

1R - 385

**Annual GW Mon.  
REPORTS**

**DATE:**

2008

**Basin Environmental Consulting, LLC** RECEIVED

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Lovington, New Mexico 88260  
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2009 MAR 30 PM 1 31



**2008  
ANNUAL MONITORING REPORT**

**VACUUM 10-INCH TO JAL  
SW ¼ SW ¼ SECTION 20, TOWNSHIP 19 SOUTH, RANGE 37 EAST  
LATITUDE 32°, 38', 21.3" NORTH, LONGITUDE 103°, 16', 46.2" WEST  
LEA COUNTY, NEW MEXICO  
PLAINS SRS NUMBER: 2002-10248  
NMOCD REF NO: 1RP-0385**

PREPARED FOR:



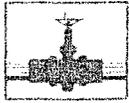
**PLAINS MARKETING, L.P.  
333 CLAY STREET, SUITE 1600  
HOUSTON, TEXAS 77002**

PREPARED BY:

**BASIN ENVIRONMENTAL CONSULTING, LLC  
P. O. Box 381  
Lovington, New Mexico 88260**

**March 2009**

  
Camille Bryant  
Project Manager



PLAINS  
ALL AMERICAN

RECEIVED  
2009 MAR 30 PM 1 31

March 23, 2009

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

Re: Plains All American – 2008 Annual Monitoring Reports  
2 Sites in Lea County, New Mexico  
1 Site in Eddy County, New Mexico

Dear Mr. Hansen:

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

Lovington Gathering WTI	1RP-838	AP-96	Section 06, T17S, R37E, Lea County
Vacuum 10-Inch to Jal	1RP-0385		Section 20, T19S, R37E, Lea County
Ballard Grayburg 5-Inch	2R-0053		Section 10, T18S, R29E, Eddy County

Basin Environmental Consulting, LLC (Basin) 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 Basin personnel 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 facilities.

If you have any questions or require further information, please contact me at (575) 441-1099.

Sincerely,

Jason Henry  
Remediation Coordinator  
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosures

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## INTRODUCTION

Basin Environmental Service Technologies, LLC, (Basin), on behalf of Plains Marketing, L.P., (Plains), prepared this annual report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an annual report by April 1 of each year. This report is intended to be viewed as a complete document with text, figures, tables, and appendices. This report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2008 only. Soil related site activities are summarized in several letters and reports previously submitted to the NMOCD. For reference, the Site Location Map is provided as Figure 1.

Groundwater monitoring was conducted during four (4) consecutive quarters of 2008 to monitor the groundwater for dissolved phase benzene, toluene, ethylbenzene and xylene (BTEX) constituents. Each groundwater monitoring event consisted of measuring static water levels in the monitoring wells, checking for the presence of phase-separated hydrocarbons (PSH) on the water column, and purging and sampling of each well exhibiting sufficient recharge.

## SITE DESCRIPTION AND BACKGROUND INFORMATION

The legal description of the site is SW $\frac{1}{4}$ , SW $\frac{1}{4}$  Section 20, Township 19 South, Range 37 East. The site latitude is 32 $^{\circ}$ , 38', 21.3" North and the site longitude is 103 $^{\circ}$ , 16', 46.2" West. In February 2007, at the request of Plains, Basin assumed groundwater sampling responsibility for the Vacuum 10-Inch to Jal site.

On September 18, 2002, Environmental Plus, Inc. (EPI) responded to the pipeline release on behalf of Link Energy, LLC (Link) now Plains, to repair the pipeline and excavate the impacted soil. The Vacuum 10-Inch to Jal pipeline was subsequently cold cut and capped under the direction of Link personnel. Approximately 250 barrels of crude oil was released from the pipeline and 80 barrels was recovered. The release site is located in the pipeline right-of-way, in a pasture containing numerous oil production facilities and utilized for cattle grazing. A visibly stained surface area was observed, measuring approximately 450 feet long by 150 feet wide. Excavation activities during the initial response and subsequent remediation of the site covered an area measuring approximately 600 feet long by 200 feet wide and ranged in depth from approximately 12 to 18 feet below ground surface (bgs).

EPI submitted a *Site Characterization and Soil Closure Report*, dated July 2006; this report was subsequently approved by NMOCD, Santa Fe. The approved work plan proposed mechanically separating the caliche rock and soil, utilizing the caliche rock as partial backfill material, transporting the separated soil to an NMOCD approved land farm, and obtaining non-impacted backfill from the landowner. Backfilling of the excavation was completed in the 3<sup>rd</sup> quarter of 2006.

Based on the laboratory results from the excavation soil sampling and delineation soil borings, five (5) groundwater monitoring wells and three (3) recovery wells were initially installed to evaluate the quality of the groundwater. In September 2005, groundwater monitoring well MW-9 was installed as agreed upon between Plains, NMOCD Santa Fe and the landowner.

Currently, there are six (6) groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, and MW-9) and three (3) recovery wells (RW-1, RW-2, and RW-3) on site. During the four (4) quarterly sampling events of 2008, there was no PSH observed in the monitoring wells or recovery wells.

## RECENT FIELD ACTIVITIES

The site monitoring wells were gauged and sampled on March 13, June 21, September 18, and November 19, 2008. During the quarterly sampling events, the monitoring wells and recovery wells, designated to be sampled, were purged of a minimum of three (3) well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos Pump. Groundwater was allowed to recharge and samples were obtained using disposable Teflon bailers. Groundwater samples were stored in clean, glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a trailer mounted polystyrene tank and disposed of at an NMOCD approved disposal in Monument, New Mexico.

Locations of the groundwater monitoring wells and the inferred groundwater elevations, which were constructed from the measurements collected during the quarterly monitoring events, are depicted on Figures 2A through 2D. The groundwater elevation data is provided as Table 1.

The Inferred Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.017 feet/foot to the east-southeast as measured between groundwater monitor wells MW-3 and MW-4. The corrected groundwater elevations ranged from 3,600.96 feet above mean sea level in monitor well MW-2 on June 21, 2008 to 3,607.59 feet above mean sea level in recovery well RW-1 on November 19, 2008.

## LABORATORY RESULTS

Groundwater samples were collected from the groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5 and MW-9) and recovery wells (RW-1, RW-2 and RW-3) during the quarterly monitoring events and were delivered to Environmental Laboratory of Texas, a XENCO Laboratories Company, Odessa, Texas for determination BTEX constituent concentrations by EPA Method SW846-8021b. Pursuant to an NMOCD request the groundwater monitoring wells were sampled annually for concentrations of Poly Aromatic Hydrocarbons (PAH) utilizing EPA Method 8270C. A summary of BTEX and PAH constituent concentrations for 2008 are presented in Table 2 and Table 3, respectively, the laboratory reports are provided as Appendix A.

**Monitor Well MW-1** is sampled on a quarterly schedule and the analytical results indicates benzene and BTEX concentrations were less than the MDL and the NMOCD regulatory standard during all four (4) quarters of the 2008 reporting period. Analytical results indicate PAH constituent concentrations were less than the MDL for each constituent during the 4<sup>th</sup> quarter of 2008.

**Monitor Well MW-2** is sampled on a quarterly schedule and the analytical results indicate benzene and BTEX concentrations were less than the MDL and the NMOCD regulatory standard during all four (4) quarters of the 2008 reporting period. Analytical results indicate PAH constituent concentrations were less than the MDL for each constituent during the 4<sup>th</sup> quarter of 2008.

**Monitor Well MW-3** is sampled on a quarterly schedule and the analytical results indicate benzene and BTEX concentrations were less than the MDL and the NMOCD regulatory standard during all four (4) quarters of the 2008 reporting period. Analytical results indicate PAH constituent concentrations were less than the MDL for each constituent during the 4<sup>th</sup> quarter of 2008.

**Monitor Well MW-4** is sampled on a quarterly schedule and the analytical results indicate benzene, ethylbenzene and total xylene concentrations were less than the MDL and the NMOCD regulatory standard during all four (4) quarters of the 2008 reporting period. Toluene concentrations ranged from less than the MDL during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters to 0.002 mg/L during the 1<sup>st</sup> quarter of 2008. Toluene concentrations were less than the NMOCD regulatory standard during all four (4) quarters of the 2008 reporting period. Analytical results indicate PAH constituent concentrations were less than the MDL for each constituent during the 4<sup>th</sup> quarter of 2008.

**Monitor Well MW-5** is sampled on a quarterly schedule and the analytical results indicate benzene and BTEX concentrations were less than the MDL and the NMOCD regulatory standard during all four (4) quarters of the 2008 reporting period. Analytical results indicate PAH constituent concentrations were less than the MDL for each constituent during the 4<sup>th</sup> quarter of 2008.

**Monitor Well MW-9** is sampled on a quarterly schedule and the analytical results indicate benzene and BTEX concentrations were less than the MDL and the NMOCD regulatory standard during all four (4) quarters of the 2008 reporting period. Analytical results indicate PAH constituent concentrations were less than the MDL for each constituent during the 4<sup>th</sup> quarter of 2008.

**Recovery Well RW-1** is sampled on a quarterly schedule and the analytical results indicate toluene, ethylbenzene and total xylene concentrations were less than the MDL and the NMOCD regulatory standard during all four (4) quarters of the 2008 reporting period. Benzene concentrations ranged from less than the MDL during the 1<sup>st</sup>, 2<sup>nd</sup>, and 4<sup>th</sup> quarters to 0.001 mg/L during the 3<sup>rd</sup> quarter. Benzene concentrations were less than the NMOCD regulatory standard during all four (4) quarters of the 2008 reporting period. Analytical results indicate PAH constituent concentrations were less than the MDL for each constituent during the 4<sup>th</sup> quarter of 2008.

**Recovery Well RW-2** is sampled on a quarterly schedule and the analytical results indicate benzene and BTEX concentrations were less than the MDL and the NMOCD regulatory standard during all four (4) quarters of the 2008 reporting period. Analytical results indicate PAH

constituent concentrations were less than the MDL for each constituent during the 4<sup>th</sup> quarter of 2008.

**Recovery Well RW-3** is sampled on a quarterly schedule and the analytical results indicate benzene and BTEX concentrations were less than the MDL and the NMOCD regulatory standard during all four (4) quarters of the 2008 reporting period. Analytical results indicate PAH constituent concentrations were less than the MDL for each constituent during the 4<sup>th</sup> quarter of 2008.

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

## **SUMMARY**

This report presents the results of groundwater monitoring activities for the 2008 monitoring period. Currently, there are six (6) groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5 and MW-9) and three (3) recovery wells (RW-1, RW-2 and RW-3) on-site. The Inferred Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.017 feet/foot to the east-southeast as measured between groundwater monitor wells MW-3 and MW-4.

The laboratory results for the groundwater samples, obtained during the four (4) 2008 reporting periods, indicated benzene and BTEX constituent concentrations were less than the NMOCD regulatory standard for all the on-site groundwater monitoring wells and recovery wells.

The laboratory analytical results indicate all BTEX constituent concentrations in monitor wells MW-1, MW-2, MW-3, MW-4, MW-5 and MW-9 and recovery wells RW-2 and RW-3 have been less than the NMOCD regulatory standard during the last eight (8) consecutive quarterly sampling events. The laboratory analytical data indicates all BTEX constituent concentrations in recovery well RW-1 have been less than the NMOCD regulatory standard for seven (7) of the last eight (8) quarters. Laboratory analytical data of the sample collected from recovery well RW-1 during the 3<sup>rd</sup> quarter of 2007 indicated a benzene concentration of 0.013 mg/L. The analytical results for the 3<sup>rd</sup> quarter 2007 are incongruous with the analytical results prior and subsequent to this sampling event. Groundwater Elevation Data and Concentrations of Benzene and BTEX in Groundwater are provided as Table 1 and Table 2, respectively.

## **ANTICIPATED ACTIONS**

Basin, on behalf of Plains, respectively requests NMOCD approval to cease groundwater monitoring and sampling at the Vacuum 10-Inch to Jal site. Monitor wells MW-1, MW-2, MW-3, MW-4, MW-5 and MW-9 and recovery wells RW-1, RW-2 and RW-3 will be plugged and abandoned using New Mexico Office of the State Engineer (NMOSE) guidelines. The plugging and abandonment activities will be conducted by a State of New Mexico certified water well drilling company and Plains will provide the NMOCD with plugging reports documenting the plugging procedures.

## LIMITATIONS

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

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

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

**DISTRIBUTION**

Copy 1: Edward Hansen  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
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Santa Fe, New Mexico 87505  
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[cjbryant@basin-consulting.com](mailto:cjbryant@basin-consulting.com)

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# Figures

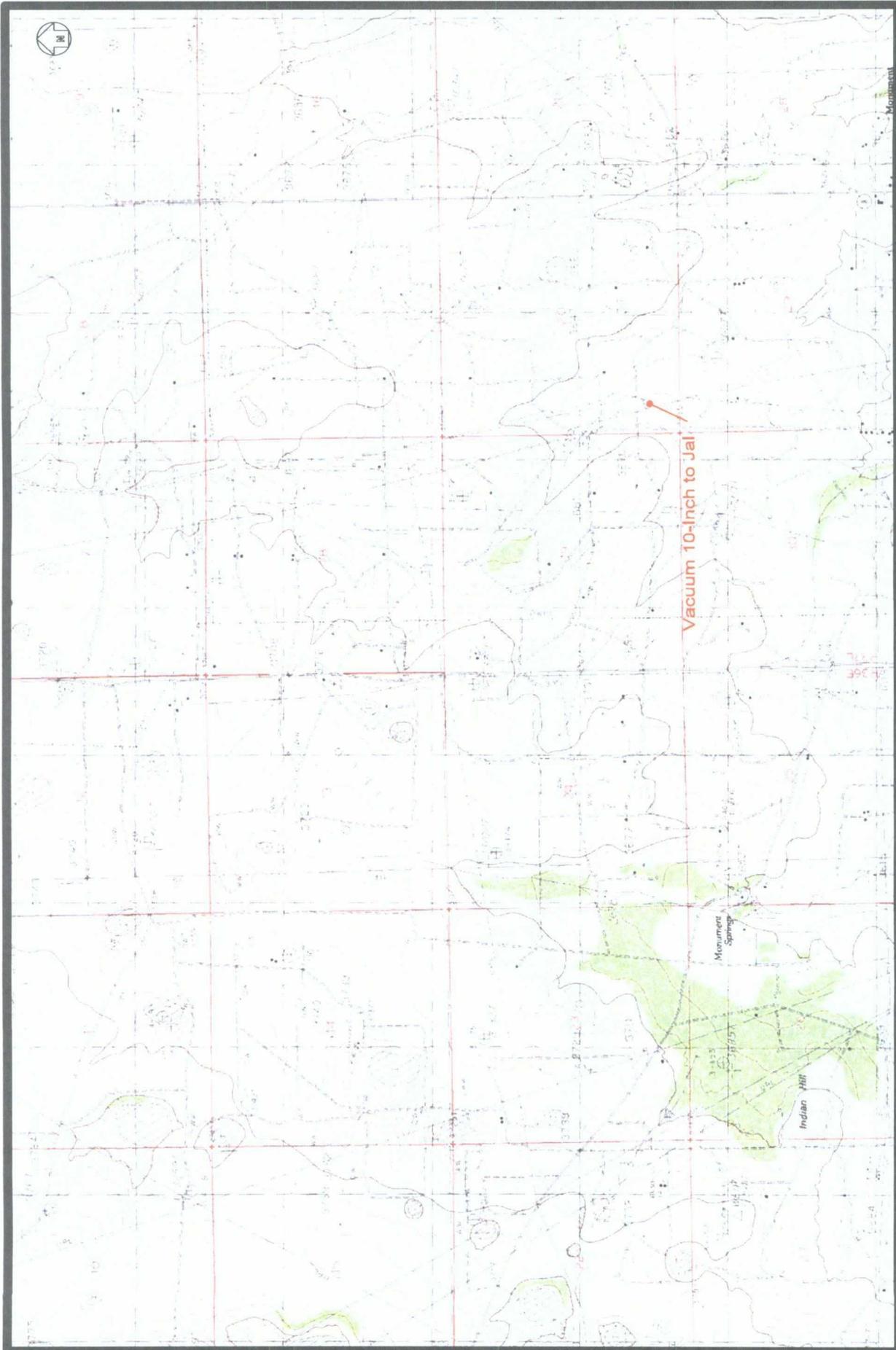
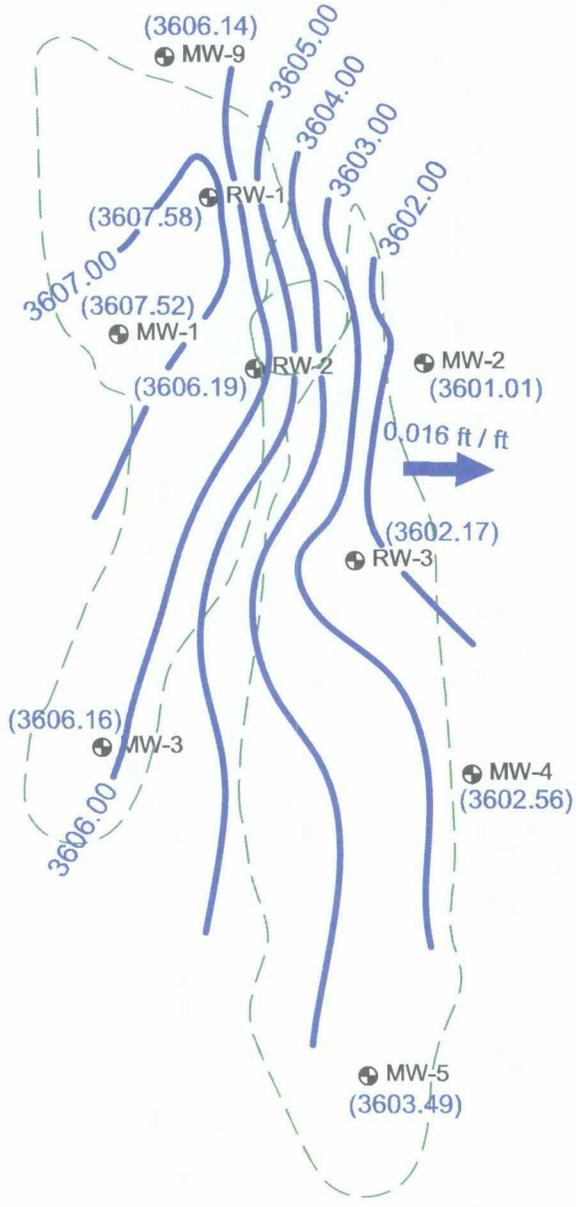


Figure 1  
 Site Location Map  
 Vacuum 10-Inch to Jal  
 Plains Marking, L.P.  
 Lea County, New Mexico  
 NMOCD # 1RP-385



# Basin Environmental Services

Prep By: CBS  
 March 2, 2009  
 Checked By: CBS  
 Scale 1"=2000'



Groundwater Gradient magnitude measured between monitor wells MW-3 and MW-4

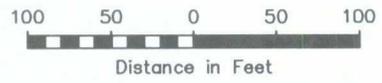
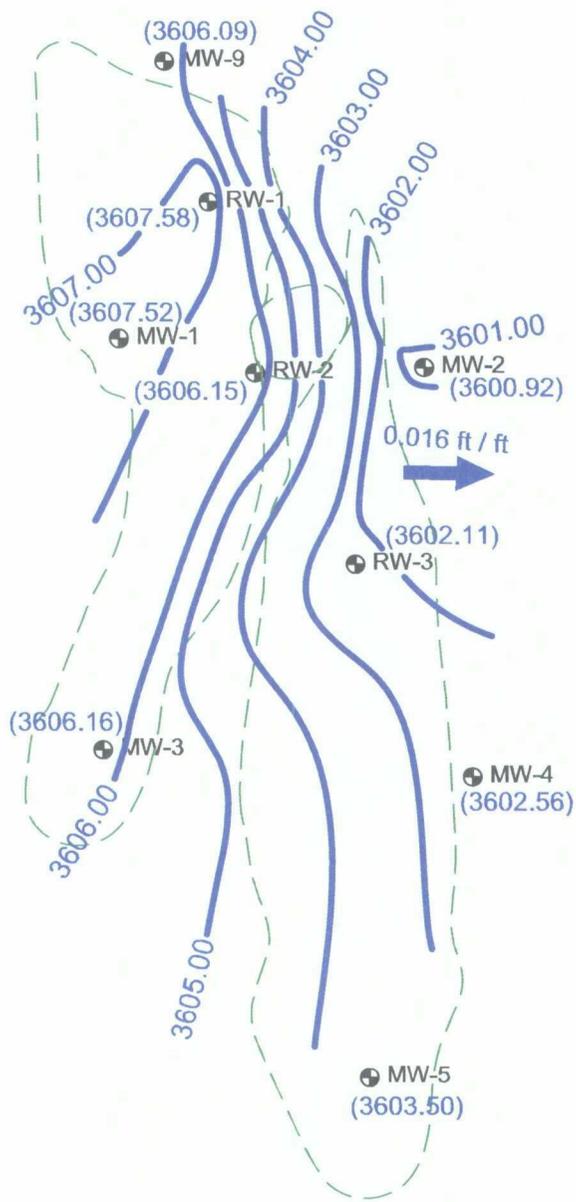
**LEGEND:**

	Monitor Well Location
	Excavation Extents
	Groundwater Gradient Contour Line
	Groundwater Elevation (feet)
	Groundwater Gradient Direction and Magnitude

**Figure 2A**  
Inferred Groundwater Gradient Map  
(03/13/08)  
Plains Marketing, L.P.  
Vacuum 10-Inch to Jal  
Lea County, NM  
1RP-385

**Basin Environmental Services**

Scale: 1" = 80'	Drawn By: CDS	Prepared By: CDS
February 23, 2009		



Groundwater Gradient magnitude measured between monitor wells MW-3 and MW-4

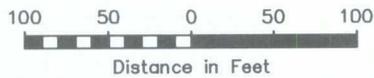
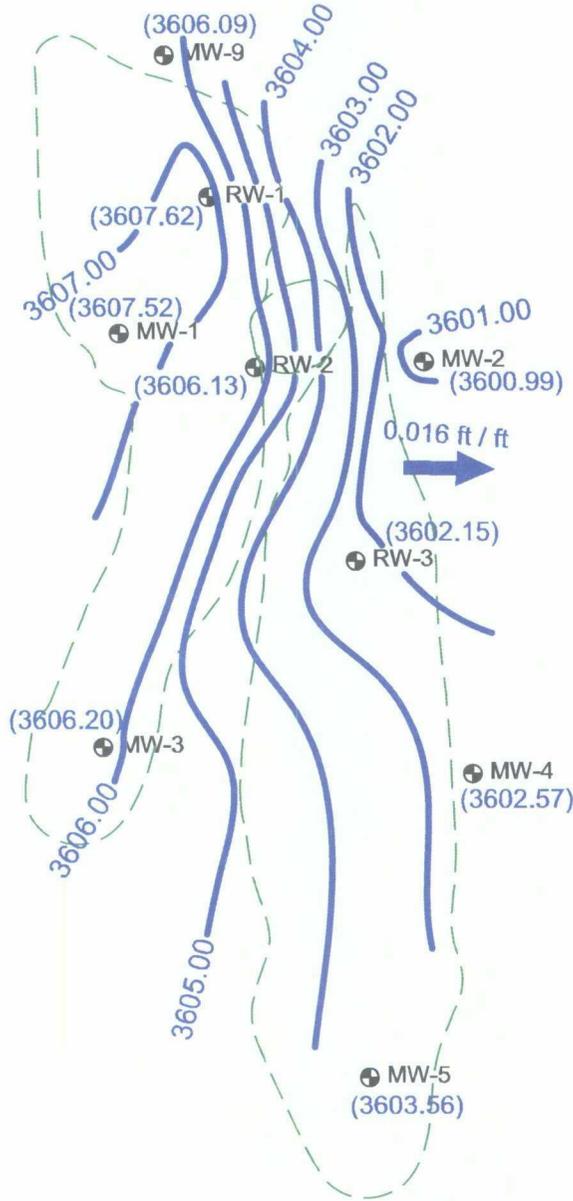
**LEGEND:**

	Monitor Well Location
	Excavation Extents
	Groundwater Gradient Contour Line
	Groundwater Elevation (feet)
	Groundwater Gradient Direction and Magnitude

Figure 2B  
Inferred Groundwater  
Gradient Map  
(06/21/08)  
Plains Marketing, L.P.  
Vacuum 10-Inch to Jal  
Lea County, NM  
1RP-385

**Basin Environmental Services**

Scale: 1" = 80'	Drawn By: CDS	Prepared By: CDS
February 23, 2009		



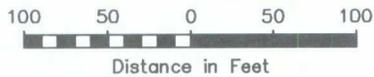
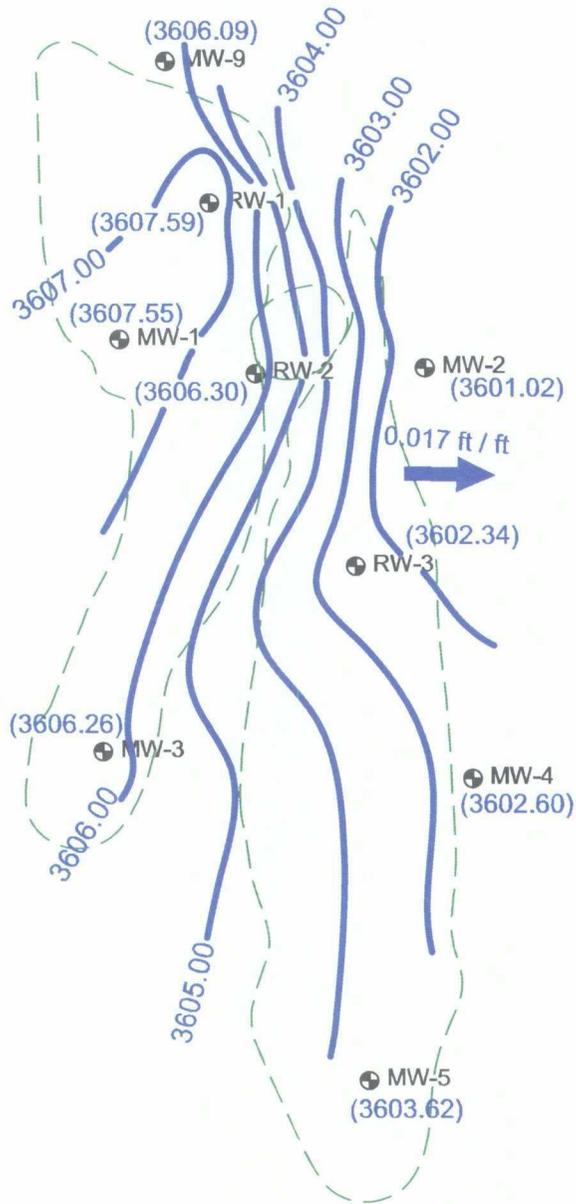
Groundwater Gradient magnitude measured between monitor wells MW-3 and MW-4

⊕	Monitor Well Location
- - -	Excavation Extents
—	Groundwater Gradient Contour Line
(3601.16)	Groundwater Elevation (feet)
→ 0.016 ft / ft	Groundwater Gradient Direction and Magnitude

Figure 2C  
Inferred Groundwater  
Gradient Map  
(09/18/08)  
Plains Marketing, L.P.  
Vacuum 10-Inch to Jal  
Lea County, NM  
1RP-385

Basin Environmental Services

Scale: 1" = 80'	Drawn By: CDS	Prepared By: CDS
February 23, 2009		



Groundwater Gradient magnitude measured between monitor wells MW-3 and MW-4

LEGEND:

	Monitor Well Location
	Excavation Extents
	Groundwater Gradient Contour Line
	Groundwater Elevation (feet)
	Groundwater Gradient Direction and Magnitude

Figure 2D  
Inferred Groundwater  
Gradient Map  
(11/19/08)  
Plains Marketing, L.P.  
Vacuum 10-Inch to Jal  
Lea County, NM  
1RP-385

Basin Environmental Services

Scale: 1" = 80'	Drawn By: CDS	Prepared By: CDS
February 23, 2009		



Benzene <0.001  
Toluene <0.002  
Ethylbenzene <0.001  
Total Xylene <0.002

MW-9

Benzene <0.001  
Toluene <0.002  
Ethylbenzene <0.001  
Total Xylene <0.002

Benzene <0.001  
Toluene <0.002  
Ethylbenzene <0.001  
Total Xylene <0.002

RW-1

Benzene <0.001  
Toluene <0.002  
Ethylbenzene <0.001  
Total Xylene <0.002

MW-1

Benzene <0.001  
Toluene <0.002  
Ethylbenzene <0.001  
Total Xylene <0.002

RW-2

MW-2

Benzene <0.001  
Toluene <0.002  
Ethylbenzene <0.001  
Total Xylene <0.002

RW-3

Benzene <0.001  
Toluene <0.002  
Ethylbenzene <0.001  
Total Xylene <0.002

MW-3

Benzene <0.001  
Toluene 0.002  
Ethylbenzene <0.001  
Total Xylene <0.002

MW-4

Benzene <0.001  
Toluene <0.002  
Ethylbenzene <0.001  
Total Xylene <0.002

MW-5

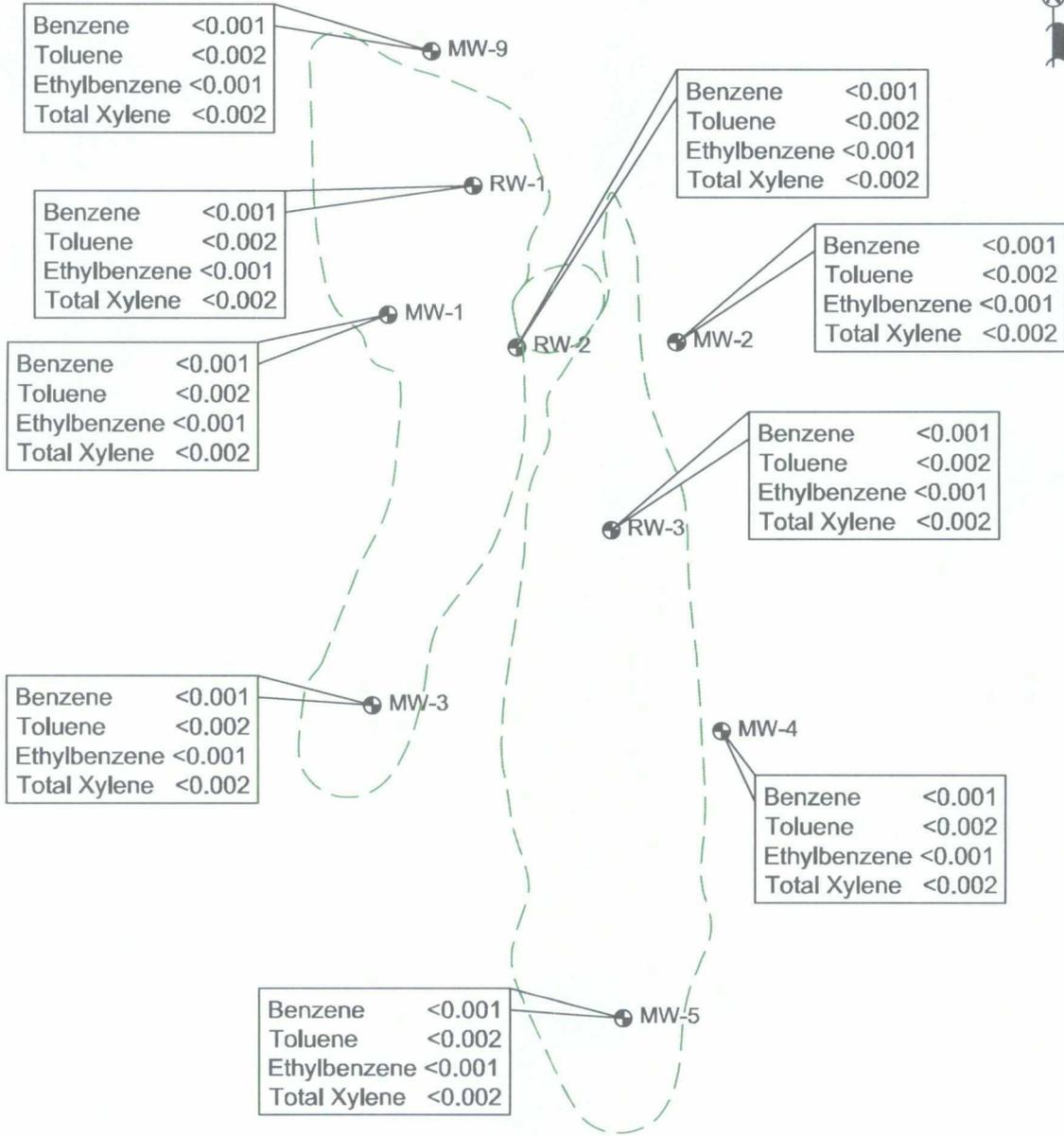


LEGEND:  
● Monitor Well Location  
— Excavation Extents (Backfilled)  
<0.001 Constituent Concentration (mg/L)

Figure 3A  
Groundwater Concentration  
Map (3/13/08)  
Plains Marketing, L.P.  
Vacuum 10" to Jal  
Lea County, NM  
1RP-385

Basin Environmental Services

Scale: 1" = 100'	Drawn By: CDS	Prepared By: CDS
February 16, 2009		



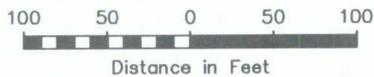
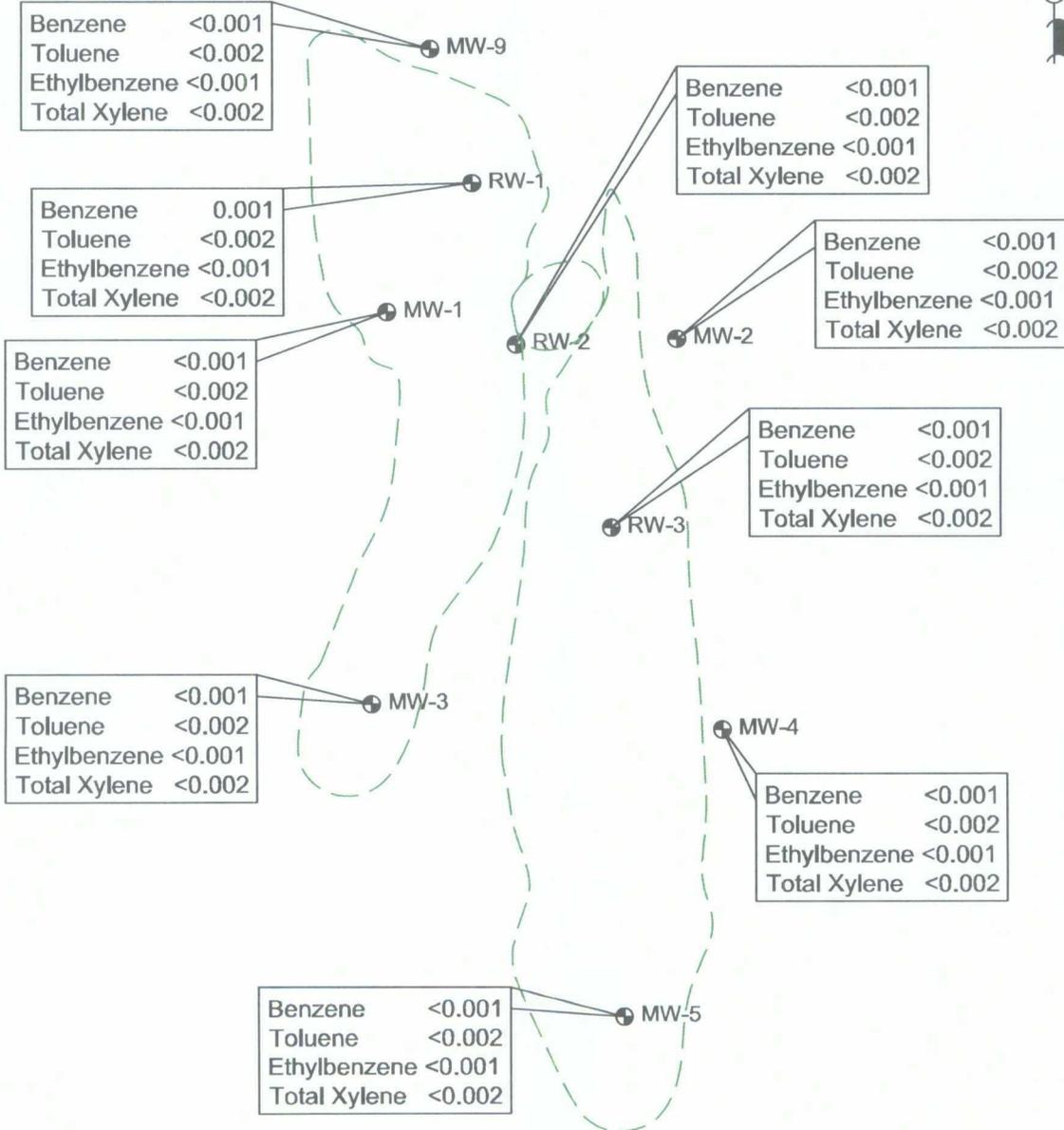
LEGEND:

- ☉ Monitor Well Location
- Excavation Extents (Backfilled)
- <0.001 Constituent Concentration (mg/L)

Figure 3B  
Groundwater Concentration  
Map (6/21/08)  
Plains Marketing, L.P.  
Vacuum 10" to Jal  
Lea County, NM  
1RP-385

Basin Environmental Services

Scale: 1" = 100'	Drawn By: CDS	Prepared By: CDS
February 16, 2009		



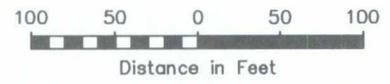
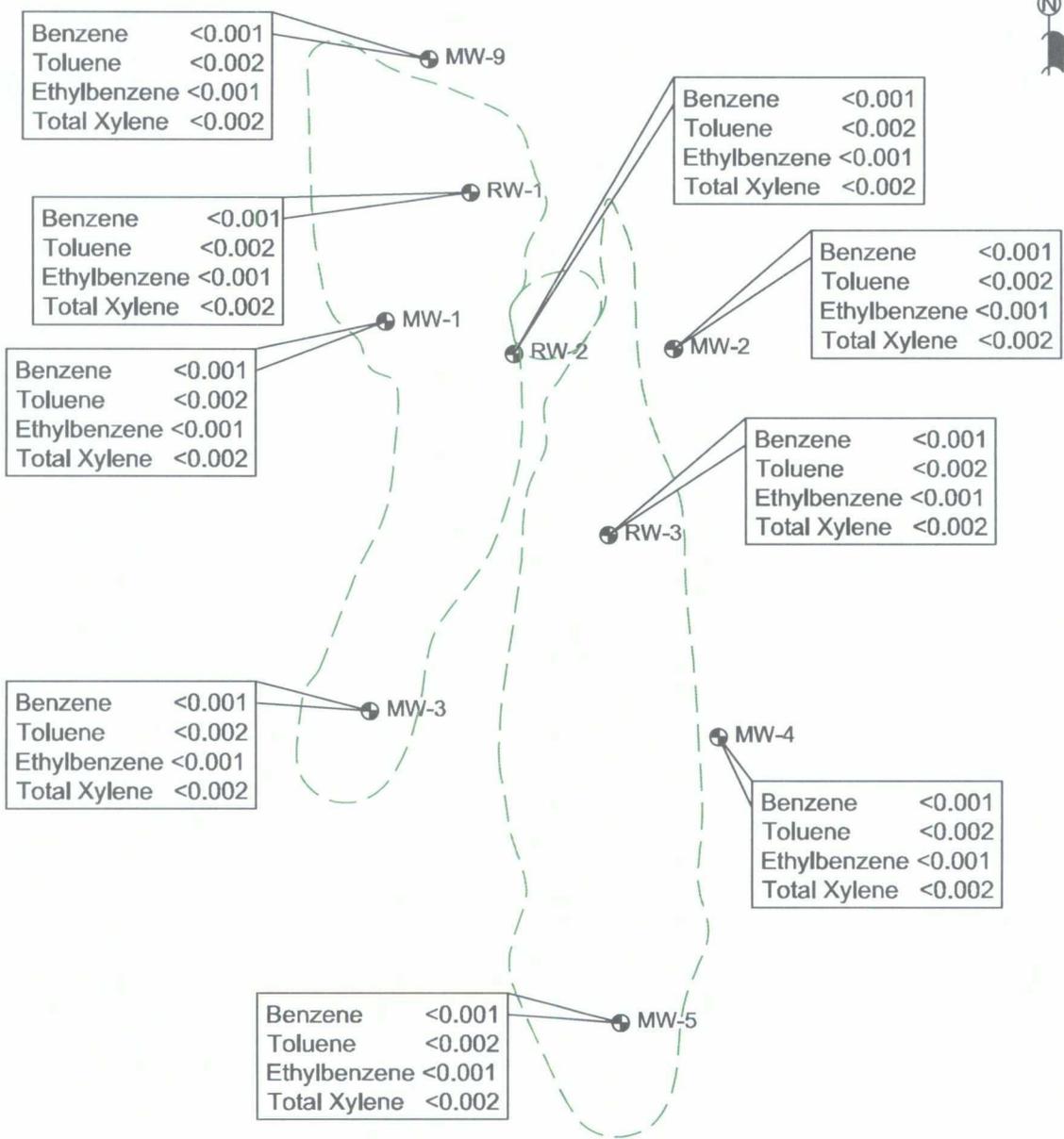
LEGEND:

- Monitor Well Location
- Excavation Extents (Backfilled)
- <0.001 Constituent Concentration (mg/L)

Figure 3C  
Groundwater Concentration  
Map (09/18/08)  
Plains Marketing, L.P.  
Vacuum 10" to Jal  
Lea County, NM  
1RP-385

Basin Environmental Services

Scale: 1" = 100'	Drawn By: CDS	Prepared By: CDS
February 16, 2009		



**LEGEND:**

- Monitor Well Location
- Excavation Extents (Backfilled)
- <math><0.001</math> Constituent Concentration (mg/L)

Figure 3D  
Groundwater Concentration  
Map (11/19/08)  
Plains Marketing, L.P.  
Vacuum 10" to Jal  
Lea County, NM  
1RP-385

**Basin Environmental Services**

Scale: 1" = 100'	Drawn By: CDS	Prepared By: CDS
February 16, 2009		



# Tables

TABLE 1

## GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	12/30/02	3,627.07	18.96	18.97	0.01	3,608.11
	01/02/03	3,627.07	18.96	18.97	0.01	3,608.11
	01/06/03	3,627.07	18.95	18.96	0.01	3,608.12
	01/13/03	3,627.07	Sheen	18.96	0.00	3,608.11
	01/28/03	3,627.07	-	18.95	0.00	3,608.12
	01/30/03	3,627.07	-	18.97	0.00	3,608.10
	03/03/03	3,627.07	Sheen	18.94	0.00	3,608.13
	02/11/04	3,627.07	-	18.95	0.00	3,608.12
	03/24/04	3,627.07	-	18.93	0.00	3,608.14
	05/11/04	3,627.07	-	18.96	0.00	3,608.11
	06/11/04	3,627.07	-	18.98	0.00	3,608.09
	07/08/04	3,627.07	-	19.00	0.00	3,608.07
	08/17/04	3,627.07	-	19.07	0.00	3,608.00
	09/13/04	3,627.07	-	19.02	0.00	3,608.05
	10/06/04	3,627.07	-	12.32	0.00	3,614.75
	11/16/04	3,627.07	-	15.69	0.00	3,611.38
	12/10/04	3,627.07	-	18.74	0.00	3,608.33
	01/14/05	3,627.07	-	19.07	0.00	3,608.00
	02/21/05	3,627.07	-	19.12	0.00	3,607.95
	05/09/05	Not Gauged				
	11/18/05	Not Gauged				
	11/22/05	Not Gauged				
	01/12/06	3,627.07	-	20.77	0.00	3,606.30
	03/03/06	3,627.07	-	11.74	0.00	3,615.33
	03/16/06	3,627.07	-	20.17	0.00	3,606.90
	03/20/06	3,627.07	-	20.02	0.00	3,607.05
	04/11/06	3,627.07	-	20.17	0.00	3,606.90
	07/20/06	3,627.07	-	20.17	0.00	3,606.90
	08/09/06	3,627.07	-	19.72	0.00	3,607.35
	10/17/06	3,627.07	-	19.78	0.00	3,607.29
	11/27/06	3,627.07	-	19.84	0.00	3,607.23
	01/04/07	3,627.07	-	19.85	0.00	3,607.22
	03/21/07	3,627.07	-	19.84	0.00	3,607.23
	04/26/07	3,627.07	-	19.53	0.00	3,607.54
	05/31/07	3,627.07	-	19.51	0.00	3,607.56
	06/20/07	3,627.07	-	19.52	0.00	3,607.55
	07/31/07	3,627.07	-	19.53	0.00	3,607.54
	08/13/07	3,627.07	-	19.53	0.00	3,607.54
	09/26/07	3,627.07	-	19.53	0.00	3,607.54
	10/16/07	3,627.07	-	19.52	0.00	3,607.55
	11/07/07	3,627.07	-	19.52	0.00	3,607.55

TABLE 1

## GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	12/06/07	3,627.07	-	19.50	0.00	3,607.57
	03/13/08	3,627.07	-	19.55	0.00	3,607.52
	06/21/08	3,627.07	-	19.56	0.00	3,607.51
	09/18/08	3,627.07	-	19.55	0.00	3,607.52
	10/21/08	3,627.07	-	19.54	0.00	3,607.53
	11/19/08	3,627.07	-	19.52	0.00	3,607.55
	12/16/08	3,627.07	-	19.55	0.00	3,607.52
MW-2	01/02/03	3,625.94	22.48	22.49	0.01	3,603.46
	01/06/03	3,625.94	-	22.50	0.00	3,603.44
	01/13/03	3,625.94	-	22.45	0.00	3,603.49
	01/28/03	3,625.94	-	22.42	0.00	3,603.52
	01/30/03	3,625.94	-	22.45	0.00	3,603.49
	03/03/03	3,625.94	-	22.41	0.00	3,603.53
	02/11/04	3,625.94	-	24.75	0.00	3,601.19
	03/24/04	3,625.94	-	24.65	0.00	3,601.29
	05/11/04	3,625.94	-	24.81	0.00	3,601.13
	06/11/04	3,625.94	-	24.87	0.00	3,601.07
	07/08/04	3,625.94	-	24.85	0.00	3,601.09
	08/17/04	3,625.94	-	24.82	0.00	3,601.12
	09/13/04	3,625.94	-	24.80	0.00	3,601.14
	10/06/04	3,625.94	-	15.61	0.00	3,610.33
	11/16/04	3,625.94	-	20.60	0.00	3,605.34
	12/10/04	3,625.94	-	19.75	0.00	3,606.19
	01/14/05	3,625.94	-	22.80	0.00	3,603.14
	02/21/05	3,625.94	-	23.82	0.00	3,602.12
	05/09/05	3,625.94	-	24.41	0.00	3,601.53
	11/18/05	Not Gauged				
	11/22/05	3,625.94	-	26.07	0.00	3,599.87
	01/12/06	3,625.94	-	19.87	0.00	3,606.07
	03/03/06	3,625.94	-	24.92	0.00	3,601.02
	03/16/06	3,625.94	-	25.21	0.00	3,600.73
	03/20/06	3,625.94	-	25.31	0.00	3,600.63
	03/21/06	3,625.94	-	24.95	0.00	3,600.99
	04/11/06	3,625.94	-	25.25	0.00	3,600.69
	07/20/06	3,625.94	-	25.27	0.00	3,600.67
	08/09/06	3,625.94	-	25.02	0.00	3,600.92
	10/17/06	3,625.94	-	22.60	0.00	3,603.34
	11/27/06	3,625.94	-	23.96	0.00	3,601.98
	12/11/06	3,625.94	-	24.42	0.00	3,601.52
	01/04/07	3,625.94	-	24.68	0.00	3,601.26

TABLE 1

## GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-2	03/21/07	3,625.94	-	24.85	0.00	3,601.09
	04/26/07	3,625.94	-	24.87	0.00	3,601.07
	05/31/07	3,625.94	-	24.85	0.00	3,601.09
	06/20/07	3,625.94	-	24.86	0.00	3,601.08
	07/31/07	3,625.94	-	24.89	0.00	3,601.05
	08/13/07	3,625.94	-	24.87	0.00	3,601.07
	09/26/07	3,625.94	-	24.87	0.00	3,601.07
	10/16/07	3,625.94	-	24.89	0.00	3,601.05
	11/07/07	3,625.94	-	24.91	0.00	3,601.03
	12/06/07	3,625.94	-	24.93	0.00	3,601.01
	03/13/08	3,625.94	-	24.93	0.00	3,601.01
	06/21/08	3,625.94	-	24.98	0.00	3,600.96
	09/18/08	3,625.94	-	24.95	0.00	3,600.99
	10/21/08	3,625.94	-	24.91	0.00	3,601.03
	11/19/08	3,625.94	-	24.92	0.00	3,601.02
	12/16/08	3,625.94	-	24.93	0.00	3,601.01
MW-3	01/02/03	3,624.81	16.83	16.84	0.01	3,607.98
	01/06/03	3,624.81	-	16.73	0.00	3,608.08
	01/13/03	3,624.81	-	16.80	0.00	3,608.01
	01/28/03	3,624.81	Sheen	16.82	0.00	3,607.99
	01/30/03	3,624.81	-	16.84	0.00	3,607.97
	03/03/03	3,624.81	-	16.82	0.00	3,607.99
	02/11/04	3,624.81	-	18.83	0.00	3,605.98
	03/24/04	3,624.81	-	18.81	0.00	3,606.00
	05/11/04	3,624.81	-	18.52	0.00	3,606.29
	06/11/04	3,624.81	-	18.73	0.00	3,606.08
	07/08/04	3,624.81	-	18.77	0.00	3,606.04
	08/17/04	3,624.81	-	18.83	0.00	3,605.98
	09/13/04	3,624.81	-	18.85	0.00	3,605.96
	10/06/04	3,624.81	-	12.85	0.00	3,611.96
	11/16/04	3,624.81	-	18.03	0.00	3,606.78
	12/10/04	3,624.81	-	18.24	0.00	3,606.57
	01/14/05	3,624.81	-	18.70	0.00	3,606.11
	02/21/05	3,624.81	-	18.88	0.00	3,605.93
	05/09/05			Not Gauged		
	11/18/05			Not Gauged		
	11/22/05			Not Gauged		
	01/12/06	3,624.81	-	17.27	0.00	3,607.54
	03/03/06	3,624.81	-	18.66	0.00	3,606.15
	03/16/06	3,624.81	-	18.97	0.00	3,605.84

TABLE 1

## GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-3	03/20/06	3,624.81	-	19.01	0.00	3,605.80
	03/21/06	3,624.81	-	18.79	0.00	3,606.02
	04/11/06	3,624.81	-	18.98	0.00	3,605.83
	07/20/06	3,624.81	-	18.81	0.00	3,606.00
	08/09/06	3,624.81	-	18.72	0.00	3,606.09
	10/17/06	3,624.81	-	18.35	0.00	3,606.46
	11/27/06	3,624.81	-	18.43	0.00	3,606.38
	12/11/06	3,624.81	-	18.48	0.00	3,606.33
	01/04/07	3,624.81	-	18.56	0.00	3,606.25
	03/21/07	3,624.81	-	18.58	0.00	3,606.23
	04/26/07	3,624.81	-	18.55	0.00	3,606.26
	05/31/07	3,624.81	-	17.84	0.00	3,606.97
	06/20/07	3,624.81	-	18.06	0.00	3,606.75
	07/31/07	3,624.81	-	18.53	0.00	3,606.28
	08/13/07	3,624.81	-	18.49	0.00	3,606.32
	09/26/07	3,624.81	-	18.41	0.00	3,606.40
	10/16/07	3,624.81	-	18.48	0.00	3,606.33
	11/07/07	3,624.81	-	18.56	0.00	3,606.25
	12/06/07	3,624.81	-	18.58	0.00	3,606.23
	03/13/08	3,624.81	-	18.65	0.00	3,606.16
	06/21/08	3,624.81	-	18.65	0.00	3,606.16
	09/18/08	3,624.81	-	18.61	0.00	3,606.20
	10/21/08	3,624.81	-	18.45	0.00	3,606.36
	11/19/08	3,624.81	-	18.55	0.00	3,606.26
	12/16/08	3,624.81	-	18.63	0.00	3,606.18
MW-4	01/02/03	3,624.95	-	19.53	0.00	3,605.42
	01/06/03	3,624.95	-	19.55	0.00	3,605.40
	01/13/03	3,624.95	-	19.54	0.00	3,605.41
	01/28/03	3,624.95	-	19.52	0.00	3,605.43
	01/30/03	3,624.95	-	19.54	0.00	3,605.41
	03/03/03	3,624.95	-	19.55	0.00	3,605.40
	02/11/04	3,624.95	-	22.44	0.00	3,602.51
	03/24/04	3,624.95	-	22.43	0.00	3,602.52
	05/11/04	3,624.95	-	22.30	0.00	3,602.65
	06/11/04	3,624.95	-	22.41	0.00	3,602.54
	07/08/04	3,624.95	-	22.43	0.00	3,602.52
	08/17/04	3,624.95	-	22.45	0.00	3,602.50
	09/13/04	3,624.95	-	22.40	0.00	3,602.55
	10/06/04	3,624.95	-	14.60	0.00	3,610.35
	11/16/04	3,624.95	-	20.57	0.00	3,604.38

TABLE 1

## GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-4	12/12/04	3,624.95	-	19.46	0.00	3,605.49
	01/14/05	3,624.95	-	22.24	0.00	3,602.71
	02/21/05	3,624.95	-	22.52	0.00	3,602.43
	05/09/05	3,624.95	-	22.61	0.00	3,602.34
	11/18/05	Not Gauged				
	11/22/05	3,624.95	-	22.98	0.00	3,601.97
	01/12/06	3,624.95	-	22.68	0.00	3,602.27
	03/03/06	3,624.95	-	22.43	0.00	3,602.52
	03/16/06	3,624.95	-	22.70	0.00	3,602.25
	03/20/06	3,624.95	-	22.69	0.00	3,602.26
	03/21/06	3,624.95	-	34.30	0.00	3,590.65
	04/11/06	3,624.95	-	22.70	0.00	3,602.25
	07/20/06	3,624.95	-	22.70	0.00	3,602.25
	08/09/06	3,624.95	-	22.27	0.00	3,602.68
	10/17/06	3,624.95	-	22.09	0.00	3,602.86
	11/27/06	3,624.95	-	22.27	0.00	3,602.68
	12/11/06	3,624.95	-	22.33	0.00	3,602.62
	01/04/07	3,624.95	-	34.51	0.00	3,590.44
	03/21/07	3,624.95	-	22.35	0.00	3,602.60
	04/26/07	3,624.95	-	22.34	0.00	3,602.61
	05/31/07	3,624.95	-	22.29	0.00	3,602.66
	06/20/07	3,624.95	-	22.30	0.00	3,602.65
	07/31/07	3,624.95	-	22.33	0.00	3,602.62
	08/13/07	3,624.95	-	22.32	0.00	3,602.63
	09/26/07	3,624.95	-	22.31	0.00	3,602.64
	10/16/07	3,624.95	-	22.33	0.00	3,602.62
	11/07/07	3,624.95	-	22.38	0.00	3,602.57
	12/06/07	3,624.95	-	22.34	0.00	3,602.61
	03/13/08	3,624.95	-	22.39	0.00	3,602.56
	06/21/08	3,624.95	-	22.39	0.00	3,602.56
	09/18/08	3,624.95	-	22.38	0.00	3,602.57
	10/21/08	3,624.95	-	22.33	0.00	3,602.62
	11/19/08	3,624.95	-	22.35	0.00	3,602.60
	12/16/08	3,624.95	-	22.38	0.00	3,602.57
MW-5	01/02/03	3,624.15	-	12.97	0.00	3,611.18
	01/06/03	3,624.15	-	12.98	0.00	3,611.17
	01/13/03	3,624.15	-	13.00	0.00	3,611.15
	01/28/03	3,624.15	-	12.88	0.00	3,611.27
	01/30/03	3,624.15	-	13.00	0.00	3,611.15
	03/03/03	3,624.15	-	18.87	0.00	3,605.28

TABLE 1

## GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-5	02/11/04	3,624.15	-	13.03	0.00	3,611.12
	03/24/04	3,624.15	-	13.01	0.00	3,611.14
	05/11/04	3,624.15	-	12.81	0.00	3,611.34
	06/11/04	3,624.15	-	12.96	0.00	3,611.19
	07/08/04	3,624.15	-	13.00	0.00	3,611.15
	08/17/04	3,624.15	-	13.02	0.00	3,611.13
	09/13/04	3,624.15	-	13.05	0.00	3,611.10
	10/06/04	Not Gauged				
	11/16/04	3,624.15	-	12.23	0.00	3,611.92
	12/10/04	3,624.15	-	11.88	0.00	3,612.27
	01/14/05	3,624.15	-	13.00	0.00	3,611.15
	02/21/05	3,624.15	-	13.14	0.00	3,611.01
	05/09/05	3,624.15	-	13.22	0.00	3,610.93
	11/18/05	Not Gauged				
	11/22/05	3,624.15	-	12.88	0.00	3,611.27
	01/12/06	3,624.15	-	17.92	0.00	3,606.23
	03/03/06	3,624.15	-	17.65	0.00	3,606.50
	03/16/06	3,624.15	-	17.93	0.00	3,606.22
	03/20/06	3,624.15	-	17.94	0.00	3,606.21
	03/21/06	3,624.15	-	19.35	0.00	3,604.80
	04/11/06	3,624.15	-	17.94	0.00	3,606.21
	07/20/06	3,624.15	-	17.91	0.00	3,606.24
	08/09/06	3,624.15	-	17.52	0.00	3,606.63
	10/17/06	3,624.15	-	20.57	0.00	3,603.58
	11/27/06	3,624.15	-	20.62	0.00	3,603.53
	12/11/06	3,624.15	-	20.69	0.00	3,603.46
	01/04/07	3,624.15	-	20.74	0.00	3,603.41
	03/21/07	3,624.15	-	20.75	0.00	3,603.40
	04/26/07	3,624.15	-	20.54	0.00	3,603.61
	05/31/07	3,624.15	-	20.45	0.00	3,603.70
	06/20/07	3,624.15	-	20.47	0.00	3,603.68
	07/31/07	3,624.15	-	20.55	0.00	3,603.60
	08/13/07	3,624.15	-	20.49	0.00	3,603.66
	09/26/07	3,624.15	-	20.43	0.00	3,603.72
	10/16/07	3,624.15	-	20.45	0.00	3,603.70
	11/07/07	3,624.15	-	20.55	0.00	3,603.60
	12/06/07	3,624.15	-	20.59	0.00	3,603.56
	03/13/08	3,624.15	-	20.66	0.00	3,603.49
	06/21/08	3,624.15	-	20.65	0.00	3,603.50
	09/18/08	3,624.15	-	20.59	0.00	3,603.56
	10/21/08	3,624.15	-	20.37	0.00	3,603.78

TABLE 1

## GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-5	11/19/08	3,624.15	-	20.53	0.00	3,603.62
	12/16/08	3,624.15	-	20.60	0.00	3,603.55
MW-9	05/09/05			Not Gauged		
	09/20/05	3,627.84	-	27.60	0.00	3,600.24
	11/18/05			Not Gauged		
	11/22/05			Not Gauged		
	01/12/06	3,627.84	-	22.01	0.00	3,605.83
	03/03/06	3,627.84	-	21.34	0.00	3,606.50
	03/16/06	3,627.84	-	22.02	0.00	3,605.82
	03/20/06	3,627.84	-	22.01	0.00	3,605.83
	03/21/06	3,627.84	-	21.71	0.00	3,606.13
	04/11/06	3,627.84	-	22.01	0.00	3,605.83
	07/20/06	3,627.84	-	22.00	0.00	3,605.84
	08/09/06	3,627.84	-	21.67	0.00	3,606.17
	10/17/06	3,627.84	-	21.56	0.00	3,606.28
	11/27/06	3,627.84	-	21.60	0.00	3,606.24
	12/11/06	3,627.84	-	21.62	0.00	3,606.22
	01/04/07	3,627.84	-	21.63	0.00	3,606.21
	03/21/07	3,627.84	-	21.64	0.00	3,606.20
	04/26/07	3,627.84	-	21.63	0.00	3,606.21
	05/31/07	3,627.84	-	21.64	0.00	3,606.20
	06/20/07	3,627.84	-	21.64	0.00	3,606.20
	07/31/07	3,627.84	-	21.65	0.00	3,606.19
	08/13/07	3,627.84	-	21.64	0.00	3,606.20
	09/26/07	3,627.84	-	21.64	0.00	3,606.20
	10/16/07	3,627.84	-	21.65	0.00	3,606.19
	11/07/07	3,627.84	-	21.67	0.00	3,606.17
	12/06/07	3,627.84	-	21.69	0.00	3,606.15
	03/13/08	3,627.84	-	21.70	0.00	3,606.14
	06/21/08	3,627.84	-	21.75	0.00	3,606.09
	09/18/08	3,627.84	-	21.75	0.00	3,606.09
	10/21/08	3,627.84	-	21.72	0.00	3,606.12
	11/19/08	3,627.84	-	21.75	0.00	3,606.09
	12/16/08	3,627.84	-	21.75	0.00	3,606.09
RW-1	01/02/03	3,626.68	-	19.04	0.00	3,607.64
	01/06/03	3,626.68	18.76	18.79	0.03	3,607.92
	01/13/03	3,626.68	18.20	18.30	0.10	3,608.47
	01/28/03	3,626.68	18.11	18.21	0.10	3,608.56
	03/03/03	3,626.68	18.05	18.20	0.15	3,608.61

TABLE 1

GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
RW-1	03/25/03	3,626.68	18.10	18.15	0.05	3,608.57
	06/16/03	3,626.68	18.04	18.05	0.01	3,608.64
	06/24/03	3,626.68	18.05	18.06	0.01	3,608.63
	07/10/03	3,626.68	18.06	18.07	0.01	3,608.62
	08/12/03	3,626.68	18.07	18.08	0.01	3,608.61
	11/07/03	3,626.68	18.04	18.10	0.06	3,608.63
	12/29/03	3,626.68	18.05	18.10	0.05	3,608.62
	03/03/04	3,626.68	18.04	18.10	0.06	3,608.63
	03/24/04	3,626.68	18.21	18.22	0.01	3,608.47
	05/11/04	3,626.68	18.09	18.11	0.02	3,608.59
	06/11/04	3,626.68	Sheen	18.18	0.00	3,608.50
	07/08/04	3,626.68	Sheen	18.14	0.00	3,608.54
	08/17/04	3,626.68	Sheen	18.10	0.00	3,608.58
	09/13/04	3,626.68	Sheen	18.20	0.00	3,608.48
	10/06/04	3,626.68	Sheen	13.30	0.00	3,613.38
	11/16/04	3,626.68	Sheen	17.73	0.00	3,608.95
	12/10/04	3,626.68	Sheen	17.91	0.00	3,608.77
	01/14/05	3,626.68	-	18.21	0.00	3,608.47
	02/21/05	3,626.68	-	18.33	0.00	3,608.35
	05/09/05	3,626.68	-	18.68	0.00	3,608.00
	11/18/05	Not Gauged				
	11/22/05	Not Gauged				
	01/12/06	3,626.68	-	18.50	0.00	3,608.18
	03/03/06	3,626.68	-	19.74	0.00	3,606.94
	03/16/06	3,626.68	-	19.80	0.00	3,606.88
	03/20/06	3,626.68	-	19.65	0.00	3,607.03
	03/21/06	3,626.68	-	19.34	0.00	3,607.34
	04/11/06	3,626.68	-	19.06	0.00	3,607.62
	07/20/06	3,626.68	-	19.46	0.00	3,607.22
	08/09/06	3,626.68	-	19.16	0.00	3,607.52
	10/17/06	3,626.68	-	19.06	0.00	3,607.62
	11/27/06	3,626.68	-	19.07	0.00	3,607.61
	12/11/06	3,626.68	-	19.10	0.00	3,607.58
	01/04/07	3,626.68	-	19.10	0.00	3,607.58
	03/21/07	3,626.68	-	19.06	0.00	3,607.62
	04/26/07	3,626.68	-	19.04	0.00	3,607.64
	05/31/07	3,626.68	-	19.06	0.00	3,607.62
	06/20/07	3,626.68	-	19.05	0.00	3,607.63
	07/31/07	3,626.68	-	19.05	0.00	3,607.63
	08/13/07	3,626.68	-	19.05	0.00	3,607.63
	09/26/07	3,626.68	-	19.04	0.00	3,607.64

TABLE 1

## GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	
RW-1	10/16/07	3,626.68	-	19.05	0.00	3,607.63	
	11/07/07	3,626.68	-	19.06	0.00	3,607.62	
	12/06/07	3,626.68	-	19.08	0.00	3,607.60	
	03/13/08	3,626.68	-	19.10	0.00	3,607.58	
	06/21/08	3,626.68	-	19.11	0.00	3,607.57	
	09/18/08	3,626.68	-	19.12	0.00	3,607.56	
	10/21/08	3,626.68	-	19.08	0.00	3,607.60	
	11/19/08	3,626.68	-	19.09	0.00	3,607.59	
	12/16/08	3,626.68	-	19.07	0.00	3,607.61	
RW-2	01/02/03	3,626.71	17.02	17.03	0.01	3,609.69	
	01/06/03	3,626.71	Sheen	19.08	0.00	3,607.63	
	01/13/03	3,626.71	-	16.01	0.00	3,610.70	
	01/28/03	3,626.71	-	16.03	0.00	3,610.68	
	01/30/03	3,626.71	-	16.01	0.00	3,610.70	
	03/03/03	3,626.71	-	16.07	0.00	3,610.64	
	02/11/04	3,626.71	-	21.20	0.00	3,605.51	
	03/24/04	3,626.71	-	18.36	0.00	3,608.35	
	05/11/04	3,626.71	-	18.40	0.00	3,608.31	
	06/11/04	3,626.71	-	18.53	0.00	3,608.18	
	07/08/04	3,626.71	-	18.57	0.00	3,608.14	
	08/17/04	3,626.71	-	18.56	0.00	3,608.15	
	09/13/04	3,626.71	-	18.48	0.00	3,608.23	
	10/06/04	3,626.71	-	13.75	0.00	3,612.96	
	11/16/04	3,626.71	-	17.66	0.00	3,609.05	
	12/10/04	3,626.71	-	17.80	0.00	3,608.91	
	01/14/05	3,626.71	-	18.49	0.00	3,608.22	
	02/21/05	3,626.71	-	18.57	0.00	3,608.14	
	05/09/05	3,626.71	-	16.68	0.00	3,610.03	
	11/18/05			Not Gauged			
	11/22/05			Not Gauged			
		01/12/06	3,626.71	-	19.00	0.00	3,607.71
		03/03/06	3,626.71	-	18.56	0.00	3,608.15
	03/16/06	3,626.71	-	18.78	0.00	3,607.93	
	03/20/06	3,626.71	-	19.78	0.00	3,606.93	
	03/21/06	3,626.71	-	18.48	0.00	3,608.23	
	04/11/06	3,626.71	-	18.75	0.00	3,607.96	
	07/20/06	3,626.71	-	18.85	0.00	3,607.86	
	08/09/06	3,626.71	-	19.51	0.00	3,607.20	
	10/17/06	3,626.71	-	20.47	0.00	3,606.24	
	11/27/06	3,626.71	-	20.56	0.00	3,606.15	

TABLE 1

GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
RW-2	12/11/06	3,626.71	-	20.55	0.00	3,606.16
	01/04/07	3,626.71	-	20.61	0.00	3,606.10
	03/21/07	3,626.71	-	20.55	0.00	3,606.16
	04/26/07	3,626.71	-	20.40	0.00	3,606.31
	05/31/07	3,626.71	-	20.42	0.00	3,606.29
	06/20/07	3,626.71	-	20.43	0.00	3,606.28
	07/31/07	3,626.71	-	20.45	0.00	3,606.26
	08/13/07	3,626.71	-	20.45	0.00	3,606.26
	09/26/07	3,626.71	-	20.46	0.00	3,606.25
	10/16/07	3,626.71	-	20.46	0.00	3,606.25
	11/07/07	3,626.71	-	20.46	0.00	3,606.25
	12/06/07	3,626.71	-	20.48	0.00	3,606.23
	03/13/08	3,626.71	-	20.52	0.00	3,606.19
	06/21/08	3,626.71	-	20.56	0.00	3,606.15
	09/18/08	3,626.71	-	20.58	0.00	3,606.13
	10/21/08	3,626.71	-	20.50	0.00	3,606.21
	11/19/08	3,626.71	-	20.41	0.00	3,606.30
	12/16/08	3,626.71	-	20.51	0.00	3,606.20
RW-3	01/02/03	3,623.35	-	19.45	0.00	3,603.90
	01/06/04	3,623.35	-	18.89	0.00	3,604.46
	01/13/03	3,623.35	-	23.74	0.00	3,599.61
	01/28/03	3,623.35	-	18.81	0.00	3,604.54
	01/30/03	3,623.35	-	23.74	0.00	3,599.61
	03/03/03	3,623.35	-	18.90	0.00	3,604.45
	02/11/04	3,623.35	-	21.26	0.00	3,602.09
	03/24/04	3,623.35	-	21.04	0.00	3,602.31
	05/11/04	3,623.35	-	20.74	0.00	3,602.61
	06/11/04	3,623.35	-	20.91	0.00	3,602.44
	07/08/04	3,623.35	-	20.86	0.00	3,602.49
	08/17/04	3,623.35	-	20.92	0.00	3,602.43
	09/13/04	3,623.35	-	21.00	0.00	3,602.35
	10/06/04	3,623.35	-	13.60	0.00	3,609.75
	11/16/04	3,623.35	-	18.85	0.00	3,604.50
	12/10/04	3,623.35	-	17.42	0.00	3,605.93
	01/14/05	3,623.35	-	20.14	0.00	3,603.21
	02/21/05	3,623.35	-	20.69	0.00	3,602.66
	05/09/05			Not Gauged		
	11/18/05			Not Gauged		
	11/22/05			Not Gauged		
	01/12/06	3,623.35	-	24.94	0.00	3,598.41

TABLE 1

GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
RW-3	03/03/06	3,623.35	-	21.31	0.00	3,602.04
	03/16/06	3,623.35	-	21.62	0.00	3,601.73
	03/20/06	3,623.35	-	21.33	0.00	3,602.02
	03/21/06	3,623.35	-	34.55	0.00	3,588.80
	04/11/06	3,623.35	-	21.60	0.00	3,601.75
	07/20/06	3,623.35	-	21.62	0.00	3,601.73
	08/09/06	3,623.35	-	21.01	0.00	3,602.34
	10/17/06	3,623.35	-	19.79	0.00	3,603.56
	11/27/06	3,623.35	-	20.38	0.00	3,602.97
	12/11/06	3,623.35	-	20.58	0.00	3,602.77
	01/04/07	3,623.35	-	20.80	0.00	3,602.55
	03/21/07	3,623.35	-	21.04	0.00	3,602.31
	04/26/07	3,623.35	-	20.93	0.00	3,602.42
	05/31/07	3,623.35	-	20.77	0.00	3,602.58
	06/20/07	3,623.35	-	20.78	0.00	3,602.57
	07/31/07	3,623.35	-	20.83	0.00	3,602.52
	08/13/07	3,623.35	-	20.86	0.00	3,602.49
	09/26/07	3,623.35	-	20.90	0.00	3,602.45
	10/16/07	3,623.35	-	20.89	0.00	3,602.46
	11/07/07	3,623.35	-	20.90	0.00	3,602.45
	12/06/07	3,623.35	-	21.04	0.00	3,602.31
	03/13/08	3,623.35	-	21.18	0.00	3,602.17
	06/21/08	3,623.35	-	21.24	0.00	3,602.11
	09/18/08	3,623.35	-	21.20	0.00	3,602.15
	10/21/08	3,623.35	-	21.16	0.00	3,602.19
	11/19/08	3,623.35	-	21.01	0.00	3,602.34
	12/16/08	3,623.35	-	21.09	0.00	3,602.26

TABLE 2

## CONCENTRATIONS OF BENZENE AND BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030				
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)
MW-1	01/30/03	<0.001	<0.001	<0.001	<0.001	<0.001
	03/03/03	<0.001	<0.001	<0.001	<0.001	<0.001
	02/11/04	<0.001	<0.001	<0.001	<0.002	<0.001
	08/17/04	<0.001	<0.001	<0.001	<0.002	<0.001
	05/09/05	<0.001	<0.001	<0.001	<0.002	<0.001
	11/22/05	<0.001	<0.001	<0.001	<0.002	<0.001
	03/21/06	<0.001	<0.001	<0.001	<0.002	<0.001
	06/01/06	<0.001	<0.001	<0.001	<0.002	<0.001
	08/09/06	<0.001	<0.001	<0.001	<0.002	<0.001
	11/27/06	<0.001	<0.001	<0.001	<0.002	<0.001
	03/21/07	<0.001	<0.001	<0.001	<0.001	<0.001
	05/31/07	<0.001	0.002	<0.001	<0.001	<0.001
	09/26/07	<0.001	<0.001	<0.001	<0.002	<0.001
	12/06/07	<0.001	<0.002	<0.001	<0.002	<0.001
	03/13/08	<0.001	<0.002	<0.001	<0.002	<0.001
	06/21/08	<0.001	<0.002	<0.001	<0.002	<0.001
	09/18/08	<0.001	<0.002	<0.001	<0.002	<0.001
11/19/08	<0.001	<0.002	<0.001	<0.002	<0.001	
MW-2	01/30/03	<0.001	<0.001	<0.001	<0.001	0.004
	03/03/03	<0.001	<0.001	<0.001	<0.001	<0.001
	02/11/04	<0.001	<0.001	<0.001	<0.002	<0.001
	08/17/04	<0.001	<0.001	<0.001	<0.002	<0.001
	05/09/05	<0.001	<0.001	<0.001	<0.002	<0.001
	11/18/05	<0.001	<0.001	<0.001	<0.002	<0.001
	03/21/06	<0.001	0.002	<0.001	<0.002	<0.001
	06/01/06	<0.001	<0.001	<0.001	<0.002	<0.001
	08/09/06	<0.001	<0.001	<0.001	<0.002	<0.001
	11/27/06	0.001	<0.001	<0.001	<0.002	<0.001
	03/22/07	<0.001	<0.001	<0.001	<0.001	<0.001
	06/01/07	<0.001	<0.001	<0.001	<0.001	<0.001
	09/26/07	<0.001	<0.001	<0.001	<0.002	<0.001
	12/06/07	<0.001	<0.002	<0.001	<0.002	<0.001
	03/13/08	<0.001	<0.002	<0.001	<0.002	<0.001
	06/21/08	<0.001	<0.002	<0.001	<0.002	<0.001
	09/18/08	<0.001	<0.002	<0.001	<0.002	<0.001
11/19/08	<0.001	<0.002	<0.001	<0.002	<0.001	
MW-3	01/30/03	<0.001	<0.001	<0.001	<0.001	<0.001
	03/03/03	<0.001	<0.001	<0.001	<0.001	<0.001

TABLE 2

CONCENTRATIONS OF BENZENE AND BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030				
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)
MW-3	02/11/04	<0.001	<0.001	<0.001	<0.002	<0.001
	08/17/04	<0.001	<0.001	<0.001	<0.002	<0.001
	05/09/05	<0.001	<0.001	<0.001	<0.002	<0.001
	11/18/05	<0.001	<0.001	<0.001	<0.002	<0.001
	03/21/06	<0.001	<0.001	<0.001	<0.002	<0.001
	06/01/06	<0.001	<0.001	<0.001	<0.002	<0.001
	08/09/06	<0.001	<0.001	<0.001	<0.002	<0.001
	11/27/06	<0.001	<0.001	<0.001	<0.002	<0.001
	03/21/07	<0.001	<0.001	<0.001	<0.001	<0.001
	05/31/07	<0.001	0.002	<0.001	<0.001	<0.001
	09/26/07	<0.001	<0.001	<0.001	<0.002	<0.001
	12/06/07	<0.001	<0.002	<0.001	<0.002	<0.001
	03/13/08	<0.001	<0.002	<0.001	<0.002	<0.001
	06/21/08	<0.001	<0.002	<0.001	<0.002	<0.001
	09/18/08	<0.001	<0.002	<0.001	<0.002	<0.001
11/19/08	<0.001	<0.002	<0.001	<0.002	<0.001	
MW-4	01/30/03	<0.001	<0.001	<0.001	<0.001	<0.001
	03/03/03	<0.001	<0.001	<0.001	<0.001	<0.001
	02/11/04	<0.001	<0.001	<0.001	<0.002	<0.001
	08/17/04	<0.001	<0.001	<0.001	<0.002	<0.001
	05/09/05	<0.001	<0.001	<0.001	<0.002	<0.001
	11/18/05	<0.001	<0.001	<0.001	<0.002	<0.001
	03/21/06	<0.001	0.003	0.001	<0.002	<0.001
	06/01/06	<0.001	<0.001	<0.001	<0.002	<0.001
	08/09/06	0.001	<0.002	0.010	0.005	<0.001
	11/27/06	<0.001	<0.001	<0.001	<0.002	<0.001
	03/21/07	<0.001	<0.001	<0.001	<0.001	<0.001
	05/31/07	<0.001	0.007	<0.001	<0.001	<0.001
	09/26/07	<0.001	<0.001	<0.001	<0.002	<0.001
	12/06/07	<0.001	<0.002	<0.001	<0.002	<0.001
	03/13/08	<0.001	0.002	<0.001	<0.002	<0.001
06/21/08	<0.001	<0.002	<0.001	<0.002	<0.001	
09/18/08	<0.001	<0.002	<0.001	<0.002	<0.001	
11/19/08	<0.001	<0.002	<0.001	<0.002	<0.001	
MW-5	01/30/03	<0.001	<0.001	<0.001	<0.001	<0.001
	03/03/03	<0.001	<0.001	<0.001	<0.001	<0.001
	02/11/04	<0.001	<0.001	<0.001	<0.002	<0.001
	08/17/04	<0.001	<0.001	<0.001	<0.002	<0.001

TABLE 2

## CONCENTRATIONS OF BENZENE AND BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030				
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)
MW-5	05/09/05	<0.001	<0.001	<0.001	<0.002	<0.001
	11/18/05	<0.001	<0.001	<0.001	<0.002	<0.001
	03/21/06	<0.001	<0.001	<0.001	<0.002	<0.001
	06/01/06	<0.001	<0.001	<0.001	<0.002	<0.001
	08/09/06	<0.001	<0.001	<0.001	<0.002	<0.001
	11/27/06	<0.001	<0.001	<0.001	<0.002	<0.001
	03/22/07	<0.001	<0.001	<0.001	<0.001	<0.001
	06/01/07	<0.001	<0.001	<0.001	<0.001	<0.001
	09/26/07	<0.001	<0.001	<0.001	<0.002	<0.001
	12/06/07	<0.001	<0.002	<0.001	<0.002	<0.001
	03/13/08	<0.001	<0.002	<0.001	<0.002	<0.001
	06/21/08	<0.001	<0.002	<0.001	<0.002	<0.001
	09/18/08	<0.001	<0.002	<0.001	<0.002	<0.001
11/19/08	<0.001	<0.002	<0.001	<0.002	<0.001	
MW-9	09/20/05	0.003	0.009	0.003	0.007	0.002
	03/21/06	<0.001	<0.001	<0.001	<0.002	<0.001
	06/01/06	<0.001	<0.001	<0.001	<0.002	<0.001
	08/09/06	<0.001	<0.001	<0.001	<0.002	<0.001
	11/27/06	<0.001	<0.001	<0.001	<0.002	<0.001
	03/21/07	<0.001	<0.001	<0.001	<0.001	<0.001
	06/01/07	<0.001	<0.001	<0.001	<0.001	<0.001
	09/26/07	<0.001	<0.001	<0.001	<0.002	<0.001
	12/06/07	<0.001	<0.002	<0.001	<0.002	<0.001
	03/13/08	<0.001	<0.002	<0.001	<0.002	<0.001
	06/21/08	<0.001	<0.002	<0.001	<0.002	<0.001
	09/18/08	<0.001	<0.002	<0.001	<0.002	<0.001
	11/19/08	<0.001	<0.002	<0.001	<0.002	<0.001
RW-1	01/30/03	<0.001	<0.001	<0.001	<0.001	<0.001
	03/03/03	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
	02/11/04	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
	08/17/04	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
	05/09/05	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
	11/22/05	<0.001	<0.001	<0.001	<0.002	<0.001
	03/21/06	<0.001	<0.001	<0.001	<0.002	<0.001
	06/01/06	0.002	<0.001	<0.001	<0.002	<0.001
	08/09/06	0.001	<0.001	0.009	0.005	<0.001
	11/27/06	<b>0.020</b>	<0.001	0.035	0.004	0.001
03/22/07	<0.001	<0.001	<0.001	<0.001	<0.001	

TABLE 2

## CONCENTRATIONS OF BENZENE AND BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030				
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)
RW-1	06/01/07	<0.001	<0.001	<0.001	<0.001	<0.001
	09/26/07	0.013	<0.001	<0.001	<0.002	<0.001
	12/06/07	<0.001	<0.002	<0.001	<0.002	<0.001
	03/13/08	<0.001	<0.002	<0.001	<0.002	<0.001
	06/21/08	<0.001	<0.002	<0.001	<0.002	<0.001
	09/18/08	0.001	<0.002	<0.001	<0.002	<0.001
	11/19/08	<0.001	<0.002	<0.001	<0.002	<0.001
RW-2	01/30/03	0.008	<0.001	<0.001	0.001	0.001
	03/03/03	0.002	<0.001	<0.001	<0.001	<0.001
	02/11/04	<0.001	<0.001	<0.001	<0.002	<0.001
	08/17/04	<0.001	<0.001	<0.001	<0.002	<0.001
	05/09/05	<0.001	<0.001	<0.001	<0.002	<0.001
	11/22/05	<0.001	<0.001	<0.001	<0.002	<0.001
	03/21/06	<0.001	<0.001	<0.001	<0.002	<0.001
	06/01/06	<0.001	<0.001	<0.001	<0.002	<0.001
	08/09/06	<0.001	<0.001	<0.001	<0.002	<0.001
	11/27/06	<0.001	<0.001	<0.001	<0.002	<0.001
	03/22/07	<0.001	<0.001	<0.001	<0.001	<0.001
	06/01/07	<0.001	0.001	<0.001	<0.001	<0.001
	09/26/07	<0.001	<0.001	<0.001	<0.002	<0.001
	12/06/07	<0.001	<0.002	<0.001	<0.002	<0.001
	03/13/08	<0.001	<0.002	<0.001	<0.002	<0.001
	06/21/08	<0.001	<0.002	<0.001	<0.002	<0.001
09/18/08	<0.001	<0.002	<0.001	<0.002	<0.001	
11/19/08	<0.001	<0.002	<0.001	<0.002	<0.001	
RW-3	01/30/03	<0.001	<0.001	<0.001	<0.001	<0.001
	03/03/03	<0.001	<0.001	<0.001	<0.001	<0.001
	02/11/04	<0.001	<0.001	<0.001	<0.002	<0.001
	08/17/04	<0.001	<0.001	<0.001	<0.002	<0.001
	05/09/05	<0.001	<0.001	<0.001	<0.002	<0.001
	11/18/05	<0.001	<0.001	<0.001	<0.002	<0.001
	03/21/06	<0.001	0.008	0.001	<0.002	<0.001
	06/01/06	<0.001	<0.001	<0.001	<0.002	<0.001
	08/09/06	<0.001	<0.001	<0.001	<0.002	<0.001
	11/27/06	<0.001	<0.001	<0.001	<0.002	<0.001
	03/22/07	<0.001	<0.001	<0.001	<0.001	<0.001
	06/01/07	<0.001	0.001	<0.001	<0.001	<0.001
	09/26/07	<0.001	<0.001	<0.001	<0.002	<0.001

TABLE 2

CONCENTRATIONS OF BENZENE AND BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
 VACUUM 10-INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO: 2002-10248  
 NMOCD REF NO: 1RP-0385

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030				
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)
RW-3	12/06/07	0.001	<0.002	<0.001	<0.002	<0.001
	03/13/08	<0.001	<0.002	<0.001	<0.002	<0.001
	06/21/08	<0.001	<0.002	<0.001	<0.002	<0.001
	09/18/08	<0.001	<0.002	<0.001	<0.002	<0.001
	11/19/08	<0.001	<0.002	<0.001	<0.002	<0.001
NMOCD CRITERIA (mg/L)		0.01	0.75	0.75	0.62	

TABLE 3

CONCENTRATIONS OF POLY AROMATIC HYDROCARBONS IN GROUNDWATER

PLAINS MARKETING, L.P.  
 VACUUM 10 INCH TO JAL  
 LEA COUNTY, NEW MEXICO  
 PLAINS SRS NO. 2006-10248  
 NMOCD REF NO: 1RP-385

Sample Location	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)Anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)Pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
MW-1	11/19/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-2	11/19/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-3	11/19/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-4	11/19/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-5	11/19/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-9	11/19/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
RW-1	11/19/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
RW-2	11/19/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
RW-3	11/19/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

METHOD: EPA SW 846 8270C



# Appendices

**Appendix A**  
**Laboratory Reports**

**Analytical Report 299638**  
**for**  
**PLAINS ALL AMERICAN EH&S**

**Project Manager: Camille Reynolds**

**Vacuum 10-Inch to Jal**

**2002-10248**

**28-MAR-08**



**12600 West I-20 East Odessa, Texas 79765**

Texas certification numbers:  
Houston, TX T104704215

Florida certification numbers:  
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675  
Norcross(Atlanta), GA E87429

South Carolina certification numbers:  
Norcross(Atlanta), GA 98015

North Carolina certification numbers:  
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America  
Midland - Corpus Christi - Atlanta



28-MAR-08

Project Manager: **Camille Reynolds**  
**PLAINS ALL AMERICAN EH&S**  
1301 S. COUNTY ROAD 1150  
Midland, TX 79706

Reference: XENCO Report No: **299638**  
**Vacuum 10-Inch to Jal**  
Project Address: Lea County, NM

**Camille Reynolds:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 299638. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 299638 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink, appearing to read "Brent Barron, II", written over a horizontal line.

**Brent Barron, II**

Odessa Laboratory Manager

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*Certified and approved by numerous States and Agencies.*

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**Sample Cross Reference 299638**



**PLAINS ALL AMERICAN EH&S, Midland, TX**  
Vacuum 10-Inch to Jal

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
MW-1	W	Mar-13-08 08:00		299638-001
MW-3	W	Mar-13-08 08:40		299638-002
MW-4	W	Mar-13-08 09:45		299638-003
MW-5	W	Mar-13-08 10:35		299638-004
MW-9	W	Mar-13-08 11:40		299638-005
MW-2	W	Mar-13-08 12:50		299638-006
RW-3	W	Mar-13-08 13:55		299638-007
RW-2	W	Mar-13-08 14:45		299638-008
RW-1	W	Mar-13-08 15:30		299638-009



**Certificate of Analysis Summary 299638**  
**PLAINS ALL AMERICAN EH&S, Midland, TX**



**Project Id:** 2002-10248  
**Contact:** Camille Reynolds  
**Project Location:** Lea County, NM

**Date Received in Lab:** Fri Mar-14-08 12:10 pm  
**Report Date:** 28-MAR-08  
**Project Manager:** Brent Barron, II

**Project Name:** Vacuum 10-Inch to Jal

Analysis Requested	Lab Id: Field Id: Depth: Matrix: Sampled: Extracted: Analyzed: Units/RL:	299638-007	299638-008	299638-009
		RW-3 WATER Mar-13-08 13:55	RW-2 WATER Mar-13-08 14:45	RW-1 WATER Mar-13-08 15:30
<b>BTEX-MTBE by EPA 8021B</b>		Mar-17-08 17:00 Mar-18-08 03:10 mg/L RL	Mar-17-08 17:00 Mar-18-08 03:28 mg/L RL	Mar-17-08 17:00 Mar-18-08 03:46 mg/L RL
Benzene		ND 0.0010	ND 0.0010	ND 0.0010
Toluene		ND 0.0020	ND 0.0020	ND 0.0020
Ethylbenzene		ND 0.0010	ND 0.0010	ND 0.0010
m,p-Xylenes		ND 0.0020	ND 0.0020	ND 0.0020
o-Xylene		ND 0.0010	ND 0.0010	ND 0.0010
Xylenes, Total		ND	ND	ND
Total BTEX		ND	ND	ND

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

  
 Brent Barron  
 Odessa Laboratory Director



## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
  - B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
  - D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
  - E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
  - F** RPD exceeded lab control limits.
  - J** The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
  - U** Analyte was not detected.
  - L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
  - H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
  - K** Sample analyzed outside of recommended hold time.
- \* Outside XENCO'S scope of NELAC Accreditation

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5332 Blackberry Drive, Suite 104, San Antonio, TX 78238  
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Phone	Fax
(281) 589-0692	(281) 589-0695
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477



# Form 2 - Surrogate Recoveries



Project Name: Vacuum 10-Inch to Jal

Work Order #: 299638

Project ID: 2002-10248

Lab Batch #: 717385

Sample: 299637-002 S / MS

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0337	0.0300	112	80-120	

Lab Batch #: 717385

Sample: 299637-002 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

Lab Batch #: 717385

Sample: 299638-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0329	0.0300	110	80-120	
4-Bromofluorobenzene	0.0338	0.0300	113	80-120	

Lab Batch #: 717385

Sample: 299638-002 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0333	0.0300	111	80-120	
4-Bromofluorobenzene	0.0333	0.0300	111	80-120	

Lab Batch #: 717385

Sample: 299638-003 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0327	0.0300	109	80-120	
4-Bromofluorobenzene	0.0339	0.0300	113	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are below MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries



Project Name: Vacuum 10-Inch to Jal

Work Order #: 299638

Project ID: 2002-10248

Lab Batch #: 717385

Sample: 299638-004 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0331	0.0300	110	80-120	
4-Bromofluorobenzene	0.0341	0.0300	114	80-120	

Lab Batch #: 717385

Sample: 299638-005 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0329	0.0300	110	80-120	
4-Bromofluorobenzene	0.0340	0.0300	113	80-120	

Lab Batch #: 717385

Sample: 299638-006 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0.0300	111	80-120	
4-Bromofluorobenzene	0.0328	0.0300	109	80-120	

Lab Batch #: 717385

Sample: 299638-007 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0331	0.0300	110	80-120	
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

Lab Batch #: 717385

Sample: 299638-008 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0332	0.0300	111	80-120	
4-Bromofluorobenzene	0.0327	0.0300	109	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries



Project Name: Vacuum 10-Inch to Jal

Work Order #: 299638

Project ID: 2002-10248

Lab Batch #: 717385

Sample: 299638-009 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0330	0.0300	110	80-120	
4-Bromofluorobenzene	0.0339	0.0300	113	80-120	

Lab Batch #: 717385

Sample: 506013-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 717385

Sample: 506013-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0334	0.0300	111	80-120	
4-Bromofluorobenzene	0.0327	0.0300	109	80-120	

Lab Batch #: 717385

Sample: 506013-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX-MTBE by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.

Project Name: Vacuum 10-Inch to Jal

Work Order #: 299638

Project ID: 2002-10248

Analyst: SHE

Date Analyzed: 03/17/2008

Date Prepared: 03/17/2008

Lab Batch ID: 717385

Sample: 506013-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX-MTBE by EPA 8021B											
Benzene	ND	0.1000	0.0919	92	0.1	0.0969	97	5	70-125	25	
Toluene	ND	0.1000	0.0919	92	0.1	0.0973	97	6	70-125	25	
Ethylbenzene	ND	0.1000	0.0945	95	0.1	0.1011	101	7	71-129	25	
m,p-Xylenes	ND	0.2000	0.1862	93	0.2	0.1997	100	7	70-131	25	
o-Xylene	ND	0.1000	0.0973	97	0.1	0.1044	104	7	71-133	25	

Relative Percent Difference RPD =  $200 * (D-F) / (D+F)$

Blank Spike Recovery [D] =  $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



Project Name: Vacuum 10-Inch to Jal

Work Order #: 299638

Lab Batch ID: 717385

Date Analyzed: 03/18/2008

Reporting Units: mg/L

Project ID: 2002-10248

QC- Sample ID: 299637-002 S Batch #: 1 Matrix: Water

Date Prepared: 03/17/2008 Analyst: SHE

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.1001	100	0.1000	0.0974	97	3	70-125	25	
Toluene	ND	0.1000	0.1019	102	0.1000	0.0990	99	3	70-125	25	
Ethylbenzene	ND	0.1000	0.1040	104	0.1000	0.1017	102	2	71-129	25	
m,p-Xylenes	ND	0.2000	0.2037	102	0.2000	0.1996	100	2	70-131	25	
o-Xylene	ND	0.1000	0.1080	108	0.1000	0.1055	106	2	71-133	25	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B  
Relative Percent Difference RPD = 200\*(D-G)/(D+G)

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQ = Estimated Quantitation Limit

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

# Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST  
 12600 West L20 East  
 Odessa, Texas 79765  
 Phone: 432-563-1800  
 Fax: 432-563-1713

Project Manager: Ken Dutton PAGE 01 OF 01  
 Company Name: Bain Environmental Services Technologies, LLC  
 Company Address: P. O. Box 301  
 City/State/Zip: Lowington, NM 88260  
 Telephone No: (505) 441-2124 Fax No: (505) 396-1429  
 Sampler Signature: *Ken Dutton* e-mail: kldutton@basinerv.com  
 Project Name: VACUUM 10-INCH TO JAL  
 Project #: 2002-10248  
 Project Loc: Lee County, NM  
 PO #: PA4 - C. J. Reynolds  
 Report Format:  Standard  TRRP  NPDES

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Total # of Containers	Field Filtered	Preservation L / of Containers	Maint	Analyze For:	Standard
01	MW-1			13-Mar-08	0800	2	X	None	GW	Metals: As, Ag, Ba, Cd, Cr, Pb, Hg, Se SAR / ESP / CEC Anions (Cl, SO4, Alkalinity) Cations (Ca, Mg, Na, Ni) TPH: TX 1005 TX 1008 MP: 418.1 8015M 8015B MP - Non-Petroleum Specific Oils	NORM
02	MW-3			13-Mar-08	0840	2	X	None	GW	Metals: As, Ag, Ba, Cd, Cr, Pb, Hg, Se SAR / ESP / CEC Anions (Cl, SO4, Alkalinity) Cations (Ca, Mg, Na, Ni) TPH: TX 1005 TX 1008 MP: 418.1 8015M 8015B MP - Non-Petroleum Specific Oils	NORM
03	MW-4			13-Mar-08	0945	2	X	None	GW	Metals: As, Ag, Ba, Cd, Cr, Pb, Hg, Se SAR / ESP / CEC Anions (Cl, SO4, Alkalinity) Cations (Ca, Mg, Na, Ni) TPH: TX 1005 TX 1008 MP: 418.1 8015M 8015B MP - Non-Petroleum Specific Oils	NORM
04	MW-5			13-Mar-08	1035	2	X	None	GW	Metals: As, Ag, Ba, Cd, Cr, Pb, Hg, Se SAR / ESP / CEC Anions (Cl, SO4, Alkalinity) Cations (Ca, Mg, Na, Ni) TPH: TX 1005 TX 1008 MP: 418.1 8015M 8015B MP - Non-Petroleum Specific Oils	NORM
05	MW-9			13-Mar-08	1140	2	X	None	GW	Metals: As, Ag, Ba, Cd, Cr, Pb, Hg, Se SAR / ESP / CEC Anions (Cl, SO4, Alkalinity) Cations (Ca, Mg, Na, Ni) TPH: TX 1005 TX 1008 MP: 418.1 8015M 8015B MP - Non-Petroleum Specific Oils	NORM
06	MW-2			13-Mar-08	1250	2	X	None	GW	Metals: As, Ag, Ba, Cd, Cr, Pb, Hg, Se SAR / ESP / CEC Anions (Cl, SO4, Alkalinity) Cations (Ca, Mg, Na, Ni) TPH: TX 1005 TX 1008 MP: 418.1 8015M 8015B MP - Non-Petroleum Specific Oils	NORM
07	RW-3			13-Mar-08	1355	2	X	None	GW	Metals: As, Ag, Ba, Cd, Cr, Pb, Hg, Se SAR / ESP / CEC Anions (Cl, SO4, Alkalinity) Cations (Ca, Mg, Na, Ni) TPH: TX 1005 TX 1008 MP: 418.1 8015M 8015B MP - Non-Petroleum Specific Oils	NORM
08	RW-2			13-Mar-08	1445	2	X	None	GW	Metals: As, Ag, Ba, Cd, Cr, Pb, Hg, Se SAR / ESP / CEC Anions (Cl, SO4, Alkalinity) Cations (Ca, Mg, Na, Ni) TPH: TX 1005 TX 1008 MP: 418.1 8015M 8015B MP - Non-Petroleum Specific Oils	NORM
09	RW-1			13-Mar-08	1530	2	X	None	GW	Metals: As, Ag, Ba, Cd, Cr, Pb, Hg, Se SAR / ESP / CEC Anions (Cl, SO4, Alkalinity) Cations (Ca, Mg, Na, Ni) TPH: TX 1005 TX 1008 MP: 418.1 8015M 8015B MP - Non-Petroleum Specific Oils	NORM

Special Instructions:

Received by: *Ken Dutton* Date: 3/14/08 Time: 12:10  
 Received by: *Dilly Blackwood* Date: 3/14/08 Time: 08:00  
 Received by: *Dilly Blackwood* Date: 3/14/08 Time: 08:00  
 Received by: *Dilly Blackwood* Date: 3/14/08 Time: 12:10

Laboratory Comments:  
 Sample Containers Intact?  N  
 VOCs Free of Headspace?  N  
 Labels on container(s)  N  
 Custody seals on container(s)  N  
 Custody seals on cooler(s)  N  
 Sample Hand Delivered  N  
 by Sampler/Client Rep.?  N  
 by Courier?  N  
 by Courier?  N  
 Temperature Upon Receipt: 50 °C

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

Client: Plains  
Date/ Time: 3 14 08 12:10  
Lab ID #: 279638  
Initials: al

**Sample Receipt Checklist**

	Yes	No	Client Initials
#1 Temperature of container/ cooler?	<input checked="" type="checkbox"/>		50 °C
#2 Shipping container in good condition?	<input checked="" type="checkbox"/>		
#3 Custody Seals intact on shipping container/ cooler?	<input checked="" type="checkbox"/>		Not Present
#4 Custody Seals intact on sample bottles/ container?	<input checked="" type="checkbox"/>		Not Present
#5 Chain of Custody present?	<input checked="" type="checkbox"/>		
#6 Sample instructions complete of Chain of Custody?	<input checked="" type="checkbox"/>		
#7 Chain of Custody signed when relinquished/ received?	<input checked="" type="checkbox"/>		
#8 Chain of Custody agrees with sample label(s)?	<input checked="" type="checkbox"/>		ID written on Cont./ Lid
#9 Container label(s) legible and intact?	<input checked="" type="checkbox"/>		Not Applicable
#10 Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="checkbox"/>		
#11 Containers supplied by ELOT?	<input checked="" type="checkbox"/>		
#12 Samples in proper container/ bottle?	<input checked="" type="checkbox"/>		See Below
#13 Samples properly preserved?	<input checked="" type="checkbox"/>		See Below
#14 Sample bottles intact?	<input checked="" type="checkbox"/>		
#15 Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/>		
#16 Containers documented on Chain of Custody?	<input checked="" type="checkbox"/>		
#17 Sufficient sample amount for indicated test(s)?	<input checked="" type="checkbox"/>		See Below
#18 All samples received within sufficient hold time?	<input checked="" type="checkbox"/>		See Below
#19 Subcontract of sample(s)?	<input checked="" type="checkbox"/>		Not Applicable
#20 VOC samples have zero headspace?	<input checked="" type="checkbox"/>		Not Applicable

**Variance Documentation**

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

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event

# **Analytical Report 306425**

**for**

## **PLAINS ALL AMERICAN EH&S**

**Project Manager: Camille Reynolds**

**Vacuum 10-inch to Jal**

**2002-10248**

**27-JUN-08**



**12600 West I-20 East Odessa, Texas 79765**

Texas certification numbers:  
Houston, TX T104704215

Florida certification numbers:  
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675  
Norcross(Atlanta), GA E87429

South Carolina certification numbers:  
Norcross(Atlanta), GA 98015

North Carolina certification numbers:  
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America  
Midland - Corpus Christi - Atlanta



27-JUN-08

Project Manager: **Camille Reynolds**  
**PLAINS ALL AMERICAN EH&S**  
1301 S. COUNTY ROAD 1150  
Midland, TX 79706

Reference: XENCO Report No: **306425**  
**Vacuum 10-inch to Jal**  
Project Address: Lea County, NM

**Camille Reynolds:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 306425. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 306425 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink, appearing to read "Brent Barron, II", written over a horizontal line.

**Brent Barron, II**

Odessa Laboratory Manager

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*Certified and approved by numerous States and Agencies.*

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**Sample Cross Reference 306425**



**PLAINS ALL AMERICAN EH&S, Midland, TX**

Vacuum 10-inch to Jal

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
MW-1	W	Jun-21-08 09:00		306425-001
MW-3	W	Jun-21-08 10:00		306425-002
MW-4	W	Jun-21-08 10:40		306425-003
MW-5	W	Jun-21-08 11:15		306425-004
MW-9	W	Jun-21-08 11:45		306425-005
MW-2	W	Jun-21-08 12:10		306425-006
RW-3	W	Jun-21-08 12:55		306425-007
RW-2	W	Jun-21-08 13:05		306425-008
RW-1	W	Jun-21-08 13:20		306425-009



**Certificate of Analysis Summary 306425**  
**PLAINS ALL AMERICAN EH&S, Midland, TX**

**Project Id:** 2002-10248  
**Contact:** Camille Reynolds  
**Project Location:** Lea County, NM

**Project Name:** Vacuum 10-inch to Jal

**Date Received in Lab:** Mon Jun-23-08 05:06 pm  
**Report Date:** 27-JUN-08

**Project Manager:** Brent Barron, II

Analysis Requested	Lab Id:	306425-001	306425-002	306425-003	306425-004	306425-005	306425-006
	Field Id:	MW-1	MW-3	MW-4	MW-5	MW-9	MW-2
	Depth:						
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	Sampled:	Jun-21-08 09:00	Jun-21-08 10:00	Jun-21-08 10:40	Jun-21-08 11:15	Jun-21-08 11:45	Jun-21-08 12:10
BTEX by EPA 8021B	Extracted:	Jun-26-08 10:00					
	Analyzed:	Jun-26-08 12:59	Jun-26-08 13:24	Jun-26-08 13:47	Jun-26-08 14:11	Jun-26-08 14:35	Jun-26-08 14:59
	Units/RL:	mg/L RL					
Benzene		ND 0.0010					
Toluene		ND 0.0020					
Ethylbenzene		ND 0.0010					
m,p-Xylenes		ND 0.0020					
o-Xylene		ND 0.0010					
Total Xylenes		ND	ND	ND	ND	ND	ND
Total BTEX		ND	ND	ND	ND	ND	ND

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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**Brent Barron**  
 Odessa Laboratory Director



**Certificate of Analysis Summary 306425**  
**PLAINS ALL AMERICAN EH&S, Midland, TX**

**Project Id:** 2002-10248  
**Contact:** Camille Reynolds  
**Project Location:** Lea County, NM

**Date Received in Lab:** Mon Jun-23-08 05:06 pm  
**Report Date:** 27-JUN-08  
**Project Manager:** Brent Barron, II

Analysis Requested	Lab Id:	306425-007	306425-008	306425-009	
	Field Id:	RW-3	RW-2	RW-1	
	Depth:				
	Matrix:	WATER	WATER	WATER	
	Sampled:	Jun-21-08 12:55	Jun-21-08 13:05	Jun-21-08 13:20	
	Extracted:	Jun-26-08 10:00	Jun-26-08 10:00	Jun-26-08 10:00	
	Analyzed:	Jun-26-08 15:23	Jun-26-08 15:47	Jun-26-08 16:11	
	Units/RL:	mg/L RL	mg/L RL	mg/L RL	
Benzene		ND 0.0010	ND 0.0010	ND 0.0010	
Toluene		ND 0.0020	ND 0.0020	ND 0.0020	
Ethylbenzene		ND 0.0010	ND 0.0010	ND 0.0010	
m,p-Xylenes		ND 0.0020	ND 0.0020	ND 0.0020	
o-Xylene		ND 0.0010	ND 0.0010	ND 0.0010	
Total Xylenes		ND	ND	ND	
Total BTEX		ND	ND	ND	

This analytical report, and the entire data package, it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work, order unless otherwise agreed to in writing.

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**Brent Barron**  
 Odessa Laboratory Director



## Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
  - B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
  - D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
  - E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
  - F RPD exceeded lab control limits.
  - J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
  - U Analyte was not detected.
  - L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
  - H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
  - K Sample analyzed outside of recommended hold time.
- \* Outside XENCO'S scope of NELAC Accreditation

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9701 Harry Hines Blvd , Dallas, TX 75220  
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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477



# Form 2 - Surrogate Recoveries



Project Name: Vacuum 10-inch to Jal

Work Order #: 306425

Project ID: 2002-10248

Lab Batch #: 726590

Sample: 306425-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 726590

Sample: 306425-001 S / MS

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	80-120	

Lab Batch #: 726590

Sample: 306425-001 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 726590

Sample: 306425-002 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 726590

Sample: 306425-003 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	0.0300	114	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries



Project Name: Vacuum 10-inch to Jal

Work Order #: 306425

Project ID: 2002-10248

Lab Batch #: 726590

Sample: 306425-004 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 726590

Sample: 306425-005 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 726590

Sample: 306425-006 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0.0300	111	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 726590

Sample: 306425-007 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0342	0.0300	114	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 726590

Sample: 306425-008 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0339	0.0300	113	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries



Project Name: Vacuum 10-inch to Jal

Work Order #: 306425

Project ID: 2002-10248

Lab Batch #: 726590

Sample: 306425-009 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0353	0.0300	118	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 726590

Sample: 511261-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0334	0.0300	111	80-120	

Lab Batch #: 726590

Sample: 511261-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 726590

Sample: 511261-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# BS / BSD Recoveries



Project Name: Vacuum 10-inch to Jal

Work Order #: 306425

Project ID: 2002-10248

Analyst: BRB

Date Prepared: 06/26/2008

Date Analyzed: 06/26/2008

Lab Batch ID: 726590

Sample: 511261-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

## BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021B											
Benzene	ND	0.1000	0.1034	103	0.1	0.0985	99	5	70-125	25	
Toluene	ND	0.1000	0.1019	102	0.1	0.0967	97	5	70-125	25	
Ethylbenzene	ND	0.1000	0.1143	114	0.1	0.1082	108	5	71-129	25	
m,p-Xylenes	ND	0.2000	0.2317	116	0.2	0.2192	110	6	70-131	25	
o-Xylene	ND	0.1000	0.1113	111	0.1	0.1053	105	6	71-133	25	

Relative Percent Difference RPD =  $200 * [(D-F) / (D+F)]$   
Blank Spike Recovery [D] =  $100 * (C) / (B)$   
Blank Spike Duplicate Recovery [G] =  $100 * (F) / (E)$   
All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



Project Name: Vacuum 10-inch to Jal

Work Order #: 306425

Project ID: 2002-10248

Lab Batch ID: 726590

QC- Sample ID: 306425-001 S Batch #: 1 Matrix: Water

Date Analyzed: 06/26/2008

Date Prepared: 06/26/2008 Analyst: BRB

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Analytes	BTEX by EPA 8021B	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
		Benzene		ND	0.1000	0.0904	90	0.1000	0.0856	86	5	70-125
Toluene		ND	0.1000	0.0869	87	0.1000	0.0823	82	6	70-125	6	
Ethylbenzene		ND	0.1000	0.0946	95	0.1000	0.0910	91	4	71-129	4	
m,p-Xylenes		ND	0.2000	0.1909	95	0.2000	0.1838	92	3	70-131	3	
o-Xylene		ND	0.1000	0.0951	95	0.1000	0.0915	92	3	71-133	3	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B  
Relative Percent Difference RPD = 200\*(D-G)/(D+G)

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

# Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST  
 12800 West 120 East  
 Odessa, Texas 79765  
 Phone: 432-563-1800  
 Fax: 432-563-1713

Project Name: VACUUM 10-INCH TO JAL  
 Project #: 2002-10248  
 Project Loc: Lea County, NM  
 PO #: FAA - C. J. Reynolds  
 Report Format:  Standard  TRRP  NPDES

Lab use only)	ORDER #:	306425	Sampler Signature:	<i>Curt Stanley</i>	e-mail:	<i>cstanley@basinenv.com</i>	City/State/Zip:	<u>Lovington, NM 88290</u>	Telephone No.:	<u>(505) 441-2124</u>	Fax No.:	<u>(505) 386-1429</u>
Lab use only)	FIELD CODE		Beginning Depth		Ending Depth	Date Sampled	Time Sampled	Time Filtered	Total # of Containers	Preservation & # of Containers	Method	Analysis For:
	MW-1					6/21/2008	900		2	X	GW	X
	MW-3					6/21/2008	1000		2	X	GW	X
	MW-4					6/21/2008	1040		2	X	GW	X
	MW-5					6/21/2008	1115		2	X	GW	X
	MW-9					6/21/2008	1145		2	X	GW	X
	MW-2					6/21/2008	1210		2	X	GW	X
	RW-3					6/21/2008	1255		2	X	GW	X
	RW-2					6/21/2008	1305		2	X	GW	X
	RW-1					6/21/2008	1320		2	X	GW	X

Special Instructions:

Received by: *[Signature]* Date: 6/23/08 Time: 1706

Relinquished by: *[Signature]* Date: 6/23/08 Time: 1706

Relinquished by: *[Signature]* Date: 6/23/08 Time: 1706

Temperature Upon Receipt: 40 °C

Lab use only)	ORDER #:	306425	Sampler Signature:	<i>Curt Stanley</i>	e-mail:	<i>cstanley@basinenv.com</i>	City/State/Zip:	<u>Lovington, NM 88290</u>	Telephone No.:	<u>(505) 441-2124</u>	Fax No.:	<u>(505) 386-1429</u>
Lab use only)	FIELD CODE		Beginning Depth		Ending Depth	Date Sampled	Time Sampled	Time Filtered	Total # of Containers	Preservation & # of Containers	Method	Analysis For:
	MW-1					6/21/2008	900		2	X	GW	X
	MW-3					6/21/2008	1000		2	X	GW	X
	MW-4					6/21/2008	1040		2	X	GW	X
	MW-5					6/21/2008	1115		2	X	GW	X
	MW-9					6/21/2008	1145		2	X	GW	X
	MW-2					6/21/2008	1210		2	X	GW	X
	RW-3					6/21/2008	1255		2	X	GW	X
	RW-2					6/21/2008	1305		2	X	GW	X
	RW-1					6/21/2008	1320		2	X	GW	X

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

Client: Plains  
Date/ Time: 06-23-08 @ 1706  
Lab ID #: 306425  
Initials: AL

**Sample Receipt Checklist**

			Client Initials	
#1 Temperature of container/ cooler?	(Yes)	No	4.0	°C
#2 Shipping container in good condition?	(Yes)	No		
#3 Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4 Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5 Chain of Custody present?	(Yes)	No		
#6 Sample instructions complete of Chain of Custody?	(Yes)	No		
#7 Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8 Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9 Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11 Containers supplied by ELOT?	(Yes)	No		
#12 Samples in proper container/ bottle?	(Yes)	No	See Below	
#13 Samples properly preserved?	(Yes)	No	See Below	
#14 Sample bottles intact?	(Yes)	No		
#15 Preservations documented on Chain of Custody?	(Yes)	No		
#16 Containers documented on Chain of Custody?	(Yes)	No		
#17 Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18 All samples received within sufficient hold time?	(Yes)	No	See Below	
#19 Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20 VOC samples have zero headspace?	(Yes)	No	Not Applicable	

**Variance Documentation**

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

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event

# Analytical Report 312880

for

## PLAINS ALL AMERICAN EH&S

**Project Manager: Camille Reynolds**

**Vacuum 10-Inch to Jal**

**2002-10248**

**23-SEP-08**



**E84880**

**12600 West I-20 East Odessa, Texas 79765**

Texas certification numbers:

Houston, TX T104704215 - Odessa/Midland, TX T104704215-08-TX

Florida certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675  
Norcross(Atlanta), GA E87429

South Carolina certification numbers:

Norcross(Atlanta), GA 98015

North Carolina certification numbers:

Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America  
Midland - Corpus Christi - Atlanta



23-SEP-08

Project Manager: **Camille Reynolds**  
**PLAINS ALL AMERICAN EH&S**  
1301 S. COUNTY ROAD 1150  
Midland, TX 79706

Reference: XENCO Report No: **312880**  
**Vacuum 10-Inch to Jal**  
Project Address: Lea County, NM

**Camille Reynolds:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 312880. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 312880 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Brent Barron, II**

Odessa Laboratory Manager

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*Certified and approved by numerous States and Agencies.*

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**Sample Cross Reference 312880**



**PLAINS ALL AMERICAN EH&S, Midland, TX**

Vacuum 10-Inch to Jal

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
MW-9	W	Sep-18-08 13:40		312880-001
MW-2	W	Sep-18-08 14:10		312880-002
MW-4	W	Sep-18-08 15:00		312880-003
MW-5	W	Sep-18-08 15:40		312880-004
MW-3	W	Sep-18-08 16:20		312880-005
MW-1	W	Sep-18-08 16:55		312880-006
RW-2	W	Sep-18-08 17:15		312880-007
RW-3	W	Sep-18-08 17:45		312880-008
RW-1	W	Sep-18-08 18:00		312880-009



**Certificate of Analysis Summary 312880**  
**PLAINS ALL AMERICAN EH&S, Midland, TX**



Project Id: 2002-10248

Contact: Camille Reynolds

Project Location: Lea County, NM

Project Name: Vacuum 10-Inch to Jal

Date Received in Lab: Fri Sep-19-08 04:53 pm

Report Date: 23-SEP-08

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	312880-001	312880-002	312880-003	312880-004	312880-005	312880-006
	Field Id:	MW-9	MW-2	MW-4	MW-5	MW-3	MW-1
	Depth:						
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	Sampled:	Sep-18-08 13:40	Sep-18-08 14:10	Sep-18-08 15:00	Sep-18-08 15:40	Sep-18-08 16:20	Sep-18-08 16:55
	Extracted:	Sep-22-08 16:08					
	Analyzed:	Sep-22-08 21:04	Sep-22-08 21:27	Sep-22-08 21:50	Sep-22-08 22:12	Sep-22-08 22:35	Sep-22-08 22:57
	Units/RL:	mg/L RL					
Benzene		ND 0.0010					
Toluene		ND 0.0020					
Ethylbenzene		ND 0.0010					
m,p-Xylenes		ND 0.0020					
o-Xylene		ND 0.0010					
Total Xylenes		ND	ND	ND	ND	ND	ND
Total BTEX		ND	ND	ND	ND	ND	ND

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work, order unless otherwise agreed to in writing.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

  
 Brent Barron  
 Odessa Laboratory Director



**Certificate of Analysis Summary 312880**  
**PLAINS ALL AMERICAN EH&S, Midland, TX**



Project Id: 2002-10248  
 Contact: Camille Reynolds  
 Project Location: Lea County, NM

Date Received in Lab: Fri Sep-19-08 04:53 pm  
 Report Date: 23-SEP-08  
 Project Manager: Brent Barron, II

Project Name: Vacuum 10-Inch to Jal

Analysis Requested	312880-007		312880-008		312880-009	
	Lab Id: Field Id: Depth: Matrix: Sampled:	RW-2 WATER Sep-18-08 17:15	RW-3 WATER Sep-18-08 17:45	RW-1 WATER Sep-18-08 18:00		
<b>BTEX by EPA 8021B</b>	Extracted: Analyzed: Units/RL:	Sep-22-08 16:08 Sep-22-08 23:20 mg/L RL	Sep-22-08 16:08 Sep-22-08 23:43 mg/L RL	Sep-22-08 16:08 Sep-23-08 00:06 mg/L RL		
Benzene		ND 0.0010	ND 0.0010	0.0014 0.0010		
Toluene		ND 0.0020	ND 0.0020	ND 0.0020		
Ethylbenzene		ND 0.0010	ND 0.0010	ND 0.0010		
m,p-Xylenes		ND 0.0020	ND 0.0020	ND 0.0020		
o-Xylene		ND 0.0010	ND 0.0010	ND 0.0010		
Total Xylenes		ND	ND	ND		
Total BTEX		ND	ND	0.0014		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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 Brent Barron  
 Odessa Laboratory Director



# Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.

\* Outside XENCO'S scope of NELAC Accreditation

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11381 Meadowglen Lane Suite L Houston, Tx 77082-2647	Phone	Fax
9701 Harry Hines Blvd , Dallas, TX 75220	(281) 589-0692	(281) 589-0695
5332 Blackberry Drive, Suite 104, San Antonio, TX 78238	(214) 902 0300	(214) 351-9139
2505 N. Falkenburg Rd., Tampa, FL 33619	(210) 509-3334	(210) 509-3335
5757 NW 158th St, Miami Lakes, FL 33014	(813) 620-2000	(813) 620-2033
6017 Financial Dr., Norcross, GA 30071	(305) 823-8500	(305) 823-8555
	(770) 449-8800	(770) 449-5477



# Form 2 - Surrogate Recoveries

Project Name: Vacuum 10-Inch to Jal

Work Orders : 312880,

Project ID: 2002-10248

Lab Batch #: 734916

Sample: 312880-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0367	0.0300	122	80-120	**
4-Bromofluorobenzene	0.0261	0.0300	87	80-120	

Lab Batch #: 734916

Sample: 312880-001 S / MS

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0248	0.0300	83	80-120	

Lab Batch #: 734916

Sample: 312880-001 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0252	0.0300	84	80-120	

Lab Batch #: 734916

Sample: 312880-002 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0361	0.0300	120	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 734916

Sample: 312880-003 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0369	0.0300	123	80-120	**
4-Bromofluorobenzene	0.0252	0.0300	84	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: Vacuum 10-Inch to Jal

Work Orders : 312880,

Project ID: 2002-10248

Lab Batch #: 734916

Sample: 312880-004 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0364	0.0300	121	80-120	**
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

Lab Batch #: 734916

Sample: 312880-005 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0367	0.0300	122	80-120	**
4-Bromofluorobenzene	0.0251	0.0300	84	80-120	

Lab Batch #: 734916

Sample: 312880-006 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0365	0.0300	122	80-120	**
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

Lab Batch #: 734916

Sample: 312880-007 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0364	0.0300	121	80-120	**
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

Lab Batch #: 734916

Sample: 312880-008 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0363	0.0300	121	80-120	**
4-Bromofluorobenzene	0.0251	0.0300	84	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: Vacuum 10-Inch to Jal

Work Orders : 312880,

Project ID: 2002-10248

Lab Batch #: 734916

Sample: 312880-009 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0412	0.0300	137	80-120	**
4-Bromofluorobenzene	0.0226	0.0300	75	80-120	**

Lab Batch #: 734916

Sample: 516098-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0243	0.0300	81	80-120	

Lab Batch #: 734916

Sample: 516098-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0362	0.0300	121	80-120	**
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 734916

Sample: 516098-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# BS / BSD Recoveries



Project Name: Vacuum 10-Inch to Jal

Work Order #: 312880      Project ID: 2002-10248  
 Analyst: ASA              Date Analyzed: 09/22/2008  
 Lab Batch ID: 734916      Sample: 516098-1-BKS      Batch #: J      Matrix: Water

Units: mg/L

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021B											
Benzene	ND	0.1000	0.1052	105	0.1	0.1034	103	2	70-125	25	
Toluene	ND	0.1000	0.1005	101	0.1	0.0990	99	2	70-125	25	
Ethylbenzene	ND	0.1000	0.1021	102	0.1	0.1002	100	2	71-129	25	
m,p-Xylenes	ND	0.2000	0.2121	106	0.2	0.2085	104	2	70-131	25	
o-Xylene	ND	0.1000	0.0966	97	0.1	0.0961	96	1	71-133	25	

Relative Percent Difference  $RPD = 200 * [(C-F) / (C+F)]$   
 Blank Spike Recovery  $[D] = 100 * (C) / [B]$   
 Blank Spike Duplicate Recovery  $[G] = 100 * (F) / [E]$   
 All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



Project Name: Vacuum 10-Inch to Jal

Work Order #: 312880

Project ID: 2002-10248

Lab Batch ID: 734916

QC- Sample ID: 312880-001 S

Batch #: 1 Matrix: Water

Date Analyzed: 09/23/2008

Date Prepared: 09/22/2008

Analyst: ASA

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0910	91	0.1000	0.1002	100	9	70-125	25	
Toluene	ND	0.1000	0.0858	86	0.1000	0.0939	94	9	70-125	25	
Ethylbenzene	ND	0.1000	0.0855	86	0.1000	0.0936	94	9	71-129	25	
m,p-Xylenes	ND	0.2000	0.1770	89	0.2000	0.1937	97	9	70-131	25	
o-Xylene	ND	0.1000	0.0833	83	0.1000	0.0912	91	9	71-133	25	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B  
Relative Percent Difference RPD = 200\*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NTR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit

# Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST  
 12800 West 120 East  
 Odessa, Texas 79765  
 Phone: 432-553-1800  
 Fax: 432-553-1713

Project Manager: Cur Stanley PAGE 01 OF 01 Project Name: VACUUM 10-INCH TO JAL

Company Name: Basin Environmental Service Technologies, LLC Project #: 2002-10248

Company Address: P.O. Box 301 Project Loc: Las County, NM

City/State/Zip: Levellington, NM 88260 PO #: 2AA - C. J. Reynolds

Telephone No: (903) 441-2124 Fax No: (903) 395-1428 Report Format:  Standard  TRRP  NPDES

Sampler Signature: [Signature] Email: stanley@basinenv.com

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Total # of Containers	Matrix	Preservation # of Containers	Other (Specify)	Other (Specify)	Field Printed	Field # of Containers	EA	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NH <sub>4</sub> OH	Na <sub>2</sub> SO <sub>4</sub>	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Na <sub>2</sub> CO <sub>3</sub>	Na <sub>2</sub> EDTA	Na <sub>2</sub> PO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO 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<sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO 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<sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO 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<sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>	Na <sub>2</sub> UO <sub>4</sub>	Na <sub>2</sub> VO <sub>4</sub>	Na <sub>2</sub> MoO <sub>4</sub>	Na <sub>2</sub> SiO <sub>3</sub>	Na <sub>2</sub> AsO <sub>4</sub>	Na <sub>2</sub> SeO <sub>4</sub>	Na <sub>2</sub> TeO <sub>4</sub>
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**Environmental Lab of Texas**

Variance/ Corrective Action Report- Sample Log-In

Client: Basin Env. / Plains  
 Date/ Time: 9.19.08 10:55  
 Lab ID #: 312880  
 Initials: AL

**Sample Receipt Checklist**

				Client Initials
#1	Temperature of container/ cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	4.5 °C
#2	Shipping container in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
#3	Custody Seals intact on shipping container/ cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Present
#4	Custody Seals intact on sample bottles/ container?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Present
#5	Chain of Custody present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
#6	Sample instructions complete of Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
#7	Chain of Custody signed when relinquished/ received?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
#8	Chain of Custody agrees with sample label(s)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	ID written on Cont / Lid
#9	Container label(s) legible and intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
#11	Containers supplied by ELOT?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
#12	Samples in proper container/ bottle?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	See Below
#13	Samples properly preserved?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	See Below
#14	Sample bottles intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
#15	Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
#16	Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
#17	Sufficient sample amount for indicated test(s)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	See Below
#18	All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	See Below
#19	Subcontract of sample(s)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable
#20	VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable

**Variance Documentation**

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

Regarding: \_\_\_\_\_

Corrective Action Taken:  
 \_\_\_\_\_  
 \_\_\_\_\_

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event

# Analytical Report 318210

for

## PLAINS ALL AMERICAN EH&S

**Project Manager: Daniel Bryant**

**Vacuum 10-inch to Jal**

**2002-10248**

**26-NOV-08**



**12600 West I-20 East Odessa, Texas 79765**

Texas certification numbers:

Houston, TX T104704215-08B - Odessa/Midland, TX T104704400-08

Florida certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675  
Norcross(Atlanta), GA E87429

South Carolina certification numbers:

Norcross(Atlanta), GA 98015

North Carolina certification numbers:

Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America  
Midland - Corpus Christi - Atlanta



26-NOV-08

Project Manager: **Daniel Bryant**  
**PLAINS ALL AMERICAN EH&S**  
1301 S. COUNTY ROAD 1150  
Midland, TX 79706

Reference: XENCO Report No: **318210**  
**Vacuum 10-inch to Jal**  
Project Address: Lea County, NM

**Daniel Bryant:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 318210. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 318210 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Brent Barron, II**

Odessa Laboratory Manager

*Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.*

*Certified and approved by numerous States and Agencies.*

*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



**Sample Cross Reference 318210**



**PLAINS ALL AMERICAN EH&S, Midland, TX**

Vacuum 10-inch to Jal

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
MW-9	W	Nov-19-08 08:30		318210-001
MW-2	W	Nov-19-08 09:05		318210-002
MW-4	W	Nov-19-08 09:50		318210-003
MW-5	W	Nov-19-08 10:35		318210-004
MW-3	W	Nov-19-08 12:00		318210-005
MW-1	W	Nov-19-08 12:50		318210-006
RW-2	W	Nov-19-08 13:40		318210-007
RW-3	W	Nov-19-08 14:10		318210-008
RW-1	W	Nov-19-08 15:00		318210-009



# Certificate of Analysis Summary 318210

## PLAINS ALL AMERICAN EH&S, Midland, TX



**Project Name: Vacuum 10-inch to Jal**

**Project Id:** 2002-10248

**Date Received in Lab:** Nov-20-08 08:07 am

**Contact:** Daniel Bryant

**Report Date:** 26-NOV-08

**Project Location:** Lea County, NM

**Project Manager:** Gracie Avalos

<i>Analysis Requested</i>	<i>Lab Id:</i>	318210-001	318210-002	318210-003	318210-004
	<i>Field Id:</i>	MW-9	MW-2	MW-4	MW-5
	<i>Depth:</i>				
	<i>Matrix:</i>	WATER	WATER	WATER	WATER
	<i>Sampled:</i>	Nov-19-08 08:30	Nov-19-08 09:05	Nov-19-08 09:50	Nov-19-08 10:35
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Nov-21-08 17:05	Nov-21-08 17:05	Nov-21-08 17:05	Nov-21-08 17:05
	<i>Analyzed:</i>	Nov-22-08 22:26	Nov-22-08 22:49	Nov-22-08 23:11	Nov-22-08 23:33
	<i>Units/RL:</i>	mg/L    RL	mg/L    RL	mg/L    RL	mg/L    RL
Benzene		ND    0.0010	ND    0.0010	ND    0.0010	ND    0.0010
Toluene		ND    0.0020	ND    0.0020	ND    0.0020	ND    0.0020
Ethylbenzene		ND    0.0010	ND    0.0010	ND    0.0010	ND    0.0010
m,p-Xylenes		ND    0.0020	ND    0.0020	ND    0.0020	ND    0.0020
o-Xylene		ND    0.0010	ND    0.0010	ND    0.0010	ND    0.0010
Total Xylenes		ND    0.0010	ND    0.0010	ND    0.0010	ND    0.0010
Total BTEX		ND    0.0010	ND    0.0010	ND    0.0010	ND    0.0010
<b>SVOA PAHs List by EPA 8270C</b>	<i>Extracted:</i>	Nov-21-08 11:30	Nov-21-08 11:33	Nov-21-08 11:36	Nov-21-08 11:39
	<i>Analyzed:</i>	Nov-24-08 15:40	Nov-24-08 16:24	Nov-24-08 17:49	Nov-24-08 18:33
	<i>Units/RL:</i>	mg/L    RL	mg/L    RL	mg/L    RL	mg/L    RL
Acenaphthene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Acenaphthylene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Anthracene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Benzo(a)anthracene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Benzo(a)pyrene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Benzo(b)fluoranthene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Benzo(k)fluoranthene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Benzo(g,h,i)perylene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Chrysene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Dibenz(a,h)Anthracene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Fluoranthene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Fluorene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Indeno(1,2,3-c,d)Pyrene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
1-Methylnaphthalene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
2-Methylnaphthalene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Naphthalene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Phenanthrene		ND    0.005	ND    0.005	ND    0.005	ND    0.005
Pyrene		ND    0.005	ND    0.005	ND    0.005	ND    0.005

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**Brent Barron**  
 Odessa Laboratory Director



# Certificate of Analysis Summary 318210

## PLAINS ALL AMERICAN EH&S, Midland, TX



**Project Name: Vacuum 10-inch to Jal**

**Project Id:** 2002-10248

**Date Received in Lab:** Nov-20-08 08:07 am

**Contact:** Daniel Bryant

**Report Date:** 26-NOV-08

**Project Location:** Lea County, NM

**Project Manager:** Gracie Avalos

<i>Analysis Requested</i>	<i>Lab Id:</i>	318210-005	318210-006	318210-007	318210-008
	<i>Field Id:</i>	MW-3	MW-1	RW-2	RW-3
	<i>Depth:</i>				
	<i>Matrix:</i>	WATER	WATER	WATER	WATER
	<i>Sampled:</i>	Nov-19-08 12:00	Nov-19-08 12:50	Nov-19-08 13:40	Nov-19-08 14:10
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Nov-21-08 17:05	Nov-21-08 17:05	Nov-21-08 17:05	Nov-21-08 17:05
	<i>Analyzed:</i>	Nov-22-08 23:55	Nov-23-08 00:17	Nov-23-08 00:39	Nov-23-08 01:01
	<i>Units/RL:</i>	mg/L    RL	mg/L    RL	mg/L    RL	mg/L    RL
Benzene		ND    0.0010	ND    0.0010	ND    0.0010	ND    0.0010
Toluene		ND    0.0020	ND    0.0020	ND    0.0020	ND    0.0020
Ethylbenzene		ND    0.0010	ND    0.0010	ND    0.0010	ND    0.0010
m,p-Xylenes		ND    0.0020	ND    0.0020	ND    0.0020	ND    0.0020
o-Xylene		ND    0.0010	ND    0.0010	ND    0.0010	ND    0.0010
Total Xylenes		ND    0.0010	ND    0.0010	ND    0.0010	ND    0.0010
Total BTEX		ND    0.0010	ND    0.0010	ND    0.0010	ND    0.0010
<b>SVOA PAHs List by EPA 8270C</b>	<i>Extracted:</i>	Nov-21-08 11:42	Nov-21-08 11:45	Nov-21-08 11:48	Nov-21-08 11:51
	<i>Analyzed:</i>	Nov-24-08 19:17	Nov-25-08 11:49	Nov-25-08 12:33	Nov-24-08 21:29
	<i>Units/RL:</i>	mg/L    RL	mg/L    RL	mg/L    RL	mg/L    RL
Acenaphthene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Acenaphthylene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Anthracene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Benzo(a)anthracene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Benzo(a)pyrene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Benzo(b)fluoranthene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Benzo(k)fluoranthene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Benzo(g,h,i)perylene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Chrysene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Dibenz(a,h)Anthracene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Fluoranthene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Fluorene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Indeno(1,2,3-c,d)Pyrene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
1-Methylnaphthalene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
2-Methylnaphthalene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Naphthalene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Phenanthrene		ND    0.005	ND    0.025	ND    0.025	ND    0.005
Pyrene		ND    0.005	ND    0.025	ND    0.025	ND    0.005

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Brent Barron

Odessa Laboratory Director



# Certificate of Analysis Summary 318210

## PLAINS ALL AMERICAN EH&S, Midland, TX



**Project Name: Vacuum 10-inch to Jal**

**Project Id:** 2002-10248

**Date Received in Lab:** Nov-20-08 08:07 am

**Contact:** Daniel Bryant

**Report Date:** 26-NOV-08

**Project Location:** Lea County, NM

**Project Manager:** Gracie Avalos

<i>Analysis Requested</i>	<i>Lab Id:</i>	318210-009	<i>Field Id:</i>	RW-1
	<i>Depth:</i>		<i>Matrix:</i>	WATER
	<i>Sampled:</i>	Nov-19-08 15:00		
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Nov-21-08 17:05	<i>Analyzed:</i>	Nov-23-08 01:24
	<i>Units/RL:</i>	mg/L	RL	
Benzene		ND	0.0010	
Toluene		ND	0.0020	
Ethylbenzene		ND	0.0010	
m,p-Xylenes		ND	0.0020	
o-Xylene		ND	0.0010	
Total Xylenes		ND	0.0010	
Total BTEX		ND	0.0010	
<b>SVOA PAHs List by EPA 8270C</b>	<i>Extracted:</i>	Nov-21-08 11:54	<i>Analyzed:</i>	Nov-24-08 22:13
	<i>Units/RL:</i>	mg/L	RL	
Acenaphthene		ND	0.005	
Acenaphthylene		ND	0.005	
Anthracene		ND	0.005	
Benzo(a)anthracene		ND	0.005	
Benzo(a)pyrene		ND	0.005	
Benzo(b)fluoranthene		ND	0.005	
Benzo(k)fluoranthene		ND	0.005	
Benzo(g,h,i)perylene		ND	0.005	
Chrysene		ND	0.005	
Dibenz(a,h)Anthracene		ND	0.005	
Fluoranthene		ND	0.005	
Fluorene		ND	0.005	
Indeno(1,2,3-c,d)Pyrene		ND	0.005	
1-Methylnaphthalene		ND	0.005	
2-Methylnaphthalene		ND	0.005	
Naphthalene		ND	0.005	
Phenanthrene		ND	0.005	
Pyrene		ND	0.005	

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**Brent Barron**  
 Odessa Laboratory Director



# Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.

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# Form 2 - Surrogate Recoveries

Project Name: Vacuum 10-inch to Jal

Work Orders : 318210,

Project ID: 2002-10248

Lab Batch #: 741164

Sample: 318210-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0250	0.0300	83	80-120	

Lab Batch #: 741164

Sample: 318210-002 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	80-120	
4-Bromofluorobenzene	0.0254	0.0300	85	80-120	

Lab Batch #: 741164

Sample: 318210-003 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0251	0.0300	84	80-120	

Lab Batch #: 741164

Sample: 318210-004 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	80-120	
4-Bromofluorobenzene	0.0252	0.0300	84	80-120	

Lab Batch #: 741164

Sample: 318210-005 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	80-120	
4-Bromofluorobenzene	0.0245	0.0300	82	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: Vacuum 10-inch to Jal

Work Orders : 318210,

Project ID: 2002-10248

Lab Batch #: 741164

Sample: 318210-006 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0249	0.0300	83	80-120	

Lab Batch #: 741164

Sample: 318210-007 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0322	0.0300	107	80-120	
4-Bromofluorobenzene	0.0250	0.0300	83	80-120	

Lab Batch #: 741164

Sample: 318210-008 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0245	0.0300	82	80-120	

Lab Batch #: 741164

Sample: 318210-009 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0356	0.0300	119	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 741164

Sample: 318339-002 S / MS

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
<b>Analytes</b>					
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: Vacuum 10-inch to Jal

Work Orders : 318210,

Project ID: 2002-10248

Lab Batch #: 741164

Sample: 318339-002 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 741164

Sample: 519821-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 741164

Sample: 519821-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0246	0.0300	82	80-120	

Lab Batch #: 741164

Sample: 519821-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: Vacuum 10-inch to Jal

Work Orders : 318210,

Project ID: 2002-10248

Lab Batch #: 741394

Sample: 318210-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

SVOA PAHs List by EPA 8270C	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
2-Fluorobiphenyl	0.046	0.050	92	43-116	
2-Fluorophenol	0.024	0.050	48	21-100	
Nitrobenzene-d5	0.046	0.050	92	35-114	
Phenol-d6	0.013	0.050	26	10-94	
Terphenyl-D14	0.066	0.050	132	33-141	
2,4,6-Tribromophenol	0.042	0.050	84	10-123	

Lab Batch #: 741394

Sample: 318210-002 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

SVOA PAHs List by EPA 8270C	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
2-Fluorobiphenyl	0.050	0.050	100	43-116	
2-Fluorophenol	0.023	0.050	46	21-100	
Nitrobenzene-d5	0.044	0.050	88	35-114	
Phenol-d6	0.012	0.050	24	10-94	
Terphenyl-D14	0.066	0.050	132	33-141	
2,4,6-Tribromophenol	0.043	0.050	86	10-123	

Lab Batch #: 741394

Sample: 318210-003 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

SVOA PAHs List by EPA 8270C	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
2-Fluorobiphenyl	0.042	0.050	84	43-116	
2-Fluorophenol	0.020	0.050	40	21-100	
Nitrobenzene-d5	0.040	0.050	80	35-114	
Phenol-d6	0.011	0.050	22	10-94	
Terphenyl-D14	0.056	0.050	112	33-141	
2,4,6-Tribromophenol	0.046	0.050	92	10-123	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: Vacuum 10-inch to Jal

Work Orders : 318210,

Project ID: 2002-10248

Lab Batch #: 741394

Sample: 318210-004 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

SVOA PAHs List by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.044	0.050	88	43-116	
2-Fluorophenol	0.023	0.050	46	21-100	
Nitrobenzene-d5	0.052	0.050	104	35-114	
Phenol-d6	0.012	0.050	24	10-94	
Terphenyl-D14	0.057	0.050	114	33-141	
2,4,6-Tribromophenol	0.044	0.050	88	10-123	

Lab Batch #: 741394

Sample: 318210-005 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

SVOA PAHs List by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.040	0.050	80	43-116	
2-Fluorophenol	0.023	0.050	46	21-100	
Nitrobenzene-d5	0.040	0.050	80	35-114	
Phenol-d6	0.012	0.050	24	10-94	
Terphenyl-D14	0.070	0.050	140	33-141	
2,4,6-Tribromophenol	0.046	0.050	92	10-123	

Lab Batch #: 741394

Sample: 318210-006 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

SVOA PAHs List by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.048	0.050	96	43-116	
2-Fluorophenol	0.022	0.050	44	21-100	
Nitrobenzene-d5	0.051	0.050	102	35-114	
Phenol-d6	0.020	0.050	40	10-94	
Terphenyl-D14	0.068	0.050	136	33-141	
2,4,6-Tribromophenol	0.057	0.050	114	10-123	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: Vacuum 10-inch to Jal

Work Orders : 318210,

Project ID: 2002-10248

Lab Batch #: 741394

Sample: 318210-007 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

SVOA PAHs List by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.042	0.050	84	43-116	
2-Fluorophenol	0.020	0.050	40	21-100	
Nitrobenzene-d5	0.043	0.050	86	35-114	
Phenol-d6	0.016	0.050	32	10-94	
Terphenyl-D14	0.044	0.050	88	33-141	
2,4,6-Tribromophenol	0.053	0.050	106	10-123	

Lab Batch #: 741394

Sample: 318210-008 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

SVOA PAHs List by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.045	0.050	90	43-116	
2-Fluorophenol	0.019	0.050	38	21-100	
Nitrobenzene-d5	0.040	0.050	80	35-114	
Phenol-d6	0.011	0.050	22	10-94	
Terphenyl-D14	0.068	0.050	136	33-141	
2,4,6-Tribromophenol	0.043	0.050	86	10-123	

Lab Batch #: 741394

Sample: 318210-009 / SMP

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

SVOA PAHs List by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.037	0.050	74	43-116	
2-Fluorophenol	0.015	0.050	30	21-100	
Nitrobenzene-d5	0.045	0.050	90	35-114	
Phenol-d6	0.010	0.050	20	10-94	
Terphenyl-D14	0.062	0.050	124	33-141	
2,4,6-Tribromophenol	0.031	0.050	62	10-123	

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# Form 2 - Surrogate Recoveries

Project Name: Vacuum 10-inch to Jal

Work Orders : 318210,

Project ID: 2002-10248

Lab Batch #: 741394

Sample: 519935-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

SVOA PAHs List by EPA 8270C	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
2-Fluorobiphenyl	0.049	0.050	98	43-116	
2-Fluorophenol	0.045	0.050	90	21-100	
Nitrobenzene-d5	0.048	0.050	96	35-114	
Phenol-d6	0.038	0.050	76	10-94	
Terphenyl-D14	0.064	0.050	128	33-141	
2,4,6-Tribromophenol	0.040	0.050	80	10-123	

Lab Batch #: 741394

Sample: 519935-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

SVOA PAHs List by EPA 8270C	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
2-Fluorobiphenyl	0.049	0.050	98	43-116	
2-Fluorophenol	0.040	0.050	80	21-100	
Nitrobenzene-d5	0.049	0.050	98	35-114	
Phenol-d6	0.030	0.050	60	10-94	
Terphenyl-D14	0.069	0.050	138	33-141	
2,4,6-Tribromophenol	0.051	0.050	102	10-123	

Lab Batch #: 741394

Sample: 519935-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

### SURROGATE RECOVERY STUDY

SVOA PAHs List by EPA 8270C	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
2-Fluorobiphenyl	ND	0.050	0	43-116	**
2-Fluorophenol	ND	0.050	0	21-100	**
Nitrobenzene-d5	0.005	0.050	10	35-114	**
Phenol-d6	0.001	0.050	2	10-94	**
Terphenyl-D14	ND	0.050	0	33-141	**
2,4,6-Tribromophenol	ND	0.050	0	10-123	**

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



# BS / BSD Recoveries



Project Name: Vacuum 10-inch to Jal

Work Order #: 318210      Project ID: 2002-10248  
 Analyst: ASA              Date Analyzed: 11/22/2008  
 Lab Batch ID: 741164      Date Prepared: 11/21/2008      Matrix: Water  
 Sample: 519821-1-BKS      Batch #: 1

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021B											
Benzene	ND	0.1000	0.1003	100	0.1	0.0985	99	2	70-125	25	
Toluene	ND	0.1000	0.0931	93	0.1	0.0902	90	3	70-125	25	
Ethylbenzene	ND	0.1000	0.0918	92	0.1	0.0882	88	4	71-129	25	
m,p-Xylenes	ND	0.2000	0.1858	93	0.2	0.1760	88	5	70-131	25	
o-Xylene	ND	0.1000	0.0888	89	0.1	0.0857	86	4	71-133	25	

Relative Percent Difference RPD =  $200 * (C-F) / (C+F)$   
 Blank Spike Recovery [D] =  $100 * (C) / [B]$   
 Blank Spike Duplicate Recovery [G] =  $100 * (F) / [E]$   
 All results are based on MDL and Validated for QC Purposes



# BS / BSD Recoveries



Project Name: Vacuum 10-inch to Jal

Work Order #: 318210

Project ID: 2002-10248

Analyst: KAN

Date Prepared: 11/21/2008

Date Analyzed: 11/24/2008

Lab Batch ID: 741394

Sample: 519935-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Acenaphthene	ND	0.050	0.045	90	0.05	0.047	94	4	54-114	25	
Acenaphthylene	ND	0.050	0.049	98	0.05	0.048	96	2	53-113	25	
Anthracene	ND	0.050	0.041	82	0.05	0.042	84	2	56-116	25	
Benzo(a)anthracene	ND	0.050	0.050	100	0.05	0.049	98	2	59-116	25	
Benzo(a)pyrene	ND	0.050	0.048	96	0.05	0.048	96	0	58-118	25	
Benzo(b)fluoranthene	ND	0.050	0.046	92	0.05	0.046	92	0	54-123	25	
Benzo(k)fluoranthene	ND	0.050	0.059	118	0.05	0.059	118	0	52-122	25	
Benzo(g,h,i)perylene	ND	0.050	0.046	92	0.05	0.046	92	0	47-129	25	
Chrysene	ND	0.050	0.054	108	0.05	0.054	108	0	58-116	25	
Dibenz(a,h)Anthracene	ND	0.050	0.044	88	0.05	0.044	88	0	46-131	25	
Fluoranthene	ND	0.050	0.047	94	0.05	0.046	92	2	55-120	25	
Fluorene	ND	0.050	0.048	96	0.05	0.048	96	0	56-114	25	
Indeno(1,2,3-c,d)Pyrene	ND	0.050	0.046	92	0.05	0.045	90	2	44-132	25	
1-Methylnaphthalene	ND	0.050	0.043	86	0.05	0.044	88	2	47-113	25	
2-Methylnaphthalene	ND	0.050	0.042	84	0.05	0.044	88	5	57-106	25	
Naphthalene	ND	0.050	0.043	86	0.05	0.045	90	5	53-110	25	
Phenanthrene	ND	0.050	0.042	84	0.05	0.042	84	0	56-116	25	
Pyrene	ND	0.050	0.054	108	0.05	0.052	104	4	57-119	25	

Relative Percent Difference RPD =  $200 * [(C-F)/(C+F)]$   
Blank Spike Recovery [D] =  $100 * (C/B)$   
Blank Spike Duplicate Recovery [G] =  $100 * (F/E)$   
All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



Project Name: Vacuum 10-inch to Jal

Work Order #: 318210

Project ID: 2002-10248

Lab Batch ID: 741164

Batch #: 1 Matrix: Water

Date Analyzed: 11/23/2008

QC-Sample ID: 318339-002 S

Date Prepared: 11/21/2008 Analyst: ASA

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample %R Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0990	99	0.1000	0.0951	95	4	70-125	25	
Toluene	ND	0.1000	0.0940	94	0.1000	0.0877	88	7	70-125	25	
Ethylbenzene	ND	0.1000	0.0877	88	0.1000	0.0828	83	6	71-129	25	
m,p-Xylenes	ND	0.2000	0.1778	89	0.2000	0.1651	83	7	70-131	25	
o-Xylene	ND	0.1000	0.0863	86	0.1000	0.0814	81	6	71-133	25	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B  
Relative Percent Difference RPD = 200\*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQ = Estimated Quantitation Limit

# Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST  
 12800 Weisk 120 East  
 Coeasa, Texas 79765  
 Phone: 432-583-1800  
 Fax: 432-583-1713

Project Manager: Curt Stanley  
 Project Name: VACUUM 10-INCH TO JAL  
 Company Name: Basin Environmental Service Technologies, LLC  
 Project #: 2002-10248  
 Company Address: P. O. Box 301  
 Project Loc: Lea County, NM  
 City/State/Zip: Lovington, NM 88260  
 PO #: PAA - D.M. Bryant  
 Telephone No: (505) 442-2244  
 Report Format:  Standard  TRRP  NPDES  
 Fax No: (505) 396-1429  
 Sampler Signature: *Curt Stanley* Email: cstanley@basinenv.com

Lab # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # Containers	1 liter amber 2 VOLS	Ke HNO <sub>3</sub> HCl H <sub>2</sub> O <sub>2</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Other (Specify)	DW - Drinking Water St. - Single	GW - Groundwater - Solution	TH: #18, #0154, #0158	TPH: 1X 1005 1X 1006	Concns (Ca, Mg, Na, K)	Amnrs (Ca, SO <sub>4</sub> , Alkalinity)	SAR / ESP / CEC	Metals: As, Ag, Bi, Cd, Cr, Pb, Hg, Se	Volatiles	Semivolatiles	BTEX: #0218/5030 #112X 8/90	RTX	NOR M	PNH 8270	RUSH TAT (pre-screened) 2x 4x 17 m
001	MW-8			11/19/2008	830		3	X	X						GW													
002	MW-2			11/19/2008	905		3	X	X						GW													
003	MW-4			11/19/2008	940		3	X	X						GW													
004	MW-5			11/19/2008	1035		3	X	X						GW													
005	MW-3			11/19/2008	1200		3	X	X						GW													
006	MW-1			11/19/2008	1250		3	X	X						GW													
007	RW-2			11/19/2008	1340		3	X	X						GW													
008	RW-3			11/19/2008	1410		3	X	X						GW													
009	RW-1			11/19/2008	1500		3	X	X						GW													

Special Instructions:

Received by: *[Signature]* Date: 11/19/08 Time: 8:07  
 Received by: *[Signature]* Date: 11/20/08 Time: 5:07  
 Received by: *[Signature]* Date: 11/20/08 Time: 5:07

Temperature Upon Receipt: 1.0 °C

Lab use only: 318210

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

Client: Basin Enviro.  
 Date/ Time: 11/20/08 8:07  
 Lab ID #: 318310  
 Initials: gms

**Sample Receipt Checklist**

			Client Initials		
#1	Temperature of container/ cooler?	(Yes) Yes	No	L.C. °C	
#2	Shipping container in good condition?	(Yes) Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	(Yes) Yes	No		
#6	Sample instructions complete of Chain of Custody?	(Yes) Yes	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes) Yes	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes) Yes	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	(Yes) Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes) Yes	No		
#11	Containers supplied by ELOT?	(Yes) Yes	No		
#12	Samples in proper container/ bottle?	(Yes) Yes	No	See Below	
#13	Samples properly preserved?	(Yes) Yes	No	See Below	
#14	Sample bottles intact?	(Yes) Yes	No		
#15	Preservations documented on Chain of Custody?	(Yes) Yes	No		
#16	Containers documented on Chain of Custody?	(Yes) Yes	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes) Yes	No	See Below	
#18	All samples received within sufficient hold time?	(Yes) Yes	No	See Below	
#19	Subcontract of sample(s)?	(Yes) Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	(Yes) Yes	No	Not Applicable	

**Variance Documentation**

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

Regarding: \_\_\_\_\_

Corrective Action Taken:  
 \_\_\_\_\_  
 \_\_\_\_\_

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event

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

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

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised March 17, 1999

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

**Release Notification and Corrective Action**

**OPERATOR "INFORMATION ONLY NON-REPORTABLE"**  Initial Report  Final Report

Name of Company EOTT Energy Pipeline	Contact Frank Hernandez
Address 5805 East Highway 80 / P.O. Box 1660, Midland, TX 79703	Telephone No. 915.638.3799
Facility Name Vacuum 10" to Jal 9-18-02 #2002-10248	Facility Type 10" Crude Oil Pipeline

Surface Owner Jim T. Cooper	Mineral Owner	Lease No.
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**LOCATION OF RELEASE**

Unit Letter M	Section 20	Township 19S	Range 37E	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea Lat: 32°38'21.3"N Lon: 103°16'46.2"W
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**NATURE OF RELEASE**

Type of Release Crude Oil	Volume of Release 250 bbls	Volume Recovered 80 bbls
Source of Release 10" Steel Pipeline	Date and Hour of Occurrence 9-18-02 10:00 AM	Date and Hour of Discovery 9-18-02 1:00 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Paul Sheeley, Hobbs NMOCD (9-18-02)	
By Whom? Pat McCasland (Environmental Plus, Inc.)	Date and Hour: NMOCD notified on 9-18-02 2:45 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

The cause of the release was internal/external corrosion. The line has been repaired. Contaminated soil is stockpiled on a plastic barrier on site awaiting remediation.

Describe Area Affected and Cleanup Action Taken.\*

Spill Area = ~35,197 ft<sup>2</sup> 150' X 490'. Near surface soil will be characterized in accordance with 40 CFR 261 and with NMOCD approval, disposed of in a NMOCD approved facility. The site will be delineated and remediated.

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

Signature: <i>Frank Hernandez</i>	<b><u>OIL CONSERVATION DIVISION</u></b>	
Printed Name: Frank Hernandez	Approved by District Supervisor:	
Title: District Environmental Supervisor	Approval Date:	Expiration Date:
Date: September 20, 2002 Phone: 915.638.3799	Conditions of Approval:	Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary