



March 23, 2015

Dr. Tomas Oberding  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Plains All American – 2014 Annual Monitoring Reports  
4 Sites in Lea County, New Mexico

Dear Dr. Oberding:

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:

Darr Angell #1	AP-007	Section 11, Township 15 South, Range 37 East, Lea County
Darr Angell #2	AP-007	Section 11, Township 15 South, Range 37 East, Lea County
		Section 14, Township 15 South, Range 37 East, Lea County
Darr Angell #4	AP-007	Section 11, Township 15 South, Range 37 East, Lea County
		Section 02, Township 15 South, Range 37 East, Lea County
Denton Station	1R-0234	Section 14, Township 15 South, Range 37 East, Lea County

Conestoga-Rovers & Associates (CRA) 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 CRA 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,



Camille Bryant  
Remediation Coordinator  
Plains All American

CC: NMOCD, Hobbs, NM

Enclosures



[www.CRAworld.com](http://www.CRAworld.com)



## Final Report

### 2014 Annual Groundwater Monitoring Report

Denton Station  
SE/4, NE/4, Section 14, Township 15 South, Range 37 East, Lea County, New Mexico  
Plains SRS Number: 2003-00338  
NMOCD Reference Number: 1RP-0234

Prepared for: Plains All American Pipeline LP  
**Conestoga-Rovers & Associates**

2135 South Loop, 250 West  
Midland, Texas 79703

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**Table of Contents**

	<b>Page</b>
<b>1.0</b>	<b>Introduction.....</b>
1.1	Site Location and History.....
<b>2.0</b>	<b>Regulatory Framework.....</b>
<b>3.0</b>	<b>Groundwater Monitoring Activities .....</b>
3.1	Groundwater Monitoring Methodology.....
3.2	Groundwater Monitoring Results.....
<b>4.0</b>	<b>Corrective Action .....</b>
<b>5.0</b>	<b>Summary of Findings.....</b>
<b>6.0</b>	<b>Recommendations .....</b>

**List of Figures  
(Following Text)**

Figure 1	Site Location Map
Figure 2	Site Details Map
Figure 3	Groundwater Gradient Map – February 2014
Figure 4	LNAPL Thickness and Groundwater BTEX Concentration Map – February 2014
Figure 5	Groundwater Gradient Map – May 2014
Figure 6	LNAPL Thickness and Groundwater BTEX Concentration Map – May 2014
Figure 7	Groundwater Gradient Map – September 2014
Figure 8	LNAPL Thickness and Groundwater BTEX Concentration Map – September 2014
Figure 9	Groundwater Gradient Map – November 2014
Figure 10	LNAPL Thickness and Groundwater BTEX Concentration Map – November 2014

**List of Tables  
(Following Text)**

- Table 1      Groundwater Gauging Summary
- Table 2      Groundwater BTEX Analytical Summary
- Table 3      Groundwater PAH Analytical Summary
- Table 4      Color Coded Table (PSH, Benzene and Clean Wells)

**List of Appendices**

- Appendix A    Stratigraphic Logs and Well Construction Details (MW-1R, MW-2R and MW-3R)
- Appendix B    Certified Laboratory Reports

## Section 1.0 Introduction

This 2014 Annual Groundwater Monitoring Report presents data collected at the Denton Station location (hereafter referred to as the "Site") by Conestoga-Rovers & Associates (CRA) on behalf of Plains All American Pipeline, L.P. (Plains) in compliance with the New Mexico Oil Conservation Division (NMOCD) correspondence dated May 1998. This Site falls under NMOCD Remediation Permit number 1RP-0234. This report presents groundwater assessment activities associated with quarterly monitoring well gauging and groundwater sampling events (February, May, September and November). Light non-aqueous phase liquid (LNAPL) abatement via absorbent sock and bi-weekly (twice a month) hand bailing were also performed during the 2014 calendar year.

### 1.1 Site Location and History

The legal description of the Site is SE 1/4, NE 1/4, Section 14, Township 15 South, Range 37 East, Lea County, New Mexico. The Site coordinates are Latitude 33°01'6.48"N and Longitude 103°09'46.6"W (Figure 1). The Site was formerly the responsibility of Shell Pipeline Corporation (SPLC); however, the Site is currently the responsibility of Plains. The release is reportedly from a former crude oil tank battery located in the northeastern corner of the fenced facility on-site.

Beginning on April 1, 2007, project management responsibilities were assumed by NOVA. CRA assumed Site remediation and project management responsibilities on May 2, 2011.

Currently, there are 17 groundwater monitoring wells (MW-1R, MW-2R, MW-3R, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16 and MW-17). MW-1, MW-2, MW-3 and one out-of-service water well (WW-1) were plugged and abandoned with NMOCD approval on September 16, 2014. Replacement monitoring wells MW-1R and MW-2R were drilled and constructed with NMOCD approval on September 17, 2014. Replacement monitoring well MW-3R was drilled and constructed with NMOCD approval on October 7, 2014. Professional surveying of the new replacement wells was performed on November 11, 2014. Stratigraphic logs and well construction diagrams are included as Appendix A.

For 2014, monitoring wells which were gauged with LNAPL had the LNAPL removed using absorbent socks and manual methods bi-weekly (twice a month) as part of the LNAPL abatement program for the Site. MW-3, MW-5, MW-7 and MW-17 were the wells targeted for LNAPL recovery. Recovered LNAPL is periodically transported to Wasson Station facility for reinjection to the Plains Pipeline system and recovered groundwater is transported to a licensed disposal facility as directed by Plains.

The 2014 LNAPL abatement program recovered 4.85 gallons (0.12 barrels) of product from the Site. Approximately 8,174 gallons (194.6 barrels) of LNAPL have been recovered from the start of the product abatement program.

For 2014, the following wells exhibited a decrease in average LNAPL thickness when compared to their 2013 average LNAPL thickness: MW-3 (0.12 foot); MW-5 (0.40 foot); MW-7 (0.70 foot) and MW-17 (0.47 foot). LNAPL gauging data collected during quarterly monitoring events, for each well, was used to calculate the yearly average thickness.

For 2014, the groundwater flow direction was toward the southeast and appears to be consistent with historical data. The average groundwater gradient determined for the Site from the four groundwater monitoring events was approximately 0.002 foot/foot. Pertinent well gauging data indicated a decline in the elevation of the potentiometric surface for 2014. The average decline was 0.16 foot per quarter. The total of the average decline for the four quarters of 2014 was 0.64 foot.

## Section 2.0 Regulatory Framework

Presently, the Site is assigned Remediation Permit number 1RP-0234 by the New Mexico Oil Conservation Division (NMOCD) Environmental Bureau. The NMOCD guidelines require groundwater to be analyzed for potential contaminants as defined by the New Mexico Water Quality Control Commission (NMWQCC) Standards 20.6.2.3103 Section A. The NMQCC Standard 20.6.2.3103, Section A, provides the Human Health Standards for Groundwater. The constituents of concern (COCs) in affected groundwater at the Site are LNAPL, benzene, toluene, ethylbenzene and total xylenes (BTEX). In this report, groundwater analytical results for the COCs are compared to the NMWQCC standards as shown in the following table:

<b>ANALYTE</b>	<b>NMWQCC STANDARD FOR GROUNDWATER</b>
<b>20.6.2.3103 Section A – Human Health Standard</b>	
Benzene	0.01 mg/L
Toluene	0.75 mg/L
Ethylbenzene	0.75 mg/L
Total Xylenes	0.62 mg/L

The table below is the Site sampling schedule approved by the NMOCD.

<b>NMOCD APPROVED SAMPLING SCHEDULE</b>					
MW-1	Quarterly	MW-7	Quarterly	MW-13	Quarterly
MW-2	Quarterly	MW-8	Quarterly	MW-14	Quarterly
MW-3	Quarterly	MW-9	Quarterly	MW-15	Quarterly
MW-4	Quarterly	MW-10	Quarterly	MW-16	Quarterly
MW-5	Quarterly	MW-11	Quarterly	MW-17	Quarterly
MW-6	Quarterly	MW-12	Quarterly	WW-1	Quarterly

Recently drilled monitoring wells (MW-1R, MW-2R and MW-3R) are currently being monitored on a quarterly basis to establish consistent historical data regarding dissolved phase COC and LNAPL thickness. These wells will be added to the NMOCD approved site sampling schedule following correspondence with the regulatory agency.

### Section 3.0    Groundwater Monitoring Activities

Quarterly groundwater monitoring activities were conducted by CRA on February 24-27, May 27-30, September 2-5 and November 17-20, 2014. The Site is monitored with a network of 17 monitoring wells. All wells were sampled in accordance with the sampling schedule referred to in Section 2.0. Wells containing measureable amounts of LNAPL (>0.01 feet) were not sampled. A Site Details Map is presented as Figure 2.

#### 3.1    Groundwater Monitoring Methodology

Prior to gauging activity, each well cap was removed to allow groundwater levels to stabilize and equilibrate. Static fluid levels were measured with an electric interface probe to the nearest hundredth of a foot to obtain groundwater elevation data and assess for the presence of LNAPL. After recording fluid levels, wells not containing LNAPL were purged of three casing volumes of water and then groundwater samples were collected, including duplicate samples, using clean, disposable PVC bailers. Laboratory-supplied sample containers were then filled directly from the bailers. Groundwater samples were then placed on ice in insulated coolers and chilled to a temperature of approximately 4°C (40°F). The coolers were prepared for delivery and proper chain-of-custody documentation accompanied the samples to TraceAnalysis, Inc. in Midland, Texas for analysis of benzene, toluene, ethylbenzene and total xylenes (BTEX) by EPA Method 8021B. In addition, during the November 2014 sampling event, four wells (MW-1R, MW-2R, MW-5 and MW-6) were analyzed for Polycyclic Aromatic Hydrocarbons (PAH) by 8270D.

### 3.2 Groundwater Monitoring Results

All depth to groundwater measurements were recorded from the top of casing (TOC) of each well. The gauging data presented below represents corrected calculated groundwater elevations using a specific gravity of 0.81 for wells with measurable amounts of LNAPL and the elevation data obtained from professional surveying activities. Groundwater gauging data was collected by CRA during the February, May, September and November 2014 groundwater monitoring events and is presented in Table 1. Groundwater gradient maps for February, May, September and November 2014 are provided as Figures 3, 5, 7 and 9, respectively.

Corrected groundwater elevations ranged from 3720.00 feet (MW-15) to 3722.36 feet (MW-8) in February; from 3719.86 feet (MW-15) to 3722.24 feet (MW-8) in May; from 3719.70 feet (MW-15) to 3722.09 feet (MW-8) in September; and from 3719.51 feet (MW-15) to 3721.93 feet (MW-8) in November. LNAPL was encountered in three monitoring wells (MW-5, MW-7 and MW-17) during the February event and were not purged and sampled for BTEX. LNAPL was encountered in four monitoring wells (MW-3, MW-5, MW-7 and MW-17) during the May event and were not sampled. LNAPL was encountered in three monitoring wells (MW-5, MW-7 and MW-17) during the September event and were not sampled. LNAPL was encountered in three monitoring wells (MW-5, MW-7 and MW-17) during the November event and were not sampled. LNAPL thicknesses ranged from 0.12 foot (MW-5) to 0.48 foot (MW-17) in February, from 0.01 foot (MW-3, MW-5 and MW-17) to 0.15 foot (MW-7) in May, from 0.01 foot (MW-5) to 0.07 foot (MW-7) in September and from 0.02 foot (MW-17) to 0.06 foot (MW-7) in November 2014. For 2014, the following wells exhibited an average decrease in LNAPL thickness when compared to their 2013 average LNAPL thickness: MW-3 (0.12 foot); MW-5 (0.40 foot); MW-7 (0.70 foot); and MW-17 (0.47 foot). LNAPL gauging data collected during quarterly monitoring events for each well was used to calculate the yearly average thickness.

Monitoring wells MW-1, MW-2 and WW-1 were dry throughout 2014 groundwater gauging activities and were plugged, abandoned and replaced with MW-1R and MW-2R in September 2014. MW-3 was dry for February and September 2014 groundwater gauging activities and was plugged, abandoned and replaced with MW-3R in October 2014. MW-11 was gauged dry for the September and November 2014 groundwater gauging activities. The groundwater flow direction is toward the southeast and appears to be consistent with historical data. The average groundwater gradient determined for the Site from the four groundwater monitoring events was approximately 0.002 foot/foot. Pertinent well gauging data indicated a decline in the elevation of the potentiometric surface for 2014. The average decline was 0.16 foot per quarter. The total of the average decline for the four quarters of 2014 was 0.64 foot.

During the February 2014 groundwater monitoring, event eleven wells (MW-4, MW-6, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15 and MW-16) were sampled, of which four wells (MW-4, MW-6, MW-10 and MW-12) contained benzene concentrations above the NMWQCC Standard

(0.01 mg/L) for benzene. During the May groundwater monitoring event eleven wells (MW-4, MW-6, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15 and MW-16) were sampled, of which three wells (MW-4, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard for benzene. During the September groundwater monitoring event 10 wells (MW-4, MW-6, MW-8, MW-9, MW-10, MW-12, MW-13, MW-14, MW-15 and MW-16) were sampled, of which three wells (MW-4, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard for benzene. During the November groundwater monitoring event, 13 wells (MW-1R, MW-2R, MW-4, MW-5, MW-6, MW-8, MW-9, MW-10, MW-12, MW-13, MW-14, MW-15 and MW-16) were sampled, of which five wells (MW-1R, MW-4, MW-5, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard for benzene. During the third quarter, weekly hand bailing of MW-6 and MW-12 was initiated in order to reduce the concentration of benzene. The benzene concentration in MW-6 decreased from 0.00380 mg/L in May 2014 to 0.00190 mg/L in September 2014 but increased to 0.00540 mg/L in November 2014. The benzene concentration in MW-12 increased from 0.307 mg/L in May 2014 to 0.335 mg/L in September 2014 but decreased to 0.0549 mg/L in November 2014. Excluding MW-1R, MW-4, MW-6, MW-10 and MW-12, all wells sampled in 2014 contained BTEX concentrations below laboratory detection limits. Groundwater BTEX analytical results are summarized in Table 2. LNAPL Thickness and Groundwater BTEX concentration maps for the February, May, September and November 2014 groundwater monitoring events are presented as Figures 4, 6, 8 and 10, respectively. Polycyclic Aromatic Hydrocarbons (PAH) samples were collected from MW-1R, MW-2R, MW-5 and MW-6. Analytical results indicated MW-5 exceeded the NMWQCC Drinking Water Standard (0.03 mg/L) for naphthalene, 1-methylnaphthalene and 2-methylnaphthalene. Analytical laboratory results for MW-1R, MW-2R and MW-6 indicated the wells did not contain any PAH constituents that exceeded the NMWQCC Standards. The historic data on the PAH results are summarized in Table 3. A color-coded table highlighting PSH, Benzene and Clean Wells is presented as Table 4. Copies of the certified laboratory reports and chain-of-custody documentation are attached in Appendix B.

#### Section 4.0 Corrective Action

Monitoring wells which were gauged with LNAPL had the LNAPL removed using manual methods bi-weekly (twice a month) as part of the LNAPL abatement program for the Site. MW-3, MW-5, MW-7 and MW-17 were the wells targeted for LNAPL recovery via absorbent socks or hand bailing.

The 2014 LNAPL abatement program recovered 4.85 gallons (0.12 barrels) of product from the Site. Approximately 8,174 gallons (194.6 barrels) of LNAPL have been recovered from the start of the product abatement program.

## Section 5.0 Summary of Findings

Based on groundwater assessment monitoring and remedial activities performed by CRA at the Site in 2014, the following summary of findings is presented:

- The release is suspected to have come from a former crude oil tank battery located in the northeastern corner of the fenced facility on-site;
- CRA assumed Site operation and project management responsibilities on May 2, 2011;
- MW-1, MW-2, MW-3 and WW-1 were plugged and abandoned with NMOCD approval on September 16, 2014;
- MW-1R and MW-2R were drilled and constructed with NMOCD approval on September 17, 2014. MW-3R was drilled and constructed with NMOCD approval on October 7, 2014;
- Currently, the Site is monitored with a network of 17 groundwater monitoring wells (MW-1R, MW-2R, MW-3R and MW-4 through MW-17);
- Corrected groundwater elevations ranged from 3720.00 to 3722.36 feet in February, from 3719.86 to 3722.24 feet in May, from 3719.70 to 3722.09 feet in September and from 3719.51 to 3721.93 feet in November 2014;
- LNAPL was encountered in four monitoring wells (MW-3, MW-5, MW-7, and MW-17) during all 2014 gauging events with the exception of MW-3 in February and September and MW-5 in November of 2014. Wells containing LNAPL were not purged and sampled. LNAPL thicknesses, from these four monitoring wells, ranged from 0.12 to 0.48 feet in February, from 0.01 to 0.15 feet in May, from 0.01 to 0.07 feet in September and from 0.15 to 0.52 feet in November 2014;
- For 2014, the following well exhibited an average decrease in LNAPL thickness when compared to their 2013 average LNAPL thickness: MW-3 (0.12 foot); MW-5 (0.40 foot); MW-7 (0.70 foot); and MW-17 (0.47 foot);
- During the February groundwater monitoring event, 11 wells (MW-4, MW-6, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15 and MW-16) were sampled, of which four wells (MW-4, MW-6, MW-10 and MW-12) exhibited benzene concentrations above the NMWQCC Standard (0.01 mg/L) for benzene;
- During the May groundwater monitoring event, 11 wells (MW-4, MW-6, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15 and MW-16) were sampled, of which three wells (MW-4, MW-10 and MW-12) exhibited benzene concentrations above the NMWQCC Standard for benzene;
- During the September groundwater monitoring event, 10 wells (MW-4, MW-6, MW-8, MW-9, MW-10, MW-12, MW-13, MW-14, MW-15 and MW-16) were sampled, of which three wells (MW-4, MW-10 and MW-12) exhibited benzene concentrations above the NMWQCC Standard (0.01 mg/L) for benzene;

- During the November groundwater monitoring event, 13 wells (MW-1R, MW-2R, MW-4, MW-5, MW-6, MW-8, MW-9, MW-10, MW-12, MW-13, MW-14, MW-15 and MW-16) were sampled, of which five wells (MW-1R, MW-4, MW-5, MW-10 and MW-12) exhibited benzene concentrations above the NMWQCC Standard for benzene;
- During the September and November groundwater monitoring events MW-11 was gauged dry;
- Weekly hand bailing of MW-6 resulted in the benzene concentration increasing from 0.00380 mg/L in the second quarter of 2014 to 0.00540 mg/L in the fourth quarter;
- Weekly hand bailing of MW-12 resulted in the benzene concentration decreasing from 0.307 mg/L in the second quarter of 2014 to 0.0549 mg/L in the fourth quarter of 2014;
- Polycyclic Aromatic Hydrocarbons (PAH) samples were collected from MW-1R, MW-2R, MW-5 and MW-6. Analytical laboratory results indicated MW-5 exceeded the NMWQCC Drinking Water Standard (0.03 mg/L) for naphthalene, 1-methylnaphthalene and 2-methylnaphthalene. Analytical laboratory results for MW-1R, MW-2R and MW-6 indicated the wells did not contain any PAH constituents that exceeded the NMWQCC Standards;
- During 2014 , monitoring wells MW-1, MW-2, MW-3 and MW-11 and water well WW-1 were dry or considered dry and were not sampled during quarterly activities;
- The Site's groundwater flow direction is toward the southeast and appears to be consistent with historical data. The average groundwater gradient determined at the Site from the 2014 groundwater monitoring events was approximately 0.002 foot/foot;
- Pertinent well gauging data indicated a decline in the elevation of the potentiometric surface for 2014. The average decline was 0.16 foot per quarter. The total average decline for the four quarters of 2014 was 0.64 foot;
- Wells which contained measureable LNAPL were manually recovered bi-weekly (twice a month), as part of the LNAPL abatement program. These wells were either equipped with absorbent socks or hand bailed to recover LNAPL; and
- The 2014 abatement program has recovered 4.85 gallons (0.12 barrels) of product from the Site. Approximately 8,174 gallons (194.6 barrels) of product have been recovered from the start of the product abatement program.

## Section 6.0 Recommendations

Based upon the data and conclusions presented in this report, the following is recommended for 2015:

- Initiate correspondence and obtain approval from the NMOCD for addition of the new wells (MW-1R, MW-2R and MW-3R) to the approved sampling schedule presented in Section 2.0;
- Continue ongoing quarterly groundwater monitoring events with annual reporting to the NMOCD. Each quarterly event to include monitoring well gauging, sampling groundwater for BTEX and annual sampling during the fourth quarterly event;

- Continue annual sampling for Polycyclic Aromatic Hydrocarbons (PAH). Wells sampled during the 2014 annual event and wells that previously contained LNAPL but the thickness has decreased to <0.01 foot will be scheduled for sampling during the fourth quarterly monitoring event;
- Continue hand bailing of MW-6 and MW-12 in order to decrease benzene concentrations;
- Continue with manual bi-weekly (twice a month) LNAPL abatement on MW-3, MW-5 (if applicable), MW7 and MW-17; and
- Recommend conducting Enhanced Fluid Recovery (EFR) on select wells with considerable LNAPL thickness in efforts to decrease plume.

All of Which is Respectfully Submitted,

Conestoga-Rovers & Associates

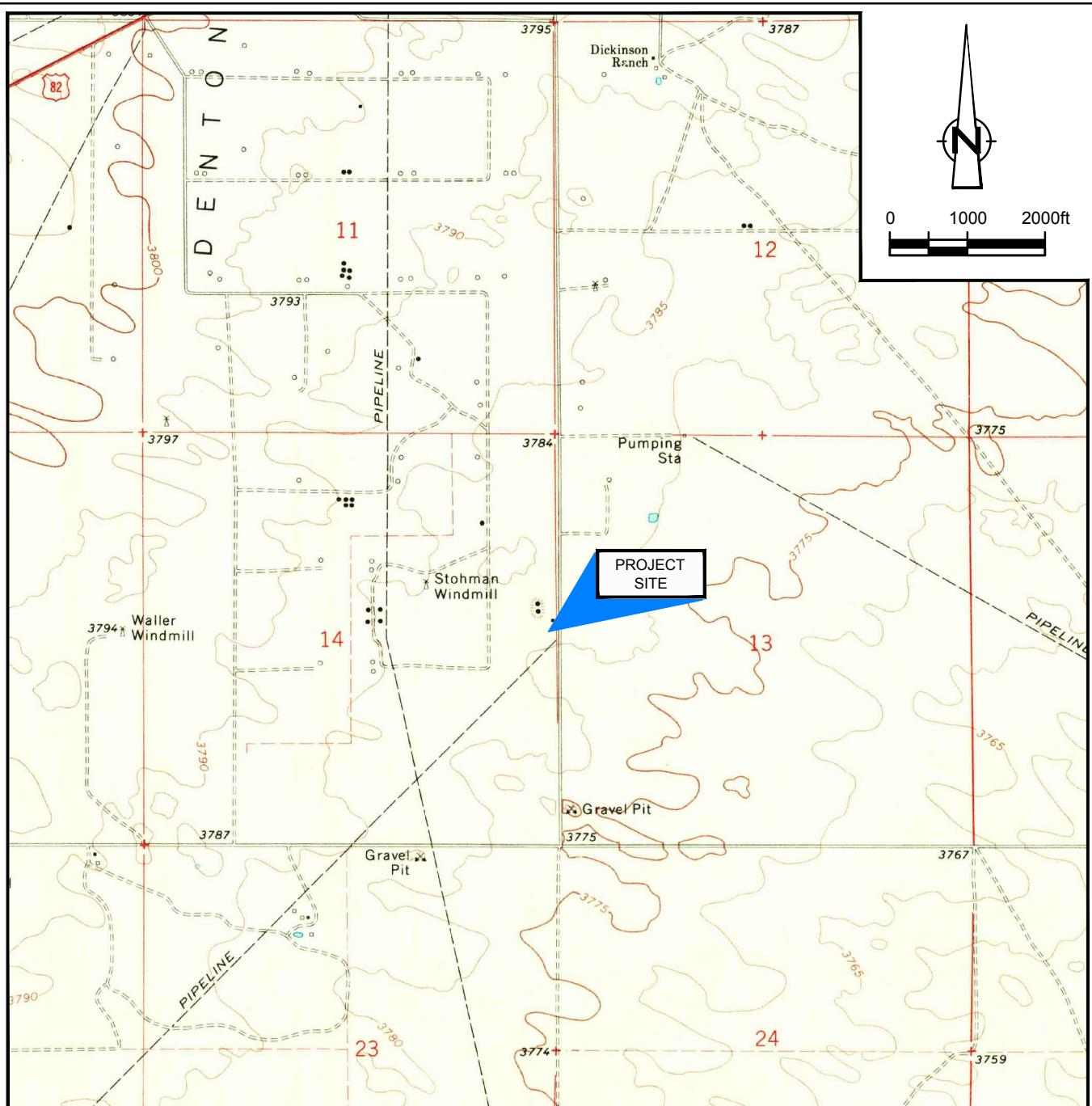


John Fergerson  
Project Manager



Thomas C. Larson  
Principal, Midland Operations Manager

## Figures



SOURCE: USGS 7.5 MINUTE QUAD  
"PRAIRIEVIEW, NEW MEXICO"

LAT/LONG: 33.0175° NORTH, 103.1624° WEST  
COORDINATE: NAD83 DATUM, U.S. FOOT  
STATE PLANE ZONE - NEW MEXICO EAST

Figure 1  
**SITE LOCATION MAP**  
**DENTON STATION**  
**LEA COUNTY, NEW MEXICO**  
*Plains Pipeline L.P.*



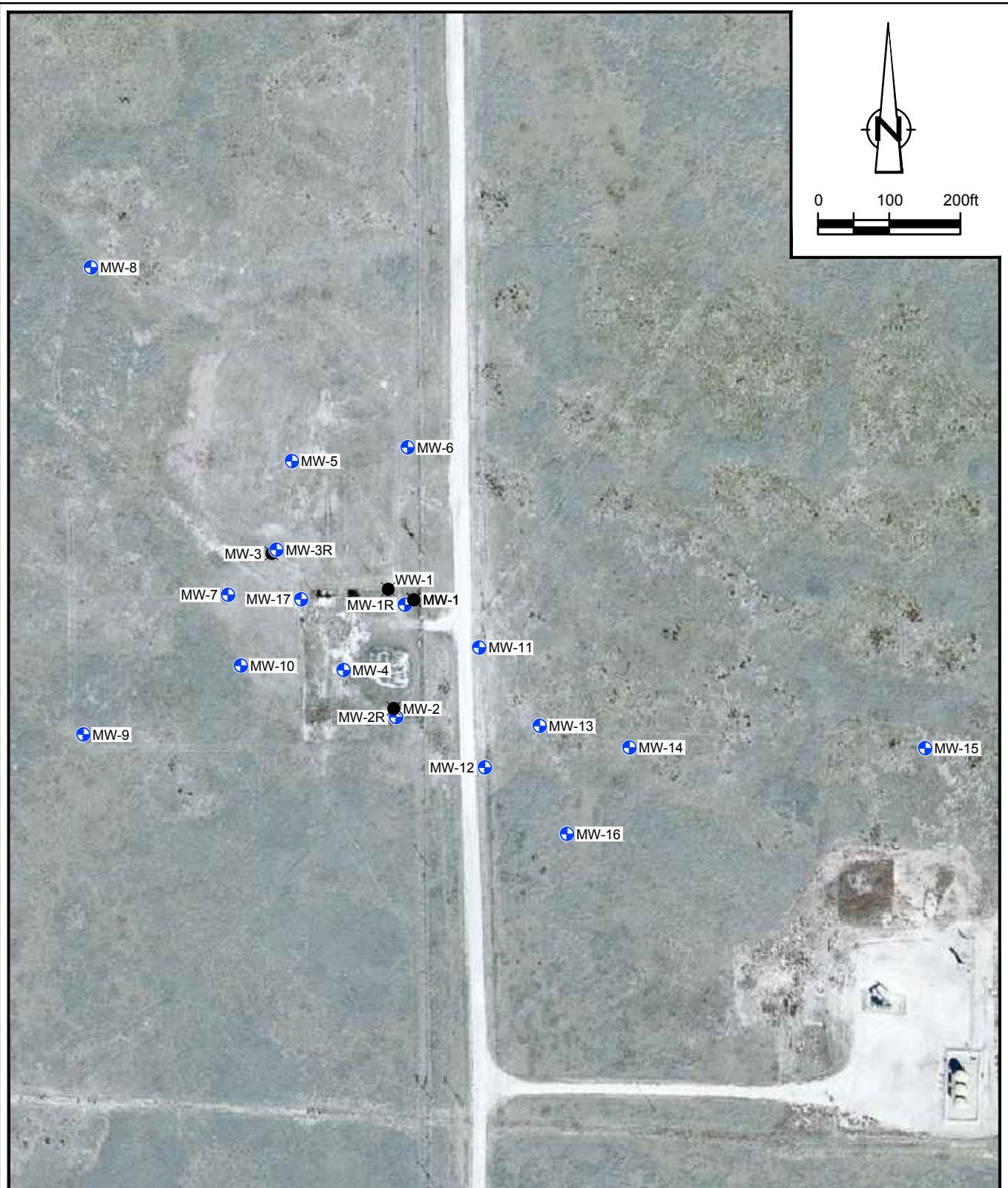
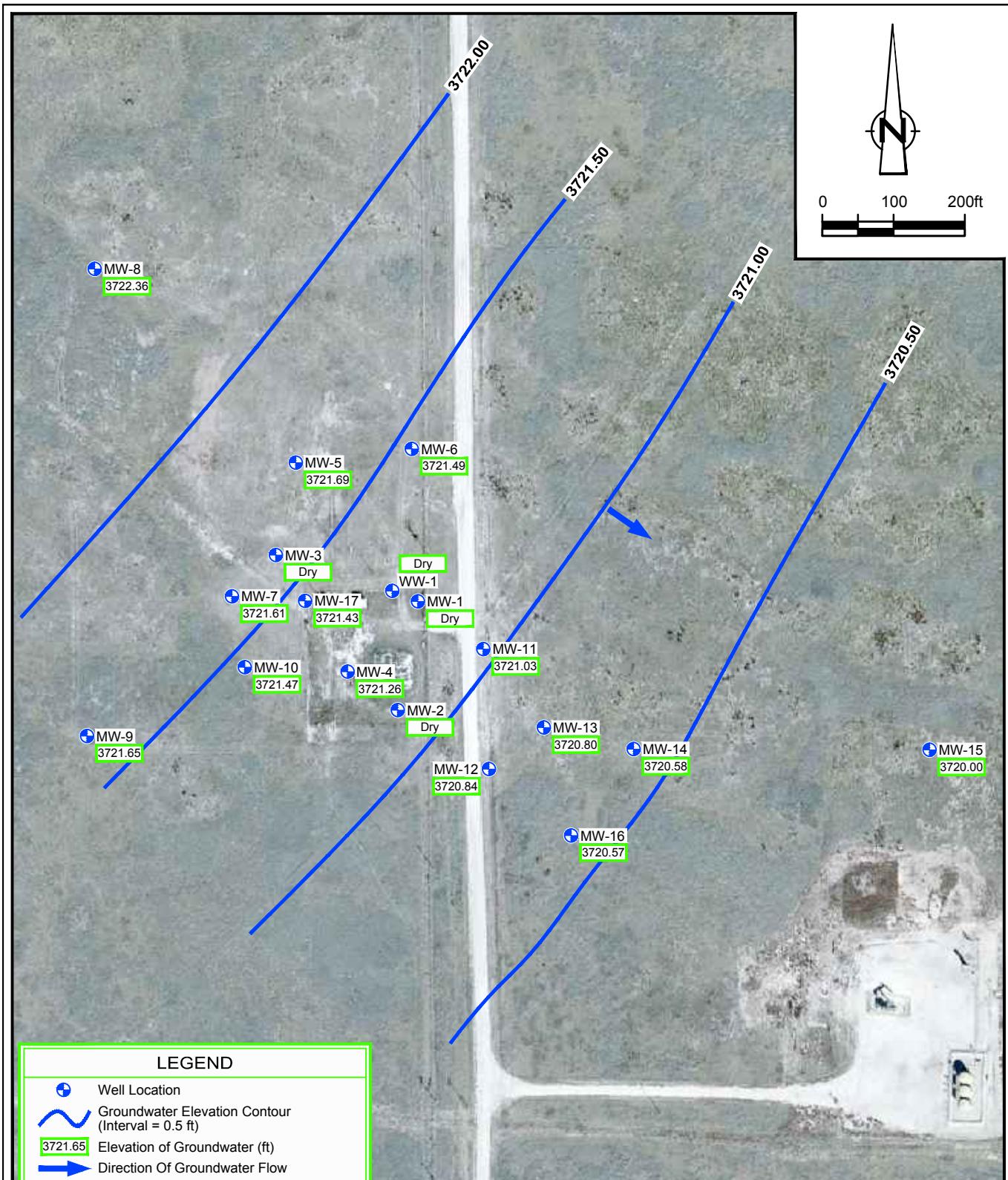


Figure 2  
SITE DETAILS MAP  
DENTON STATION  
LEA COUNTY, NEW MEXICO  
*Plains Pipeline L.P.*



**NOTE:**

Groundwater elevations gauged on February 25, 2014.

Figure 3

**GROUNDWATER GRADIENT MAP - FEBRUARY 2014  
DENTON STATION  
LEA COUNTY, NEW MEXICO  
*Plains Pipeline L.P.***



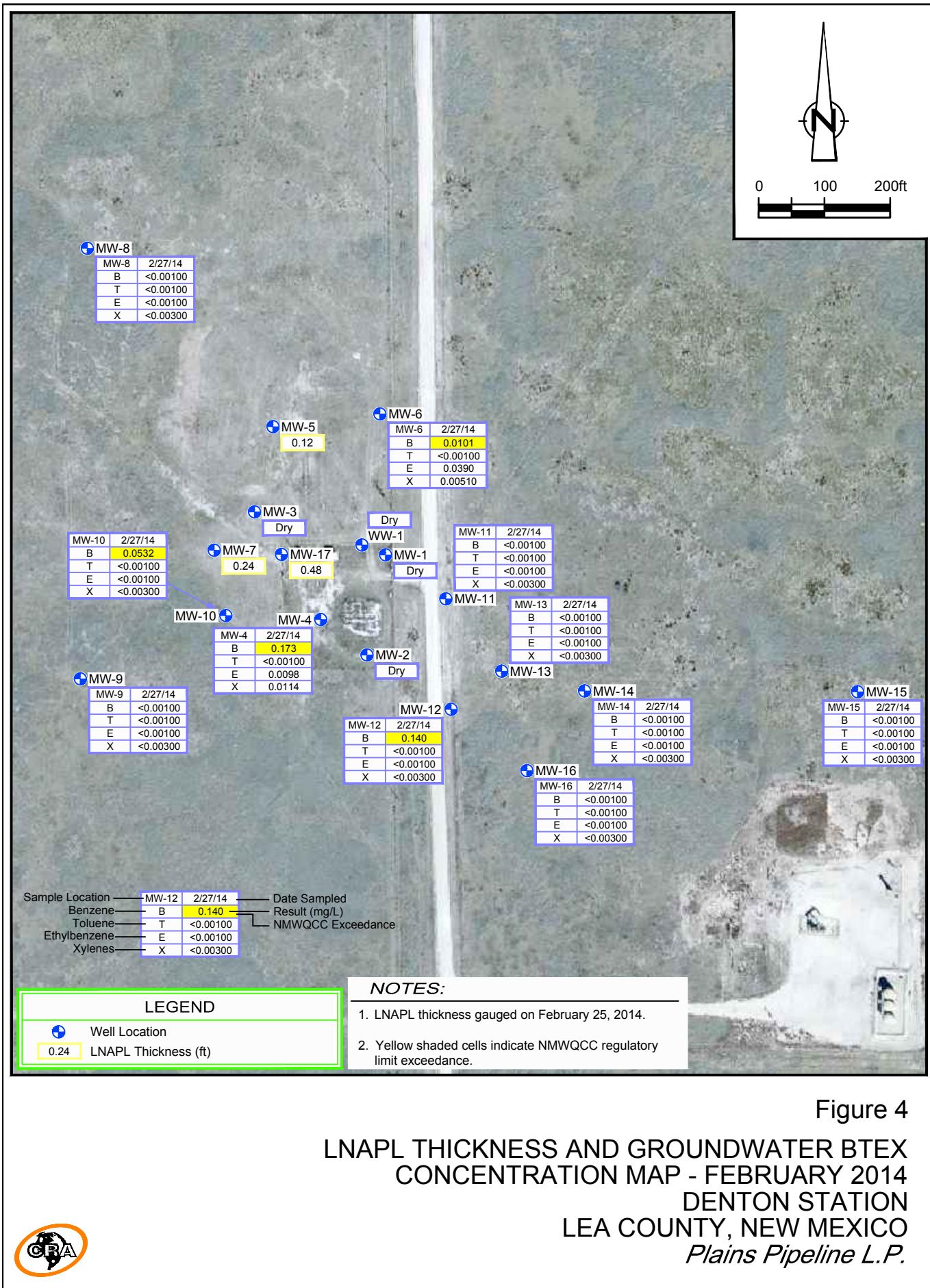


Figure 4

## LNAPL THICKNESS AND GROUNDWATER BTEX CONCENTRATION MAP - FEBRUARY 2014 DENTON STATION LEA COUNTY, NEW MEXICO *Plains Pipeline L.P.*

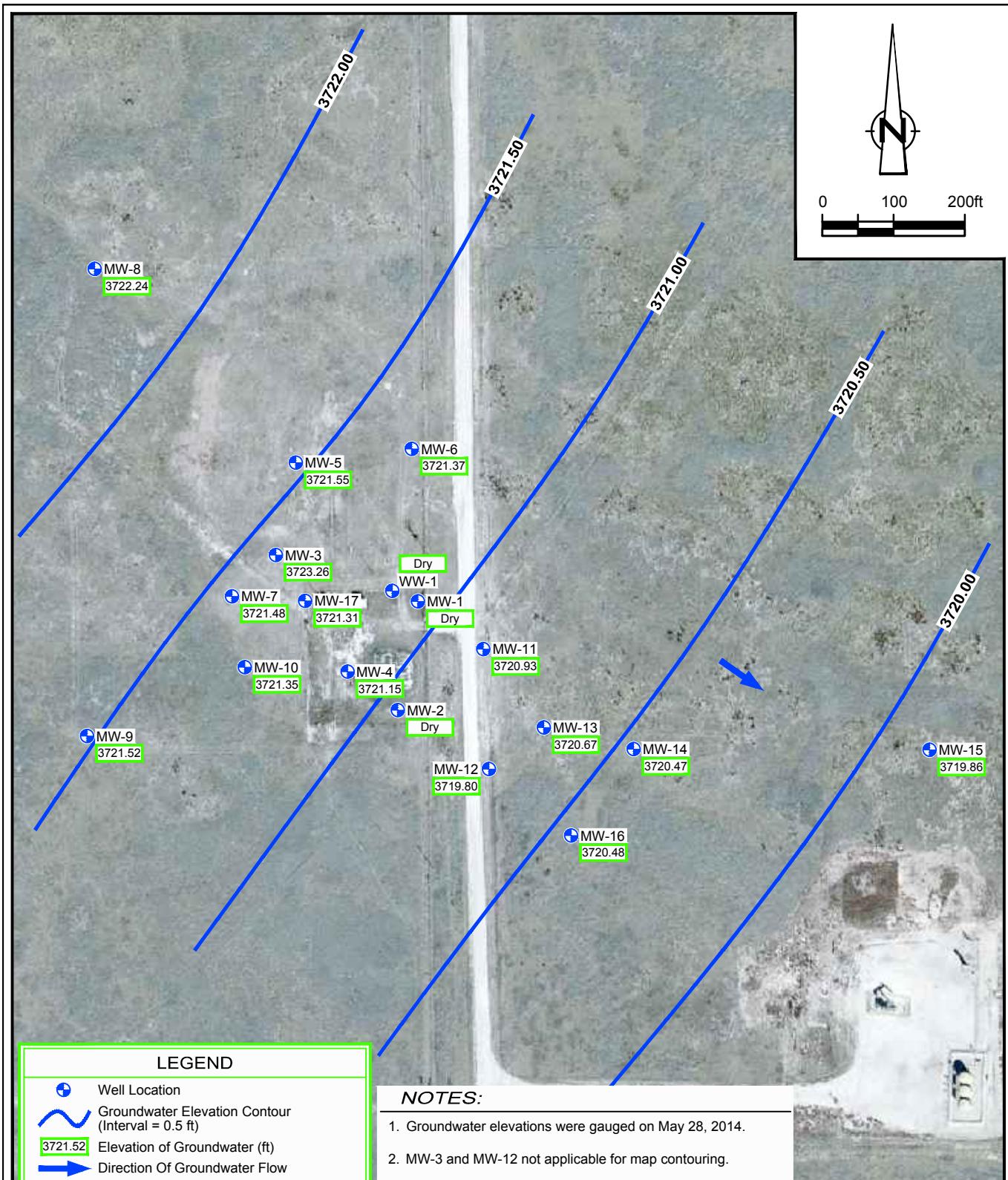


Figure 5  
GROUNDWATER GRADIENT MAP - MAY 2014  
DENTON STATION  
LEA COUNTY, NEW MEXICO  
*Plains Pipeline L.P.*

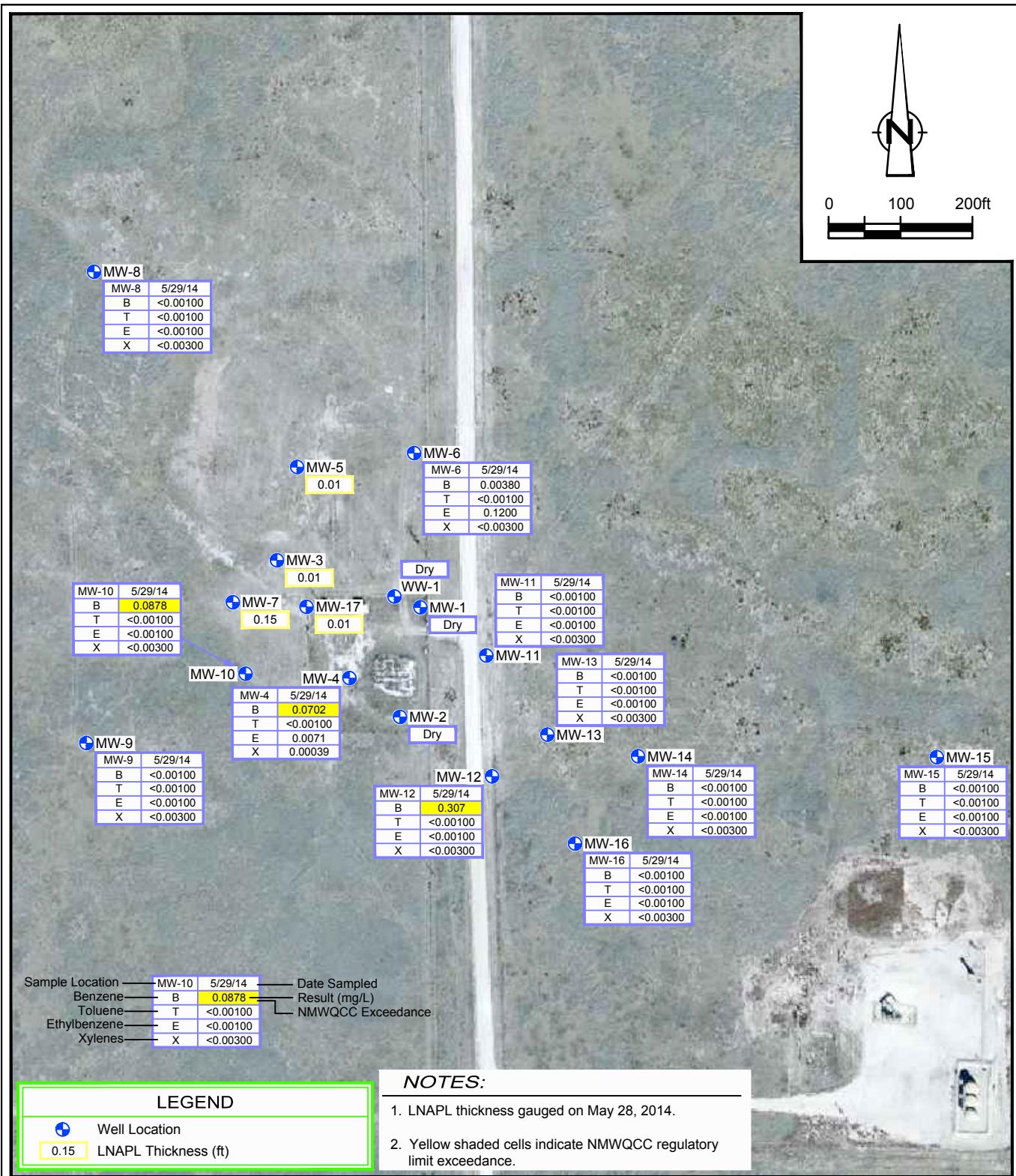


Figure 6

## LNAPL THICKNESS AND GROUNDWATER BTEX CONCENTRATION MAP - MAY 2014 DENTON STATION LEA COUNTY, NEW MEXICO *Plains Pipeline L.P.*



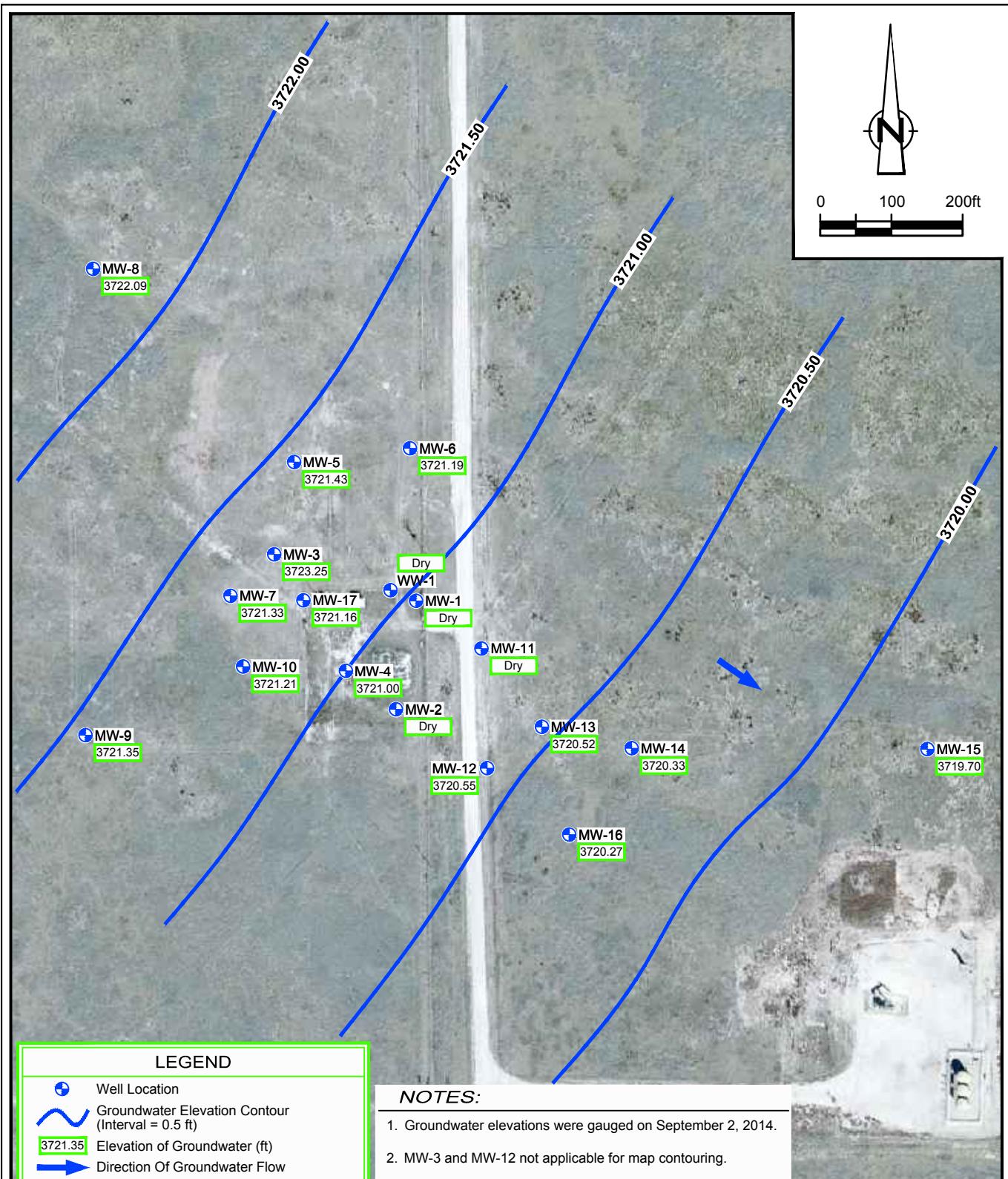


Figure 7  
GROUNDWATER GRADIENT MAP - SEPTEMBER 2014  
DENTON STATION  
LEA COUNTY, NEW MEXICO  
*Plains Pipeline L.P.*

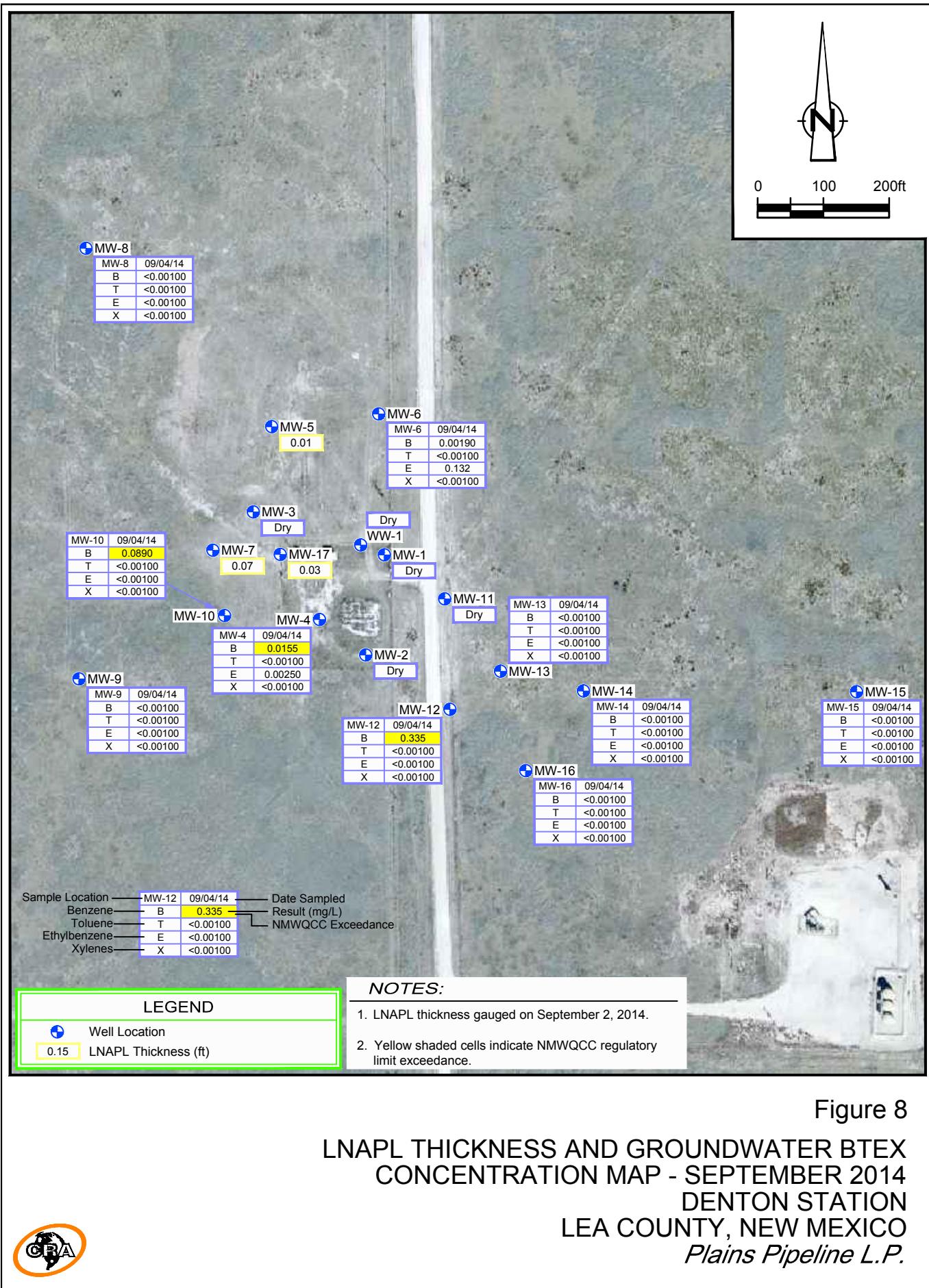


Figure 8

## LNAPL THICKNESS AND GROUNDWATER BTEX CONCENTRATION MAP - SEPTEMBER 2014 DENTON STATION LEA COUNTY, NEW MEXICO *Plains Pipeline L.P.*

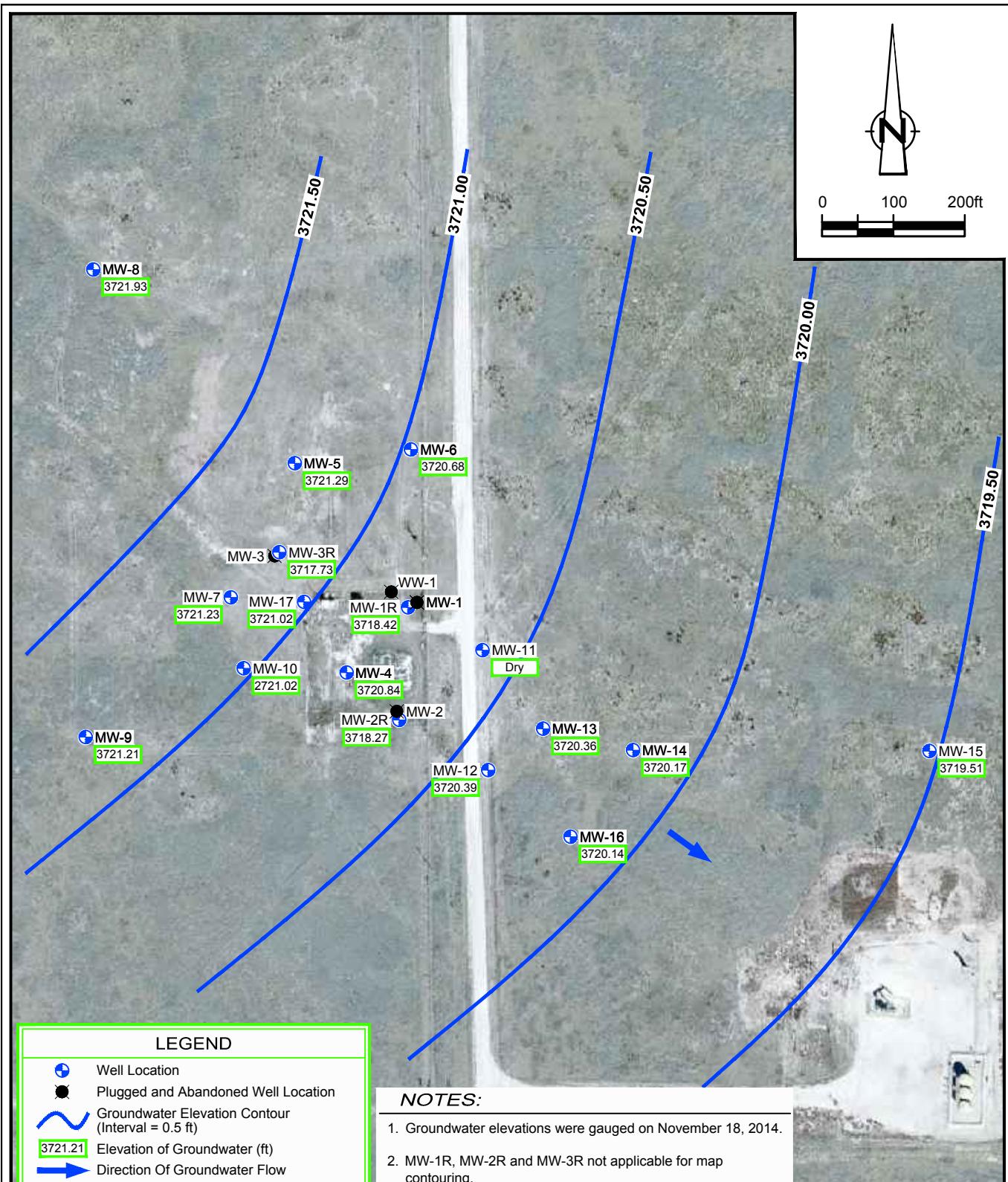
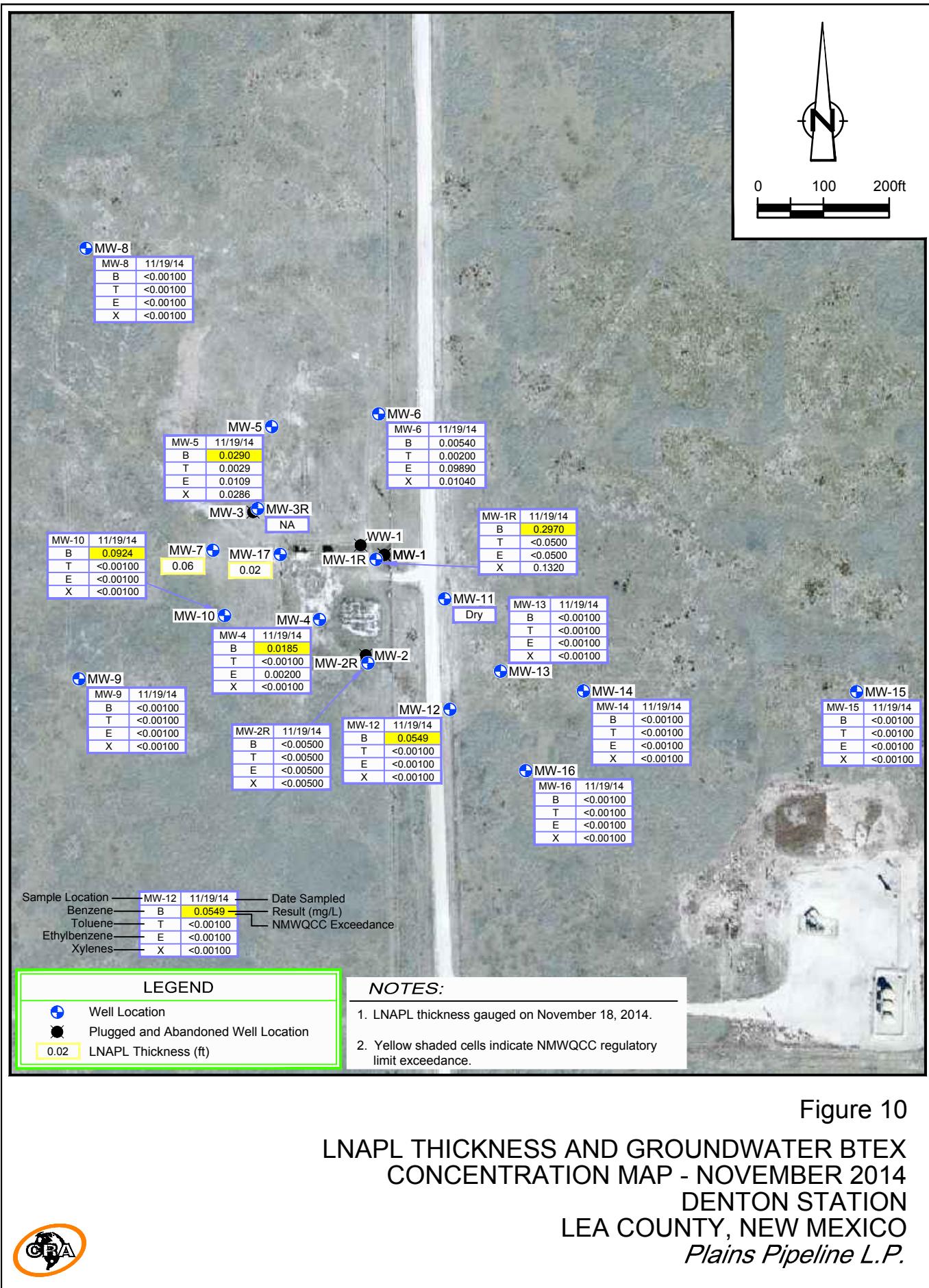


Figure 9  
GROUNDWATER GRADIENT MAP - NOVEMBER 2014  
DENTON STATION  
LEA COUNTY, NEW MEXICO  
*Plains Pipeline L.P.*



**Figure 10**  
**LNAPL THICKNESS AND GROUNDWATER BTEX CONCENTRATION MAP - NOVEMBER 2014**  
**DENTON STATION**  
**LEA COUNTY, NEW MEXICO**  
*Plains Pipeline L.P.*



## Tables

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-1 3785.40	6/16/11	63.15	63.14	0.01	3722.26	63.80	35 - 65 (4 in)		
	9/7/11	63.24	63.17	0.07	3722.22	64.23			
	11/28/11	63.41	63.37	0.04	3722.02	64.75			
	3/5/12	63.62	63.51	0.11	3721.87	64.71			
	6/5/12		DRY		---	63.55			
	9/10/12		DRY		---	62.80			
	12/3/12		DRY		---	---			
	3/5/13		DRY		---	62.40			
	5/28/13		DRY		---	62.65			
	8/28/13		DRY		---	62.92			
	11/11/13		DRY		---	62.85			
	2/25/14		DRY		---	62.30			
	5/28/14		DRY		---	62.30			
	9/2/14		DRY		---	62.30			
	9/16/14				P&A				
MW-1R 3780.37	10/8/14	65.37			3715.00		57.0 - 77.0 (4 in)		
	11/18/14	61.95	---	---	3718.42	76.82			
MW-2 3783.74	6/16/11	61.08	---	---	3722.66	62.00	35-65 (4 in)		
	9/7/11	61.26	---	---	3722.48	62.34			
	11/28/11	61.34	---	---	3722.40	62.97			
	3/5/12	61.47	---	---	3722.27	62.89			
	6/5/12	61.64	---	---	3722.10	62.20			
	9/10/12	61.80	---	---	3721.94	62.15			
	12/3/12	61.91	---	---	3721.83	62.03			
	3/5/13	DRY			---	62.08			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-2	5/28/13	DRY	---	---	62.00	62.11	62.05	62.08	
	8/28/13								
	11/11/13								
	2/25/14								
	5/28/14								
	9/2/14								
	9/16/14				P&A				
MW-2R 3781.82	10/8/14	63.70	---	---	3718.12	80.17	57.0 - 77.0 (4 in)		
MW-3 3783.45	11/18/14	63.55	---	---	3718.27				
	6/16/11	---	59.22	1.08	NA	60.30	35 - 65 (4 in)		
	8/1/11	---	59.37	2.54	NA*	61.91			
	8/10/11	60.11	59.31	0.80	3723.99	---			
	8/17/11	60.14	59.70	0.44	3723.67	---			
	8/23/11	60.20	59.88	0.32	3723.51	---			
	9/7/11	60.31	59.96	0.35	3723.42	60.92			
	9/21/11	60.30	59.88	0.42	3723.49	---			
	9/28/11	60.28	59.81	0.47	3723.55	---			
	10/5/11	60.31	59.81	0.50	3723.55	---			
	10/12/11	60.30	59.82	0.48	3723.54	---			
	10/19/11	60.30	59.89	0.41	3723.48	---			
	10/20/11	60.30	59.92	0.38	3723.46	---			
	11/1/11	60.31	59.90	0.41	3723.47	---			
	11/9/11	60.29	59.95	0.34	3723.44	---			
	11/16/11	60.27	59.81	0.46	3723.55	---			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-3 cont.	11/22/11	---	---	---	---	---			
	11/28/11	---	---	---	---	---			
	1/4/12	---	---	---	---	---			
	1/11/12	---	---	---	---	---			
	1/16/12	---	---	---	---	---			
	1/25/12	60.30	60.02	0.28	3723.38	---			
	1/4/12	---	---	---	---	---			
	1/11/12	---	---	---	---	---			
	2/15/12	60.32	59.70	0.62	3723.63	---			
	2/21/12	60.30	59.71	0.59	3723.63	---			
	3/5/12	60.35	59.65	0.70	3723.67	60.91			
	3/14/12	60.35	59.68	0.67	3723.64	---			
	3/20/12	60.24	59.62	0.62	3723.71	---			
	3/28/12	60.28	59.85	0.43	3723.52	---			
	4/4/12	60.31	59.81	0.50	3723.55	---			
	4/11/12	60.28	59.81	0.47	3723.55	---			
	4/18/12	60.26	59.92	0.34	3723.47	---			
	4/24/12	61.26	61.01	0.25	3722.39	---			
	5/1/12	60.25	60.00	0.25	3723.40	---			
	5/9/12	60.27	60.01	0.26	3723.39	---			
	5/17/12	60.28	60.03	0.25	3723.37	---			
	5/24/12	60.29	59.80	0.49	3723.56	---			
	6/5/12	60.30	59.88	0.42	3723.49	---			
	6/20/12	60.27	59.91	0.36	3723.47	---			
	6/27/12	60.31	60.00	0.31	3723.39	---			
	7/2/12	68.23	67.91	0.32	3715.48	---			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-3 cont.	7/18/12		60.02	0.33	NA	60.35			
	7/25/12	60.28	60.20	0.08	3723.23	---			
	8/8/12	---	60.03	NA	NA	60.31			
	8/14/12	---	60.02	NA	NA	60.31			
	8/15/12	60.24	59.83	0.41	3723.54	---			
	8/28/12	60.26	59.86	0.40	3723.51	---			
	9/10/12	61.85	61.30	0.55	3722.05	---			
	10/3/12	60.33	59.92	0.41	3723.45	---			
	10/9/12	60.25	59.91	0.34	3723.48	---			
	10/15/12	60.20	59.91	0.29	3723.48	---			
	10/23/12	60.29	59.91	0.38	3723.47	---			
	10/30/12	---	58.93	NA	NA	59.7			
	11/6/12	60.30	59.95	0.35	3723.43	61			
	12/3/12	60.30	60.00	0.30	3723.39	---			
	1/2/13		DRY		---	---			
	1/15/13	68.30	68.10	0.20	3715.31	61			
	1/22/13		DRY		---	---			
	2/28/13	60.29	60.11	0.18	3723.31	---			
	3/5/13	---	60.20	0.14	NA	60.34			
	3/19/13	61.33	61.21	0.12	3722.22	---			
	3/26/13	60.27	60.15	0.12	3723.28	---			
	5/28/13	60.25	60.18	0.07	3723.26	---			
	6/11/13	60.25	60.21	0.04	3723.23	---			
	6/18/13	60.28	60.22	0.06	3723.22	---			
	6/25/13	60.29	60.24	0.05	3723.20	---			
	7/2/13	60.12	60.10	0.02	3723.35	---			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-3 cont.	7/17/13	60.20	60.18	0.02	3723.27	---			
	7/24/13	60.21	60.19	0.02	3723.26	---			
	7/31/13	60.26	60.25	0.01	3723.20	---			
	8/13/13	60.24	---	---	3723.21	---			
	8/28/13	62.20	62.19	0.01	3721.26	---			
	6/11/13	60.25	60.21	0.04	3723.23	---			
	6/18/13	60.28	60.22	0.06	3723.22	---			
	9/24/13	60.21	---	---	3723.24	---			
	10/8/13	60.22	60.21	0.01	3723.24	---			
	10/15/13	60.24	60.23	0.01	3723.22	60.31			
	10/29/13	60.26	---	---	3723.19	60.36			
	11/5/13	60.28	---	---	3723.17	60.6			
	11/11/13	60.22	---	---	3723.23	60.33			
	12/10/13	60.28	---	---	3723.17	---			
	12/17/13	60.24	---	---	3723.21	---			
	1/28/14	---	60.24	0.01	NA	60.25			
	2/18/14	---	60.23	0.02	NA	60.25			
	2/25/14		DRY		---	60.23			
	3/19/14	60.23	---	---	3723.22	60.23			
	3/25/14	60.24	---	---	3723.21	60.23			
	4/22/14	60.26	---	---	3723.19	60.23			
	4/29/14	60.26	---	---	3723.19	60.23			
	5/7/14	60.21	---	---	3723.24	60.23			
	5/14/14	60.23	---	---	3723.22	60.23			
	5/28/14	60.20	60.19	0.01	3723.26	60.23			
	6/3/14	60.21	---	---	3723.24	60.23			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-3 cont.	6/10/14	60.20	---	---	3723.25	60.23			
	6/17/14	60.24	---	---	3723.21	60.23			
	7/1/14		DRY		---	60.23			
	7/9/14	60.21	---	---	3723.24	60.23			
	7/15/14	60.20	---	---	3723.25	60.23			
	7/25/14	60.19	---	---	3723.26	60.23			
	7/31/14	60.20	---	---	3723.25	60.23			
	8/5/14	60.19	---	---	3723.26	60.23			
	8/14/14	60.19	---	---	3723.26	60.23			
	8/20/14	60.20	---	---	3723.25	60.23			
	8/26/14	60.19	---	---	3723.26	60.23			
	9/2/14	60.20	---	---	3723.25	60.23			
	9/9/14	60.20	---	---	3723.25	60.23			
	9/16/14				P&A				
MW-3R 3783.67	10/8/14	65.04	---	---	3718.63		56.6 - 76.5 (4 in)		
	11/5/14	65.17	64.82	0.03	3718.52				
	11/12/14	64.95	64.92	0.03	3718.74				
	11/18/14	65.94	---	---	3717.73	80.33			
	12/2/14	65.11	64.90	0.21	3718.73				
MW-4 3783.87	6/16/11	61.05	---	---	3722.82	72.58	35 - 65 (4 in)		
	9/7/11	61.20	---	---	3722.67	72.63			
	11/28/11	61.32	---	---	3722.55	72.41			
	3/5/12	61.45	---	---	3722.42	72.45			
	6/5/12	61.57	---	---	3722.30	---			
	9/10/12	61.70	---	---	3722.17	72.98			

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**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-4 cont.	12/3/12	61.91	---	---	3721.96	72.62	35 - 65 (4 in)		
	3/5/13	62.02	---	---	3721.85	72.50			
	5/28/13	62.18	---	---	3721.69	72.60			
	8/28/13	62.25	---	---	3721.62	72.93			
	11/11/13	62.40	---	---	3721.47	75.25			
	2/25/14	62.61	---	---	3721.26	72.32			
	5/28/14	62.72	---	---	3721.15	72.32			
	9/2/14	62.87	---	---	3721.00	72.32			
	11/18/14	63.03	---	---	3720.84	72.32			
MW-5 3784.29	6/16/11	62.18	60.79	1.39	3723.24	72.20	35 - 65 (4 in)		
	8/1/11	62.70	60.86	1.84	3723.08	---			
	8/10/11	61.92	61.00	0.92	3723.12	---			
	8/17/11	61.54	61.05	0.49	3723.15	---			
	8/23/11	61.64	61.09	0.55	3723.10	---			
	9/7/11	61.79	61.09	0.70	3723.07	69.83			
	9/21/11	61.94	61.53	0.41	3722.68	---			
	9/28/11	61.91	61.08	0.83	3723.05	---			
	10/5/11	61.59	61.10	0.49	3723.10	---			
	10/12/11	61.74	61.18	0.56	3723.00	---			
	10/19/11	61.55	61.15	0.40	3723.06	---			
	10/26/11	61.63	61.18	0.45	3723.02	---			
	11/1/11	61.69	61.19	0.50	3723.01	---			
	11/9/11	61.82	61.21	0.61	3722.96	---			
	11/16/11	61.87	61.21	0.66	3722.95	---			
	11/22/11	61.92	61.20	0.72	3722.95	---			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-5 cont.	11/28/11	61.91	61.20	0.71	3722.96	71.68			
	1/4/12	62.11	61.18	0.93	3722.93	---			
	1/11/12	62.18	61.20	0.98	3722.90	---			
	1/16/12	62.19	61.22	0.97	3722.89	---			
	1/25/12	62.30	61.22	1.08	3722.86	---			
	2/1/12	62.31	61.22	1.09	3722.86	---			
	2/8/12	61.85	61.33	0.52	3722.86	---			
	2/15/12	61.94	61.32	0.62	3722.85	---			
	2/21/12	61.95	61.30	0.65	3722.87	---			
	3/5/12	62.07	61.33	0.74	3722.82	71.73			
	3/14/12	62.08	61.31	0.77	3722.83	---			
	3/20/12	62.08	61.30	0.78	3722.84	---			
	3/28/12	62.20	61.35	0.85	3722.78	---			
	4/4/12	62.21	61.35	0.86	3722.78	---			
	4/11/12	62.26	61.35	0.91	3722.77	---			
	4/18/12	62.27	61.30	0.97	3722.81	---			
	4/24/12	62.36	61.40	0.96	3722.71	---			
	5/1/12	61.99	61.38	0.61	3722.79	---			
	5/9/12	61.85	61.45	0.40	3722.76	---			
	5/17/12	61.90	61.48	0.42	3722.73	---			
	5/24/12	61.94	61.48	0.46	3722.72	---			
	6/5/12	61.96	61.45	0.51	3722.74	---			
	6/20/12	62.12	61.49	0.63	3722.68	---			
	6/27/12	62.14	61.51	0.63	3722.66	---			
	7/2/12	62.16	61.46	0.70	3722.70	---			
	7/18/12	62.25	61.53	0.72	3722.62	---			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-5 cont.	7/25/12	62.24	61.50	0.74	3722.65	---			
	8/8/12	62.33	61.50	0.83	3722.63	---			
	8/14/12	62.36	61.51	0.85	3722.62	---			
	8/15/12	62.40	61.50	0.90	3722.62	---			
	8/28/12	62.18	61.56	0.62	3722.61	---			
	9/10/12	62.30	61.63	0.67	3722.53	---			
	10/3/12	62.42	61.61	0.81	3722.53	---			
	10/9/12	62.40	61.60	0.80	3722.54	---			
	10/15/12	62.45	61.61	0.84	3722.52	---			
	10/23/12	62.56	61.65	0.91	3722.47	---			
	10/30/12	62.31	61.65	0.66	3722.51	71.4			
	11/6/12	62.36	61.59	0.77	3722.55	71.8			
	12/3/12	62.44	61.71	0.73	3722.44				
	1/2/13	63.60	61.75	1.85	3722.19	71.8			
	1/15/13	62.45	61.81	0.64	3722.36	71.8			
	1/22/13	62.10	61.86	0.24	3722.38	71.8			
	2/28/13	62.25	61.91	0.34	3722.32	---			
	3/5/13	62.28	61.92	0.36	3722.30	---			
	3/19/13	62.31	61.92	0.39	3722.30	---			
	3/26/13	62.22	61.92	0.30	3722.31	---			
	5/28/13	62.55	62.00	0.55	3722.19	---			
	6/11/13	62.68	62.08	0.60	3722.10	---			
	6/18/13	62.65	62.03	0.62	3722.14	---			
	6/25/13	62.75	62.09	0.66	3722.07	---			
	7/2/13	62.71	62.03	0.68	3722.13	---			
	7/17/13	62.70	62.05	0.65	3722.12	---			

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**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-5 cont.	7/24/13	62.80	62.14	0.66	3722.02	---			
	7/31/13	62.75	62.08	0.67	3722.08	---			
	8/28/13	62.85	62.13	0.72	3722.02	---			
	9/11/13	62.93	62.18	0.75	3721.97	---			
	9/18/13	62.99	62.11	0.88	3722.01	---			
	9/24/13	62.95	62.20	0.75	3721.95	---			
	10/1/13	62.93	62.15	0.78	3721.99	---			
	10/8/13	62.97	62.20	0.77	3721.94	---			
	10/15/13	62.98	62.16	0.82	3721.97	---			
	10/29/13	63.02	62.21	0.81	3721.93	---			
	11/5/13	62.60	62.34	0.26	3721.90	---			
	11/11/13	62.51	62.34	0.17	3721.92	---			
	11/20/13	62.57	62.38	0.19	3721.87	---			
	12/10/13	62.68	62.46	0.22	3721.79	---			
	12/17/13	62.57	62.42	0.15	3721.84	---			
	1/28/14	62.64	62.48	0.16	3721.78	71.73			
	2/18/14	62.67	62.49	0.18	3721.77	71.73			
	2/25/14	62.70	62.58	0.12	3721.69	71.73			
	3/19/14	62.73	62.59	0.14	3721.67	71.73			
	3/25/14	62.75	---	---	3721.54	71.73			
	4/23/14	62.71	---	---	3721.58	71.73			
	4/29/14	62.67	---	---	3721.62	71.73			
	5/7/14	62.69	---	---	3721.60	71.73			
	5/14/14	62.71	---	---	3721.58	71.73			
	5/28/14	62.75	62.74	0.01	3721.55	71.73			
	6/3/14	62.76	---	---	3721.53	71.73			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
<b>MW-5 cont.</b>	6/10/14	62.77	---	---	3721.52	71.73			
	6/17/14	62.80	---	---	3721.49	71.73			
	7/1/14	62.81	---	---	3721.48	71.73			
	7/9/14	63.08	---	---	3721.21	71.73			
	7/15/14	63.06	---	---	3721.23	71.73			
	7/25/14	62.90	---	---	3721.39	71.73			
	7/31/14	63.02	---	---	3721.27	71.73			
	8/5/14	62.91	---	---	3721.38	71.73			
	8/13/14	62.91	---	---	3721.38	71.73			
	8/20/14	62.86	---	---	3721.43	71.73			
	8/26/14	62.85	---	---	3721.44	71.73			
	9/2/14	62.87	62.86	0.01	3721.43	71.73			
	9/10/14	62.89	---	---	3721.40	71.73			
	9/17/14	62.95	---	---	3721.34	71.73			
	10/8/14	62.99			3721.30	71.73			
	11/5/14	63.04	63.03	0.01	3721.25	71.73			
	11/12/14	63.11	63.10	0.01	3721.18	71.73			
	11/18/14	63.00	62.99	0.01	3721.29	71.73			
<b>MW-6 3785.78</b>	6/16/11	62.76	---	---	3723.02	73.61	35 - 65 (4 in)		
	9/7/11	62.93	---	---	3722.85	74.31			
	1/28/14	62.64	62.48	0.16	3723.27	---			
	2/18/14	62.67	62.49	0.18	3723.26	---			
	2/25/14	64.29	---	---	3721.49	73.58			
	3/19/14	62.73	62.59	0.14	3723.16	---			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-6 cont.	3/25/14	62.75	---	---	3723.03	---			
	5/28/14	64.41	---	---	3721.37	73.58			
	9/2/14	64.59	---	---	3721.19	73.58			
	11/18/14	65.10	---	---	3720.68	73.58			
MW-7 3783.14	6/16/11	61.70	59.55	2.15	3723.18	67.63	35 - 65 (4 in)		
	7/28/11	66.65	61.05	5.60	3721.03	72.85			
	8/1/11	59.57	---	---	3723.57	--			
	8/10/11	60.24	59.97	0.27	3723.12	---			
	8/17/11	60.32	59.99	0.33	3723.09	---			
	8/23/11	60.63	60.01	0.62	3723.01	---			
	9/7/11	60.88	59.92	0.96	3723.04	67.63			
	9/21/11	61.20	59.89	1.31	3723.00	---			
	9/28/11	61.32	59.91	1.41	3722.96	---			
	10/5/11	60.81	60.01	0.80	3722.98	---			
	10/12/11	60.78	60.05	0.73	3722.95	---			
	10/19/11	60.69	60.05	0.64	3722.97	---			
	10/26/11	60.63	60.10	0.53	3722.94	---			
	11/1/11	60.82	60.09	0.73	3722.91	---			
	11/9/11	60.99	60.01	0.98	3722.94	---			
	11/16/11	60.89	60.08	0.81	3722.91	---			
	11/22/11	61.02	60.03	0.99	3722.92	---			
	11/28/11	61.18	60.02	1.16	3722.90	67.6			
	1/4/12	61.80	59.90	1.90	3722.88	---			
	1/11/12	60.85	60.18	0.67	3722.83	---			
	1/16/12	60.93	60.17	0.76	3722.83	---			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-7 cont.	1/25/12	61.20	60.12	1.08	3722.81	---			
	2/1/12	61.35	60.10	1.25	3722.80	---			
	2/8/12	60.93	60.18	0.75	3722.82	---			
	2/15/12	61.12	60.19	0.93	3722.77	---			
	2/21/12	61.03	60.09	0.94	3722.87	---			
	3/5/12	61.32	60.15	1.17	3722.77	67.59			
	3/14/12	61.55	60.15	1.40	3722.72	---			
	3/20/12	61.18	60.20	0.98	3722.75	---			
	3/28/12	61.35	60.20	1.15	3722.72	---			
	4/4/12	61.51	60.15	1.36	3722.73	---			
	4/11/12	61.61	60.14	1.47	3722.72	---			
	4/18/12	61.29	60.21	1.08	3722.72	---			
	4/24/12	61.40	60.23	1.17	3722.69	---			
	5/1/12	61.25	60.25	1.00	3722.70	---			
	5/9/12	60.95	60.37	0.58	3722.66	---			
	5/17/12	61.13	60.32	0.81	3722.67	---			
	5/24/12	61.29	60.30	0.99	3722.65	---			
	6/5/12	61.51	60.27	1.24	3722.63	---			
	6/20/12	61.73	60.21	1.52	3722.64	---			
	6/27/12	61.41	60.34	1.07	3722.60	---			
	7/2/12	61.46	60.31	1.15	3722.61	---			
	7/18/12	61.77	60.31	1.46	3722.55	---			
	7/25/12	61.82	60.24	1.58	3722.60	---			
	8/8/12	61.34	60.40	0.94	3722.56	---			
	8/14/12	61.36	60.42	0.94	3722.54	---			
	8/15/12	61.57	60.40	1.17	3722.52	---			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-7 cont.	8/28/12	61.16	60.45	0.71	3722.56	---			
	9/10/12	61.40	60.45	0.95	3722.51	---			
	10/3/12	61.73	61.42	0.31	3721.66	---			
	10/9/12	61.81	60.43	1.38	3722.45	---			
	10/15/12	61.85	60.40	1.45	3722.46	---			
	10/23/12	62.00	60.41	1.59	3722.43	---			
	10/30/12	61.70	59.45	2.25	3723.26	63.4			
	11/6/12	61.05	60.50	0.55	3722.54	67.4			
	12/3/12	61.39	60.61	0.78	3722.38	---			
	1/2/13	61.73	60.60	1.13	3722.33	67.4			
	1/15/13	61.12	60.75	0.37	3722.32	67.4			
	1/22/13	61.00	60.75	0.25	3722.34	67.4			
	2/28/13	61.49	60.75	0.74	3722.25	---			
	3/5/13	61.60	60.77	0.83	3722.21	---			
	3/19/13	61.73	60.81	0.92	3722.16	---			
	3/26/13	61.81	60.75	1.06	3722.19	---			
	5/28/13	62.12	60.76	1.36	3722.12	---			
	6/11/13	63.34	60.81	2.53	3721.85	---			
	6/18/13	62.30	60.77	1.53	3722.08	---			
	6/25/13	62.40	60.81	1.59	3722.03	---			
	7/2/13	62.29	60.86	1.43	3722.01	---			
	7/17/13	62.32	60.80	1.52	3722.05	---			
	7/24/13	62.50	60.83	1.67	3721.99	---			
	7/31/13	61.68	61.07	0.61	3721.95	---			
	8/13/13	61.78	61.02	0.76	3721.98	---			
	8/28/13	61.83	61.00	0.83	3721.98	---			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-7 cont.	9/11/13	62.03	61.04	0.99	3721.91	---			
	9/18/13	62.11	61.00	1.11	3721.93	---			
	9/24/13	62.10	61.00	1.10	3721.93	---			
	10/1/13	62.19	61.01	1.18	3721.91	---			
	10/8/13	61.57	61.21	0.36	3721.86	---			
	10/15/13	61.60	61.13	0.47	3721.92	---			
	10/29/13	61.78	61.18	0.60	3721.85	---			
	11/5/13	61.55	61.24	0.31	3721.84	---			
	11/11/13	61.43	61.30	0.13	3721.82	---			
	11/20/13	61.54	61.32	0.22	3721.78	---			
	12/10/13	61.70	61.30	0.40	3721.76	---			
	12/17/13	61.60	61.27	0.33	3721.81	---			
	1/28/14	61.88	61.33	0.55	3721.71	67.59			
	2/18/14	61.90	61.36	0.54	3721.68	67.59			
	2/25/14	61.72	61.48	0.24	3721.61	67.59			
	3/19/14	61.92	61.42	0.50	3721.63	67.59			
	3/25/14	61.85	61.52	0.33	3721.56	67.59			
	4/22/14	61.97	61.80	0.17	3721.31	67.59			
	4/29/14	61.67	61.61	0.06	3721.52	67.59			
	5/7/14	61.64	61.62	0.02	3721.52	67.59			
	5/14/14	61.71	61.64	0.07	3721.49	67.59			
	5/28/14	61.78	61.63	0.15	3721.48	67.59			
	6/3/14	61.83	61.66	0.17	3721.45	67.59			
	6/10/14	61.82	61.69	0.13	3721.43	67.59			
	6/17/14	61.74	61.72	0.02	3721.42	67.59			
	7/1/14	61.89	61.82	0.07	3721.31	67.59			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
<b>MW-7 cont.</b>	7/9/14	61.81	---	---	3721.33	67.59			
	7/15/14	61.83	---	---	3721.31	67.59			
	7/25/14	61.93	---	---	3721.21	67.59			
	7/31/14	61.85	---	---	3721.29	67.59			
	8/5/14	61.91	---	---	3721.23	67.59			
	8/14/14	61.84	---	---	3721.30	67.59			
	8/20/14	61.85	---	---	3721.29	67.59			
	8/26/14	61.83	---	---	3721.31	67.59			
	9/2/14	61.87	61.80	0.07	3721.33	67.59			
	9/10/14	61.95	61.80	0.15	3721.31	67.59			
	9/17/14	62.05	---	---	3721.09	67.59			
	10/7/14	62.20	62.19	0.01	3720.94	67.59			
	11/5/14	62.05	62.01	0.04	3721.09	67.59			
	11/12/14	62.00	61.99	0.01	3721.14	67.59			
	11/18/14	61.96	61.90	0.06	3721.23	67.59			
	12/2/14	62.15	61.94	0.21	3721.16	67.59			
<b>MW-8 3785.89</b>	6/16/11	61.95	---	---	3723.94	74.05	35 - 65 (4 in)		
	9/7/11	62.14	---	---	3723.75	73.21			
	2/25/14	63.53	---	---	3722.36	74.08			
	5/28/14	63.65	---	---	3722.24	74.08			
	9/2/14	63.80	---	---	3722.09	74.08			
	11/18/14	63.96	---	---	3721.93	74.08			
<b>MW-9 3784.17</b>	6/16/11	60.95	---	---	3723.22	73.30	35 - 65 (4 in)		
	9/7/11	61.08	---	---	3723.09	73.21			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-9 cont.	2/25/14	62.52	---	---	3721.65	73.30			
	5/28/14	62.65	---	---	3721.52	73.30			
	9/2/14	62.82	---	---	3721.35	73.30			
	11/18/14	62.96	---	---	3721.21	73.30			
MW-10 3782.22	6/16/11	59.16	---	---	3723.06	66.28	35 - 65 (2 in)		
	9/7/11	59.32	---	---	3722.90	66.13			
	2/25/14	60.75	---	---	3721.47	66.13			
	5/28/14	60.87	---	---	3721.35	66.13			
	9/2/14	61.01	---	---	3721.21	66.13			
	11/18/14	61.20	---	---	3721.02	66.13			
MW-11 3783.35	6/16/11	60.76	---	---	3722.59	62.60	35 - 65 (2 in)		
	9/7/11	60.92	---	---	3722.43	62.63			
	2/25/14	62.32	---	---	3721.03	62.70			
	5/28/14	62.42	---	---	3720.93	62.70			
	9/2/14		DRY			62.70			
	11/18/14		DRY			62.70			
MW-12 3780.80	6/16/11	58.43	---	---	3722.37	67.18	35 - 65 (2 in)		
	9/7/11	58.58	---	---	3722.22	67.63			
	2/25/14	59.96	---	---	3720.84	67.35			
	5/28/14	61.00	---	---	3719.80	67.35			
	9/2/14	60.25	---	---	3720.55	67.35			
	11/18/14	60.41	---	---	3720.39	67.35			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-13 3781.16	6/16/11	58.81	---	---	3722.35	63.91	35 - 65 (2 in)		
	9/7/11	58.97	---	---	3722.19	64.32			
	2/25/14	60.36	---	---	3720.80	64.10			
	5/28/14	60.49	---	---	3720.67	64.10			
	9/2/14	60.64	---	---	3720.52	64.10			
	11/18/14	60.80	---	---	3720.36	64.10			
MW-14 3781.33	6/16/11	59.20	---	---	3722.13	63.02	35 - 65 (2 in)		
	9/7/11	59.34	---	---	3721.99	63.41			
	2/25/14	60.75	---	---	3720.58	64.04			
	5/28/14	60.86	---	---	3720.47	64.04			
	9/2/14	61.00	---	---	3720.33	64.04			
	11/18/14	61.16	---	---	3720.17	64.04			
MW-15 3782.43	6/16/11	60.91	---	---	3721.52	66.55	35 - 65 (2 in)		
	9/7/11	DRY	---	---	---	67.31			
	2/25/14	62.43	---	---	3720.00	66.88			
	5/28/14	62.57	---	---	3719.86	66.88			
	9/2/14	62.73	---	---	3719.70	66.88			
	11/18/14	62.92	---	---	3719.51	66.88			
MW-16 3780.24	6/16/11	58.10	---	---	3722.14	62.00	35 - 65 (2 in)		
	9/7/11	58.29	---	---	3721.95	62.13			
	2/25/14	59.67	---	---	3720.57	62.16			
	5/28/14	59.76	---	---	3720.48	62.16			
	9/2/14	59.97	---	---	3720.27	62.16			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-16 cont.	11/18/14	60.10	---	---	3720.14	62.16			
MW-17 3784.47	6/16/11	63.11	61.10	2.01	3722.99	75.10	35 - 65 (2 in)		
	8/1/11	63.85	61.07	2.78	3722.87	---			
	8/10/11	62.85	61.30	1.55	3722.88	---			
	8/17/11	62.01	61.48	0.53	3722.89	---			
	8/23/11	62.85	---	---	3721.62	---			
	9/7/11	62.31	61.43	0.88	3722.87	65.43			
	9/21/11	62.61	61.41	1.20	3722.83	---			
	9/28/11	67.76	61.42	6.34	3721.85	---			
	10/5/11	62.13	61.53	0.60	3722.83	---			
	10/12/11	62.18	61.58	0.60	3722.78	---			
	10/19/11	---	61.59	---	NA	---			
	10/26/11	62.19	61.61	0.58	3722.75	---			
	11/1/11	62.28	61.59	0.69	3722.75	---			
	11/9/11	62.50	61.57	0.93	3722.72	---			
	11/16/11	62.15	61.67	0.48	3722.71	---			
	11/22/11	62.23	61.63	0.60	3722.73	---			
	11/28/11	62.31	61.64	0.67	3722.70	75.15			
	1/4/12	62.81	61.58	1.23	3722.66	---			
	1/11/12	62.31	61.68	0.63	3722.67	---			
	1/16/12	62.40	61.69	0.71	3722.65	---			
	1/25/12	62.50	61.70	0.80	3722.62	---			
	2/1/12	62.61	61.68	0.93	3722.61	---			
	2/8/12	62.31	61.73	0.58	3722.63	---			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-17 cont.	2/15/12	62.42	61.73	0.69	3722.61	---			
	2/21/12	62.51	61.70	0.81	3722.62	---			
	3/5/12	62.69	61.68	1.01	3722.60	75.15			
	3/14/12	62.79	61.71	1.08	3722.55	---			
	3/20/12	62.38	61.77	0.61	3722.58	---			
	3/28/12	62.50	61.80	0.70	3722.54	---			
	4/4/12	62.60	61.80	0.80	3722.52	---			
	4/11/12	62.68	61.75	0.93	3722.54	---			
	4/18/12	62.76	61.75	1.01	3722.53	---			
	4/24/12	62.91	61.75	1.16	3722.50	---			
	5/1/12	62.45	61.82	0.63	3722.53	---			
	5/9/12	62.33	61.89	0.44	3722.50	---			
	5/17/12	62.43	61.86	0.57	3722.50	---			
	5/24/12	62.54	61.85	0.69	3722.49	---			
	6/5/12	62.68	61.82	0.86	3722.49	---			
	6/20/12	62.90	61.81	1.09	3722.45	---			
	6/27/12	62.52	61.93	0.59	3722.43	---			
	7/2/12	62.58	61.91	0.67	3722.43	---			
	7/18/12	62.80	61.91	0.89	3722.39	---			
	7/25/12	62.84	61.86	0.98	3722.42	---			
	8/8/12	62.58	61.95	0.63	3722.40	---			
	8/14/12	62.58	61.95	0.63	3722.40	---			
	8/15/12	62.74	61.94	0.80	3722.38	---			
	8/28/12	62.46	62.03	0.43	3722.36	---			
	9/10/12	62.60	62.00	0.60	3722.36	---			
	10/3/12	62.87	62.01	0.86	3722.30	---			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
MW-17 cont.	10/9/12	62.95	62.05	0.90	3722.25	---			
	10/15/12	62.97	62.01	0.96	3722.28	---			
	10/23/12	63.01	62.01	1.00	3722.27	---			
	10/30/12	63.11	62.31	0.80	3722.01	74.5			
	11/6/12	63.19	62.03	1.16	3722.22	71.4			
	12/3/12	62.89	62.13	0.76	3722.20				
	1/2/13	63.19	62.20	0.99	3722.08	71.4			
	1/15/13	63.05	62.21	0.84	3722.10	71.4			
	1/22/13	62.86	62.21	0.65	3722.14	71.4			
	2/28/13	63.00	62.30	0.70	3722.04	---			
	3/5/13	63.07	62.30	0.77	3722.02	---			
	3/19/13	63.21	62.31	0.90	3721.99	---			
	3/26/13	63.22	62.27	0.95	3722.02	---			
	5/28/13	63.35	62.39	0.96	3721.90	---			
	6/11/13	63.44	62.34	1.10	3721.92	---			
	6/18/13	63.50	62.35	1.15	3721.90	---			
	6/25/13	63.60	62.38	1.22	3721.86	---			
	7/2/13	64.51	62.20	2.31	3721.83	---			
	7/17/13	64.61	62.19	2.42	3721.82	---			
	7/24/13	64.67	62.20	2.47	3721.80	---			
	7/31/13	63.46	62.57	0.89	3721.73	---			
	8/13/13	63.21	62.53	0.68	3721.81	---			
	8/28/13	63.40	62.54	0.86	3721.77	---			
	9/11/13	63.49	62.55	0.94	3721.74	---			
	9/18/13	63.47	62.54	0.93	3721.75	---			
	9/24/13	63.64	62.55	1.09	3721.71	---			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
<i>MW-17 cont.</i>	10/1/13	63.63	62.53	1.10	3721.73	---			
	10/8/13	63.09	62.70	0.39	3721.70	---			
	10/15/13	63.14	62.68	0.46	3721.70	---			
	10/29/13	63.26	62.70	0.56	3721.66	---			
	11/5/13	63.03	62.81	0.22	3721.62	---			
	11/11/13	62.97	62.79	0.18	3721.65	---			
	12/10/13	63.27	62.81	0.46	3721.57	---			
	12/17/13	63.10	62.82	0.28	3721.60	---			
	1/28/14	63.38	62.86	0.52	3721.51	---			
	2/18/14	63.50	62.83	0.67	3721.51	---			
	2/25/14	63.43	62.95	0.48	3721.43	75.15			
	3/19/14	63.55	62.95	0.60	3721.41	75.15			
	3/25/14	63.47	63.13	0.34	3721.28	75.15			
	4/23/14	63.32	63.26	0.06	3721.20	75.15			
	4/29/14	63.16	63.14	0.02	3721.33	75.15			
	5/7/14	63.16	63.14	0.02	3721.33	75.15			
	5/14/14	63.24	trace	trace	3721.23	75.15			
	5/28/14	63.17	63.16	0.01	3721.31	75.15			
	6/3/14	63.26	---	---	3721.21	75.15			
	6/10/14	63.23	---	---	3721.24	75.15			
	6/17/14	63.24	---	---	3721.23	75.15			
	7/1/14	63.26	63.23	0.03	3721.21	75.15			
	7/9/14	63.46	---	---	3721.01	75.15			
	7/15/14	63.38	---	---	3721.09	75.15			
	7/25/14	63.39	---	---	3721.08	75.15			
	7/31/14	63.41	---	---	3721.06	75.15			

**TABLE I**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Well ID TOC Elevation</i>	<i>Collection Date</i>	<i>Depth to Groundwater (ft TOC)</i>	<i>Depth to LNAPL (ft TOC)</i>	<i>LNAPL Thickness (ft)</i>	<i>Corrected Groundwater Elevation (famsl)</i>	<i>Well Depth (ft TOC)</i>	<i>Well Screen Interval (ft bgs) &amp; Well Diameter (in)</i>	<i>Volume Product Removed (gal.)</i>	<i>Comments</i>
<i>MW-17 cont.</i>	8/5/14	63.48	---	---	3720.99	75.15			
	8/14/14	63.34	---	---	3721.13	75.15			
	8/20/14	63.34	---	---	3721.13	75.15			
	8/26/14	63.38	---	--	3721.09	75.15			
	9/2/14	63.33	63.30	0.03	3721.16	75.15			
	9/10/14	63.38	63.31	0.07	3721.15	75.15			
	9/17/14	63.52	---	---	3720.95	75.15			
	10/8/14	63.52	---	---	3720.95	75.15			
	11/5/14	63.59	63.58	0.01	3720.88	75.15			
	11/12/14	63.62	---	---	3720.85	75.15			
	11/18/14	63.47	63.45	0.02	3721.02	75.15			
	12/2/14	63.56	63.47	0.09	3720.98	75.15			
<i>WW-1 3784.65</i>	6/16/11	61.93	61.75	0.18	3722.87	---	35 - 65 (8 in)		
	8/1/11	62.02	61.90	0.12	3722.73	---			
	9/16/14				P&A				

**Notes:**

1. TOC - Top of Casing.
2. LNAPL - Light non-aqueous phase liquid.
3. bgs - below ground surface.
4. Corrected groundwater elevations were calculated using an LNAPL specific gravity of 0.81.
5. NA - Total fluids column in well was product.
6. MWs 1-9 have slotted intervals of 35-65' bgs with 4-in. diameter casings. MWs 10-17 have slotted intervals 35-65 feet bgs with 2-in. casings.

**TABLE 2**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Sample ID</i>	<i>Sample Date</i>	<i>Benzene (mg/l)</i>	<i>Toluene (mg/l)</i>	<i>Ethyl-Benzene (mg/l)</i>	<i>Total Xylenes (mg/l)</i>
		<i>NMWQCC Delineation and Remediation Limits</i>			
		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>
MW-1R	11/19/14	<b>0.297</b>	<0.0500	<0.0500	<b>0.132</b>
	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100
MW-2	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100
	11/19/14	<0.00500	<0.00500	<0.00500	<0.00500
MW-4	3/7/11	<b>0.280</b>	<0.00500	<b>0.0391</b>	<b>0.107</b>
	6/16/11	<b>0.197</b>	<0.00500	<0.00500	<0.00500
	9/9/11	<b>0.244</b>	<0.00500	<0.00500	<0.00500
	12/1/11	<b>0.200</b>	<0.00100	<b>0.0104</b>	<b>0.0221</b>
	3/9/12	<b>0.251</b>	<0.00100	<b>0.0154</b>	<b>0.0321</b>
	6/7/12	<b>0.202</b>	<0.00100	<b>0.0099</b>	<b>0.0177</b>
	9/12/12	<b>0.317</b>	<0.0500	<0.0500	<0.0500
	12/5/12	<b>0.191</b>	<0.00100	0.0073	0.0104
	3/7/13	<b>0.126</b>	<0.00100	<0.00100	<0.00100
	5/30/13	<b>0.0542</b>	<0.00100	<0.00100	<0.00100
DUP1	5/30/13	<b>0.1190</b>	<0.00100	<b>0.0401</b>	<b>0.0158</b>
	8/29/13	<b>0.0778</b>	<0.00100	<b>0.00300</b>	<b>0.00400</b>
DUP2	8/29/13	<b>0.0830</b>	<0.00100	<b>0.00270</b>	<b>0.00180</b>
	11/14/13	<b>0.0311</b>	<0.00100	<0.00100	<0.00100
DUP2	2/27/14	<b>0.173</b>	<0.00100	<b>0.0098</b>	<b>0.0114</b>
	2/27/14	<b>0.170</b>	<0.00100	<b>0.0096</b>	<b>0.0086</b>
	5/29/14	<b>0.0702</b>	<0.00100	<b>0.0071</b>	<b>0.00039</b>
	9/4/14	<b>0.0155</b>	<0.00100	<b>0.00250</b>	<0.00100
	11/19/14	<b>0.0185</b>	<0.00100	<b>0.00200</b>	<0.00100
MW-5	11/19/14	<b>0.029</b>	<b>0.0029</b>	<b>0.0109</b>	<b>0.0286</b>
MW-6	3/7/11	<b>0.0470</b>	<0.00100	<0.00100	<b>0.0212</b>
	6/16/11	<b>0.0268</b>	<0.00100	<0.00100	<0.00100
	9/9/11	<b>0.0151</b>	<0.00100	<0.00100	<b>0.0174</b>
	12/1/11	<b>0.00110</b>	<0.00100	<0.00100	<b>0.00340</b>
	3/9/12	<b>0.00740</b>	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<b>0.00280</b>	<0.00100	<b>0.0231</b>	<b>0.00470</b>
	11/14/13	<b>0.0120</b>	<0.00100	<b>0.0033</b>	<b>0.00570</b>

**TABLE 2**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Sample ID</i>	<i>Sample Date</i>	<i>Benzene (mg/l)</i>	<i>Toluene (mg/l)</i>	<i>Ethyl-Benzene (mg/l)</i>	<i>Total Xylenes (mg/l)</i>
		<i>NMWQCC Delineation and Remediation Limits</i>			
		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>
MW-6 cont.	2/27/14	<b>0.0101</b>	<0.00100	<b>0.0390</b>	<b>0.00510</b>
	5/29/14	<b>0.00380</b>	<0.00100	<b>0.1200</b>	<0.00300
DUP 1	5/29/14	<b>0.00310</b>	<0.00100	<b>0.1190</b>	0.0166
DUP-1	9/4/14	<b>0.00190</b>	<0.00100	<b>0.1320</b>	<0.00100
	9/4/14	<b>0.00190</b>	<0.00100	<b>0.1380</b>	<0.00100
	11/19/14	<b>0.00540</b>	<b>0.002</b>	<b>0.0989</b>	<b>0.0104</b>
MW-8	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<0.00100	<0.00100	<0.00300
	2/27/14	<0.00100	<0.00100	<0.00100	<0.00300
	5/29/14	<0.00100	<0.00100	<0.00100	<0.00300
	9/4/14	<0.00100	<0.00100	<0.00100	<0.00100
	11/19/14	<0.00100	<0.00100	<0.00100	<0.00100
MW-9	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<0.00100	<0.00100	<0.00300
	2/27/14	<0.00100	<0.00100	<0.00100	<0.00300
	5/29/14	<0.00100	<0.00100	<0.00100	<0.00300
	9/4/14	<0.00100	<0.00100	<0.00100	<0.00100
	11/19/14	<0.00100	<0.00100	<0.00100	<0.00100
MW-10	3/7/11	<b>0.239</b>	<0.100	<0.100	<0.100
	6/16/11	<b>0.172</b>	<0.00100	<0.00100	<0.00100

**TABLE 2**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Sample ID</i>	<i>Sample Date</i>	<i>Benzene (mg/l)</i>	<i>Toluene (mg/l)</i>	<i>Ethyl-Benzene (mg/l)</i>	<i>Total Xylenes (mg/l)</i>
		<i>NMWQCC Delineation and Remediation Limits</i>			
		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>
MW-10 cont .	9/9/11	<b>0.154</b>	<0.0100	<0.0100	<0.0100
	12/1/11	<b>0.188</b>	<0.00100	<b>0.0171</b>	<0.00100
	3/9/12	<b>0.112</b>	<0.00100	<b>0.0127</b>	<0.00100
	6/7/12	<b>0.116</b>	<0.00100	<b>0.0048</b>	0.0121
	9/12/12	<b>0.168</b>	<0.0500	<0.0500	<0.0500
	12/5/12	<b>0.132</b>	<0.00100	<0.00100	<0.00100
	3/7/13	<b>0.726</b>	<0.00100	<0.00100	<b>0.0060</b>
	5/30/13	<b>0.0525</b>	<0.00100	<0.00100	<0.00100
	8/29/13	<b>0.0411</b>	<0.00100	<0.00100	<0.00100
	11/14/13	<b>0.0407</b>	<0.00100	<0.00100	<0.00300
	2/27/14	<b>0.0532</b>	<0.00100	<0.00100	<0.00300
	5/29/14	<b>0.0878</b>	<0.00100	<0.00100	<0.00300
	9/4/14	<b>0.0890</b>	<0.00100	<0.00100	<0.00100
	11/19/14	<b>0.0924</b>	<0.00100	<0.00100	<0.00100
MW-11	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<0.00100	<0.00100	<0.00100
	2/27/14	<0.00100	<0.00100	<0.00100	<0.00100
	5/29/14	<0.00100	<0.00100	<0.00100	<0.00300
	9/4/14				
	11/19/14			DRY	
MW-12	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<b>0.126</b>	<0.00100	<0.00100	<0.00100
	9/9/11	<b>0.278</b>	<0.00100	<0.00100	<0.00100
	12/1/11	<b>0.0264</b>	<0.00100	<0.00100	<b>0.00250</b>
	3/9/12	<b>0.207</b>	<0.00100	<0.00100	<0.00100
	6/7/12	<b>0.254</b>	<0.00100	<0.00100	<0.00100
	9/12/12	<b>0.313</b>	<0.00100	<0.00100	<0.00100
	12/5/12	<b>0.018</b>	<0.00100	<0.00100	<0.00100
DUP-1	12/5/12	<b>0.018</b>	<0.00100	<0.00100	<0.00100
	3/7/13	<b>0.429</b>	<0.0100	<0.0100	<0.0100
	5/30/13	<b>0.186</b>	<0.00100	<0.00100	<0.00100

**TABLE 2**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Sample ID</i>	<i>Sample Date</i>	<i>Benzene (mg/l)</i>	<i>Toluene (mg/l)</i>	<i>Ethyl-Benzene (mg/l)</i>	<i>Total Xylenes (mg/l)</i>
		<i>NMWQCC Delineation and Remediation Limits</i>			
		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>
MW-12 cont.	8/29/13	<b>0.248</b>	<0.00100	<0.00100	<b>0.00130</b>
	11/14/13	<b>0.172</b>	<0.00100	<0.00100	<0.00100
	2/27/14	<b>0.140</b>	<0.00100	<0.00100	<0.00300
	5/29/14	<b>0.307</b>	<0.00100	<0.00100	<0.00300
	9/4/14	<b>0.335</b>	<0.00100	<0.00100	<0.00100
DUP-1	11/19/14	<b>0.0436</b>	<0.00100	<0.00100	<0.00100
	11/19/14	<b>0.0549</b>	<0.00100	<0.00100	<0.00100
MW-13	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<0.00100	<0.00100	<0.00100
	2/27/14	<0.00100	<0.00100	<0.00100	<0.00300
	5/29/14	<0.00100	<0.00100	<0.00100	<0.00300
	9/4/14	<0.00100	<0.00100	<0.00100	<0.00100
	11/19/14	<0.00100	<0.00100	<0.00100	<0.00100
MW-14	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<0.00100	<0.00100	<0.00100
	2/27/14	<0.00100	<0.00100	<0.00100	<0.00300
	5/29/14	<0.00100	<0.00100	<0.00100	<0.00300
	9/4/14	<0.00100	<0.00100	<0.00100	<0.00100
	11/19/14	<0.00100	<0.00100	<0.00100	<0.00100

**TABLE 2**  
**GROUNDWATER GAUGING SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

<i>Sample ID</i>	<i>Sample Date</i>	<i>Benzene (mg/l)</i>	<i>Toluene (mg/l)</i>	<i>Ethyl-Benzene (mg/l)</i>	<i>Total Xylenes (mg/l)</i>
		<i>NMWQCC Delineation and Remediation Limits</i>			
		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>
MW-15	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11			DRY	
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<0.00100	<0.00100	<0.00100
	2/27/14	<0.00100	<0.00100	<0.00100	<0.00300
	5/29/14	<0.00100	<0.00100	<0.00100	<0.00300
	9/4/14	<0.00100	<0.00100	<0.00100	<0.00100
	11/19/14	<0.00100	<0.00100	<0.00100	<0.00100
MW-16	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<b>0.0529</b>	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<0.00100	<0.00100	<0.00100
	2/27/14	<0.00100	<0.00100	<0.00100	<0.00300
	5/29/14	<0.00100	<0.00100	<0.00100	<0.00300
	9/4/14	<0.00100	<0.00100	<0.00100	<0.00100
	11/19/14	<0.00100	<0.00100	<0.00100	<0.00100

**Notes:**

1. Shaded cells indicate New Mexico Water Quality Control Commission Regulatory Limit exceedances.
2. **Bold** indicates detection.
3. BTEX analyses by EPA Method 8021B.
4. Results shown in mg/L.
5. March 2011 results collected by NOVA.

**TABLE 3**  
**GROUNDWATER PAH ANALYTICAL SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION**  
**LEA COUNTY, NEW MEXICO**

**TABLE 3**  
**GROUNDWATER PAH ANALYTICAL SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION**  
**LEA COUNTY, NEW MEXICO**

**TABLE 3**  
**GROUNDWATER PAH ANALYTICAL SUMMARY**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION**  
**LEA COUNTY, NEW MEXICO**

Sample ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benz[a]pyrene	Benz[b]fluoranthene	Benz[b]furananthene	Benz[e]anthracene	Chrysene	Fluoranthene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran	
NMWQCC Drinking Water Standards Section 1-101.UU and 3-103.A																			
MW-15	12/3/09 11/29/10	<0.000184	<0.000184	<0.000184	<0.000184	<b>0.001</b>	<b>0.007</b>	<b>0.002</b>	<b>0.002</b>	<b>0.002</b>	<b>0.003</b>	<b>0.004</b>			<b>0.03</b>			<0.000184	
MW-16	12/11/08 12/3/09 11/29/10	<0.000183 <0.000184																	
MW-17	12/11/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<b>0.0694</b>	<0.000922	<b>0.113</b>	<0.000922	<b>0.398</b>	<b>0.888</b>	<b>1.24</b>	<b>0.0437</b>
MW-17 (Cont)	12/3/09 11/29/10	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<b>0.0709</b>	<0.000922	<b>0.102</b>	<0.000922	<b>0.270</b>	<b>0.704</b>	<b>0.946</b>	<b>0.0444</b>
WW-1	12/11/08 12/3/09 11/29/10	<0.000922 <0.000183	<b>0.0757</b>	<0.000922	<b>0.122</b>	<0.000922	<b>0.382</b>	<b>0.934</b>	<b>1.38</b>	<b>0.027</b>									
Not sampled as part of Quarterly Monitoring Event																			
Not sampled as part of Quarterly Monitoring Event																			
Not sampled as part of Quarterly Monitoring Event																			
Not sampled as part of Quarterly Monitoring Event																			
Notes:																			
1. Shaded cells indicate New Mexico Oil Conservation Division Regulatory Limit exceedance.																			
2. <b>Bold</b> indicates detection.																			
3. BTEX analyses by EPA Method 8021B.																			
4. Results shown in mg/L.																			
5. 2008 through 2010 results collected by NOVA.																			

**TABLE 4**  
**COLOR CODED TABLE (PSH, BENZENE AND CLEAN WELLS)**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

	PSH (feet)		Benzene (mg/L)		Clean				
	MW-1	MW-1R	MW-2	MW-2R	MW-3	MW-3R	MW-4	MW-5	MW-6
1st Quarter 2010	1.090				0.38		0.632	0.569	0.1280
2nd Quarter 2010	1.300				1.28		0.618	0.620	0.144
3rd Quarter 2010	1.040				1.08		0.714	0.741	0.0895
4th Quarter 2010	1.50				1.39		0.642	0.755	0.0482
1st Quarter 2011	--				0.99		0.28	0.16	0.047
2nd Quarter 2011 *	--				1.08		0.197	1.39	0.0268
3rd Quarter 2011	0.07				0.35		0.244	0.70	0.0151
4th Quarter 2011	0.04				---		0.200	0.71	0.00110
1st Quarter 2012	0.11				0.70		0.251	0.74	0.00740
2nd Quarter 2012	DRY				0.42		0.202	0.51	
3rd Quarter 2012	DRY		NS		0.55		0.317	0.67	
4th Quarter 2012	DRY		NS		0.30		0.191	0.73	
1st Quarter 2013	DRY		DRY		0.14		0.126	0.36	
2nd Quarter 2013	DRY		DRY		0.07		0.0542	0.55	
3rd Quarter 2013	DRY		DRY		0.01		0.0778	0.72	0.00280
4th Quarter 2013	DRY		DRY		NS		0.0311	0.17	0.0120
1st Quarter 2014	DRY		DRY		NS		0.173	0.12	0.0101
2nd Quarter 2014	DRY		DRY		NS		0.0702	0.01	0.0038
3rd Quarter 2014	DRY		DRY		DRY		0.0155	0.01	0.00190
4th Quarter 2014	DRY	0.297	DRY		DRY	NS	0.0185	0.029	0.00540
	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15
1st Quarter 2010	2.61			0.519		0.002			
2nd Quarter 2010	3.66			0.338					
3rd Quarter 2010	1.03			0.344					
4th Quarter 2010	0.78			0.210					

**TABLE 4**  
**COLOR CODED TABLE (PSH, BENZENE AND CLEAN WELLS)**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

	PSH (feet)	Benzene (mg/L)		Clean	
1st Quarter 2011	0.32			0.239	
2nd Quarter 2011 *	2.15			0.172	0.126
3rd Quarter 2011	0.96			0.154	0.278
4th Quarter 2011	1.16			0.188	0.0264
1st Quarter 2012	1.17			0.112	
2nd Quarter 2012	1.24			0.116	0.254
3rd Quarter 2012	0.95			0.168	0.313
4th Quarter 2012	0.78			0.132	0.018
1st Quarter 2013	0.83			0.726	0.429
2nd Quarter 2013	1.36			0.0525	0.186
3rd Quarter 2013	0.83			0.0411	0.248
4th Quarter 2013	0.13			0.0407	0.172
1st Quarter 2014	0.24			0.0532	0.140
2nd Quarter 2014	0.15			0.0878	0.307
3rd Quarter 2014	0.07			0.0890	DRY 0.335
4th Quarter 2014	0.06			0.0924	DRY 0.0436
	MW-16	MW-17	WW-1		
1st Quarter 2010		0.23	0.49		
2nd Quarter 2010		3.72	0.50		
3rd Quarter 2010		0.74	0.22		
4th Quarter 2010		0.83	0.05		
1st Quarter 2011		0.46	1.13		
2nd Quarter 2011 *		2.01	0.18		
3rd Quarter 2011		0.88	0.07		
4th Quarter 2011		0.67	0.01		

**TABLE 4**  
**COLOR CODED TABLE (PSH, BENZENE AND CLEAN WELLS)**  
**PLAINS PIPELINE, L.P.**  
**DENTON STATION SRS #2003-00338**  
**LEA COUNTY, NEW MEXICO**

	PSH (feet)	Benzene (mg/L)	Clean
1st Quarter 2012		1.01	0.22
2nd Quarter 2012		0.86	DRY
3rd Quarter 2012		0.60	DRY
4th Quarter 2012		0.76	DRY
1st Quarter 2013		0.77	DRY
2nd Quarter 2013	0.0529	0.96	DRY
3rd Quarter 2013		0.86	DRY
4th Quarter 2013		0.18	DRY
1st Quarter 2014		0.48	DRY
2nd Quarter 2014		0.01	DRY
3rd Quarter 2014		0.03	DRY
4th Quarter 2014		0.02	P&A

\* CRA took over for NOVA

## Appendices

## Appendix A

### Stratigraphic Logs and Well Construction Details (MW-1R, MW-2R and MW-3R)



## STRATIGRAPHIC LOG

Page 1 of 2

PROJECT NAME: Denton Station

PROJECT NUMBER: 074682

CLIENT: Plains Pipeline, L.P.

LOCATION: Lea County, New Mexico

HOLE DESIGNATION: MW-1R

DATE COMPLETED: September 17, 2014

DRILLING METHOD: Air Rotary (4" O.D.): 0'-83'

FIELD PERSONNEL: J. Fergerson

DRILLING COMPANY: Talon LPE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE			
			NUMBER	INTERVAL	REC (%)	'N' VALUE
2	Dark brown silty sandy CLAY (CL), broken caliche in matrix, wet, no hydrocarbon odor	1.00				
4	Light grayish brown CALICHE, weathered to dense, moist, no hydrocarbon odor					
6						
8						
10						
12						
14	Light grayish brown CALICHE, weathered to dense, interbedded with poor to well cemented very fine grain sandstone, dry, no hydrocarbon odor	13.00	1			
16						
18	Light tannish orange CALICHE, weathered to dense, interbedded with poor to well cemented very fine grain sandstone, dry, no hydrocarbon odor	18.00				
20						
22	Light tannish orange SAND (SP), very fine grain, unconsolidated, interbedded with poor to well cemented very fine grain sandstone, broken caliche in matrix, dry, no hydrocarbon odor	22.00				
24						
26						
28	Dull orange SANDSTONE, very fine grain, well cemented, dry, no hydrocarbon odor	28.00				
30						
32	Dull orange SAND (SP), very fine grain, unconsolidated, interbedded with moderate to well cemented sandstone, dry, no hydrocarbon odor	32.00	2			
34						
36						
38						
40						
42						
44						
46						
48						
<u>NOTES:</u>						
WATER FOUND ↓						



## STRATIGRAPHIC LOG

Page 2 of 2

PROJECT NAME: Denton Station

PROJECT NUMBER: 074682

CLIENT: Plains Pipeline, L.P.

LOCATION: Lea County, New Mexico

HOLE DESIGNATION: MW-1R

DATE COMPLETED: September 17, 2014

DRILLING METHOD: Air Rotary (4" O.D.): 0'-83'

FIELD PERSONNEL: J. Fergerson

DRILLING COMPANY: Talon LPE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE			
			NUMBER	INTERVAL	REC (%)	'N' VALUE
52	Dull orange SAND (SP), very fine grain, unconsolidated, interbedded with moderate to well cemented sandstone, dry, slight hydrocarbon odor	50.00				
54		58.00				
56						
58	Dull orange SAND (SP), very fine grain, unconsolidated, interbedded with moderate to well cemented sandstone, moist, strong hydrocarbon odor	62.00	3	▽		
60						
62	Dull orange SAND (SP), very fine grain, unconsolidated, interbedded with moderate to well cemented sandstone, wet, strong hydrocarbon odor					
64						
66						
68						
70						
72						
74						
76						
78						
80						
82						
84	END OF BOREHOLE @ 83.0ft BGS	83.00				
86						
88						
90						
92						
94						
96						
98						
<u>NOTES:</u>						
WATER FOUND ▽						

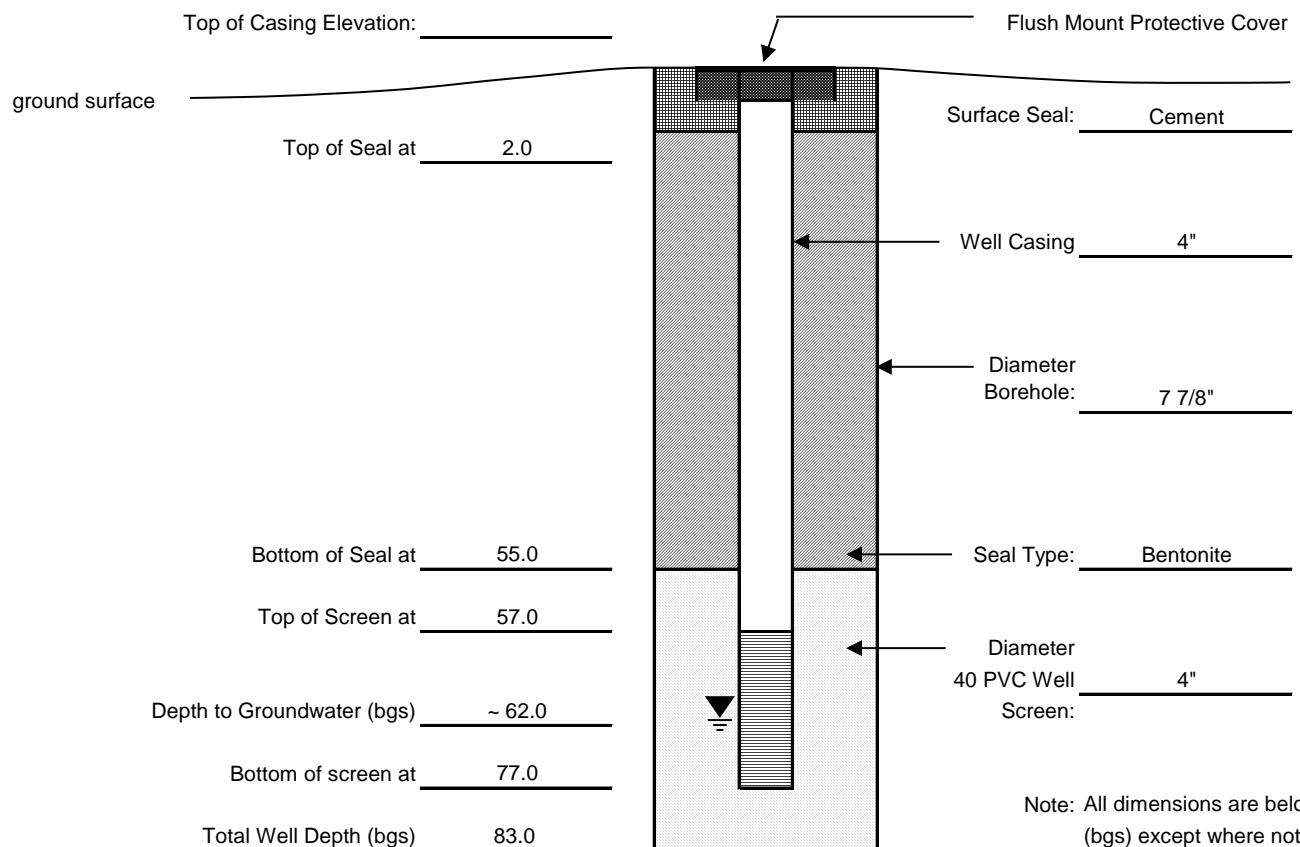
## MONITORING WELL CONSTRUCTION DETAIL

**Project:** Plains - Denton Station

**Monitoring Well No.: MW-1R**

**Client:** Plains Pipeline L.P.

<b>File No.:</b>	074682
<b>Date:</b>	9/17/2014
<b>Drilling Co.:</b>	Talon LPE
<b>Supervisor:</b>	
<b>Type Rig:</b>	Air Rotary
<b>Logged by:</b>	J. Ferguson



Screen Type:	<input type="checkbox"/> slotted	<input type="checkbox"/> perforated	other: _____
Screen Material:	<input type="checkbox"/> stainless steel	<input type="checkbox"/> PVC	other: _____
Screen Length:	20	Screen Diameter: _____	Screen Slot Size: 0.010
Well Casing Material:	Schedule 40 PVC		Well Casing Diameter: _____
Development - Method:	Pump		Hole Diameter: _____
Duration/Volume:	55 gallons		





## STRATIGRAPHIC LOG

Page 1 of 2

PROJECT NAME: Denton Station

PROJECT NUMBER: 074682

CLIENT: Plains Pipeline, L.P.

LOCATION: Lea County, New Mexico

HOLE DESIGNATION: MW-2R

DATE COMPLETED: September 17, 2014

DRILLING METHOD: Air Rotary (4" O.D.): 0'-83'

FIELD PERSONNEL: J. Fergerson

DRILLING COMPANY: Talon LPE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE			
			NUMBER	INTERVAL	REC (%)	'N' VALUE
2	Dark brown silty sandy CLAY (CL), broken caliche in matrix, wet, no hydrocarbon odor	1.00				
4	Light grayish brown CALICHE, dense to weathered, moist, no hydrocarbon odor					
6						
8						
10						
12						
14	Light grayish brown CALICHE, weathered to dense, interbedded with poor to moderate cemented very fine grain sandstone, dry, no hydrocarbon odor	13.00	1			
16						
18	Light tannish orange CALICHE, weathered to dense, interbedded with poor to well cemented very fine grain sandstone, dry, no hydrocarbon odor	18.00				
20						
22	Light tannish orange SAND (SP), very fine grain, unconsolidated, interbedded with poor to well cemented very fine grain sandstone broken caliche in matrix, dry, no hydrocarbon odor	22.00				
24						
26						
28	Dull orange SANDSTONE, very fine grain, well cemented, dry, no hydrocarbon odor	28.00				
30						
32						
34						
36	Dull orange SAND (SP), very fine grain, unconsolidated, interbedded with moderate to well cemented very fine grain sandstone, dry, no hydrocarbon odor	35.00	2			
38						
40						
42						
44						
46						
48	Dull orange SANDSTONE, very fine grain, well cemented, dry, no hydrocarbon odor	48.00				

NOTES:

WATER FOUND ↓



## STRATIGRAPHIC LOG

Page 2 of 2

PROJECT NAME: Denton Station

PROJECT NUMBER: 074682

CLIENT: Plains Pipeline, L.P.

LOCATION: Lea County, New Mexico

HOLE DESIGNATION: MW-2R

DATE COMPLETED: September 17, 2014

DRILLING METHOD: Air Rotary (4" O.D.): 0'-83'

FIELD PERSONNEL: J. Fergerson

DRILLING COMPANY: Talon LPE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE			
			NUMBER	INTERVAL	REC (%)	'N' VALUE
52	Dull orange SANDSTONE, very fine grain, well cemented, dry, no hydrocarbon odor	50.00				
54						
56						
58						
60	Dull orange SAND (SP), very fine grain, unconsolidated, interbedded with moderate to well cemented very fine grain sandstone, moist, slight hydrocarbon odor	60.00				
62	Dull orange SAND (SP), very fine grain, unconsolidated, interbedded with moderate to well cemented very fine grain sandstone, wet, slight hydrocarbon odor	62.00	3			
64						
66						
68						
70						
72						
74						
76						
78						
80						
82						
84	END OF BOREHOLE @ 83.0ft BGS	83.00				
86						
88						
90						
92						
94						
96						
98						
<u>NOTES:</u>						
WATER FOUND ↓						

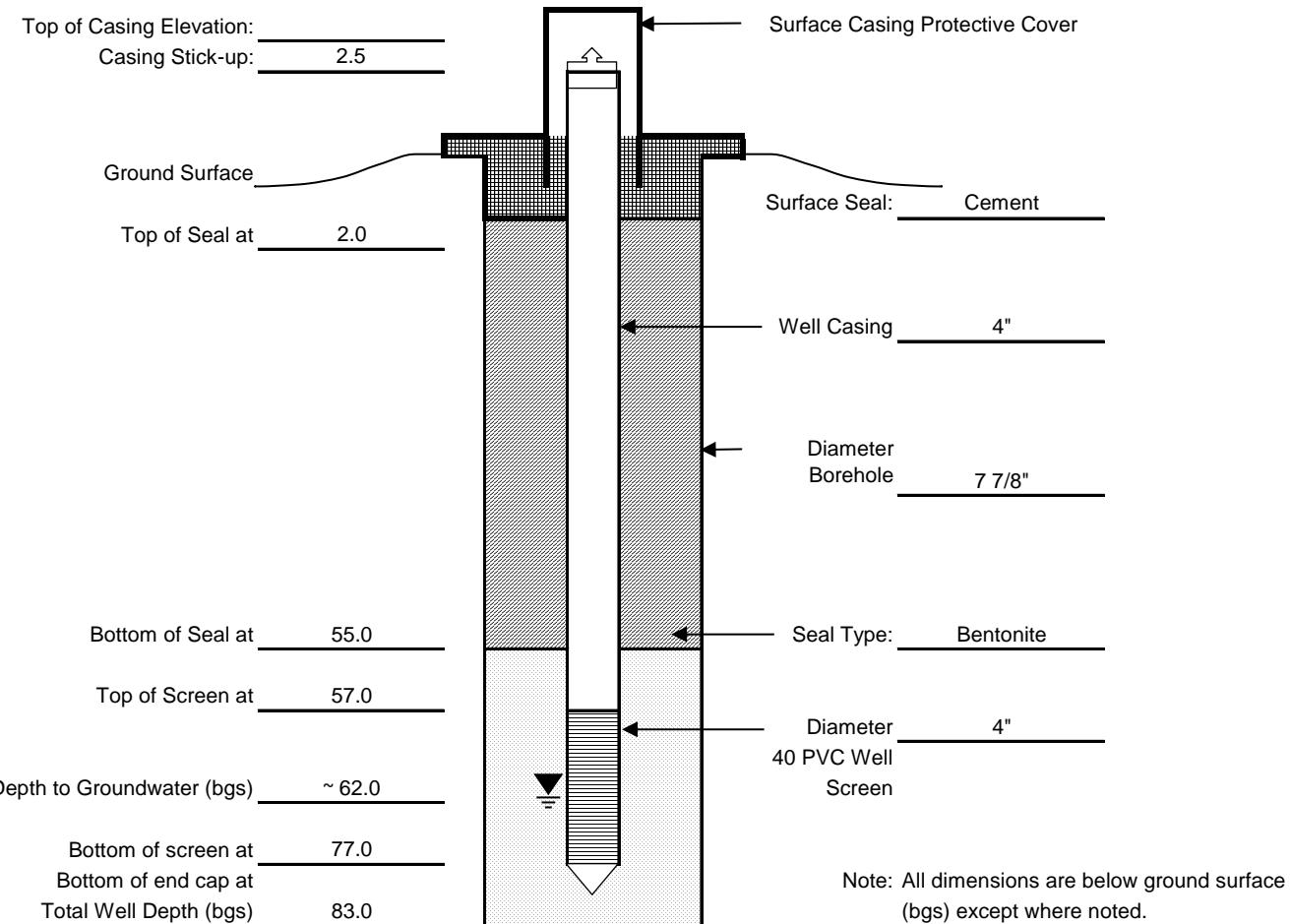
## MONITORING WELL CONSTRUCTION DETAIL

**Project:** Plains - Denton Station

**Monitoring Well No.: MW-2R**

**Client:** Plains Pipeline L.P.

<b>File No.:</b>	074682
<b>Date:</b>	9/17/2014
<b>Drilling Co.:</b>	Talon LPE
<b>Supervisor:</b>	
<b>Type Rig:</b>	Air Rotary
<b>Logged by:</b>	J. Fergerson



**Screen Type:**  slotted       perforated      **other:** \_\_\_\_\_

**Screen Material:**  stainless steel       PVC      **other:** \_\_\_\_\_

**Screen Length:** 20      **Screen Diameter:** \_\_\_\_\_      **Screen Slot Size:** 0.010

**Well Casing Material:** \_\_\_\_\_      **Well Casing Diameter:** \_\_\_\_\_

**Development - Method:**  Pump      **Hole Diameter:** \_\_\_\_\_

**Duration/Volume:**  55 gallons





## STRATIGRAPHIC LOG

Page 1 of 2

PROJECT NAME: Denton Station

PROJECT NUMBER: 074682

CLIENT: Plains Pipeline, L.P.

LOCATION: Lea County, New Mexico

HOLE DESIGNATION: MW-3R

DATE COMPLETED: October 7, 2014

DRILLING METHOD: Air Rotary (4" O.D.): 0'-77'

FIELD PERSONNEL: J. Fergerson

DRILLING COMPANY: Talon LPE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE			
			NUMBER	INTERVAL	REC (%)	'N' VALUE
2	Grayish brown silty sandy CLAY (CL), broken caliche in matrix, moist, no hydrocarbon odor	1.00				
4	Light grayish brown CALICHE, dense to weathered, slightly moist, no hydrocarbon odor					
6						
8						
10						
12						
14	Light grayish brown CALICHE, weathered to dense, interbedded with poor to moderate cemented very fine grain sandstone, dry, no hydrocarbon odor	13.00	1			1.0
16						
18	Light tannish orange CALICHE, weathered to dense, interbedded with poor to well cemented very fine grain sandstone, dry, no hydrocarbon odor	18.00				
20						
22	Light tannish orange SAND (SP), very fine grain, unconsolidated, interbedded with poor to well cemented very fine grain sandstone, broken caliche in matrix, dry, no hydrocarbon odor	22.00				
24						
26						
28						
30	Dull orange SAND (SP), very fine grain, unconsolidated, interbedded with moderate to well cemented very fine grain sandstone, dry, no hydrocarbon odor	30.00				
32						
34						
36						
38						
40						
42						
44						
46						
48	Dull orange SAND (SP), very fine grain, unconsolidated, interbedded with moderate to well cemented very fine grain sandstone, dry, slight hydrocarbon odor	47.00	2			145
<u>NOTES:</u>						
WATER FOUND ↓						



## STRATIGRAPHIC LOG

Page 2 of 2

PROJECT NAME: Denton Station

PROJECT NUMBER: 074682

CLIENT: Plains Pipeline, L.P.

LOCATION: Lea County, New Mexico

HOLE DESIGNATION: MW-3R

DATE COMPLETED: October 7, 2014

DRILLING METHOD: Air Rotary (4" O.D.): 0'-77'

FIELD PERSONNEL: J. Fergerson

DRILLING COMPANY: Talon LPE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE			
			NUMBER	INTERVAL	REC (%)	'N' VALUE
52	Dull orange SAND (SP), very fine grain, unconsolidated, interbedded with moderate to well cemented very fine grain sandstone, dry, slight hydrocarbon odor	50.00				
54		58.00				
56		62.00				
58	Dull orange SAND (SP), very fine grain, unconsolidated, interbedded with moderate to well cemented very fine grain sandstone, moist, moderate hydrocarbon odor					
60						
62	Dull orange SAND (SP), very fine grain, unconsolidated, interbedded with moderate to well cemented very fine grain sandstone, wet, strong hydrocarbon odor		3			147
64						
66						
68						
70						
72						
74						
76						
78	END OF BOREHOLE @ 77.0ft BGS	77.00				
80						
82						
84						
86						
88						
90						
92						
94						
96						
98						
<u>NOTES:</u>						
WATER FOUND ↓						

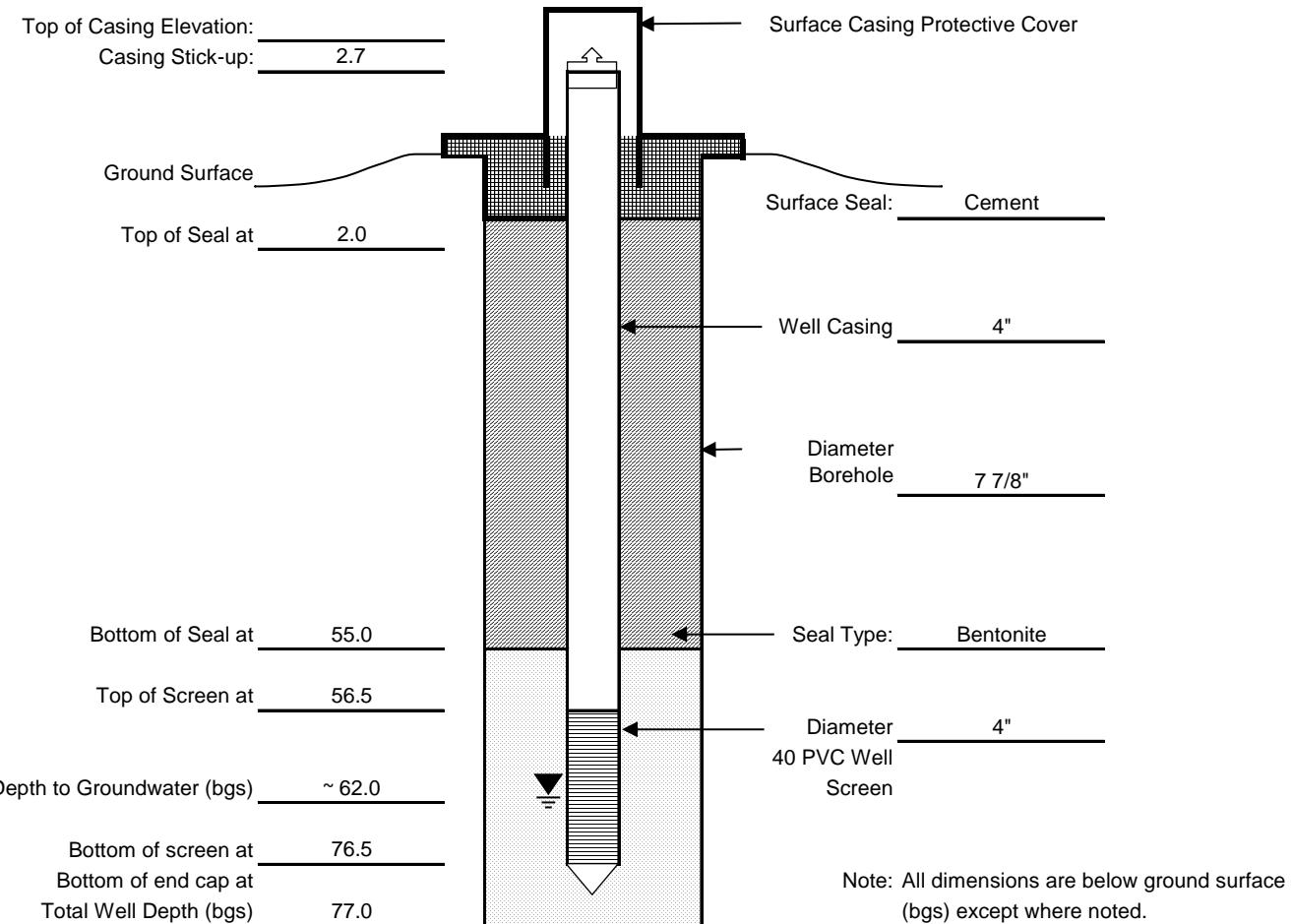
## MONITORING WELL CONSTRUCTION DETAIL

**Project:** Plains - Denton Station

**Monitoring Well No.: MW-3R**

**Client:** Plains Pipeline L.P.

<b>File No.:</b>	074682
<b>Date:</b>	10/7/2014
<b>Drilling Co.:</b>	Talon LPE
<b>Supervisor:</b>	
<b>Type Rig:</b>	Air Rotary
<b>Logged by:</b>	J. Fergerson



**Screen Type:**  slotted       perforated      **other:** \_\_\_\_\_

**Screen Material:**  stainless steel       PVC      **other:** \_\_\_\_\_

**Screen Length:** 20      **Screen Diameter:** \_\_\_\_\_      **Screen Slot Size:** 0.010

**Well Casing Material:** \_\_\_\_\_      **Well Casing Diameter:** \_\_\_\_\_

**Development - Method:**  Bailer      **Hole Diameter:** \_\_\_\_\_

**Duration/Volume:**  55 gallons



## Appendix B

### Certified Laboratory Reports



# TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Kimberly Vining Lambert  
CRA-Midland  
2135 South Loop 250 West  
Midland, TX, 79703

Report Date: March 3, 2014

Work Order: 14022812



Project Location: Lea Co., NM  
Project Name: Darr Angel Denton Station  
Project Number: 074682  
SRS #: 2003-00338

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

Sample	Description	Matrix	Date	Time	Date
			Taken	Taken	Received
356296	MW-11-022714	water	2014-02-27	11:20	2014-02-28
356297	MW-4-022714	water	2014-02-27	12:55	2014-02-28
356298	MW-6-022714	water	2014-02-27	13:15	2014-02-28
356299	MW-8-022714	water	2014-02-27	13:30	2014-02-28
356300	MW-9-022714	water	2014-02-27	13:45	2014-02-28
356301	MW-10-022714	water	2014-02-27	13:55	2014-02-28
356302	MW-12-022714	water	2014-02-27	11:35	2014-02-28
356303	MW-13-022714	water	2014-02-27	12:30	2014-02-28
356304	MW-14-022714	water	2014-02-27	12:00	2014-02-28
356305	MW-15-022714	water	2014-02-27	12:15	2014-02-28
356306	MW-16-022714	water	2014-02-27	11:45	2014-02-28
356307	Dup-2-022714	water	2014-02-27	00:00	2014-02-28

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

This report consists of a total of 16 pages and shall not be reproduced except in its entirety, without written approval of

TraceAnalysis, Inc.



---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

# Report Contents

<b>Case Narrative</b>	<b>4</b>
<b>Analytical Report</b>	<b>5</b>
Sample 356296 (MW-11-022714) . . . . .	5
Sample 356297 (MW-4-022714) . . . . .	5
Sample 356298 (MW-6-022714) . . . . .	5
Sample 356299 (MW-8-022714) . . . . .	6
Sample 356300 (MW-9-022714) . . . . .	6
Sample 356301 (MW-10-022714) . . . . .	7
Sample 356302 (MW-12-022714) . . . . .	7
Sample 356303 (MW-13-022714) . . . . .	8
Sample 356304 (MW-14-022714) . . . . .	8
Sample 356305 (MW-15-022714) . . . . .	9
Sample 356306 (MW-16-022714) . . . . .	9
Sample 356307 (Dup-2-022714) . . . . .	10
<b>Method Blanks</b>	<b>11</b>
QC Batch 109776 - Method Blank (1) . . . . .	11
<b>Laboratory Control Spikes</b>	<b>12</b>
QC Batch 109776 - LCS (1) . . . . .	12
QC Batch 109776 - MS (1) . . . . .	12
<b>Calibration Standards</b>	<b>14</b>
QC Batch 109776 - CCV (1) . . . . .	14
QC Batch 109776 - CCV (2) . . . . .	14
QC Batch 109776 - CCV (3) . . . . .	14
<b>Appendix</b>	<b>15</b>
Report Definitions . . . . .	15
Laboratory Certifications . . . . .	15
Standard Flags . . . . .	15
Attachments . . . . .	15

# Case Narrative

Samples for project Darr Angel Denton Station were received by TraceAnalysis, Inc. on 2014-02-28 and assigned to work order 14022812. Samples for work order 14022812 were received intact without headspace and at a temperature of 0.6 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	92820	2014-03-01 at 11:30	109776	2014-03-03 at 09:03

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14022812 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: March 3, 2014  
074682

Work Order: 14022812  
Darr Angel Denton Station

Page Number: 5 of 16  
Lea Co., NM

# Analytical Report

## Sample: 356296 - MW-11-022714

Laboratory: Midland

Analysis: BTEX

QC Batch: 109776

Prep Batch: 92820

Analytical Method: S 8021B

Date Analyzed: 2014-03-03

Sample Preparation: 2014-03-01

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0894	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0708	mg/L	1	0.100	71	70 - 130

## Sample: 356297 - MW-4-022714

Laboratory: Midland

Analysis: BTEX

QC Batch: 109776

Prep Batch: 92820

Analytical Method: S 8021B

Date Analyzed: 2014-03-03

Sample Preparation: 2014-03-01

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		1	<b>0.173</b>	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<b>0.00980</b>	mg/L	1	0.00100
Xylene		1	<b>0.0114</b>	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0966	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0803	mg/L	1	0.100	80	70 - 130

Report Date: March 3, 2014  
074682

Work Order: 14022812  
Darr Angel Denton Station

Page Number: 6 of 16  
Lea Co., NM

**Sample: 356298 - MW-6-022714**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 109776  
Prep Batch: 92820

Analytical Method: S 8021B  
Date Analyzed: 2014-03-03  
Sample Preparation: 2014-03-01

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		1	<b>0.0101</b>	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<b>0.0390</b>	mg/L	1	0.00100
Xylene		1	<b>0.00510</b>	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0998	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0852	mg/L	1	0.100	85	70 - 130

**Sample: 356299 - MW-8-022714**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 109776  
Prep Batch: 92820

Analytical Method: S 8021B  
Date Analyzed: 2014-03-03  
Sample Preparation: 2014-03-01

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0906	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0710	mg/L	1	0.100	71	70 - 130

Report Date: March 3, 2014  
074682

Work Order: 14022812  
Darr Angel Denton Station

Page Number: 7 of 16  
Lea Co., NM

**Sample: 356300 - MW-9-022714**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 109776  
Prep Batch: 92820

Analytical Method: S 8021B  
Date Analyzed: 2014-03-03  
Sample Preparation: 2014-03-01

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0969	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0740	mg/L	1	0.100	74	70 - 130

**Sample: 356301 - MW-10-022714**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 109776  
Prep Batch: 92820

Analytical Method: S 8021B  
Date Analyzed: 2014-03-03  
Sample Preparation: 2014-03-01

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		1	<b>0.0532</b>	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0824	mg/L	1	0.100	82	70 - 130

Report Date: March 3, 2014  
074682

Work Order: 14022812  
Darr Angel Denton Station

Page Number: 8 of 16  
Lea Co., NM

**Sample: 356302 - MW-12-022714**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 109776  
Prep Batch: 92820

Analytical Method: S 8021B  
Date Analyzed: 2014-03-03  
Sample Preparation: 2014-03-01

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		1	<b>0.140</b>	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0776	mg/L	1	0.100	78	70 - 130

**Sample: 356303 - MW-13-022714**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 109776  
Prep Batch: 92820

Analytical Method: S 8021B  
Date Analyzed: 2014-03-03  
Sample Preparation: 2014-03-01

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0951	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0725	mg/L	1	0.100	72	70 - 130

Report Date: March 3, 2014  
074682

Work Order: 14022812  
Darr Angel Denton Station

Page Number: 9 of 16  
Lea Co., NM

**Sample: 356304 - MW-14-022714**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 109776  
Prep Batch: 92820

Analytical Method: S 8021B  
Date Analyzed: 2014-03-03  
Sample Preparation: 2014-03-01

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0945	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0724	mg/L	1	0.100	72	70 - 130

**Sample: 356305 - MW-15-022714**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 109776  
Prep Batch: 92820

Analytical Method: S 8021B  
Date Analyzed: 2014-03-03  
Sample Preparation: 2014-03-01

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0986	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0743	mg/L	1	0.100	74	70 - 130

Report Date: March 3, 2014  
074682

Work Order: 14022812  
Darr Angel Denton Station

Page Number: 10 of 16  
Lea Co., NM

**Sample: 356306 - MW-16-022714**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 109776  
Prep Batch: 92820

Analytical Method: S 8021B  
Date Analyzed: 2014-03-03  
Sample Preparation: 2014-03-01

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0967	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0732	mg/L	1	0.100	73	70 - 130

**Sample: 356307 - Dup-2-022714**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 109776  
Prep Batch: 92820

Analytical Method: S 8021B  
Date Analyzed: 2014-03-03  
Sample Preparation: 2014-03-01

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		1	<b>0.170</b>	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<b>0.00960</b>	mg/L	1	0.00100
Xylene		1	<b>0.00860</b>	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0975	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0802	mg/L	1	0.100	80	70 - 130

Report Date: March 3, 2014  
074682

Work Order: 14022812  
Darr Angel Denton Station

Page Number: 11 of 16  
Lea Co., NM

## Method Blanks

**Method Blank (1)** QC Batch: 109776

QC Batch: 109776  
Prep Batch: 92820

Date Analyzed: 2014-03-03  
QC Preparation: 2014-03-01

Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	Result	MDL	Units	RL
Benzene		1	<0.000238		mg/L	0.001
Toluene		1	<0.000181		mg/L	0.001
Ethylbenzene		1	<0.000247		mg/L	0.001
Xylene		1	<0.000189		mg/L	0.003

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0956	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0732	mg/L	1	0.100	73	70 - 130

Report Date: March 3, 2014  
074682

Work Order: 14022812  
Darr Angel Denton Station

Page Number: 12 of 16  
Lea Co., NM

## Laboratory Control Spikes

### Laboratory Control Spike (LCS-1)

QC Batch: 109776  
Prep Batch: 92820

Date Analyzed: 2014-03-03  
QC Preparation: 2014-03-01

Analyzed By: AK  
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.108	mg/L	1	0.100	<0.000238	108	70 - 130
Toluene		1	0.109	mg/L	1	0.100	<0.000181	109	70 - 130
Ethylbenzene		1	0.109	mg/L	1	0.100	<0.000247	109	70 - 130
Xylene		1	0.332	mg/L	1	0.300	<0.000189	111	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.110	mg/L	1	0.100	<0.000238	110	70 - 130	2	20
Toluene		1	0.111	mg/L	1	0.100	<0.000181	111	70 - 130	2	20
Ethylbenzene		1	0.111	mg/L	1	0.100	<0.000247	111	70 - 130	2	20
Xylene		1	0.337	mg/L	1	0.300	<0.000189	112	70 - 130	2	20

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

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)		0.102	0.101	mg/L	1	0.100	102	101	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0916	0.0910	mg/L	1	0.100	92	91	70 - 130

### Matrix Spike (MS-1) Spiked Sample: 356287

QC Batch: 109776  
Prep Batch: 92820

Date Analyzed: 2014-03-03  
QC Preparation: 2014-03-01

Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.112	mg/L	1	0.100	<0.000238	112	70 - 130
Toluene		1	0.114	mg/L	1	0.100	<0.000181	114	70 - 130
Ethylbenzene		1	0.113	mg/L	1	0.100	<0.000247	113	70 - 130
Xylene		1	0.341	mg/L	1	0.300	<0.000189	114	70 - 130

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

Report Date: March 3, 2014  
074682

Work Order: 14022812  
Darr Angel Denton Station

Page Number: 13 of 16  
Lea Co., NM

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD RPD	RPD Limit
Benzene		1	0.112	mg/L	1	0.100	<0.000238	112	70 - 130	0	20
Toluene		1	0.113	mg/L	1	0.100	<0.000181	113	70 - 130	1	20
Ethylbenzene		1	0.111	mg/L	1	0.100	<0.000247	111	70 - 130	2	20
Xylene		1	0.337	mg/L	1	0.300	<0.000189	112	70 - 130	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.0996	mg/L	1	0.1	101	100	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0919	0.0872	mg/L	1	0.1	92	87	70 - 130

Report Date: March 3, 2014  
074682

Work Order: 14022812  
Darr Angel Denton Station

Page Number: 14 of 16  
Lea Co., NM

## Calibration Standards

### Standard (CCV-1)

Param	Flag	Cert	Units	CCVs	CCVs	CCVs	Percent	Date Analyzed
				True	Found	Percent	Recovery	
Benzene		1	mg/L	0.100	0.109	109	80 - 120	2014-03-03
Toluene		1	mg/L	0.100	0.111	111	80 - 120	2014-03-03
Ethylbenzene		1	mg/L	0.100	0.110	110	80 - 120	2014-03-03
Xylene		1	mg/L	0.300	0.335	112	80 - 120	2014-03-03

### Standard (CCV-2)

Param	Flag	Cert	Units	CCVs	CCVs	CCVs	Percent	Date Analyzed
				True	Found	Percent	Recovery	
Benzene		1	mg/L	0.100	0.110	110	80 - 120	2014-03-03
Toluene		1	mg/L	0.100	0.111	111	80 - 120	2014-03-03
Ethylbenzene		1	mg/L	0.100	0.110	110	80 - 120	2014-03-03
Xylene		1	mg/L	0.300	0.333	111	80 - 120	2014-03-03

### Standard (CCV-3)

Param	Flag	Cert	Units	CCVs	CCVs	CCVs	Percent	Date Analyzed
				True	Found	Percent	Recovery	
Benzene		1	mg/L	0.100	0.103	103	80 - 120	2014-03-03
Toluene		1	mg/L	0.100	0.108	108	80 - 120	2014-03-03
Ethylbenzene		1	mg/L	0.100	0.108	108	80 - 120	2014-03-03
Xylene		1	mg/L	0.300	0.329	110	80 - 120	2014-03-03

## Appendix

### Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

### Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-13-7	Midland

### Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

### Attachments

Report Date: March 3, 2014  
074682

Work Order: 14022812  
Darr Angel Denton Station

Page Number: 16 of 16  
Lea Co., NM

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The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

**TraceAnalysis, Inc.**

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9  
**Lubbock, Texas 79424**  
 Tel (806) 794-1296  
 Fax (806) 794-1298  
 1 (800) 378-1296

5002 Basin Street, Suite A1  
**Midland, Texas 79703**  
 Tel (432) 689-6301  
 Fax (432) 689-6313

200 East Sunset Rd., Suite E  
**El Paso, Texas 79922**  
 Tel (915) 585-3443  
 Fax (915) 585-4944  
 1 (888) 588-3443

Brandon & Clark  
 3403 Industrial Blvd.  
**Hobbs, NM 88240**  
 Tel (575) 392-5611  
 Fax (575) 392-4508

## Company Name:

**CRA, Inc.**

## Address: (Street, City, Zip)

2135 S. Loop 250 W, Midland, TX 79703

## Contact Person:

**Kim Lambert**

## Invoice to:

(If different from above)  
**Plains - Canelle Bryant**

## Project #:

**074682**

## Project Location (including state):

**Tex Mexico**

## Phone #:

**432-486-0086**

## Fax #:

**432-6184**

## E-mail:

**Kimberly@canworld.com**

## Project Name:

**Denton station**

## Sampler Signature:

## # CONTAINERS

## MATRIX

## PRESERVATIVE

## METHOD

## SAMPLING

## FIELD CODE

## DATE

## TIME

## HCl

## NaOH

H<sub>2</sub>SO<sub>4</sub>HNO<sub>3</sub>

## ICE

## WATER

## SOIL

## AIR

## SLUDGE

## HCl

## NaOH

H<sub>2</sub>SO<sub>4</sub>HNO<sub>3</sub>

## ICE

## WATER

## SOIL

## AIR

## SLUDGE

## HCl

## NaOH

H<sub>2</sub>SO<sub>4</sub>HNO<sub>3</sub>

## ICE

## WATER

## SOIL

## AIR

## SLUDGE

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**ANALYSIS REQUEST**

## (Circle or Specify Method No.)

Turn Around Time if different from standard

Hold

CI, F, SO<sub>4</sub>, NO<sub>3</sub>-N, NO<sub>2</sub>-N, PO<sub>4</sub>-P, Alkalinity

Na, Ca, Mg, K, TDS, EC

Moisture Content

BOD, TSS, PH

Pesticides 8081 / 608

PCBs 8082 / 608

GC/MS Vol. 8260 / 624

GC/MS Semi. Vol. 8270 / 625

RCI

TCP Pesticides

TCLP Semivolatiles

TCLP Volatiles

Total Metals Ag As Ba Cd Cr Pb Se Hg

PAH 8270 / 625

TPH 8015 GRO / DR0 / TVHC

TPH 448.1 / TX1005 Ext(C35)

MTE 8021 / 602 / 8260 / 624

BTEx 8021 / 602 / 8260 / 624

MTBE 8021 / 602 / 8260 / 624

PAH 8270 / 625

TPH 8015 GRO / DR0 / TVHC

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

Total Volatiles

PCBs 8081 / 608

GC/MS Vol. 8260 / 624

GC/MS Semi. Vol. 8270 / 625

RCI

TCP Pesticides

TCLP Semivolatiles

TCLP Volatiles

Total Metals Ag As Ba Cd Cr Pb Se Hg

PAH 8270 / 625

TPH 8015 GRO / DR0 / TVHC

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

Total Volatiles

PCBs 8081 / 608

GC/MS Vol. 8260 / 624

GC/MS Semi. Vol. 8270 / 625

RCI

TCP Pesticides

TCLP Semivolatiles

TCLP Volatiles

Total Metals Ag As Ba Cd Cr Pb Se Hg

PAH 8270 / 625

TPH 8015 GRO / DR0 / TVHC

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

Total Volatiles

PCBs 8081 / 608

GC/MS Vol. 8260 / 624

GC/MS Semi. Vol. 8270 / 625

RCI

TCP Pesticides

TCLP Semivolatiles

TCLP Volatiles

Total Metals Ag As Ba Cd Cr Pb Se Hg

PAH 8270 / 625

TPH 8015 GRO / DR0 / TVHC

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

Total Volatiles

PCBs 8081 / 608

GC/MS Vol. 8260 / 624

GC/MS Semi. Vol. 8270 / 625

RCI

TCP Pesticides

TCLP Semivolatiles

TCLP Volatiles

Total Metals Ag As Ba Cd Cr Pb Se Hg

PAH 8270 / 625

TPH 8015 GRO / DR0 / TVHC

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

Total Volatiles

PCBs 8081 / 608

GC/MS Vol. 8260 / 624

GC/MS Semi. Vol. 8270 / 625

RCI

TCP Pesticides

TCLP Semivolatiles

TCLP Volatiles

Total Metals Ag As Ba Cd Cr Pb Se Hg

PAH 8270 / 625

TPH 8015 GRO / DR0 / TVHC

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

Total Volatiles

PCBs 8081 / 608

GC/MS Vol. 8260 / 624

GC/MS Semi. Vol. 8270 / 625

RCI

TCP Pesticides

TCLP Semivolatiles

TCLP Volatiles

Total Metals Ag As Ba Cd Cr Pb Se Hg

PAH 8270 / 625

TPH 8015 GRO / DR0 / TVHC

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

Total Volatiles

PCBs 8081 / 608

GC/MS Vol. 8260 / 624

GC/MS Semi. Vol. 8270 / 625

**REMARKS:** *Replaced all***LAB USE ONLY****INST****OBS****COR****INST**

**TraceAnalysis, Inc.**

email: lab@traceanalysis.com

Company Name *KA*

Address: (Street, City, Zip)

Contact Person: *Kim*

Invoice to: (If different from above)

Project #: *074682*

Project Location (including state):

Phone #:

Fax #:

E-mail:

Project Name: *Benton Station*

Sampler Signature:

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Lubbock, Texas 79424  
Tel (806) 794-1296  
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1 (800) 378-12965002 Basin Street, Suite A1  
Midland, Texas 79703  
Tel (432) 689-6301  
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1 (888) 588-3443Brandon & Clark  
3403 Industrial Blvd.  
Tel (575) 392-7521  
Fax (575) 392-4508**ANALYSIS REQUEST**

(Circle or Specify Method No.)

Turn Around Time if different from standard

Hold

BioAquatice Testing  
2501 Mayes Rd., Ste 100  
Carrollton, Texas 75006  
Tel (972) 242-7750  
Fax (972) 242-7750

Na, Ca, Mg, K, TDS, EC

Cl, F, SO<sub>4</sub>, NO<sub>3</sub>-N, NO<sub>2</sub>-N, PO<sub>4</sub>-P, Alkalinity

Moisture Content

BOD, TSS, PH

Pesticides 8081 / 608

GC/MS Semi. Vol. 8270 / 625

GC/MS Vol. 8260 / 624

RCI

TCLP Pesticides

TCLP Semi Volatiles

TCLP Volatiles

Total Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Metals Ag As Ba Cd Cr Pb Se Hg 6010/2007

PAH 8270 / 625

TPH 8015 GRO / DRO / TVHC

TPH 4181 / TX1005 / TX1005 Ext(C35)

BTEX 8021 / 8260 / 624

MTEB 8021 / 802 / 8260 / 624

FIELD CODE	# CONTAINERS	VOLUME / AMOUNT	MATRIX	PRESERVATIVE METHOD		TIME	DATE	ICL	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	HCl	SLUDGE	AIR	SOIL	WATER		
				TIME	DATE													
307 Dup-2-022714	3	40*	X															

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR	LAB USE ONLY	REMARKS:
<i>John DRA</i>		2-27-14	1000	<i>John DRA</i>		2-28-14	10:00	INST <i>1/6</i> °C	OBS <i>1/6</i> °C	COR <i>1/6</i> °C	INSTRUMENT <i>N</i>	Dry Weight Basis Required
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST <i>0</i> °C	OBS <i>0</i> °C	COR <i>0</i> °C	Headspace/Y/N/A	TRRP Report Required

Check If Special Reporting  
 Limits Are Needed

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

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# TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
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(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

John Fergerson  
CRA-Midland  
2135 South Loop 250 West  
Midland, TX, 79703

Report Date: June 17, 2014

Work Order: 14060202



Project Location: Lovington, NM  
Project Name: Darr Angel Denton Station  
Project Number: 074682  
SRS #: 2003-00338

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

Sample	Description	Matrix	Date	Time	Date
			Taken	Taken	Received
364435	MW-4-052914	water	2014-05-29	08:55	2014-05-30
364436	MW-6-052914	water	2014-05-29	09:15	2014-05-30
364437	MW-8-052914	water	2014-05-29	09:35	2014-05-30
364438	MW-10-052914	water	2014-05-29	09:55	2014-05-30
364439	MW-9-052914	water	2014-05-29	10:15	2014-05-30
364440	MW-11-052914	water	2014-05-29	10:40	2014-05-30
364441	MW-13-052914	water	2014-05-29	10:55	2014-05-30
364442	MW-12-052914	water	2014-05-29	11:10	2014-05-30
364443	MW-14-052914	water	2014-05-29	11:25	2014-05-30
364444	MW-15-052914	water	2014-05-29	11:40	2014-05-30
364445	MW-16-052914	water	2014-05-29	11:55	2014-05-30
364446	Dup-1-052914	water	2014-05-29	00:00	2014-05-30

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

This report consists of a total of 18 pages and shall not be reproduced except in its entirety, without written approval of

TraceAnalysis, Inc.



---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

# Report Contents

<b>Case Narrative</b>	<b>4</b>
<b>Analytical Report</b>	<b>5</b>
Sample 364435 (MW-4-052914) . . . . .	5
Sample 364436 (MW-6-052914) . . . . .	5
Sample 364437 (MW-8-052914) . . . . .	5
Sample 364438 (MW-10-052914) . . . . .	6
Sample 364439 (MW-9-052914) . . . . .	6
Sample 364440 (MW-11-052914) . . . . .	7
Sample 364441 (MW-13-052914) . . . . .	7
Sample 364442 (MW-12-052914) . . . . .	8
Sample 364443 (MW-14-052914) . . . . .	8
Sample 364444 (MW-15-052914) . . . . .	9
Sample 364445 (MW-16-052914) . . . . .	9
Sample 364446 (Dup-1-052914) . . . . .	10
<b>Method Blanks</b>	<b>11</b>
QC Batch 112620 - Method Blank (1) . . . . .	11
QC Batch 112773 - Method Blank (1) . . . . .	11
<b>Laboratory Control Spikes</b>	<b>12</b>
QC Batch 112620 - LCS (1) . . . . .	12
QC Batch 112773 - LCS (1) . . . . .	12
<b>Matrix Spikes</b>	<b>14</b>
QC Batch 112620 - MS (1) . . . . .	14
<b>Calibration Standards</b>	<b>15</b>
QC Batch 112620 - CCV (2) . . . . .	15
QC Batch 112620 - CCV (3) . . . . .	15
QC Batch 112773 - CCV (1) . . . . .	15
QC Batch 112773 - CCV (2) . . . . .	15
<b>Appendix</b>	<b>17</b>
Report Definitions . . . . .	17
Laboratory Certifications . . . . .	17
Standard Flags . . . . .	17
Attachments . . . . .	17

# Case Narrative

Samples for project Darr Angel Denton Station were received by TraceAnalysis, Inc. on 2014-05-30 and assigned to work order 14060202. Samples for work order 14060202 were received intact without headspace and at a temperature of 2.6 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep		QC		Analysis	
		Batch	Date	Batch	Date		
BTEX	S 8021B	95149	2014-06-05 at 08:42	112620	2014-06-07 at 09:03		
BTEX	S 8021B	95357	2014-06-12 at 08:30	112773	2014-06-12 at 15:29		

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14060202 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 5 of 18  
Lovington, NM

# Analytical Report

## Sample: 364435 - MW-4-052914

Laboratory: Midland

Analysis: BTEX

QC Batch: 112620

Prep Batch: 95149

Analytical Method: S 8021B

Date Analyzed: 2014-06-07

Sample Preparation: 2014-06-05

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		1	<b>0.0702</b>	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<b>0.00710</b>	mg/L	1	0.00100
Xylene		1	<b>0.00390</b>	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0965	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0851	mg/L	1	0.100	85	70 - 130

## Sample: 364436 - MW-6-052914

Laboratory: Midland

Analysis: BTEX

QC Batch: 112620

Prep Batch: 95149

Analytical Method: S 8021B

Date Analyzed: 2014-06-07

Sample Preparation: 2014-06-05

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		1	<b>0.00380</b>	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<b>0.120</b>	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0948	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0973	mg/L	1	0.100	97	70 - 130

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 6 of 18  
Lovington, NM

**Sample: 364437 - MW-8-052914**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 112620  
Prep Batch: 95149

Analytical Method: S 8021B  
Date Analyzed: 2014-06-07  
Sample Preparation: 2014-06-05

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0876	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0772	mg/L	1	0.100	77	70 - 130

**Sample: 364438 - MW-10-052914**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 112620  
Prep Batch: 95149

Analytical Method: S 8021B  
Date Analyzed: 2014-06-07  
Sample Preparation: 2014-06-05

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		1	<b>0.0878</b>	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0949	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0869	mg/L	1	0.100	87	70 - 130

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 7 of 18  
Lovington, NM

**Sample: 364439 - MW-9-052914**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 112620  
Prep Batch: 95149

Analytical Method: S 8021B  
Date Analyzed: 2014-06-07  
Sample Preparation: 2014-06-05

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0887	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0782	mg/L	1	0.100	78	70 - 130

**Sample: 364440 - MW-11-052914**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 112620  
Prep Batch: 95149

Analytical Method: S 8021B  
Date Analyzed: 2014-06-07  
Sample Preparation: 2014-06-05

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0929	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0801	mg/L	1	0.100	80	70 - 130

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 8 of 18  
Lovington, NM

**Sample: 364441 - MW-13-052914**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 112620  
Prep Batch: 95149

Analytical Method: S 8021B  
Date Analyzed: 2014-06-07  
Sample Preparation: 2014-06-05

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0901	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0768	mg/L	1	0.100	77	70 - 130

**Sample: 364442 - MW-12-052914**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 112620  
Prep Batch: 95149

Analytical Method: S 8021B  
Date Analyzed: 2014-06-07  
Sample Preparation: 2014-06-05

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		1	<b>0.307</b>	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0875	mg/L	1	0.100	88	70 - 130

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 9 of 18  
Lovington, NM

**Sample: 364443 - MW-14-052914**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 112620  
Prep Batch: 95149

Analytical Method: S 8021B  
Date Analyzed: 2014-06-07  
Sample Preparation: 2014-06-05

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0929	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0793	mg/L	1	0.100	79	70 - 130

**Sample: 364444 - MW-15-052914**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 112620  
Prep Batch: 95149

Analytical Method: S 8021B  
Date Analyzed: 2014-06-07  
Sample Preparation: 2014-06-05

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0958	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0809	mg/L	1	0.100	81	70 - 130

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 10 of 18  
Lovington, NM

**Sample: 364445 - MW-16-052914**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 112773  
Prep Batch: 95357

Analytical Method: S 8021B  
Date Analyzed: 2014-06-12  
Sample Preparation: 2014-06-12

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)	Qsr	Qsr	0.136	mg/L	1	0.100	136	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	0.136	mg/L	1	0.100	136	70 - 130

**Sample: 364446 - Dup-1-052914**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 112773  
Prep Batch: 95357

Analytical Method: S 8021B  
Date Analyzed: 2014-06-12  
Sample Preparation: 2014-06-12

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		1	<b>0.00310</b>	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<b>0.119</b>	mg/L	1	0.00100
Xylene		1	<b>0.0166</b>	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.113	mg/L	1	0.100	113	70 - 130
4-Bromofluorobenzene (4-BFB)			0.124	mg/L	1	0.100	124	70 - 130

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 11 of 18  
Lovington, NM

## Method Blanks

**Method Blank (1)** QC Batch: 112620

QC Batch: 112620 Date Analyzed: 2014-06-07 Analyzed By: AK  
Prep Batch: 95149 QC Preparation: 2014-06-05 Prepared By: AK

Parameter	Flag	Cert	Result	MDL	Units	RL
Benzene		1	<0.000238		mg/L	0.001
Toluene		1	<0.000181		mg/L	0.001
Ethylbenzene		1	<0.000247		mg/L	0.001
Xylene		1	<0.000189		mg/L	0.003

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0925	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0864	mg/L	1	0.100	86	70 - 130

**Method Blank (1)** QC Batch: 112773

QC Batch: 112773 Date Analyzed: 2014-06-12 Analyzed By: AK  
Prep Batch: 95357 QC Preparation: 2014-06-12 Prepared By: AK

Parameter	Flag	Cert	Result	MDL	Units	RL
Benzene		1	<0.000299		mg/L	0.001
Toluene		1	<0.000247		mg/L	0.001
Ethylbenzene		1	<0.000423		mg/L	0.001
Xylene		1	<0.000552		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0996	mg/L	1	0.100	100	70 - 130

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 12 of 18  
Lovington, NM

## Laboratory Control Spikes

### Laboratory Control Spike (LCS-1)

QC Batch: 112620  
Prep Batch: 95149

Date Analyzed: 2014-06-07  
QC Preparation: 2014-06-05

Analyzed By: AK  
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0982	mg/L	1	0.100	<0.000238	98	70 - 130
Toluene		1	0.101	mg/L	1	0.100	<0.000181	101	70 - 130
Ethylbenzene		1	0.0958	mg/L	1	0.100	<0.000247	96	70 - 130
Xylene		1	0.293	mg/L	1	0.300	<0.000189	98	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.104	mg/L	1	0.100	<0.000238	104	70 - 130	6	20
Toluene		1	0.107	mg/L	1	0.100	<0.000181	107	70 - 130	6	20
Ethylbenzene		1	0.102	mg/L	1	0.100	<0.000247	102	70 - 130	6	20
Xylene		1	0.309	mg/L	1	0.300	<0.000189	103	70 - 130	5	20

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

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)		0.0984	0.0953	mg/L	1	0.100	98	95	70 - 130
4-Bromofluorobenzene (4-BFB)		0.105	0.104	mg/L	1	0.100	105	104	70 - 130

### Laboratory Control Spike (LCS-1)

QC Batch: 112773  
Prep Batch: 95357

Date Analyzed: 2014-06-12  
QC Preparation: 2014-06-12

Analyzed By: AK  
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0882	mg/L	1	0.100	<0.000299	88	70 - 130
Toluene		1	0.0883	mg/L	1	0.100	<0.000247	88	70 - 130
Ethylbenzene		1	0.0907	mg/L	1	0.100	<0.000423	91	70 - 130
Xylene		1	0.275	mg/L	1	0.300	<0.000552	92	70 - 130

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

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 13 of 18  
Lovington, NM

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0887	mg/L	1	0.100	<0.000299	89	70 - 130	1	20
Toluene		1	0.0891	mg/L	1	0.100	<0.000247	89	70 - 130	1	20
Ethylbenzene		1	0.0920	mg/L	1	0.100	<0.000423	92	70 - 130	1	20
Xylene		1	0.278	mg/L	1	0.300	<0.000552	93	70 - 130	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0935	0.0941	mg/L	1	0.100	94	94	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0989	0.100	mg/L	1	0.100	99	100	70 - 130

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 14 of 18  
Lovington, NM

## Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 362886

QC Batch: 112620  
Prep Batch: 95149

Date Analyzed: 2014-06-07  
QC Preparation: 2014-06-05

Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	10.4	mg/L	100	10.0	<0.0238	104	70 - 130
Toluene		1	18.2	mg/L	100	10.0	6.33	119	70 - 130
Ethylbenzene		1	9.97	mg/L	100	10.0	<0.0247	100	70 - 130
Xylene		1	30.6	mg/L	100	30.0	<0.0189	102	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	10.3	mg/L	100	10.0	<0.0238	103	70 - 130	1	20
Toluene		1	17.7	mg/L	100	10.0	6.33	114	70 - 130	3	20
Ethylbenzene		1	9.74	mg/L	100	10.0	<0.0247	97	70 - 130	2	20
Xylene		1	29.9	mg/L	100	30.0	<0.0189	100	70 - 130	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	9.96	9.67	mg/L	100	10	100	97	70 - 130
4-Bromofluorobenzene (4-BFB)	10.5	10.4	mg/L	100	10	105	104	70 - 130

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 15 of 18  
Lovington, NM

## Calibration Standards

### Standard (CCV-2)

Param	Flag	Cert	Units	CCVs	CCVs	CCVs	Percent	Date Analyzed
				True	Found	Percent	Recovery	
Benzene		1	mg/L	0.100	0.103	103	80 - 120	2014-06-07
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2014-06-07
Ethylbenzene		1	mg/L	0.100	0.0979	98	80 - 120	2014-06-07
Xylene		1	mg/L	0.300	0.298	99	80 - 120	2014-06-07

### Standard (CCV-3)

Param	Flag	Cert	Units	CCVs	CCVs	CCVs	Percent	Date Analyzed
				True	Found	Percent	Recovery	
Benzene		1	mg/L	0.100	0.105	105	80 - 120	2014-06-07
Toluene		1	mg/L	0.100	0.107	107	80 - 120	2014-06-07
Ethylbenzene		1	mg/L	0.100	0.101	101	80 - 120	2014-06-07
Xylene		1	mg/L	0.300	0.306	102	80 - 120	2014-06-07

### Standard (CCV-1)

Param	Flag	Cert	Units	CCVs	CCVs	CCVs	Percent	Date Analyzed
				True	Found	Percent	Recovery	
Benzene		1	mg/L	0.100	0.0881	88	80 - 120	2014-06-12
Toluene		1	mg/L	0.100	0.0876	88	80 - 120	2014-06-12
Ethylbenzene		1	mg/L	0.100	0.0883	88	80 - 120	2014-06-12
Xylene		1	mg/L	0.300	0.264	88	80 - 120	2014-06-12

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 16 of 18  
Lovington, NM

### Standard (CCV-2)

QC Batch: 112773

Date Analyzed: 2014-06-12

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0879	88	80 - 120	2014-06-12
Toluene		1	mg/L	0.100	0.0885	88	80 - 120	2014-06-12
Ethylbenzene		1	mg/L	0.100	0.0912	91	80 - 120	2014-06-12
Xylene		1	mg/L	0.300	0.273	91	80 - 120	2014-06-12

## Appendix

### Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

### Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-13-7	Midland

### Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

### Attachments

Report Date: June 17, 2014  
074682

Work Order: 14060202  
Darr Angel Denton Station

Page Number: 18 of 18  
Lovington, NM

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The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

**TraceAnalysis, Inc.**

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**ANALYSIS REQUEST**

(Circle or Specify Method No.)

Time Around	Turn Around Time if different from standard
Moisture Content	Na, Ca, Mg, K, TDS, EC
Cl, F, SO <sub>4</sub> , NO <sub>3</sub> -N, NO <sub>2</sub> -N, PO <sub>4</sub> -P, Alkalinity	BOD, TSS, pH
Pesticides 8081 / 608	PCBs 8082 / 608
GC/MS Semi. Vol. 8270 / 625	GC/MS Vol. 8260 / 624
RCI	TCLP Pesticides
TCLP Volatiles	TCLP SEMI Volatiles
Total Metals Ag As Ba Cd Cr Pb Se Hg	PAH 8270 / 625
PAH 8270 / 625	TPH 4181 / TX1005 Ext(C35)
TPH 8015 GRO / DRO / TVHC	MTEB 8021 / 602 / 8260 / 624
X	BTEx 8021 / 602 / 8260 / 624

Phone #: 432-686-0086

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E-mail:

jfergerson@raworld.com

Project Name:

Benton Station

Samples Signature:

John Fergerson

Project Location (including state):

Lovington, NM

Invoice to: (If different from above)

Project #: 074682

Address: 3135 S. Loop 250 W. Midland, TX 79703

Contact Person: John Fergerson

Invoice to: (If different from above)

Project #: 074682

Address: 3135 S. Loop 250 W. Midland, TX 79703

Contact Person: John Fergerson

Invoice to: (If different from above)

Project #: 074682

Address: 3135 S. Loop 250 W. Midland, TX 79703

Contact Person: John Fergerson

Invoice to: (If different from above)

Project #: 074682

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Contact Person: John Fergerson

Invoice to: (If different from above)

Project #: 074682

Address: 3135 S. Loop 250 W. Midland, TX 79703

Contact Person: John Fergerson

Invoice to: (If different from above)

Project #: 074682

Address: 3135 S. Loop 250 W. Midland, TX 79703

Contact Person: John Fergerson

Invoice to: (If different from above)

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Project #: 074682

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME	SAMPLING			PRESERVATIVE METHOD	MATRIX	PREPARATIVE METHOD	TIME	DATE	PROJECT NAME: Benton Station	SAMPLE SIGNATURE: John Fergerson	REMARKS: Medium all	LAB USE ONLY			
																INST	OBS	COR												
30435	MW-4-052914	2	X	X											9/29	8:55														
436	MW-6-052914	1															9:15													
437	MW-8-052914																9:35													
438	MW-10-052914																9:55													
439	MW-9-052914																10:15													
440	MW-11-052914																10:40													
441	MW-13-052914																10:55													
442	MW-12-052914																11:00													
443	MW-14-052914																11:25													
444	MW-15-052914																11:40													
445	MW-16-052914																11:55													
Relinquished by:	Company: CRA	Date: 5-20-14	Received by: CRA	Time: 16:00	Company: CRA	Date: 5/30/14	Received by: CRA	Time: 16:00	Company: CRA	Date: 5/30/14	Received by: CRA	Time: 16:00	Company: CRA	Date: 5/30/14	Received by: CRA	Time: 16:00	INST	OBS	COR	INST	OBS	COR	INST	OBS	COR	INST	OBS	COR	LAB USE ONLY	
Relinquished by:	Company: CRA	Date: 5-20-14	Received by: CRA	Time: 16:00	Company: CRA	Date: 5/30/14	Received by: CRA	Time: 16:00	Company: CRA	Date: 5/30/14	Received by: CRA	Time: 16:00	Company: CRA	Date: 5/30/14	Received by: CRA	Time: 16:00	INST	OBS	COR	INST	OBS	COR	INST	OBS	COR	INST	OBS	COR	LAB USE ONLY	
Relinquished by:	Company: CRA	Date: 5-20-14	Received by: CRA	Time: 16:00	Company: CRA	Date: 5/30/14	Received by: CRA	Time: 16:00	Company: CRA	Date: 5/30/14	Received by: CRA	Time: 16:00	Company: CRA	Date: 5/30/14	Received by: CRA	Time: 16:00	INST	OBS	COR	INST	OBS	COR	INST	OBS	COR	INST	OBS	COR	LAB USE ONLY	
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Relinquished by:	Company: CRA	Date: 5-20-14	Received by: CRA	Time: 16:00	Company: CRA	Date: 5/30/14	Received by: CRA	Time: 16:00																						





# TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

John Fergerson  
CRA-Midland  
2135 South Loop 250 West  
Midland, TX, 79703

Report Date: September 17, 2014

Work Order: 14090810



Project Location: Lovington, NM  
Project Name: Darr Angel Denton Station  
Project Number: 074682  
SRS #: 2003-00338

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

Sample	Description	Matrix	Date	Time	Date
			Taken	Taken	Received
373870	MW-12-090414	water	2014-09-04	08:15	2014-09-05
373871	MW-13-090414	water	2014-09-04	08:55	2014-09-05
373872	MW-14-090414	water	2014-09-04	09:30	2014-09-05
373873	MW-15-090414	water	2014-09-04	10:10	2014-09-05
373874	MW-16-090414	water	2014-09-04	10:45	2014-09-05
373875	MW-4-090414	water	2014-09-04	11:20	2014-09-05
373876	MW-6-090414	water	2014-09-04	12:00	2014-09-05
373877	MW-8-090414	water	2014-09-04	12:40	2014-09-05
373878	MW-10-090414	water	2014-09-04	13:25	2014-09-05
373879	MW-9-090414	water	2014-09-04	13:55	2014-09-05
373880	Dup-1-090414	water	2014-09-04	00:00	2014-09-05

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

This report consists of a total of 16 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blair Leftwich

---

Dr. Blair Leftwich, Director  
James Taylor, Assistant Director  
Brian Pellam, Operations Manager

# Report Contents

<b>Case Narrative</b>	<b>4</b>
<b>Analytical Report</b>	<b>5</b>
Sample 373870 (MW-12-090414) . . . . .	5
Sample 373871 (MW-13-090414) . . . . .	5
Sample 373872 (MW-14-090414) . . . . .	5
Sample 373873 (MW-15-090414) . . . . .	6
Sample 373874 (MW-16-090414) . . . . .	6
Sample 373875 (MW-4-090414) . . . . .	7
Sample 373876 (MW-6-090414) . . . . .	7
Sample 373877 (MW-8-090414) . . . . .	8
Sample 373878 (MW-10-090414) . . . . .	8
Sample 373879 (MW-9-090414) . . . . .	9
Sample 373880 (Dup-1-090414) . . . . .	9
<b>Method Blanks</b>	<b>11</b>
QC Batch 115519 - Method Blank (1) . . . . .	11
<b>Laboratory Control Spikes</b>	<b>12</b>
QC Batch 115519 - LCS (1) . . . . .	12
<b>Matrix Spikes</b>	<b>13</b>
QC Batch 115519 - MS (1) . . . . .	13
<b>Calibration Standards</b>	<b>14</b>
QC Batch 115519 - CCV (1) . . . . .	14
QC Batch 115519 - CCV (2) . . . . .	14
QC Batch 115519 - CCV (3) . . . . .	14
<b>Appendix</b>	<b>15</b>
Report Definitions . . . . .	15
Laboratory Certifications . . . . .	15
Standard Flags . . . . .	15
Attachments . . . . .	16

# Case Narrative

Samples for project Darr Angel Denton Station were received by TraceAnalysis, Inc. on 2014-09-05 and assigned to work order 14090810. Samples for work order 14090810 were received intact without headspace and at a temperature of 3.8 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	97692	2014-09-15 at 15:15	115519	2014-09-17 at 06:51

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14090810 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: September 17, 2014  
074682

Work Order: 14090810  
Darr Angel Denton Station

Page Number: 5 of 16  
Lovington, NM

# Analytical Report

## Sample: 373870 - MW-12-090414

Laboratory: Midland

Analysis: BTEX

QC Batch: 115519

Prep Batch: 97692

Analytical Method: S 8021B

Date Analyzed: 2014-09-17

Sample Preparation: 2014-09-15

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		5	<b>0.335</b>	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0903	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0871	mg/L	1	0.100	87	70 - 130

## Sample: 373871 - MW-13-090414

Laboratory: Midland

Analysis: BTEX

QC Batch: 115519

Prep Batch: 97692

Analytical Method: S 8021B

Date Analyzed: 2014-09-17

Sample Preparation: 2014-09-15

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0887	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0862	mg/L	1	0.100	86	70 - 130

Report Date: September 17, 2014  
074682

Work Order: 14090810  
Darr Angel Denton Station

Page Number: 6 of 16  
Lovington, NM

**Sample: 373872 - MW-14-090414**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 115519  
Prep Batch: 97692

Analytical Method: S 8021B  
Date Analyzed: 2014-09-17  
Sample Preparation: 2014-09-15

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0855	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0853	mg/L	1	0.100	85	70 - 130

**Sample: 373873 - MW-15-090414**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 115519  
Prep Batch: 97692

Analytical Method: S 8021B  
Date Analyzed: 2014-09-17  
Sample Preparation: 2014-09-15

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0859	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0851	mg/L	1	0.100	85	70 - 130

Report Date: September 17, 2014  
074682

Work Order: 14090810  
Darr Angel Denton Station

Page Number: 7 of 16  
Lovington, NM

**Sample: 373874 - MW-16-090414**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 115519  
Prep Batch: 97692

Analytical Method: S 8021B  
Date Analyzed: 2014-09-17  
Sample Preparation: 2014-09-15

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0860	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0845	mg/L	1	0.100	84	70 - 130

**Sample: 373875 - MW-4-090414**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 115519  
Prep Batch: 97692

Analytical Method: S 8021B  
Date Analyzed: 2014-09-17  
Sample Preparation: 2014-09-15

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		5	<b>0.0155</b>	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene		5	<b>0.00250</b>	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0884	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0846	mg/L	1	0.100	85	70 - 130

Report Date: September 17, 2014  
074682

Work Order: 14090810  
Darr Angel Denton Station

Page Number: 8 of 16  
Lovington, NM

**Sample: 373876 - MW-6-090414**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 115519  
Prep Batch: 97692

Analytical Method: S 8021B  
Date Analyzed: 2014-09-17  
Sample Preparation: 2014-09-15

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL		
			Result	Units				
Benzene		5	<b>0.00190</b>	mg/L	1	0.00100		
Toluene	U	5	<0.00100	mg/L	1	0.00100		
Ethylbenzene		5	<b>0.132</b>	mg/L	1	0.00100		
Xylene	U	5	<0.00100	mg/L	1	0.00100		
Surrogate	Flag	Cert	Result	Units	Dilution	Spike		
						Amount		
Trifluorotoluene (TFT)			0.0881	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0955	mg/L	1	0.100	96	70 - 130

**Sample: 373877 - MW-8-090414**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 115519  
Prep Batch: 97692

Analytical Method: S 8021B  
Date Analyzed: 2014-09-17  
Sample Preparation: 2014-09-15

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL		
			Result	Units				
Benzene	U	5	<0.00100	mg/L	1	0.00100		
Toluene	U	5	<0.00100	mg/L	1	0.00100		
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100		
Xylene	U	5	<0.00100	mg/L	1	0.00100		
Surrogate	Flag	Cert	Result	Units	Dilution	Spike		
						Amount		
Trifluorotoluene (TFT)			0.0863	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0830	mg/L	1	0.100	83	70 - 130

Report Date: September 17, 2014  
074682

Work Order: 14090810  
Darr Angel Denton Station

Page Number: 9 of 16  
Lovington, NM

**Sample: 373878 - MW-10-090414**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 115519  
Prep Batch: 97692

Analytical Method: S 8021B  
Date Analyzed: 2014-09-17  
Sample Preparation: 2014-09-15

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		5	<b>0.0890</b>	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0868	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0904	mg/L	1	0.100	90	70 - 130

**Sample: 373879 - MW-9-090414**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 115519  
Prep Batch: 97692

Analytical Method: S 8021B  
Date Analyzed: 2014-09-17  
Sample Preparation: 2014-09-15

Prep Method: S 5030B  
Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0842	mg/L	1	0.100	84	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0823	mg/L	1	0.100	82	70 - 130

Report Date: September 17, 2014  
074682

Work Order: 14090810  
Darr Angel Denton Station

Page Number: 10 of 16  
Lovington, NM

**Sample: 373880 - Dup-1-090414**

Laboratory: Midland

Analysis: BTEX

QC Batch: 115519

Prep Batch: 97692

Analytical Method: S 8021B

Date Analyzed: 2014-09-17

Sample Preparation: 2014-09-15

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		5	<b>0.00190</b>	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene		5	<b>0.138</b>	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0890	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0965	mg/L	1	0.100	96	70 - 130

Report Date: September 17, 2014  
074682

Work Order: 14090810  
Darr Angel Denton Station

Page Number: 11 of 16  
Lovington, NM

## Method Blanks

**Method Blank (1)** QC Batch: 115519

QC Batch: 115519  
Prep Batch: 97692

Date Analyzed: 2014-09-17  
QC Preparation: 2014-09-15

Analyzed By: AK  
Prepared By: AK

Parameter	Flag	Cert	Result	MDL	Units	RL
Benzene		5	<0.000299		mg/L	0.001
Toluene		5	<0.000247		mg/L	0.001
Ethylbenzene		5	<0.000423		mg/L	0.001
Xylene		5	<0.000552		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0883	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0863	mg/L	1	0.100	86	70 - 130

Report Date: September 17, 2014  
074682

Work Order: 14090810  
Darr Angel Denton Station

Page Number: 12 of 16  
Lovington, NM

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 115519  
Prep Batch: 97692

Date Analyzed: 2014-09-17  
QC Preparation: 2014-09-15

Analyzed By: AK  
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.104	mg/L	1	0.100	<0.000299	104	70 - 130
Toluene		5	0.0995	mg/L	1	0.100	<0.000247	100	70 - 130
Ethylbenzene		5	0.0961	mg/L	1	0.100	<0.000423	96	70 - 130
Xylene		5	0.295	mg/L	1	0.300	<0.000552	98	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.0946	mg/L	1	0.100	<0.000299	95	70 - 130	10	20
Toluene		5	0.0932	mg/L	1	0.100	<0.000247	93	70 - 130	6	20
Ethylbenzene		5	0.0907	mg/L	1	0.100	<0.000423	91	70 - 130	6	20
Xylene		5	0.280	mg/L	1	0.300	<0.000552	93	70 - 130	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0909	0.0861	mg/L	1	0.100	91	86	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0918	0.0916	mg/L	1	0.100	92	92	70 - 130

Report Date: September 17, 2014  
074682

Work Order: 14090810  
Darr Angel Denton Station

Page Number: 13 of 16  
Lovington, NM

## Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 373871

QC Batch: 115519  
Prep Batch: 97692

Date Analyzed: 2014-09-17  
QC Preparation: 2014-09-15

Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.0988	mg/L	1	0.100	<0.000299	99	70 - 130
Toluene		5	0.0945	mg/L	1	0.100	<0.000247	94	70 - 130
Ethylbenzene		5	0.0898	mg/L	1	0.100	<0.000423	90	70 - 130
Xylene		5	0.274	mg/L	1	0.300	<0.000552	91	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.102	mg/L	1	0.100	<0.000299	102	70 - 130	3	20
Toluene		5	0.0979	mg/L	1	0.100	<0.000247	98	70 - 130	4	20
Ethylbenzene		5	0.0942	mg/L	1	0.100	<0.000423	94	70 - 130	5	20
Xylene		5	0.289	mg/L	1	0.300	<0.000552	96	70 - 130	5	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0903	0.0896	mg/L	1	0.1	90	90	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0914	0.0914	mg/L	1	0.1	91	91	70 - 130

Report Date: September 17, 2014  
074682

Work Order: 14090810  
Darr Angel Denton Station

Page Number: 14 of 16  
Lovington, NM

## Calibration Standards

### Standard (CCV-1)

Param	Flag	Cert	Units	CCVs	CCVs	CCVs	Percent	Date Analyzed
				True	Found	Percent	Recovery	
Benzene		5	mg/L	0.100	0.0984	98	80 - 120	2014-09-17
Toluene		5	mg/L	0.100	0.0952	95	80 - 120	2014-09-17
Ethylbenzene		5	mg/L	0.100	0.0911	91	80 - 120	2014-09-17
Xylene		5	mg/L	0.300	0.276	92	80 - 120	2014-09-17

### Standard (CCV-2)

Param	Flag	Cert	Units	CCVs	CCVs	CCVs	Percent	Date Analyzed
				True	Found	Percent	Recovery	
Benzene		5	mg/L	0.100	0.101	101	80 - 120	2014-09-17
Toluene		5	mg/L	0.100	0.0965	96	80 - 120	2014-09-17
Ethylbenzene		5	mg/L	0.100	0.0931	93	80 - 120	2014-09-17
Xylene		5	mg/L	0.300	0.288	96	80 - 120	2014-09-17

### Standard (CCV-3)

Param	Flag	Cert	Units	CCVs	CCVs	CCVs	Percent	Date Analyzed
				True	Found	Percent	Recovery	
Benzene		5	mg/L	0.100	0.103	103	80 - 120	2014-09-17
Toluene		5	mg/L	0.100	0.0982	98	80 - 120	2014-09-17
Ethylbenzene		5	mg/L	0.100	0.0942	94	80 - 120	2014-09-17
Xylene		5	mg/L	0.300	0.291	97	80 - 120	2014-09-17

## Appendix

### Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

### Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-93	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-14-10	Lubbock
5	NELAP	T104704392-14-8	Midland
6		2014-018	Lubbock

### Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.

Report Date: September 17, 2014  
074682

Work Order: 14090810  
Darr Angel Denton Station

Page Number: 16 of 16  
Lovington, NM

F	Description
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.





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## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

John Fergerson  
CRA-Midland  
2135 South Loop 250 West  
Midland, TX, 79703

Report Date: December 4, 2014

Work Order: 14112122



Project Location: Lovington, NM  
Project Name: Darr Angel Denton Station  
Project Number: 074682  
SRS #: 2003-00338

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
380331	MW-5 111914	water	2014-11-19	14:20	2014-11-19
380332	MW-6 111914	water	2014-11-19	14:10	2014-11-19
380333	MW-1R 111914	water	2014-11-19	13:50	2014-11-19
380334	MW-2R 111914	water	2014-11-19	14:00	2014-11-19
380335	MW-15 111914	water	2014-11-19	12:50	2014-11-19
380336	MW-16 111914	water	2014-11-19	13:20	2014-11-19
380337	MW-14 111914	water	2014-11-19	13:00	2014-11-19
380338	MW-13 111914	water	2014-11-19	13:10	2014-11-19
380339	MW-12 111914	water	2014-11-19	13:30	2014-11-19
380340	MW-10 111914	water	2014-11-19	14:30	2014-11-19
380341	DUP-1 111914	water	2014-11-19	00:00	2014-11-19
380342	MW-9 111914	water	2014-11-19	14:40	2014-11-19
380343	MW-8 111914	water	2014-11-19	14:50	2014-11-19
380344	MW-7 111914	water	2014-11-19	13:40	2014-11-19
380345	Trip Blank	water	2014-11-19	00:00	2014-11-19

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch

basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 29 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



---

Dr. Blair Leftwich, Director  
James Taylor, Assistant Director  
Brian Pellam, Operations Manager

# Report Contents

<b>Case Narrative</b>	<b>5</b>
<b>Analytical Report</b>	<b>6</b>
Sample 380331 (MW-5 111914) . . . . .	6
Sample 380332 (MW-6 111914) . . . . .	7
Sample 380333 (MW-1R 111914) . . . . .	8
Sample 380334 (MW-2R 111914) . . . . .	9
Sample 380335 (MW-15 111914) . . . . .	11
Sample 380336 (MW-16 111914) . . . . .	11
Sample 380337 (MW-14 111914) . . . . .	12
Sample 380338 (MW-13 111914) . . . . .	12
Sample 380339 (MW-12 111914) . . . . .	13
Sample 380340 (MW-10 111914) . . . . .	13
Sample 380341 (DUP-1 111914) . . . . .	14
Sample 380342 (MW-9 111914) . . . . .	14
Sample 380343 (MW-8 111914) . . . . .	15
Sample 380344 (MW-7 111914) . . . . .	15
Sample 380345 (Trip Blank) . . . . .	16
<b>Method Blanks</b>	<b>17</b>
QC Batch 117555 - Method Blank (1) . . . . .	17
QC Batch 117609 - Method Blank (1) . . . . .	17
QC Batch 117718 - Method Blank (1) . . . . .	17
<b>Laboratory Control Spikes</b>	<b>19</b>
QC Batch 117555 - LCS (1) . . . . .	19
QC Batch 117609 - LCS (1) . . . . .	19
QC Batch 117718 - LCS (1) . . . . .	20
<b>Matrix Spikes</b>	<b>22</b>
QC Batch 117555 - MS (1) . . . . .	22
QC Batch 117609 - MS (1) . . . . .	22
<b>Calibration Standards</b>	<b>24</b>
QC Batch 117555 - CCV (1) . . . . .	24
QC Batch 117555 - CCV (2) . . . . .	24
QC Batch 117555 - CCV (3) . . . . .	24
QC Batch 117609 - CCV (1) . . . . .	24
QC Batch 117609 - CCV (2) . . . . .	25
QC Batch 117718 - CCV (1) . . . . .	25
QC Batch 117718 - CCV (2) . . . . .	26
<b>Appendix</b>	<b>28</b>
Report Definitions . . . . .	28
Laboratory Certifications . . . . .	28
Standard Flags . . . . .	28
Result Comments . . . . .	29

Attachments . . . . .	29
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# Case Narrative

Samples for project Darr Angel Denton Station were received by TraceAnalysis, Inc. on 2014-11-19 and assigned to work order 14112122. Samples for work order 14112122 were received intact without headspace and at a temperature of 10.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep	Prep	QC	Analysis
		Batch	Date	Batch	Date
BTEX	S 8021B	99383	2014-11-25 at 16:00	117555	2014-11-25 at 16:00
BTEX	S 8021B	99427	2014-12-01 at 08:33	117609	2014-12-01 at 08:33
PAH	S 8270D	99527	2014-11-26 at 15:00	117718	2014-12-04 at 13:07

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14112122 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 6 of 29  
Lovington, NM

# Analytical Report

## Sample: 380331 - MW-5 111914

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117609  
Prep Batch: 99427

Analytical Method: S 8021B  
Date Analyzed: 2014-12-01  
Sample Preparation: 2014-12-01

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		2,3,5,7,8	<b>0.0290</b>	mg/L	1	0.00100
Toluene		2,3,5,7,8	<b>0.00290</b>	mg/L	1	0.00100
Ethylbenzene		2,3,5,7,8	<b>0.0109</b>	mg/L	1	0.00100
Xylene		2,3,5,7,8	<b>0.0286</b>	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	s	0.102	mg/L	1	0.100	102	68.8 - 120	
4-Bromofluorobenzene (4-BFB)	s	0.0917	mg/L	1	0.100	92	67.5 - 120	

## Sample: 380331 - MW-5 111914

Laboratory: Lubbock  
Analysis: PAH  
QC Batch: 117718  
Prep Batch: 99527

Analytical Method: S 8270D  
Date Analyzed: 2014-12-04  
Sample Preparation: 2014-11-26

Prep Method: S 3510C  
Analyzed By: MN  
Prepared By: MN

Parameter	Flag	Cert	Result	Units	Dilution	RL
Naphthalene		2,3,5,7,8	<b>0.00730</b>	mg/L	1	0.000200
2-Methylnaphthalene		2,3,5,7,8	<b>0.0140</b>	mg/L	1	0.000200
1-Methylnaphthalene		2	<b>0.0124</b>	mg/L	1	0.000200
Acenaphthylene	U	2,3,5,7,8	<0.000200	mg/L	1	0.000200
Acenaphthene	U	2,3,5,7,8	<0.000200	mg/L	1	0.000200
Dibenzofuran	U	2,3,5,7,8	<0.000200	mg/L	1	0.000200
Fluorene		2,3,5,7,8	<b>0.00134</b>	mg/L	1	0.000200
Anthracene	U	2,3,5,7,8	<0.000200	mg/L	1	0.000200
Phenanthrene		2,3,5,7,8	<b>0.00208</b>	mg/L	1	0.000200
Fluoranthene	U	2,3,5,7,8	<0.000200	mg/L	1	0.000200
Pyrene	U	2,3,5,7,8	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	U	2,3,5,7,8	<0.000200	mg/L	1	0.000200
Chrysene	U	2,3,5,7,8	<0.000200	mg/L	1	0.000200

continued ...

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 7 of 29  
Lovington, NM

sample 380331 continued ...

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzo(b)fluoranthene	u	2,3,5,7,8	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	u	2,3,5,7,8	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	u	2,3,5,7,8	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	u	2,3,5,7,8	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	u	2,3,5,7,8	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	u	2,3,5,7,8	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0812	mg/L	1	0.0800	102	10 - 121
2-Fluorobiphenyl	Qsr	Qsr	0.102	mg/L	1	0.0800	128	20.5 - 120
Terphenyl-d14	Qsr	Qsr	0.101	mg/L	1	0.0800	126	26.4 - 120

**Sample: 380332 - MW-6 111914**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117609  
Prep Batch: 99427

Analytical Method: S 8021B  
Date Analyzed: 2014-12-01  
Sample Preparation: 2014-12-01

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		2,3,5,7,8	<b>0.00540</b>	mg/L	1	0.00100
Toluene		2,3,5,7,8	<b>0.00200</b>	mg/L	1	0.00100
Ethylbenzene		2,3,5,7,8	<b>0.0989</b>	mg/L	1	0.00100
Xylene		2,3,5,7,8	<b>0.0104</b>	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	s	0.102	mg/L	1	0.100	102	68.8 - 120	
4-Bromofluorobenzene (4-BFB)	s	0.0934	mg/L	1	0.100	93	67.5 - 120	

**Sample: 380332 - MW-6 111914**

Laboratory: Lubbock  
Analysis: PAH  
QC Batch: 117718  
Prep Batch: 99527

Analytical Method: S 8270D  
Date Analyzed: 2014-12-04  
Sample Preparation: 2014-11-26

Prep Method: S 3510C  
Analyzed By: MN  
Prepared By: MN

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 8 of 29  
Lovington, NM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Naphthalene		2,3,5,7,8	<b>0.000462</b>	mg/L	0.976	0.000200
2-Methylnaphthalene		2,3,5,7,8	<b>0.000459</b>	mg/L	0.976	0.000200
1-Methylnaphthalene		2	<b>0.00237</b>	mg/L	0.976	0.000200
Acenaphthylene	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200
Acenaphthene	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200
Dibenzofuran	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200
Fluorene		2,3,5,7,8	<b>0.000718</b>	mg/L	0.976	0.000200
Anthracene	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200
Phenanthrene		2,3,5,7,8	<b>0.00113</b>	mg/L	0.976	0.000200
Fluoranthene		2,3,5,7,8	<b>0.000328</b>	mg/L	0.976	0.000200
Pyrene	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200
Benzo(a)anthracene	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200
Chrysene	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200
Benzo(b)fluoranthene	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200
Benzo(k)fluoranthene	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200
Benzo(a)pyrene	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200
Indeno(1,2,3-cd)pyrene	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200
Dibenzo(a,h)anthracene	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200
Benzo(g,h,i)perylene	U	2,3,5,7,8	<0.000195	mg/L	0.976	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0170	mg/L	0.976	0.0800	21	10 - 121
2-Fluorobiphenyl			0.0311	mg/L	0.976	0.0800	39	20.5 - 120
Terphenyl-d14			0.0408	mg/L	0.976	0.0800	51	26.4 - 120

### Sample: 380333 - MW-1R 111914

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5030B
Analysis:	BTEX	Date Analyzed:	2014-11-25	Analyzed By:	MT
QC Batch:	117555	Sample Preparation:	2014-11-25	Prepared By:	MT
Prep Batch:	99383				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		2,3,5,7,8	<b>0.297</b>	mg/L	50	0.00100
Toluene	U	2,3,5,7,8	<0.0500	mg/L	50	0.00100
Ethylbenzene		2,3,5,7,8	<0.0500	mg/L	50	0.00100
Xylene		2,3,5,7,8	<b>0.132</b>	mg/L	50	0.00100

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 9 of 29  
Lovington, NM

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		s	5.04	mg/L	50	5.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)		s	4.92	mg/L	50	5.00	98	70 - 130

**Sample: 380333 - MW-1R 111914**

Laboratory: Lubbock

Analysis: PAH

Analytical Method: S 8270D

Prep Method: S 3510C

QC Batch: 117718

Date Analyzed: 2014-12-04

Analyzed By: MN

Prep Batch: 99527

Sample Preparation: 2014-11-26

Prepared By: MN

Parameter	Flag	Cert	Result	Units	Dilution	RL
Naphthalene		2,3,5,7,8	<b>0.000859</b>	mg/L	0.93	0.000200
2-Methylnaphthalene		2,3,5,7,8	<b>0.000273</b>	mg/L	0.93	0.000200
1-Methylnaphthalene		2	<b>0.00107</b>	mg/L	0.93	0.000200
Acenaphthylene	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200
Acenaphthene	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200
Dibenzofuran	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200
Fluorene	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200
Anthracene	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200
Phenanthrene		2,3,5,7,8	<b>0.000541</b>	mg/L	0.93	0.000200
Fluoranthene		2,3,5,7,8	<b>0.000261</b>	mg/L	0.93	0.000200
Pyrene		2,3,5,7,8	<b>0.000193</b>	mg/L	0.93	0.000200
Benzo(a)anthracene	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200
Chrysene	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200
Benzo(b)fluoranthene	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200
Benzo(k)fluoranthene	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200
Benzo(a)pyrene	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200
Indeno(1,2,3-cd)pyrene	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200
Dibenzo(a,h)anthracene	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200
Benzo(g,h,i)perylene	U	2,3,5,7,8	<0.000186	mg/L	0.93	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0551	mg/L	0.93	0.0800	69	10 - 121
2-Fluorobiphenyl			0.0825	mg/L	0.93	0.0800	103	20.5 - 120
Terphenyl-d14	Qsr	Qsr	0.101	mg/L	0.93	0.0800	126	26.4 - 120

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 10 of 29  
Lovington, NM

**Sample: 380334 - MW-2R 111914**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117555  
Prep Batch: 99383

Analytical Method: S 8021B  
Date Analyzed: 2014-11-25  
Sample Preparation: 2014-11-25

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	1	U	2,3,5,7,8	<0.00500	mg/L	5
Toluene		U	2,3,5,7,8	<0.00500	mg/L	5
Ethylbenzene		U	2,3,5,7,8	<0.00500	mg/L	5
Xylene		U	2,3,5,7,8	<0.00500	mg/L	5
Surrogate	Flag	Cert	Result	Units	Dilution	Recovery Limits
Trifluorotoluene (TFT)		s	0.505	mg/L	5	0.500 101 70 - 130
4-Bromofluorobenzene (4-BFB)		s	0.491	mg/L	5	0.500 98 70 - 130

**Sample: 380334 - MW-2R 111914**

Laboratory: Lubbock  
Analysis: PAH  
QC Batch: 117718  
Prep Batch: 99527

Analytical Method: S 8270D  
Date Analyzed: 2014-12-04  
Sample Preparation: 2014-11-26

Prep Method: S 3510C  
Analyzed By: MN  
Prepared By: MN

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Naphthalene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
2-Methylnaphthalene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
1-Methylnaphthalene	U	2	<0.000190	mg/L	0.952	0.000200
Acenaphthylene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Acenaphthene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Dibenzofuran	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Fluorene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Anthracene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Phenanthrene		2,3,5,7,8	<b>0.000506</b>	mg/L	0.952	0.000200
Fluoranthene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Pyrene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Benzo(a)anthracene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Chrysene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Benzo(b)fluoranthene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Benzo(k)fluoranthene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Benzo(a)pyrene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Indeno(1,2,3-cd)pyrene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Dibenzo(a,h)anthracene	U	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200

*continued ...*

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 11 of 29  
Lovington, NM

sample 380334 continued ...

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzo(g,h,i)perylene	u	2,3,5,7,8	<0.000190	mg/L	0.952	0.000200
Surrogate	Flag	Cert	Result	Units	Spike Amount	Percent Recovery
Nitrobenzene-d5		0.0303	mg/L	0.952	0.0800	38
2-Fluorobiphenyl		0.0385	mg/L	0.952	0.0800	48
Terphenyl-d14		0.0626	mg/L	0.952	0.0800	78

**Sample: 380335 - MW-15 111914**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117555  
Prep Batch: 99383

Analytical Method: S 8021B  
Date Analyzed: 2014-11-25  
Sample Preparation: 2014-11-25

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Toluene	u	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Xylene	u	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Surrogate	Flag	Cert	Result	Units	Spike Amount	Percent Recovery
Trifluorotoluene (TFT)	s	0.102	mg/L	1	0.100	102
4-Bromofluorobenzene (4-BFB)	s	0.0995	mg/L	1	0.100	100

**Sample: 380336 - MW-16 111914**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117555  
Prep Batch: 99383

Analytical Method: S 8021B  
Date Analyzed: 2014-11-25  
Sample Preparation: 2014-11-25

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	u	2,3,5,7,8	<0.00100	mg/L	1	0.00100

continued ...

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 12 of 29  
Lovington, NM

*sample 380336 continued ...*

Parameter	Flag	Cert	Result	Units	Dilution	RL
Toluene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Xylene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount
Trifluorotoluene (TFT)	s	0.100	mg/L	1	0.100	100
4-Bromofluorobenzene (4-BFB)	s	0.0987	mg/L	1	0.100	99

**Sample: 380337 - MW-14 111914**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117555  
Prep Batch: 99383

Analytical Method: S 8021B  
Date Analyzed: 2014-11-25  
Sample Preparation: 2014-11-25

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Toluene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Xylene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount
Trifluorotoluene (TFT)	s	0.100	mg/L	1	0.100	100
4-Bromofluorobenzene (4-BFB)	s	0.0986	mg/L	1	0.100	99

**Sample: 380338 - MW-13 111914**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117555  
Prep Batch: 99383

Analytical Method: S 8021B  
Date Analyzed: 2014-11-25  
Sample Preparation: 2014-11-25

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

*continued ...*

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 13 of 29  
Lovington, NM

sample 380338 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Toluene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Xylene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount
Trifluorotoluene (TFT)	s	0.101	mg/L	1	0.100	101
4-Bromofluorobenzene (4-BFB)	s	0.0975	mg/L	1	0.100	98

**Sample: 380339 - MW-12 111914**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117609  
Prep Batch: 99427

Analytical Method: S 8021B  
Date Analyzed: 2014-12-01  
Sample Preparation: 2014-12-01

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		2,3,5,7,8	<b>0.0436</b>	mg/L	1	0.00100
Toluene		2,3,5,7,8	<0.00100	mg/L	1	0.00100
Ethylbenzene		2,3,5,7,8	<0.00100	mg/L	1	0.00100
Xylene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount
Trifluorotoluene (TFT)	s	0.0956	mg/L	1	0.100	96
4-Bromofluorobenzene (4-BFB)	s	0.0900	mg/L	1	0.100	90

**Sample: 380340 - MW-10 111914**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117609  
Prep Batch: 99427

Analytical Method: S 8021B  
Date Analyzed: 2014-12-01  
Sample Preparation: 2014-12-01

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 14 of 29  
Lovington, NM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		2,3,5,7,8	<b>0.0924</b>	mg/L	1	0.00100
Toluene		2,3,5,7,8	<0.00100	mg/L	1	0.00100
Ethylbenzene		2,3,5,7,8	<0.00100	mg/L	1	0.00100
Xylene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		s	0.0994	mg/L	1	0.100	99	68.8 - 120
4-Bromofluorobenzene (4-BFB)		s	0.0906	mg/L	1	0.100	91	67.5 - 120

**Sample: 380341 - DUP-1 111914**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117609  
Prep Batch: 99427

Analytical Method: S 8021B  
Date Analyzed: 2014-12-01  
Sample Preparation: 2014-12-01

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		2,3,5,7,8	<b>0.0549</b>	mg/L	1	0.00100
Toluene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Xylene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		s	0.0975	mg/L	1	0.100	98	68.8 - 120
4-Bromofluorobenzene (4-BFB)		s	0.0886	mg/L	1	0.100	89	67.5 - 120

**Sample: 380342 - MW-9 111914**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117555  
Prep Batch: 99383

Analytical Method: S 8021B  
Date Analyzed: 2014-11-25  
Sample Preparation: 2014-11-25

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100

*continued ...*

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 15 of 29  
Lovington, NM

*sample 380342 continued ...*

Parameter	Flag	Cert	Result	Units	Dilution	RL
Toluene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Xylene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount
Trifluorotoluene (TFT)	s	0.0992	mg/L	1	0.100	99
4-Bromofluorobenzene (4-BFB)	s	0.0977	mg/L	1	0.100	98

**Sample: 380343 - MW-8 111914**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117555  
Prep Batch: 99383

Analytical Method: S 8021B  
Date Analyzed: 2014-11-25  
Sample Preparation: 2014-11-25

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Toluene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Xylene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount
Trifluorotoluene (TFT)	s	0.0987	mg/L	1	0.100	99
4-Bromofluorobenzene (4-BFB)	s	0.0959	mg/L	1	0.100	96

**Sample: 380344 - MW-7 111914**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117555  
Prep Batch: 99383

Analytical Method: S 8021B  
Date Analyzed: 2014-11-25  
Sample Preparation: 2014-11-25

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

*continued ...*

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 16 of 29  
Lovington, NM

sample 380344 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		2,3,5,7,8	<b>0.0185</b>	mg/L	1	0.00100
Toluene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Ethylbenzene		2,3,5,7,8	<b>0.00200</b>	mg/L	1	0.00100
Xylene		2,3,5,7,8	<0.00100	mg/L	1	0.00100
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount
Trifluorotoluene (TFT)	s	0.0972	mg/L	1	0.100	97
4-Bromofluorobenzene (4-BFB)	s	0.0965	mg/L	1	0.100	96

### Sample: 380345 - Trip Blank

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 117555  
Prep Batch: 99383

Analytical Method: S 8021B  
Date Analyzed: 2014-11-25  
Sample Preparation: 2014-11-25

Prep Method: S 5030B  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Toluene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Xylene	U	2,3,5,7,8	<0.00100	mg/L	1	0.00100
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount
Trifluorotoluene (TFT)	s	0.101	mg/L	1	0.100	101
4-Bromofluorobenzene (4-BFB)	s	0.0996	mg/L	1	0.100	100

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 17 of 29  
Lovington, NM

## Method Blanks

### Method Blank (1) QC Batch: 117555

QC Batch: 117555      Date Analyzed: 2014-11-25      Analyzed By: MT  
Prep Batch: 99383      QC Preparation: 2014-11-25      Prepared By: MT

Parameter	Flag	Cert	Result	MDL	Units	RL
Benzene		2,3,5,7,8	<0.000303		mg/L	0.001
Toluene		2,3,5,7,8	<0.000303		mg/L	0.001
Ethylbenzene		2,3,5,7,8	<0.000266		mg/L	0.001
Xylene		2,3,5,7,8	<0.000265		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	s	0.101	mg/L	1	0.100	101	70 - 130	
4-Bromofluorobenzene (4-BFB)	s	0.0975	mg/L	1	0.100	98	70 - 130	

### Method Blank (1) QC Batch: 117609

QC Batch: 117609      Date Analyzed: 2014-12-01      Analyzed By: MT  
Prep Batch: 99427      QC Preparation: 2014-12-01      Prepared By: MT

Parameter	Flag	Cert	Result	MDL	Units	RL
Benzene		2,3,5,7,8	<0.000425		mg/L	0.001
Toluene		2,3,5,7,8	<0.000409		mg/L	0.001
Ethylbenzene		2,3,5,7,8	<0.000281		mg/L	0.001
Xylene		2,3,5,7,8	<0.000274		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	s	0.0911	mg/L	1	0.100	91	68.8 - 120	
4-Bromofluorobenzene (4-BFB)	s	0.0864	mg/L	1	0.100	86	67.5 - 120	

### Method Blank (1) QC Batch: 117718

QC Batch: 117718      Date Analyzed: 2014-12-04      Analyzed By: MN  
Prep Batch: 99527      QC Preparation: 2014-11-26      Prepared By: MN

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 18 of 29  
Lovington, NM

Parameter	Flag	Cert	MDL		RL
			Result	Units	
Naphthalene		2,3,5,7,8	<0.0000708	mg/L	0.0002
2-Methylnaphthalene		2,3,5,7,8	<0.0000834	mg/L	0.0002
1-Methylnaphthalene		2	<0.000107	mg/L	0.0002
Acenaphthylene		2,3,5,7,8	<0.0000823	mg/L	0.0002
Acenaphthene		2,3,5,7,8	<0.0000888	mg/L	0.0002
Dibenzofuran		2,3,5,7,8	<0.0000787	mg/L	0.0002
Fluorene		2,3,5,7,8	<0.0000670	mg/L	0.0002
Anthracene		2,3,5,7,8	<0.0000838	mg/L	0.0002
Phenanthrene		2,3,5,7,8	<0.000106	mg/L	0.0002
Fluoranthene		2,3,5,7,8	<0.0000885	mg/L	0.0002
Pyrene		2,3,5,7,8	<0.000149	mg/L	0.0002
Benzo(a)anthracene		2,3,5,7,8	<0.000146	mg/L	0.0002
Chrysene		2,3,5,7,8	<0.000157	mg/L	0.0002
Benzo(b)fluoranthene		2,3,5,7,8	<0.000146	mg/L	0.0002
Benzo(k)fluoranthene		2,3,5,7,8	<0.000152	mg/L	0.0002
Benzo(a)pyrene		2,3,5,7,8	<0.000141	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		2,3,5,7,8	<0.000160	mg/L	0.0002
Dibenzo(a,h)anthracene		2,3,5,7,8	<0.000127	mg/L	0.0002
Benzo(g,h,i)perylene		2,3,5,7,8	<0.000175	mg/L	0.0002

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0403	mg/L	1	0.0800	50	10 - 121
2-Fluorobiphenyl			0.0499	mg/L	1	0.0800	62	20.5 - 120
Terphenyl-d14			0.0498	mg/L	1	0.0800	62	26.4 - 120

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 19 of 29  
Lovington, NM

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 117555      Date Analyzed: 2014-11-25      Analyzed By: MT  
Prep Batch: 99383      QC Preparation: 2014-11-25      Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2,3,5,7,8	0.0992	mg/L	1	0.100	<0.000303	99	70 - 130
Toluene		2,3,5,7,8	0.101	mg/L	1	0.100	<0.000303	101	70 - 130
Ethylbenzene		2,3,5,7,8	0.0996	mg/L	1	0.100	<0.000266	100	70 - 130
Xylene		2,3,5,7,8	0.303	mg/L	1	0.300	<0.000265	101	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2,3,5,7,8	0.100	mg/L	1	0.100	<0.000303	100	70 - 130	1	20
Toluene		2,3,5,7,8	0.102	mg/L	1	0.100	<0.000303	102	70 - 130	1	20
Ethylbenzene		2,3,5,7,8	0.0993	mg/L	1	0.100	<0.000266	99	70 - 130	0	20
Xylene		2,3,5,7,8	0.302	mg/L	1	0.300	<0.000265	101	70 - 130	0	20

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

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	s	0.102	0.101	mg/L	1	0.100	102	101	70 - 130
4-Bromofluorobenzene (4-BFB)	s	0.0981	0.0972	mg/L	1	0.100	98	97	70 - 130

## Laboratory Control Spike (LCS-1)

QC Batch: 117609      Date Analyzed: 2014-12-01      Analyzed By: MT  
Prep Batch: 99427      QC Preparation: 2014-12-01      Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2,3,5,7,8	0.0922	mg/L	1	0.100	<0.000425	92	71.6 - 120
Toluene		2,3,5,7,8	0.0939	mg/L	1	0.100	<0.000409	94	71.6 - 120
Ethylbenzene		2,3,5,7,8	0.0946	mg/L	1	0.100	<0.000281	95	71.1 - 120
Xylene		2,3,5,7,8	0.283	mg/L	1	0.300	<0.000274	94	72.5 - 120

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

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 20 of 29  
Lovington, NM

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Benzene			2,3,5,7,8 0.0931	mg/L	1	0.100	<0.000425	93	71.6 - 120	1	20
Toluene			2,3,5,7,8 0.0943	mg/L	1	0.100	<0.000409	94	71.6 - 120	0	20
Ethylbenzene			2,3,5,7,8 0.0946	mg/L	1	0.100	<0.000281	95	71.1 - 120	0	20
Xylene			2,3,5,7,8 0.283	mg/L	1	0.300	<0.000274	94	72.5 - 120	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	s 0.0930	0.0921	mg/L	1	0.100	93	92	68.8 - 120
4-Bromofluorobenzene (4-BFB)	s 0.0915	0.0912	mg/L	1	0.100	92	91	67.5 - 120

### Laboratory Control Spike (LCS-1)

QC Batch: 117718      Date Analyzed: 2014-12-04      Analyzed By: MN  
Prep Batch: 99527      QC Preparation: 2014-11-26      Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Naphthalene			2,3,5,7,8 0.0540	mg/L	1	0.0800	<0.0000708	68	33.4 - 120
2-Methylnaphthalene			2,3,5,7,8 0.0547	mg/L	1	0.0800	<0.0000834	68	36.7 - 120
1-Methylnaphthalene			2 0.0547	mg/L	1	0.0800	<0.000107	68	37.7 - 120
Acenaphthylene			2,3,5,7,8 0.0547	mg/L	1	0.0800	<0.0000832	68	39.7 - 120
Acenaphthene			2,3,5,7,8 0.0529	mg/L	1	0.0800	<0.0000888	66	10 - 120
Dibenzofuran			2,3,5,7,8 0.0543	mg/L	1	0.0800	<0.0000787	68	27.5 - 120
Fluorene			2,3,5,7,8 0.0574	mg/L	1	0.0800	<0.0000670	72	32.7 - 120
Anthracene			2,3,5,7,8 0.0557	mg/L	1	0.0800	<0.0000838	70	23.6 - 120
Phenanthrene			2,3,5,7,8 0.0571	mg/L	1	0.0800	<0.000106	71	26.7 - 120
Fluoranthene			2,3,5,7,8 0.0589	mg/L	1	0.0800	<0.0000885	74	19.2 - 120
Pyrene			2,3,5,7,8 0.0524	mg/L	1	0.0800	<0.000149	66	34.1 - 120
Benzo(a)anthracene			2,3,5,7,8 0.0569	mg/L	1	0.0800	<0.000146	71	43.4 - 120
Chrysene			2,3,5,7,8 0.0691	mg/L	1	0.0800	<0.000157	86	10 - 176
Benzo(b)fluoranthene			2,3,5,7,8 0.0466	mg/L	1	0.0800	<0.000146	58	18.4 - 120
Benzo(k)fluoranthene			2,3,5,7,8 0.0515	mg/L	1	0.0800	<0.000152	64	22 - 124
Benzo(a)pyrene			2,3,5,7,8 0.0418	mg/L	1	0.0800	<0.000141	52	25.1 - 120
Indeno(1,2,3-cd)pyrene			2,3,5,7,8 0.0477	mg/L	1	0.0800	<0.000160	60	21.3 - 120
Dibenzo(a,h)anthracene			2,3,5,7,8 0.0619	mg/L	1	0.0800	<0.000127	77	10 - 173
Benzo(g,h,i)perylene			2,3,5,7,8 0.0430	mg/L	1	0.0800	<0.000175	54	10.7 - 128

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene			2,3,5,7,8 0.0572	mg/L	1	0.0800	<0.0000708	72	33.4 - 120	6	20

*continued ...*

*control spikes continued ...*

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
2-Methylnaphthalene			2, <sup>3,5,7,8</sup> 0.0582	mg/L	1	0.0800	<0.0000834	73	36.7 - 120	6	20
1-Methylnaphthalene		2	0.0584	mg/L	1	0.0800	<0.000107	73	37.7 - 120	6	20
Acenaphthylene			2, <sup>3,5,7,8</sup> 0.0581	mg/L	1	0.0800	<0.0000832	73	39.7 - 120	6	20
Acenaphthene			2, <sup>3,5,7,8</sup> 0.0567	mg/L	1	0.0800	<0.0000888	71	10 - 120	7	20
Dibenzofuran			2, <sup>3,5,7,8</sup> 0.0576	mg/L	1	0.0800	<0.0000787	72	27.5 - 120	6	20
Fluorene			2, <sup>3,5,7,8</sup> 0.0607	mg/L	1	0.0800	<0.0000670	76	32.7 - 120	6	20
Anthracene			2, <sup>3,5,7,8</sup> 0.0584	mg/L	1	0.0800	<0.0000838	73	23.6 - 120	5	20
Phenanthrene			2, <sup>3,5,7,8</sup> 0.0602	mg/L	1	0.0800	<0.000106	75	26.7 - 120	5	20
Fluoranthene			2, <sup>3,5,7,8</sup> 0.0630	mg/L	1	0.0800	<0.0000885	79	19.2 - 120	7	20
Pyrene			2, <sup>3,5,7,8</sup> 0.0558	mg/L	1	0.0800	<0.000149	70	34.1 - 120	6	20
Benzo(a)anthracene			2, <sup>3,5,7,8</sup> 0.0599	mg/L	1	0.0800	<0.000146	75	43.4 - 120	5	20
Chrysene			2, <sup>3,5,7,8</sup> 0.0729	mg/L	1	0.0800	<0.000157	91	10 - 176	5	20
Benzo(b)fluoranthene			2, <sup>3,5,7,8</sup> 0.0507	mg/L	1	0.0800	<0.000146	63	18.4 - 120	8	20
Benzo(k)fluoranthene			2, <sup>3,5,7,8</sup> 0.0546	mg/L	1	0.0800	<0.000152	68	22 - 124	6	20
Benzo(a)pyrene			2, <sup>3,5,7,8</sup> 0.0442	mg/L	1	0.0800	<0.000141	55	25.1 - 120	6	20
Indeno(1,2,3-cd)pyrene			2, <sup>3,5,7,8</sup> 0.0504	mg/L	1	0.0800	<0.000160	63	21.3 - 120	6	20
Dibenzo(a,h)anthracene			2, <sup>3,5,7,8</sup> 0.0656	mg/L	1	0.0800	<0.000127	82	10 - 173	6	20
Benzo(g,h,i)perylene			2, <sup>3,5,7,8</sup> 0.0459	mg/L	1	0.0800	<0.000175	57	10.7 - 128	6	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Nitrobenzene-d5	0.0398	0.0418	mg/L	1	0.0800	50	52	10 - 121
2-Fluorobiphenyl	0.0499	0.0530	mg/L	1	0.0800	62	66	20.5 - 120
Terphenyl-d14	0.0475	0.0498	mg/L	1	0.0800	59	62	26.4 - 120

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 22 of 29  
Lovington, NM

## Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 380335

QC Batch: 117555  
Prep Batch: 99383

Date Analyzed: 2014-11-25  
QC Preparation: 2014-11-25

Analyzed By: MT  
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene			2,3,5,7,8 0.0841	mg/L	1	0.100	<0.000303	84	70 - 130
Toluene			2,3,5,7,8 0.0843	mg/L	1	0.100	<0.000303	84	70 - 130
Ethylbenzene			2,3,5,7,8 0.0837	mg/L	1	0.100	<0.000266	84	70 - 130
Xylene			2,3,5,7,8 0.256	mg/L	1	0.300	<0.000265	85	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	Limit
Benzene			2,3,5,7,8 0.0911	mg/L	1	0.100	<0.000303	91	70 - 130	8	20
Toluene			2,3,5,7,8 0.0917	mg/L	1	0.100	<0.000303	92	70 - 130	8	20
Ethylbenzene			2,3,5,7,8 0.0902	mg/L	1	0.100	<0.000266	90	70 - 130	8	20
Xylene			2,3,5,7,8 0.274	mg/L	1	0.300	<0.000265	91	70 - 130	7	20

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

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	s	0.0957	0.100	mg/L	1	0.1	96	100	70 - 130
4-Bromofluorobenzene (4-BFB)	s	0.0965	0.0983	mg/L	1	0.1	96	98	70 - 130

Matrix Spike (MS-1) Spiked Sample: 380357

QC Batch: 117609  
Prep Batch: 99427

Date Analyzed: 2014-12-01  
QC Preparation: 2014-12-01

Analyzed By: MT  
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene			2,3,5,7,8 0.462	mg/L	5	0.500	<0.00212	92	54.2 - 120
Toluene			2,3,5,7,8 0.470	mg/L	5	0.500	<0.00204	94	55.6 - 120
Ethylbenzene			2,3,5,7,8 0.469	mg/L	5	0.500	<0.00140	94	59.6 - 120
Xylene			2,3,5,7,8 1.40	mg/L	5	1.50	<0.00137	93	61.4 - 120

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

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 23 of 29  
Lovington, NM

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene			2,3,5,7,8 0.454	mg/L	5	0.500	<0.00212	91	54.2 - 120	2	20
Toluene			2,3,5,7,8 0.456	mg/L	5	0.500	<0.00204	91	55.6 - 120	3	20
Ethylbenzene			2,3,5,7,8 0.462	mg/L	5	0.500	<0.00140	92	59.6 - 120	2	20
Xylene			2,3,5,7,8 1.39	mg/L	5	1.50	<0.00137	93	61.4 - 120	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	s 0.469	0.444	mg/L	5	0.5	94	89	68.8 - 120
4-Bromofluorobenzene (4-BFB)	s 0.461	0.450	mg/L	5	0.5	92	90	67.5 - 120

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 24 of 29  
Lovington, NM

## Calibration Standards

### Standard (CCV-1)

QC Batch: 117555		Date Analyzed: 2014-11-25			Analyzed By: MT			
Param	Flag	Cert	Units	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date Analyzed
Benzene		2,3,5,7,8	mg/L	0.100	0.101	101	80 - 120	2014-11-25
Toluene		2,3,5,7,8	mg/L	0.100	0.102	102	80 - 120	2014-11-25
Ethylbenzene		2,3,5,7,8	mg/L	0.100	0.100	100	80 - 120	2014-11-25
Xylene		2,3,5,7,8	mg/L	0.300	0.305	102	80 - 120	2014-11-25

### Standard (CCV-2)

QC Batch: 117555		Date Analyzed: 2014-11-25			Analyzed By: MT			
Param	Flag	Cert	Units	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date Analyzed
Benzene		2,3,5,7,8	mg/L	0.100	0.0964	96	80 - 120	2014-11-25
Toluene		2,3,5,7,8	mg/L	0.100	0.0985	98	80 - 120	2014-11-25
Ethylbenzene		2,3,5,7,8	mg/L	0.100	0.0969	97	80 - 120	2014-11-25
Xylene		2,3,5,7,8	mg/L	0.300	0.294	98	80 - 120	2014-11-25

### Standard (CCV-3)

QC Batch: 117555		Date Analyzed: 2014-11-25			Analyzed By: MT			
Param	Flag	Cert	Units	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date Analyzed
Benzene		2,3,5,7,8	mg/L	0.100	0.102	102	80 - 120	2014-11-25
Toluene		2,3,5,7,8	mg/L	0.100	0.103	103	80 - 120	2014-11-25
Ethylbenzene		2,3,5,7,8	mg/L	0.100	0.0993	99	80 - 120	2014-11-25
Xylene		2,3,5,7,8	mg/L	0.300	0.304	101	80 - 120	2014-11-25

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 25 of 29  
Lovington, NM

### Standard (CCV-1)

QC Batch: 117609

Date Analyzed: 2014-12-01

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2,3,5,7,8	mg/L	0.100	0.0933	93	80 - 120	2014-12-01
Toluene		2,3,5,7,8	mg/L	0.100	0.0939	94	80 - 120	2014-12-01
Ethylbenzene		2,3,5,7,8	mg/L	0.100	0.0931	93	80 - 120	2014-12-01
Xylene		2,3,5,7,8	mg/L	0.300	0.278	93	80 - 120	2014-12-01

### Standard (CCV-2)

QC Batch: 117609

Date Analyzed: 2014-12-01

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2,3,5,7,8	mg/L	0.100	0.0910	91	80 - 120	2014-12-01
Toluene		2,3,5,7,8	mg/L	0.100	0.0928	93	80 - 120	2014-12-01
Ethylbenzene		2,3,5,7,8	mg/L	0.100	0.0921	92	80 - 120	2014-12-01
Xylene		2,3,5,7,8	mg/L	0.300	0.275	92	80 - 120	2014-12-01

### Standard (CCV-1)

QC Batch: 117718

Date Analyzed: 2014-12-04

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		2,3,5,7,8	mg/L	60.0	61.3	102	80 - 120	2014-12-04
2-Methylnaphthalene		2,3,5,7,8	mg/L	60.0	62.0	103	80 - 120	2014-12-04
1-Methylnaphthalene		2	mg/L	60.0	61.5	102	80 - 120	2014-12-04
Acenaphthylene		2,3,5,7,8	mg/L	60.0	59.1	98	80 - 120	2014-12-04
Acenaphthene		2,3,5,7,8	mg/L	60.0	59.7	100	80 - 120	2014-12-04
Dibenzofuran		2,3,5,7,8	mg/L	60.0	61.4	102	80 - 120	2014-12-04
Fluorene		2,3,5,7,8	mg/L	60.0	65.0	108	80 - 120	2014-12-04
Anthracene		2,3,5,7,8	mg/L	60.0	64.8	108	80 - 120	2014-12-04
Phenanthrene		2,3,5,7,8	mg/L	60.0	64.3	107	80 - 120	2014-12-04
Fluoranthene		2,3,5,7,8	mg/L	60.0	69.0	115	80 - 120	2014-12-04
Pyrene		2,3,5,7,8	mg/L	60.0	62.0	103	80 - 120	2014-12-04
Benzo(a)anthracene		2,3,5,7,8	mg/L	60.0	63.0	105	80 - 120	2014-12-04

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Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 26 of 29  
Lovington, NM

*standard continued . . .*

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chrysene		2,3,5,7,8	mg/L	60.0	61.2	102	80 - 120	2014-12-04
Benzo(b)fluoranthene		2,3,5,7,8	mg/L	60.0	63.6	106	80 - 120	2014-12-04
Benzo(k)fluoranthene		2,3,5,7,8	mg/L	60.0	61.1	102	80 - 120	2014-12-04
Benzo(a)pyrene		2,3,5,7,8	mg/L	60.0	50.9	85	80 - 120	2014-12-04
Indeno(1,2,3-cd)pyrene		2,3,5,7,8	mg/L	60.0	57.7	96	80 - 120	2014-12-04
Dibenzo(a,h)anthracene		2,3,5,7,8	mg/L	60.0	60.9	102	80 - 120	2014-12-04
Benzo(g,h,i)perylene		2,3,5,7,8	mg/L	60.0	56.3	94	80 - 120	2014-12-04

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			54.0	mg/L	1	60.0	90	-
2-Fluorobiphenyl			64.5	mg/L	1	60.0	108	-
Terphenyl-d14			62.2	mg/L	1	60.0	104	-

## Standard (CCV-2)

QC Batch: 117718

Date Analyzed: 2014-12-04

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		2,3,5,7,8	mg/L	60.0	61.8	103	80 - 120	2014-12-04
2-Methylnaphthalene		2,3,5,7,8	mg/L	60.0	64.1	107	80 - 120	2014-12-04
1-Methylnaphthalene		2	mg/L	60.0	63.2	105	80 - 120	2014-12-04
Acenaphthylene		2,3,5,7,8	mg/L	60.0	59.2	99	80 - 120	2014-12-04
Acenaphthene		2,3,5,7,8	mg/L	60.0	59.7	100	80 - 120	2014-12-04
Dibenzofuran		2,3,5,7,8	mg/L	60.0	61.5	102	80 - 120	2014-12-04
Fluorene		2,3,5,7,8	mg/L	60.0	65.2	109	80 - 120	2014-12-04
Anthracene		2,3,5,7,8	mg/L	60.0	63.7	106	80 - 120	2014-12-04
Phenanthrene		2,3,5,7,8	mg/L	60.0	63.6	106	80 - 120	2014-12-04
Fluoranthene		2,3,5,7,8	mg/L	60.0	68.8	115	80 - 120	2014-12-04
Pyrene		2,3,5,7,8	mg/L	60.0	61.8	103	80 - 120	2014-12-04
Benzo(a)anthracene		2,3,5,7,8	mg/L	60.0	63.2	105	80 - 120	2014-12-04
Chrysene		2,3,5,7,8	mg/L	60.0	61.5	102	80 - 120	2014-12-04
Benzo(b)fluoranthene		2,3,5,7,8	mg/L	60.0	64.0	107	80 - 120	2014-12-04
Benzo(k)fluoranthene		2,3,5,7,8	mg/L	60.0	62.4	104	80 - 120	2014-12-04
Benzo(a)pyrene		2,3,5,7,8	mg/L	60.0	50.7	84	80 - 120	2014-12-04
Indeno(1,2,3-cd)pyrene		2,3,5,7,8	mg/L	60.0	57.5	96	80 - 120	2014-12-04
Dibenzo(a,h)anthracene		2,3,5,7,8	mg/L	60.0	61.2	102	80 - 120	2014-12-04
Benzo(g,h,i)perylene		2,3,5,7,8	mg/L	60.0	56.5	94	80 - 120	2014-12-04

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 27 of 29  
Lovington, NM

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			53.9	mg/L	1	60.0	90	-
2-Fluorobiphenyl			63.0	mg/L	1	60.0	105	-
Terphenyl-d14			61.7	mg/L	1	60.0	103	-

## Appendix

### Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

### Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-103	El Paso
2	PJLA	L14-93	Lubbock
3	Kansas	Kansas E-10317	Lubbock
4	LELAP	LELAP-02002	El Paso
5	LELAP	LELAP-02003	Lubbock
6	NELAP	T104704221-12-3	El Paso
7	NELAP	T104704219-14-10	Lubbock
8		2014-018	Lubbock

### Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.

Report Date: December 4, 2014  
074682

Work Order: 14112122  
Darr Angel Denton Station

Page Number: 29 of 29  
Lovington, NM

F	Description
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Result Comments

1 Sample dilution due to surfactants.

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.



