27

Standard (ICV-1) QC Batch: 17745

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.851	85	85 - 115	2005-04-28

Standard (CCV-1) QC Batch: 17745

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.961	96	85 - 115	2005-04-28

Standard (ICV-1) QC Batch: 17800

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.994	99	85 - 115	2005-04-30

Standard (CCV-1) QC Batch: 17800

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.970	97	85 - 115	2005-04-30

Standard (CCV-1) QC Batch: 17919

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0947	95	85 - 115	2005-05-07
Toluene		mg/Kg	0.100	0.0932	93	85 - 115	2005-05-07
Ethylbenzene		mg/Kg	0.100	0.0926	93	85 - 115	2005-05-07
Xylene		mg/Kg	0.300	0.275	92	85 - 115	2005-05-07

Standard (CCV-2) QC Batch: 17919

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0909	91	85 - 115	2005-05-07
Toluene		mg/Kg	0.100	0.0894	89	85 - 115	2005-05-07
Ethylbenzene		mg/Kg	0.100	0.0876	88	85 - 115	2005-05-07
Xylene		mg/Kg	0.300	0.258	86	85 - 115	2005-05-07

Page 1 of 1

**TraceAnalysis, Inc.**  
 8701 Aberdeen Avenue, Ste. 9  
 Lubbock, Texas 79424  
 Tel (806) 794-1296  
 Fax (806) 794-1298  
 T (800) 378-1298  
 email: lab@traceanalysis.com

155 McCutcheon, Suite H  
 El Paso, Texas 79932  
 Tel (915) 585-3443  
 Fax (915) 585-4944  
 T (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST  
 LAB Order ID # 5042711

Company Name: None Phone #: 432 570 7720  
 Address: (Street, City, Zip) 2057 Commercial Fax #: \_\_\_\_\_ e-mail: \_\_\_\_\_  
 Contact Person: Curt Stanley  
 Invoice to: (If different from above) Plains  
 Project #: TNMP 9805-A Project Name: 9805-A  
 Project Location: Eunice Sampler Signature: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING DATE	TIME
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH		
60989	NE Quad 0.6	1	1 qt	X								4/26/05	7:30
990	NE Quad 1'												7:30
991	NE Quad 2'												7:35
992	NW Quad 0.6												2:55
993	NW Quad 1'												9:30
994	NW Quad 2'												2:40
995	SW Quad 0.6												3:00
996	SW Quad 1'												3:40
997	SW Quad 2'												2:45
998	SE Quad 0.6												9:10
999	SE Quad 1'												3:50

Relinquished by: [Signature] Date: 4/26/05 Time: \_\_\_\_\_  
 Received by: [Signature] Date: 4/26/05 Time: \_\_\_\_\_  
 Relinquished by: [Signature] Date: 4/27-05 Time: \_\_\_\_\_  
 Received at Laboratory by: [Signature] Date: \_\_\_\_\_ Time: \_\_\_\_\_

MTBE 80218/602  
 BTEX 80218/602  
 TPH 418 1/TX1005  
 TX 1005 Extended (C39)  
 PAH 8270C  
 Total Metals Ag As Ba Cd Cr Pb Se Hg 60108/200 7  
 TCLP Metals Ag As Ba Cd Cr Pb Se Hg  
 TCLP Volatiles  
 TCLP Semi Volatiles  
 TCLP Pesticides  
 RCI  
 GC/MS Vol 82608/624  
 GC/MS Sem. Vol 8270C/625  
 PCB's 8082/608  
 Pesticides 8081A/808  
 BOD TSS pH  
 Moisture Content  
 Turn Around Time if different from standard

LAB USE ONLY  
 Intact  Y  N  
 Headspace  Y  N  
 Temp  Y  N  
 Log-in Review  M  
 Carrier # 9805-A P/39460-7

REMARKS:  
NO BTEX until verbal  
on TPH  
 Dry Weight Basis Required  
 TRRP Report Required  
 Check if Special Reporting Limits Are Needed

Submitted of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. [Signature]  
 ORIGINAL COPY

6701 Aberdeen Avenue, Ste. 9  
Lubbock, Texas 79424  
Tel (806) 794-1296  
Fax (806) 794-1298  
1 (800) 378-1296  
email: lab@traceanalysis.com

# Trace Analysis, Inc.

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # **5042711**

Company Name: None Phone #: 432 520 7720  
Address: (Street, City, Zip) Fax #: \_\_\_\_\_  
Contact Person: Curt Stanley e-mail: \_\_\_\_\_

Invoice to: (if different from above) Plains  
Project #: TURN 9805-A

Project Location: Emmice  
Project Name: 9805-A  
Sample Signature: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING		
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
60989	NE Quad 0-6	1	4oz	X									4/26/05	9:30
990	NE Quad 1'													2:50
991	NE Quad 2'													3:20
992	NW Quad 0-6													2:35
993	NW Quad 1'													2:55
994	NW Quad 2'													3:30
995	SW Quad 0-6													2:40
996	SW Quad 1'													3:00
997	SW Quad 2'													3:40
998	SE Quad 0-6													2:45
999	SE Quad 1'													3:10
9999	SE Quad 2'													3:50

Reinquisitioned by: [Signature] Date: 4/26/05 Time: 0900  
Received by: [Signature] Date: 4/26/05 Time: 0900

Reinquisitioned by: [Signature] Date: 4/26/05 Time: 1930  
Received by: [Signature] Date: 4/27/05 Time: 1000

Reinquisitioned by: [Signature] Date: 4/27/05 Time: 1000  
Received at Laboratory by: [Signature] Date: 4/27/05 Time: 1000

### ANALYSIS REQUEST

(Circle or Specify Method No.)

<input type="checkbox"/>	TX 1005 Extended (C35)
<input type="checkbox"/>	PAH 8270C
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7
<input type="checkbox"/>	TCLP Volatiles
<input type="checkbox"/>	TCLP Semi Volatiles
<input type="checkbox"/>	TCLP Pesticides
<input type="checkbox"/>	RCI
<input type="checkbox"/>	GC/MS Vol. 8260B/624
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C/625
<input type="checkbox"/>	PCBs 8082/608
<input type="checkbox"/>	Pesticides 8081A/608
<input type="checkbox"/>	BOD, TSS, pH
<input type="checkbox"/>	Moisture Content
<input type="checkbox"/>	Turn Around Time if different from standard

REMARKS: Hold BTEX until verbal on 7 PH add BTEX 60991 per CS 5-6-05

LAB USE ONLY  
Intact  Y  N  
Headspace  Y  N  
Temp    
Log-in Review

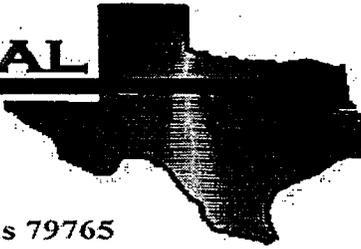
Dry Weight Basis Required  
 TRRP Report Required  
 Check if Special Reporting Limits Are Needed

Carrier # Done Star P394607

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 12 samples

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**E** NVIRONMENTAL  
LAB OF



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Plains All American Pipeline, L.P.

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: No Project

Project Number: 98-05A

Location: Lea, NM

Lab Order Number: 4I01007

Report Date: 09/08/04

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: No Project  
Project Number: 98-05A  
Project Manager: Plains All American Pipeline, L.P.

Fax: (432) 687-4914

Reported:  
09/08/04 11:46

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NE Quad 0-6 inch	4I01007-01	Soil	08/27/04 09:30	09/01/04 14:47
NE Quad 1'	4I01007-02	Soil	08/27/04 09:50	09/01/04 14:47
NE Quad 2'	4I01007-03	Soil	08/27/04 10:21	09/01/04 14:47
NW Quad 0'6 inch	4I01007-04	Soil	08/27/04 09:35	09/01/04 14:47
NW Quad 1'	4I01007-05	Soil	08/27/04 09:55	09/01/04 14:47
NW Quad 2'	4I01007-06	Soil	08/27/04 10:35	09/01/04 14:47
SW Quad 0-6 inch	4I01007-07	Soil	08/27/04 09:45	09/01/04 14:47
SW Quad 1'	4I01007-08	Soil	08/27/04 10:07	09/01/04 14:47
SW Quad 2'	4I01007-09	Soil	08/27/04 10:47	09/01/04 14:47
SE Quad 0-6 inch	4I01007-10	Soil	08/27/04 09:40	09/01/04 14:47
SE Quad 1'	4I01007-11	Soil	08/27/04 10:00	09/01/04 14:47
SE Quad 2'	4I01007-12	Soil	08/27/04 11:03	09/01/04 14:47

Plains All American EH & S  
 1301 S. County Road 1150  
 Midland TX, 79706-4476

Project: No Project  
 Project Number: 98-05A  
 Project Manager: Plains All American Pipeline, L.P.

Fax: (432) 687-4914  
 Reported:  
 09/08/04 11:46

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>NE Quad 0-6 inch (4I01007-01) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI40207	09/02/04	09/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		78.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		96.4 %	70-130		"	"	"	"	
<b>NE Quad 1' (4I01007-02) Soil</b>									
Gasoline Range Organics C6-C12	24.4	10.0	mg/kg dry	1	EI40207	09/02/04	09/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	1010	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	1030	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		71.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		101 %	70-130		"	"	"	"	
<b>NE Quad 2' (4I01007-03) Soil</b>									
Gasoline Range Organics C6-C12	49.7	10.0	mg/kg dry	1	EI40207	09/02/04	09/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	1820	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	1870	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		82.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		119 %	70-130		"	"	"	"	
<b>NW Quad 0'6 inch (4I01007-04) Soil</b>									
Gasoline Range Organics C6-C12	11.4	10.0	mg/kg dry	1	EI40207	09/02/04	09/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	1080	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	1090	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		91.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		121 %	70-130		"	"	"	"	
<b>NW Quad 1' (4I01007-05) Soil</b>									
Gasoline Range Organics C6-C12	J [7.55]	10.0	mg/kg dry	1	EI40207	09/02/04	09/06/04	EPA 8015M	J
Diesel Range Organics >C12-C35	553	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	553	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		85.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		115 %	70-130		"	"	"	"	

Environmental Lab of Texas

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Plains All American EH & S  
 1301 S. County Road 1150  
 Midland TX, 79706-4476

Project: No Project  
 Project Number: 98-05A  
 Project Manager: Plains All American Pipeline, L.P.

Fax: (432) 687-4914

Reported:  
 09/08/04 11:46

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>NW Quad 2' (4I01007-06) Soil</b>									
Gasoline Range Organics C6-C12	12.0	10.0	mg/kg dry	1	EI40207	09/02/04	09/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	147	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	159	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		73.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		90.4 %	70-130		"	"	"	"	
<b>SW Quad 0-6 inch (4I01007-07) Soil</b>									
Gasoline Range Organics C6-C12	ND	20.0	mg/kg dry	2	EI40207	09/02/04	09/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	340	20.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	340	20.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		29.8 %	70-130		"	"	"	"	S-06
Surrogate: 1-Chlorooctadecane		33.0 %	70-130		"	"	"	"	S-06
<b>SW Quad 1' (4I01007-08) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI40207	09/02/04	09/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		71.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		73.2 %	70-130		"	"	"	"	
<b>SW Quad 2' (4I01007-09) Soil</b>									
Gasoline Range Organics C6-C12	35.8	10.0	mg/kg dry	1	EI40207	09/02/04	09/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	1610	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	1650	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		83.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		118 %	70-130		"	"	"	"	
<b>SE Quad 0-6 inch (4I01007-10) Soil</b>									
Gasoline Range Organics C6-C12	J [8.82]	10.0	mg/kg dry	1	EI40207	09/02/04	09/06/04	EPA 8015M	J
Diesel Range Organics >C12-C35	547	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	547	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		70.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		82.6 %	70-130		"	"	"	"	

Environmental Lab of Texas

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Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: No Project  
Project Number: 98-05A  
Project Manager: Plains All American Pipeline, L.P.

Fax: (432) 687-4914

Reported:  
09/08/04 11:46

**Organics by GC**  
**Environmental Lab of Texas.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SE Quad 1' (4I01007-11) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI40207	09/02/04	09/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		72.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		76.8 %	70-130		"	"	"	"	
<b>SE Quad 2' (4I01007-12) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI40207	09/02/04	09/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		70.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		73.2 %	70-130		"	"	"	"	

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: No Project  
Project Number: 98-05A  
Project Manager: Plains All American Pipeline, L.P.

Fax: (432) 687-4914

Reported:  
09/08/04 11:46

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NE Quad 0-6 inch (4I01007-01) Soil									
% Solids	80.0		%	1	EI40711	09/02/04	09/02/04	% calculation	
NE Quad 1' (4I01007-02) Soil									
% Solids	89.0		%	1	EI40711	09/02/04	09/02/04	% calculation	
NE Quad 2' (4I01007-03) Soil									
% Solids	92.0		%	1	EI40711	09/02/04	09/02/04	% calculation	
NW Quad 0'6 inch (4I01007-04) Soil									
% Solids	91.0		%	1	EI40711	09/02/04	09/02/04	% calculation	
NW Quad 1' (4I01007-05) Soil									
% Solids	85.0		%	1	EI40711	09/02/04	09/02/04	% calculation	
NW Quad 2' (4I01007-06) Soil									
% Solids	76.0		%	1	EI40711	09/02/04	09/02/04	% calculation	
SW Quad 0-6 inch (4I01007-07) Soil									
% Solids	68.0		%	1	EI40711	09/02/04	09/02/04	% calculation	
SW Quad 1' (4I01007-08) Soil									
% Solids	70.0		%	1	EI40711	09/02/04	09/02/04	% calculation	
SW Quad 2' (4I01007-09) Soil									
% Solids	89.0		%	1	EI40711	09/02/04	09/02/04	% calculation	
SE Quad 0-6 inch (4I01007-10) Soil									
% Solids	91.0		%	1	EI40711	09/02/04	09/02/04	% calculation	

Environmental Lab of Texas

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Page 5 of 9

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: No Project  
Project Number: 98-05A  
Project Manager: Plains All American Pipeline, L.P.

Fax: (432) 687-4914  
Reported:  
09/08/04 11:46

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SE Quad 1' (4I01007-11) Soil									
% Solids	83.0		%	1	EI40711	09/02/04	09/02/04	% calculation	
SE Quad 2' (4I01007-12) Soil									
% Solids	71.0		%	1	EI40711	09/02/04	09/02/04	% calculation	

Plains All American EH & S  
 1301 S. County Road 1150  
 Midland TX, 79706-4476

Project: No Project  
 Project Number: 98-05A  
 Project Manager: Plains All American Pipeline, L.P.

Fax: (432) 687-4914

Reported:  
 09/08/04 11:46

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch EI40207 - Solvent Extraction (GC)**

**Blank (EI40207-BLK1)**

Prepared: 09/02/04 Analyzed: 09/06/04

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	37.3		mg/kg	50.0		74.6	70-130			
Surrogate: 1-Chlorooctadecane	41.9		"	50.0		83.8	70-130			

**LCS (EI40207-BS1)**

Prepared: 09/02/04 Analyzed: 09/07/04

Gasoline Range Organics C6-C12	444	10.0	mg/kg wet	500		88.8	75-125			
Diesel Range Organics >C12-C35	504	10.0	"	500		101	75-125			
Total Hydrocarbon C6-C35	948	10.0	"	1000		94.8	75-125			
Surrogate: 1-Chlorooctane	55.7		mg/kg	50.0		111	70-130			
Surrogate: 1-Chlorooctadecane	64.0		"	50.0		128	70-130			

**Calibration Check (EI40207-CCV1)**

Prepared: 09/02/04 Analyzed: 09/07/04

Gasoline Range Organics C6-C12	442		mg/kg	500		88.4	80-120			
Diesel Range Organics >C12-C35	551		"	500		110	80-120			
Total Hydrocarbon C6-C35	993		"	1000		99.3	80-120			
Surrogate: 1-Chlorooctane	64.7		"	50.0		129	70-130			
Surrogate: 1-Chlorooctadecane	63.7		"	50.0		127	70-130			

**Matrix Spike (EI40207-MS1)**

Source: 4I01007-01

Prepared: 09/02/04 Analyzed: 09/07/04

Gasoline Range Organics C6-C12	571	10.0	mg/kg dry	625	ND	91.4	75-125			
Diesel Range Organics >C12-C35	647	10.0	"	625	ND	104	75-125			
Total Hydrocarbon C6-C35	1220	10.0	"	1250	ND	97.6	75-125			
Surrogate: 1-Chlorooctane	42.4		mg/kg	50.0		84.8	70-130			
Surrogate: 1-Chlorooctadecane	40.7		"	50.0		81.4	70-130			

**Matrix Spike Dup (EI40207-MSD1)**

Source: 4I01007-01

Prepared: 09/02/04 Analyzed: 09/07/04

Gasoline Range Organics C6-C12	583	10.0	mg/kg dry	625	ND	93.3	75-125	2.08	20	
Diesel Range Organics >C12-C35	667	10.0	"	625	ND	107	75-125	3.04	20	
Total Hydrocarbon C6-C35	1250	10.0	"	1250	ND	100	75-125	2.43	20	
Surrogate: 1-Chlorooctane	43.7		mg/kg	50.0		87.4	70-130			
Surrogate: 1-Chlorooctadecane	41.6		"	50.0		83.2	70-130			

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 7 of 9

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: No Project  
Project Number: 98-05A  
Project Manager: Plains All American Pipeline, L.P.

Fax: (432) 687-4914  
Reported:  
09/08/04 11:46

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EI40711 - General Preparation (Prep)</b>										
<b>Blank (EI40711-BLK1)</b> Prepared & Analyzed: 09/02/04										
% Solids	100		%							
<b>Duplicate (EI40711-DUP1)</b> Source: 4H31009-01 Prepared & Analyzed: 09/02/04										
% Solids	93.0		%		94.0			1.07	20	

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: No Project  
Project Number: 98-05A  
Project Manager: Plains All American Pipeline, L.P.

Fax: (432) 687-4914

Reported:  
09/08/04 11:46

### Notes and Definitions

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:

Raland K. Tuttle

Date:

9-08-04

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
James L. Hawkins, Chemist/Geologist  
Sandra Biezugbe, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Plains All American [ Plains Marketing, L.P. ~ Plains Pipeline, L.P. ]

CHAIN-OF-CUSTODY and ANALYSIS REQUEST  
Lab Order ID #:



Contact: Camille Reynolds Phone: 505/441-0965  
 Company Name: Plains Fax #: \_\_\_\_\_  
 Address: \_\_\_\_\_ Email: CS Reynolds@PAMP.com  
 Invoice To: Plains EH&S Sampler: Camille Reynolds  
5805 E. Hwy 80, Midland, TX 79706 Daniel Bryant  
 Turnaround Time (Business Days): \*\*Anything but Normal requires EH&S Mgr. Approval\*\*

Normal  24 hr.  2 days  3 days  Other  
 Normal  MDL  MQL  PQL  Special

Lab ID	Field Code	Matrix	Date/Time	# Containers	Preservatives	MTE 8021B	BTEX 8021B	TX 1005	TPH 8015M	PAH 8270C	TCLP Volatiles	TCLP Semi-Volatiles	TCLP Pesticides	RCL	GCMS Volatiles 8260B	GCMS Semi-Vols 8270C	BOD, TSS, pH
4101004	7 Mgr-01-04 -01 NE Qued 0'-6"	Soil	8/27/04 09:30	1	HCl HN03 H2SO4 NaOH Ice None Ice	X	X	X	X	X	X	X	X	X	X	X	
	-02 NE Qued 1'		09:50	1													
	-03 NE Qued 2'		10:21	1													
	-04 NW Qued 0'-6"		09:35	1													
	-05 NW Qued 1'		09:55	1													
	-06 NW Qued 2'		10:35	1													
	-07 SW Qued 0'-6"		09:45	1													
	-08 SW Qued 1'		10:07	1													
	-09 SW Qued 2'		10:47	1													
	-10 SE Qued 0'-6"		09:40	1													
	-11 SE Qued 1'		10:00	1													
	-12 SE Qued 2'		11:03	1													

Submittal of samples constitutes agreement to Terms and Conditions on this COC.  
 Relinquished by: Daniel Bryant Date: 9/1/04 Time: 14:47  
 Received at lab by: P. K. Kears Date: 9/1/04 Time: 14:47  
 Lab Use Only  
 Intact: yes Headspace: NO Temp: -6.0°C Login Review: 4oz glass  
 \* Hold BTEX analysis until verbal on TPA.

**Environmental Lab of Texas**  
**Variance / Corrective Action Report – Sample Log-In**

Client: Plains All American

Date/Time: 9/1/04 14:47

Order #: \_\_\_\_\_

Initials: CDK

**Sample Receipt Checklist**

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	No	-6.0 C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/> Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	<input checked="" type="checkbox"/> Not present
Custody Seals intact on sample bottles?	<input checked="" type="checkbox"/> Yes	No	Not present
Chain of custody present?	<input checked="" type="checkbox"/> Yes	No	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	No	
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/> Yes	No	
Container labels legible and intact?	<input checked="" type="checkbox"/> Yes	No	
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	No	
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	No	
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	No	
VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	No	Not Applicable

Other observations:

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**Variance Documentation:**

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
 Regarding: \_\_\_\_\_

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Corrective Action Taken:

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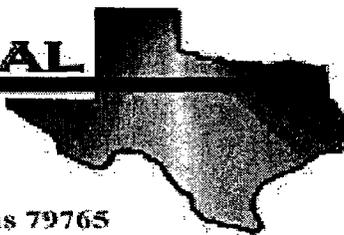


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**E** NVIRONMENTAL  
LAB OF



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: TNM-98-05A

Project Number: TNM-98-05A

Location: Eunice, NM

Lab Order Number: 5J24017

Report Date: 10/26/05

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: TNM-98-05A  
Project Number: TNM-98-05A  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
10/26/05 11:38

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ESW-1	5J24017-01	Soil	10/24/05 11:30	10/24/05 16:43

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: TNM-98-05A  
Project Number: TNM-98-05A  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
10/26/05 11:38

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>ESW-1 (5J24017-01) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ52406	10/24/05	10/26/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		78.6 %	70-130	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		106 %	70-130	"	"	"	"	"	

Environmental Lab of Texas

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Page 2 of 6

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: TNM-98-05A  
Project Number: TNM-98-05A  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
10/26/05 11:38

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
ESW-1 (5J24017-01) Soil									
% Moisture	9.4	0.1	%	1	EJ52503	10/24/05	10/25/05	% calculation	

Environmental Lab of Texas

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Page 3 of 6

Plains All American EH & S  
 1301 S. County Road 1150  
 Midland TX, 79706-4476

Project: TNM-98-05A  
 Project Number: TNM-98-05A  
 Project Manager: Camille Reynolds

Fax: (432) 687-4914  
 Reported:  
 10/26/05 11:38

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Notes
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**Batch EJ52406 - Solvent Extraction (GC)**

**Blank (EJ52406-BLK1)** Prepared: 10/24/05 Analyzed: 10/26/05

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	46.9		mg/kg	50.0		93.8	70-130			
Surrogate: 1-Chlorooctadecane	49.7		"	50.0		99.4	70-130			

**LCS (EJ52406-BS1)** Prepared: 10/24/05 Analyzed: 10/26/05

Gasoline Range Organics C6-C12	467	10.0	mg/kg wet	500		93.4	75-125			
Diesel Range Organics >C12-C35	435	10.0	"	500		87.0	75-125			
Total Hydrocarbon C6-C35	902	10.0	"	1000		90.2	75-125			
Surrogate: 1-Chlorooctane	56.2		mg/kg	50.0		112	70-130			
Surrogate: 1-Chlorooctadecane	59.3		"	50.0		119	70-130			

**Calibration Check (EJ52406-CCV1)** Prepared: 10/24/05 Analyzed: 10/26/05

Gasoline Range Organics C6-C12	501		mg/kg	500		100	80-120			
Diesel Range Organics >C12-C35	459		"	500		91.8	80-120			
Total Hydrocarbon C6-C35	960		"	1000		96.0	80-120			
Surrogate: 1-Chlorooctane	49.4		"	50.0		98.8	0-200			
Surrogate: 1-Chlorooctadecane	55.6		"	50.0		111	0-200			

**Matrix Spike (EJ52406-MS1)** Source: 5J23004-26 Prepared: 10/24/05 Analyzed: 10/26/05

Gasoline Range Organics C6-C12	450	10.0	mg/kg dry	536	ND	84.0	75-125			
Diesel Range Organics >C12-C35	422	10.0	"	536	ND	78.7	75-125			
Total Hydrocarbon C6-C35	872	10.0	"	1070	ND	81.5	75-125			
Surrogate: 1-Chlorooctane	52.7		mg/kg	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane	55.8		"	50.0		112	70-130			

**Matrix Spike Dup (EJ52406-MSD1)** Source: 5J23004-26 Prepared: 10/24/05 Analyzed: 10/26/05

Gasoline Range Organics C6-C12	462	10.0	mg/kg dry	536	ND	86.2	75-125	2.63	20	
Diesel Range Organics >C12-C35	435	10.0	"	536	ND	81.2	75-125	3.03	20	
Total Hydrocarbon C6-C35	897	10.0	"	1070	ND	83.8	75-125	2.83	20	
Surrogate: 1-Chlorooctane	53.0		mg/kg	50.0		106	70-130			
Surrogate: 1-Chlorooctadecane	56.1		"	50.0		112	70-130			

Environmental Lab of Texas

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Page 4 of 6

Plains All American EH & S  
 1301 S. County Road 1150  
 Midland TX, 79706-4476

Project: TNM-98-05A  
 Project Number: TNM-98-05A  
 Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
 10/26/05 11:38

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**

**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EJ52503 - General Preparation (Prep)**

<b>Blank (EJ52503-BLK1)</b>		Prepared: 10/24/05 Analyzed: 10/25/05								
% Solids	100		%							
<b>Duplicate (EJ52503-DUP1)</b>		Source: 5J21011-01		Prepared: 10/24/05 Analyzed: 10/25/05						
% Solids	94.3		%		93.8			0.532	20	
<b>Duplicate (EJ52503-DUP2)</b>		Source: 5J23004-15		Prepared: 10/24/05 Analyzed: 10/25/05						
% Solids	94.6		%		94.5			0.106	20	
<b>Duplicate (EJ52503-DUP3)</b>		Source: 5J23005-04		Prepared: 10/24/05 Analyzed: 10/25/05						
% Solids	95.4		%		96.1			0.731	20	

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

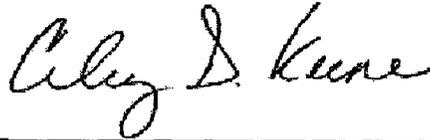
Project: TNM-98-05A  
Project Number: TNM-98-05A  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
10/26/05 11:38

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate



Report Approved By: \_\_\_\_\_

Date: 10/26/2005

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
James L. Hawkins, Chemist/Geologist  
Sandra Sanchez, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.



# Environmental Lab of Texas

## Variance / Corrective Action Report – Sample Log-In

Client: Plains P/L

Date/Time: 10-24-08 @ 1643

Order #: 5J24017

Initials: JMM

### Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<del>O.S</del> C
Shipping container/cooler in good condition?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	N/A
Custody Seals intact on shipping container/cooler?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Not present <sup>N/A</sup>
Custody Seals intact on sample bottles?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<del>Not present</del>
Chain of custody present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of custody agrees with sample label(s)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Not labels -- written on lid
Container labels legible and intact?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Not labels -- written on lid
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable

Other observations:

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### Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding:

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Corrective Action Taken:

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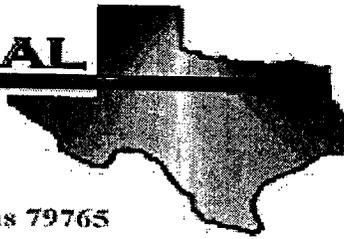


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**E** NVIRONMENTAL  
LAB OF



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: TNM-98-05A

Project Number: TNM-98-05A

Location: Eunice, NM

Lab Order Number: 5J25008

Report Date: 10/27/05

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: TNM-98-05A  
Project Number: TNM-98-05A  
Project Manager: Camille Reynolds

Fax: (432) 687-4914  
Reported:  
10/27/05 16:59

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
5P- New	5J25008-01	Soil	10/24/05 11:10	10/24/05 17:43

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: TNM-98-05A  
Project Number: TNM-98-05A  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
10/27/05 16:59

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SP- New (5J25008-01) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ52621	10/26/05	10/26/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		98.2 %	70-130	"	"	"	"	"	
Surrogate: 1-Chlorooctadecane		101 %	70-130	"	"	"	"	"	

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: TNM-98-05A  
Project Number: TNM-98-05A  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
10/27/05 16:59

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
5P- New (5J25008-01) Soil									
% Moisture	9.7	0.1	%	1	EJ52603	10/25/05	10/26/05	% calculation	

Plains All American EH & S  
 1301 S. County Road 1150  
 Midland TX, 79706-4476

Project: TNM-98-05A  
 Project Number: TNM-98-05A  
 Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
 10/27/05 16:59

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EJ52621 - Solvent Extraction (GC)</b>										
<b>Blank (EJ52621-BLK1)</b> Prepared & Analyzed: 10/26/05										
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	40.7		mg/kg	50.0		81.4	70-130			
Surrogate: 1-Chlorooctadecane	41.2		"	50.0		82.4	70-130			
<b>LCS (EJ52621-BS1)</b> Prepared & Analyzed: 10/26/05										
Gasoline Range Organics C6-C12	449	10.0	mg/kg wet	500		89.8	75-125			
Diesel Range Organics >C12-C35	428	10.0	"	500		85.6	75-125			
Total Hydrocarbon C6-C35	877	10.0	"	1000		87.7	75-125			
Surrogate: 1-Chlorooctane	51.4		mg/kg	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	55.7		"	50.0		111	70-130			
<b>Calibration Check (EJ52621-CCV1)</b> Prepared: 10/26/05 Analyzed: 10/27/05										
Gasoline Range Organics C6-C12	500		mg/kg	500		100	80-120			
Diesel Range Organics >C12-C35	416		"	500		83.2	80-120			
Total Hydrocarbon C6-C35	916		"	1000		91.6	80-120			
Surrogate: 1-Chlorooctane	50.4		"	50.0		101	70-130			
Surrogate: 1-Chlorooctadecane	52.7		"	50.0		105	70-130			
<b>Matrix Spike (EJ52621-MS1)</b> Source: 5J25007-01 Prepared & Analyzed: 10/26/05										
Gasoline Range Organics C6-C12	489	10.0	mg/kg dry	544	ND	89.9	75-125			
Diesel Range Organics >C12-C35	453	10.0	"	544	ND	83.3	75-125			
Total Hydrocarbon C6-C35	942	10.0	"	1090	ND	86.4	75-125			
Surrogate: 1-Chlorooctane	50.9		mg/kg	50.0		102	70-130			
Surrogate: 1-Chlorooctadecane	54.1		"	50.0		108	70-130			
<b>Matrix Spike Dup (EJ52621-MSD1)</b> Source: 5J25007-01 Prepared & Analyzed: 10/26/05										
Gasoline Range Organics C6-C12	485	10.0	mg/kg dry	544	ND	89.2	75-125	0.821	20	
Diesel Range Organics >C12-C35	449	10.0	"	544	ND	82.5	75-125	0.887	20	
Total Hydrocarbon C6-C35	934	10.0	"	1090	ND	85.7	75-125	0.853	20	
Surrogate: 1-Chlorooctane	50.0		mg/kg	50.0		100	70-130			
Surrogate: 1-Chlorooctadecane	52.3		"	50.0		105	70-130			

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 4 of 6

Plains All American EH & S  
 1301 S. County Road 1150  
 Midland TX, 79706-4476

Project: TNM-98-05A  
 Project Number: TNM-98-05A  
 Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
 10/27/05 16:59

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EJ52603 - General Preparation (Prep)</b>										
<b>Blank (EJ52603-BLK1)</b>										
					Prepared: 10/25/05 Analyzed: 10/26/05					
% Solids	100		%							
<b>Duplicate (EJ52603-DUP1)</b>										
					Source: 5J25001-01 Prepared: 10/25/05 Analyzed: 10/26/05					
% Solids	88.7		%		88.7			0.00	20	
<b>Duplicate (EJ52603-DUP2)</b>										
					Source: 5J25006-08 Prepared: 10/25/05 Analyzed: 10/26/05					
% Solids	97.3		%		97.2			0.103	20	

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project: TNM-98-05A  
Project Number: TNM-98-05A  
Project Manager: Camille Reynolds

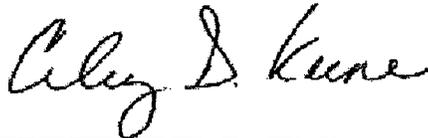
Fax: (432) 687-4914

Reported:  
10/27/05 16:59

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By: \_\_\_\_\_



Date: 10/27/2005

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
James L. Hawkins, Chemist/Geologist  
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.*

Page 6 of 6



**Environmental Lab of Texas**  
**Variance / Corrective Action Report – Sample Log-In**

Client: NOVA

Date/Time: 10/24/05 17:43

Order #: 5325008

Initials: CK

**Sample Receipt Checklist**

	Yes	No	
Temperature of container/cooler?			0.5 C
Shipping container/cooler in good condition?	<del>Yes</del>	No	
Custody Seals intact on shipping container/cooler?	Yes	No	<del>Not present</del>
Custody Seals intact on sample bottles?	Yes	No	<del>Not present</del>
Chain of custody present?	<del>Yes</del>	No	
Sample Instructions complete on Chain of Custody?	<del>Yes</del>	No	
Chain of Custody signed when relinquished and received?	<del>Yes</del>	No	
Chain of custody agrees with sample label(s)	Yes	No	I.D on lid
Container labels legible and intact?	Yes	No	n/a
Sample Matrix and properties same as on chain of custody?	<del>Yes</del>	No	
Samples in proper container/bottle?	<del>Yes</del>	No	
Samples properly preserved?	<del>Yes</del>	No	
Sample bottles intact?	<del>Yes</del>	No	
Preservations documented on Chain of Custody?	<del>Yes</del>	No	
Containers documented on Chain of Custody?	<del>Yes</del>	No	
Sufficient sample amount for indicated test?	<del>Yes</del>	No	
All samples received within sufficient hold time?	<del>Yes</del>	No	
VOC samples have zero headspace?	<del>Yes</del>	No	Not Applicable

Other observations:

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**Variance Documentation:**

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding:

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Corrective Action Taken:

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Appendix B  
Photographic Documentation

**Client:** Plains Marketing, L.P.

**Location:** Lea County, New Mexico

**Photograph Dates:** October 24 – November 4, 2005

**Prepared by:** NOVA

**Photographer:** Curt Stanley

**Project Name:** TNM 98-05A

**Photograph No. 1**

**Date:** 10/26/05

**Direction:** Facing West

**Description:**  
Excavation prepared with one foot of base sand, prior to liner installation.



**Photograph No. 2**

**Date:** 10/26/05

**Direction:** Facing West

**Description:** 20 mil liner and 40 mil monitor well boot installation complete, prior to one foot top sand filling activity



**Client:** Plains Marketing, L.P.

**Location:** Lea County, New Mexico

**Photograph Dates:** October 24 – November 4, 2005

**Prepared by:** NOVA

**Photographer:** Curt Stanley

**Project Name:** TNM 98-05A

**Photograph No. 3**

**Date:** 10/26/05

**Direction:** Facing North

**Description:** Sewing and sealing of liner seams



**Photograph No. 4**

**Date:** 10/26/05

**Direction:** Facing Northwest

**Description:** Top sand above liner. Note extension of monitor well MW-1 casing.



**Client:** Plains Marketing, L.P.

**Location:** Lea County, New Mexico

**Photograph Dates:** October 24 – November 4, 2005

**Prepared by:** NOVA

**Photographer:** Curt Stanley

**Project Name:** TNM 98-05A

**Photograph No. 5**

**Date:** 11/01/05

**Direction:** Facing  
Northeast

**Description:**  
Excavation backfilling  
and soil compaction



**Photograph No. 6**

**Date:** 10/26/05

**Direction:** Facing West

**Description:** Backfilling  
and contouring activities  
completed. Note monitor  
well MW-1 in center of  
photo. On November 30,  
2005 concrete monitor  
well pad and well box  
was installed



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

District I - (505) 393-6161  
 P. O. Box 1940  
 Hobbs, NM 88241-1980  
 District II - (505) 748-1283  
 111 South First  
 Lordsburg, NM 88310  
 District III - (505) 834-6178  
 1000 Rio Brazos Road  
 Lordsburg, NM 87410  
 District IV - (505) 827-7181

State of New Mexico  
 Energy, Minerals and Natural Resources Department  
 Oil Conservation Division  
 2040 South Pacheco Street  
 Santa Fe, New Mexico 87505  
 (505) 827-7131

98-05A

Form C-141  
 Originated 2/13/97

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 Texas-New Mexico Pipe Line Company		Contact Edwin H. Gripp
Address Box 60028		Telephone No. 915-947-9000
Facility Name San Angelo, TX 76906	Facility Type pipe line	
Surface Owner Nadine Owan	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
	26	21S	37E					Lea

NATURE OF RELEASE

Type of Release Sour Crude	Volume of Release 38 barrels	Volume Recovered 4 barrels
Source of Release 6" gathering line	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 2/5/98; 10:25 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If Yes, To Whom? Linda Williams (Clerk #4)	
By Whom? Johnny W. Chapman	Date and Hour 2/5/98; 3:00 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If Yes, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully:  
 N/A

Describe Cause of Problem and Remedial Action Taken:  
 Internal Corrosion  
 Leak successfully clamped off.

Describe Area Affected and Cleanup Action Taken:  
 Approximately 1260 sq.ft. pasture land.  
 Contaminated soil will be excavated and put on plastic.

Describe General Conditions Prevailing (Temperature, Precipitation, etc.):  
 Cloudy; 60 degrees

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Edwin H. Gripp</i>	<b>OIL CONSERVATION DIVISION</b>	
	Approved by District Supervisor	Expiration Date
Name: Edwin H. Gripp	Approval Date	Attached <input type="checkbox"/>
Title: District Manager	Conditions of Approval	
Date: 2/12/98	Phone: 915-947-9000	

\* Attach Additional Sheets If Necessary

State Oil Conservation

Hazardous Waste Section