1R - 381

REPORTS

DATE:

2005

PLAINS
ALL AMERICAN

March 30, 2005

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

1R-381

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

Dear Mr. Martin:

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

8" Moore to Jal #1	Section 16, Township 17 South, Range 37 East, Lea County
8" Moore to Jal #2	Section 16, Township 17 South, Range 37 East, Lea County
Lovington Deep 6"	Section 6, Township 17 South, Range 36 East, Lea County
Livingston Line B. McCasland	Section 3, Township 21 South, Range 37 East, Lea County

EPI prepared these documents and has vouched for their accuracy and completeness, and on behalf of Plains All American, I have personally reviewed the documents and interviewed EPI in order to verify the accuracy and completeness of these documents. It is based upon these inquiries and reviews that Plains All American submits the enclosed Annual Monitoring Reports for the above 4 facilities.

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

Sincerely,

Camille Reynolds

Camille Reynolds
Remediation Coordinator
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosures

ENVIRONMENTAL PLUS, INC. Micro-Blaze Micro-Blaze Out™
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

30 March 2005

Mr. Ed Martin
NM Energy, Minerals, and Natural Resources Department
New Mexico Oil Conservation Division – Environmental Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Annual Monitoring Report
Plains All American Pipeline, L.P., 8" Moore to Jal #2 (Ref. #2002-10273)
UL-J, Section 16, T17S, R37E, Lea County, New Mexico

Dear Mr. Martin:

Environmental Plus, Inc. (EPI), on behalf of Ms. Camille Reynolds, Plains All American Pipeline, L.P. (Plains), submits for your consideration this *Annual Monitoring Report* for the above-referenced site. Based on data collected during the past year, Plains recommends continued site monitoring for, and recovery of, phase-separated hydrocarbons (PSH) on a weekly basis and sampling of the non-impacted wells on a quarterly basis. In addition, Plains recommends the installation of six additional groundwater monitoring and/or product recovery wells to further delineate free phase and/or dissolved phase groundwater impacts. A risk-based soil closure proposal/work plan will be completed and submitted during the second quarter of 2005 and an abatement plan will completed and submitted to address groundwater issues at the site upon the completion of soil remedial activities at the site.

Should you have any questions or comments please feel free to contact me at (505) 394-3481. Ms. Reynolds may be contacted through Plains' Lovington office at (505) 396-3341. All official correspondence should be addressed to:

Ms. Camille Reynolds
Plains All American Pipeline, L.P.
P.O. Box 3119
Midland, Texas 79702-3119

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain Olness, P.G.
Hydrogeologist

cc: Larry W. Johnson, NMOCD – Hobbs District Office
Camille Reynolds, Plains All American Pipeline, L.P. – Lovington
Jeff Dann, Plains All American Pipeline, L.P. – Houston
File

ENVIRONMENTAL PLUS, INC.
P.O. BOX 1558 ••• 2100 AVENUE O ••• EUNICE, NEW MEXICO 88231
TELEPHONE 505•394•3481 ••• FAX 505•394•2601

PLAINS
ALL AMERICAN
PIPELINE, L.P.

ANNUAL MONITORING REPORT

8" MOORE TO JAL #2
PLAINS REF: 2002-10273

NW¼ OF THE SE¼ OF SECTION 16, TOWNSHIP 17 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

~9.5 MILES SOUTHEAST (136°) OF
LOVINGTON, LEA COUNTY, NEW MEXICO
LATITUDE: N32° 49' 56.6" LONGITUDE: W103° 15' 8.31"

MARCH 2005

PREPARED BY:

Environmental Plus, Inc.

2100 Avenue O
P.O. Box 1558
Eunice, NM 88231

Phone: (505)394-3481
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Distribution List

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Ed Martin	Environmental Engineer	NMOCD	1220 South St. Francis Drive Santa Fe, NM 87505	emartin@state.nm.us
Larry Johnson	Environmental Engineer	NMOCD	1625 French Dr. Hobbs, NM 88231	lwjohnson@state.nm.us
Camille Reynolds	Remediation Coordinator	Plains All American Pipeline	P. O. Box 3119 Midland, TX 79702-3119	cjreynolds@paalp.com
Jeff Dann	Senior Environmental Specialist	Plains All American Pipeline	P. O. Box 4648 Houston, TX 77210-4648	jpdann@paalp.com
File		EPI	P.O. Box 1558 Eunice, NM 88231	iolness@hotmail.com

NMOCD - New Mexico Oil Conservation Division
EPI - Environmental Plus, Inc.

STANDARD OF CARE

Annual Monitoring Report

8" Moore to Jal #2
Ref. # 2002-10273

The information provided in this report was collected consistent with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993), the NMOCD Unlined Surface Impoundment Closure Guidelines (February 1993), and the Environmental Plus, Inc. (EPI) Standard Operating Procedures and Quality Assurance/Quality Control Plan. The conclusions are based on field observations and laboratory analytical reports as presented in the report. Recommendations follow NMOCD guidance and represent the professional opinions of EPI staff. These opinions were arrived at with currently accepted geologic, hydrogeologic and engineering practices at this time and location. The report was prepared or reviewed by a certified or registered EPI professional with a background in engineering, environmental, and/or the natural sciences.

This report was prepared by:

Iain A. Olness, P.G.
Hydrogeologist

30 March 2005
Date

This report was reviewed by:

Pat McCasland

30 March 2005
Date

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FIGURES

TABLES

APPENDICES

I Background and Previous Remedial Activities

The 8" Moore to Jal #2 release site is located approximately 9.5 miles southeast of Lovington in Lea County, New Mexico, at an elevation of approximately 3,770 feet above mean sea level (reference Figures 1 and 2). The release occurred on property owned by the State of New Mexico and is utilized as pasture land. The site is located in a rural area within the West Lovington oil field, with no residences or surface water within a 1,000-foot radius of the facility.

In October 2002, a release of approximately 25 barrels of crude oil, of which there was no recovery, occurred at the site due to corrosion (internal and/or external) of the pipeline. Approximately 8,000 square feet (ft^2) of surface area was impacted by the release. Surficial soil saturated by the release was excavated and transported to a New Mexico Oil Conservation Division (NMOCD) approved land farm for treatment.

In an effort to delineate the extent of impacted soil at the site, three soil borings were advanced at the site to depths ranging from 20 to 40 feet below ground surface (bgs) in November 2002. Field analyses of soil samples collected at discreet intervals indicated organic vapor concentrations exceeded 100 parts per million (ppm) at least to a depth of 40 feet bgs in soil boring BH-3.

Excavation activities commenced at the site in June 2003 in order to remove soil impacted above the New Mexico Oil Conservation Division (NMOCD) remedial thresholds. Approximately 1,220 cubic yards of soil were excavated and run through a shaker to separate the rock from the soil. After the soil and rock had been separated, the soil (approximately 575 cubic yards) was spread out into a land treatment area and the rock was stockpiled on site (reference *Figure 3*). Upon the completion of excavation activities, composite samples were collected from the north endwall, south endwall, east sidewall and bottom of the excavation to document the successful removal of soil impacted above NMOCD remedial thresholds. Field analyses of these samples indicated organic vapor concentrations of <10.0 ppm for all samples. Laboratory analyses confirmed all analytes were below the NMOCD remedial thresholds, with the exception of the sample collected from the north endwall (reference *Table 7*).

II Current Field Activities

Based on field analyses of samples collected during from soil borings advanced during initial delineation activities, the NMOCD requested that a groundwater monitoring well be installed to determine if groundwater had been impacted by the release. In July 2004, a groundwater monitoring well (MW-1) was installed at the site near the point of release.

Due to the presence of phase-separated hydrocarbons (PSH) on the water column in groundwater monitoring well MW-1, three additional groundwater monitoring wells (MW-2, MW-3 and MW-4) were installed around the excavation basin in October 2004. No PSH were detected in any of these new wells.

Site visits were made to the site on July 28, September 23, October 8, October 14, October 20, October 29, November 4, November 10, November 17, November 24, December 2, December 8,

December 15, December 27 and December 29, 2004 to recover PSH from groundwater monitoring well MW-1. A total of approximately 121.5 gallons were recovered during this these site visits.

In addition to the site visit to recover PSH from groundwater monitoring well MW-1 during the November 4, 2004 site visit, samples were collected from the remaining groundwater monitoring wells (MW-2, MW-3 and MW-4) for laboratory analyses. The land treatment area was sampled on December 15, 2004, in conjunction with the weekly site visit.

III Groundwater Monitoring Well Installation

One groundwater monitoring well, MW-1 was installed at the site in July 2004. This well was installed at the request of the NMOCD in order to determine if groundwater had been impacted by the release. This groundwater monitoring well was installed adjacent to the pipeline near the point of release (reference *Figure 3*) to a depth of 85 feet below ground surface (bgs) and screened from 65 to 85 feet bgs (reference *Appendix C*).

Due to the presence of PSH on the watertable, three additional groundwater monitoring wells (MW-2, MW-3 and MW-4) were installed at the site in October 2004. These wells were installed to delineate the lateral extent of PSH and/or dissolved phase impacts to the groundwater.

Groundwater monitoring well MW-2 was installed approximately 106 feet north-northwest of groundwater monitoring well MW-1 (reference *Figure 3*) to a depth of 82.5 feet bgs and screened from 62.5 to 82.5 feet bgs (reference *Appendix C*). Groundwater monitoring well MW-3 was installed approximately 85 feet east-southeast of groundwater monitoring well MW-1 (reference *Figure 3*) to a depth 83 feet bgs and screened from 63 to 83 feet bgs (reference *Appendix C*). Groundwater monitoring well MW-4 was installed approximately 90 feet south-southeast of groundwater monitoring well MW-1 (reference *Figure 3*) to a depth of 87 feet bgs and screened from 67 to 87 feet bgs (reference *Appendix C*).

Field and laboratory analytical results from this additional investigation are included in *Table 2*.

IV Groundwater Gradient and PSH Thickness

Monitoring wells were gauged prior to bailing to determine the depth to groundwater and the thickness of any PSH. Except for minor fluctuations, groundwater levels indicated an overall decrease in groundwater levels during the final quarter of 2004 (reference *Figure 9*). PSH levels in the impacted groundwater monitoring well (MW-1) have generally shown a decrease during the past year, with the exception of the sudden increase shortly after the well was installed and the sudden decrease between September 23 and October 8, 2004 (reference *Figure 8*). These fluctuations are probably the result of PSH and groundwater levels stabilizing shortly after the well was installed. A summary of groundwater elevations and PSH thickness is included in *Table 1*.

Based on data collected during the initial sampling event on November 4, 2004, groundwater is flowing in a southerly direction (reference *Figure 10*).

V PSH Recovery

Recovery of the PSH present on the groundwater surface in the vicinity of groundwater monitoring well MW-1 was accomplished via hand bailing during the past year. A total of 121.5 gallons of PSH were recovered during the past year (reference *Table 1*).

VI Groundwater Sampling

Groundwater monitoring wells MW-2, MW-3 and MW-4 were sampled on November 4, 2004, and the samples submitted for quantification of benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8260b and poly-aromatic hydrocarbons (PAH) using EPA Methods 610 & 8270C.

All wells were purged a minimum of three well volumes or dry and samples collected utilizing dedicated or disposable sample bailers. Samples were then placed on ice and shipped to an independent laboratory under chain-of-custody for analyses.

VII Groundwater Analytical Results

Analytical results for the sample collected from groundwater monitoring well MW-2 on November 4, 2004 indicated benzene concentrations of 254 µg/L, toluene concentrations of 108 µg/L, ethylbenzene concentrations of 11.5 µg/L and total xylene concentrations of 31.1 µg/L. Analytical results for PAH analysis were reported as non-detectable (ND) at or above each analytes respective MDL. Benzene was the only analyte reported above the NMWQCC groundwater standard of 10.0 µg/L.

Analytical results for the sample collected from groundwater monitoring well MW-3 on November 4, 2004 indicated benzene concentrations of 62.0 µg/L, toluene concentrations of 29.2 µg/L, ethylbenzene concentrations of 4.63 µg/L and total xylene concentrations of 10.5 µg/L. Analytical results for PAH analysis were reported as non-detectable (ND) at or above each analytes respective MDL. Benzene was the only analyte reported above the NMWQCC groundwater standard of 10.0 µg/L.

Analytical results for the sample collected from groundwater monitoring well MW-4 on November 4, 2004 indicated benzene concentrations of 2.58 µg/L and toluene concentrations of 1.50 µg/L. Ethylbenzene and total xylenes were reported as ND at or above each analytes respective MDL. Analytical results for PAH analysis were reported as non-detectable (ND) at or above each analytes respective MDL. No analytes were reported above the NMWQCC groundwater standards.

A summary of groundwater analytical results is included as *Table 3* and *Table 4* and copies of analytical results and chain-of-custody forms are included as *Appendix A*.

VIII Recommendations

Based on field monitoring and analytical results collected during the past year, the following changes are recommended in the sampling protocol:

1) Continue to monitor the system on a weekly basis to record water and PSH levels and recover PSH from the groundwater monitoring well impacted with PSH.

2) Sample the groundwater monitoring well network on a quarterly basis and submit the samples for quantification of BTEX. The samples should be analyzed annually for the presence of PAHs. Please reference *Table 6* for a summary of groundwater sampling recommendations for the site. In the event PSH are not detected during a sampling event in groundwater monitoring well currently impacted with PSH, this well will be included in the quarterly sampling event.

3) Install six additional groundwater monitoring wells at the site to further delineate the lateral extent of groundwater impacts (reference *Figure 12*).

4) The west sidewall of the excavation basin should be sampled and the sample submitted to an independent laboratory for quantification of TPH and BTEX. Should analytical results indicate soil impacted above the NMOCD remedial guidelines has been removed from the sidewalls, a risk-based soil closure proposal/work plan will be completed and submitted to the NMOCD. If analytical results indicate soil impacted above the NMOCD remedial thresholds remains in the sidewalls, excavation of the impacted soil will also be addressed in the risk-based soil closure proposal/work plan. Upon completion of soil remedial activities at the site, an abatement plan will be completed to remediate the groundwater impacts at the site.

FIGURES

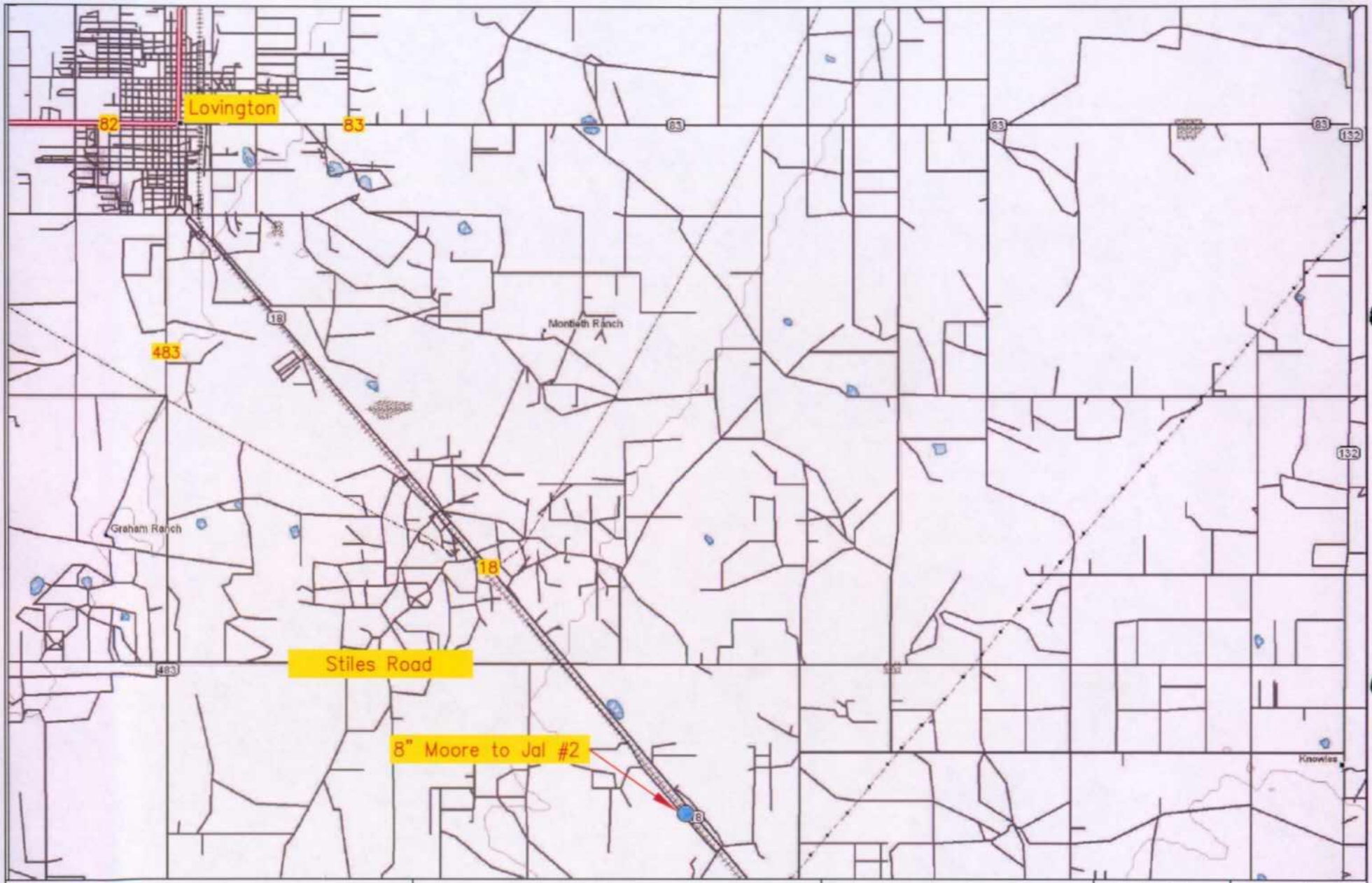

Figure 1 Area Map Plains Pipeline, L.P. 8" Moore to Jal #2	Lea County, New Mexico NW 1/4 of the SE 1/4, Sec. 16, T17S, R37E N 32° 49' 56.6" W 103° 15' 8.31" Elevation: 3,770 feet amsl	DWG By: Iain Olness March 2005	REVISED:
			SHEET 1 of 1

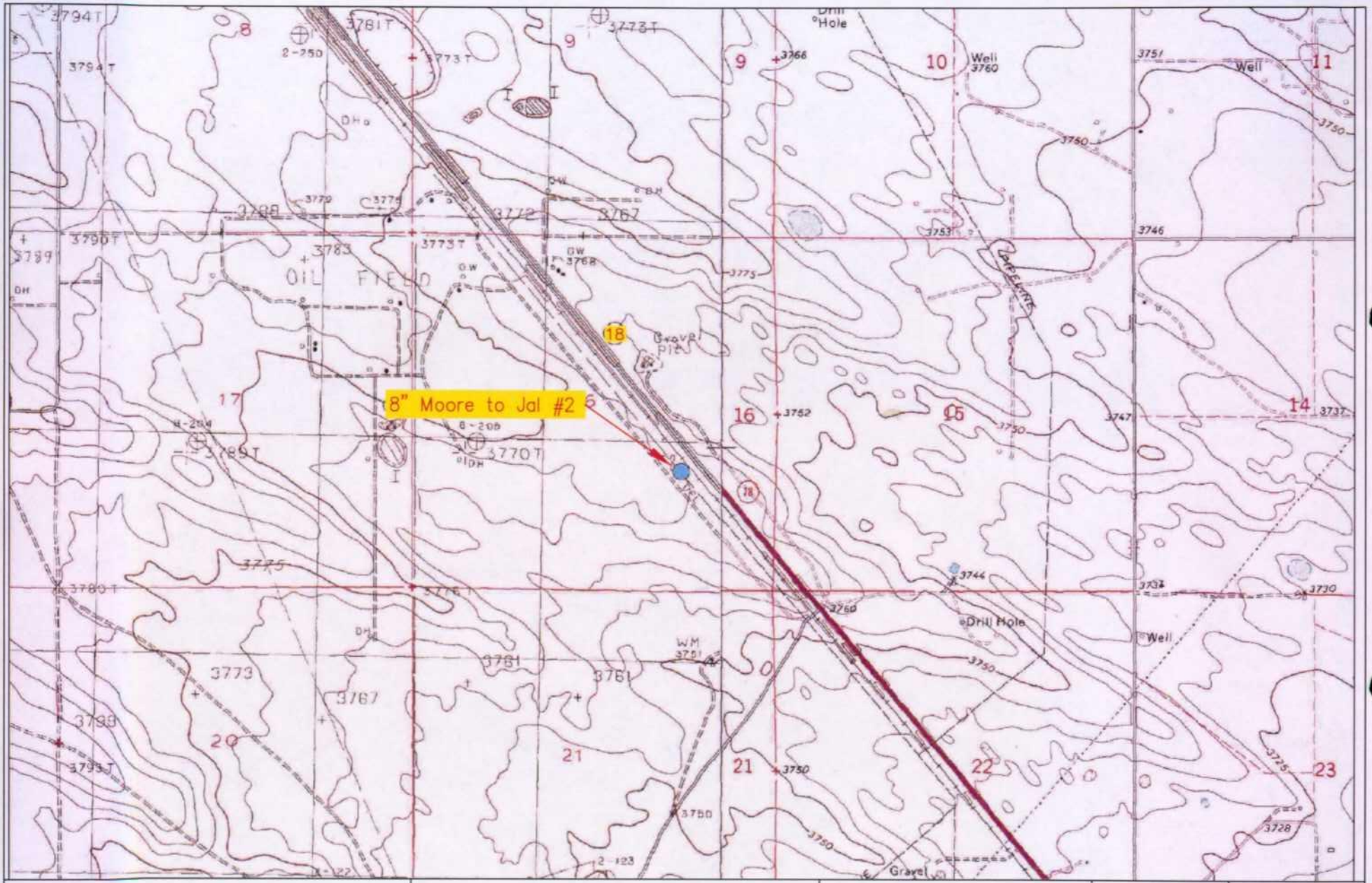

Figure 2 Site Location Map Plains Pipeline, L.P. 8" Moore to Jal #2	Lea County, New Mexico NW 1/4 of the SE 1/4, Sec. 16, T17S, R37E N 32° 49' 56.6" W 103° 15' 8.31" Elevation: 3,770 feet amsl	DWG By: Iain Olness March 2005 0 1.5 3.0 Miles	REVISED: SHEET 1 of 1 N

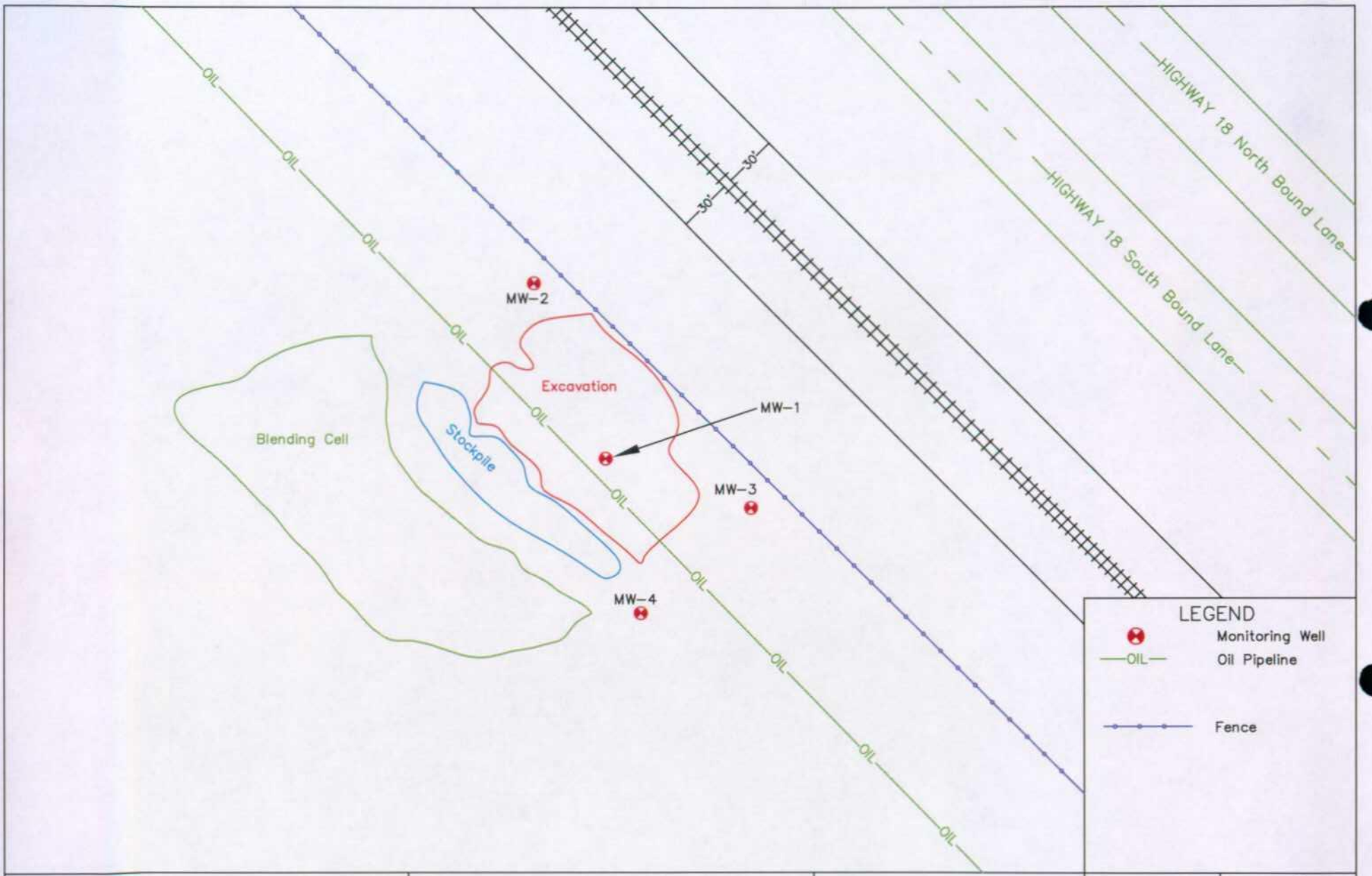

Figure 3 Site Map Plains Pipeline, L.P. 8" Moore to Jal #2	Lea County, New Mexico NW 1/4 of the SE 1/4, Sec. 16, T17S, R37E N 32° 49' 56.6" W 103° 15' 8.31" Elevation: 3,770 feet amsl	DWG By: Iain Olness March 2005	REVISED	N
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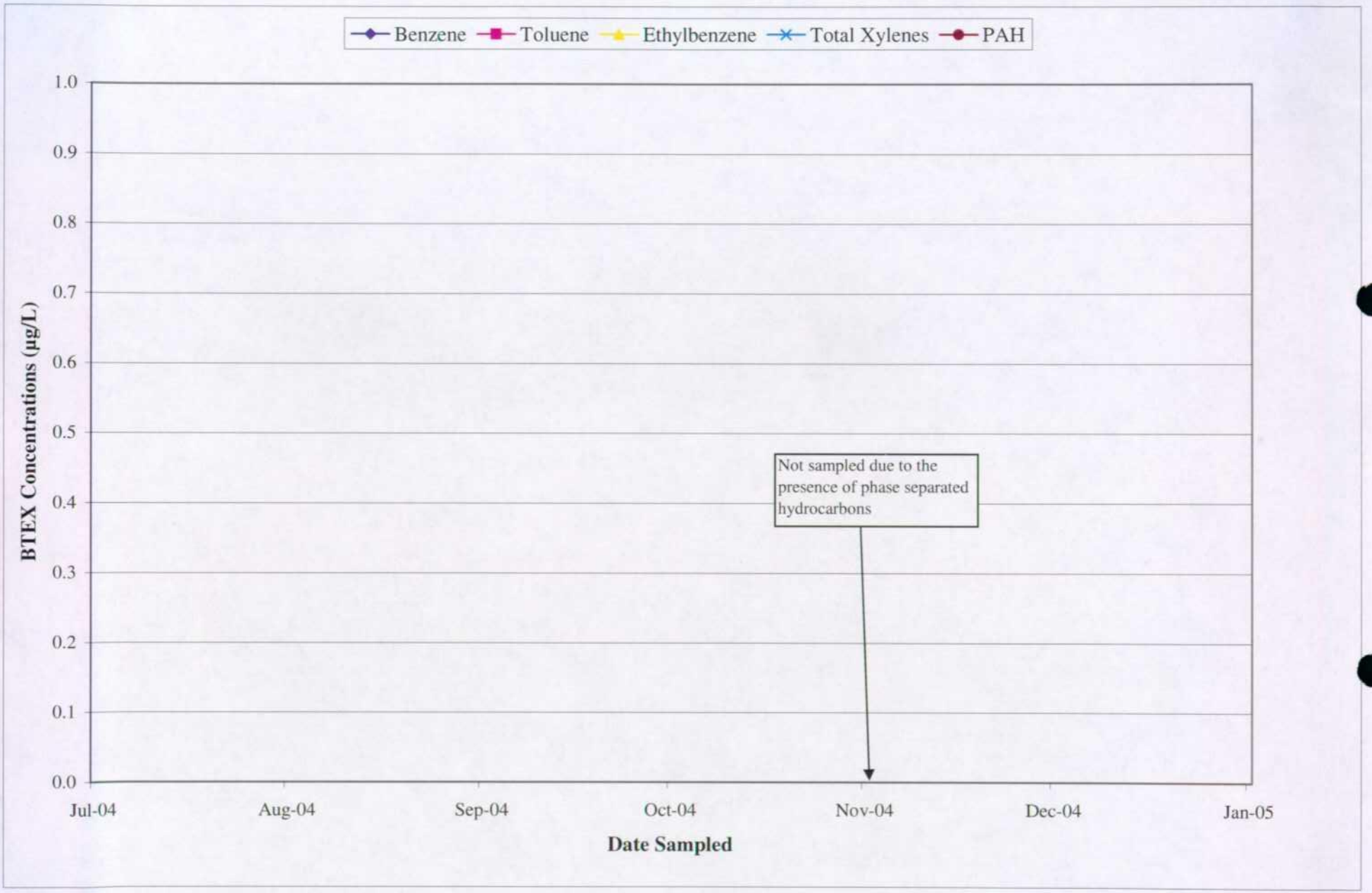


Figure 4: TPH, PAH and BTEX Concentrations in Groundwater Monitoring Well MW-1 from 11/04/04 through 12/31/04, Plains Pipeline, L.P., 8" Moore to Jal #2, Lea County, New Mexico.

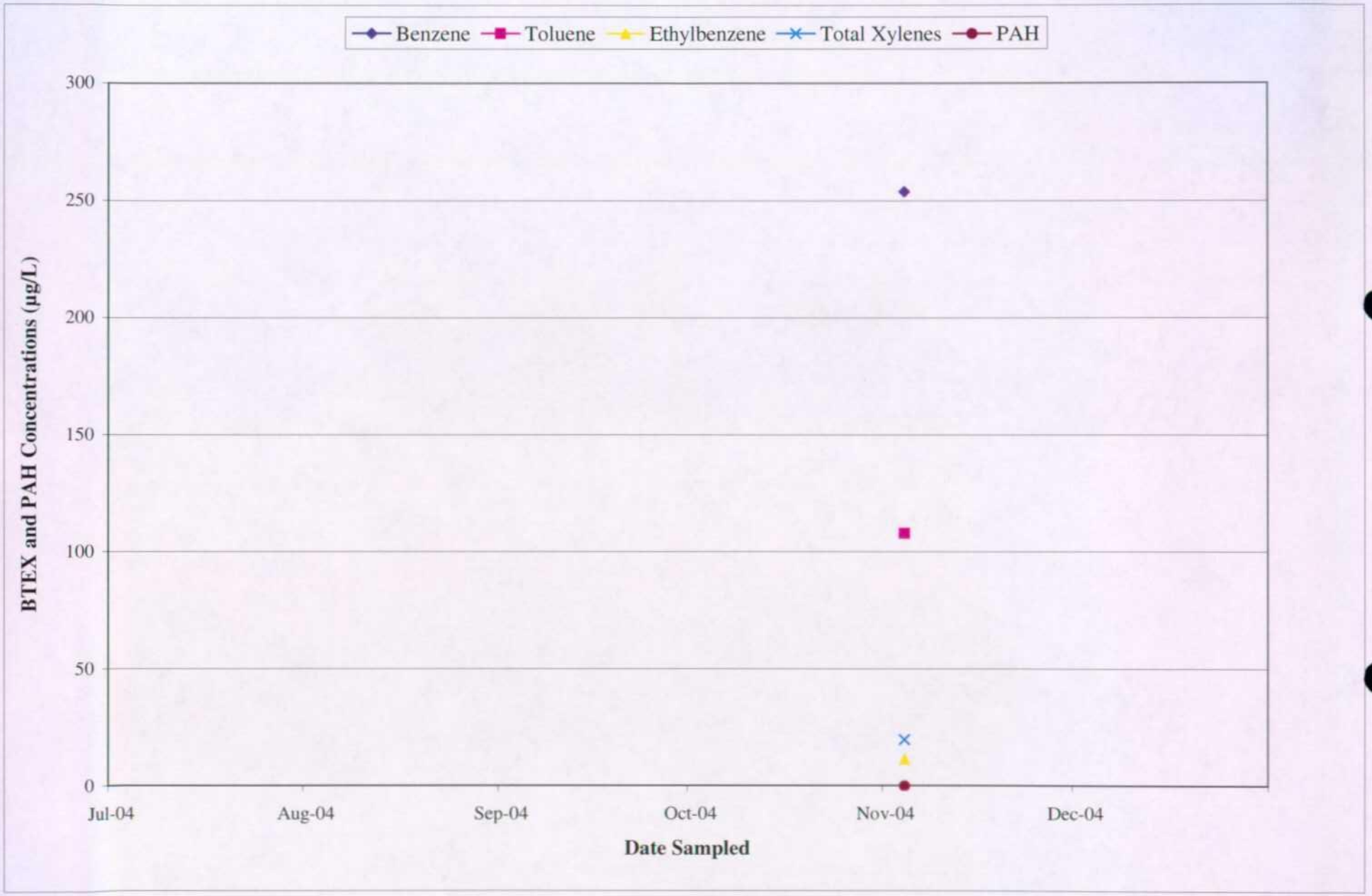


Figure 5: TPH, PAH and BTEX Concentrations in Groundwater Monitoring Well MW-2 from 11/04/04 through 12/31/04, Plains Pipeline, L.P., 8" Moore to Jal #2, Lea County, New Mexico.

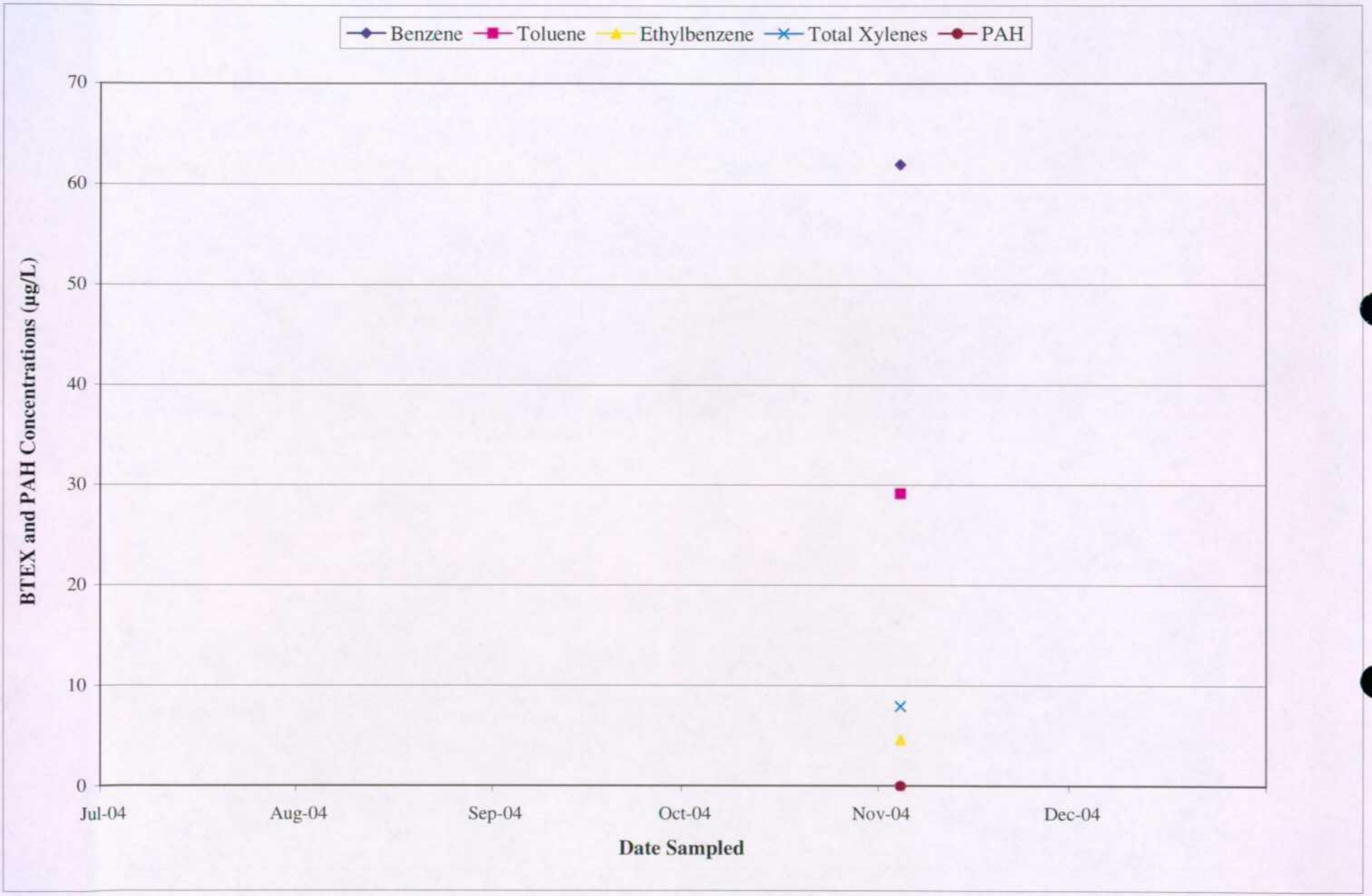


Figure 6: TPH, PAH and BTEX Concentrations in Groundwater Monitoring Well MW-3 from 11/04/04 through 12/31/04, Plains Pipeline, L.P., 8" Moore to Jal #2, Lea County, New Mexico.

Figure 7: TPH, PAH and BTEX Concentrations in Groundwater Monitoring Well MW-4 from 11/04/04 through 12/31/04, Plains Pipeline, L.P., 8" Moore to Jal #2, Lea County, New Mexico.

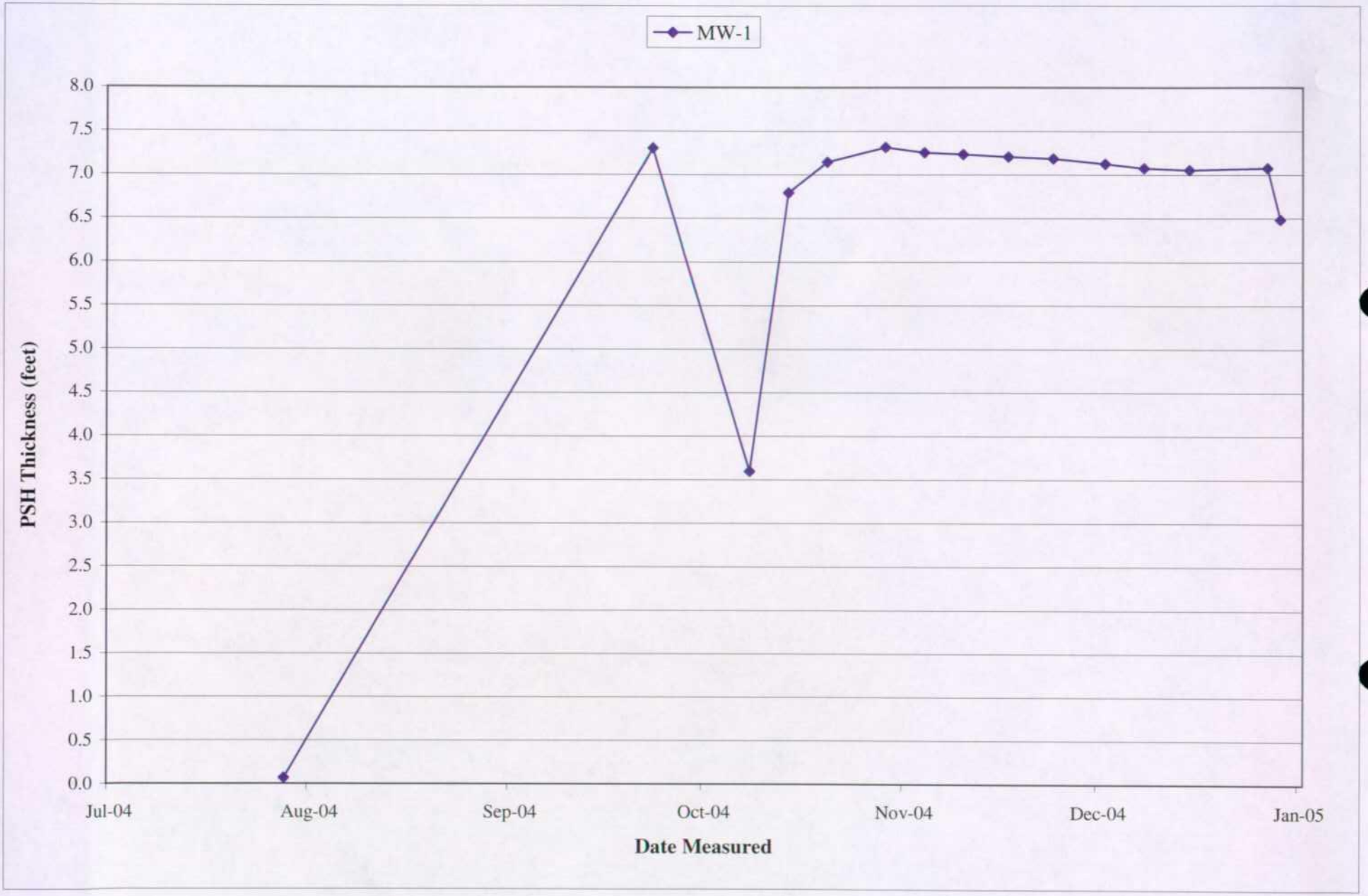


Figure 8: PSH Thicknesses for Groundwater Monitoring Well MW-1 from 10/08/04 through 12/31/04, Plains Pipeline, L.P., 8" Moore to Jal #2, Lea County, New Mexcio.

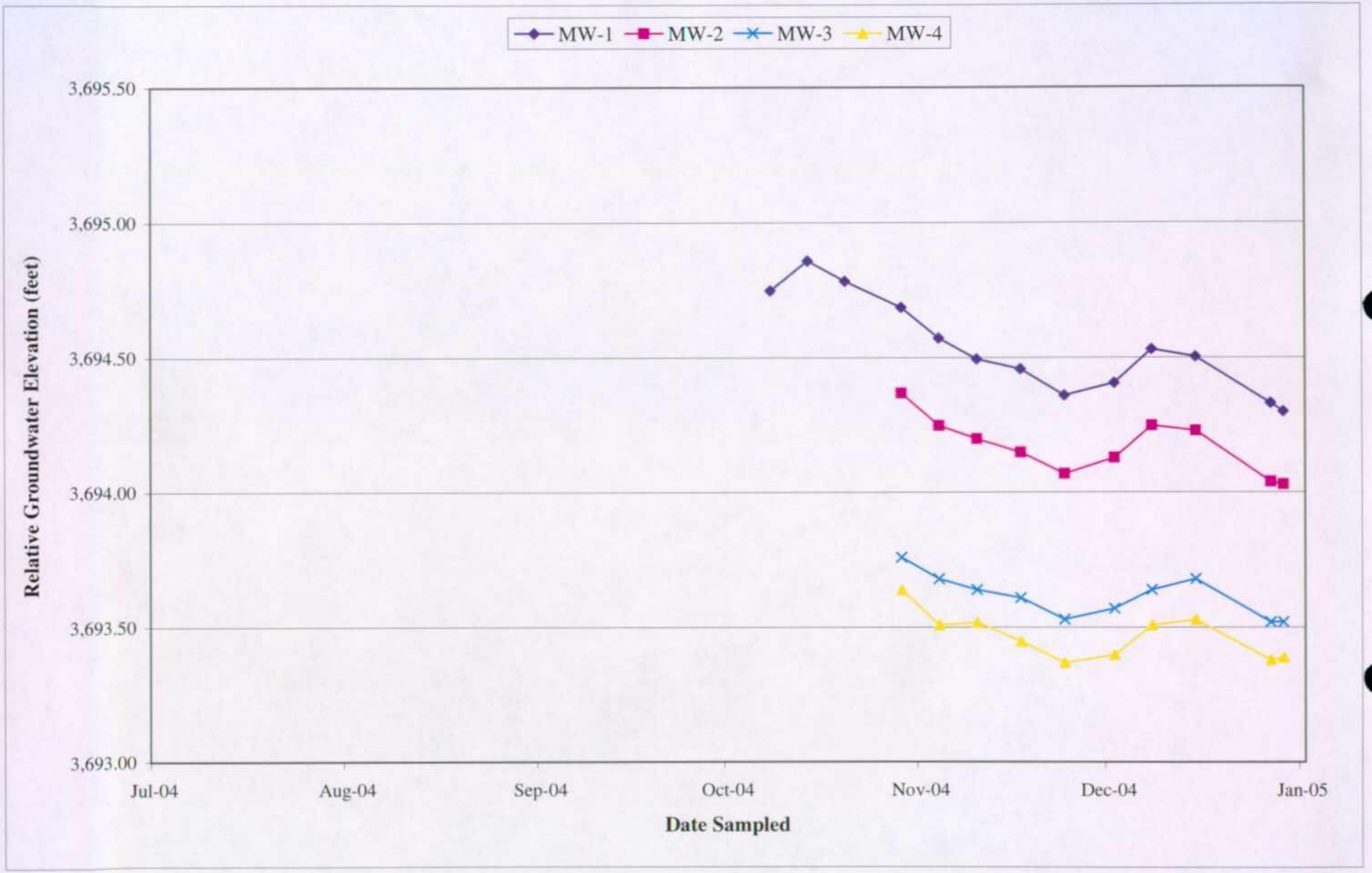
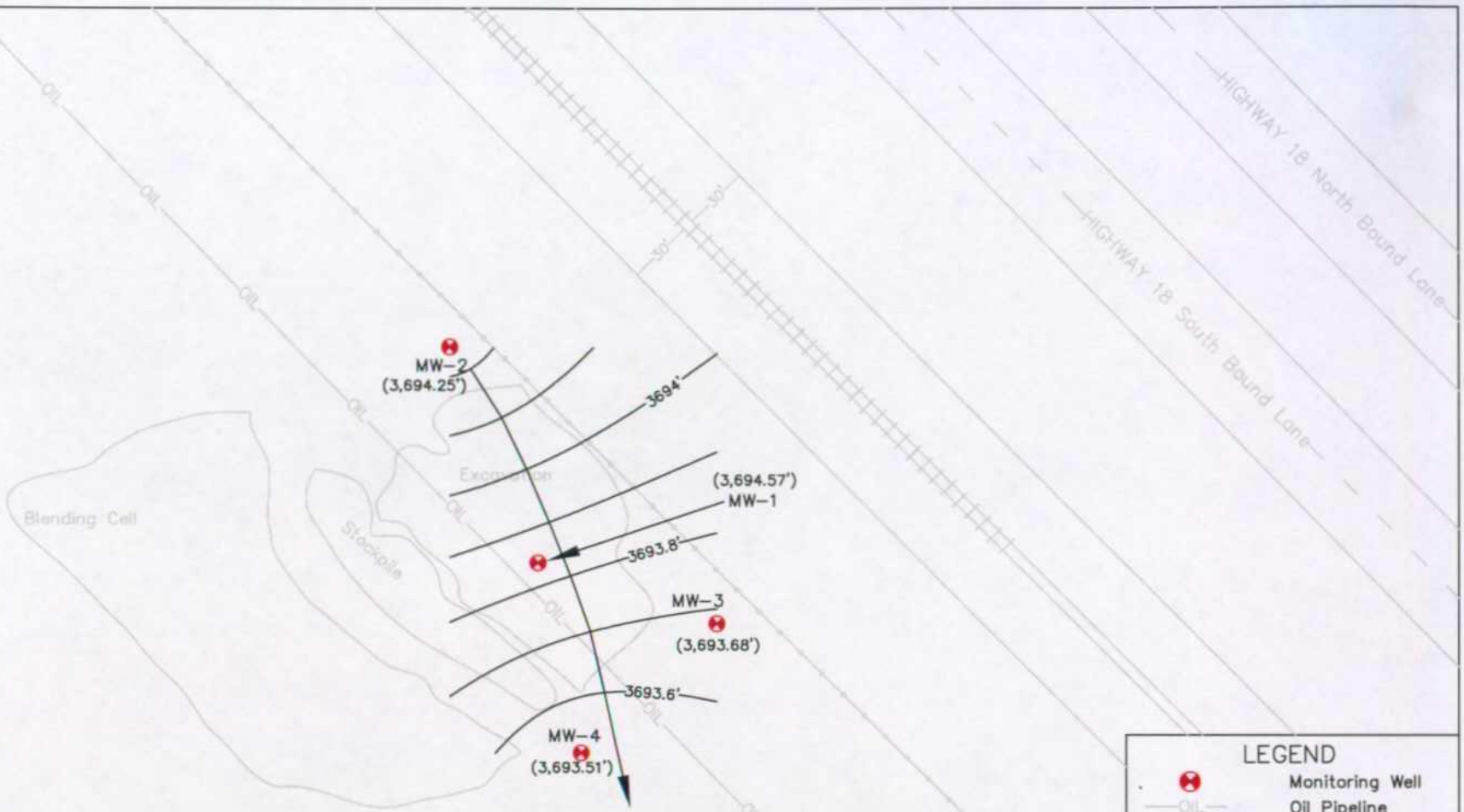


Figure 9: Hydrograph for Groundwater Monitoring Wells MW-1 through MW-4 from 10/08/04 through 12/31/04, Plains Pipeline, L.P., 8" Moore to Jal #2, Lea County, New Mexico.



Data collected from groundwater monitoring well MW–1 was not utilized to construct this groundwater flow map.

Figure 10 Groundwater Contour Map – 11/04/04 Plains Pipeline, L.P. 8" Moore to Jal #2	Lea County, New Mexico NW 1/4 of the SE 1/4, Sec. 16, T17S, R37E N 32° 49' 56.6" W 103° 15' 8.31" Elevation: 3,770 feet amsl	DWG By: Iain Olness March 2005	REVISED	N
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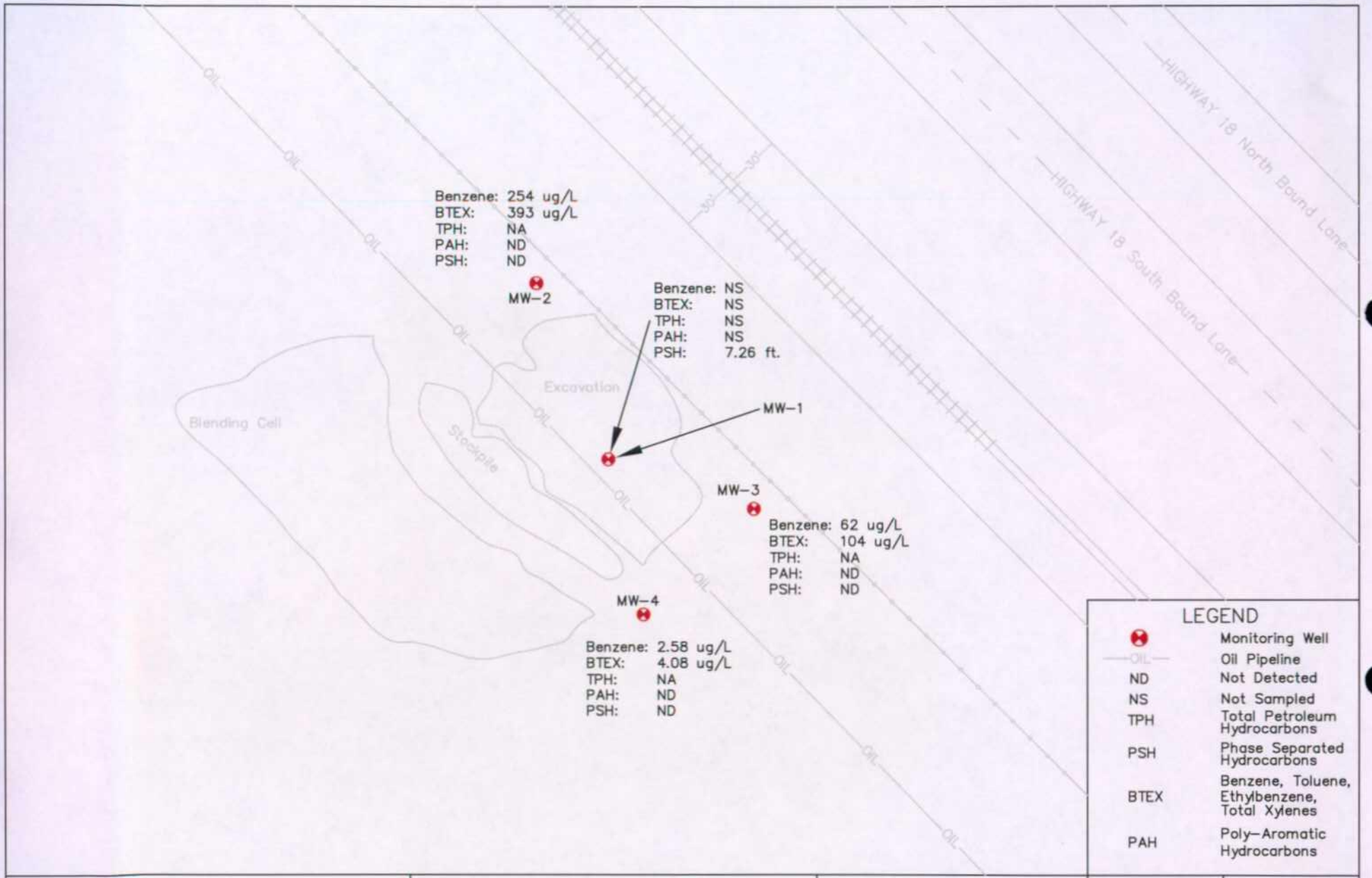

Figure 11
Contaminant Concentration Map – 11/04/04
Plains Pipeline, L.P.
8" Moore to Jal #2

Lea County, New Mexico
NW 1/4 of the SE 1/4, Sec. 16, T17S, R37E
N 32° 49' 56.6" W 103° 15' 8.31"
Elevation: 3,770 feet amsl

DWG By: Iain Olness
March 2005

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1 of 1

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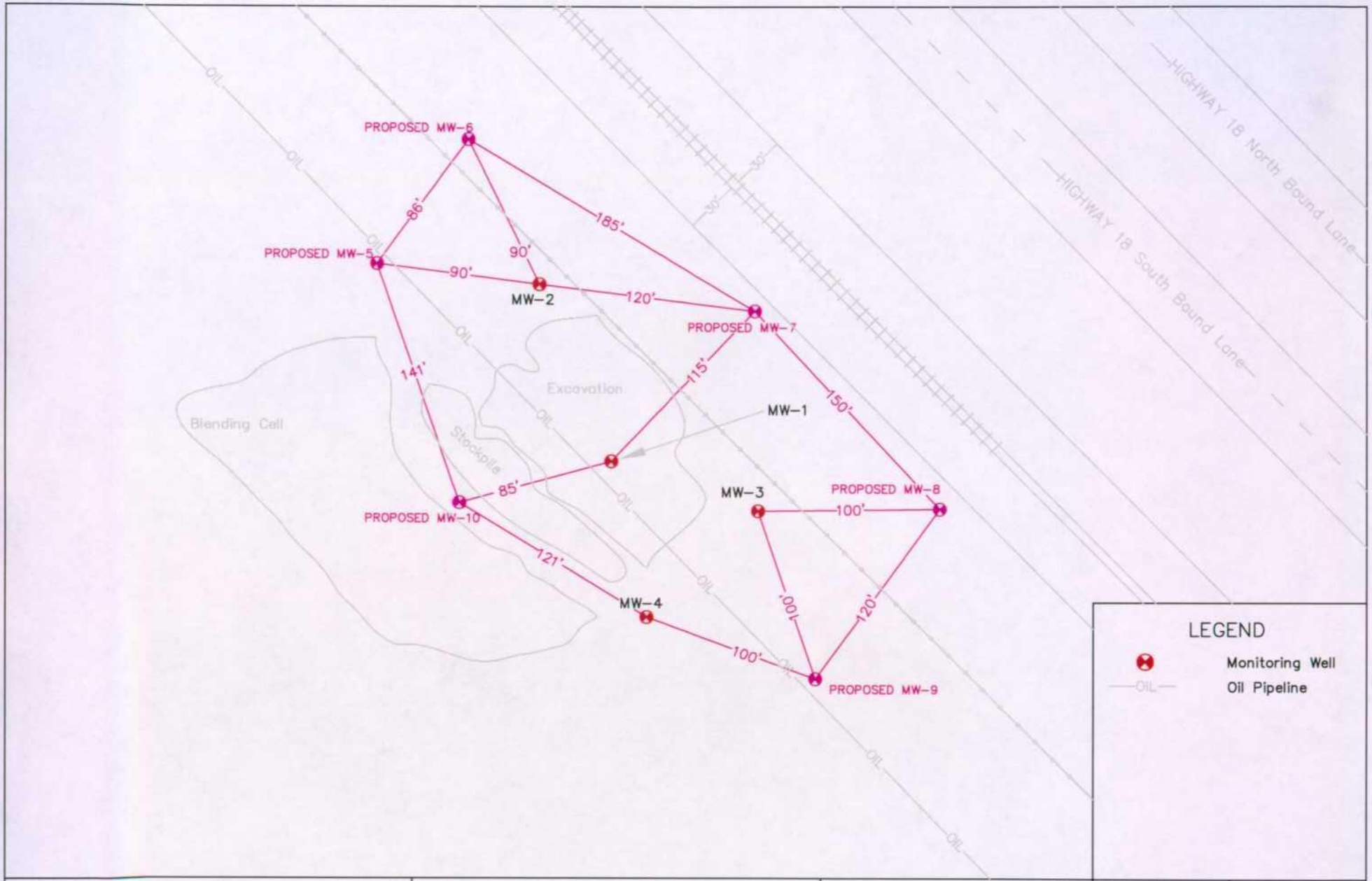

Figure 12 Proposed Groundwater Monitoring Well Location Map Plains Pipeline, L.P. 8" Moore to Jal #2	Lea County, New Mexico NW 1/4 of the SE 1/4, Sec. 16, T17S, R37E N 32° 49' 56.6" W 103° 15' 8.31" Elevation: 3,770 feet amsl	DWG By: Iain Olness March 2005	REVISED	N
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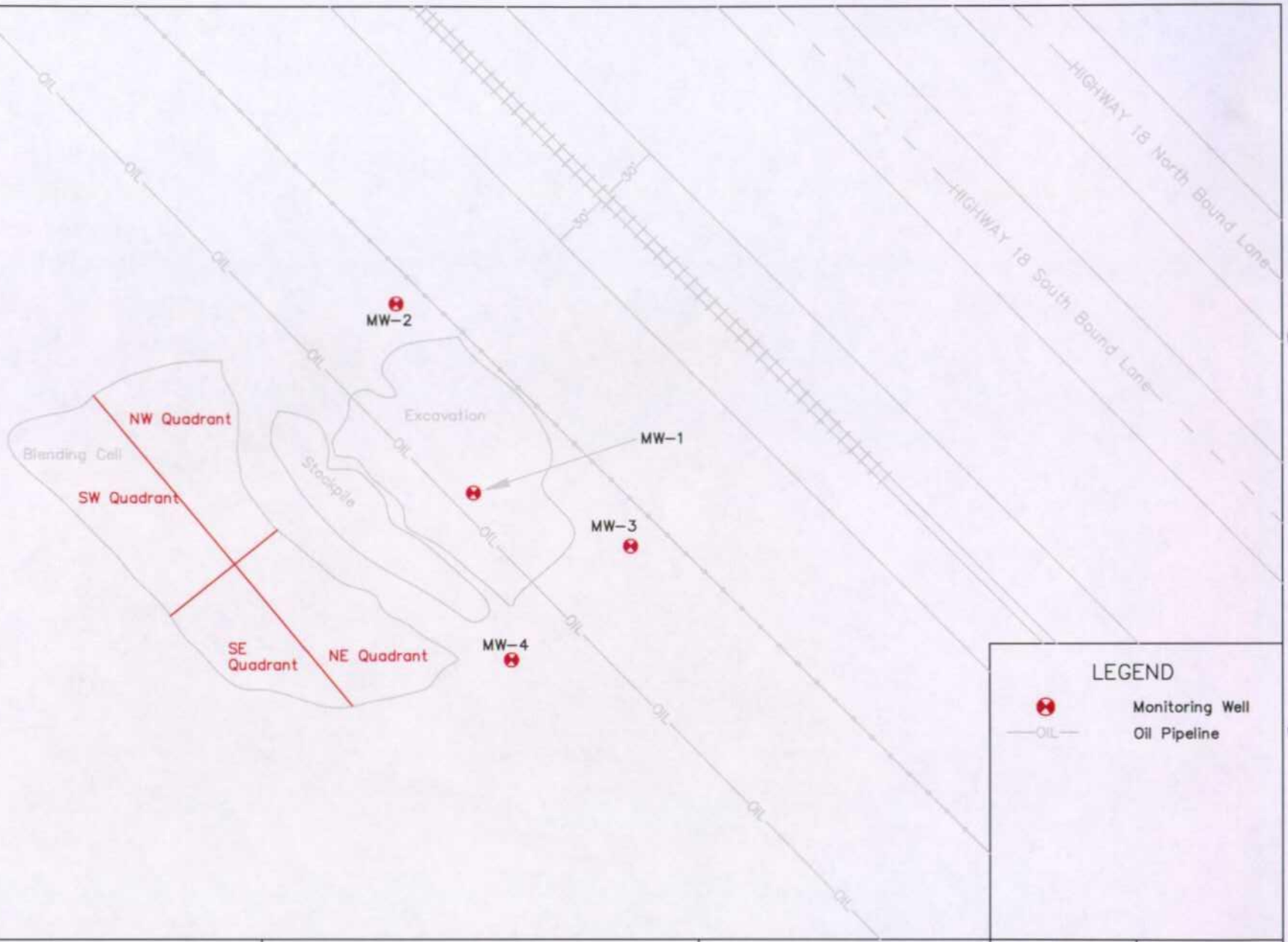

Figure 13 Land Treatment Sampling Location Map Plains Pipeline, L.P. 8" Moore to Jal #2	Lea County, New Mexico NW 1/4 of the SE 1/4, Sec. 16, T17S, R37E N 32° 49' 56.6" W 103° 15' 8.31" Elevation: 3,770 feet amsl	DWG By: Iain Olness March 2005	REVISED	N
		0 75 150 Feet	SHEET 1 of 1	

TABLES

TABLE 1

RELATIVE GROUNDWATER ELEVATIONS AND PHASE SEPARATED HYDROCARBON THICKNESSES

8" Moore #2 - Ref. #2002-10273

Monitor Well	Date Gauged	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)*	Phase Separated Hydrocarbon Thickness (feet)	Volume Recovered (galllons)	Cumulative Recovery (gallons)
MW-1	28-Jul-04	3,767.30	59.01	59.08	3,708.28	0.07		
	23-Sep-04		72.37	79.68	3,694.20	7.31		
	08-Oct-04		72.19	75.79	3,694.75	3.60	4.5	4.5
	14-Oct-04		71.76	78.56	3,694.86	6.80	9.0	13.5
	20-Oct-04		71.80	78.95	3,694.79	7.15	10.0	23.5
	29-Oct-04		71.88	79.20	3,694.69	7.32	7.0	30.5
	04-Nov-04		72.00	79.26	3,694.57	7.26	18.0	48.5
	10-Nov-04		72.08	79.32	3,694.50	7.24	11.0	59.5
	17-Nov-04		72.12	79.33	3,694.46	7.21	10.0	69.5
	24-Nov-04		72.22	79.41	3,694.36	7.19	9.0	78.5
	02-Dec-04		72.18	79.31	3,694.41	7.13	8.0	86.5
	08-Dec-04		72.06	79.14	3,694.53	7.08	8.0	94.5
	15-Dec-04		72.09	79.15	3,694.50	7.06	9.0	103.5
	27-Dec-04		72.26	79.34	3,694.33	7.08	9.0	112.5
	29-Dec-04		72.35	78.84	3,694.30	6.49	9.0	121.5
MW-2	28-Jul-04	3,771.04						
	23-Sep-04							
	08-Oct-04							
	14-Oct-04							
	20-Oct-04		Well Installed on October 25, 2004					
	29-Oct-04			76.67	3,694.37	0.00	NA	NA
	04-Nov-04			76.79	3,694.25	0.00	NA	NA
	10-Nov-04			76.84	3,694.20	0.00	NA	NA
	17-Nov-04			76.89	3,694.15	0.00	NA	NA
	24-Nov-04			76.97	3,694.07	0.00	NA	NA
	02-Dec-04			76.91	3,694.13	0.00	NA	NA
	08-Dec-04			76.79	3,694.25	0.00	NA	NA
	15-Dec-04			76.81	3,694.23	0.00	NA	NA
	27-Dec-04			77.00	3,694.04	0.00	NA	NA
	29-Dec-04			77.01	3,694.03	0.00	NA	NA
MW-3	28-Jul-04	3,771.94						
	23-Sep-04							
	08-Oct-04							
	14-Oct-04							
	20-Oct-04		Well Installed on October 26, 2004					
	29-Oct-04			78.18	3,693.76	0.00	NA	NA
	04-Nov-04			78.26	3,693.68	0.00	NA	NA
	10-Nov-04			78.30	3,693.64	0.00	NA	NA
	17-Nov-04			78.33	3,693.61	0.00	NA	NA
	24-Nov-04			78.41	3,693.53	0.00	NA	NA
	02-Dec-04			78.37	3,693.57	0.00	NA	NA
	08-Dec-04			78.30	3,693.64	0.00	NA	NA
	15-Dec-04			78.26	3,693.68	0.00	NA	NA
	27-Dec-04			78.42	3,693.52	0.00	NA	NA
	29-Dec-04			78.42	3,693.52	0.00	NA	NA

TABLE 1

RELATIVE GROUNDWATER ELEVATIONS AND PHASE SEPARATED HYDROCARBON THICKNESSES

8" Moore #2 - Ref. #2002-10273

Monitor Well	Date Gauged	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)*	Phase Separated Hydrocarbon Thickness (feet)	Volume Recovered (galllons)	Cumulative Recovery (gallons)
MW-4	28-Jul-04	3,772.86						
	23-Sep-04							
	08-Oct-04							
	14-Oct-04							
	20-Oct-04		Well Installed on October 25 & 26, 2004					
	29-Oct-04			79.22	3,693.64	0.00	NA	NA
	04-Nov-04			79.35	3,693.51	0.00	NA	NA
	10-Nov-04			79.34	3,693.52	0.00	NA	NA
	17-Nov-04			79.41	3,693.45	0.00	NA	NA
	24-Nov-04			79.49	3,693.37	0.00	NA	NA
	02-Dec-04			79.46	3,693.40	0.00	NA	NA
	08-Dec-04			79.35	3,693.51	0.00	NA	NA
	15-Dec-04			79.33	3,693.53	0.00	NA	NA
	27-Dec-04			79.48	3,693.38	0.00	NA	NA
	29-Dec-04			79.47	3,693.39	0.00	NA	NA

* = Well is referenced to the TOC of groundwater monitoring well MW-1, which was set to an elevation of 3,772.00 feet.

- - = Not Detected

If cell is blank, the well was not gauged

NS = Not Surveyed

Gray highlighted cells indicate current years data

Yellow highlighted cells indicate sampling event

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (BTEX & TPH)

8" Moore #2 - Ref #2002-10273

Monitor Well Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	m,p-Xylenes (µg/L)	o-Xylene (µg/L)	Total Xylenes (µg/L)
MW-1	4-Nov-04	Not Sampled due to the Presence of Phase Separated Hydrocarbons					
MW-2	4-Nov-04	**254**	108	11.5	8.5	11.3	19.8
MW-3	4-Nov-04	**62**	29.2	4.63	5.41	2.55	7.96
MW-4	4-Nov-04	2.58	1.50	<1	<2	<1	<3
NMOCD Remedial Thresholds		10	750	750			620

Red, bolded values are in excess of the NMOCD Remediation Thresholds or Other Standards for Domestic Water Supply.

If the cell is blank, then that parameter was not analyzed

TABLE 3

SUMMARY OF GROUNDWATER POLY-AROMATIC HYDROCARBONS (PAH) ANALYTICAL RESULTS

8" Moore #2 - Ref #2002-10273

Monitor Well Location	Date	Napthalene (µg/L)	Acenapthylene (µg/L)	Acenapthene (µg/L)	Flourene (µg/L)	Phenanthrene (µg/L)	Anthracene (µg/L)	Fluoranthene (µg/L)	Pyrene (µg/L)	Benzo[a]-anthracene (µg/L)	Chrysene (µg/L)	Benzo[b]-fluoranthene (µg/L)	Benzo[j,k]-fluoranthene (µg/L)	Benzo[a]-pyrene (µg/L)	Indeno[1,2,3-cd]-pyrene (µg/L)	Dibenz[a,h]-anthracene (µg/L)	Benzo[g,h.i]-perylene (µg/L)
MW-1	4-Nov-04	Not Analyzed due to the Presence of Phase Separated Hydrocarbons															
MW-2	4-Nov-04	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW-3	4-Nov-04	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW-4	4-Nov-04	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
NMOCD Remedial Thresholds		30												0.70			

Bolded values are in excess of the NMOCD Remediation Thresholds or Other Standards for Domestic Water Supply.

- - = Parameter was not analyzed

TABLE 4

SUMMARY OF GROUNDWATER MONITORING WELL RESULTS (SOIL)

8" Moore to Jal #2 - Ref #2002-10273

Sample ID	Sample Date	Soil Boring	PID Readings (ppm)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	m,p-Xylenes (mg/Kg)	o-Xylene (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)
2002-10270 (10-12)			906	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (15-17)			592	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (20-22)			721	91.7	155	77.9	98.9	48.0	472	5,660	3,930	9,590
2002-10270 (25-27)			427	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (30-32)			733	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (35-37)			386	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (40-42)			588	57.4	142	69.4	106	46.7	422	7,300	4,860	12,200
2002-10270 (45-47)	27-Jul-04	MW-1	301	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (50-52)			431	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (55-57)			599	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (60-62)			660	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (65-67)			799	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10273 (70-72)			390	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10273 (75-77)			566	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10273 (80-82)			11.2	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0
MW-2 (10-15)			23.8	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0
MW-2 (15-20)			58.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (20-25)			30.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (25-30)			26.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (30-35)			53.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (35-40)			102	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0
MW-2 (40-45)	25-Oct-04	MW-2	40.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (45-50)			109	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (50-55)			114	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (55-60)			102	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (60-65)			110	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (65-70)			98.3	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0
MW-2 (70-75)			62.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (10-15)			23.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (15-20)			77.4	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0
MW-3 (20-25)	26-Oct-04	MW-3	50.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (25-30)			38.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (30-35)			66.1	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4

SUMMARY OF GROUNDWATER MONITORING WELL RESULTS (SOIL)

8" Moore to Jal #2 - Ref #2002-10273

Sample ID	Sample Date	Soil Boring	PID Readings (ppm)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	m,p-Xylenes (mg/Kg)	o-Xylene (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)
MW-3 (35-40)	26-Oct-04	MW-3 (cont.)	68.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (40-45)			42.8	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0
MW-3 (45-50)			67.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (50-55)			62.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (55-60)			78.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (60-65)			56.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (65-70)			53.3	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0
MW-3 (70-75)			70.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (10-15)	25-Oct-04	MW-4	40.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (15-20)			66.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (20-25)			47.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (25-30)			71.2	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0
MW-4 (30-35)			54.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (35-40)			79.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (40-45)			76.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (45-50)			75.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (50-55)			90.9	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0
MW-4 (55-60)			56.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (60-65)			63.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (65-70)			42.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (70-75)			23.3	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0
NMOCD Remedial Thresholds				**10**					**50**			**100**

[1] *Bolded values are in excess of the NMOCD Remediation Thresholds*

[2] *NA : Not Analyzed*

[3] *NS : Not Sampled*

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

TABLE 5

SUMMARY OF LAND TREATMENT ANALYTICAL RESULTS (SOIL)

8" Moore to Jal #2 - Ref #2002-10273

Sample ID	Sample Date	Sample Location	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	m,p-Xylenes (mg/Kg)	o-Xylene (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)
NW	15-Dec-04	Northwest Quadrant of Cell	NA	NA	NA	NA	NA	NA	<5	282	**282**
SW	15-Dec-04	Southwest Quadrant of Cell	NA	NA	NA	NA	NA	NA	<5	464	**464**
NE	15-Dec-04	Northeast Quadrant of Cell	NA	NA	NA	NA	NA	NA	<5	31.2	31.2
SE	15-Dec-04	Southeast Quadrant of Cell	NA	NA	NA	NA	NA	NA	<5	18.1	18.1
NMOCD Remedial Thresholds			**10**					**50**			**100**

[1] ***Bolded*** *values are in excess of the NMOCD Remediation Thresholds*

[2] *NA : Not Analyzed*

TABLE 6

SUMMARY OF GROUNDWATER SAMPLING RECOMMENDATIONS

8" Moore to Jal #2 - Ref. #2002-10273

Monitoring Well	Eight Quarters Below NMOCD Standards	Sampling Schedule				Notes
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
MW-1[A]	No	X	X	X	X	Recommend Annual PAH analysis
MW-2	No	X	X	X	X	Recommend Annual PAH analysis
MW-3	No	X	X	X	X	Recommend Annual PAH analysis
MW-4	No	X	X	X	X	Recommend Annual PAH analysis

[A] *This well will only be sampled when all PSH have been removed from the groundwater.*

TABLE 7

SUMMARY OF EXCAVATION ANALYTICAL RESULTS (SOIL)

8" Moore to Jal #2 - Ref #2002-10273

Sample ID	Sample Date	Sample Location	Field PID Analysis (ppm)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	m,p-Xylenes (mg/Kg)	o-Xylene (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)
SE103002StkPile	30-Oct-02	Stockpile	NA	0.002	0.006	0.003	0.007	0.004	0.022	NA	NA	NA
SLE8M2111203NSWC	12-Nov-03	North Sidewall Composite (3'-4')	3.2	<0.025	<0.025	<0.025	<0.025	<0.025	<0.125	<10.0	195	**195**
SLE8M2111203SSWC	12-Nov-03	South Sidewall Composite (3'-4')	6.9	<0.025	<0.025	<0.025	<0.025	<0.025	<0.125	<10.0	<10.0	<10.0
SLE8M2111203ESWC	12-Nov-03	East Sidewall Composite (3'-4')	8.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.125	<10.0	<10.0	<10.0
SLE8M2111203BHC	12-Nov-03	Bottomhole Composite (4')	9.7	<0.025	<0.025	<0.025	<0.025	<0.025	<0.125	<10.0	<10.0	<10.0
NMOCD Remedial Thresholds				**10**					**50**			**100**

[1] ***Bolded*** *values are in excess of the NMOCD Remediation Thresholds*

[2] *NA : Not Analyzed*

APPENDICES

APPENDIX A

GROUNDWATER LABORATORY ANALYTICAL RESULTS

AND

CHAIN-OF-CUSTODY FORMS

ANALYSYS INC.
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2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eunice, NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 161549 **Report Date:** 11/29/04
Project ID: 2002-10273
Sample Name: PAA8"M#2110404MW2
Sample Matrix: water
Date Received: 11/10/2004 **Time:** 10:00
Date Sampled: 11/04/2004 **Time:** 16:30

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA [1]

Parameter	Result	Units	RQL [5]	Blank	Date	Method [6]	Data Qual.[7]	Prec. [2]	Recov. [3]	CCV[4]	LCS[4]
A/BN Extraction-PAH	---	---	---	---	11/11/04	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	11/24/04	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---		---		11/11/04	8260b(5030/5035)	---	---	---	---	---
Benzene	254	µg/L	1	<1	11/11/04	8260b	---	1.6	103.7	99.1	100.5
Ethylbenzene	11.5	µg/L	1	<1	11/11/04	8260b	---	7.5	113.6	117.6	118.7
m,p-Xylenes	8.5	µg/L	2	<2	11/11/04	8260b	---	7.8	106.7	110.7	112.2
o-Xylene	11.3	µg/L	1	<1	11/11/04	8260b	---	7.5	111.9	113.5	119.7
Toluene	108	µg/L	1	<1	11/11/04	8260b	---	0.7	111.3	103.7	111.8
Acenaphthene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	P	25.1	42.4	87.2	47.9
Acenaphthylene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	P	27.2	43.7	88.1	49.5
Anthracene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	10.4	45.6	103.1	58.6
Benzo[a]anthracene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	13.3	23.7	106.8	61.8
Benzo[a]pyrene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	13.9	16.1	114.5	64.7
Benzo[b]fluoranthene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	12.1	16	115.6	69.5
Benzo[g,h,i]perylene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	S,M	7.4	14.3	119	68.5
Benzo[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	16.3	16.4	118.9	67.3
Chrysene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	13	24	109.3	63.3
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	8.8	14.1	117.6	67.5
Fluoranthene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	2.8	39.7	105.1	61.5
Fluorene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	21.1	50.2	87.1	49
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	S,M	7.3	13.9	117.7	67.2

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program.

Respectfully Submitted,

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B =Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

ANALYSYS INC.
3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10273
Sample Name: PAA8"M#2110404MW2

Report#/Lab ID#: 161549
Sample Matrix: water

REPORT OF ANALYSIS-cont.

QUALITY ASSURANCE DATA [1]

Parameter	Result	Units	RQL [5]	Blank	Date	Method [6]	Data Qual.[7]	Prec. [2]	Recov. [3]	CCV[4]	LCS[4]
Naphthalene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	P	29	46.4	100	52.2
Phenanthrene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	11.7	61.3	106.3	63.1
Pyrene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	2.8	41.7	109.9	64.1

INC.
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	**Project ID:** 2002-10273	**Report#/Lab ID#:** 161549
Attn: Iain Olness	**Sample Name:** PAA8"M#2110404MW2	**Sample Matrix:** water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	46.6	30-110	---
Nitrobenzene-d5	610 & 8270c	43.8	12-110	---
Terphenyl-d14	610 & 8270c	36.5	25-110	---
1,2-Dichloroethane-d4	8260b	95.6	74-124	---
Toluene-d8	8260b	108	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report #/Lab ID#: 161549 **Matrix:** water
Client: Environmental Plus, Inc. **Attn:** Iain Olness
Project ID: 2002-10273
Sample Name: PAA8"M#2110404MW2

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
☐ Sample received in appropriate container(s). State of sample preservation unknown.
☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Acenaphthene Acenaphthene	P P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene Acenaphthylene	P P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Benzo[g,h,i]perylene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Naphthalene Naphthalene	P P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.

Notes:

ANALYSYS INC.
[redacted] Montopolis Drive, Austin, [redacted] 78741
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eunice, NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 161550 **Report Date:** 11/29/04
Project ID: 2002-10273
Sample Name: PAA8"M#2110404MW3
Sample Matrix: water
Date Received: 11/10/2004 **Time:** 10:00
Date Sampled: 11/04/2004 **Time:** 14:21

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA [1]

Parameter	Result	Units	RQL [5]	Blank	Date	Method [6]	Data Qual.[7]	Prec. [2]	Recov. [3]	CCV[4]	LCS[4]
A/BN Extraction-PAH	---	---	---	---	11/11/04	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	11/24/04	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---		---		11/11/04	8260b(5030/5035)	---	---	---	---	---
Benzene	62	µg/L	1	<1	11/11/04	8260b	---	1.6	103.7	99.1	100.5
Ethylbenzene	4.63	µg/L	1	<1	11/11/04	8260b	---	7.5	113.6	117.6	118.7
m,p-Xylenes	5.41	µg/L	2	<2	11/11/04	8260b	---	7.8	106.7	110.7	112.2
o-Xylene	2.55	µg/L	1	<1	11/11/04	8260b	---	7.5	111.9	113.5	119.7
Toluene	29.2	µg/L	1	<1	11/11/04	8260b	---	0.7	111.3	103.7	111.8
Acenaphthene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	P	25.1	42.4	87.2	47.9
Acenaphthylene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	P	27.2	43.7	88.1	49.5
Anthracene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	J	10.4	45.6	103.1	58.6
Benzo[a]anthracene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	13.3	23.7	106.8	61.8
Benzo[a]pyrene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	13.9	16.1	114.5	64.7
Benzo[b]fluoranthene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	12.1	16	115.6	69.5
Benzo[g,h,i]perylene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	S,M	7.4	14.3	119	68.5
Benzo[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	16.3	16.4	118.9	67.3
Chrysene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	13	24	109.3	63.3
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	8.8	14.1	117.6	67.5
Fluoranthene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	2.8	39.7	105.1	61.5
Fluorene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	J	21.1	50.2	87.1	49
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	S,M	7.3	13.9	117.7	67.2

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program.

Respectfully Submitted,

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B =Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

QUALITYSYS INC.
5312 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness

Project ID: 2002-10273
Sample Name: PAA8"M#2110404MW3

Report#/Lab ID#: 161550
Sample Matrix: water

REPORT OF ANALYSIS-cont.

QUALITY ASSURANCE DATA [1]

Parameter	Result	Units	RQL [5]	Blank	Date	Method [6]	Data Qual.[7]	Prec. [2]	Recov. [3]	CCV[4]	LCS [4]
Naphthalene	<0.05	μg/L	0.05	<0.05	11/24/04	610 & 8270c	P	29	46.4	100	52.2
Phenanthrene	<0.05	μg/L	0.05	<0.05	11/24/04	610 & 8270c	J	11.7	61.3	106.3	63.1
Pyrene	<0.05	μg/L	0.05	<0.05	11/24/04	610 & 8270c	---	2.8	41.7	109.9	64.1

ANALYSYS INC.
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	**Project ID:** 2002-10273	**Report#/Lab ID#:** 161550
Attn: Iain Olness	**Sample Name:** PAA8"M#2110404MW3	**Sample Matrix:** water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	52.1	30-110	---
Nitrobenzene-d5	610 & 8270c	52.6	12-110	---
Terphenyl-d14	610 & 8270c	51	25-110	---
1,2-Dichloroethane-d4	8260b	103	74-124	---
Toluene-d8	8260b	110	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report #/Lab ID#: 161550 **Matrix:** water
Client: Environmental Plus, Inc. **Attn:** Iain Olness
Project ID: 2002-10273
Sample Name: PAA8"M#2110404MW3

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

- ☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
- ☐ Sample received in appropriate container(s). State of sample preservation unknown.
- ☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Acenaphthene Acenaphthene	P P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene Acenaphthylene	P P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Anthracene	J	See J-flag discussion above.
Benzo[g,h,i]perylene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Fluorene	J	See J-flag discussion above.
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Naphthalene Naphthalene	P P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Phenanthrene	J	See J-flag discussion above.

Notes:

ANALYSYS INC.
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2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Iain Olness
Address: 2100 Ave. O
Eunice, NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 161551 **Report Date:** 11/29/04
Project ID: 2002-10273
Sample Name: PAA8"M#2110404MW4
Sample Matrix: water
Date Received: 11/10/2004 **Time:** 10:00
Date Sampled: 11/04/2004 **Time:** 15:15

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA [1]

Parameter	Result	Units	RQL [5]	Blank	Date	Method [6]	Data Qual.[7]	Prec. [2]	Recov. [3]	CCV[4]	LCS[4]
A/BN Extraction-PAH	---	---	---	---	11/11/04	3520	---	---	---	---	---
Extractable organics-PAH	---	---	---	---	11/24/04	610 & 8270c	---	---	---	---	---
Volatile organics-8260b/BTEX	---		---		11/11/04	8260b(5030/5035)	---	---	---	---	---
Benzene	2.58	µg/L	1	<1	11/11/04	8260b	---	1.6	103.7	99.1	100.5
Ethylbenzene	<1	µg/L	1	<1	11/11/04	8260b	---	7.5	113.6	117.6	118.7
m,p-Xylenes	<2	µg/L	2	<2	11/11/04	8260b	---	7.8	106.7	110.7	112.2
o-Xylene	<1	µg/L	1	<1	11/11/04	8260b	---	7.5	111.9	113.5	119.7
Toluene	1.5	µg/L	1	<1	11/11/04	8260b	---	0.7	111.3	103.7	111.8
Acenaphthene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	P	25.1	42.4	87.2	47.9
Acenaphthylene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	P	27.2	43.7	88.1	49.5
Anthracene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	10.4	45.6	103.1	58.6
Benzo[a]anthracene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	13.3	23.7	106.8	61.8
Benzo[a]pyrene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	13.9	16.1	114.5	64.7
Benzo[b]fluoranthene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	12.1	16	115.6	69.5
Benzo[g,h,i]perylene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	S,M	7.4	14.3	119	68.5
Benzo[j,k]fluoranthene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	16.3	16.4	118.9	67.3
Chrysene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	13	24	109.3	63.3
Dibenz[a,h]anthracene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	8.8	14.1	117.6	67.5
Fluoranthene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	2.8	39.7	105.1	61.5
Fluorene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	---	21.1	50.2	87.1	49
Indeno[1,2,3-cd]pyrene	<0.05	µg/L	0.05	<0.05	11/24/04	610 & 8270c	S,M	7.3	13.9	117.7	67.2

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program.

Respectfully Submitted,

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B =Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

AnalySys Inc.
5312 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	**Project ID:** 2002-10273	**Report#/Lab ID#:** 161551
Attn: Iain Olness	**Sample Name:** PAA8"M#2110404MW4	**Sample Matrix:** water

REPORT OF ANALYSIS-cont. / **QUALITY ASSURANCE DATA** [1]

Parameter	Result	Units	RQL [5]	Blank	Date	Method [6]	Data Qual. [7]	Prec. [2]	Recov. [3]	CCV [4]	LCS [4]
Naphthalene	<0.05	μg/L	0.05	<0.05	11/24/04	610 & 8270c	P	29	46.4	100	52.2
Phenanthrene	<0.05	μg/L	0.05	<0.05	11/24/04	610 & 8270c	---	11.7	61.3	106.3	63.1
Pyrene	<0.05	μg/L	0.05	<0.05	11/24/04	610 & 8270c	---	2.8	41.7	109.9	64.1

INC.
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	**Project ID:** 2002-10273	**Report#/Lab ID#:** 161551
Attn: Iain Olness	**Sample Name:** PAA8"M#2110404MW4	**Sample Matrix:** water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
2-Fluorobiphenyl	610 & 8270c	41.7	30-110	---
Nitrobenzene-d5	610 & 8270c	33.5	12-110	---
Terphenyl-d14	610 & 8270c	40	25-110	---
1,2-Dichloroethane-d4	8260b	98.4	74-124	---
Toluene-d8	8260b	113	89-115	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report #/Lab ID#: 161551 **Matrix:** water
Client: Environmental Plus, Inc. **Attn:** Iain Olness
Project ID: 2002-10273
Sample Name: PAA8"M#2110404MW4

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
☐ Sample received in appropriate container(s). State of sample preservation unknown.
☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Acenaphthene Acenaphthene	P P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Acenaphthylene Acenaphthylene	P P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.
Benzo[g,h,i]perylene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Indeno[1,2,3-cd]pyrene	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
Naphthalene Naphthalene	P P	The precision of the MS & MSD (or sample and sample duplicate for those analyseswhere MS/MSD are not run) is outside advisory/acceptance limits.

Notes:

AnalySys Inc.

Chain of Custody Form

4221 Freidrich Lane, Suite 190, Austin, TX 78744
512-444-5896 FAX: 512-447-4766

2209 N. Padre Island Dr., Corpus Christi, TX 78408

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Plains All American
Facility Name	8" Moore #2
Project Reference	2002-10273
EPI Sampler Name	Manuel Gonzales

Bill To

PLAINS ALL AMERICAN PIPELINE, L.P.

Attn: ENV Accounts Payable
P.O. Box 4648,
Houston, TX 77210-4648

LAB I.D.		SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: CRUDE OIL	MATRIX: SLUDGE	MATRIX: OTHER:	PRESERV.: ACID/BASE	PRESERV.: ICE/COOL	PRESERV.: OTHER	SAMPLING: DATE	SAMPLING: TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH
161549	1	PAA8"M#2110404MW2	G	6	X						X	X		4-Nov	13:30	X							X
161550	2	PAA8"M#2110404MW3	G	6	X						X	X		4-Nov	14:21	X							X
161551	3	PAA8"M#2110404MW4	G	6	X						X	X		4-Nov	15:15	X							X
	4																					
	5																					
	6																					
	7																					
	8																					
	9																					
	10																					

Sampler Relinquished:	Date 11/9/04 Time 1630	Received By:
Relinquished by:	Date 11/10/04 Time 1660	Received By: (lab staff)
Delivered by:	Sample Cool & Intact Yes No	Checked By:

E-mail results to: iolness@hotmail.com

REMARKS:

T: 3.8 C

Sample Analysis Case Narrative

Client: Environmental Plus, Inc. **Project ID:** 2002-10273

Attn: Iain Olness

for Sample #'s: 161549 **thru** 161551

Analyzed by AnalySys, Inc.

Final Review Date: 12/2/2004 **By:** _____ (D. Wagner)

Case Narrative:

The precisions of several semi volatile organic compounds for the analytical batch that contained sample #'s 161549 thru 161551 were higher than normal laboratory acceptance criteria. However, in each case, the Matrix Spikes (MS & MSD), and the Laboratory Control Sample (LCS) run with this batch were within analyte recovery limits indicating that the analytical process was working appropriately and in control. This deviation in the precision between the MS and MSD when viewed in conjunction with the acceptable analyte recovery seen for the MS, MSD, and LCS should have minimal impact on data usability.

The recoveries of Benzo[g,h,i]perylene and Indeno[1,2,3-cd]pyrene in the Matrix Spikes (MS&MSD) for the analytical batch that contained sample #'s 161549 thru 161551 were below normal laboratory acceptance criteria. The Laboratory Control Sample (LCS) run with this batch met recovery acceptance criteria for each analyte indicating that the analytical method was operating correctly and in control. None of the affected analytes were found in any of the above referenced samples. When viewed within the context of the passing LCS data, and the acceptable surrogate recoveries seen for each of the above referenced samples, this deviation in spike recovery should have minimal impact on data usability.

APPENDIX B

SOIL LABORATORY ANALYTICAL RESULTS

AND

CHAIN-OF-CUSTODY FORMS

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

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

Project: 8 inch Moore to Jal #2
Project Number: 2002-10273
Location: UL-J, Section 6 T17S, R37E

Lab Order Number: 4G29006

Report Date: 08/03/04

Plains All American EH & S	Project: 8 inch Moore to Jal #2	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2002-10273	**Reported:**
Midland TX, 79706-4476	Project Manager: Jimmy Bryant	08/03/04 17:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
2002-10273 MW-1 (20')	4G29006-01	Soil	07/27/04 09:17	07/29/04 10:50
2002-10273 MW-1 (40')	4G29006-02	Soil	07/27/04 09:37	07/29/04 10:50
2002-10273 MW-1 (80')	4G29006-03	Soil	07/27/04 10:55	07/29/04 10:50

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2002-10273 MW-1 (20') (4G29006-01) Soil									
Benzene	**91.7**	0.100	mg/kg dry	100	EH40207	07/30/04	07/30/04	EPA 8021B	
Toluene	**155**	0.100	"	"	"	"	"	"	
Ethylbenzene	**77.9**	0.100	"	"	"	"	"	"	
Xylene (p/m)	**98.9**	0.100	"	"	"	"	"	"	
Xylene (o)	**48.0**	0.100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*1870 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*110 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**5660**	10.0	mg/kg dry	1	EG42903	07/29/04	08/03/04	EPA 8015M	
Diesel Range Organics >C12-C35	**3930**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**9590**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*173 %*	*70-130*		"	"	"	"	*S-04*
Surrogate: 1-Chlorooctadecane		*116 %*	*70-130*		"	"	"	"	
2002-10273 MW-1 (40') (4G29006-02) Soil									
Benzene	**57.4**	0.200	mg/kg dry	200	EH40207	07/30/04	07/30/04	EPA 8021B	
Toluene	**142**	0.200	"	"	"	"	"	"	
Ethylbenzene	**69.4**	0.200	"	"	"	"	"	"	
Xylene (p/m)	**106**	0.200	"	"	"	"	"	"	
Xylene (o)	**46.7**	0.200	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*936 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*122 %*	*80-120*		"	"	"	"	*S-04*
Gasoline Range Organics C6-C12	**7300**	10.0	mg/kg dry	1	EG42903	07/29/04	08/03/04	EPA 8015M	
Diesel Range Organics >C12-C35	**4860**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**12200**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*189 %*	*70-130*		"	"	"	"	*S-04*
Surrogate: 1-Chlorooctadecane		*124 %*	*70-130*		"	"	"	"	
2002-10273 MW-1 (80') (4G29006-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EH40207	07/30/04	07/30/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*81.7 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.2 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG42903	07/29/04	08/03/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2002-10273 MW-1 (80') (4G29006-03) Soil									
Surrogate: 1-Chlorooctane		*96.8 %*	*70-130*		*EG42903*	*07/29/04*	*08/03/04*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*87.0 %*	*70-130*		*"*	*"*	*"*	*"*	

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2002-10273 MW-1 (20') (4G29006-01) Soil									
% Solids	**94.0**		%	1	EG43009	07/29/04	07/29/04	% calculation	
2002-10273 MW-1 (40') (4G29006-02) Soil									
% Solids	**96.0**		%	1	EG43009	07/29/04	07/29/04	% calculation	
2002-10273 MW-1 (80') (4G29006-03) Soil									
% Solids	**90.0**		%	1	EG43009	07/29/04	07/29/04	% calculation	

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 EG42903 - Solvent Extraction (GC)										
Blank (EG42903-BLK1)				Prepared: 07/29/04 Analyzed: 08/02/04						
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	*45.4*		*mg/kg*	*50.0*		*90.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*37.2*		*"*	*50.0*		*74.4*	*70-130*			
Blank (EG42903-BLK2)				Prepared: 07/29/04 Analyzed: 08/03/04						
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	*52.8*		*mg/kg*	*50.0*		*106*	*70-130*			
Surrogate: 1-Chlorooctadecane	*36.8*		*"*	*50.0*		*73.6*	*70-130*			
LCS (EG42903-BS1)				Prepared: 07/29/04 Analyzed: 08/02/04						
Gasoline Range Organics C6-C12	25.7	10.0	mg/kg wet	25.0		103	75-125			
Diesel Range Organics >C12-C35	27.6	10.0	"	25.0		110	75-125			
Total Hydrocarbon C6-C35	53.3	10.0	"	50.0		107	75-125			
Surrogate: 1-Chlorooctane	*37.4*		*mg/kg*	*50.0*		*74.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*37.5*		*"*	*50.0*		*75.0*	*70-130*			
LCS (EG42903-BS2)				Prepared: 07/29/04 Analyzed: 08/03/04						
Gasoline Range Organics C6-C12	27.9	10.0	mg/kg wet	25.0		112	75-125			
Diesel Range Organics >C12-C35	27.9	10.0	"	25.0		112	75-125			
Total Hydrocarbon C6-C35	55.8	10.0	"	50.0		112	75-125			
Surrogate: 1-Chlorooctane	*53.1*		*mg/kg*	*50.0*		*106*	*70-130*			
Surrogate: 1-Chlorooctadecane	*35.4*		*"*	*50.0*		*70.8*	*70-130*			
Calibration Check (EG42903-CCV1)				Prepared: 07/29/04 Analyzed: 08/02/04						
Gasoline Range Organics C6-C12	43.3		mg/kg	50.0		86.6	80-120			
Diesel Range Organics >C12-C35	45.6		"	50.0		91.2	80-120			
Total Hydrocarbon C6-C35	88.9		"	100		88.9	80-120			
Surrogate: 1-Chlorooctane	*40.5*		*"*	*50.0*		*81.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*35.4*		*"*	*50.0*		*70.8*	*70-130*			

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 EG42903 - Solvent Extraction (GC)										
Calibration Check (EG42903-CCV2)				Prepared: 07/29/04 Analyzed: 08/03/04						
Gasoline Range Organics C6-C12	54.0		mg/kg	50.0		108	80-120			
Diesel Range Organics >C12-C35	52.2		"	50.0		104	80-120			
Total Hydrocarbon C6-C35	106		"	100		106	80-120			
Surrogate: 1-Chlorooctane	*51.9*		*"*	*50.0*		*104*	*70-130*			
Surrogate: 1-Chlorooctadecane	*35.1*		*"*	*50.0*		*70.2*	*70-130*			
Matrix Spike (EG42903-MS1)		**Source: 4G29002-09**		Prepared: 07/29/04 Analyzed: 08/03/04						
Gasoline Range Organics C6-C12	478	10.0	mg/kg dry	532	ND	89.8	75-125			
Diesel Range Organics >C12-C35	491	10.0	"	532	13.7	89.7	75-125			
Total Hydrocarbon C6-C35	969	10.0	"	1060	13.7	90.1	75-125			
Surrogate: 1-Chlorooctane	*63.9*		*mg/kg*	*50.0*		*128*	*70-130*			
Surrogate: 1-Chlorooctadecane	*35.1*		*"*	*50.0*		*70.2*	*70-130*			
Matrix Spike (EG42903-MS2)		**Source: 4G29007-02**		Prepared: 07/29/04 Analyzed: 08/03/04						
Gasoline Range Organics C6-C12	605	10.0	mg/kg dry	568	ND	107	75-125			
Diesel Range Organics >C12-C35	558	10.0	"	568	ND	98.2	75-125			
Total Hydrocarbon C6-C35	1160	10.0	"	1140	ND	102	75-125			
Surrogate: 1-Chlorooctane	*56.2*		*mg/kg*	*50.0*		*112*	*70-130*			
Surrogate: 1-Chlorooctadecane	*38.2*		*"*	*50.0*		*76.4*	*70-130*			
Matrix Spike Dup (EG42903-MSD1)		**Source: 4G29002-09**		Prepared: 07/29/04 Analyzed: 08/03/04						
Gasoline Range Organics C6-C12	568	10.0	mg/kg dry	532	ND	107	75-125	17.2	20	
Diesel Range Organics >C12-C35	568	10.0	"	532	13.7	104	75-125	14.5	20	
Total Hydrocarbon C6-C35	1140	10.0	"	1060	13.7	106	75-125	16.2	20	
Surrogate: 1-Chlorooctane	*64.4*		*mg/kg*	*50.0*		*129*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.7*		*"*	*50.0*		*95.4*	*70-130*			
Matrix Spike Dup (EG42903-MSD2)		**Source: 4G29007-02**		Prepared: 07/29/04 Analyzed: 08/03/04						
Gasoline Range Organics C6-C12	536	10.0	mg/kg dry	568	ND	94.4	75-125	12.1	20	
Diesel Range Organics >C12-C35	576	10.0	"	568	ND	101	75-125	3.17	20	
Total Hydrocarbon C6-C35	1110	10.0	"	1140	ND	97.4	75-125	4.41	20	
Surrogate: 1-Chlorooctane	*60.5*		*mg/kg*	*50.0*		*121*	*70-130*			
Surrogate: 1-Chlorooctadecane	*37.5*		*"*	*50.0*		*75.0*	*70-130*			

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 EH40207 - EPA 5030C (GC)										
Blank (EH40207-BLK1)				Prepared & Analyzed: 07/30/04						
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	*89.2*		*ug/kg*	*100*		*89.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*90.6*		*"*	*100*		*90.6*	*80-120*			
LCS (EH40207-BS1)				Prepared & Analyzed: 07/30/04						
Benzene	106		ug/kg	100		106	80-120			
Toluene	102		"	100		102	80-120			
Ethylbenzene	99.7		"	100		99.7	80-120			
Xylene (p/m)	210		"	200		105	80-120			
Xylene (o)	107		"	100		107	80-120			
Surrogate: a,a,a-Trifluorotoluene	*104*		*"*	*100*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*103*		*"*	*100*		*103*	*80-120*			
Calibration Check (EH40207-CCV1)				Prepared: 07/30/04 Analyzed: 07/31/04						
Benzene	104		ug/kg	100		104	80-120			
Toluene	101		"	100		101	80-120			
Ethylbenzene	95.4		"	100		95.4	80-120			
Xylene (p/m)	203		"	200		102	80-120			
Xylene (o)	106		"	100		106	80-120			
Surrogate: a,a,a-Trifluorotoluene	*93.2*		*"*	*100*		*93.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*92.1*		*"*	*100*		*92.1*	*80-120*			
Matrix Spike (EH40207-MS1)	**Source: 4G29006-03**			Prepared & Analyzed: 07/30/04						
Benzene	102		ug/kg	100	ND	102	80-120			
Toluene	98.2		"	100	ND	98.2	80-120			
Ethylbenzene	95.6		"	100	ND	95.6	80-120			
Xylene (p/m)	206		"	200	ND	103	80-120			
Xylene (o)	104		"	100	ND	104	80-120			
Surrogate: a,a,a-Trifluorotoluene	*99.4*		*"*	*100*		*99.4*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*101*		*"*	*100*		*101*	*80-120*			

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 EH40207 - EPA 5030C (GC)										
Matrix Spike Dup (EH40207-MSD1)	**Source: 4G29006-03**		Prepared & Analyzed: 07/30/04							
Benzene	106		ug/kg	100	ND	106	80-120	3.85	20	
Toluene	102		"	100	ND	102	80-120	3.80	20	
Ethylbenzene	99.9		"	100	ND	99.9	80-120	4.40	20	
Xylene (p/m)	213		"	200	ND	106	80-120	2.87	20	
Xylene (o)	108		"	100	ND	108	80-120	3.77	20	
Surrogate: a,a,a-Trifluorotoluene	*98.9*		*"*	*100*		*98.9*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*96.6*		*"*	*100*		*96.6*	*80-120*			

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
Batch EG43009 - General Preparation (Prep)										
Blank (EG43009-BLK1)				Prepared & Analyzed: 07/29/04						
% Solids	100		%							
Duplicate (EG43009-DUP1)		**Source: 4G29001-01**		Prepared & Analyzed: 07/29/04						
% Solids	87.0		%		87.0			0.00	20	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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: Celey D. Keene Date: 08/04/04

Raland K. Tuttle, QA Officer
Celey D. Keene, Lab Director, Org. Tech Director
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sara Molina, Chemist
Sandra Biezugbe, Lab Tech.

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

Project Manager: Jimmy Bryant
Company Name: Plains All American
Company Address: 5805 E. HIGHWAY 80
City/State/Zip: MIDLAND, TX 79701
Telephone No: (505) 631-3095
Sampler Signature: EPI - Environmental Consultant

Project Name: 8 inch Moore to Jal #2
Project #: 2002-10273
Project Loc: UL-J, Section 6 T17S, R37E
PO#:

LAB ID	SAMPLE IDENTIFICATION	Date Sampled	Time Sampled	No. of Containers	Preservative: ICE	HNO	HCl	NaOH	HSO	None	Other (Specify)	Type: Water	Sludge	Soil	Other (Specify)	Analyze For: TCLP TDS/Cl/SAR/EC	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	TOTAL Metals *	Volatiles *	Semivolatiles *	BTEX 8021B/5030 X	Reactivity	Corrosivity	Ignitiability	Chlorides	Sulfates		RUSH TAT	Standard TAT
4029006																															
-01	2002-10273 MW-1(20')	27-Jul	9:17	1	X									X					X				X								X
-02	2002-10273 MW-1(40')	27-Jul	9:37	1	X									X					X				X								X
-03	2002-10273 MW-1(80')	27-Jul	10:55	1	X									X					X				X								X

Special Instructions

FAX RESULTS TO Pat McCasland ASAP [505-394-2601]

Sample Containers Intact? Y N
Temperature Upon Request
Laboratory Comments:
0.5°C
4oz glass

Relinquished:	Date	Time	Received by:	Date	Time
Pam Dress	7/29/04	0640		7-29-04	6:40
Relinquished:	Date	Time	Received by:	Date	Time
	7-29-04	10:50	Jeanne McMurry	7-29-04	1050

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

Client: Plains All American

Date/Time: 07-29-04 @ 1145

Order #: 4G29006

Initials: JMM

Sample Receipt Checklist

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

Other observations:

_____

_____

_____

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

_____

_____

_____

Corrective Action Taken:

_____

_____

_____

_____

_____

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_____

_____

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Daniel Bryant

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: 8 inch Moore #2

Project Number: 2002-10273

Location: None Given

Lab Order Number: 4J29003

Report Date: 11/05/04

Plains All American EH & S	Project: 8 inch Moore #2	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2002-10273	**Reported:**
Midland TX, 79706-4476	Project Manager: Daniel Bryant	11/05/04 10:22

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2 (10-15)	4J29003-01	Soil	10/25/04 09:21	10/29/04 11:03
MW-2 (35-40)	4J29003-02	Soil	10/25/04 09:54	10/29/04 11:03
MW-2 (65-70)	4J29003-03	Soil	10/25/04 10:46	10/29/04 11:03
MW-3 (15-20)	4J29003-04	Soil	10/26/04 10:44	10/29/04 11:03
MW-3 (40-45)	4J29003-05	Soil	10/26/04 11:27	10/29/04 11:03
MW-3 (65-70)	4J29003-06	Soil	10/26/04 12:48	10/29/04 11:03
MW-4 (25-30)	4J29003-07	Soil	10/25/04 14:53	10/29/04 11:03
MW-4 (50-55)	4J29003-08	Soil	10/25/04 15:37	10/29/04 11:03
MW-4 (70-75)	4J29003-09	Soil	10/25/04 16:07	10/29/04 11:03

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Plains All American EH & S	Project: 8 inch Moore #2	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2002-10273	**Reported:**
Midland TX, 79706-4476	Project Manager: Daniel Bryant	11/05/04 10:22

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (10-15) (4J29003-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40306	11/02/04	11/03/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*88.6 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.9 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42907	10/29/04	10/30/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*81.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*88.8 %*	*70-130*		"	"	"	"	
MW-2 (35-40) (4J29003-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40306	11/02/04	11/02/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*92.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42907	10/29/04	10/30/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*85.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*98.2 %*	*70-130*		"	"	"	"	
MW-2 (65-70) (4J29003-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40306	11/02/04	11/02/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*84.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.7 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42907	10/29/04	10/30/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (65-70) (4J29003-03) Soil									
Surrogate: 1-Chlorooctane		*90.0 %*	*70-130*		*EJ42907*	*10/29/04*	*10/30/04*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*91.6 %*	*70-130*		"	"	"	"	
MW-3 (15-20) (4J29003-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40306	11/02/04	11/03/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*89.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.4 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42907	10/29/04	10/30/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*100 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*119 %*	*70-130*		"	"	"	"	
MW-3 (40-45) (4J29003-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40306	11/02/04	11/02/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*84.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.0 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42907	10/29/04	10/30/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*88.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*99.6 %*	*70-130*		"	"	"	"	

Plains All American EH & S	Project: 8 inch Moore #2	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2002-10273	**Reported:**
Midland TX, 79706-4476	Project Manager: Daniel Bryant	11/05/04 10:22

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (65-70) (4J29003-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40306	11/02/04	11/02/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*88.6 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42907	10/29/04	10/30/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*122 %*	*70-130*		"	"	"	"	
MW-4 (25-30) (4J29003-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40306	11/02/04	11/02/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*85.4 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42907	10/29/04	10/30/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*100 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*120 %*	*70-130*		"	"	"	"	
MW-4 (50-55) (4J29003-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40306	11/02/04	11/03/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*80.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.7 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42907	10/29/04	10/30/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

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Plains All American EH & S	Project: 8 inch Moore #2	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2002-10273	**Reported:**
Midland TX, 79706-4476	Project Manager: Daniel Bryant	11/05/04 10:22

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (50-55) (4J29003-08) Soil									
Surrogate: 1-Chlorooctane		*97.4 %*	*70-130*		*EJ42907*	*10/29/04*	*10/30/04*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*109 %*	*70-130*		"	"	"	"	
MW-4 (70-75) (4J29003-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK40306	11/02/04	11/03/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*85.9 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.4 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EJ42907	10/29/04	10/30/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*122 %*	*70-130*		"	"	"	"	

Plains All American EH & S	Project: 8 inch Moore #2	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2002-10273	**Reported:**
Midland TX, 79706-4476	Project Manager: Daniel Bryant	11/05/04 10:22

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (10-15) (4J29003-01) Soil									
% Moisture	**3.0**		%	1	EK40102	11/01/04	11/01/04	% calculation	
MW-2 (35-40) (4J29003-02) Soil									
% Moisture	**2.0**		%	1	EK40102	11/01/04	11/01/04	% calculation	
MW-2 (65-70) (4J29003-03) Soil									
% Moisture	**4.0**		%	1	EK40102	11/01/04	11/01/04	% calculation	
MW-3 (15-20) (4J29003-04) Soil									
% Moisture	**5.0**		%	1	EK40102	11/01/04	11/01/04	% calculation	
MW-3 (40-45) (4J29003-05) Soil									
% Moisture	**6.0**		%	1	EK40102	11/01/04	11/01/04	% calculation	
MW-3 (65-70) (4J29003-06) Soil									
% Moisture	**4.0**		%	1	EK40102	11/01/04	11/01/04	% calculation	
MW-4 (25-30) (4J29003-07) Soil									
% Moisture	**3.0**		%	1	EK40102	11/01/04	11/01/04	% calculation	
MW-4 (50-55) (4J29003-08) Soil									
% Moisture	**4.0**		%	1	EK40102	11/01/04	11/01/04	% calculation	
MW-4 (70-75) (4J29003-09) Soil									
% Moisture	**4.0**		%	1	EK40102	11/01/04	11/01/04	% calculation	

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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 EJ42907 - Solvent Extraction (GC)										
Blank (EJ42907-BLK1)				Prepared & Analyzed: 10/29/04						
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	*44.5*		*mg/kg*	*50.0*		*89.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*48.5*		*"*	*50.0*		*97.0*	*70-130*			
Blank (EJ42907-BLK2)				Prepared: 10/29/04 Analyzed: 10/30/04						
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	*48.1*		*mg/kg*	*50.0*		*96.2*	*70-130*			
Surrogate: 1-Chlorooctadecane	*48.8*		*"*	*50.0*		*97.6*	*70-130*			
LCS (EJ42907-BS1)				Prepared & Analyzed: 10/29/04						
Gasoline Range Organics C6-C12	473	10.0	mg/kg wet	500		94.6	75-125			
Diesel Range Organics >C12-C35	518	10.0	"	500		104	75-125			
Total Hydrocarbon C6-C35	991	10.0	"	1000		99.1	75-125			
Surrogate: 1-Chlorooctane	*51.4*		*mg/kg*	*50.0*		*103*	*70-130*			
Surrogate: 1-Chlorooctadecane	*46.5*		*"*	*50.0*		*93.0*	*70-130*			
LCS (EJ42907-BS2)				Prepared: 10/29/04 Analyzed: 10/30/04						
Gasoline Range Organics C6-C12	518	10.0	mg/kg wet	500		104	75-125			
Diesel Range Organics >C12-C35	540	10.0	"	500		108	75-125			
Total Hydrocarbon C6-C35	1060	10.0	"	1000		106	75-125			
Surrogate: 1-Chlorooctane	*57.9*		*mg/kg*	*50.0*		*116*	*70-130*			
Surrogate: 1-Chlorooctadecane	*60.2*		*"*	*50.0*		*120*	*70-130*			
LCS Dup (EJ42907-BSD2)				Prepared: 10/29/04 Analyzed: 10/30/04						
Gasoline Range Organics C6-C12	502	10.0	mg/kg wet	500		100	75-125	3.14	20	
Diesel Range Organics >C12-C35	551	10.0	"	500		110	75-125	2.02	20	
Total Hydrocarbon C6-C35	1050	10.0	"	1000		105	75-125	0.948	20	
Surrogate: 1-Chlorooctane	*56.2*		*mg/kg*	*50.0*		*112*	*70-130*			
Surrogate: 1-Chlorooctadecane	*58.8*		*"*	*50.0*		*118*	*70-130*			

Plains All American EH & S	Project: 8 inch Moore #2	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2002-10273	**Reported:**
Midland TX, 79706-4476	Project Manager: Daniel Bryant	11/05/04 10:22

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 EJ42907 - Solvent Extraction (GC)										
Calibration Check (EJ42907-CCV1)				Prepared & Analyzed: 10/29/04						
Gasoline Range Organics C6-C12	492		mg/kg	500		98.4	80-120			
Diesel Range Organics >C12-C35	506		"	500		101	80-120			
Total Hydrocarbon C6-C35	998		"	1000		99.8	80-120			
Surrogate: 1-Chlorooctane	*50.0*		"	*50.0*		*100*	*70-130*			
Surrogate: 1-Chlorooctadecane	*48.0*		"	*50.0*		*96.0*	*70-130*			
Calibration Check (EJ42907-CCV2)				Prepared: 10/29/04 Analyzed: 10/30/04						
Gasoline Range Organics C6-C12	500		mg/kg	500		100	80-120			
Diesel Range Organics >C12-C35	559		"	500		112	80-120			
Total Hydrocarbon C6-C35	1060		"	1000		106	80-120			
Surrogate: 1-Chlorooctane	*57.4*		"	*50.0*		*115*	*70-130*			
Surrogate: 1-Chlorooctadecane	*60.6*		"	*50.0*		*121*	*70-130*			
Matrix Spike (EJ42907-MS1)	**Source: 4J29003-04**			Prepared: 10/29/04 Analyzed: 10/30/04						
Gasoline Range Organics C6-C12	571	10.0	mg/kg dry	526	ND	109	75-125			
Diesel Range Organics >C12-C35	597	10.0	"	526	ND	113	75-125			
Total Hydrocarbon C6-C35	1170	10.0	"	1050	ND	111	75-125			
Surrogate: 1-Chlorooctane	*57.9*		*mg/kg*	*50.0*		*116*	*70-130*			
Surrogate: 1-Chlorooctadecane	*61.9*		"	*50.0*		*124*	*70-130*			
Matrix Spike Dup (EJ42907-MSD1)	**Source: 4J29003-04**			Prepared: 10/29/04 Analyzed: 10/30/04						
Gasoline Range Organics C6-C12	566	10.0	mg/kg dry	526	ND	108	75-125	0.880	20	
Diesel Range Organics >C12-C35	548	10.0	"	526	ND	104	75-125	8.56	20	
Total Hydrocarbon C6-C35	1110	10.0	"	1050	ND	106	75-125	5.26	20	
Surrogate: 1-Chlorooctane	*54.7*		*mg/kg*	*50.0*		*109*	*70-130*			
Surrogate: 1-Chlorooctadecane	*53.5*		"	*50.0*		*107*	*70-130*			

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 EK40306 - EPA 5030C (GC)										
Blank (EK40306-BLK1)				Prepared & Analyzed: 11/02/04						
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	*85.1*		*ug/kg*	*100*		*85.1*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*95.3*		"	*100*		*95.3*	*80-120*			
LCS (EK40306-BS1)				Prepared & Analyzed: 11/02/04						
Benzene	95.3		ug/kg	100		95.3	80-120			
Toluene	99.5		"	100		99.5	80-120			
Ethylbenzene	103		"	100		103	80-120			
Xylene (p/m)	228		"	200		114	80-120			
Xylene (o)	107		"	100		107	80-120			
Surrogate: a,a,a-Trifluorotoluene	*105*		"	*100*		*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*115*		"	*100*		*115*	*80-120*			
Calibration Check (EK40306-CCV1)				Prepared: 11/02/04 Analyzed: 11/03/04						
Benzene	93.8		ug/kg	100		93.8	80-120			
Toluene	95.6		"	100		95.6	80-120			
Ethylbenzene	89.3		"	100		89.3	80-120			
Xylene (p/m)	197		"	200		98.5	80-120			
Xylene (o)	92.9		"	100		92.9	80-120			
Surrogate: a,a,a-Trifluorotoluene	*106*		"	*100*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*100*		"	*100*		*100*	*80-120*			
Matrix Spike (EK40306-MS1)	**Source: 4K01005-01**			Prepared: 11/02/04 Analyzed: 11/03/04						
Benzene	92.0		ug/kg	100	ND	92.0	80-120			
Toluene	93.6		"	100	ND	93.6	80-120			
Ethylbenzene	97.3		"	100	ND	97.3	80-120			
Xylene (p/m)	217		"	200	ND	108	80-120			
Xylene (o)	104		"	100	ND	104	80-120			
Surrogate: a,a,a-Trifluorotoluene	*102*		"	*100*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*116*		"	*100*		*116*	*80-120*			

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 EK40306 - EPA 5030C (GC)										
Matrix Spike Dup (EK40306-MSD1)	**Source: 4K01005-01**			Prepared: 11/02/04 Analyzed: 11/03/04						
Benzene	93.1		ug/kg	100	ND	93.1	80-120	1.19	20	
Toluene	96.4		"	100	ND	96.4	80-120	2.95	20	
Ethylbenzene	98.0		"	100	ND	98.0	80-120	0.717	20	
Xylene (p/m)	218		"	200	ND	109	80-120	0.922	20	
Xylene (o)	103		"	100	ND	103	80-120	0.966	20	
Surrogate: a,a,a-Trifluorotoluene	*97.9*		"	*100*		*97.9*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*112*		"	*100*		*112*	*80-120*			

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
Batch EK40102 - General Preparation (Prep)										
Blank (EK40102-BLK1)				Prepared & Analyzed: 11/01/04						
% Moisture	0.0		%							
Duplicate (EK40102-DUP1)		**Source: 4J29002-01**		Prepared & Analyzed: 11/01/04						
% Moisture	8.0		%		8.0			0.00	20	

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: Raland K Tuttle Date: 11/5/2004

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

Chain of Custody Form

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Company Name	Environmental Plus, Inc.
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Client Company	Plains All American
Facility Name	8" Moore #2 (Ref. #2002-10273)
Project Reference	2002-10273
EPI Sampler Name	John Robinson

Bill To

PLAINS ALL AMERICAN PIPELINE, L.P.

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PO Box 4648,
Houston, TX 77210-4648

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES ($SO_4^=$)	pH	TCLP	OTHER >>>	PAH
4J29003																						
-01	MW-2 (10-15)	C	1			X					X		25-Oct	9:21	X	X						
-02	MW-2 (35-40)	C	1			X					X		25-Oct	9:54	X	X						
-03	MW-2 (65-70)	C	1			X					X		25-Oct	10:46	X	X						
-04	MW-3 (15-20)	C	1			X					X		26-Oct	10:44	X	X						
-05	MW-3 (40-45)	C	1			X					X		26-Oct	11:27	X	X						
-06	MW-3 (65-70)	C	1			X					X		26-Oct	12:48	X	X						
-07	MW-4 (25-30)	C	1			X					X		25-Oct	14:53	X	X						
-08	MW-4 (50-55)	C	1			X					X		25-Oct	15:37	X	X						
-09	MW-4 (60-75)	C	1			X					X		25-Oct	16:07	X	X						
10																						

Samples Relinquished: Iain Olness	Date 10/29/04 Time 0705	Received By: Beed Hobbs	E-mail results to: iolness@hotmail.com
Relinquished by: Beed Hobbs	Date 10-29-04 Time 1103	Received By: (lab staff) Jeanne McMurrey	REMARKS: 3.5°c 4oz glass on ice
Delivered by	Sample Cool & Intact Yes No	Checked By:	

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

Client: Plains P/L

Date/Time: 10-29-04 @ 1115

Order #: 4J29003

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	3.5 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	Yes	No	(Not present)
Custody Seals intact on sample bottles?	Yes	No	(Not present)
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	(Yes)	No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

Corrective Action Taken:

AnalySys, Inc.
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Pat McCasland
Address: 2100 Ave. O
Eunice NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 162925 **Report Date:** 12/27/04
Project ID: 2002-10273
Sample Name: NW
Sample Matrix: soil
Date Received: 12/22/2004 **Time:** 10:20
Date Sampled: 12/15/2004 **Time:** 11:15

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA [1]

Parameter	Result	Units	RQL [5]	Blank	Date	Method [6]	Data Qual.[7]	Prec. [2]	Recov. [3]	CCV[4]	LCS [4]
TPH by GC (as diesel)	282	mg/Kg	2.5	<2.5	12/27/04	8015 mod.	S,M	0	Mt.Intf.	90.8	82.6
TPH by GC (as diesel-ext)	---	---	---	---	12/23/04	3570m	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	12/27/04	8015 mod.	---	8.1	98.1	92.8	97.4

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program.

Respectfully Submitted,

D Wagner

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B =Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

ENVIROSYS INC.
3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	**Project ID:** 2002-10273	**Report#/Lab ID#:** 162925
Attn: Pat McCasland	**Sample Name:** NW	**Sample Matrix:** soil

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1-Chlorooctane	8015 mod.	82.6	30-125	---
p-Terphenyl	8015 mod.	126	30-160	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report #/Lab ID#: 162925 **Matrix:** soil
Client: Environmental Plus, Inc. **Attn:** Pat McCasland
Project ID: 2002-10273
Sample Name: NW

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
☐ Sample received in appropriate container(s). State of sample preservation unknown.
☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
TPH by GC (as diesel)	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.

Notes:

ANALYSYS INC.

3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Pat McCasland
Address: 2100 Ave. O
Eunice NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 162926 **Report Date:** 12/27/04
Project ID: 2002-10273
Sample Name: SW
Sample Matrix: soil
Date Received: 12/22/2004 **Time:** 10:20
Date Sampled: 12/15/2004 **Time:** 11:25

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA [1]

Parameter	Result	Units	RQL [5]	Blank	Date	Method [6]	Data Qual.[7]	Prec. [2]	Recov. [3]	CCV[4]	LCS[4]
TPH by GC (as diesel)	464	mg/Kg	2.5	<2.5	12/27/04	8015 mod.	S,M	0	Mt.Intf.	90.8	82.6
TPH by GC (as diesel-ext)	---	---	---	---	12/23/04	3570m	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	12/27/04	8015 mod.	---	8.1	98.1	92.8	97.4

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program.

Respectfully Submitted,

Dale Wagner

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B =Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

[redacted] INC.
[redacted] Austin, TX [redacted] &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	**Project ID:** 2002-10273	**Report#/Lab ID#:** 162926
Attn: Pat McCasland	**Sample Name:** SW	**Sample Matrix:** soil

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1-Chlorooctane	8015 mod.	82.1	30-125	---
p-Terphenyl	8015 mod.	180	30-160	X

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report #/Lab ID#: 162926 **Matrix:** soil
Client: Environmental Plus, Inc. **Attn:** Pat McCasland
Project ID: 2002-10273
Sample Name: SW

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation:

☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
☐ Sample received in appropriate container(s). State of sample preservation unknown.
☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion:

A J flag data qualifier indicates (as required under TCEQ-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
TPH by GC (as diesel)	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.
p-Terphenyl p-Terphenyl	X X	Surrogate recovery outside advisory/acceptance limits. Typically, for samples with TPH/1005 hits, high recoveries are due to co-elution of hydrocarbons from the sample at the same retention time as the surrogate

Notes:

ANALYSYS INC.
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Pat McCasland
Address: 2100 Ave. O
Eunice NM 88231
Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 162927 **Report Date:** 12/27/04
Project ID: 2002-10273
Sample Name: NE
Sample Matrix: soil
Date Received: 12/22/2004 **Time:** 10:20
Date Sampled: 12/15/2004 **Time:** 11:35

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA [1]

Parameter	Result	Units	RQL [5]	Blank	Date	Method [6]	Data Qual.[7]	Prec. [2]	Recov. [3]	CCV[4]	LCS[4]
TPH by GC (as diesel)	31.2	mg/Kg	2.5	<2.5	12/27/04	8015 mod.	S,M	0	Mt.Intf.	90.8	82.6
TPH by GC (as diesel-ext)	---	---	---	---	12/23/04	3570m	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	12/27/04	8015 mod.	---	8.1	98.1	92.8	97.4

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LIBERTY SYS INC.
5512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	**Project ID:** 2002-10273	**Report#/Lab ID#:** 162927
Attn: Pat McCasland	**Sample Name:** NE	**Sample Matrix:** soil

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1-Chlorooctane	8015 mod.	70.3	30-125	---
p-Terphenyl	8015 mod.	87.9	30-160	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report #/Lab ID#: 162927 **Matrix:** soil
Client: Environmental Plus, Inc. **Attn:** Pat McCasland
Project ID: 2002-10273
Sample Name: NE

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

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Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
TPH by GC (as diesel)	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.

Notes:

AnalySys Inc.
3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Pat McCasland
Address: 2100 Ave. O
Eunice NM 88231
Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 162928 **Report Date:** 12/27/04
Project ID: 2002-10273
Sample Name: SE
Sample Matrix: soil
Date Received: 12/22/2004 **Time:** 10:20
Date Sampled: 12/15/2004 **Time:** 11:45

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA [1]

Parameter	Result	Units	RQL [5]	Blank	Date	Method [6]	Data Qual.[7]	Prec. [2]	Recov. [3]	CCV[4]	LCS[4]
TPH by GC (as diesel)	18.1	mg/Kg	2.5	<2.5	12/27/04	8015 mod.	S,M	0	Mt.Intf.	90.8	82.6
TPH by GC (as diesel-ext)	---	---	---	---	12/23/04	3570m	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	12/27/04	8015 mod.	---	8.1	98.1	92.8	97.4

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Dale Wagner

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INC.
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	**Project ID:** 2002-10273	**Report#/Lab ID#:** 162928
Attn: Pat McCasland	**Sample Name:** SE	**Sample Matrix:** soil

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limits	Data Qualifiers
1-Chlorooctane	8015 mod.	81.3	30-125	---
p-Terphenyl	8015 mod.	87.1	30-160	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Report #/Lab ID#: 162928 **Matrix:** soil
Client: Environmental Plus, Inc. **Attn:** Pat McCasland
Project ID: 2002-10273
Sample Name: SE

Sample Temperature/Condition: <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

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☐ Sample received in appropriate container(s). State of sample preservation unknown.
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Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
TPH by GC (as diesel)	S,M	MS and/or MSD recoveries outside target recov. limits. LCS recovery in-limits; indicative of potential matrix interference as evidenced by M-flag.

Notes:

1358

AnalySys Inc.

Chain of Custody Form

4221 Freidrich Lane, Suite 190, Austin, TX 78744
512-444-5896 FAX: 512-447-4766

2209 N. Padre Island Dr., Corpus Christi, TX 78408

Company Name	Environmental Plus, Inc.
EPI Project Manager	Pat McCasland
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Plains All American
Facility Name	8" Moore to Jal #2
Project Reference	2002-10273
EPI Sampler Name	Manuel Gonzales

Bill To

PLAINS ALL AMERICAN PIPELINE, L.P.
Attn: Jimmy Bryant
PO Box 1660,
Midland, TX 79701

ANALYSIS REQUEST

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: CRUDE OIL	MATRIX: SLUDGE	MATRIX: OTHER:	PRESERV.: ACID/BASE	PRESERV.: ICE/COOL	PRESERV.: OTHER	SAMPLING: DATE	SAMPLING: TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES (SO_4^{-2})	pH	TCLP	OTHER >>>	PAH				
162925	1 NW	C	1			X					X		15-Dec	11:15		X										
162926	2 SW	C	1			X					X		15-Dec	11:25		X										
162927	3 NE	C	1			X					X		15-Dec	11:35		X										
162928	4 SE	C	1			X					X		15-Dec	11:45		X										
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									

Sampler Relinquished: Manuel Gonzales	Date 12-20 Time 700	Received By:	Fax results to Pat McCasland at 505-394-2601
Relinquished by:	Date 12-20 Time 12:00	Received By Lab staff: L. Hlupp / ASI 12/22/04 @ 1020	REMARKS:
Delivered by:	Sample Cool & Intact Yes / No	Checked By	

Sample Analysis Case Narrative

Client: Environmental Plus, Inc. **Project ID:** 2002-10273

Attn: Pat McCasland

for Sample #'s: 162925 **thru** 162928

Analyzed by AnalySys, Inc.

Final Review Date: 12/29/2004 **By:** _____ (D. Wagner)

Case Narrative:

The recovery of Diesel Range Organics (DRO) in the Matrix Spikes (MS&MSD) for the analytical batch that contained sample #'s 162925 thru 162928 was below normal laboratory acceptance criteria. High levels of DRO compounds found in the randomly selected spiked sample interfered with spike recoveries as evidenced by the Matrix Interference (Mt.Intf.) flags seen in the recovery column of the data package. The Laboratory Control Sample (LCS) run with this batch met recovery acceptance criteria for DRO indicating that the analytical method was operating correctly and in control. Although the spike recoveries were below normal acceptance criteria for DRO, none of the above referenced samples were the spiked sample. When viewed within the context of the passing LCS data, this deviation in spike recovery should have minimal impact on data usability.

APPENDIX C

SOIL BORING LOGS

AND

WELL CONSTRUCTION DIAGRAMS

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: Plains All American Pipeline – 2002-10273

Project Name: 8-Inch Moore to Jal #2

Location: UL-J of Section 16, Township 17 South, Range 37 East

Boring Number: MW-1 | Surface Elevation: 3,763.01'

Start Date: 07/27/04 Time: 0900

Completion Date: 07/27/04 Time: 1550

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						5	CALICHE, White to Tan, Soft to Indurated
						10	
0910	SS	12	Dry	906	–		Hydrocarbon odor
						15	
0911	Cuttings	NA	Dry	592	–		Hydrocarbon odor
						20	
0917	SS	24	Damp	721	–		Hydrocarbon odor
						25	
0918	Cuttings	NA	Damp	427	SP		Tan to Red Brown, Soft, Fine to Medium-Grained SAND with some trace SILT, CLAY and PEBBLES Hydrocarbon odor
						30	
0928	SS	24	Damp	733	SP		Hydrocarbon odor
						35	

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: Plains All American Pipeline – 2002-10273

Project Name: 8-Inch Moore to Jal #2

Location: UL-J of Section 16, Township 17 South, Range 37 East

Boring Number: MW-1 | Surface Elevation: 3,763.01'

Start Date: 07/27/04 Time: 0900

Completion Date: 07/27/04 Time: 1550

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
0929	Cuttings	NA	Dry	386	SP		Hydrocarbon odor
						40	
0937	SS	24	Dry	588	SP		Hydrocarbon odor
						45	
0938	Cuttings	NA	Dry	301	SP		Hydrocarbon odor
						50	
0949	SS	24	Dry	431	SP		Hydrocarbon odor
						55	
1002	Cuttings	NA	Dry	599	SP		Hydrocarbon odor
						60	
1012	SS	24	Dry	660	SP		Hydrocarbon odor
						65	
1019	Cuttings	NA	Dry	799	SP		Hydrocarbon odor
						70	

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: Plains All American Pipeline – 2002-10273

Project Name: 8-Inch Moore to Jal #2

Location: UL-J of Section 16, Township 17 South, Range 37 East

Boring Number: MW-1 | Surface Elevation: 3,763.01'

Start Date: 07/27/04 Time: 0900

Completion Date: 07/27/04 Time: 1550

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
1033	SS	24	Damp	390	SP		Hydrocarbon odor
						75	
1037	Cuttings	NA	Damp	566	SP		Hydrocarbon odor
						80	
10:55	SS	24	Damp	11.2	SP		Hydrocarbon odor
						85	
							End of Boring at 83'
						90	
						95	
						100	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
07/27/04	–	–	–	–	–
10/29/04	–	–	–	–	79.20

Drilling Method: Air Rotary 10.25" OD

Backfill Method: MW-2 Installed

Field Representative: JR

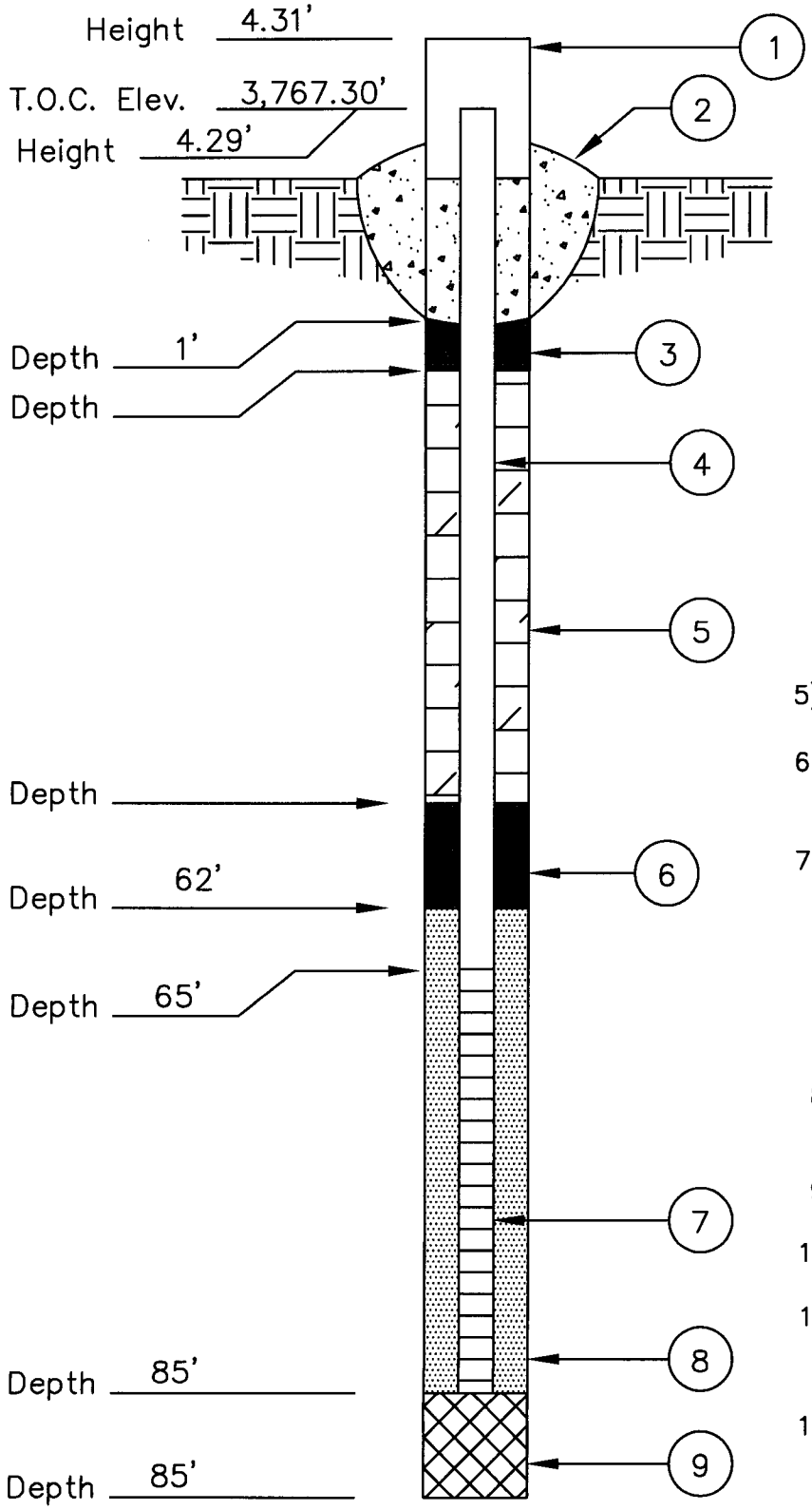
ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND
ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Monitoring Well Construction Information

Standard Well

Job No.: 2002-10270 Job Name: 8-Inch Moore to Jal #1 Boring / Well No. MW-1

Date: 10/23/04 Field Representative: JR State Unique Well No. NA



1) Protective Casing [Yes] No
Locking [Yes] No
Protective Posts Yes [No]
Concrete Pyramid Yes [No]

2) Concrete Seal [Yes] No

3) Type of Surface Seal if Installed 22 bags of Bentonite Plug

4) Solid Pipe Type PVC

Solid Pipe Length 70 ft.

Joint Type Slip/Glued or Threaded Threaded

5) Type of Backfill Bentonite Plug

6) Type of Lower Seal if Installed Bentonite Plug

7) Screen Type P.V.C.
Screen Length 20 ft.

Slot Size .010"
Length 20 ft.

Screen Diameter 4 in.

8) Type of Backfill around Screen 6 bags of 12/20 sand

9) Type of Backfill NA

10) Drilling Method Air Rotary

11) Additives Used if any Water

12) Borehole Diameter 8.5" in.

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: Plains All American Pipeline – 2002-10273

Project Name: 8-Inch Moore to Jal #2

Location: UL-J of Section 16, Township 17 South, Range 37 East

Boring Number: MW-2 | Surface Elevation: 3,768.10'

Start Date: 10/25/04 Time: 0830

Completion Date: 10/25/04 Time: 1300

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						5	0.5' Sandy Topsoil CALICHE, White to Tan, Soft to Indurated
0921	CS	36	Dry	23.8	–	10	
0928	CS	48	Dry	58.8	–	15	
0931	CS	60	Dry	20.6	–	20	
0938	CS	60	Dry	26.3	SP	25	Tan to Red Brown, Soft, Fine to Medium-Grained SAND with some trace SILT, CLAY and PEBBLES
0946	CS	48	Dry	53.8	SP	30	
						35	

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: Plains All American Pipeline – 2002-10273

Project Name: 8-Inch Moore to Jal #2

Location: UL-J of Section 16, Township 17 South, Range 37 East

Boring Number: MW-2 | Surface Elevation: 3,768.10'

Start Date: 10/25/04 Time: 0830

Completion Date: 10/25/04 Time: 1300

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
0954	CS	53	Dry	102	SP	40	Caliche Fragments Present
1005	CS	60	Damp	40.3	SP	45	
1010	CS	55	Damp	109	SP	50	
1018	CS	48	Damp	114	SP	55	
1027	CS	48	Damp	102	SP	60	
1035	CS	48	Damp	110	SP	65	
1048	CS	60	Damp	98.3	SP	70	

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: Plains All American Pipeline – 2002-10273

Project Name: 8-Inch Moore to Jal #2

Location: UL-J of Section 16, Township 17 South, Range 37 East

Boring Number: MW-2 | Surface Elevation: 3,768.10'

Start Date: 10/25/04 Time: 0830

Completion Date: 10/25/04 Time: 1300

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
1055	CS	36	Wet	62.4	SP	75	
						80	
						85	End of Boring at 82.5'
						90	
						95	
						100	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/25/04	–	–	–	–	–
10/29/04	–	–	–	–	76.67

Drilling Method: Air Rotary 10.25" OD

Backfill Method: MW-2 Installed

Field Representative: JR

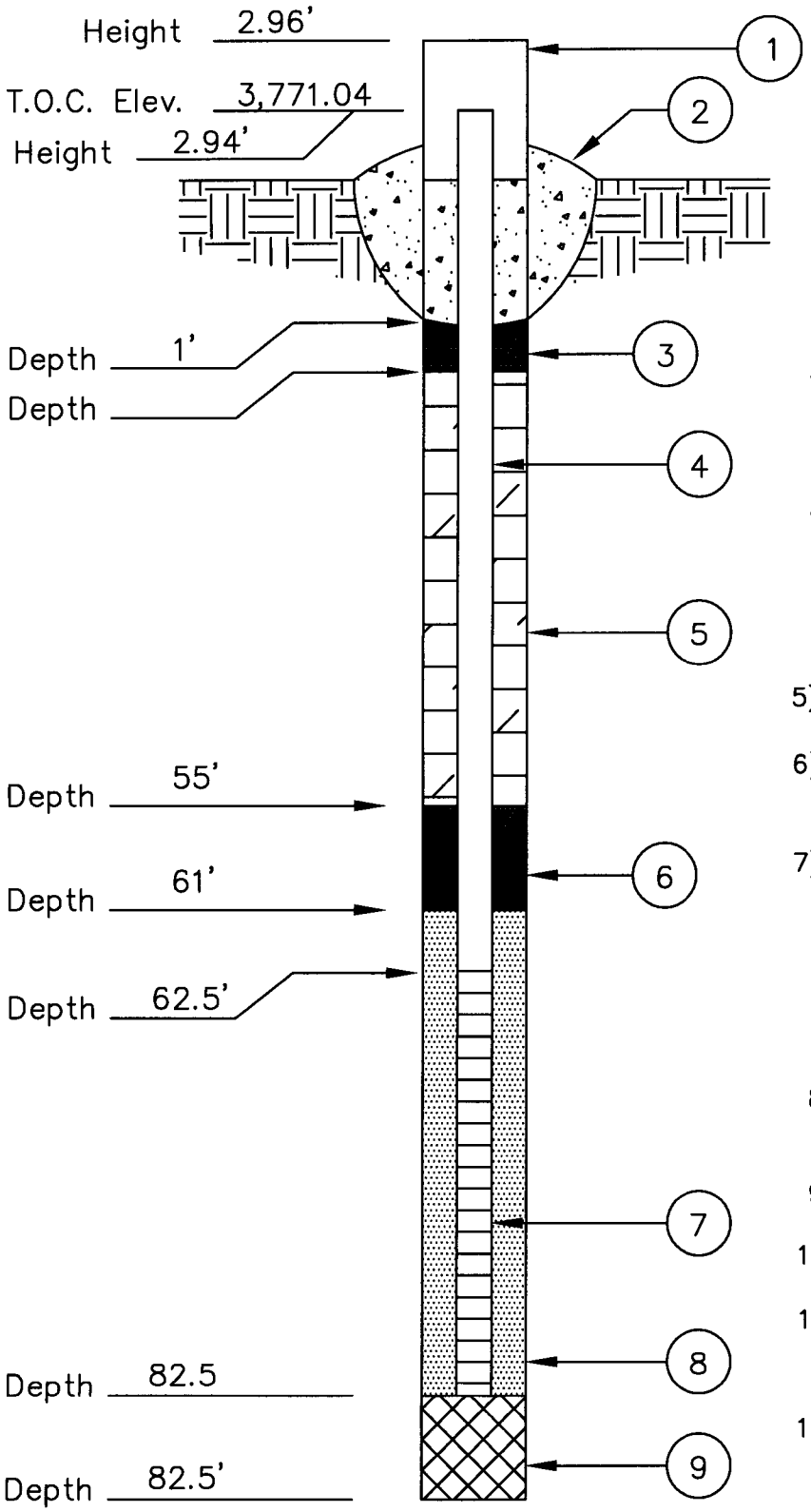
ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND
ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Monitoring Well Construction Information

Standard Well

Job No.: 2002-10273 Job Name: 8-Inch Moore to Jal #2 Boring / Well No. MW-2

Date: 10/25/04 Field Representative: JR State Unique Well No. NA



1) Protective Casing [Yes] No
Locking [Yes] No
Protective Posts Yes [No]
Concrete Pyramid Yes [No]

2) Concrete Seal [Yes] No

3) Type of Surface Seal if Installed 28 bags of Bentonite Plug

4) Solid Pipe Type PVC

Solid Pipe Length 62.5 ft.

Joint Type Slip/Glued or Threaded Threaded

5) Type of Backfill Bentonite Plug

6) Type of Lower Seal if Installed Sluffed Off Sand

7) Screen Type P.V.C.
Screen Length 20 ft.

Slot Size .020"
Length 20 ft.

Screen Diameter 2 in.

8) Type of Backfill around Screen 16 bags of 12/20 sand

9) Type of Backfill

10) Drilling Method 6.25" I.D. H.S.A.

11) Additives Used if any Water

12) Borehole Diameter 10.25" O.D. in.

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: Plains All American Pipeline – 2002-10273

Project Name: 8-Inch Moore to Jal #2

Location: UL-J of Section 16, Township 17 South, Range 37 East

Boring Number: MW-3 | Surface Elevation: 3,769.15'

Start Date: 10/26/04 Time: 1015

Completion Date: 10/26/04 Time: 1500

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						0	0.5' Sandy Topsoil
						5	CALICHE, White to Tan, Soft to Indurated
1040	CS	36	Dry	23.2	–	10	
1044	CS	60	Dry	77.4	–	15	
1053	CS	60	Dry	50.1	–	20	
1104	CS	48	Dry	38.6	SP	25	Tan to Red Brown, Soft, Fine to Medium-Grained SAND with some trace SILT, CLAY and PEBBLES
1110	CS	36	Dry	66.1	SP	30	
						35	

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND
ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: Plains All American Pipeline – 2002-10273

Project Name: 8-Inch Moore to Jal #2

Location: UL-J of Section 16, Township 17 South, Range 37 East

Boring Number: MW-3 | Surface Elevation: 3,769.15'

Start Date: 10/26/04 Time: 1015

Completion Date: 10/26/04 Time: 1500

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
1117	CS	48	Dry/ Damp	68.7	SP	40	
1127	CS	48	Dry/ Damp	42.8	SP	45	
1135	CS	60	Dry/ Damp	67.7	SP	50	
1229	CS	48	Dry/ Damp	62.2	SP	55	
1235	CS	60	Dry/ Damp	78.3	SP	60	
1239	CS	60	Dry/ Damp	56.9	SP	65	
1248	CS	48	Dry/ Damp	53.3	SP	70	

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: Plains All American Pipeline – 2002-10273

Project Name: 8-Inch Moore to Jal #2

Location: UL-J of Section 16, Township 17 South, Range 37 East

Boring Number: MW-3 | Surface Elevation: 3,769.15'

Start Date: 10/26/04 Time: 1015

Completion Date: 10/26/04 Time: 1500

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
1303	CS	48	Wet	70.6	SP	75	
						80	
						85	End of Boring at 83'
						90	
						95	
						100	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/26/04	–	–	–	–	–
10/29/04	–	–	–	–	78.18

Drilling Method: Air Rotary 10.25" OD

Backfill Method: MW-3 Installed

Field Representative: JR

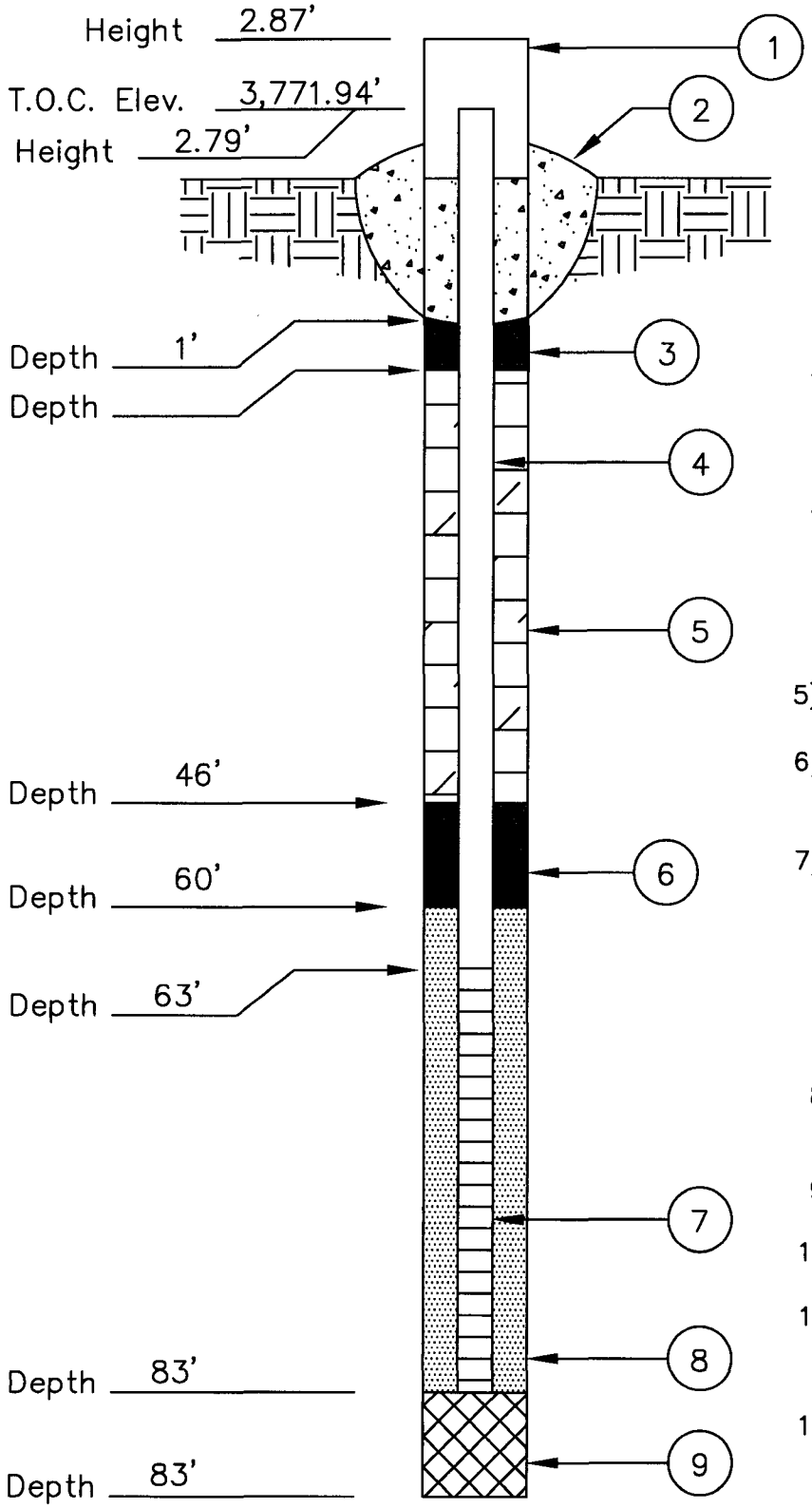
ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Monitoring Well Construction Information

Standard Well

Job No.: 2002-10273 Job Name: 8-Inch Moore to Jal #2 Boring / Well No. MW-3

Date: 10/26/04 Field Representative: JR State Unique Well No. NA



1) Protective Casing [Yes] No
Locking [Yes] No
Protective Posts Yes [No]
Concrete Pyramid Yes [No]

2) Concrete Seal [Yes] No

3) Type of Surface Seal if Installed 28 bags of Bentonite Plug

4) Solid Pipe Type PVC

Solid Pipe Length 63 ft.

Joint Type Slip/Glued or Threaded Threaded

5) Type of Backfill Bentonite Plug

6) Type of Lower Seal if Installed Sluffed Off Sand

7) Screen Type P.V.C.
Screen Length 20 ft.

Slot Size .020"
Length 20 ft.

Screen Diameter 2 in.

8) Type of Backfill around Screen 14 bags of 12/20 sand

9) Type of Backfill

10) Drilling Method 6.25" I.D. H.S.A.

11) Additives Used if any Water

12) Borehole Diameter 10.25" O.D. in.

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: Plains All American Pipeline – 2002-10273

Project Name: 8-Inch Moore to Jal #2

Location: UL-J of Section 16, Township 17 South, Range 37 East

Boring Number: MW-4 | Surface Elevation: 3,770.00'

Start Date: 10/25/04 Time: 1400

Completion Date: 10/26/04 Time: 0955

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						5	0.5' Sandy Topsoil CALICHE, White to Tan, Soft to Indurated
1438	CS	48	Dry	40.5	–	10 15	
1441	CS	24	Dry	66.9	SP	20	Tan to Red Brown, Soft, Fine to Medium-Grained SAND with some trace SILT, CLAY and PEBBLES
1448	CS	60	Dry	47.6	SP	25	
1453	CS	50	Dry	71.2	SP	30	
1503	CS	60	Dry	54.7	SP	35	

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: Plains All American Pipeline – 2002-10273

Project Name: 8-Inch Moore to Jal #2

Location: UL-J of Section 16, Township 17 South, Range 37 East

Boring Number: MW-4 | Surface Elevation: 3,770.00'

Start Date: 10/25/04 Time: 1400

Completion Date: 10/26/04 Time: 0955

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
1508	CS	24	Dry	79.8	SP	40	
1516	CS	60	Dry	76.2	SP	45	
1524	CS	48	Moist	75.3	SP	50	
1537	CS	60	Moist	90.9	SP	55	
1547	CS	60	Moist	56.8	SP	60	
1557	CS	60	Moist	63.4	SP	65	
1607	CS	60	Moist	42.0	SP	70	

Log Of Test Borings

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Project Number: Plains All American Pipeline – 2002-10273

Project Name: 8-Inch Moore to Jal #2

Location: UL-J of Section 16, Township 17 South, Range 37 East

Boring Number: MW-4 | Surface Elevation: 3,770.00'

Start Date: 10/25/04 Time: 1400

Completion Date: 10/26/04 Time: 0955

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
1621	CS	60	Moist	23.3	SP	75	
						80	
						85	
							End of Boring at 87'
						90	
						95	
						100	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
10/26/04	–	–	–	–	–
10/29/04	–	–	–	–	79.22

Drilling Method: Air Rotary 10.25" OD

Backfill Method: MW-4 Installed

Field Representative: JR

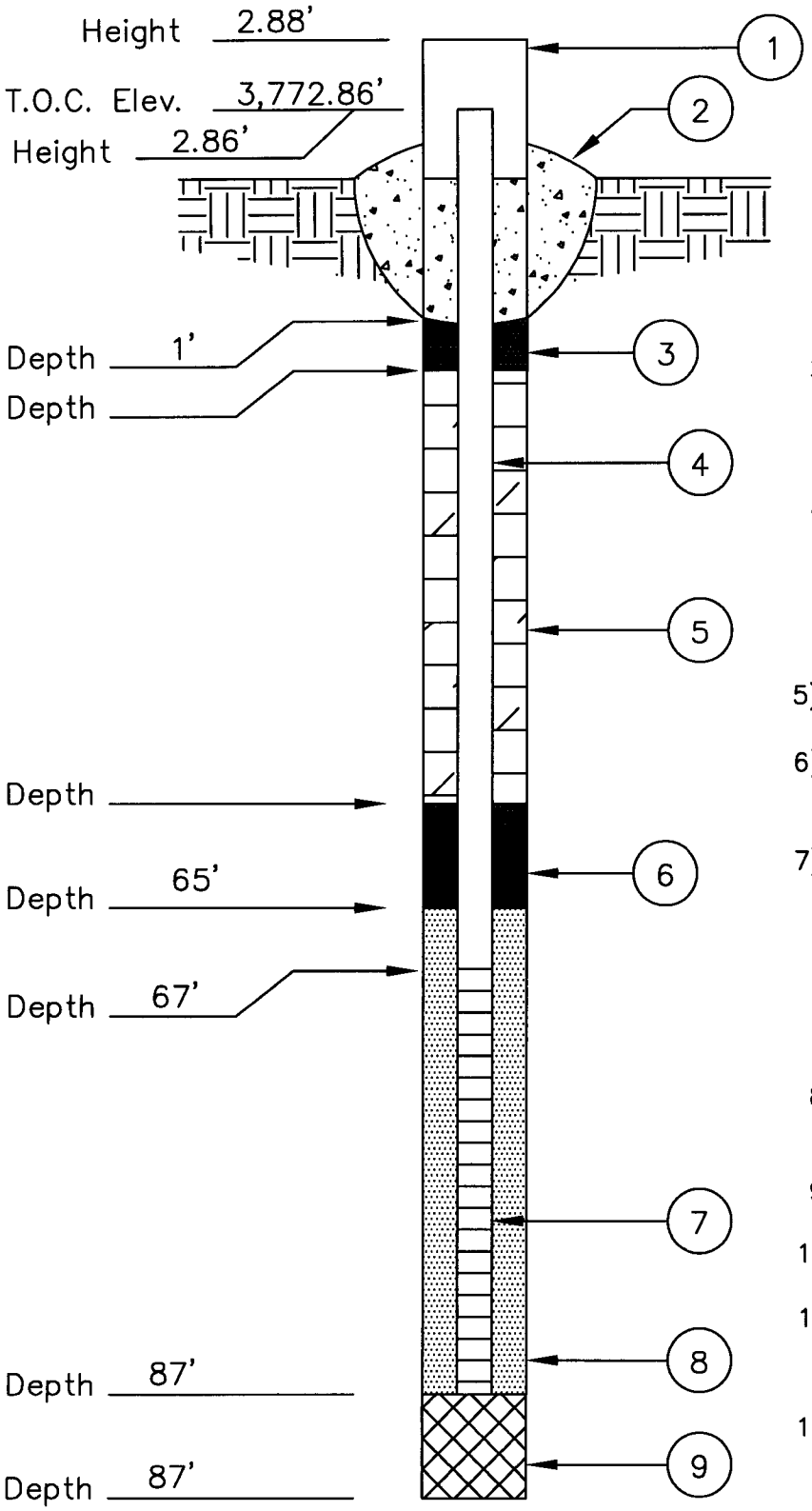
ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND
ENVIRONMENTAL SERVICES
EUNICE, NM
505-394-3481

Monitoring Well Construction Information

Standard Well

Job No.: 2002-10273 Job Name: 8-Inch Moore to Jal #2 Boring / Well No. MW-4

Date: 10/25-26/04 Field Representative: JR State Unique Well No. NA



1) Protective Casing [Yes] No
Locking [Yes] No
Protective Posts Yes [No]
Concrete Pyramid Yes [No]

2) Concrete Seal [Yes] No

3) Type of Surface Seal if Installed 32 bags of Bentonite Plug

4) Solid Pipe Type PVC

Solid Pipe Length 67 ft.

Joint Type Slip/Glued or Threaded Threaded

5) Type of Backfill Bentonite Plug

6) Type of Lower Seal if Installed Bentonite Plug

7) Screen Type P.V.C.
Screen Length 20 ft.

Slot Size .020"
Length 20 ft.

Screen Diameter 2 in.

8) Type of Backfill around Screen 13 bags of 12/20 sand

9) Type of Backfill Native Soils

10) Drilling Method 6.25" I.D. H.S.A.

11) Additives Used if any Water

12) Borehole Diameter 10.25" O.D. in.

APPENDIX D

INFORMATIONAL COPIES OF

SITE INFORMATION AND METRICS FORM

AND

INITIAL C-141

PLAINS ALL AMERICAN

EOTT Site Information and Metrics	**Incident Date:** 10-22-02 @ 5:00 pm	**NMOCD Notified:** 10-23-02 @ 7:00 AM

SITE: 8" Moore to Jal #2	**Assigned Site Reference #:** 2002-10273
Company: EOTT	
Street Address: PO Box 1660	
Mailing Address: 5805 East Highway 80	
City, State, Zip: Midland, Texas 79702	
Representative: Frank Hernandez	
Representative Telephone: *915.638.3799*	
Telephone:	
Fluid volume released (bbls): 25 bbls	**Recovered (bbls):** 0 bbls
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)	
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)	
Leak, Spill, or Pit (LSP) Name: 8" Moore to Jal #2	
Source of contamination: 8" Steel Pipeline	
Land Owner, i.e., BLM, ST, Fee, Other: State of New Mexico	
LSP Dimensions: ~160' x 40'	
LSP Area: 5,794 sqft ft^2	
Location of Reference Point (RP):	
Location distance and direction from RP:	
Latitude: 32 49' 56.61"N	
Longitude: 103 15' 08.47"W	
Elevation above mean sea level:	
Feet from South Section Line:	
Feet from West Section Line:	
Location- Unit or ¼¼: NW¼ of the SE¼	**Unit Letter:** J
Location- Section: 16	
Location- Township: T17S	
Location- Range: R37E	
Surface water body within 1000 ' radius of site: none	
Surface water body within 1000 ' radius of site:	
Domestic water wells within 1000' radius of site: none	
Domestic water wells within 1000' radius of site:	
Agricultural water wells within 1000' radius of site: none	
Agricultural water wells within 1000' radius of site:	
Public water supply wells within 1000' radius of site: none	
Public water supply wells within 1000' radius of site:	
Depth from land surface to ground water (DG): ~66 feet	
Depth of contamination (DC): ?	
Depth to ground water (DG – DC = DtGW): <50 feet	

1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water Body
If Depth to GW <50 feet: *20 points*	If <1000' from water source, or;<200' from private domestic water source: *20 points*	<200 horizontal feet: *20 points*
If Depth to GW 50 to 99 feet: *10 points*		200-100 horizontal feet: *10 points*
If Depth to GW >100 feet: *0 points*	If >1000' from water source, or; >200' from private domestic water source: *0 points*	>1000 horizontal feet: *0 points*
Ground water Score = 20	***Wellhead Protection Area Score= 0***	***Surface Water Score= 0***

Site Rank (1+2+3) = 20

Total Site Ranking Score and Acceptable Concentrations

Parameter	**>19**	10-19	0-9
Benzene[1]	**10 ppm**	10 ppm	10 ppm
BTEX[1]	**50 ppm**	50 ppm	50 ppm
TPH	**100 ppm**	1000 ppm	5000 ppm

[1]100 ppm field VOC headspace measurement may be substituted for lab analysis

PLAINS ALL AMERICAN

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: EOTT	**Contact:** Frank Hernandez
Address: PO Box 1660 5805 East Highway 80 Midland, Texas 79702	**Telephone No.:** 915.638.3799
Facility Name: 8" Moore to Jal #2	**Facility Type:** 8" Steel Pipeline

Surface Owner: State of New Mexico	**Mineral Owner:**	**Lease No.:**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	
J	16	T17S	R37E					**County:** Lea **Lat.** 32 49' 56.61"N **Lon.** 103 15' 08.47"W

NATURE OF RELEASE

Type of Release Crude Oil	**Volume of Release** 25 bbls barrels	**Volume Recovered** 0 bbls barrels
Source of Release 8" Steel Pipeline	**Date and Hour of Occurrence** EOTT	**Date and Hour of Discovery** 10-22-02 @ 7:00 PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?** Larry Johnson	
By Whom? Pat McCasland, EPI	**Date and Hour** 10-23-02 @ 7:00 AM	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse:** NA	

If a Watercourse was Impacted, Describe Fully:* NA

Describe Cause of Problem and Remedial Action Taken: *8" Steel Pipeline. Site will be delineated to determine the vertical and horizontal extents of contamination. Contaminated soil will be blended on site or disposed of.

Describe Area Affected and Cleanup Action Taken: *5,794 sqft ~160' x 40' Site will be delineated to determine the vertical and horizontal extents of contamination. Contaminated soil will be blended on site or disposed of. Remedial Goals: TPH 8015m = 100 mg/Kg, Benzene = 10 mg/Kg, and BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	**OIL CONSERVATION DIVISION**	
Printed Name: Frank Hernandez	**Approved by District Supervisor:**	
Title: District Environmental Supervisor	**Approval Date:**	**Expiration Date:**
Date: October 23, 2003 **Phone:** 915.638.3799	**Conditions of Approval:**	**Attached** ☐

* Attach Additional Sheets If Necessary

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

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

October 14, 2004

Mr. Jeffrey P. Dann
Plains All American L.P.
P.O. Box 4648
Houston, TX 77210-4648

1R-381

Dear Mr. Dann:

The New Mexico Oil Conservation Division (NMOCD) has received your letter, dated September 20, 2004, identifying the need for additional groundwater monitor and/or recovery wells at various sites. This request is hereby approved.

This approval does not relieve Plains Marketing, L.P. of any future liability at these sites should it prove that Plains' operations have caused harm to public health or the environment. Nor does it relieve Plains of its obligation to comply with the rules and regulations of any other governmental agency.

If you have any questions, contact me at (505) 476-3492 or emartin@state.nm.us

NEW MEXICO OIL CONSERVATION DIVISION

Ed Martin

Edwin E. Martin
Environmental Bureau

Cc: Larry Johnson, NMOCD, Hobbs
Camille Reynolds, Plains, Midland

PLAINS MARKETING, L.P.

September 20, 2004

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

Re: Plains Marketing, L.P. (formerly Link Energy) Remediation Sites
Various Locations in Lea County

Dear Mr. Martin:

Based on the results of our ongoing groundwater monitoring and sampling program at several of our remediation and groundwater monitoring sites in Lea County, we have identified the need for additional groundwater monitor and/or recovery wells at the flowing sites.

Site Name	Plains EMS No.	Site Location	Number of Wells
Jct 34 to Lea	2002-10286	Section 21, T20S, R37E	3
Livingston Line-Bob McCasland	2001-11043	Section 3, T21S, R37E	2
Hugh Gathering	2002-10235	Section 11, T21S, R37E	1
C. S. Cayler	2002-10250	Section 6, T17S, R37E	5
Lovington Deep 6-Inch	2002-1-312	Section 6, T21S, R36E	6
Kimbrough Sweet	2000-10757	Section 3, T18S, R37E	2
8" Moore to Jal #1	2002-10270	Section 16, T17S, R37E	3
8" Moore to Jal #2	2002-10273	Section 16, T17S, R37E	3
Darr Angell #1	Darr Angell #1	Section 11, T15S, R37E	1
Darr Angell #4	2001-10876	Section 2/11, T15S, R37E	2
Red Byrd #1	Red Byrd #1	Section 1, T19S, R36E	5
HDO 90-23	HDO 90-23	Section 6, T20S, R37E	2
Monument 6" Pipeline	2001-11056	Section 5, T20S, R37E	3
Texaco Skelly F	2002-11229	Section 21, T20S, R37E	1
SPS-11	SPS-11	Section 18, T18S, R36E	2
Monument #11	TNM Mon #11	Section 30, T19S, R37E	2
Monument #2	TNM Mon #2	Section 6, T20S, R37E	1
Monument #17	TNM Mon #17	Section 29, T19S, R37E	1
Monument #18	TNM Mon #18	Section 7, T20S, R37E	2
98-05A	TNM 98-05A	Section 26, T21S, R37E	1
LF-59	LF-59	Section 32, T19S, R37E	2

The proposed well locations are illustrated on the attached site maps. Plains requests your approval of the proposed monitor well locations at the above-referenced sites. We anticipate commencement of drilling activities the week of October 4, 2004.

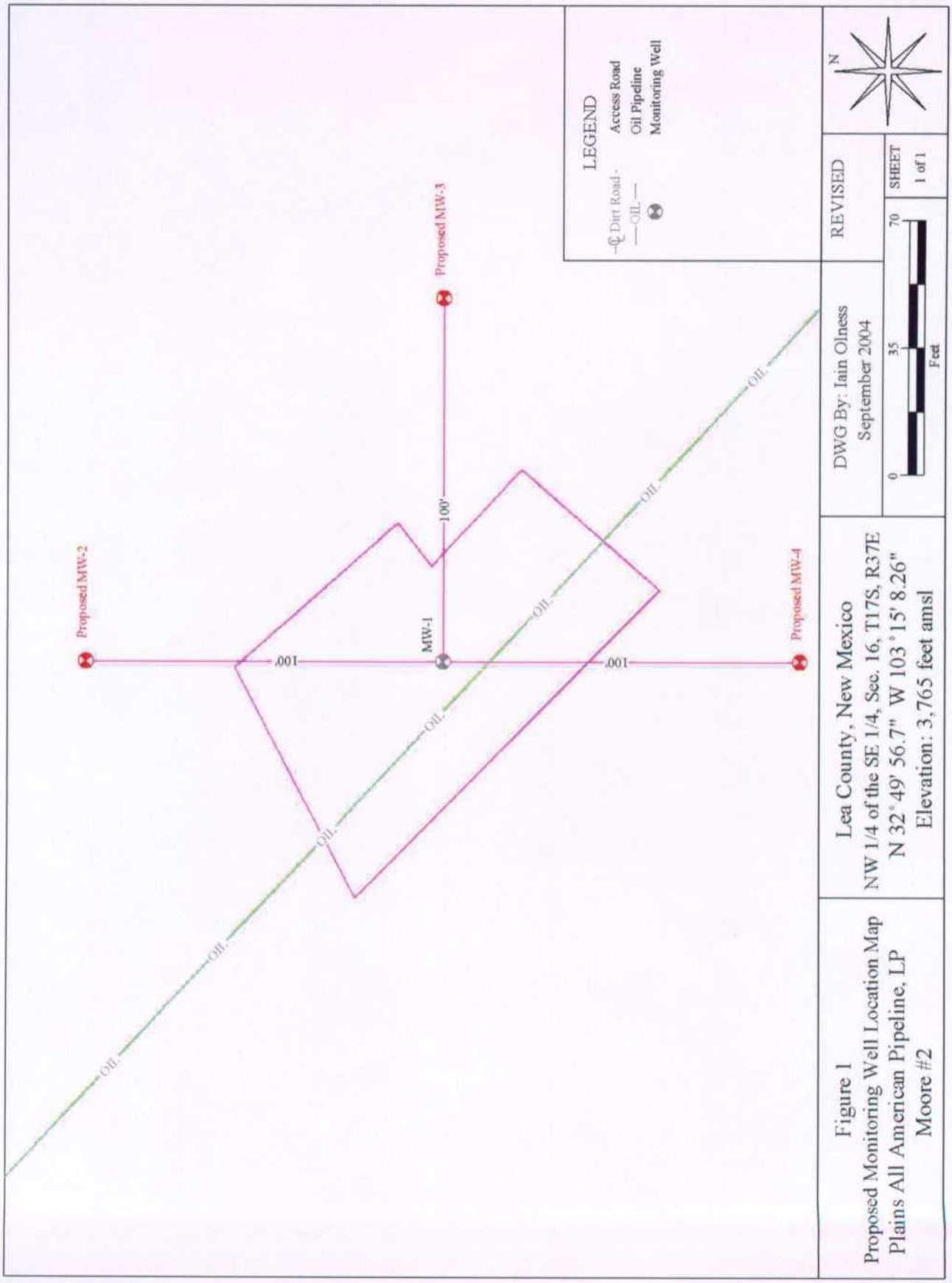
Should you have any questions or comments concerning this information, please contact me at (713) 646-4657.

Sincerely,

Jeffrey P. Dann, P.G.
Sr. Environmental Specialist
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM
Camille Reynolds, Plains
Todd Choban, Nova
Pat McCasland, EPI

File: c/jeff-files/OCD-DrillingSchOct2004


LEGEND
Dirt Road
OIL
Access Road
Oil Pipeline
Monitoring Well
Proposed MW-3
Proposed MW-2
MW-1
Proposed MW-4
100'
100'
100'
OIL
OIL
OIL
OIL
OIL
REVISED
DWG By: Iain Olness
September 2004
0
35
70
Feet
SHEET
1 of 1
N
Figure 1
Proposed Monitoring Well Location Map
Plains All American Pipeline, LP
Moore #2
Lea County, New Mexico
NW 1/4 of the SE 1/4, Sec. 16, T17S, R37E
N 32° 49' 56.7" W 103° 15' 8.26"
Elevation: 3,765 feet amsl

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

Micro-Blaze Micro-Blaze Out™

ENVIRONMENTAL PLUS, INC.

September 23, 2004

Mr. Ed Martin
Energy, Minerals, and Natural Resources Department
New Mexico Oil Conservation Division, Environmental Bureau
P.O. Box 6429
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Subject: Written notification of ground water impact

1R-381

Re: Plains All American Pipeline
8" Moore to Jal #2 2002-10273
UL-J; NW¼ of the SE¼ of Section 16 T17S R37E
Lea County New Mexico
Latitude: 32 49' 56.61"N Longitude: 103 15' 08.47"W
Landowner: State of New Mexico

Dear Mr. Martin,

Environmental Plus, Inc. (EPI), Eunice, New Mexico, on behalf of Ms. Camille Reynolds, District Environmental Supervisor, Plains All American Pipeline, Midland, Texas, submits this written notification of ground water impact due to a crude oil leak at the above referenced site in excess of 20 NMAC 6.2.3103A, i.e., "Non-aqueous phase liquid shall not be present floating atop or immersed within ground water, as can be reasonably measured." This submittal follows the immediate verbal notification made on September 23, 2004 and is consistent with the notification requirements of 19 NMAC 15.116. A location map is attached.

Distribution of the crude oil source term at the site is currently being assessed and there are no domestic, agricultural, or public supply wells within 1000' of the site. A remediation work plan addressing soil and ground water will be developed consistent with the "**New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)**" and the NMOCD approved "**General Work Plan for Remediation of E.O.T.T. Pipeline**

P.O. BOX 1558 ••• 2100 WEST AVE. O ••• EUNICE, NEW MEXICO 88231
TELEPHONE 505•394•3481 FAX 505•394•2601

Spills, Leaks and Releases in New Mexico, July 2000" and submitted to you for approval. All official communication should be sent to;

MAILING ADDRESS
Ms. Camille Reynolds
Plains All American Pipeline
P.O. Box 1660
Midland, Texas 79702

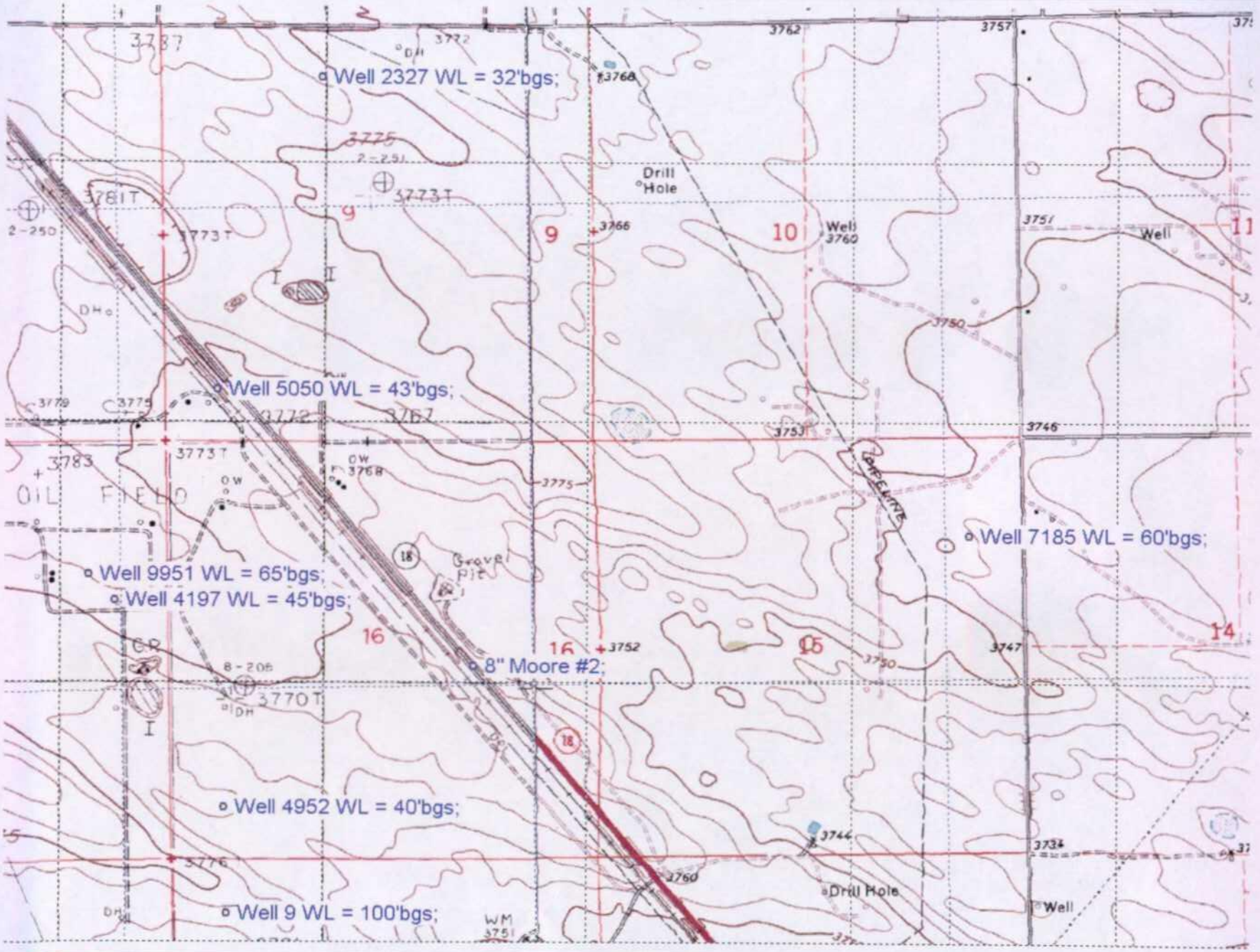
STREET ADDRESS
Ms. Camille Reynolds
Plains All American Pipeline
5805 E. Highway 80
Midland, Texas 79701

Sincerely,

Pat McCasland
EPI Technical Services Manager (enviplus1@aol.com)

cc: Paul Sheeley, NMOCD Hobbs, (PSheeley@state.nm.us)
Camille Reynolds, Plains All American Pipeline (cjreynolds@paalp.com)
Jeff Dann, Plains All American Pipeline (jpdann@paalp.com)
Myra Meyers, State Land Office, Hobbs (MMeyers@SLO.state.nm.us)
Dana Vackar Strang, State Land Office, Santa Fe
(DVackar@SLO.state.nm.us)
Ben Miller, EPI Vice President and General Manager
Sherry Miller, EPI President
File

ENVIRONMENTAL PLUS, INC.


Well 2327 WL = 32'bgs;
Well 5050 WL = 43'bgs;
Well 9951 WL = 65'bgs;
Well 4197 WL = 45'bgs;
Well 7185 WL = 60'bgs;
8" Moore #2;
Well 4952 WL = 40'bgs;
Well 9 WL = 100'bgs;
Drill Hole
Well
Gravel Pit
OIL FIELD

EOTT Site Information and Metrics	Incident Date: **10-22-02 @ 5:00 Pm**	NMOCD Notified: 10-23-02 @ 7:00 AM

SITE: 8" Moore to Jal #2	Assigned Site Reference #: 2002-10273	
Company: EOTT		
Street Address: PO Box 1660		
Mailing Address: 5805 East Highway 80		
City, State, Zip: Midland, Texas 79702		
Representative: Frank Hernandez		
Representative Telephone: 915.638.3799		
Telephone:		
Fluid volume released (bbls): 25 bbls	Recovered (bbls): 0 bbls	
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)		
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)		
Leak, Spill, or Pit (LSP) Name: 8" Moore to Jal #2		
Source of contamination: 8" Steel Pipeline		
Land Owner, i.e., BLM, ST, Fee, Other: State of New Mexico		
LSP Dimensions ~160' x 40'		
LSP Area: 5,794 sqft ft^2		
Location of Reference Point (RP)		
Location distance and direction from RP		
Latitude: 32 49' 56.61"N		
Longitude: 103 15' 08.47"W		
Elevation above mean sea level:		
Feet from South Section Line		
Feet from West Section Line		
Location- Unit or ¼¼: NW¼ of the SE¼	Unit Letter: J	
Location- Section: 16		
Location- Township: T17S		
Location- Range: R37E		
Surface water body within 1000 ' radius of site: none		
Surface water body within 1000 ' radius of site:		
Domestic water wells within 1000' radius of site: none		
Agricultural water wells within 1000' radius of site: none		
Public water supply wells within 1000' radius of site: none		
Public water supply wells within 1000' radius of site:		
Depth from land surface to ground water (DG) ~66'bgs		
Depth of contamination (DC) - ?		
Depth to ground water (DG – DC = DtGW) - 0		

1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water Body
If Depth to GW <50 feet: *20 points*	If <1000' from water source, or;<200' from private domestic water source: *20 points*	<200 horizontal feet: *20 points*
If Depth to GW 50 to 99 feet: *10 points*		200-100 horizontal feet: *10 points*
If Depth to GW >100 feet: *0 points*	If >1000' from water source, or; >200' from private domestic water source: *0 points*	>1000 horizontal feet: *0 points*
Ground water Score = 20	*Wellhead Protection Area Score= 0*	*Surface Water Score= 0*
Site Rank (1+2+3) = 20		

Total Site Ranking Score and Acceptable Concentrations

Parameter	>19	10-19	0-9
Benzene[1]	10 ppm	10 ppm	10 ppm
BTEX[1]	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm

[1]100 ppm field VOC headspace measurement may be substituted for lab analysis

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company **EOTT**	Contact **Frank Hernandez**
Address PO Box 1660 5805 East Highway 80 Midland, Texas 79702	Telephone No. 915.638.3799
Facility Name 8" Moore to Jal #2	Facility Type 8" Steel Pipeline

Surface Owner	Mineral Owner	Lease No.
State of New Mexico		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea Lat. 32 49' 56.61"N Lon. 103 15' 08.47"W
16	16	T17S	R37E					

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 25 bbls barrels	Volume Recovered 0 bbls barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence	Date and Hour of Discovery 10-22-02 @ 7:00 PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Larry Johnson	
By Whom? Pat McCasland, EPI	Date and Hour 10-23-02 @ 7:00 AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

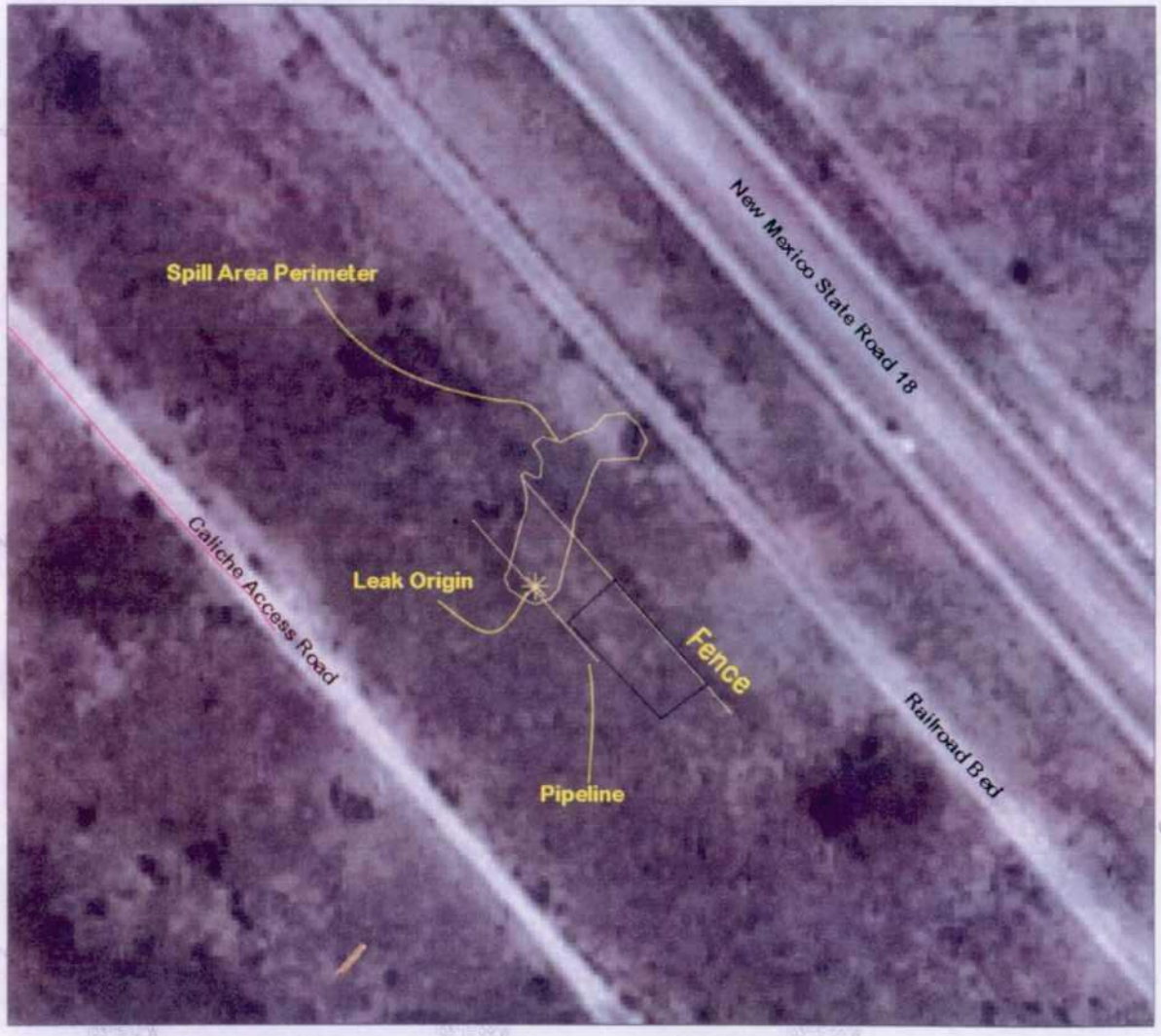
Describe Cause of Problem and Remedial Action Taken.*
8" Steel Pipeline Site will be delineated to determine the vertical and horizontal extents of contamination. Contaminated soil will be blended on site or disposed of.

Describe Area Affected and Cleanup Action Taken.*
5,794 sqft ~160' x 40' Site will be delineated to determine the vertical and horizontal extents of contamination. Contaminated soil will be blended on site or disposed of. Remedial Goals: TPH 8015m = 100 mg/Kg, Benzene = 10 mg/Kg, and BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	**OIL CONSERVATION DIVISION**	
Printed Name: Frank Hernandez	Approved by District Supervisor:	
Title: District Environmental Supervisor	Approval Date:	Expiration Date:
Date: October 23, 2003 Phone: 915.638.3799	Conditions of Approval:	Attached ☐

* Attach Additional Sheets If Necessary



EOTT ENERGY
LLC
8" MOORE TO
JAL #2
#2002-10273
UL-J SEC 16
T17S R37E
AFFECTED AREA
~5794 SQFT

N

SCALE 1:1,500

0 150.0

FEET

UNIVERSAL TRANSVERSE MERCATOR
13 NORTH
NAD 1983 HPGN (NEW MEXICO)

8MOORE#2.COR

7/21/2003

Site Name: 8" Moore to Jal #2
Remediation Plan: 1R-381
Company: EOTT (Co. rep. – Frank Hernandez)
Contractor: Environmental Plus, Inc. (Pat McCasland)
Date Inspected: September 23, 2003 by Ed Martin, Larry Johnson and Paul Sheeley

No photos taken at this site.

Delineation not complete. Groundwater impact unknown. Groundwater depth 65' - 70'. Perimeter of contamination still to be determined. Upon completion of delineation, contractor proposes to install a clay barrier and backfill the site.

Recommendation: Obtain schedule for delineation completion, sampling of groundwater, and installation of monitor wells if necessary.