1R-234

Plains
Denton Crude Station

2013
Annual Report

PLAINS
ALL AMERICAN

March 18, 2014

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

Re: Plains All American – 2013 Annual Monitoring Reports
4 Sites in Lea County, New Mexico

Dear Mr. Griswold:

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: Geoff Leking, NMOCD, Hobbs, NM

Enclosures

2013 ANNUAL GROUNDWATER MONITORING REPORT

DENTON STATION
NW 1/4, NE 1/4, SECTION 14, TOWNSHIP 15 SOUTH, RANGE 37 EAST
PLAINS SRS NUMBER: 2003-00338
NMOCD REFERENCE NUMBER: 1R-0234
LEA COUNTY, NEW MEXICO

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MARCH 2014
REF. NO. 074682 (4)

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Section 1.0 Introduction

This Annual Groundwater Monitoring Report presents data collected during the 2013 reporting period by Conestoga-Rovers & Associates (CRA) on behalf of Plains Pipeline, L.P. (Plains) at the Denton Station location (hereafter referred to as the "Site"). Quarterly groundwater gauging and sampling events were performed in March, May, August and November of 2013. CRA also performed bi-weekly light non-aqueous phase liquid (LNAPL) abatement activities for the 2013 calendar year in compliance with conditions presented in the New Mexico Oil Conservation Division (NMOCD) correspondence dated May 1998.

1.1 Site Location and History

The Site is located approximately 2.21-miles southeast from the intersection of Highway 82 and County Road 89 in eastern 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 is further identified by its legal description of SE 1/4, NE 1/4, Section 14, Township 15 South, Range 37 East. 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, the Site is monitored with a network of 17 groundwater monitor wells (MW-1 through MW-17) and one out-of-service water well (WW-1). Wells with LNAPL present are currently recovered manually as part of the product recovery abatement program for the Site. Recovered product is periodically transported to Wasson Station facility for reinjection to the Plains Pipeline system and recovered groundwater is transported to a licensed disposal facility.

Section 2.0 Regulatory Framework

The New Mexico Oil Conservation Division (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 xylenes (BTEX). In this report, groundwater analytical results for the COCs are compared to the NMWQCC standards as shown in the following table:

ANALYTE	*NMWQCC STANDARD FOR GROUNDWATER*
20.6.2.3103 Section A – Human Health Standard	
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.

NMOCD APPROVED SAMPLING SCHEDULE					
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

Section 3.0 Groundwater Monitoring Activities

Quarterly groundwater monitoring activities were conducted by CRA on March 5, May 28, August 28 and November 11, 2013. The Site is monitored with a network of 17 monitor wells and one water well. 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 purging wells, 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 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 BTEX by EPA Method 8021B. The groundwater fluids

recovered during the Site activities were containerized on-site in properly labeled and sealed drums or poly tanks and disposed of at a licensed disposal facility.

3.2 Groundwater Monitoring Results

All depth to groundwater measurements were recorded from the top of casing (TOC) of each well. However, 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 a professional survey conducted in 2012. Groundwater gauging data was collected by CRA during the March, May, August and November 2013 groundwater monitoring events and is presented in Table 1. Three wells were dry during all monitoring events; they were WW-1, MW-1 and MW-2. Groundwater gradient maps for March, May, August and November 2013 are provided as Figures 3, 4, 5 and 6, respectively.

Corrected groundwater elevations ranged from 3720.57 to 3722.94 feet in March, from 3720.43 to 3723.26 feet in May, from 3720.30 to 3722.73 feet in August and from 3720.17 to 3722.57 feet in November of 2013. LNAPL was encountered in four monitor wells (MW-3, MW-5, MW-7, and MW-17) during all 2013 gauging events with the exception of MW-3 in November of 2013. LNAPL thicknesses ranged from 0.14 to 0.83 feet in March, from 0.07 to 1.36 feet in May, from 0.01 to 0.86 feet in August and from 0.13 to 0.18 feet in November 2013. The groundwater flow direction is toward the southeast. The average groundwater gradient observed at the Site during the 2013 groundwater monitoring events was approximately 0.002 feet/foot.

During the March 2013 groundwater sampling event, 11 wells were sampled, of which three wells (MW-4, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard (0.01 mg/L). During the May 2013 groundwater sampling event, 11 wells were sampled, of which four wells (MW-4, MW-10 and MW-12, and MW-16) detected benzene concentrations above the NMWQCC Standard. During the August 2013 groundwater sampling event, 11 wells were sampled, of which three wells (MW-4, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard. During the November 2013 groundwater sampling event, 11 wells were sampled, of which four wells (MW-4, MW-6, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard. In the May 2013 event, MW-16 had exceeded the NMWQCC benzene concentration standard of 0.01 mg/L for the first time. In the next two quarterly events, August and November, the benzene concentration went back to below regulatory levels of <0.00100 mg/L. Groundwater BTEX analytical results are summarized in Table 2. No Polycyclic Aromatic Hydrocarbons (PAH) samples were analyzed in 2013. However, PAH analysis may be performed in the future on select wells which previously detected PAH compounds. The historic data on the PAH results are summarized in Table 3. Groundwater BTEX concentration maps for the March, May, August and November 2013 groundwater

sampling events are presented as Figures 7, 8, 9 and 10, respectively. Copies of the certified laboratory reports and chain-of-custody documentation are attached in Appendix A.

Section 4.0 Corrective Action

CRA mobilized to the Site twice a week to gauge and manually recover wells that contained standing LNAPL in the fluids column. Wells which contained a minimum thickness of product were equipped with absorbent socks and replaced as needed.

The 2013 abatement program recovered 20.25 gallons (0.48 barrels) of product from the Site. Approximately 8,169 gallons (194.5 barrels) of product 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 2013, 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.
- The Site is monitored with a network of 17 groundwater monitor wells (MW-1 through MW-17) and one out-of-service water well (WW-1).
- Corrected groundwater elevations ranged from 3720.57 to 3722.94 feet in March, from 3720.43 to 3723.26 feet in May, from 3720.30 to 3722.73 feet in August and from 3720.17 to 3722.57 feet in November 2013.
- LNAPL was encountered in four wells during the March, May and August gauging events, and three wells during the November gauging event. LNAPL thicknesses ranged from 0.14 to 0.83 feet in March, from 0.07 to 1.36 feet in May, from 0.01 to 0.86 feet in August and from 0.13 to 0.18 feet in November 2013.
- The groundwater flow direction is toward the southeast. The average groundwater gradient observed at the Site during the 2013 groundwater monitoring events was approximately 0.002 feet/foot.
- During the March 2013 groundwater sampling event, 11 wells were sampled, of which three wells (MW-4, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard.
- During the May 2013 groundwater sampling event, 11 wells were sampled, of which four wells (MW-4, MW-10, MW-12, and MW-16) detected benzene concentrations above the NMWQCC Standard.

- During the August 2013 groundwater sampling event, 11 wells were sampled, of which three wells (MW-4, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard.
- During the November 2013 groundwater sampling event, 11 wells were sampled, of which four wells (MW-4, MW-6, MW-10, and MW-12) detected benzene concentrations above the NMWQCC Standard.
- In the May 2013 event MW-16 had exceeded the NMWQCC benzene concentration standard of 0.01 mg/L for the first time. In the next two quarterly events, August and November, the benzene concentration went back to below regulatory levels of <0.00100 mg/L.
- Wells which contain measureable product were manually recovered twice a week. Select wells were equipped with absorbent socks and replaced as needed.
- The 2013 abatement program has recovered 20.25 gallons (0.48 barrels) of product from the Site. Approximately 8,169 gallons (194.5 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:

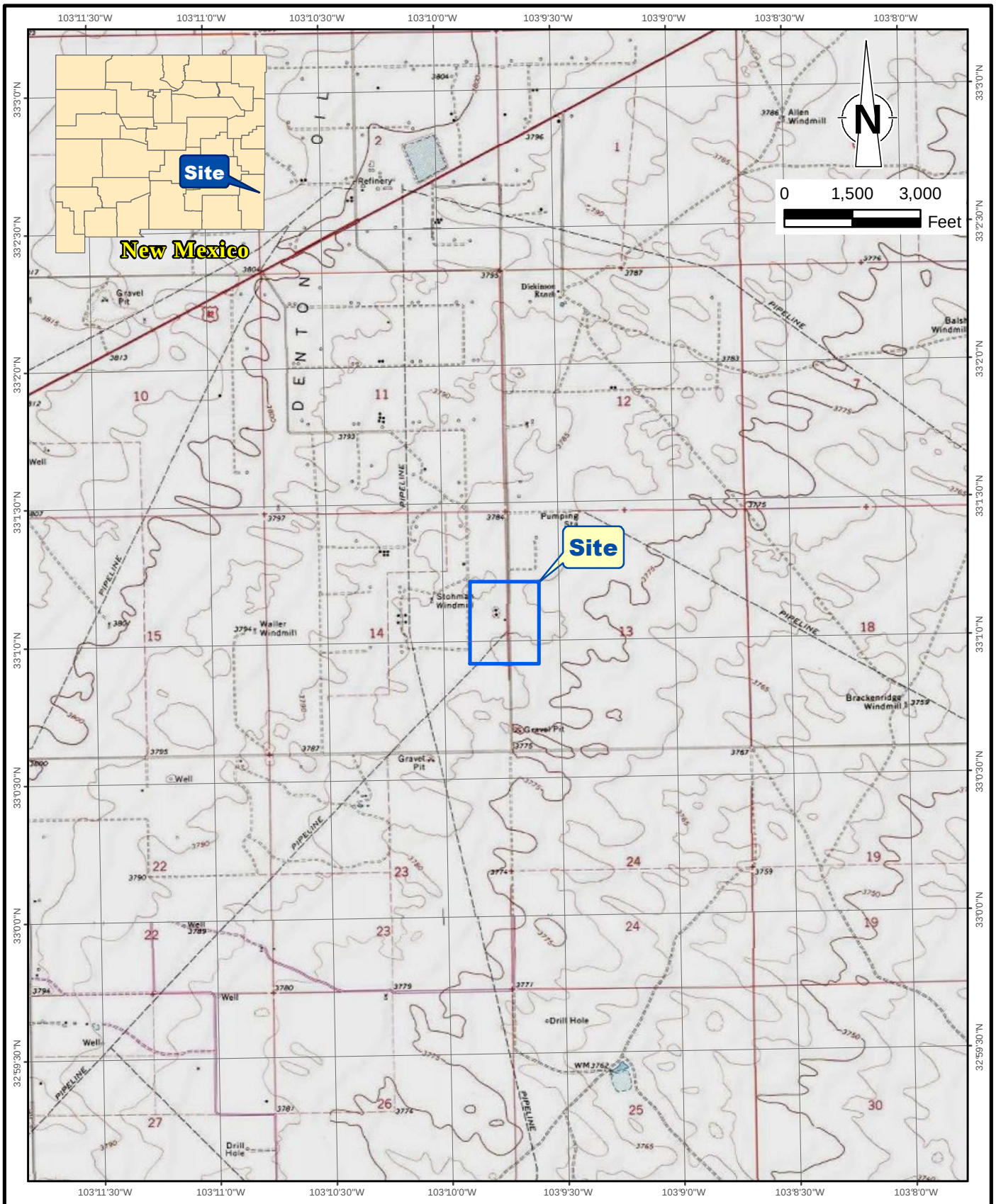
- Continue quarterly groundwater monitoring events in 2014 with annual reporting to the NMOCD.
- Continue with manual weekly LNAPL abatement program in 2014.
- Begin Mobile Dual Phase Extraction (MDPE) events to increase product recovery at the Site.
- Install two new monitor wells replacing the two dry wells (MW-1R and MW-2R) in an effort to improve monitoring of the plume and to increase product recovery at the Site.

All of which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Kimberly Lambert
Project Manager

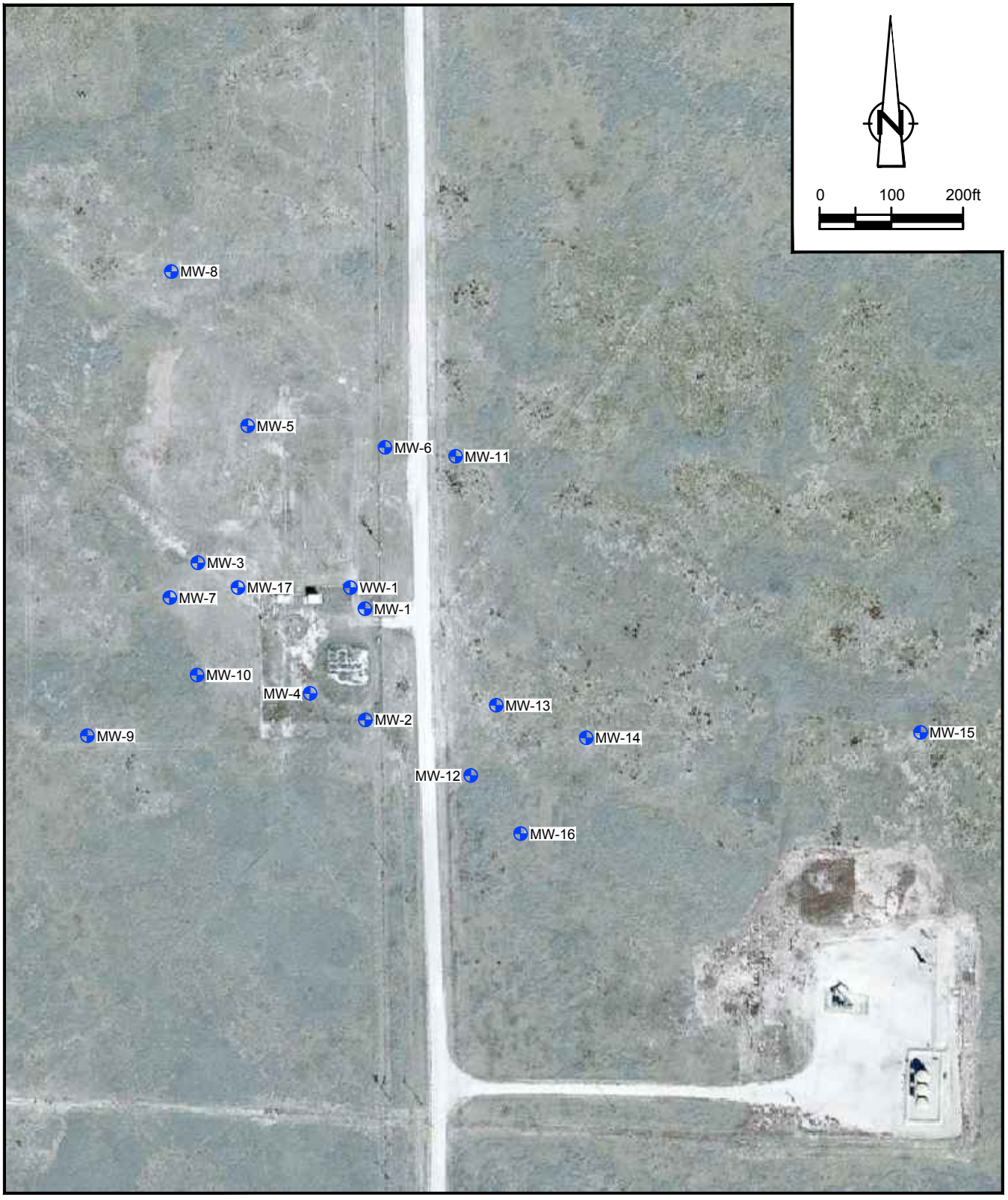
Thomas C. Larson, PG
Principal, Midland Operations Manager

Figures



RE: USGS 7.5 Minute Topographic Maps.

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

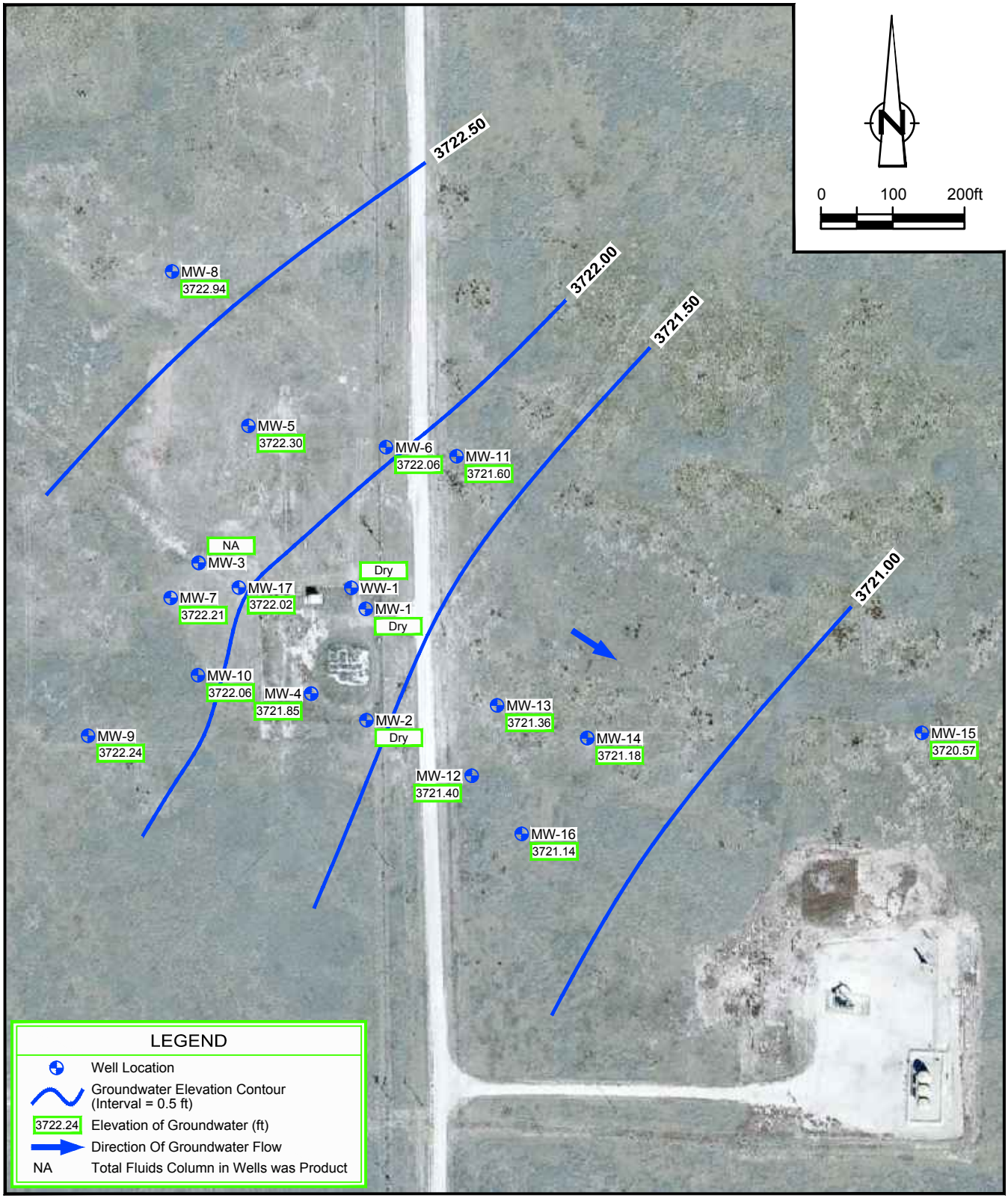


LEGEND
Well Location

figure 2

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

074682-02(003)GN-DL001 JAN 3/2012

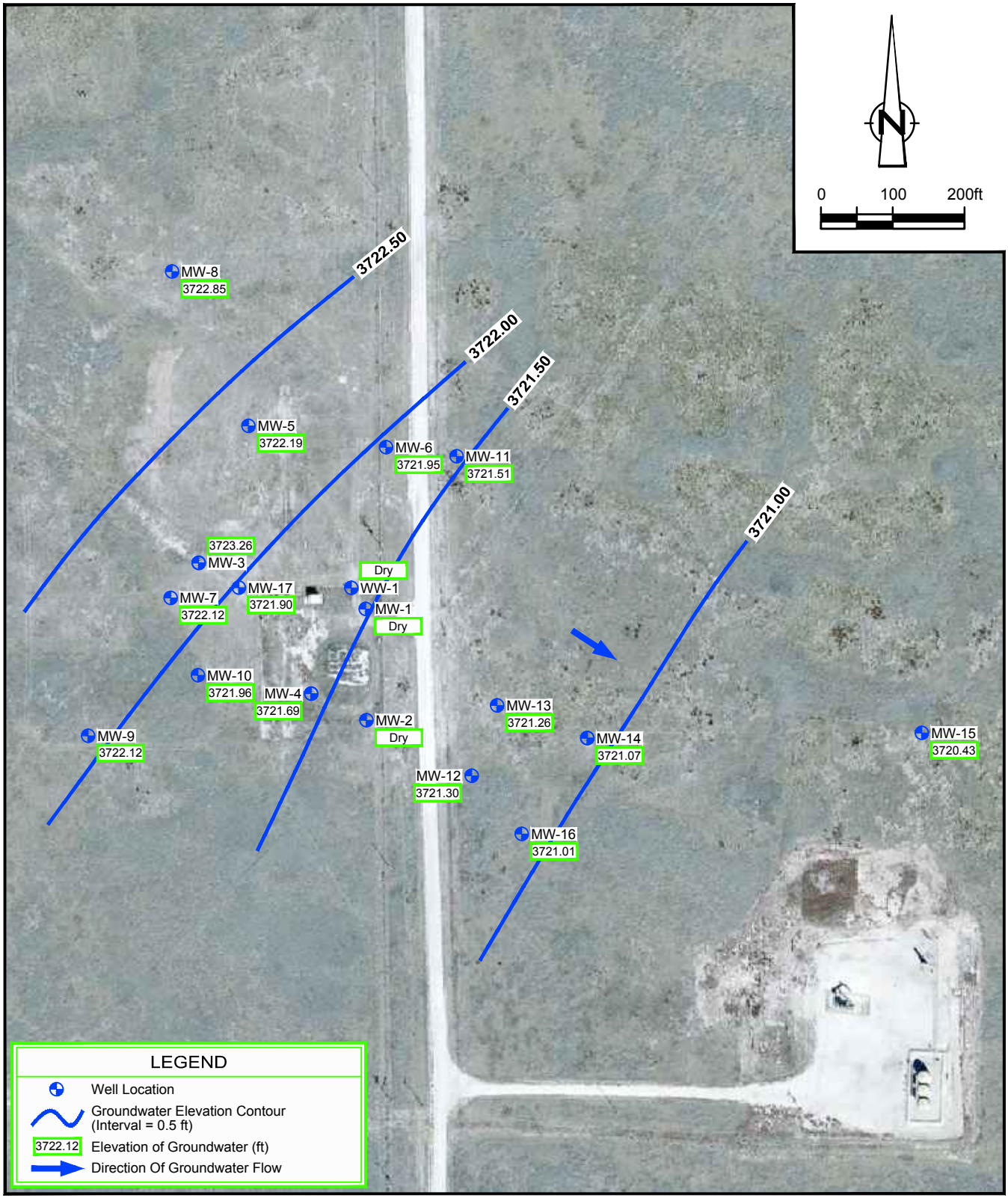


NOTE:

Groundwater elevations gauged on March 5, 2013.

figure 3

GROUNDWATER GRADIENT MAP - MARCH 2013
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.



NOTE:

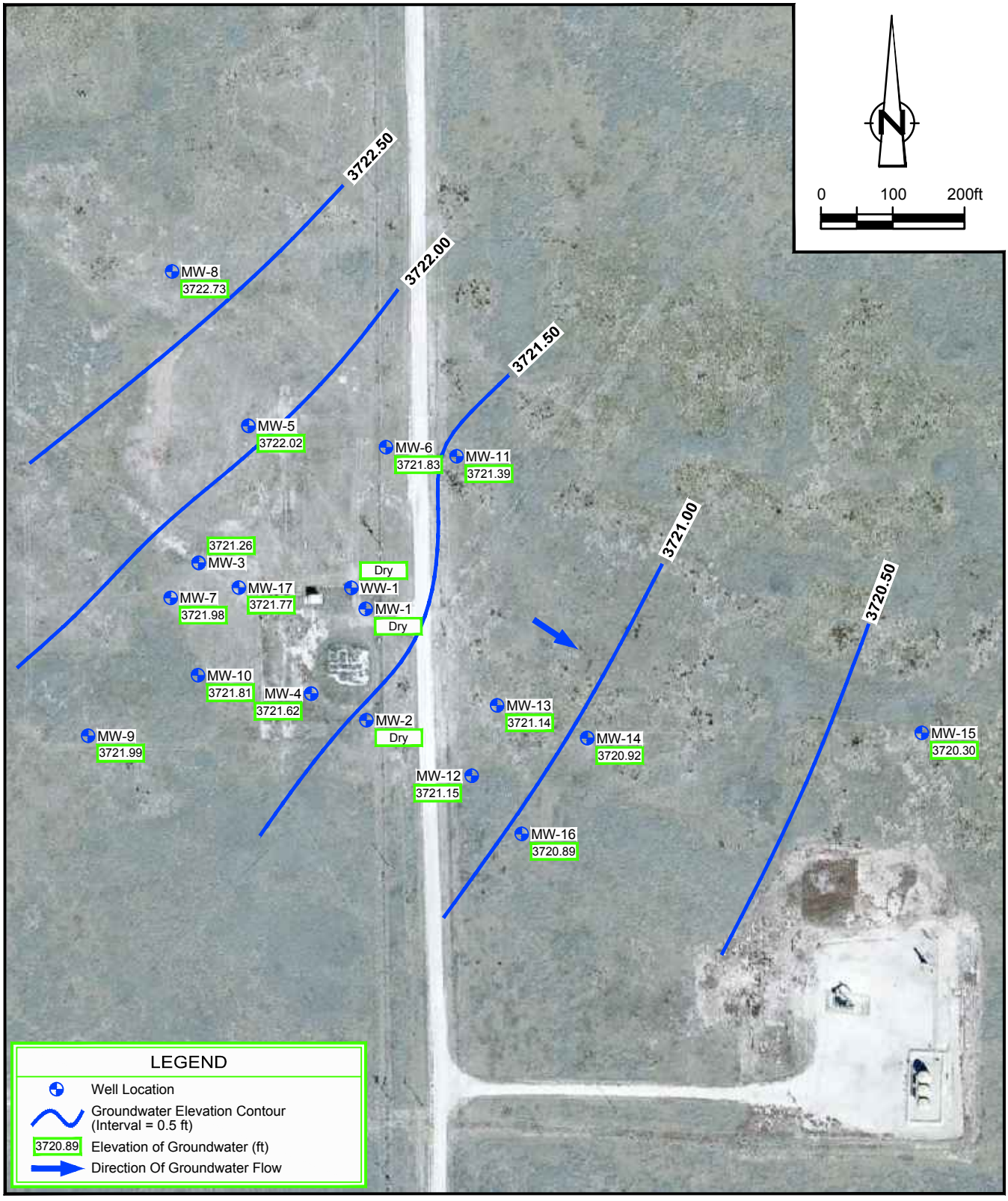
Groundwater elevations gauged on May 28, 2013.

MW-3 was not honored in gradient.

figure 4

GROUNDWATER GRADIENT MAP - MAY 2013
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.

CPA



NOTE:

Groundwater elevations gauged on August 28, 2013.

MW-3 was not honored in gradient.

figure 5

GROUNDWATER GRADIENT MAP - AUGUST 2013
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.

CPA

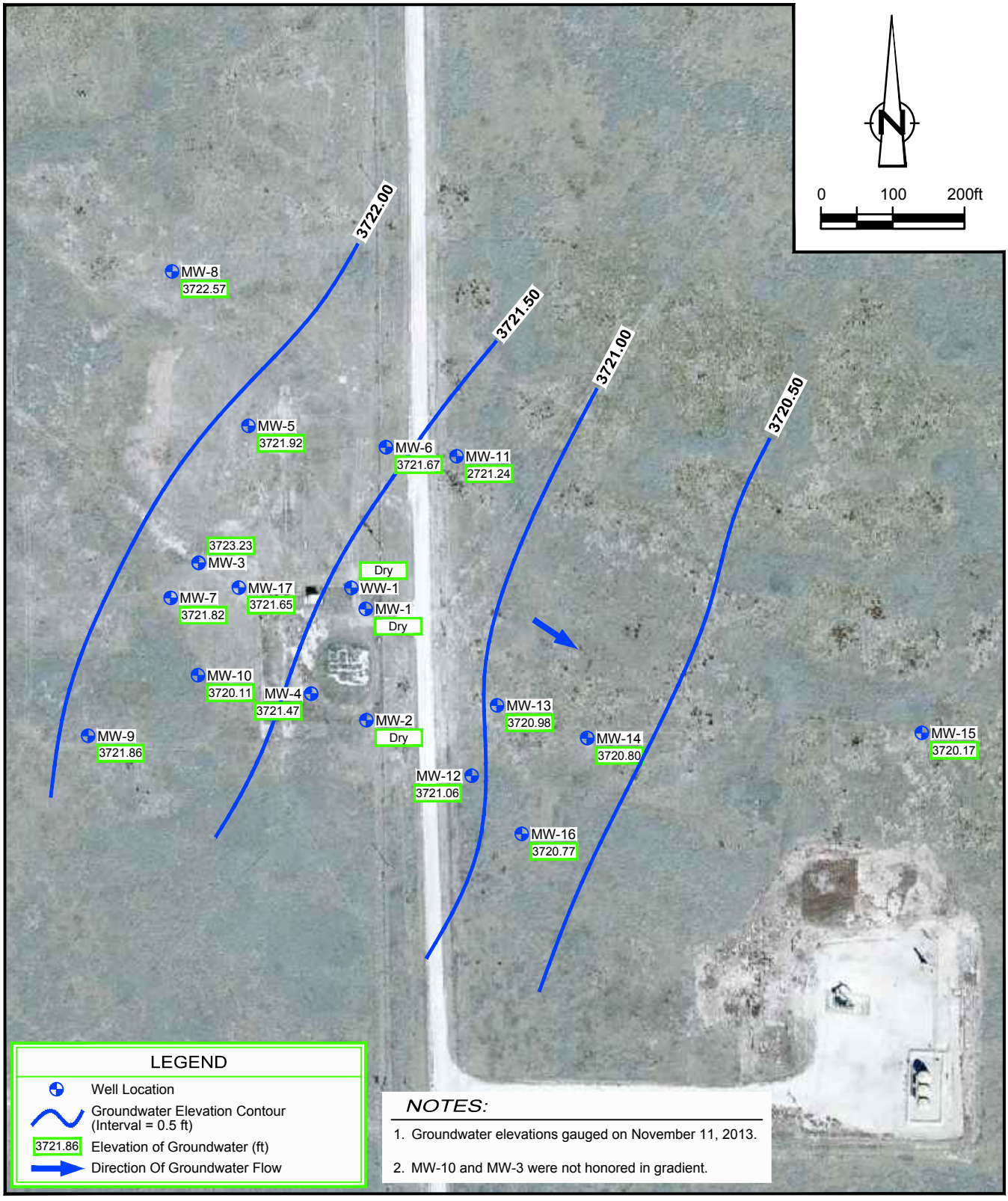


figure 6

GROUNDWATER GRADIENT MAP - NOVEMBER 2013
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.

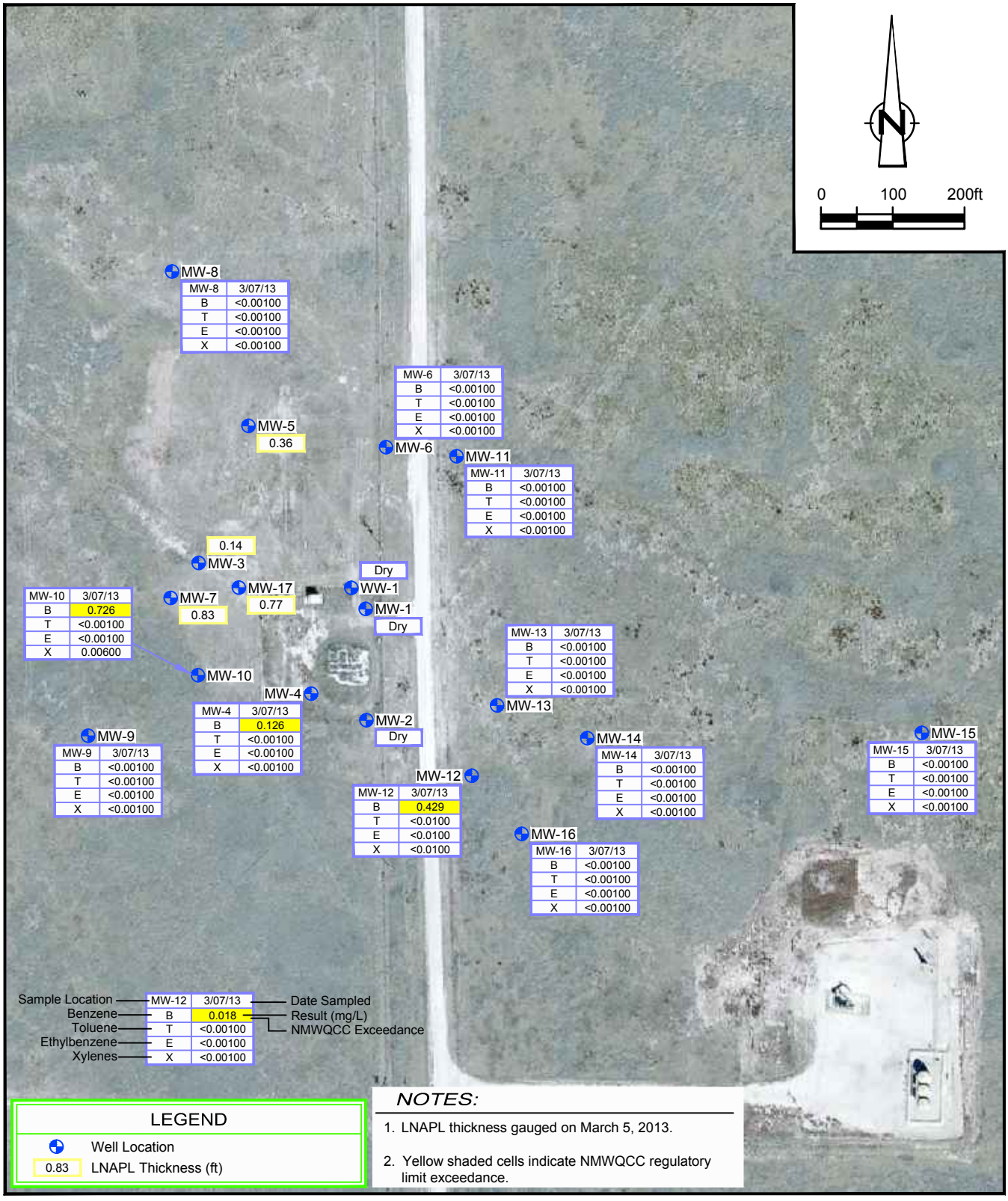


figure 7

LNAPL THICKNESS AND BTEX CONCENTRATION MAP - MARCH 2013
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.

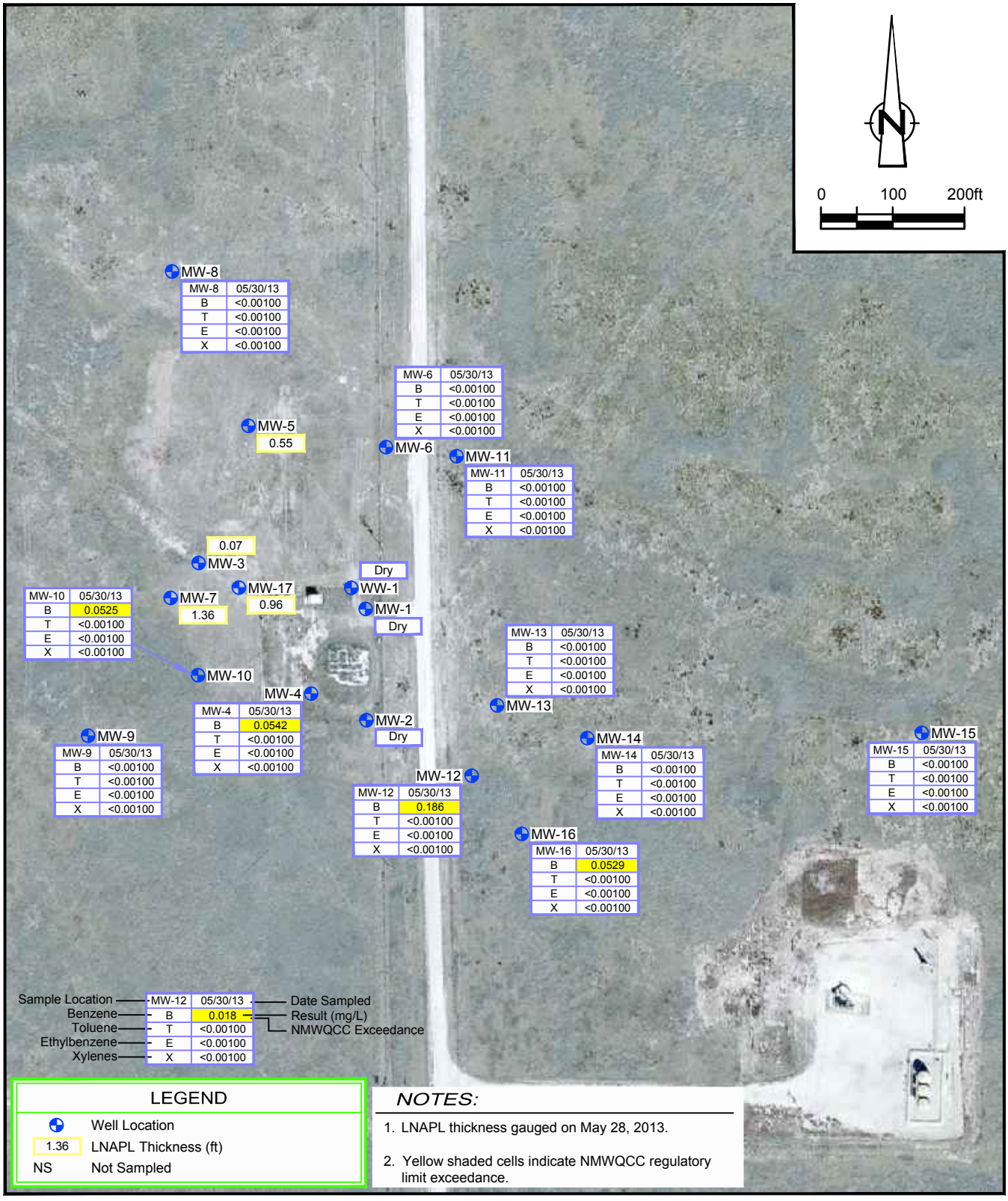


figure 8

LNAPL THICKNESS AND BTEX CONCENTRATION MAP - MAY 2013
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.

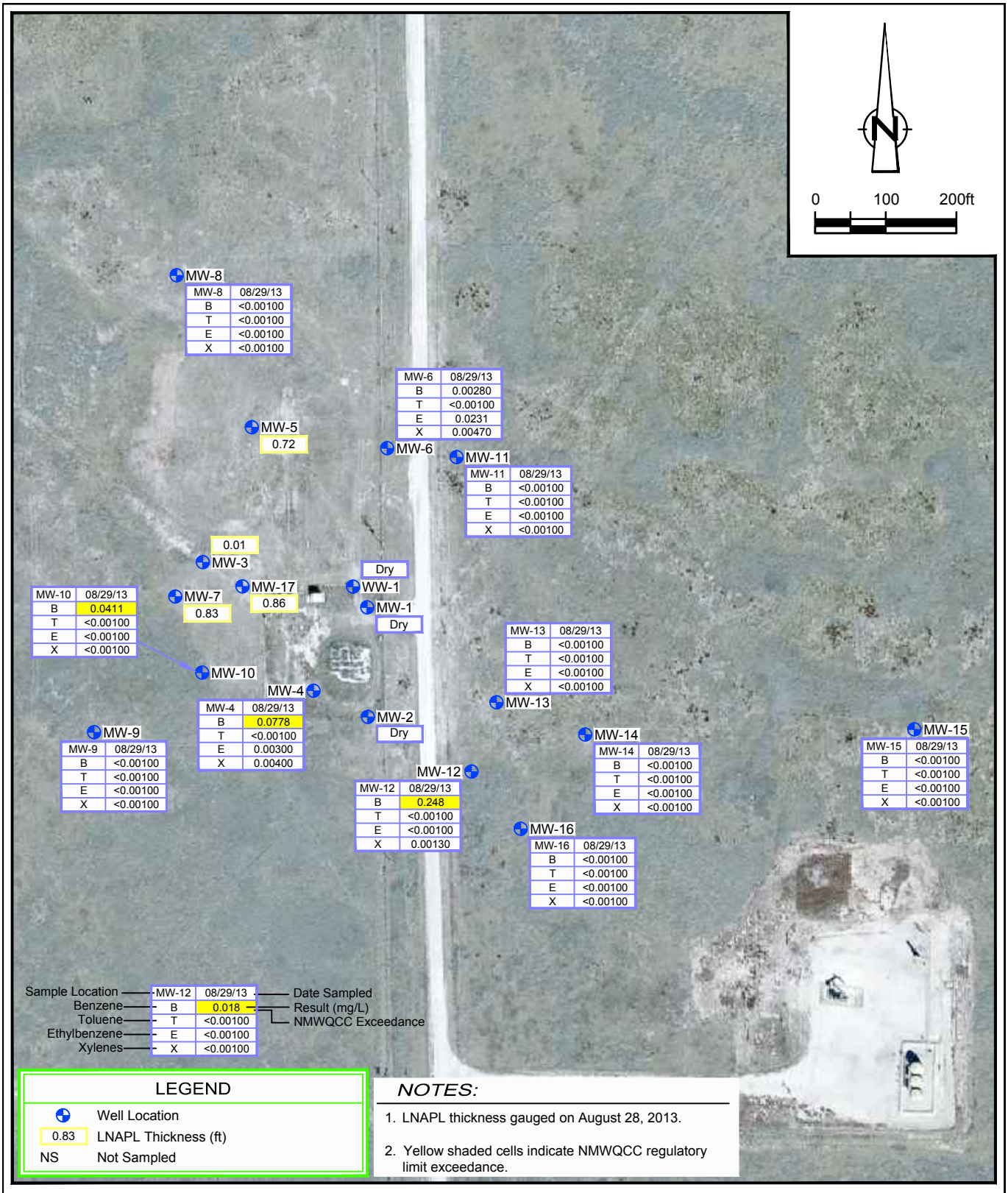


figure 9

LNAPL THICKNESS AND BTEX CONCENTRATION MAP - AUGUST 2013
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.

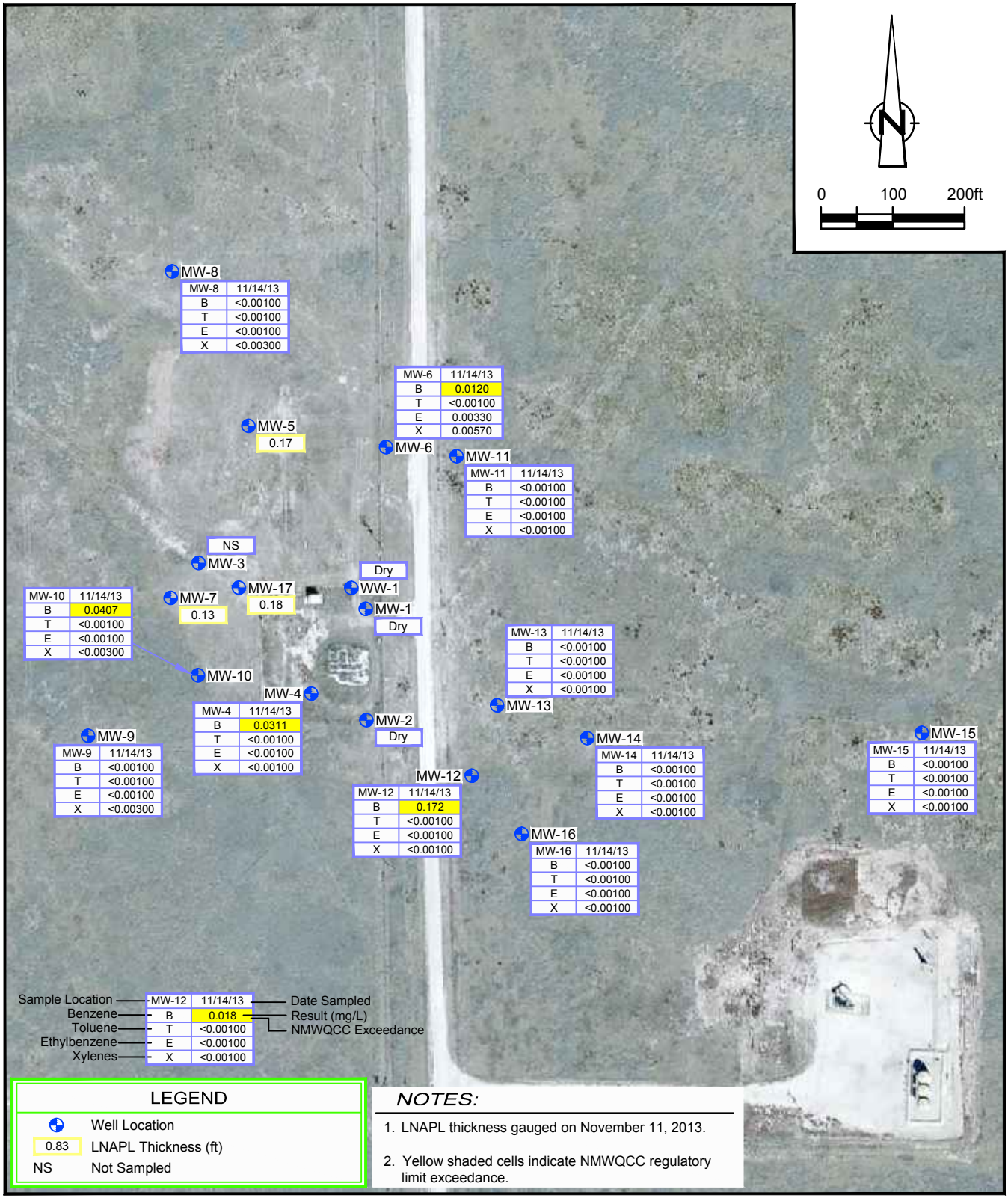


figure 10

LNAPL THICKNESS AND BTEX CONCENTRATION MAP - NOVEMBER 2013
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.

Tables

TABLE I
GROUNDWATER GAUGING SUMMARY
PLAINS PIPELINE, L.P.
DENTON STATION
LEA COUNTY, NEW MEXICO

Well ID *TOC Elevation*	*Collection Date*	*Depth to Groundwater (ft TOC)*	*Depth to LNAPL (ft TOC)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft)*	*Well Depth (ft TOC)*	Well Screen Interval (ft bgs) *Well Size (in)*
MW-1	6/16/11	63.15	63.14	0.01	3722.26	63.80	35 - 65
3785.4	9/7/11	63.24	63.17	0.07	3722.22	64.23	*4*
	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	
MW-2	6/16/11	61.08	---	---	3722.66	62.00	35-65
3783.74	9/7/11	61.26	---	---	3722.48	62.34	*4*
	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	
	5/28/13		DRY			62.00	
	8/28/13		DRY			62.11	
	11/11/13		DRY			62.05	
MW-3	6/16/11	---	59.22	1.08	NA	60.30	35 - 65
3783.45	9/7/11	60.31	59.96	0.35	3723.42	60.92	*4*
	11/28/11		Obstruction In Well				
	3/5/12	60.35	59.65	0.70	3723.67	60.91	
	6/5/12	60.30	59.88	0.42	3723.49	---	
	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	---	
	12/3/12	60.30	60.00	0.30	3723.39	---	
	3/5/13	---	60.20	0.14	NA	60.34	
	5/28/13	60.25	60.18	0.07	3723.26	---	
	8/28/13	62.20	62.19	0.01	3721.26	---	
	11/11/13	60.22	---	---	3723.23	60.33	
MW-4	6/16/11	61.05	---	---	3722.82	72.58	35 - 65
3783.87	9/7/11	61.20	---	---	3722.67	72.63	*4*
	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	
	12/3/12	61.91	---	---	3721.96	72.62	
	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	

TABLE I
GROUNDWATER GAUGING SUMMARY
PLAINS PIPELINE, L.P.
DENTON STATION
LEA COUNTY, NEW MEXICO

Well ID *TOC Elevation*	*Collection Date*	*Depth to Groundwater (ft TOC)*	*Depth to LNAPL (ft TOC)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft)*	*Well Depth (ft TOC)*	Well Screen Interval (ft bgs) *Well Size (in)*
MW-5	6/16/11	62.18	60.79	1.39	3723.24	72.20	35 - 65
3784.29	9/7/11	61.79	61.09	0.70	3723.07	69.83	*4*
	11/28/11	61.91	61.20	0.71	3722.96	71.68	
	3/5/12	62.07	61.33	0.74	3722.82	71.73	
	6/5/12	61.96	61.45	0.51	3722.74	---	
	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	---	
	12/3/12	62.44	61.71	0.73	3722.44	---	
	3/5/13	62.28	61.92	0.36	3722.30	---	
	5/28/13	62.55	62.00	0.55	3722.19	---	
	8/28/13	62.85	62.13	0.72	3722.02	---	
	11/11/13	62.51	62.34	0.17	3721.92	---	
MW-6	6/16/11	62.76	---	---	3723.02	73.61	35 - 65
3785.78	9/7/11	62.93	---	---	3722.85	74.31	*4*
	11/28/11	63.06	---	---	3722.72	73.62	
	3/5/12	63.18	---	---	3722.60	73.68	
	6/5/12	63.28	---	---	3722.50	73.75	
	9/10/12	63.40	---	---	3722.38	73.81	
	12/3/12	63.65	---	---	3722.13	73.72	
	3/5/13	63.72	---	---	3722.06	73.6	
	5/28/13	63.83	---	---	3721.95	73.65	
	8/28/13	63.95	---	---	3721.83	73.58	
	11/11/13	64.11	---	---	3721.67	73.72	
MW-7	6/16/11	61.70	59.55	2.15	3723.18	67.63	35 - 65
3783.14	9/7/11	60.88	59.92	0.96	3723.04	67.63	*4*
	11/28/11	61.18	60.02	1.16	3722.90	67.6	
	3/5/12	61.32	60.15	1.17	3722.77	67.59	
	6/5/12	61.51	60.27	1.24	3722.63	---	
	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	---	
	12/3/12	61.39	60.61	0.78	3722.38	---	
	3/5/13	61.60	60.77	0.83	3722.21	---	
	5/28/13	62.12	60.76	1.36	3722.12	---	
	8/28/13	61.83	61.00	0.83	3721.98	---	
	11/11/13	61.43	61.30	0.13	3721.82	---	
MW-8	6/16/11	61.95	__	---	3723.94	74.05	35 - 65
3785.89	9/7/11	62.14	---	---	3723.75	73.21	*4*
	11/28/11	62.23	---	---	3723.66	75.42	
	3/5/12	62.37	---	---	3723.52	75.49	
	6/5/12	62.50	---	---	3723.39	74.15	
	9/10/12	62.63	---	---	3723.26	74.10	
	12/3/12	62.58	---	---	3723.31	74.11	
	3/5/13	62.95	---	---	3722.94	74.12	

TABLE I
GROUNDWATER GAUGING SUMMARY
PLAINS PIPELINE, L.P.
DENTON STATION
LEA COUNTY, NEW MEXICO

Well ID *TOC Elevation*	*Collection Date*	*Depth to Groundwater (ft TOC)*	*Depth to LNAPL (ft TOC)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft)*	*Well Depth (ft TOC)*	Well Screen Interval (ft bgs) *Well Size (in)*
MW-8	5/28/13	63.04	---	---	3722.85	74.08	
Continued	8/28/13	63.16	---	---	3722.73	74.14	
	11/11/13	63.32	---	---	3722.57	74.14	
MW-9	6/16/11	60.95	---	---	3723.22	73.30	35 - 65
3784.17	9/7/11	61.08	---	---	3723.09	73.21	*4*
	11/28/11	61.22	---	---	3722.95	73.37	
	3/5/12	61.34	---	---	3722.83	73.36	
	6/5/12	61.46	---	---	3722.71	73.35	
	9/10/12	61.62	---	---	3722.55	73.50	
	12/3/12	61.80	---	---	3722.37	73.30	
	3/5/13	61.93	---	---	3722.24	73.35	
	5/28/13	62.05	---	---	3722.12	73.25	
	8/28/13	62.18	---	---	3721.99	73.32	
	11/11/13	62.31	---	---	3721.86	73.33	
MW-10	6/16/11	59.16	---	---	3723.06	66.28	35 - 65
3782.22	9/7/11	59.32	---	---	3722.90	66.13	*2*
	11/28/11	59.54	---	---	3722.68	66.26	
	3/5/12	59.58	---	---	3722.64	66.23	
	6/5/12	59.70	---	---	3722.52	66.33	
	9/10/12	59.85	---	---	3722.37	66.30	
	12/3/12	60.04	---	---	3722.18	66.21	
	3/5/13	60.16	---	---	3722.06	66.13	
	5/28/13	60.26	---	---	3721.96	66.17	
	8/28/13	60.41	---	---	3721.81	66.20	
	11/11/13	62.11	---	---	3720.11	65.40	
MW-11	6/16/11	60.76	---	---	3722.59	62.60	35 - 65
3783.35	9/7/11	60.92	---	---	3722.43	62.63	*2*
	11/28/11	61.02	---	---	3722.33	62.63	
	3/5/12	61.15	---	---	3722.20	62.63	
	6/5/12	61.30	---	---	3722.05	62.64	
	9/10/12	61.40	---	---	3721.95	62.80	
	12/3/12	61.61	---	---	3721.74	62.61	
	3/5/13	61.75	---	---	3721.60	62.59	
	5/28/13	61.84	---	---	3721.51	62.61	
	8/28/13	61.96	---	---	3721.39	62.66	
	11/11/13	62.11	---	---	3721.24	65.40	
MW-12	6/16/11	58.43	---	---	3722.37	67.18	35 - 65
3780.80	9/7/11	58.58	---	---	3722.22	67.63	*2*
	11/28/11	58.66	---	---	3722.14	67.65	
	3/5/12	58.81	---	---	3721.99	67.68	
	6/5/12	58.95	---	---	3721.85	67.41	
	9/10/12	59.09	---	---	3721.71	67.33	
	12/3/12	59.21	---	---	3721.59	67.31	
	3/5/13	59.40	---	---	3721.40	67.31	
	5/28/13	59.50	---	---	3721.30	67.41	
	8/28/13	59.65	---	---	3721.15	67.35	

TABLE I
GROUNDWATER GAUGING SUMMARY
PLAINS PIPELINE, L.P.
DENTON STATION
LEA COUNTY, NEW MEXICO

Well ID *TOC Elevation*	*Collection Date*	*Depth to Groundwater (ft TOC)*	*Depth to LNAPL (ft TOC)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft)*	*Well Depth (ft TOC)*	Well Screen Interval (ft bgs) *Well Size (in)*
MW-12 *Continued*	11/11/13	59.74	---	---	3721.06	67.43	
MW-13	6/16/11	58.81	---	---	3722.35	63.91	35 - 65
3781.16	9/7/11	58.97	---	---	3722.19	64.32	*2*
	11/28/11	59.10	---	---	3722.06	64.01	
	3/5/12	59.22	---	---	3721.94	64.00	
	6/5/12	59.32	---	---	3721.84	64.05	
	9/10/12	59.49	---	---	3721.67	64.03	
	12/3/12	59.61	---	---	3721.55	63.92	
	3/5/13	59.80	---	---	3721.36	64.00	
	5/28/13	59.90	---	---	3721.26	64.10	
	8/28/13	60.02	---	---	3721.14	64.00	
	11/11/13	60.18	---	---	3720.98	64.20	
MW-14	6/16/11	59.20	---	---	3722.13	63.02	35 - 65
3781.33	9/7/11	59.34	---	---	3721.99	63.41	*2*
	11/28/11	59.43	---	---	3721.90	63.1	
	3/5/12	59.58	---	---	3721.75	63.11	
	6/5/12	59.71	---	---	3721.62	63.08	
	9/10/12	59.91	---	---	3721.42	63.12	
	12/3/12	60.03	---	---	3721.30	63.10	
	3/5/13	60.15	---	---	3721.18	63.15	
	5/28/13	60.26	---	---	3721.07	63.31	
	8/28/13	60.41	---	---	3720.92	63.60	
	11/11/13	60.53	---	---	3720.80	64.08	
MW-15	6/16/11	60.91	---	---	3721.52	66.55	35 - 65
3782.43	9/7/11		DRY			67.31	*2*
	11/28/11	61.18	---	---	3721.25	66.81	
	3/5/12	61.30	---	---	3721.13	66.88	
	6/5/12	61.43	---	---	3721.00	66.92	
	9/10/12	61.59	---	---	3720.84	67.3	
	12/3/12	62.71	---	---	3719.72	66.81	
	3/5/13	61.86	---	---	3720.57	66.72	
	5/28/13	62.00	---	---	3720.43	66.91	
	8/28/13	62.13	---	---	3720.30	66.88	
	11/11/13	62.26	---	---	3720.17	66.84	
MW-16	6/16/11	58.10	---	---	3722.14	62.00	35 - 65
3780.24	9/7/11	58.29	---	---	3721.95	62.13	*2*
	11/28/11	58.40	---	---	3721.84	62.20	
	3/5/12	58.51	---	---	3721.73	62.31	
	6/5/12	58.65	---	---	3721.59	62.18	
	9/10/12	58.81	---	---	3721.43	61.21	
	12/3/12	59.00	---	---	3721.24	62.15	
	3/5/13	59.10	---	---	3721.14	62.14	
	5/28/13	59.23	---	---	3721.01	62.2	
	8/28/13	59.35	---	---	3720.89	62.16	
	11/11/13	59.47	---	---	3720.77	62.16	

TABLE I
GROUNDWATER GAUGING SUMMARY
PLAINS PIPELINE, L.P.
DENTON STATION
LEA COUNTY, NEW MEXICO

Well ID *TOC Elevation*	*Collection Date*	*Depth to Groundwater (ft TOC)*	*Depth to LNAPL (ft TOC)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft)*	*Well Depth (ft TOC)*	Well Screen Interval (ft bgs) *Well Size (in)*
MW-17	6/16/11	63.11	61.10	2.01	---	75.10	35 - 65
3784.47	9/7/11	62.31	61.43	0.88	---	65.43	2
	11/28/11	62.31	61.64	0.67	---	75.15	
	3/5/12	62.69	61.68	1.01	3722.60	75.15	
	6/5/12	62.68	61.82	0.86	3722.49	---	
	9/10/12	62.60	62.00	0.60	3722.36	---	
	10/3/12	62.87	62.01	0.86	3722.30	---	
	10/9/12	62.95	62.05	0.90	3722.25	---	
	10/15/12	62.97	62.01	0.96	3722.28	---	
	12/3/12	62.89	62.13	0.76	3722.20	---	
	3/5/13	63.07	62.30	0.77	3722.02	---	
	5/28/13	63.35	62.39	0.96	3721.90	---	
	8/28/13	63.40	62.54	0.86	3721.77	---	
	11/11/13	62.97	62.79	0.18	3721.65	---	
WW-1	6/16/11	61.93	61.75	0.18	3722.87	---	35 - 65
3784.65	9/7/11	62.05	61.98	0.07	3722.66	---	*8*
	11/28/11	62.11	62.10	0.01	3722.55	---	
	3/5/12	62.40	62.18	0.22	3722.43	---	
	6/5/12		DRY			---	
	9/10/12		DRY			---	
	10/15/12		DRY			---	
	12/3/12		DRY			---	
	3/5/13		DRY			62.73	
	5/28/13		DRY			62.75	
	8/28/13		DRY			62.87	
	11/11/13		DRY			62.98	

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.

TABLE 2
GROUNDWATER BTEX ANALYTICAL SUMMARY
PLAINS PIPELINE, L.P.
DENTON STATION
LEA COUNTY, NEW MEXICO

Sample ID	*Sample Date*	*Benzene*	*Toluene*	*Ethyl-Benzene*	*Total Xylenes*	*Total BTEX*
New Mexico Water Quality Control Commission Regulatory Limits						
		0.01	***0.75***	***0.75***	***0.62***	***0.05***
MW-2	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	3/7/11	**0.280**	<0.00500	**0.0391**	**0.107**	**0.426**
	6/16/11	**0.197**	<0.00500	<0.00500	<0.00500	**0.197**
	9/9/11	**0.244**	<0.00500	<0.00500	<0.00500	**0.244**
	12/1/11	**0.200**	<0.00100	**0.0104**	**0.0221**	**0.233**
	3/9/12	**0.251**	<0.00100	**0.0154**	**0.0321**	**0.299**
	6/7/12	**0.202**	<0.00100	**0.0099**	**0.0177**	**0.230**
	9/12/12	**0.317**	<0.0500	<0.0500	<0.0500	**0.317**
	12/5/12	**0.191**	<0.00100	0.0073	0.0104	**0.209**
	3/7/13	**0.126**	<0.00100	<0.00100	<0.00100	**0.126**
	5/30/13	**0.0542**	<0.00100	<0.00100	<0.00100	**0.054**
DUP1	5/30/13	**0.1190**	<0.00100	**0.0401**	**0.0158**	**0.175**
	8/29/13	**0.0778**	<0.00100	**0.00300**	**0.00400**	**0.085**
DUP2	8/29/13	**0.0830**	<0.00100	**0.00270**	**0.00180**	**0.088**
	11/14/13	**0.0311**	<0.00100	<0.00100	<0.00100	**0.031**
MW-6	3/7/11	**0.0470**	<0.00100	<0.00100	**0.0212**	**0.0682**
	6/16/11	**0.0268**	<0.00100	<0.00100	<0.00100	**0.0268**
	9/9/11	**0.0151**	<0.00100	<0.00100	**0.0174**	**0.0325**
	12/1/11	**0.00110**	<0.00100	<0.00100	**0.00340**	**0.00450**
	3/9/12	**0.00740**	<0.00100	<0.00100	<0.00100	**0.00740**
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	**0.00280**	<0.00100	**0.0231**	**0.00470**	**0.0306**
	11/14/13	**0.01200**	<0.00100	**0.0033**	**0.00570**	**0.02100**
MW-8	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

TABLE 2
GROUNDWATER BTEX ANALYTICAL SUMMARY
PLAINS PIPELINE, L.P.
DENTON STATION
LEA COUNTY, NEW MEXICO

Sample ID	*Sample Date*	*Benzene*	*Toluene*	*Ethyl-Benzene*	*Total Xylenes*	*Total BTEX*
New Mexico Water Quality Control Commission Regulatory Limits						
		0.01	***0.75***	***0.75***	***0.62***	***0.05***
MW-8 *Continued*	11/14/13	<0.00100	<0.00100	<0.00100	<0.00300	<0.00300
MW-9	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<0.00100	<0.00100	<0.00300	<0.00300
MW-10	3/7/11	**0.239**	<0.100	<0.100	<0.100	**0.239**
	6/16/11	**0.172**	<0.00100	<0.00100	<0.00100	**0.172**
	9/9/11	**0.154**	<0.0100	<0.0100	<0.0100	**0.154**
	12/1/11	**0.188**	<0.00100	**0.0171**	<0.00100	**0.205**
	3/9/12	**0.112**	<0.00100	**0.0127**	<0.00100	**0.125**
	6/7/12	**0.116**	<0.00100	**0.0048**	0.0121	**0.133**
	9/12/12	**0.168**	<0.0500	<0.0500	<0.0500	**0.168**
	12/5/12	**0.132**	<0.00100	<0.00100	<0.00100	**0.132**
	3/7/13	**0.726**	<0.00100	<0.00100	**0.0060**	**0.732**
	5/30/13	**0.0525**	<0.00100	<0.00100	<0.00100	**0.053**
	8/29/13	**0.0411**	<0.00100	<0.00100	<0.00100	**0.041**
	11/14/13	**0.0407**	<0.00100	<0.00100	<0.00300	**0.0407**
MW-11	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-12	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	**0.126**	<0.00100	<0.00100	<0.00100	**0.126**
	9/9/11	**0.278**	<0.00100	<0.00100	<0.00100	**0.278**
	12/1/11	**0.0264**	<0.00100	<0.00100	**0.00250**	**0.029**

TABLE 2
GROUNDWATER BTEX ANALYTICAL SUMMARY
PLAINS PIPELINE, L.P.
DENTON STATION
LEA COUNTY, NEW MEXICO

Sample ID	*Sample Date*	*Benzene*	*Toluene*	*Ethyl-Benzene*	*Total Xylenes*	*Total BTEX*
New Mexico Water Quality Control Commission Regulatory Limits						
		0.01	***0.75***	***0.75***	***0.62***	***0.05***
MW-12	3/9/12	**0.207**	<0.00100	<0.00100	<0.00100	**0.207**
Continued	6/7/12	**0.254**	<0.00100	<0.00100	<0.00100	**0.254**
	9/12/12	**0.313**	<0.00100	<0.00100	<0.00100	**0.313**
	12/5/12	**0.018**	<0.00100	<0.00100	<0.00100	**0.018**
DUP-1	12/5/12	**0.018**	<0.00100	<0.00100	<0.00100	**0.018**
	3/7/13	**0.429**	<0.0100	<0.0100	<0.0100	**0.429**
	5/30/13	**0.186**	<0.00100	<0.00100	<0.00100	**0.186**
	8/29/13	**0.248**	<0.00100	<0.00100	**0.00130**	**0.249**
	11/14/13	**0.172**	<0.00100	<0.00100	<0.00100	**0.172**
MW-13	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-14	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-15	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	DRY				
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

TABLE 2
GROUNDWATER BTEX ANALYTICAL SUMMARY
PLAINS PIPELINE, L.P.
DENTON STATION
LEA COUNTY, NEW MEXICO

Sample ID	*Sample Date*	*Benzene*	*Toluene*	*Ethyl-Benzene*	*Total Xylenes*	*Total BTEX*
New Mexico Water Quality Control Commission Regulatory Limits						
		0.01	***0.75***	***0.75***	***0.62***	***0.05***
MW-15 *Continued*	5/30/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-16	3/7/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/16/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/9/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/1/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/9/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	6/7/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	9/12/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/5/12	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	3/7/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	5/30/13	**0.0529**	<0.00100	<0.00100	<0.00100	**0.0529**
	8/29/13	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	11/14/13	<0.00100	<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

Sample ID	Sample Date	Acenaphthlene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	Napthalene	1-Methylnapthalene	2-Methylnapthalene	Dibenzofuran
NMWQCC Drinking Water Standards Section 1-101.UU and 3-103.A					0.001	0.007	0.002		0.002	0.002	0.003			0.004			0.03			
MW-1	12/11/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	**0.0589**	<0.000922	**0.0849**	<0.000922	**0.135**	**0.397**	**0.529**	**0.024**
	12/3/09	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.0262**	<0.000917	**0.0356**	<0.000917	**0.0776**	**0.204**	**0.286**	**0.00956**
	11/29/10	Not sampled due to insufficient water volume																		
MW-2	12/11/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	12/3/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
MW-3	12/11/08	Not sampled due to insufficient water volume																		
	12/3/09	Not sampled due to insufficient water volume																		
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
MW-4	12/11/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	**0.00202**	<0.000185	**0.001**	<0.000185	**0.00565**	**0.00523**	**0.00331**	**0.00141**
	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.00140**	<0.000184	**0.000405**	<0.000184	**0.00532**	**0.00272**	**0.00179**	**0.000877**
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
	12/1/11	<0.000184	<0.000184	<0.000184	<0.000184	**0.000331**	<0.000184	**0.00158**	<0.000184	<0.000184	**0.000872**	<0.000184	**0.000610**	**0.00118**	<0.000184	<0.000184	**0.00122**	**0.00250**	**0.000750**	**0.000569**
	12/5/12	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	**0.00106**	<0.000190	<0.000190
MW-5	12/11/08	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.0758**	<0.000917	**0.115**	<0.000917	**0.376**	**0.949**	**1.26**	**0.041**
	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.00325**	<0.000184	**0.00328**	<0.000184	**0.0305**	**0.0414**	**0.0374**	**0.00208**
	11/29/10	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	**0.00476**	<0.000186	**0.00625**	<0.000186	**0.0484**	**0.0498**	**0.0617**	**0.0029**
MW-6	12/11/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.00226**	<0.000184	**0.0006**	<0.000184	**0.00187**	**0.00275**	**0.00193**	**0.00128**
	12/3/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.00686**	<0.000183	**0.00871**	<0.000183	**0.0102**	**0.0428**	**0.0553**	**0.00305**
	11/29/10	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	**0.0011**	<0.000186	<0.000186	<0.000186	**0.00213**	**0.000871**	**0.000671**	**0.000781**
	12/1/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.00104**	<0.000183	**0.00146**	<0.000183	**0.000675**	**0.00362**	<0.000183	<0.000183
	12/5/12	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190
MW-7	12/11/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.0218**	<0.000183	**0.0367**	<0.000183	**0.147**	**0.265**	**0.339**	**0.0153**
	12/3/09	<0.000917	0.0270	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.105**	<0.000917	**0.149**	<0.000917	**0.416**	**1.04**	**1.43**	**0.0663**
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
MW-8	12/11/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		

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

Sample ID	Sample Date	Acenaphthlene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	Napthalene	1-Methylnapthalene	2-Methylnapthalene	Dibenzofuran
NMWQCC Drinking Water Standards Section 1-101.UU and 3-103.A																				
					0.001	**0.007**	**0.002**		**0.002**	**0.002**	**0.003**			**0.004**			**0.03**			
MW-9	12/11/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
MW-10	12/11/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.000652**	<0.000184	<0.000184	<0.000184	**0.000526**	**0.00118**	**0.000314**	**0.000623**
	12/3/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.000525**	**0.00118**	<0.000183	**0.000772**
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
	12/1/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.000873**	<0.000183	<0.000183	<0.000183	**0.000358**	**0.00355**	<0.000183	**0.00101**
	12/5/12	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190
MW-11	12/11/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
MW-12	12/11/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
	12/5/12	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190
MW-13	12/11/08	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187
	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
MW-14	12/11/08	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186
	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
MW-15	12/11/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
MW-16	12/11/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
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	<0.000922	**0.0694**	<0.000922	**0.113**	<0.000922	**0.398**	**0.888**	**1.24**	**0.0437**

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

Sample ID	Sample Date	Acenaphthlene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	Napthalene	1-Methylnapthalene	2-Methylnapthalene	Dibenzofuran
NMWQCC Drinking Water Standards Section 1-101.UU and 3-103.A					**0.001**	**0.007**	**0.002**		**0.002**	**0.002**	**0.003**			**0.004**			**0.03**			
MW-17 (Cont)	12/3/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	**0.0709**	<0.000922	**0.102**	<0.000922	**0.270**	**0.704**	**0.946**	**0.0444**
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		
WW-1	12/11/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	**0.0757**	<0.000922	**0.122**	<0.000922	**0.382**	**0.934**	**1.38**	**0.027**
	12/3/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.00792**	<0.000183	**0.0110**	<0.000183	**0.0355**	**0.0772**	**0.105**	**0.00423**
	11/29/10	Not sampled as part of Quarterly Monitoring Event																		

Notes:

1. Shaded cells indicate New Mexico Oil Conservation Division Regulartory Limit exceedance.
2. **Bold** indicates detection.
3. BTEX analyses by EPA Method 8021B.
4. Results shown in mg/L.
5. 2008 through 2010 results collected by NOVA.

Appendices

Appendix A
Certified Lab Reports

Summary Report

Todd Wells
CRA-Midland
2135 South Loop 250 West
Midland, TX 79703

Report Date: March 14, 2013

Work Order: 13030729

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
322735	Dup.-1 030713	water	2013-03-07	00:00	2013-03-07
322736	MW-4 030713	water	2013-03-07	11:30	2013-03-07
322737	MW-6 030713	water	2013-03-07	11:05	2013-03-07
322738	MW-8 030713	water	2013-03-07	11:10	2013-03-07
322739	MW-9 030713	water	2013-03-07	11:15	2013-03-07
322740	MW-10 030713	water	2013-03-07	11:20	2013-03-07
322741	MW-11 030713	water	2013-03-07	09:50	2013-03-07
322742	MW-12 030713	water	2013-03-07	10:05	2013-03-07
322743	MW-13 030713	water	2013-03-07	11:00	2013-03-07
322744	MW-14 030713	water	2013-03-07	10:35	2013-03-07
322745	MW-15 030713	water	2013-03-07	10:50	2013-03-07
322746	MW-16 030713	water	2013-03-07	10:25	2013-03-07

	BTEX			
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
322735 - Dup.-1 030713	**0.392** Qr	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr
322736 - MW-4 030713	**0.126** Qr	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr
322737 - MW-6 030713	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr
322738 - MW-8 030713	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr
322739 - MW-9 030713	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr
322740 - MW-10 030713	**0.0726** Qr	<0.00100 Qr	<0.00100 Qr	**0.00600** Qr
322741 - MW-11 030713	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr
322742 - MW-12 030713	**0.429**	<0.0100	<0.0100	<0.0100
322743 - MW-13 030713	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr
322744 - MW-14 030713	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr
322745 - MW-15 030713	<0.00100	<0.00100	<0.00100	<0.00100
322746 - MW-16 030713	<0.00100	<0.00100	<0.00100	<0.00100

TRACEANALYSIS, INC.

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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

Todd Wells
CRA-Midland
2135 South Loop 250 West
Midland, TX, 79703

Report Date: March 14, 2013

Work Order: 13030729

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 Taken	Time Taken	Date Received
322735	Dup.-1 030713	water	2013-03-07	00:00	2013-03-07
322736	MW-4 030713	water	2013-03-07	11:30	2013-03-07
322737	MW-6 030713	water	2013-03-07	11:05	2013-03-07
322738	MW-8 030713	water	2013-03-07	11:10	2013-03-07
322739	MW-9 030713	water	2013-03-07	11:15	2013-03-07
322740	MW-10 030713	water	2013-03-07	11:20	2013-03-07
322741	MW-11 030713	water	2013-03-07	09:50	2013-03-07
322742	MW-12 030713	water	2013-03-07	10:05	2013-03-07
322743	MW-13 030713	water	2013-03-07	11:00	2013-03-07
322744	MW-14 030713	water	2013-03-07	10:35	2013-03-07
322745	MW-15 030713	water	2013-03-07	10:50	2013-03-07
322746	MW-16 030713	water	2013-03-07	10:25	2013-03-07

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.

TraceAnalysis, Inc.

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

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Case Narrative

Samples for project Darr Angel Denton Station were received by TraceAnalysis, Inc. on 2013-03-07 and assigned to work order 13030729. Samples for work order 13030729 were received intact without headspace and at a temperature of 19.7 C. Samples were received straight from the field on ice.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	84364	2013-03-11 at 10:42	99570	2013-03-11 at 10:44
BTEX	S 8021B	84441	2013-03-13 at 13:51	99671	2013-03-13 at 13:52

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 13030729 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.

Analytical Report

Sample: 322735 - Dup.-1 030713

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99570	Date Analyzed:	2013-03-11	Analyzed By:	AH
Prep Batch:	84364	Sample Preparation:	2013-03-08	Prepared By:	AH

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Benzene	Qr	1	**0.392**		mg/L	1	0.00100
Toluene	Qr,U	1	<0.00100		mg/L	1	0.00100
Ethylbenzene	Qr,U	1	<0.00100		mg/L	1	0.00100
Xylene	Qr,U	1	<0.00100		mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0992	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0947	mg/L	1	0.100	95	70 - 130

Sample: 322736 - MW-4 030713

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99570	Date Analyzed:	2013-03-11	Analyzed By:	AH
Prep Batch:	84364	Sample Preparation:	2013-03-08	Prepared By:	AH

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Benzene	Qr	1	**0.126**		mg/L	1	0.00100
Toluene	Qr,U	1	<0.00100		mg/L	1	0.00100
Ethylbenzene	Qr,U	1	<0.00100		mg/L	1	0.00100
Xylene	Qr,U	1	<0.00100		mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0981	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0935	mg/L	1	0.100	94	70 - 130

Sample: 322737 - MW-6 030713

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99570	Date Analyzed:	2013-03-11	Analyzed By:	AH
Prep Batch:	84364	Sample Preparation:	2013-03-08	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0961	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0908	mg/L	1	0.100	91	70 - 130

Sample: 322738 - MW-8 030713

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99570	Date Analyzed:	2013-03-11	Analyzed By:	AH
Prep Batch:	84364	Sample Preparation:	2013-03-08	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0991	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0919	mg/L	1	0.100	92	70 - 130

Sample: 322739 - MW-9 030713

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99570	Date Analyzed:	2013-03-11	Analyzed By:	AH
Prep Batch:	84364	Sample Preparation:	2013-03-08	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0979	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0909	mg/L	1	0.100	91	70 - 130

Sample: 322740 - MW-10 030713

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99570	Date Analyzed:	2013-03-11	Analyzed By:	AH
Prep Batch:	84364	Sample Preparation:	2013-03-08	Prepared By:	AH

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qr	1	**0.0726**	mg/L	1	0.00100
Toluene	Qr,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr	1	**0.00600**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0979	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0929	mg/L	1	0.100	93	70 - 130

Sample: 322741 - MW-11 030713

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99570	Date Analyzed:	2013-03-11	Analyzed By:	AH
Prep Batch:	84364	Sample Preparation:	2013-03-08	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0976	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0904	mg/L	1	0.100	90	70 - 130

Sample: 322742 - MW-12 030713

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99671	Date Analyzed:	2013-03-13	Analyzed By:	AH
Prep Batch:	84441	Sample Preparation:	2013-03-12	Prepared By:	AH

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.429**	mg/L	10	0.00100
Toluene	U	1	<0.0100	mg/L	10	0.00100
Ethylbenzene	U	1	<0.0100	mg/L	10	0.00100
Xylene	U	1	<0.0100	mg/L	10	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.979	mg/L	10	1.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.933	mg/L	10	1.00	93	70 - 130

Sample: 322743 - MW-13 030713

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99570	Date Analyzed:	2013-03-11	Analyzed By:	AH
Prep Batch:	84364	Sample Preparation:	2013-03-08	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0978	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0912	mg/L	1	0.100	91	70 - 130

Sample: 322744 - MW-14 030713

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99570	Date Analyzed:	2013-03-11	Analyzed By:	AH
Prep Batch:	84364	Sample Preparation:	2013-03-08	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0977	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0898	mg/L	1	0.100	90	70 - 130

Sample: 322745 - MW-15 030713

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99671	Date Analyzed:	2013-03-13	Analyzed By:	AH
Prep Batch:	84441	Sample Preparation:	2013-03-12	Prepared By:	AH

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0967	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0907	mg/L	1	0.100	91	70 - 130

Sample: 322746 - MW-16 030713

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99671	Date Analyzed:	2013-03-13	Analyzed By:	AH
Prep Batch:	84441	Sample Preparation:	2013-03-12	Prepared By:	AH

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0963	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0884	mg/L	1	0.100	88	70 - 130

Method Blanks

Method Blank (1) QC Batch: 99570

QC Batch: 99570 | Date Analyzed: 2013-03-11 | Analyzed By: AH
Prep Batch: 84364 | QC Preparation: 2013-03-11 | Prepared By: AH

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0979	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0897	mg/L	1	0.100	90	70 - 130

Method Blank (1) QC Batch: 99671

QC Batch: 99671 | Date Analyzed: 2013-03-13 | Analyzed By: AH
Prep Batch: 84441 | QC Preparation: 2013-03-13 | Prepared By: AH

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0974	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0908	mg/L	1	0.100	91	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 99570 | Date Analyzed: 2013-03-11 | Analyzed By: AH
Prep Batch: 84364 | QC Preparation: 2013-03-11 | Prepared By: AH

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0830	mg/L	1	0.100	<0.000200	83	70 - 130
Toluene		1	0.0814	mg/L	1	0.100	<0.000300	81	70 - 130
Ethylbenzene		1	0.0820	mg/L	1	0.100	<0.000400	82	70 - 130
Xylene		1	0.247	mg/L	1	0.300	<0.00120	82	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] Qr	Qr	1	0.103	mg/L	1	0.100	<0.000200	103	70 - 130	22	20
Toluene	Qr	Qr	1	0.100	mg/L	1	0.100	<0.000300	100	70 - 130	20	20
Ethylbenzene	Qr	Qr	1	0.102	mg/L	1	0.100	<0.000400	102	70 - 130	22	20
Xylene	Qr	Qr	1	0.304	mg/L	1	0.300	<0.00120	101	70 - 130	21	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)	0.0967	0.0965	mg/L	1	0.100	97	96	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0906	0.0913	mg/L	1	0.100	91	91	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 99671 | Date Analyzed: 2013-03-13 | Analyzed By: AH
Prep Batch: 84441 | QC Preparation: 2013-03-13 | Prepared By: AH

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.103	mg/L	1	0.100	<0.000200	103	70 - 130
Toluene		1	0.101	mg/L	1	0.100	<0.000300	101	70 - 130
Ethylbenzene		1	0.102	mg/L	1	0.100	<0.000400	102	70 - 130
Xylene		1	0.302	mg/L	1	0.300	<0.00120	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		1	0.111	mg/L	1	0.100	<0.000200	111	70 - 130	8	20
Toluene		1	0.109	mg/L	1	0.100	<0.000300	109	70 - 130	8	20
Ethylbenzene		1	0.110	mg/L	1	0.100	<0.000400	110	70 - 130	8	20
Xylene		1	0.327	mg/L	1	0.300	<0.00120	109	70 - 130	8	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)	0.0974	0.0970	mg/L	1	0.100	97	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0922	0.0912	mg/L	1	0.100	92	91	70 - 130

Matrix Spike (MS-1) Spiked Sample: 322609

QC Batch: 99570 | Date Analyzed: 2013-03-11 | Analyzed By: AH
Prep Batch: 84364 | QC Preparation: 2013-03-11 | Prepared By: AH

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.104	mg/L	1	0.100	<0.000200	104	70 - 130
Toluene		1	0.101	mg/L	1	0.100	<0.000300	101	70 - 130
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000400	101	70 - 130
Xylene		1	0.300	mg/L	1	0.300	<0.00120	100	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	0.103	mg/L	1	0.100	<0.000200	103	70 - 130	1	20
Toluene		1	0.101	mg/L	1	0.100	<0.000300	101	70 - 130	0	20
Ethylbenzene		1	0.0996	mg/L	1	0.100	<0.000400	100	70 - 130	1	20
Xylene		1	0.297	mg/L	1	0.300	<0.00120	99	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)	0.0976	0.0975	mg/L	1	0.1	98	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0901	0.0911	mg/L	1	0.1	90	91	70 - 130

Matrix Spike (MS-1) Spiked Sample: 322756

QC Batch: 99671 | Date Analyzed: 2013-03-13 | Analyzed By: AH
Prep Batch: 84441 | QC Preparation: 2013-03-13 | Prepared By: AH

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.108	mg/L	1	0.100	<0.000200	108	70 - 130
Toluene		1	0.105	mg/L	1	0.100	<0.000300	105	70 - 130
Ethylbenzene		1	0.105	mg/L	1	0.100	<0.000400	105	70 - 130
Xylene		1	0.313	mg/L	1	0.300	<0.00120	104	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	0.106	mg/L	1	0.100	<0.000200	106	70 - 130	2	20
Toluene		1	0.104	mg/L	1	0.100	<0.000300	104	70 - 130	1	20
Ethylbenzene		1	0.105	mg/L	1	0.100	<0.000400	105	70 - 130	0	20
Xylene		1	0.312	mg/L	1	0.300	<0.00120	104	70 - 130	0	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)	0.0967	0.0969	mg/L	1	0.1	97	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0922	0.0917	mg/L	1	0.1	92	92	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 99570 | Date Analyzed: 2013-03-11 | Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.110	110	80 - 120	2013-03-11
Toluene		1	mg/L	0.100	0.108	108	80 - 120	2013-03-11
Ethylbenzene		1	mg/L	0.100	0.108	108	80 - 120	2013-03-11
Xylene		1	mg/L	0.300	0.322	107	80 - 120	2013-03-11

Standard (CCV-2)

QC Batch: 99570 | Date Analyzed: 2013-03-11 | Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0846	85	80 - 120	2013-03-11
Toluene		1	mg/L	0.100	0.0829	83	80 - 120	2013-03-11
Ethylbenzene		1	mg/L	0.100	0.0829	83	80 - 120	2013-03-11
Xylene		1	mg/L	0.300	0.249	83	80 - 120	2013-03-11

Standard (CCV-3)

QC Batch: 99570 | Date Analyzed: 2013-03-11 | Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.110	110	80 - 120	2013-03-11
Toluene		1	mg/L	0.100	0.108	108	80 - 120	2013-03-11
Ethylbenzene		1	mg/L	0.100	0.109	109	80 - 120	2013-03-11
Xylene		1	mg/L	0.300	0.323	108	80 - 120	2013-03-11

Standard (CCV-1)

QC Batch: 99671 | Date Analyzed: 2013-03-13 | Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0892	89	80 - 120	2013-03-13
Toluene		1	mg/L	0.100	0.0876	88	80 - 120	2013-03-13
Ethylbenzene		1	mg/L	0.100	0.0878	88	80 - 120	2013-03-13
Xylene		1	mg/L	0.300	0.261	87	80 - 120	2013-03-13

Standard (CCV-2)

QC Batch: 99671 | Date Analyzed: 2013-03-13 | Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0846	85	80 - 120	2013-03-13
Toluene		1	mg/L	0.100	0.0830	83	80 - 120	2013-03-13
Ethylbenzene		1	mg/L	0.100	0.0834	83	80 - 120	2013-03-13
Xylene		1	mg/L	0.300	0.248	83	80 - 120	2013-03-13

Standard (CCV-3)

QC Batch: 99671 | Date Analyzed: 2013-03-13 | Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.107	107	80 - 120	2013-03-13
Toluene		1	mg/L	0.100	0.105	105	80 - 120	2013-03-13
Ethylbenzene		1	mg/L	0.100	0.106	106	80 - 120	2013-03-13
Xylene		1	mg/L	0.300	0.317	106	80 - 120	2013-03-13

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	T104704392-12-4	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 then 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

Result Comments

1 MS/MSD RPD under control.

Attachments

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

LAB Order ID # 130.30729

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TraceAnalysis, Inc.

email: lab@traceanalysis.com

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

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
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200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

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

Company Name: CRA
Phone #: 686-0086
Address: (Street, City, Zip) 2135 S. Loop 250W. Midland Tx 79703
Fax #: 686-0186
Contact Person: Todd Wells
E-mail: twells@crawor.ldi.com
Invoice to: (If different from above) Jason Henry Plains Pipeline SRS# 2003-00338
Project #: 074682
Project Name: Denton Station
Project Location (including state): Lea County NM
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
322735	Dup-030713	3	VOA	X				X				X		3-7			X																						
736	MW-4 030713	3	VOA	X				X				X		3-7	1130		X																							
737	MW-6 030713	3	VOA	X				X				X		3-7	1105		X																							
738	MW-8 030713	3	VOA	X				X				X		3-7	1110		X																							
739	MW-9 030713	3	VOA	X				X						3-7	1115		X																							
740	MW-10 030713	3	VOA	X				X						3-7	1120		X																							
741	MW-11 030713	3	VOA	X				X						3-7	950		X																							
742	MW-12 030713	3	VOA	X				X						3-7	1005		X																							
743	MW-13 030713	3	VOA	X				X						3-7	1100		X																							
744	MW-14 030713	3	VOA	X				X						3-7	1035		X																							
745	MW-15 030713	3	VOA	X				X						3-7	1050		X																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	CRA	3-7-13	1548			3/7/13	15:48	INST 1.2 / OBS 19.7 °C / COR 19.7 °C
								INST ____ / OBS ____ °C / COR ____ °C
								INST ____ / OBS ____ °C / COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS: Sample from field Midland - DA

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

Carrier #

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

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LAB Order ID # 130730729

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
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200 East Sunset Rd., Suite E
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1 (888) 588-3443

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

Company Name: CRA **Phone #:** 686-0086

Address: (Street, City, Zip) 21355 Loop 250 W. Midland TX 79703 **Fax #:** 686-0186

Contact Person: Todd Wells **E-mail:** twells@craworld.com

Invoice to: (If different from above) Jason Henry Plains Pipeline SRS# 2003-00538

Project #: 074682 **Project Name:** Denton Station

Project Location (including state): Lea County NM **Sampler Signature:**

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
746	MW-16 030713	3	40mL	X				X				X		3-7-13	1025		X																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:		
	CRA	3-7-13	1548		TA	3/7/13	15:48	INST	19.5 °C
								OBS	19.5 °C
								COR	19.8 °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	____ °C
								OBS	____ °C
								COR	____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	____ °C
								OBS	____ °C
								COR	____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ 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.

Carrier # Carrizo

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Summary Report

Todd Wells
CRA-Midland
2135 South Loop 250 West
Midland, TX 79703

Report Date: June 13, 2013

Work Order: 13053122

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330648	MW-4 053013	water	2013-05-30	09:30	2013-05-31
330649	MW-6 053013	water	2013-05-30	09:40	2013-05-31
330650	MW-8 053013	water	2013-05-30	09:50	2013-05-31
330651	MW-9 053013	water	2013-05-30	10:00	2013-05-31
330652	MW-10 053013	water	2013-05-30	10:10	2013-05-31
330653	MW-11 053013	water	2013-05-30	10:20	2013-05-31
330654	MW-12 053013	water	2013-05-30	10:30	2013-05-31
330655	MW-13 053013	water	2013-05-30	10:40	2013-05-31
330656	MW-14 053013	water	2013-05-30	10:50	2013-05-31
330657	MW-15 053013	water	2013-05-30	11:00	2013-05-31
330658	MW-16 053013	water	2013-05-30	11:10	2013-05-31
330659	Dup.-1 053013	water	2013-05-30	00:00	2013-05-31

	BTEX			
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
330648 - MW-4 053013	**0.0542** Qs	<0.00100	<0.00100	<0.00100
330649 - MW-6 053013	<0.00100	<0.00100	<0.00100	<0.00100
330650 - MW-8 053013	<0.00100 Qs	<0.00100	<0.00100	<0.00100
330651 - MW-9 053013	<0.00100	<0.00100	<0.00100	<0.00100
330652 - MW-10 053013	**0.0525** Qs	<0.00100	<0.00100	<0.00100
330653 - MW-11 053013	<0.00100 Qs	<0.00100	<0.00100	<0.00100
330654 - MW-12 053013	**0.186** Qs	<0.00100	<0.00100	<0.00100
330655 - MW-13 053013	<0.00100 Qs	<0.00100	<0.00100	<0.00100
330656 - MW-14 053013	<0.00100 Qs	<0.00100	<0.00100	<0.00100
330657 - MW-15 053013	<0.00100	<0.00100	<0.00100	<0.00100
330658 - MW-16 053013	**0.0529**	<0.00100	<0.00100	<0.00100
330659 - Dup.-1 053013	**0.119**	<0.00100	**0.0401**	**0.0158**

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
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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

Todd Wells
CRA-Midland
2135 South Loop 250 West
Midland, TX, 79703

Report Date: June 13, 2013

Work Order: 13053122

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 Taken	Time Taken	Date Received
330648	MW-4 053013	water	2013-05-30	09:30	2013-05-31
330649	MW-6 053013	water	2013-05-30	09:40	2013-05-31
330650	MW-8 053013	water	2013-05-30	09:50	2013-05-31
330651	MW-9 053013	water	2013-05-30	10:00	2013-05-31
330652	MW-10 053013	water	2013-05-30	10:10	2013-05-31
330653	MW-11 053013	water	2013-05-30	10:20	2013-05-31
330654	MW-12 053013	water	2013-05-30	10:30	2013-05-31
330655	MW-13 053013	water	2013-05-30	10:40	2013-05-31
330656	MW-14 053013	water	2013-05-30	10:50	2013-05-31
330657	MW-15 053013	water	2013-05-30	11:00	2013-05-31
330658	MW-16 053013	water	2013-05-30	11:10	2013-05-31
330659	Dup.-1 053013	water	2013-05-30	00:00	2013-05-31

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.

TraceAnalysis, Inc.

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

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Case Narrative

Samples for project Darr Angel Denton Station were received by TraceAnalysis, Inc. on 2013-05-31 and assigned to work order 13053122. Samples for work order 13053122 were received intact without headspace and at a temperature of 3.1 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	86406	2013-06-03 at 15:00	101986	2013-06-04 at 14:58
BTEX	S 8021B	86628	2013-06-10 at 15:30	102245	2013-06-13 at 10:32

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 13053122 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.

Analytical Report

Sample: 330648 - MW-4 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs	1	**0.0542**	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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0865	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0903	mg/L	1	0.100	90	70 - 130

Sample: 330649 - MW-6 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	102245	Date Analyzed:	2013-06-13	Analyzed By:	KC
Prep Batch:	86628	Sample Preparation:	2013-06-10	Prepared By:	KC

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0830	mg/L	1	0.100	83	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0873	mg/L	1	0.100	87	70 - 130

Sample: 330650 - MW-8 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs,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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0854	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0856	mg/L	1	0.100	86	70 - 130

Sample: 330651 - MW-9 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	102245	Date Analyzed:	2013-06-13	Analyzed By:	KC
Prep Batch:	86628	Sample Preparation:	2013-06-10	Prepared By:	KC

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0848	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0860	mg/L	1	0.100	86	70 - 130

Sample: 330652 - MW-10 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs	1	**0.0525**	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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0895	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0954	mg/L	1	0.100	95	70 - 130

Sample: 330653 - MW-11 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs,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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0837	mg/L	1	0.100	84	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0841	mg/L	1	0.100	84	70 - 130

Sample: 330654 - MW-12 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs	1	**0.186**	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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0867	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0900	mg/L	1	0.100	90	70 - 130

Sample: 330655 - MW-13 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs,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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0833	mg/L	1	0.100	83	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0833	mg/L	1	0.100	83	70 - 130

Sample: 330656 - MW-14 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs,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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0880	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0887	mg/L	1	0.100	89	70 - 130

Sample: 330657 - MW-15 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	102245	Date Analyzed:	2013-06-13	Analyzed By:	KC
Prep Batch:	86628	Sample Preparation:	2013-06-10	Prepared By:	KC

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0812	mg/L	1	0.100	81	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0821	mg/L	1	0.100	82	70 - 130

Sample: 330658 - MW-16 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	102245	Date Analyzed:	2013-06-13	Analyzed By:	KC
Prep Batch:	86628	Sample Preparation:	2013-06-10	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.0529**	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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0838	mg/L	1	0.100	84	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0897	mg/L	1	0.100	90	70 - 130

Sample: 330659 - Dup.-1 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	102245	Date Analyzed:	2013-06-13	Analyzed By:	KC
Prep Batch:	86628	Sample Preparation:	2013-06-10	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.119**	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	**0.0401**	mg/L	1	0.00100
Xylene		1	**0.0158**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0819	mg/L	1	0.100	82	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0915	mg/L	1	0.100	92	70 - 130

Method Blanks

Method Blank (1) QC Batch: 101986

QC Batch: 101986 | Date Analyzed: 2013-06-04 | Analyzed By: KC
Prep Batch: 86406 | QC Preparation: 2013-06-03 | Prepared By: KC

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0880	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0870	mg/L	1	0.100	87	70 - 130

Method Blank (1) QC Batch: 102245

QC Batch: 102245 | Date Analyzed: 2013-06-13 | Analyzed By: KC
Prep Batch: 86628 | QC Preparation: 2013-06-10 | Prepared By: KC

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0832	mg/L	1	0.100	83	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0844	mg/L	1	0.100	84	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 101986 | Date Analyzed: 2013-06-04 | Analyzed By: KC
Prep Batch: 86406 | QC Preparation: 2013-06-03 | Prepared By: KC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0868	mg/L	1	0.100	<0.000200	87	70 - 130
Toluene		1	0.0914	mg/L	1	0.100	<0.000300	91	70 - 130
Ethylbenzene		1	0.0924	mg/L	1	0.100	<0.000400	92	70 - 130
Xylene		1	0.270	mg/L	1	0.300	<0.00120	90	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	0.0799	mg/L	1	0.100	<0.000200	80	70 - 130	8	20
Toluene		1	0.0882	mg/L	1	0.100	<0.000300	88	70 - 130	4	20
Ethylbenzene		1	0.0898	mg/L	1	0.100	<0.000400	90	70 - 130	3	20
Xylene		1	0.261	mg/L	1	0.300	<0.00120	87	70 - 130	3	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)	0.0822	0.0901	mg/L	1	0.100	82	90	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0917	0.0923	mg/L	1	0.100	92	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 102245 | Date Analyzed: 2013-06-13 | Analyzed By: KC
Prep Batch: 86628 | QC Preparation: 2013-06-10 | Prepared By: KC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0899	mg/L	1	0.100	<0.000200	90	70 - 130
Toluene		1	0.0923	mg/L	1	0.100	<0.000300	92	70 - 130
Ethylbenzene		1	0.0889	mg/L	1	0.100	<0.000400	89	70 - 130
Xylene		1	0.259	mg/L	1	0.300	<0.00120	86	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	0.0917	mg/L	1	0.100	<0.000200	92	70 - 130	2	20
Toluene		1	0.0937	mg/L	1	0.100	<0.000300	94	70 - 130	2	20
Ethylbenzene		1	0.0907	mg/L	1	0.100	<0.000400	91	70 - 130	2	20
Xylene		1	0.265	mg/L	1	0.300	<0.00120	88	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)	0.0859	0.0822	mg/L	1	0.100	86	82	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0883	0.0862	mg/L	1	0.100	88	86	70 - 130

Matrix Spike (MS-1) Spiked Sample: 330650

QC Batch: 101986 | Date Analyzed: 2013-06-04 | Analyzed By: KC
Prep Batch: 86406 | QC Preparation: 2013-06-03 | Prepared By: KC

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs	1	0.0698	mg/L	1	0.100	<0.000200	70	70 - 130
Toluene			1	0.0761	mg/L	1	0.100	<0.000300	76	70 - 130
Ethylbenzene			1	0.0762	mg/L	1	0.100	<0.000400	76	70 - 130
Xylene			1	0.221	mg/L	1	0.300	<0.00120	74	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	Qs	Qs	1	0.0699	mg/L	1	0.100	<0.000200	70	70 - 130	0	20
Toluene			1	0.0783	mg/L	1	0.100	<0.000300	78	70 - 130	3	20
Ethylbenzene			1	0.0799	mg/L	1	0.100	<0.000400	80	70 - 130	5	20
Xylene			1	0.232	mg/L	1	0.300	<0.00120	77	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)	0.0793	0.0857	mg/L	1	0.1	79	86	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0807	0.0869	mg/L	1	0.1	81	87	70 - 130

Matrix Spike (MS-1) Spiked Sample: 330651

QC Batch: 102245 | Date Analyzed: 2013-06-13 | Analyzed By: KC
Prep Batch: 86628 | QC Preparation: 2013-06-10 | Prepared By: KC

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0742	mg/L	1	0.100	<0.000200	74	70 - 130
Toluene		1	0.0758	mg/L	1	0.100	<0.000300	76	70 - 130
Ethylbenzene		1	0.0730	mg/L	1	0.100	<0.000400	73	70 - 130
Xylene		1	0.213	mg/L	1	0.300	<0.00120	71	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	0.0900	mg/L	1	0.100	<0.000200	90	70 - 130	19	20
Toluene		1	0.0926	mg/L	1	0.100	<0.000300	93	70 - 130	20	20
Ethylbenzene		1	0.0891	mg/L	1	0.100	<0.000400	89	70 - 130	20	20
Xylene		1	0.260	mg/L	1	0.300	<0.00120	87	70 - 130	20	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)	0.0794	0.0786	mg/L	1	0.1	79	79	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0851	0.0828	mg/L	1	0.1	85	83	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 101986 | Date Analyzed: 2013-06-04 | Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0830	83	80 - 120	2013-06-04
Toluene		1	mg/L	0.100	0.0894	89	80 - 120	2013-06-04
Ethylbenzene		1	mg/L	0.100	0.0897	90	80 - 120	2013-06-04
Xylene		1	mg/L	0.300	0.260	87	80 - 120	2013-06-04

Standard (CCV-2)

QC Batch: 101986 | Date Analyzed: 2013-06-04 | Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0945	94	80 - 120	2013-06-04
Toluene		1	mg/L	0.100	0.0981	98	80 - 120	2013-06-04
Ethylbenzene		1	mg/L	0.100	0.0984	98	80 - 120	2013-06-04
Xylene		1	mg/L	0.300	0.288	96	80 - 120	2013-06-04

Standard (CCV-1)

QC Batch: 102245 | Date Analyzed: 2013-06-13 | Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0836	84	80 - 120	2013-06-13
Toluene		1	mg/L	0.100	0.0868	87	80 - 120	2013-06-13
Ethylbenzene		1	mg/L	0.100	0.0841	84	80 - 120	2013-06-13
Xylene		1	mg/L	0.300	0.245	82	80 - 120	2013-06-13

Standard (CCV-2)

QC Batch: 102245 | Date Analyzed: 2013-06-13 | Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0885	88	80 - 120	2013-06-13
Toluene		1	mg/L	0.100	0.0909	91	80 - 120	2013-06-13
Ethylbenzene		1	mg/L	0.100	0.0881	88	80 - 120	2013-06-13
Xylene		1	mg/L	0.300	0.256	85	80 - 120	2013-06-13

Standard (CCV-3)

QC Batch: 102245 | Date Analyzed: 2013-06-13 | Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0884	88	80 - 120	2013-06-13
Toluene		1	mg/L	0.100	0.0916	92	80 - 120	2013-06-13
Ethylbenzene		1	mg/L	0.100	0.0885	88	80 - 120	2013-06-13
Xylene		1	mg/L	0.300	0.257	86	80 - 120	2013-06-13

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	T104704392-12-4	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 then 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

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

LAB Order ID # 13053122

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

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

Company Name: CRA	**Phone #:** 432-686-0086
Address: (Street, City, Zip) 2135 S. Loop 250 W. Midland Tx	**Fax #:** 686-0186
Contact Person: Todd Wells	**E-mail:** twells@craworld.com
Invoice to: (If different from above) Jason Henry Plains All American	SRS# 2003-00338
Project #: 074682	**Project Name:** Denton station
Project Location (including state): Lea County NM	**Sampler Signature:**

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
330648	mw-4 053013	3	40ml	X										5-30-13	930
330649	mw-6 053013	3	40ml	X										5-30	940
330650	mw-8 053013	3	40ml	X										5-30	950
330651	mw-9 053013	3	40ml	X										5-30	1000
330652	mw-10 053013	3	40ml	X										5-30	1010
330653	mw-11 053013	3	40ml	X										5-30	1020
330654	mw-12 053013	3	40ml	X										5-30	1030
330655	mw-13 053013	3	40ml	X										5-30	1040
330656	mw-14 053013	3	40ml	X										5-30	1050
330657	mw-15 053013	3	40ml	X										5-30	1100
330658	mw-16 053013	3	40ml	X										5-30	1110

ANALYSIS REQUEST	
MTBE 8021 / 602 / 8260 / 624	
BTEX 8021 / 602 / 8260 / 624	X
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270 / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCB's 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Turn Around Time if different from standard	
Hold	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
C. Todd	CRA	5/31/13	9:15	Chase Williams	T/A	5/31/13	9:15	INST ____ OBS 3.1 °C COR ____ °C
								INST ____ OBS ____ °C COR ____ °C
								INST ____ OBS ____ °C COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ 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.

Carrier # _____

ORIGINAL COPY

LAB Order ID # 13053122

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

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

Company Name: CRA
Phone #: 432-686-0086
Address: (Street, City, Zip)
Fax #: 686-0186
Contact Person: Todd Wells
E-mail: twells@craworld.com
Invoice to: (If different from above) Jason Henry Plains All American SRS# 2003-00338
Project #: 074682
Project Name: Denton Station
Project Location (including state): Lea County NM
Sampler Signature: [signature]

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE		PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE		SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021/602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
330659	DUP-1053013	3	40ml	X					X							5-30-13			X																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
C. Lermo	CRA	5/31/13	9:15	Chas Williams	T/A	5/31/13	9:15	INST ___ OBS 3.1 °C COR ___ °C
								INST ___ OBS ___ °C COR ___ °C
								INST ___ OBS ___ °C COR ___ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS:

- [ ] Dry Weight Basis Required
- [ ] 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.

Carrier # ______

ORIGINAL COPY

Summary Report

Todd Wells
CRA-Midland
2135 South Loop 250 West
Midland, TX 79703

Report Date: June 13, 2013

Work Order: 13053122

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330648	MW-4 053013	water	2013-05-30	09:30	2013-05-31
330649	MW-6 053013	water	2013-05-30	09:40	2013-05-31
330650	MW-8 053013	water	2013-05-30	09:50	2013-05-31
330651	MW-9 053013	water	2013-05-30	10:00	2013-05-31
330652	MW-10 053013	water	2013-05-30	10:10	2013-05-31
330653	MW-11 053013	water	2013-05-30	10:20	2013-05-31
330654	MW-12 053013	water	2013-05-30	10:30	2013-05-31
330655	MW-13 053013	water	2013-05-30	10:40	2013-05-31
330656	MW-14 053013	water	2013-05-30	10:50	2013-05-31
330657	MW-15 053013	water	2013-05-30	11:00	2013-05-31
330658	MW-16 053013	water	2013-05-30	11:10	2013-05-31
330659	Dup.-1 053013	water	2013-05-30	00:00	2013-05-31

	BTEX			
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
330648 - MW-4 053013	**0.0542** Qs	<0.00100	<0.00100	<0.00100
330649 - MW-6 053013	<0.00100	<0.00100	<0.00100	<0.00100
330650 - MW-8 053013	<0.00100 Qs	<0.00100	<0.00100	<0.00100
330651 - MW-9 053013	<0.00100	<0.00100	<0.00100	<0.00100
330652 - MW-10 053013	**0.0525** Qs	<0.00100	<0.00100	<0.00100
330653 - MW-11 053013	<0.00100 Qs	<0.00100	<0.00100	<0.00100
330654 - MW-12 053013	**0.186** Qs	<0.00100	<0.00100	<0.00100
330655 - MW-13 053013	<0.00100 Qs	<0.00100	<0.00100	<0.00100
330656 - MW-14 053013	<0.00100 Qs	<0.00100	<0.00100	<0.00100
330657 - MW-15 053013	<0.00100	<0.00100	<0.00100	<0.00100
330658 - MW-16 053013	**0.0529**	<0.00100	<0.00100	<0.00100
330659 - Dup.-1 053013	**0.119**	<0.00100	**0.0401**	**0.0158**

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

Todd Wells
CRA-Midland
2135 South Loop 250 West
Midland, TX, 79703

Report Date: June 13, 2013

Work Order: 13053122

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 Taken	Time Taken	Date Received
330648	MW-4 053013	water	2013-05-30	09:30	2013-05-31
330649	MW-6 053013	water	2013-05-30	09:40	2013-05-31
330650	MW-8 053013	water	2013-05-30	09:50	2013-05-31
330651	MW-9 053013	water	2013-05-30	10:00	2013-05-31
330652	MW-10 053013	water	2013-05-30	10:10	2013-05-31
330653	MW-11 053013	water	2013-05-30	10:20	2013-05-31
330654	MW-12 053013	water	2013-05-30	10:30	2013-05-31
330655	MW-13 053013	water	2013-05-30	10:40	2013-05-31
330656	MW-14 053013	water	2013-05-30	10:50	2013-05-31
330657	MW-15 053013	water	2013-05-30	11:00	2013-05-31
330658	MW-16 053013	water	2013-05-30	11:10	2013-05-31
330659	Dup.-1 053013	water	2013-05-30	00:00	2013-05-31

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.

TraceAnalysis, Inc.

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

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Case Narrative

Samples for project Darr Angel Denton Station were received by TraceAnalysis, Inc. on 2013-05-31 and assigned to work order 13053122. Samples for work order 13053122 were received intact without headspace and at a temperature of 3.1 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	86406	2013-06-03 at 15:00	101986	2013-06-04 at 14:58
BTEX	S 8021B	86628	2013-06-10 at 15:30	102245	2013-06-13 at 10:32

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 13053122 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.

Analytical Report

Sample: 330648 - MW-4 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs	1	**0.0542**	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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0865	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0903	mg/L	1	0.100	90	70 - 130

Sample: 330649 - MW-6 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	102245	Date Analyzed:	2013-06-13	Analyzed By:	KC
Prep Batch:	86628	Sample Preparation:	2013-06-10	Prepared By:	KC

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0830	mg/L	1	0.100	83	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0873	mg/L	1	0.100	87	70 - 130

Sample: 330650 - MW-8 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs,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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0854	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0856	mg/L	1	0.100	86	70 - 130

Sample: 330651 - MW-9 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	102245	Date Analyzed:	2013-06-13	Analyzed By:	KC
Prep Batch:	86628	Sample Preparation:	2013-06-10	Prepared By:	KC

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0848	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0860	mg/L	1	0.100	86	70 - 130

Sample: 330652 - MW-10 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs	1	**0.0525**	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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0895	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0954	mg/L	1	0.100	95	70 - 130

Sample: 330653 - MW-11 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs,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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0837	mg/L	1	0.100	84	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0841	mg/L	1	0.100	84	70 - 130

Sample: 330654 - MW-12 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs	1	**0.186**	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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0867	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0900	mg/L	1	0.100	90	70 - 130

Sample: 330655 - MW-13 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs,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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0833	mg/L	1	0.100	83	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0833	mg/L	1	0.100	83	70 - 130

Sample: 330656 - MW-14 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	101986	Date Analyzed:	2013-06-04	Analyzed By:	KC
Prep Batch:	86406	Sample Preparation:	2013-06-03	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs,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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0880	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0887	mg/L	1	0.100	89	70 - 130

Sample: 330657 - MW-15 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	102245	Date Analyzed:	2013-06-13	Analyzed By:	KC
Prep Batch:	86628	Sample Preparation:	2013-06-10	Prepared By:	KC

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0812	mg/L	1	0.100	81	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0821	mg/L	1	0.100	82	70 - 130

Sample: 330658 - MW-16 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	102245	Date Analyzed:	2013-06-13	Analyzed By:	KC
Prep Batch:	86628	Sample Preparation:	2013-06-10	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.0529**	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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0838	mg/L	1	0.100	84	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0897	mg/L	1	0.100	90	70 - 130

Sample: 330659 - Dup.-1 053013

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	102245	Date Analyzed:	2013-06-13	Analyzed By:	KC
Prep Batch:	86628	Sample Preparation:	2013-06-10	Prepared By:	KC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.119**	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	**0.0401**	mg/L	1	0.00100
Xylene		1	**0.0158**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0819	mg/L	1	0.100	82	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0915	mg/L	1	0.100	92	70 - 130

Method Blanks

Method Blank (1) QC Batch: 101986

QC Batch: 101986 | Date Analyzed: 2013-06-04 | Analyzed By: KC
Prep Batch: 86406 | QC Preparation: 2013-06-03 | Prepared By: KC

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0880	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0870	mg/L	1	0.100	87	70 - 130

Method Blank (1) QC Batch: 102245

QC Batch: 102245 | Date Analyzed: 2013-06-13 | Analyzed By: KC
Prep Batch: 86628 | QC Preparation: 2013-06-10 | Prepared By: KC

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0832	mg/L	1	0.100	83	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0844	mg/L	1	0.100	84	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 101986 | Date Analyzed: 2013-06-04 | Analyzed By: KC
Prep Batch: 86406 | QC Preparation: 2013-06-03 | Prepared By: KC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0868	mg/L	1	0.100	<0.000200	87	70 - 130
Toluene		1	0.0914	mg/L	1	0.100	<0.000300	91	70 - 130
Ethylbenzene		1	0.0924	mg/L	1	0.100	<0.000400	92	70 - 130
Xylene		1	0.270	mg/L	1	0.300	<0.00120	90	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	0.0799	mg/L	1	0.100	<0.000200	80	70 - 130	8	20
Toluene		1	0.0882	mg/L	1	0.100	<0.000300	88	70 - 130	4	20
Ethylbenzene		1	0.0898	mg/L	1	0.100	<0.000400	90	70 - 130	3	20
Xylene		1	0.261	mg/L	1	0.300	<0.00120	87	70 - 130	3	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)	0.0822	0.0901	mg/L	1	0.100	82	90	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0917	0.0923	mg/L	1	0.100	92	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 102245 | Date Analyzed: 2013-06-13 | Analyzed By: KC
Prep Batch: 86628 | QC Preparation: 2013-06-10 | Prepared By: KC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0899	mg/L	1	0.100	<0.000200	90	70 - 130
Toluene		1	0.0923	mg/L	1	0.100	<0.000300	92	70 - 130
Ethylbenzene		1	0.0889	mg/L	1	0.100	<0.000400	89	70 - 130
Xylene		1	0.259	mg/L	1	0.300	<0.00120	86	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	0.0917	mg/L	1	0.100	<0.000200	92	70 - 130	2	20
Toluene		1	0.0937	mg/L	1	0.100	<0.000300	94	70 - 130	2	20
Ethylbenzene		1	0.0907	mg/L	1	0.100	<0.000400	91	70 - 130	2	20
Xylene		1	0.265	mg/L	1	0.300	<0.00120	88	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)	0.0859	0.0822	mg/L	1	0.100	86	82	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0883	0.0862	mg/L	1	0.100	88	86	70 - 130

Matrix Spike (MS-1) Spiked Sample: 330650

QC Batch: 101986 | Date Analyzed: 2013-06-04 | Analyzed By: KC
Prep Batch: 86406 | QC Preparation: 2013-06-03 | Prepared By: KC

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs	1	0.0698	mg/L	1	0.100	<0.000200	70	70 - 130
Toluene			1	0.0761	mg/L	1	0.100	<0.000300	76	70 - 130
Ethylbenzene			1	0.0762	mg/L	1	0.100	<0.000400	76	70 - 130
Xylene			1	0.221	mg/L	1	0.300	<0.00120	74	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	Qs	Qs	1	0.0699	mg/L	1	0.100	<0.000200	70	70 - 130	0	20
Toluene			1	0.0783	mg/L	1	0.100	<0.000300	78	70 - 130	3	20
Ethylbenzene			1	0.0799	mg/L	1	0.100	<0.000400	80	70 - 130	5	20
Xylene			1	0.232	mg/L	1	0.300	<0.00120	77	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)	0.0793	0.0857	mg/L	1	0.1	79	86	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0807	0.0869	mg/L	1	0.1	81	87	70 - 130

Matrix Spike (MS-1) Spiked Sample: 330651

QC Batch: 102245 | Date Analyzed: 2013-06-13 | Analyzed By: KC
Prep Batch: 86628 | QC Preparation: 2013-06-10 | Prepared By: KC

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0742	mg/L	1	0.100	<0.000200	74	70 - 130
Toluene		1	0.0758	mg/L	1	0.100	<0.000300	76	70 - 130
Ethylbenzene		1	0.0730	mg/L	1	0.100	<0.000400	73	70 - 130
Xylene		1	0.213	mg/L	1	0.300	<0.00120	71	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	0.0900	mg/L	1	0.100	<0.000200	90	70 - 130	19	20
Toluene		1	0.0926	mg/L	1	0.100	<0.000300	93	70 - 130	20	20
Ethylbenzene		1	0.0891	mg/L	1	0.100	<0.000400	89	70 - 130	20	20
Xylene		1	0.260	mg/L	1	0.300	<0.00120	87	70 - 130	20	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)	0.0794	0.0786	mg/L	1	0.1	79	79	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0851	0.0828	mg/L	1	0.1	85	83	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 101986 | Date Analyzed: 2013-06-04 | Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0830	83	80 - 120	2013-06-04
Toluene		1	mg/L	0.100	0.0894	89	80 - 120	2013-06-04
Ethylbenzene		1	mg/L	0.100	0.0897	90	80 - 120	2013-06-04
Xylene		1	mg/L	0.300	0.260	87	80 - 120	2013-06-04

Standard (CCV-2)

QC Batch: 101986 | Date Analyzed: 2013-06-04 | Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0945	94	80 - 120	2013-06-04
Toluene		1	mg/L	0.100	0.0981	98	80 - 120	2013-06-04
Ethylbenzene		1	mg/L	0.100	0.0984	98	80 - 120	2013-06-04
Xylene		1	mg/L	0.300	0.288	96	80 - 120	2013-06-04

Standard (CCV-1)

QC Batch: 102245 | Date Analyzed: 2013-06-13 | Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0836	84	80 - 120	2013-06-13
Toluene		1	mg/L	0.100	0.0868	87	80 - 120	2013-06-13
Ethylbenzene		1	mg/L	0.100	0.0841	84	80 - 120	2013-06-13
Xylene		1	mg/L	0.300	0.245	82	80 - 120	2013-06-13

Standard (CCV-2)

QC Batch: 102245 | Date Analyzed: 2013-06-13 | Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0885	88	80 - 120	2013-06-13
Toluene		1	mg/L	0.100	0.0909	91	80 - 120	2013-06-13
Ethylbenzene		1	mg/L	0.100	0.0881	88	80 - 120	2013-06-13
Xylene		1	mg/L	0.300	0.256	85	80 - 120	2013-06-13

Standard (CCV-3)

QC Batch: 102245 | Date Analyzed: 2013-06-13 | Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0884	88	80 - 120	2013-06-13
Toluene		1	mg/L	0.100	0.0916	92	80 - 120	2013-06-13
Ethylbenzene		1	mg/L	0.100	0.0885	88	80 - 120	2013-06-13
Xylene		1	mg/L	0.300	0.257	86	80 - 120	2013-06-13

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	T104704392-12-4	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 then 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

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

LAB Order ID # 13053122

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

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

Company Name: CRA	**Phone #:** 432-686-0086
Address: (Street, City, Zip) 2135 S. Loop 250 W. Midland Tx	**Fax #:** 686-0186
Contact Person: Todd Wells	**E-mail:** twells@craworld.com
Invoice to: (If different from above) Jason Henry Plains All American	SRS# 2003-00338
Project #: 074682	**Project Name:** Denton station
Project Location (including state): Lea County NM	**Sampler Signature:**

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
330648	mw-4 053013	3	40ml	X										5-30-13	930
330649	mw-6 053013	3	40ml	X										5-30	940
330650	mw-8 053013	3	40ml	X										5-30	950
330651	mw-9 053013	3	40ml	X										5-30	1000
330652	mw-10 053013	3	40ml	X										5-30	1010
330653	mw-11 053013	3	40ml	X										5-30	1020
330654	mw-12 053013	3	40ml	X										5-30	1030
330655	mw-13 053013	3	40ml	X										5-30	1040
330656	mw-14 053013	3	40ml	X										5-30	1050
330657	mw-15 053013	3	40ml	X										5-30	1100
330658	mw-16 053013	3	40ml	X										5-30	1110

ANALYSIS REQUEST	
MTBE 8021 / 602 / 8260 / 624	
BTEX 8021 / 602 / 8260 / 624	X
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270 / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCB's 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Turn Around Time if different from standard	
Hold	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
C. Todd	CRA	5/31/13	9:15	Chase Williams	T/A	5/31/13	9:15	INST ____ OBS 3.1 °C COR ____ °C
								INST ____ OBS ____ °C COR ____ °C
								INST ____ OBS ____ °C COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ 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.

Carrier # _____

ORIGINAL COPY

LAB Order ID # 13053122

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

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

Company Name: CRA
Phone #: 432-686-0086
Address: (Street, City, Zip)
Fax #: 686-0186
Contact Person: Todd Wells
E-mail: twells@craworld.com
Invoice to: (If different from above) Jason Henry Plains All American SRS# 2003-00338
Project #: 074682
Project Name: Denton Station
Project Location (including state): Lea County NM
Sampler Signature: [signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE		PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE		SAMPLING: DATE	TIME
330659	DUP-1053013	3	[illegible]	X					X							5-30-13	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB #	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 (circled) / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
330659		X																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
C. Lerma	CRA	5/31/13	9:15	Chas Williams	T/A	5/31/13	9:15	INST ___ °C OBS 3.1 °C COR ___ °C
								INST ___ °C OBS ___ °C COR ___ °C
								INST ___ °C OBS ___ °C COR ___ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ 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.

Carrier # ___

ORIGINAL COPY

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

Work Order Receipt

Order

Work Order	13053122
Receive Date	2013-05-31 at 09:15
Requestor	Todd Wells - CRA
Invoicing	ENV-00 Accounts Payable - Plains All American Pipeline, L. P.
Purchase Order	N/A
Project	074682
	Project Location = Lea Co., NM
	Project Name = Darr Angel Denton Station
	Project Number = 074682
	SRS # = 2003-00338
Information	
	Intact = yes
	Headspace = no
	Temperature = 3.1
	Air Bill = carry in
	Report = Regular Report
Comment	N/A

Samples

Sample	Field Code	Priority	Matrix	Collect Date	Collect Time	Quantity
330648	MW-4 053013	Normal	water	2013-05-30	09:30	1
330649	MW-6 053013	Normal	water	2013-05-30	09:40	1
330650	MW-8 053013	Normal	water	2013-05-30	09:50	1
330651	MW-9 053013	Normal	water	2013-05-30	10:00	1
330652	MW-10 053013	Normal	water	2013-05-30	10:10	1
330653	MW-11 053013	Normal	water	2013-05-30	10:20	1
330654	MW-12 053013	Normal	water	2013-05-30	10:30	1
330655	MW-13 053013	Normal	water	2013-05-30	10:40	1
330656	MW-14 053013	Normal	water	2013-05-30	10:50	1

Work Order Receipt

Samples

Sample	Field Code	Priority	Matrix	Collect Date	Collect Time	Quantity
330657	MW-15 053013	Normal	water	2013-05-30	11:00	1
330658	MW-16 053013	Normal	water	2013-05-30	11:10	1
330659	Dup.-1 053013	Normal	water	2013-05-30	00:00	1

Sample	Test	Method	Prep	Priority
330648	BTEX	S 8021B	S 5030B	Normal
330649	BTEX	S 8021B	S 5030B	Normal
330650	BTEX	S 8021B	S 5030B	Normal
330651	BTEX	S 8021B	S 5030B	Normal
330652	BTEX	S 8021B	S 5030B	Normal
330653	BTEX	S 8021B	S 5030B	Normal
330654	BTEX	S 8021B	S 5030B	Normal
330655	BTEX	S 8021B	S 5030B	Normal
330656	BTEX	S 8021B	S 5030B	Normal
330657	BTEX	S 8021B	S 5030B	Normal
330658	BTEX	S 8021B	S 5030B	Normal
330659	BTEX	S 8021B	S 5030B	Normal

LAB Order ID # 13053122

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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Fax (915) 585-4944
1 (888) 588-3443

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

Company Name: CRA	**Phone #:** 432-686-0086
Address: (Street, City, Zip) 2135 S. Loop 250 W. Midland Tx	**Fax #:** 686-0186
Contact Person: Todd Wells	**E-mail:** twells@craworld.com
Invoice to: (If different from above) Jason Henry Plains All American	SRS# 2003-00338
Project #: 074682	**Project Name:** Denton station
Project Location (including state): Lea County NM	**Sampler Signature:**

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
330648	mw-4 053013	3	40ml	X										5-30-13	930
330649	mw-6 053013	3	40ml	X										5-30	940
330650	mw-8 053013	3	40ml	X										5-30	950
330651	mw-9 053013	3	40ml	X										5-30	1000
330652	mw-10 053013	3	40ml	X										5-30	1010
330653	mw-11 053013	3	40ml	X										5-30	1020
330654	mw-12 053013	3	40ml	X										5-30	1030
330655	mw-13 053013	3	40ml	X										5-30	1040
330656	mw-14 053013	3	40ml	X										5-30	1050
330657	mw-15 053013	3	40ml	X										5-30	1100
330658	mw-16 053013	3	40ml	X										5-30	1110

ANALYSIS REQUEST	
MTBE 8021 / 602 / 8260 / 624	
BTEX 8021 / 602 / 8260 / 624	X
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270 / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCB's 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Turn Around Time if different from standard	
Hold	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
C. Todd	CRA	5/31/13	9:15	Chase Williams	T/A	5/31/13	9:15	INST ____ OBS 3.1 °C COR ____ °C
								INST ____ OBS ____ °C COR ____ °C
								INST ____ OBS ____ °C COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ 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.

Carrier # _____

ORIGINAL COPY

LAB Order ID # 13053122

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email: lab@traceanalysis.com

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BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
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Company Name: CRA
Phone #: 432-686-0086
Address: (Street, City, Zip)
Fax #: 686-0186
Contact Person: Todd Wells
E-mail: twells@craworld.com
Invoice to: (If different from above) Jason Henry Plains All American SRS# 2003-00338
Project #: 074682
Project Name: Denton Station
Project Location (including state): Lea County NM
Sampler Signature: [signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE		PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE		SAMPLING: DATE	TIME
330659	DUP-1053013	3	40ml	X					X							5-30-13	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB #	MTBE 8021 / 602 / 8260 / 624	BTEX (8021) / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
330659		X																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
C.Lerma	CRA	5/31/13	9:15	Chas Williams	T/A	5/31/13	9:15	INST ___ °C OBS 3.1 °C COR ___ °C
								INST ___ °C OBS ___ °C COR ___ °C
								INST ___ °C OBS ___ °C COR ___ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS:

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

Carrier # ____

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

Work Order Receipt

Order

Work Order	13053122
Receive Date	2013-05-31 at 09:15
Requestor	Todd Wells - CRA
Invoicing	ENV-00 Accounts Payable - Plains All American Pipeline, L. P.
Purchase Order	N/A
Project	074682
	Project Location = Lea Co., NM
	Project Name = Darr Angel Denton Station
	Project Number = 074682
	SRS # = 2003-00338
Information	
	Intact = yes
	Headspace = no
	Temperature = 3.1
	Air Bill = carry in
	Report = Regular Report
Comment	N/A

Samples

Sample	Field Code	Priority	Matrix	Collect Date	Collect Time	Quantity
330648	MW-4 053013	Normal	water	2013-05-30	09:30	1
330649	MW-6 053013	Normal	water	2013-05-30	09:40	1
330650	MW-8 053013	Normal	water	2013-05-30	09:50	1
330651	MW-9 053013	Normal	water	2013-05-30	10:00	1
330652	MW-10 053013	Normal	water	2013-05-30	10:10	1
330653	MW-11 053013	Normal	water	2013-05-30	10:20	1
330654	MW-12 053013	Normal	water	2013-05-30	10:30	1
330655	MW-13 053013	Normal	water	2013-05-30	10:40	1
330656	MW-14 053013	Normal	water	2013-05-30	10:50	1

Work Order Receipt

Samples

Sample	Field Code	Priority	Matrix	Collect Date	Collect Time	Quantity
330657	MW-15 053013	Normal	water	2013-05-30	11:00	1
330658	MW-16 053013	Normal	water	2013-05-30	11:10	1
330659	Dup.-1 053013	Normal	water	2013-05-30	00:00	1

Sample	Test	Method	Prep	Priority
330648	BTEX	S 8021B	S 5030B	Normal
330649	BTEX	S 8021B	S 5030B	Normal
330650	BTEX	S 8021B	S 5030B	Normal
330651	BTEX	S 8021B	S 5030B	Normal
330652	BTEX	S 8021B	S 5030B	Normal
330653	BTEX	S 8021B	S 5030B	Normal
330654	BTEX	S 8021B	S 5030B	Normal
330655	BTEX	S 8021B	S 5030B	Normal
330656	BTEX	S 8021B	S 5030B	Normal
330657	BTEX	S 8021B	S 5030B	Normal
330658	BTEX	S 8021B	S 5030B	Normal
330659	BTEX	S 8021B	S 5030B	Normal

LAB Order ID # 13053122

TraceAnalysis, Inc.

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1 (888) 588-3443

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

Company Name: CRA	**Phone #:** 432-686-0086
Address: (Street, City, Zip) 2135 S. Loop 250 W. Midland Tx	**Fax #:** 686-0186
Contact Person: Todd Wells	**E-mail:** twells@craworld.com
Invoice to: (If different from above) Jason Henry Plains All American	SRS# 2003-00338
Project #: 074682	**Project Name:** Denton station
Project Location (including state): Lea County NM	**Sampler Signature:**

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
330648	mw-4 053013	3	40ml	X										5-30-13	930
330649	mw-6 053013	3	40ml	X										5-30	940
330650	mw-8 053013	3	40ml	X										5-30	950
330651	mw-9 053013	3	40ml	X										5-30	1000
330652	mw-10 053013	3	40ml	X										5-30	1010
330653	mw-11 053013	3	40ml	X										5-30	1020
330654	mw-12 053013	3	40ml	X										5-30	1030
330655	mw-13 053013	3	40ml	X										5-30	1040
330656	mw-14 053013	3	40ml	X										5-30	1050
330657	mw-15 053013	3	40ml	X										5-30	1100
330658	mw-16 053013	3	40ml	X										5-30	1110

ANALYSIS REQUEST	
MTBE 8021 / 602 / 8260 / 624	
BTEX 8021 / 602 / 8260 / 624	X
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270 / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCB's 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Turn Around Time if different from standard	
Hold	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
C. Todd	CRA	5/31/13	9:15	Chase Williams	T/A	5/31/13	9:15	INST ____ OBS 3.1 °C COR ____ °C
								INST ____ OBS ____ °C COR ____ °C
								INST ____ OBS ____ °C COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ 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.

Carrier # _____

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LAB Order ID # 13053122

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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BioAquatic Testing
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Carrollton, Texas 75006
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Company Name: CRA
Phone #: 432-686-0086
Address: (Street, City, Zip)
Fax #: 686-0186
Contact Person: Todd Wells
E-mail: twells@craworld.com
Invoice to: (If different from above) Jason Henry Plains All American SRS# 2003-00338
Project #: 074682
Project Name: Denton Station
Project Location (including state): Lea County NM
Sampler Signature: [illegible]

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE		PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE		SAMPLING: DATE	TIME
330659	DUP-1053013	3	[illegible]	X					X							53013	

LAB #	MTBE 8021 / 602 / 8260 / 624	BTEX (8021) / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
330659		X																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
C. Lerma	CRA	5/31/13	9:15	Chas Williams	T/A	5/31/13	9:15	INST ___ °C OBS 3.1 °C COR ___ °C
								INST ___ °C OBS ___ °C COR ___ °C
								INST ___ °C OBS ___ °C COR ___ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS:

- [ ] Dry Weight Basis Required
- [ ] TRRP Report Required
- [ ] Check If Special Reporting Limits Are Needed

Carrier # ______

ORIGINAL COPY

Summary Report

Todd Wells
CRA-Midland
2135 South Loop 250 West
Midland, TX 79703

Report Date: September 13, 2013

Work Order: 13083039

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
340693	Dup-2 082913	water	2013-08-29	00:00	2013-08-30
340694	MW-4 082913	water	2013-08-29	13:15	2013-08-30
340695	MW-6 082913	water	2013-08-29	13:00	2013-08-30
340696	MW-8 082913	water	2013-08-29	13:25	2013-08-30
340697	MW-9 082913	water	2013-08-29	13:45	2013-08-30
340698	MW-10 082913	water	2013-08-29	13:55	2013-08-30
340699	MW-11 082913	water	2013-08-29	14:15	2013-08-30
340700	MW-12 082913	water	2013-08-29	14:30	2013-08-30
340701	MW-13 082913	water	2013-08-29	14:45	2013-08-30
340702	MW-14 082913	water	2013-08-29	15:00	2013-08-30
340703	MW-15 082913	water	2013-08-29	15:15	2013-08-30
340704	MW-16 082913	water	2013-08-29	15:30	2013-08-30

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
340693 - Dup-2 082913	**0.0830**	<0.00100	**0.00270**	**0.00180**
340694 - MW-4 082913	**0.0778**	<0.00100	**0.00300**	**0.00400**
340695 - MW-6 082913	**0.00280**	<0.00100	**0.0231**	**0.00470**
340696 - MW-8 082913	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs
340697 - MW-9 082913	<0.00100	<0.00100	<0.00100	<0.00100
340698 - MW-10 082913	**0.0411**	<0.00100	<0.00100	<0.00100
340699 - MW-11 082913	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs
340700 - MW-12 082913	**0.248** Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs	**0.00130** Qr,Qs
340701 - MW-13 082913	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs
340702 - MW-14 082913	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs
340703 - MW-15 082913	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs
340704 - MW-16 082913	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs

This is only a summary. Please, refer to the complete report package for quality control data.

TRACEANALYSIS, INC.

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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

Todd Wells
CRA-Midland
2135 South Loop 250 West
Midland, TX, 79703

Report Date: September 13, 2013

Work Order: 13083039

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 Taken	Time Taken	Date Received
340693	Dup-2 082913	water	2013-08-29	00:00	2013-08-30
340694	MW-4 082913	water	2013-08-29	13:15	2013-08-30
340695	MW-6 082913	water	2013-08-29	13:00	2013-08-30
340696	MW-8 082913	water	2013-08-29	13:25	2013-08-30
340697	MW-9 082913	water	2013-08-29	13:45	2013-08-30
340698	MW-10 082913	water	2013-08-29	13:55	2013-08-30
340699	MW-11 082913	water	2013-08-29	14:15	2013-08-30
340700	MW-12 082913	water	2013-08-29	14:30	2013-08-30
340701	MW-13 082913	water	2013-08-29	14:45	2013-08-30
340702	MW-14 082913	water	2013-08-29	15:00	2013-08-30
340703	MW-15 082913	water	2013-08-29	15:15	2013-08-30
340704	MW-16 082913	water	2013-08-29	15:30	2013-08-30

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.

TraceAnalysis, Inc.

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

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Case Narrative

Samples for project Darr Angel Denton Station were received by TraceAnalysis, Inc. on 2013-08-30 and assigned to work order 13083039. Samples for work order 13083039 were received intact without headspace and at a temperature of 7.9 C. Samples were received on ice.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	88826	2013-09-09 at 12:32	104917	2013-09-11 at 07:38
BTEX	S 8021B	88958	2013-09-10 at 12:03	104918	2013-09-11 at 07:43
BTEX	S 8021B	88969	2013-09-12 at 14:21	105017	2013-09-13 at 07:38

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 13083039 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.

Analytical Report

Sample: 340693 - Dup-2 082913

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	104917	Date Analyzed:	2013-09-11	Analyzed By:	AK
Prep Batch:	88826	Sample Preparation:	2013-09-09	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.0830**	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	**0.00270**	mg/L	1	0.00100
Xylene		1	**0.00180**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	70 - 130

Sample: 340694 - MW-4 082913

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	104917	Date Analyzed:	2013-09-11	Analyzed By:	AK
Prep Batch:	88826	Sample Preparation:	2013-09-09	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.0778**	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	**0.00300**	mg/L	1	0.00100
Xylene		1	**0.00400**	mg/L	1	0.00100

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)			0.103	mg/L	1	0.100	103	70 - 130

Sample: 340695 - MW-6 082913

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	104917	Date Analyzed:	2013-09-11	Analyzed By:	AK
Prep Batch:	88826	Sample Preparation:	2013-09-09	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.00280**	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	**0.0231**	mg/L	1	0.00100
Xylene		1	**0.00470**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0852	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0948	mg/L	1	0.100	95	70 - 130

Sample: 340696 - MW-8 082913

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	105017	Date Analyzed:	2013-09-13	Analyzed By:	AK
Prep Batch:	88969	Sample Preparation:	2013-09-12	Prepared By:	AK

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

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[1] Qsr	Qsr		0.0367	mg/L	1	0.100	37	70 - 130
4-Bromofluorobenzene (4-BFB)	[2] Qsr	Qsr		0.0412	mg/L	1	0.100	41	70 - 130

Sample: 340697 - MW-9 082913

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	104917	Date Analyzed:	2013-09-11	Analyzed By:	AK
Prep Batch:	88826	Sample Preparation:	2013-09-09	Prepared By:	AK

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0777	mg/L	1	0.100	78	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0815	mg/L	1	0.100	82	70 - 130

Sample: 340698 - MW-10 082913

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	104917	Date Analyzed:	2013-09-11	Analyzed By:	AK
Prep Batch:	88826	Sample Preparation:	2013-09-09	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.0411**	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0771	mg/L	1	0.100	77	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0885	mg/L	1	0.100	88	70 - 130

Sample: 340699 - MW-11 082913

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	104918	Date Analyzed:	2013-09-11	Analyzed By:	AK
Prep Batch:	88958	Sample Preparation:	2013-09-10	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0900	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0921	mg/L	1	0.100	92	70 - 130

Sample: 340700 - MW-12 082913

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	105017	Date Analyzed:	2013-09-13	Analyzed By:	AK
Prep Batch:	88969	Sample Preparation:	2013-09-12	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs	1	**0.248**	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs	1	**0.00130**	mg/L	1	0.00100

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[3] Qsr	Qsr		0.0497	mg/L	1	0.100	50	70 - 130
4-Bromofluorobenzene (4-BFB)	[4] Qsr	Qsr		0.0597	mg/L	1	0.100	60	70 - 130

Sample: 340701 - MW-13 082913

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	104918	Date Analyzed:	2013-09-11	Analyzed By:	AK
Prep Batch:	88958	Sample Preparation:	2013-09-10	Prepared By:	AK

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

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[5] Qsr	Qsr		0.0527	mg/L	1	0.100	53	70 - 130
4-Bromofluorobenzene (4-BFB)	[6] Qsr	Qsr		0.0519	mg/L	1	0.100	52	70 - 130

Sample: 340702 - MW-14 082913

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	105017	Date Analyzed:	2013-09-13	Analyzed By:	AK
Prep Batch:	88969	Sample Preparation:	2013-09-12	Prepared By:	AK

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

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[7] Qsr	Qsr		0.0331	mg/L	1	0.100	33	70 - 130
4-Bromofluorobenzene (4-BFB)	[8] Qsr	Qsr		0.0359	mg/L	1	0.100	36	70 - 130

Sample: 340703 - MW-15 082913

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	105017	Date Analyzed:	2013-09-13	Analyzed By:	AK
Prep Batch:	88969	Sample Preparation:	2013-09-12	Prepared By:	AK

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

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[9] Qsr	Qsr		0.0361	mg/L	1	0.100	36	70 - 130
4-Bromofluorobenzene (4-BFB)	[10] Qsr	Qsr		0.0388	mg/L	1	0.100	39	70 - 130

Sample: 340704 - MW-16 082913

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	105017	Date Analyzed:	2013-09-13	Analyzed By:	AK
Prep Batch:	88969	Sample Preparation:	2013-09-12	Prepared By:	AK

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

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[11] Qsr	Qsr		0.0274	mg/L	1	0.100	27	70 - 130
4-Bromofluorobenzene (4-BFB)	[12] Qsr	Qsr		0.0295	mg/L	1	0.100	30	70 - 130

Method Blanks

Method Blank (1) QC Batch: 104917

QC Batch: 104917 | Date Analyzed: 2013-09-11 | Analyzed By: AK
Prep Batch: 88826 | QC Preparation: 2013-09-09 | Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0920	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0906	mg/L	1	0.100	91	70 - 130

Method Blank (1) QC Batch: 104918

QC Batch: 104918 | Date Analyzed: 2013-09-11 | Analyzed By: AK
Prep Batch: 88958 | QC Preparation: 2013-09-10 | Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0998	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0984	mg/L	1	0.100	98	70 - 130

Method Blank (1) QC Batch: 105017

QC Batch: 105017 | Date Analyzed: 2013-09-13 | Analyzed By: AK
Prep Batch: 88969 | QC Preparation: 2013-09-12 | Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0986	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0964	mg/L	1	0.100	96	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 104917 | Date Analyzed: 2013-09-11 | Analyzed By: AK
Prep Batch: 88826 | QC Preparation: 2013-09-09 | 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	<0.000200	88	70 - 130
Toluene		1	0.0879	mg/L	1	0.100	<0.000300	88	70 - 130
Ethylbenzene		1	0.0832	mg/L	1	0.100	<0.000400	83	70 - 130
Xylene		1	0.255	mg/L	1	0.300	<0.00120	85	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	0.0910	mg/L	1	0.100	<0.000200	91	70 - 130	3	20
Toluene		1	0.0903	mg/L	1	0.100	<0.000300	90	70 - 130	3	20
Ethylbenzene		1	0.0864	mg/L	1	0.100	<0.000400	86	70 - 130	4	20
Xylene		1	0.264	mg/L	1	0.300	<0.00120	88	70 - 130	3	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)	0.0957	0.0967	mg/L	1	0.100	96	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0980	0.0964	mg/L	1	0.100	98	96	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 104918 | Date Analyzed: 2013-09-11 | Analyzed By: AK
Prep Batch: 88958 | QC Preparation: 2013-09-10 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0849	mg/L	1	0.100	<0.000200	85	70 - 130
Toluene		1	0.0846	mg/L	1	0.100	<0.000300	85	70 - 130
Ethylbenzene		1	0.0817	mg/L	1	0.100	<0.000400	82	70 - 130
Xylene		1	0.251	mg/L	1	0.300	<0.00120	84	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	0.0872	mg/L	1	0.100	<0.000200	87	70 - 130	3	20
Toluene		1	0.0873	mg/L	1	0.100	<0.000300	87	70 - 130	3	20
Ethylbenzene		1	0.0845	mg/L	1	0.100	<0.000400	84	70 - 130	3	20
Xylene		1	0.258	mg/L	1	0.300	<0.00120	86	70 - 130	3	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)	0.0900	0.0921	mg/L	1	0.100	90	92	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0938	0.0974	mg/L	1	0.100	94	97	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 105017 | Date Analyzed: 2013-09-13 | Analyzed By: AK
Prep Batch: 88969 | QC Preparation: 2013-09-12 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0810	mg/L	1	0.100	<0.000200	81	70 - 130
Toluene		1	0.0809	mg/L	1	0.100	<0.000300	81	70 - 130
Ethylbenzene		1	0.0781	mg/L	1	0.100	<0.000400	78	70 - 130
Xylene		1	0.239	mg/L	1	0.300	<0.00120	80	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	0.0902	mg/L	1	0.100	<0.000200	90	70 - 130	11	20
Toluene		1	0.0909	mg/L	1	0.100	<0.000300	91	70 - 130	12	20
Ethylbenzene		1	0.0875	mg/L	1	0.100	<0.000400	88	70 - 130	11	20
Xylene		1	0.268	mg/L	1	0.300	<0.00120	89	70 - 130	11	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)	0.0792	0.0991	mg/L	1	0.100	79	99	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0828	0.107	mg/L	1	0.100	83	107	70 - 130

Matrix Spike (xMS-1) Spiked Sample: 340547

QC Batch: 104917 | Date Analyzed: 2013-09-11 | Analyzed By: AK
Prep Batch: 88826 | QC Preparation: 2013-09-09 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		[1]	4.56	mg/L	50	5.00	<0.0100	91	70 - 130
Toluene		[1]	4.53	mg/L	50	5.00	<0.0150	91	70 - 130
Ethylbenzene		[1]	4.30	mg/L	50	5.00	<0.0200	86	70 - 130
Xylene		[1]	13.1	mg/L	50	15.0	<0.0600	87	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]	4.23	mg/L	50	5.00	<0.0100	85	70 - 130	15	20
Toluene		[1]	4.21	mg/L	50	5.00	<0.0150	84	70 - 130	7	20
Ethylbenzene		[1]	4.00	mg/L	50	5.00	<0.0200	80	70 - 130	7	20
Xylene		[1]	12.1	mg/L	50	15.0	<0.0600	81	70 - 130	8	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)	4.84	4.70	mg/L	50	5	97	94	70 - 130
4-Bromofluorobenzene (4-BFB)	4.96	4.80	mg/L	50	5	99	96	70 - 130

Matrix Spike (MS-1) Spiked Sample: 340701

QC Batch: 104918 | Date Analyzed: 2013-09-11 | Analyzed By: AK
Prep Batch: 88958 | QC Preparation: 2013-09-10 | Prepared By: AK

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	[Qs]	[Qs]	[1]	0.0226	mg/L	1	0.100	<0.000200	23	70 - 130
Toluene	[Qs]	[Qs]	[1]	0.0239	mg/L	1	0.100	<0.000300	24	70 - 130
Ethylbenzene	[Qs]	[Qs]	[1]	0.0249	mg/L	1	0.100	<0.000400	25	70 - 130
Xylene	[Qs]	[Qs]	[1]	0.0756	mg/L	1	0.300	<0.00120	25	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	[Qr,Qs]	[Qr,Qs]	[1]	0.0307	mg/L	1	0.100	<0.000200	31	70 - 130	30	20
Toluene	[Qr,Qs]	[Qr,Qs]	[1]	0.0307	mg/L	1	0.100	<0.000300	31	70 - 130	25	20

continued ...

matrix spikes continued ...

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene	Qr,Qs	Qr,Qs	1	0.0307	mg/L	1	0.100	<0.000400	31	70 - 130	21	20
Xylene	Qr,Qs	Qr,Qs	1	0.0925	mg/L	1	0.300	<0.00120	31	70 - 130	20	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)	Qsr	Qsr	0.00	0.00	mg/L	1	0.1	0	0	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	0.0290	0.0297	mg/L	1	0.1	29	30	70 - 130

Matrix Spike (MS-1) Spiked Sample: 341033

QC Batch: 105017 | Date Analyzed: 2013-09-13 | Analyzed By: AK
Prep Batch: 88969 | QC Preparation: 2013-09-12 | Prepared By: AK

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs	1	0.0180	mg/L	1	0.100	<0.000200	18	70 - 130
Toluene	Qs	Qs	1	0.0189	mg/L	1	0.100	<0.000300	19	70 - 130
Ethylbenzene	Qs	Qs	1	0.0196	mg/L	1	0.100	<0.000400	20	70 - 130
Xylene	Qs	Qs	1	0.0593	mg/L	1	0.300	<0.00120	20	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	Qr,Qs	Qr,Qs	1	0.00740	mg/L	1	0.100	<0.000200	7	70 - 130	84	20
Toluene	Qr,Qs	Qr,Qs	1	0.0100	mg/L	1	0.100	<0.000300	10	70 - 130	62	20
Ethylbenzene	Qr,Qs	Qr,Qs	1	0.0129	mg/L	1	0.100	<0.000400	13	70 - 130	41	20
Xylene	Qr,Qs	Qr,Qs	1	0.0396	mg/L	1	0.300	<0.00120	13	70 - 130	40	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)	Qsr	Qsr	0.0146	0.0259	mg/L	1	0.1	15	26	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	0.0166	0.0263	mg/L	1	0.1	17	26	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 104917 | Date Analyzed: 2013-09-11 | 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	0.0850	85	80 - 120	2013-09-11
Toluene		1	mg/L	0.100	0.0860	86	80 - 120	2013-09-11
Ethylbenzene		1	mg/L	0.100	0.0813	81	80 - 120	2013-09-11
Xylene		1	mg/L	0.300	0.248	83	80 - 120	2013-09-11

Standard (CCV-2)

QC Batch: 104917 | Date Analyzed: 2013-09-11 | 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	0.0902	90	80 - 120	2013-09-11
Toluene		1	mg/L	0.100	0.0896	90	80 - 120	2013-09-11
Ethylbenzene		1	mg/L	0.100	0.0850	85	80 - 120	2013-09-11
Xylene		1	mg/L	0.300	0.259	86	80 - 120	2013-09-11

Standard (CCV-3)

QC Batch: 104917 | Date Analyzed: 2013-09-11 | 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	0.0860	86	80 - 120	2013-09-11
Toluene		1	mg/L	0.100	0.0861	86	80 - 120	2013-09-11
Ethylbenzene		1	mg/L	0.100	0.0825	82	80 - 120	2013-09-11
Xylene		1	mg/L	0.300	0.252	84	80 - 120	2013-09-11

Standard (CCV-1)

QC Batch: 104918 | Date Analyzed: 2013-09-11 | 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	0.0860	86	80 - 120	2013-09-11
Toluene		1	mg/L	0.100	0.0861	86	80 - 120	2013-09-11
Ethylbenzene		1	mg/L	0.100	0.0825	82	80 - 120	2013-09-11
Xylene		1	mg/L	0.300	0.252	84	80 - 120	2013-09-11

Standard (CCV-2)

QC Batch: 104918 | Date Analyzed: 2013-09-11 | 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	0.0890	89	80 - 120	2013-09-11
Toluene		1	mg/L	0.100	0.0901	90	80 - 120	2013-09-11
Ethylbenzene		1	mg/L	0.100	0.0845	84	80 - 120	2013-09-11
Xylene		1	mg/L	0.300	0.262	87	80 - 120	2013-09-11

Standard (CCV-3)

QC Batch: 104918 | Date Analyzed: 2013-09-11 | 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	0.0915	92	80 - 120	2013-09-11
Toluene		1	mg/L	0.100	0.0914	91	80 - 120	2013-09-11
Ethylbenzene		1	mg/L	0.100	0.0875	88	80 - 120	2013-09-11
Xylene		1	mg/L	0.300	0.268	89	80 - 120	2013-09-11

Standard (CCV-1)

QC Batch: 105017 | Date Analyzed: 2013-09-13 | 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	0.0839	84	80 - 120	2013-09-13
Toluene		1	mg/L	0.100	0.0844	84	80 - 120	2013-09-13
Ethylbenzene		1	mg/L	0.100	0.0809	81	80 - 120	2013-09-13
Xylene		1	mg/L	0.300	0.247	82	80 - 120	2013-09-13

Standard (CCV-2)

QC Batch: 105017 Date Analyzed: 2013-09-13 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	0.0815	82	80 - 120	2013-09-13
Toluene		1	mg/L	0.100	0.0823	82	80 - 120	2013-09-13
Ethylbenzene		1	mg/L	0.100	0.0800	80	80 - 120	2013-09-13
Xylene		1	mg/L	0.300	0.246	82	80 - 120	2013-09-13

Standard (CCV-3)

QC Batch: 105017 Date Analyzed: 2013-09-13 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	0.0922	92	80 - 120	2013-09-13
Toluene		1	mg/L	0.100	0.0918	92	80 - 120	2013-09-13
Ethylbenzene		1	mg/L	0.100	0.0878	88	80 - 120	2013-09-13
Xylene		1	mg/L	0.300	0.266	89	80 - 120	2013-09-13

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	T104704392-12-4	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 then 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

Result Comments

1 Sample confirmed by reanalysis, surrogates failed due to matrix effect.
2 Sample confirmed by reanalysis, surrogates failed due to matrix effect.
3 Sample confirmed by reanalysis, surrogates failed due to matrix effect.
4 Sample confirmed by reanalysis, surrogates failed due to matrix effect.
5 Surrogate failed due to matrix effect, confirmed by MS & MSD.
6 Surrogate failed due to matrix effect, confirmed by MS & MSD.
7 Sample confirmed by reanalysis, surrogates failed due to matrix effect.
8 Sample confirmed by reanalysis, surrogates failed due to matrix effect.
9 Sample confirmed by reanalysis, surrogates failed due to matrix effect.
10 Sample confirmed by reanalysis, surrogates failed due to matrix effect.
11 Sample confirmed by reanalysis, surrogates failed due to matrix effect.
12 Sample confirmed by reanalysis, surrogates failed due to matrix effect.

Attachments

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

LAB Order ID # 13083039

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

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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

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

Company Name: CRA **Phone #:** 432-686-0086

Address: (Street, City, Zip) 9135 S. Loop 250 W, Midland TX 79703 **Fax #:** 686-0186

Contact Person: Todd Wells **E-mail:** toddwells@cramail.com

Invoice to: (If different from above) Jason Henry w/ Plains All American

Project #: 074682 **Project Name:** Denton Station

Project Location (including state): Lea County NM **Sampler Signature:**

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
34693	DUP-2 08-29-13	3	40 ml	X				X						8-29-13	
694	MW-4 08-29-13	3	40 ml	X				X						8-29-13	1315
695	MW-6 08-29-13	3		X				X						8-29-13	1300
696	MW-8 08-29-13	3		X				X						8-29-13	1325
697	MW-9 08-29-13	3		X				X						8-29-13	1345
698	MW-10 08-29-13	3		X				X						8-29-13	1355
699	MW-11 08-29-13	3		X				X						8-29-13	1415
700	MW-12 08-29-13	3		X				X						8-29-13	1430
701	MW-13 08-29-13	3		X				X						8-29-13	1445
702	MW-14 08-29-13	3		X				X						8-29-13	1500
703	MW-15 08-29-13	3	40 ml	X				X						8-29-13	1515

ANALYSIS REQUEST	MTBE 8021 / 602 / 8260 / 624	BTEX 8021B / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC						Turn Around Time if different from standard	Hold
34693		X																							
694		X																							
695		X																							
696		X																							
697		X																							
698		X																							
699		X																							
700		X																							
701		X																							
702		X																							
703		X																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
[signature]	[signature]	8-30-13	1503	Cheyenne Williams T/A		8/30/13	1303

INST C
OBS 5.0 °C
COR 7.9 °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review CW

REMARKS: Midland add on ICC

- [ ] Dry Weight Basis Required
- [ ] TRRP Report Required
- [ ] Check If Special Reporting Limits Are Needed

Carrier # Curry in

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

ORIGINAL COPY

LAB Order ID # 13083039

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
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BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: CRA
Phone #: 432-686-0086
Address: (Street, City, Zip) 9135 S. Loop 250 W. Midland TX
Fax #: 686-0186
Contact Person: Todd Wells
E-mail: twells@craworld.com
Invoice to: (If different from above) Jason Henry w/ Plains All American
Project #: 074682
Project Name: Denton Station
Project Location (including state): Lea County NM
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
704	MW-16 08 2913	3	40mL	X				X						8-29-13	1530

MTBE 8021 / 602 / 8260 / 624	BTEX 8021B / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
X	X																								

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Clem Chinn	CRA	8-30-13	1302		T/A	8/30/13	1302	INST T.S °C OBS 5.0 °C COR 7.4 °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ °C OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ °C OBS ____ °C COR ____ °C

LAB USE ONLY
Intact (Y) / N
Headspace Y (N) / NA
Log-in-Review CW

REMARKS: On ice

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Carrier # curry in

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

ORIGINAL COPY

Summary Report

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

Report Date: November 27, 2013

Work Order: 13111544

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
346797	MW11 111413	water	2013-11-14	07:30	2013-11-15
346798	MW12 111413	water	2013-11-14	07:45	2013-11-15
346799	MW16 111413	water	2013-11-14	08:00	2013-11-15
346800	MW14 111413	water	2013-11-14	08:15	2013-11-15
346801	MW13 111413	water	2013-11-14	08:30	2013-11-15
346802	MW15 111413	water	2013-11-14	08:45	2013-11-15
346803	MW4 111413	water	2013-11-14	09:00	2013-11-15
346804	MW6 111413	water	2013-11-14	09:30	2013-11-15
346805	MW8 111413	water	2013-11-14	09:45	2013-11-15
346806	MW9 111413	water	2013-11-14	10:00	2013-11-15
346807	MW10 111413	water	2013-11-14	10:15	2013-11-15
346808	Dup1 111413	water	2013-11-14	00:00	2013-11-15

	BTEX			
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
346797 - MW11 111413	<0.00100	<0.00100	<0.00100	<0.00100
346798 - MW12 111413	**0.172**	<0.00100	<0.00100	<0.00100
346799 - MW16 111413	<0.00100	<0.00100	<0.00100	<0.00100
346800 - MW14 111413	<0.00100	<0.00100	<0.00100	<0.00100
346801 - MW13 111413	<0.00100	<0.00100	<0.00100	<0.00100
346802 - MW15 111413	<0.00100	<0.00100	<0.00100	<0.00100
346803 - MW4 111413	**0.0311**	<0.00100	<0.00100	<0.00100
346804 - MW6 111413	**0.0120** Qr	<0.00100 Qr	**0.00330** Qr	**0.00570** Qr
346805 - MW8 111413	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr	<0.00300 Qr
346806 - MW9 111413	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr	<0.00300 Qr
346807 - MW10 111413	**0.0407** Qr	<0.00100 Qr	<0.00100 Qr	<0.00300 Qr
346808 - Dup1 111413	**0.0118** Qr	<0.00100 Qr	**0.00240** Qr	**0.00500** Qr

This is only a summary. Please, refer to the complete report package for quality control data.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
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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

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

Report Date: November 27, 2013

Work Order: 13111544

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 Taken	Time Taken	Date Received
346797	MW11 111413	water	2013-11-14	07:30	2013-11-15
346798	MW12 111413	water	2013-11-14	07:45	2013-11-15
346799	MW16 111413	water	2013-11-14	08:00	2013-11-15
346800	MW14 111413	water	2013-11-14	08:15	2013-11-15
346801	MW13 111413	water	2013-11-14	08:30	2013-11-15
346802	MW15 111413	water	2013-11-14	08:45	2013-11-15
346803	MW4 111413	water	2013-11-14	09:00	2013-11-15
346804	MW6 111413	water	2013-11-14	09:30	2013-11-15
346805	MW8 111413	water	2013-11-14	09:45	2013-11-15
346806	MW9 111413	water	2013-11-14	10:00	2013-11-15
346807	MW10 111413	water	2013-11-14	10:15	2013-11-15
346808	Dup1 111413	water	2013-11-14	00:00	2013-11-15

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.

TraceAnalysis, Inc.

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

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Sample 346804 (MW6 111413) . . . 8
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Case Narrative

Samples for project Darr Angel Denton Station were received by TraceAnalysis, Inc. on 2013-11-15 and assigned to work order 13111544. Samples for work order 13111544 were received intact without headspace and at a temperature of 12.0 C. Samples on ice.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	90495	2013-11-19 at 10:51	106902	2013-11-20 at 07:18
BTEX	S 8021B	90529	2013-11-20 at 11:25	106957	2013-11-21 at 12:10

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 13111544 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.

Analytical Report

Sample: 346797 - MW11 111413

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	106902	Date Analyzed:	2013-11-20	Analyzed By:	AK
Prep Batch:	90495	Sample Preparation:	2013-11-19	Prepared By:	AK

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.105	mg/L	1	0.100	105	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0915	mg/L	1	0.100	92	70 - 130

Sample: 346798 - MW12 111413

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	106902	Date Analyzed:	2013-11-20	Analyzed By:	AK
Prep Batch:	90495	Sample Preparation:	2013-11-19	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.172**	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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0939	mg/L	1	0.100	94	70 - 130

Sample: 346799 - MW16 111413

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	106902	Date Analyzed:	2013-11-20	Analyzed By:	AK
Prep Batch:	90495	Sample Preparation:	2013-11-19	Prepared By:	AK

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.108	mg/L	1	0.100	108	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0943	mg/L	1	0.100	94	70 - 130

Sample: 346800 - MW14 111413

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	106902	Date Analyzed:	2013-11-20	Analyzed By:	AK
Prep Batch:	90495	Sample Preparation:	2013-11-19	Prepared By:	AK

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.103	mg/L	1	0.100	103	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0900	mg/L	1	0.100	90	70 - 130

Sample: 346801 - MW13 111413

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	106902	Date Analyzed:	2013-11-20	Analyzed By:	AK
Prep Batch:	90495	Sample Preparation:	2013-11-19	Prepared By:	AK

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0907	mg/L	1	0.100	91	70 - 130

Sample: 346802 - MW15 111413

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	106902	Date Analyzed:	2013-11-20	Analyzed By:	AK
Prep Batch:	90495	Sample Preparation:	2013-11-19	Prepared By:	AK

Parameter	Flag	Cert	Result	RL 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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0900	mg/L	1	0.100	90	70 - 130

Sample: 346803 - MW4 111413

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	106902	Date Analyzed:	2013-11-20	Analyzed By:	AK
Prep Batch:	90495	Sample Preparation:	2013-11-19	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.0311**	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 Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0929	mg/L	1	0.100	93	70 - 130

Sample: 346804 - MW6 111413

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	106957	Date Analyzed:	2013-11-21	Analyzed By:	AK
Prep Batch:	90529	Sample Preparation:	2013-11-20	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr	1	**0.0120**	mg/L	1	0.00100
Toluene	Qr	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr	1	**0.00330**	mg/L	1	0.00100
Xylene	Qr	1	**0.00570**	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)			0.0932	mg/L	1	0.100	93	70 - 130

Sample: 346805 - MW8 111413

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	106957	Date Analyzed:	2013-11-21	Analyzed By:	AK
Prep Batch:	90529	Sample Preparation:	2013-11-20	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0969	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0874	mg/L	1	0.100	87	70 - 130

Sample: 346806 - MW9 111413

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	106957	Date Analyzed:	2013-11-21	Analyzed By:	AK
Prep Batch:	90529	Sample Preparation:	2013-11-20	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0938	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0849	mg/L	1	0.100	85	70 - 130

Sample: 346807 - MW10 111413

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	106957	Date Analyzed:	2013-11-21	Analyzed By:	AK
Prep Batch:	90529	Sample Preparation:	2013-11-20	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qr	1	**0.0407**	mg/L	1	0.00100
Toluene	Qr,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0927	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0909	mg/L	1	0.100	91	70 - 130

Sample: 346808 - Dup1 111413

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	106957	Date Analyzed:	2013-11-21	Analyzed By:	AK
Prep Batch:	90529	Sample Preparation:	2013-11-20	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qr	1	**0.0118**	mg/L	1	0.00100
Toluene	Qr,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr	1	**0.00240**	mg/L	1	0.00100
Xylene	Qr	1	**0.00500**	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0982	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0938	mg/L	1	0.100	94	70 - 130

Method Blanks

Method Blank (1) QC Batch: 106902

QC Batch: 106902 | Date Analyzed: 2013-11-20 | Analyzed By: AK
Prep Batch: 90495 | QC Preparation: 2013-11-19 | Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.107	mg/L	1	0.100	107	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0934	mg/L	1	0.100	93	70 - 130

Method Blank (1) QC Batch: 106957

QC Batch: 106957 | Date Analyzed: 2013-11-21 | Analyzed By: AK
Prep Batch: 90529 | QC Preparation: 2013-11-20 | Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000600	mg/L	0.001
Toluene		1	<0.000400	mg/L	0.001
Ethylbenzene		1	<0.000600	mg/L	0.001
Xylene		1	<0.00130	mg/L	0.003

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0977	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0861	mg/L	1	0.100	86	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 106902 | Date Analyzed: 2013-11-20 | Analyzed By: AK
Prep Batch: 90495 | QC Preparation: 2013-11-19 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0998	mg/L	1	0.100	<0.000200	100	70 - 130
Toluene		1	0.0991	mg/L	1	0.100	<0.000300	99	70 - 130
Ethylbenzene		1	0.0954	mg/L	1	0.100	<0.000400	95	70 - 130
Xylene		1	0.289	mg/L	1	0.300	<0.00120	96	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	0.100	mg/L	1	0.100	<0.000200	100	70 - 130	0	20
Toluene		1	0.0990	mg/L	1	0.100	<0.000300	99	70 - 130	0	20
Ethylbenzene		1	0.0965	mg/L	1	0.100	<0.000400	96	70 - 130	1	20
Xylene		1	0.291	mg/L	1	0.300	<0.00120	97	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)	0.0972	0.0943	mg/L	1	0.100	97	94	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0932	0.0891	mg/L	1	0.100	93	89	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 106957 | Date Analyzed: 2013-11-21 | Analyzed By: AK
Prep Batch: 90529 | QC Preparation: 2013-11-20 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.101	mg/L	1	0.100	<0.000600	101	70 - 130
Toluene		1	0.100	mg/L	1	0.100	<0.000400	100	70 - 130
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000600	106	70 - 130
Xylene		1	0.322	mg/L	1	0.300	<0.00130	107	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	0.102	mg/L	1	0.100	<0.000600	102	70 - 130	1	20
Toluene		1	0.101	mg/L	1	0.100	<0.000400	101	70 - 130	1	20
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000600	106	70 - 130	0	20
Xylene		1	0.322	mg/L	1	0.300	<0.00130	107	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)	0.0998	0.0986	mg/L	1	0.100	100	99	70 - 130
4-Bromofluorobenzene (4-BFB)	0.106	0.105	mg/L	1	0.100	106	105	70 - 130

Matrix Spike (MS-1) Spiked Sample: 346780

QC Batch: 106902 | Date Analyzed: 2013-11-20 | Analyzed By: AK
Prep Batch: 90495 | QC Preparation: 2013-11-19 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.101	mg/L	1	0.100	<0.000200	101	70 - 130
Toluene		1	0.0994	mg/L	1	0.100	<0.000300	99	70 - 130
Ethylbenzene		1	0.0970	mg/L	1	0.100	<0.000400	97	70 - 130
Xylene		1	0.292	mg/L	1	0.300	<0.00120	97	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	0.0999	mg/L	1	0.100	<0.000200	100	70 - 130	1	20
Toluene		1	0.0985	mg/L	1	0.100	<0.000300	98	70 - 130	1	20
Ethylbenzene		1	0.0967	mg/L	1	0.100	<0.000400	97	70 - 130	0	20
Xylene		1	0.290	mg/L	1	0.300	<0.00120	97	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)	0.103	0.101	mg/L	1	0.1	103	101	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0985	0.0953	mg/L	1	0.1	98	95	70 - 130

Matrix Spike (MS-1) Spiked Sample: 346805

QC Batch: 106957 | Date Analyzed: 2013-11-21 | Analyzed By: AK
Prep Batch: 90529 | QC Preparation: 2013-11-20 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0814	mg/L	1	0.100	<0.000600	81	70 - 130
Toluene		1	0.0792	mg/L	1	0.100	<0.000400	79	70 - 130
Ethylbenzene		1	0.0813	mg/L	1	0.100	<0.000600	81	70 - 130
Xylene		1	0.247	mg/L	1	0.300	<0.00130	82	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	Qr	Qr	1 0.100	mg/L	1	0.100	<0.000600	100	70 - 130	20	20
Toluene	Qr	Qr	1 0.0971	mg/L	1	0.100	<0.000400	97	70 - 130	20	20
Ethylbenzene	Qr	Qr	1 0.102	mg/L	1	0.100	<0.000600	102	70 - 130	23	20
Xylene	Qr	Qr	1 0.310	mg/L	1	0.300	<0.00130	103	70 - 130	23	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)	0.0993	0.100	mg/L	1	0.1	99	100	70 - 130
4-Bromofluorobenzene (4-BFB)	0.102	0.105	mg/L	1	0.1	102	105	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 106902 | Date Analyzed: 2013-11-20 | 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	0.0990	99	80 - 120	2013-11-20
Toluene		1	mg/L	0.100	0.0971	97	80 - 120	2013-11-20
Ethylbenzene		1	mg/L	0.100	0.0955	96	80 - 120	2013-11-20
Xylene		1	mg/L	0.300	0.288	96	80 - 120	2013-11-20

Standard (CCV-2)

QC Batch: 106902 | Date Analyzed: 2013-11-20 | 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	0.0988	99	80 - 120	2013-11-20
Toluene		1	mg/L	0.100	0.0977	98	80 - 120	2013-11-20
Ethylbenzene		1	mg/L	0.100	0.0948	95	80 - 120	2013-11-20
Xylene		1	mg/L	0.300	0.285	95	80 - 120	2013-11-20

Standard (CCV-3)

QC Batch: 106902 | Date Analyzed: 2013-11-20 | 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	0.0980	98	80 - 120	2013-11-20
Toluene		1	mg/L	0.100	0.0966	97	80 - 120	2013-11-20
Ethylbenzene		1	mg/L	0.100	0.0938	94	80 - 120	2013-11-20
Xylene		1	mg/L	0.300	0.283	94	80 - 120	2013-11-20

Standard (CCV-1)

QC Batch: 106957 | Date Analyzed: 2013-11-21 | 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	0.106	106	80 - 120	2013-11-21
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2013-11-21
Ethylbenzene		1	mg/L	0.100	0.111	111	80 - 120	2013-11-21
Xylene		1	mg/L	0.300	0.336	112	80 - 120	2013-11-21

Standard (CCV-2)

QC Batch: 106957 | Date Analyzed: 2013-11-21 | 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	0.104	104	80 - 120	2013-11-21
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2013-11-21
Ethylbenzene		1	mg/L	0.100	0.108	108	80 - 120	2013-11-21
Xylene		1	mg/L	0.300	0.327	109	80 - 120	2013-11-21

Standard (CCV-3)

QC Batch: 106957 | Date Analyzed: 2013-11-21 | 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	0.101	101	80 - 120	2013-11-21
Toluene		1	mg/L	0.100	0.0986	99	80 - 120	2013-11-21
Ethylbenzene		1	mg/L	0.100	0.104	104	80 - 120	2013-11-21
Xylene		1	mg/L	0.300	0.314	105	80 - 120	2013-11-21

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 then 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

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

LAB Order ID # 13111544

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

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

Brandon & Clark
3403 Industrial Blvd.
Hobbs, NM 88240
Tel (575) 392-7561
Fax (575) 392-4508

Company Name: CRA Inc
Phone #: 432·686·0086
Address: (Street, City, Zip) 2135 South Loop, 250 West Midland, TX 79703
Fax #:
Contact Person: Kim Lambert
E-mail: klambert@craworld.com
Invoice to: (If different from above)
Project #: 074682
Project Name: Denton Station
Project Location (including state): Lovington, NM
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
346797	MW11 111413	3		X				X				X		11/14/13	0730
798	MW12 111413														0745
799	MW16 111413														0800
800	MW14 111413														0815
801	MW13 111413														0830
802	MW15 111413														0845
803	MW4 111413														0900
804	MW6 111413														0930
805	MW8 111413														0945
806	MW9 111413														1000
807	MW10 111413														1015

MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC						Turn Around Time if different from standard	Hold
	X																								

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
	CRA	11/15/13	14:39		TA	11/15/13	14:39

INST ____ OBS 12.1 °C COR 12.0 °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS: MW3 - no sample received - none taken Midland all

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Carrier #

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

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LAB Order ID # 13111544

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
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Contact Person: Kim Lambert
E-mail: klambert@crawork.com
Invoice to:
(If different from above)
Project #: 074682
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Project Location (including state): Lovington, NM
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

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	MW3 11/14/13	3		X				X				X		11/14/13	1030	X																			
88	DUP 11/14/13	3		X				X				X		11/14/13		X																			

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	CRA	11-15-13	14:40		TA	11/15/13	14:40	INST HR / OBS 12.1 °C / COR 12.2 °C
								INST ____ / OBS ____ °C / COR ____ °C
								INST ____ / OBS ____ °C / COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS: MW3 - no sample rec.

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Carrier #

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