1R - 234

Annual GW Mon. Report

Year: 2011

2011 ANNUAL GROUNDWATER MONITORING REPORT

DENTON STATION
NW ¼, NE ¼, SECTION 14, TOWNSHIP 15 SOUTH, RANGE 37 EAST
PLAINS SRS NUMBER: 2003-00338
NMOCD REFERENCE NUMBER: 1R-0234
LEA COUNTY, NEW MEXICO

PLAINS
ALL AMERICAN

March 29, 2012

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

Re: Plains All American – 2011 Annual Monitoring Reports
4 Sites in Lea County, New Mexico

Dear Mr. Hansen:

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

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,

Jason Henry
Remediation Coordinator
Plains All American

CC: Geoff Leking, NMOCD, Hobbs, NM

Enclosures

CONESTOGA-ROVERS
& ASSOCIATES

RECEIVED

MAY 14 2012

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

2011 ANNUAL GROUNDWATER MONITORING REPORT

DENTON STATION
NW ¼, NE ¼, SECTION 14, TOWNSHIP 15 SOUTH, RANGE 37 EAST
PLAINS SRS NUMBER: 2003-00338
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LEA COUNTY, NEW MEXICO

Prepared For:
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Houston, Texas 77002

Prepared by:
Conestoga-Rovers & Associates

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APRIL 2012
REF. NO. 074682(2)

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1.0 INTRODUCTION

This 2011 Annual Groundwater Monitoring Report presents data collected at the Denton Station location (hereafter referred to as the "Site") by Conestoga-Rovers & Associates (CRA) on behalf of Plains Pipeline, L.P. (Plains) in compliance with conditions presented in the New Mexico Oil Conservation Division (NMOCD) correspondence dated May 1998. This report presents groundwater assessment and remediation activities associated with quarterly gauging and sampling events (March, June, September and November/December) and bi-weekly light non-aqueous phase liquid (LNAPL) abatement activities performed during the 2011 calendar year.

1.1 SITE LOCATION AND HISTORY

The legal description of the site is SE ¼, NE ¼, Section 14, Township 15 South, Range 37 East; Site coordinates are 33°01'6.48"N and 103°09'46.6"W (FIGURE 1). The Site was formerly the responsibility of Shell Pipeline Corporation (SPLC); however, the Site is currently the responsibility of Plains. The release is reportedly from a former crude oil tank battery located in the northeastern corner of the fenced facility on Site. Beginning on April 1, 2007, project management responsibilities were assumed by NOVA. NOVA conducted the first quarter 2011 groundwater sampling event. CRA assumed Site remediation and project management responsibilities on May 2, 2011 and conducted the remaining 2011 groundwater assessment and remediation activities.

Currently, there are seventeen groundwater monitor wells (MW-1 through MW-17) and one out-of-service water well (WW-1) on-site. Wells with LNAPL present were 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.

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 Sections A. NMQCC 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 show 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

3.0 GROUNDWATER MONITORING ACTIVITIES

NOVA conducted the first quarterly groundwater sampling event on March 7, 2011. The remaining quarterly groundwater monitoring event activities were conducted by CRA on June 16, September 7 and 9, November 28 and December 1, 2011. The Site is monitored with a network of 17 monitor wells and 1 recovery well. Wells were sampled in accordance with the sampling scheduled referred to in Section 2.0. Wells containing measureable amount 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. In addition, during the December 2011 sampling event three wells (MW-4, MW-6 and MW-10) were also analyzed for Polycyclic Aromatic Hydrocarbons (PAH) by 8270B. The groundwater fluids recovered during the Site activities were containerized onsite in properly labeled and sealed drums or poly tanks and disposed of at an approved salt water disposal (SWD) 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 an assumed reference elevation of 100 feet was used to survey the top of casing (TOC) elevation for each well. The NOVA groundwater elevation data table for the March 2011 gauging event in presented in APPENDIX A. Groundwater gauging data collected by CRA during the June, September and December groundwater monitoring events is presented in TABLE I. Groundwater gradient maps for March, June, September and December 2011 are provided as FIGURES 3, 4, 5 and 6, respectively.

Corrected groundwater elevations ranged from 37.18 to 41.05 feet in March, from 37.05 to 39.28 in June, from 36.88 to 39.48 feet in September and from 36.75 to 39.00 feet in November. LNAPL was encountered in 4 wells during the March gauging event, 6 wells during the June gauging event, 6 wells in the September gauging event and 5 wells in the November gauging event in 2011. LNAPL thicknesses ranged from 0.16 to 1.13 feet in March, from 0.01 to 2.15 feet in June, from 0.07 to 0.96 feet in September and from 0.01 to 1.16 feet in November 2011. The groundwater flow direction is towards the south-southwest and appears to be consistent with historical data. The average

groundwater gradient observed at the Site during the 2011 groundwater monitoring events was approximately 0.006 feet/foot.

During the March 2011 groundwater sampling event, twelve wells were sampled, of which three wells (MW-4, MW-6 and MW-10) detected benzene concentrations above the NMWQCC Standard (0.01 mg/L). During the June 2011 groundwater sampling event, twelve wells were sampled, of which four wells (MW-4, MW-6, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard. During the September 2011 groundwater sampling event, eleven wells were sampled, of which four wells (MW-4, MW-6, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard. During the December 2011 groundwater sampling event, twelve wells were sampled, of which three wells (MW-4, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard. Also in December, samples from three monitor wells (MW-4, MW-6 and MW-10) were submitted for PAH analysis. All results were below NMWQCC Standards for all constituents analyzed. Groundwater BTEX analytical results are summarized in TABLE II. Groundwater PAH results are summarized in TABLE III. Groundwater BTEX concentration maps for the March, June, September and December 2011 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 B.

4.0 CORRECTIVE ACTION

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

From June to December 2011, CRA recovered approximately 38 gallons (0.90 barrels) of product from the Site. Approximately 8,107 gallons (193 barrels) of product have been recovered from the start of the product abatement program.

5.0 SUMMARY OF FINDINGS

Based on groundwater assessment monitoring and remedial activities performed by CRA at the Site in 2011, the following summary of findings is presented:

- The release is suspected to have come from a former crude oil tank battery located in the northeastern corner of the fenced facility on Site.
- CRA assumed remediation responsibility of the Site on May 2, 2011;
- The Site is monitored with a network of seventeen groundwater monitor wells (MW-1 through MW-17) and one out-of-service water well (WW-1);
- NOVA conducted the first quarterly groundwater sampling event on March 7, 2011. The remaining quarterly groundwater monitoring event activities were conducted by CRA on June 16, September 7 and 9, November 28 and December 1, 2011;
- The groundwater flow direction at the Site is to the south-southwest and appears to be consistent with historical data. The average groundwater gradient observed at the Site during the 2011 groundwater monitoring events was approximately 0.006 feet/foot;
- LNAPL was encountered in 4 wells during the March gauging event, 6 wells during the June gauging event, 6 wells in the September gauging event and 5 wells in the November gauging event in 2011. LNAPL thicknesses ranged from 0.16 to 1.13 feet in March, from 0.01 to 2.15 feet in June, from 0.07 to 0.96 feet in September and from 0.01 to 1.16 feet in November 2011;
- During the March 2011 groundwater sampling event, twelve wells were sampled, of which three wells (MW-4, MW-6 and MW-10) detected benzene concentrations above the NMWQCC Standard;
- During the June 2011 groundwater sampling event, twelve wells were sampled, of which four wells (MW-4, MW-6, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard;
- During the September 2011 groundwater sampling event, eleven wells were sampled, of which four wells (MW-4, MW-6, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard;
- During the December 2011 groundwater sampling event, twelve wells were sampled, of which three wells (MW-4, MW-10 and MW-12) detected benzene concentrations above the NMWQCC Standard;
- In December, three wells (MW-4, MW-6 and MW-10) were submitted for PAH analysis. All results were below NMWQCC Standards;
- Wells which contain measureable product were manually recovered twice a week. Select wells were equipped with absorbent socks and replaced as needed; and
- From June to December 2011, CRA has recovered a total of 38 gallons (0.90 barrels) of product from the Site. A total of 8,107 gallons (193 barrels) of product have been recovered from the start of the product abatement program.

6.0 RECOMMENDATIONS

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

- Continue quarterly groundwater monitoring events in 2012 with annual reporting to the NMOCD;
- Continue manual bi-weekly LNAPL abatement in 2012; and
- Begin Mobile Dual Phase Extraction (MDPE) events to increase product recovery at the Site.

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

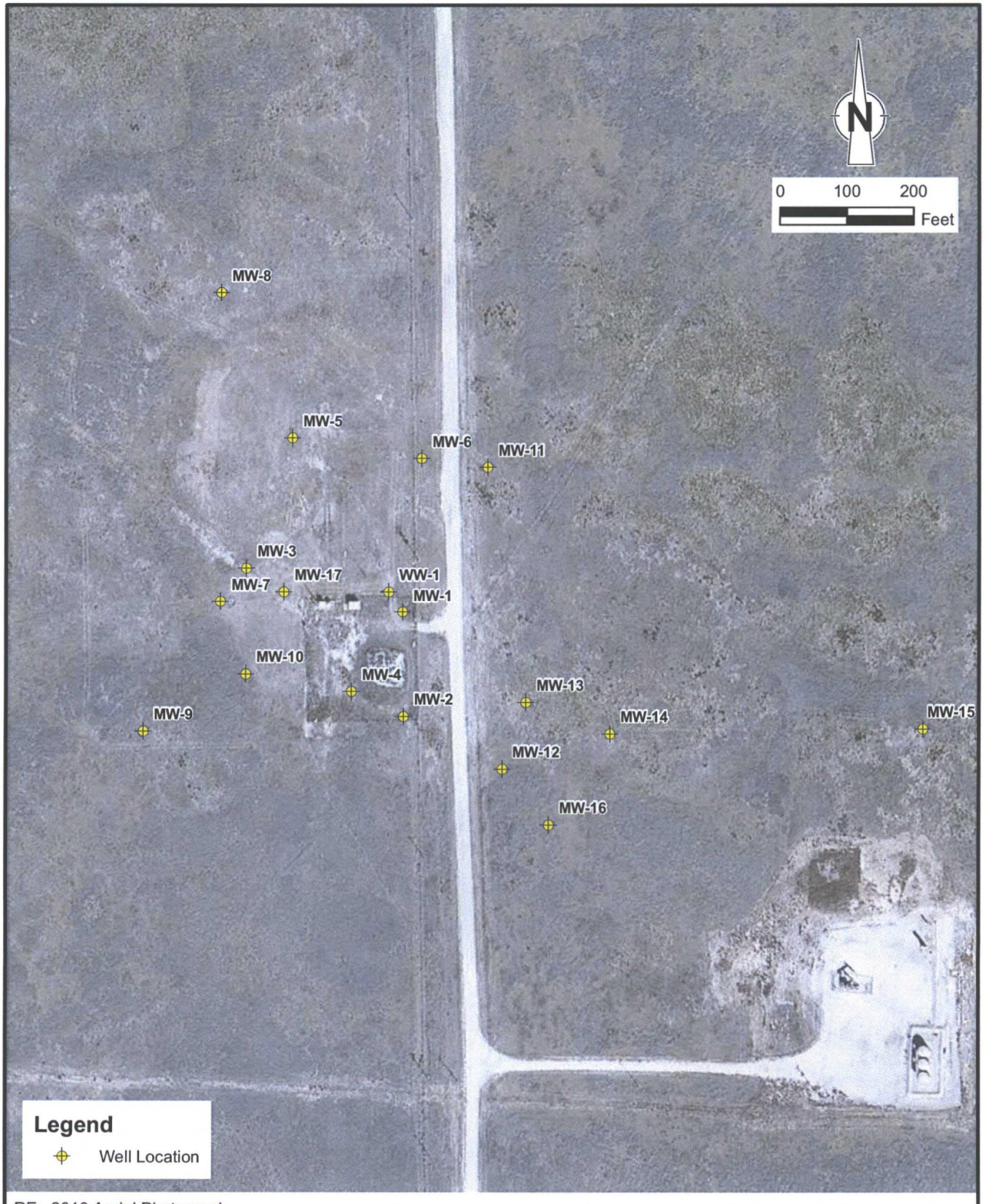
Todd Wells
Project Manager

Thomas C. Larson
Midland Branch Manager

RE: USGS 7.5 Minute Topographic Maps.

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

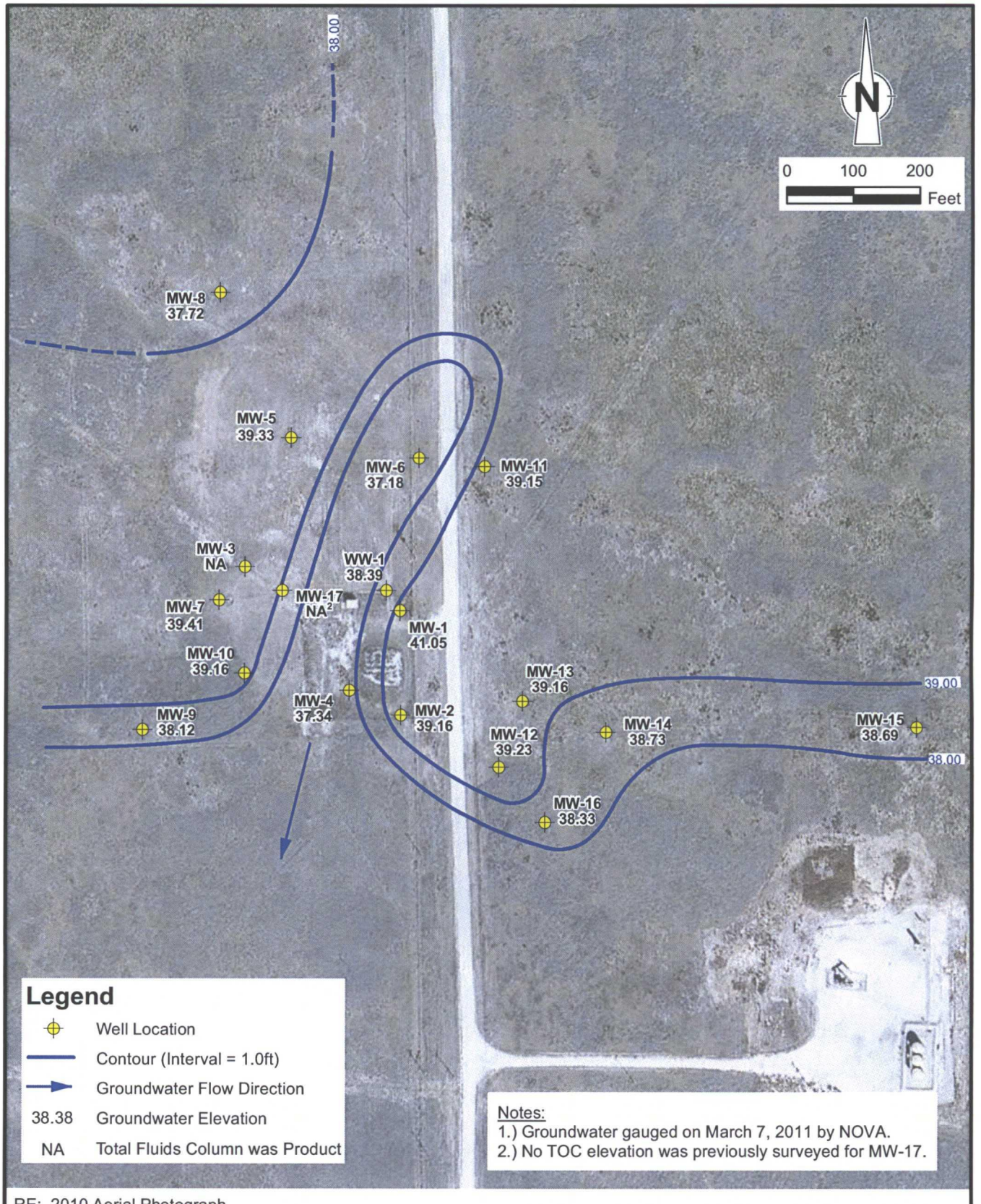
CRA



RE: 2010 Aerial Photograph

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

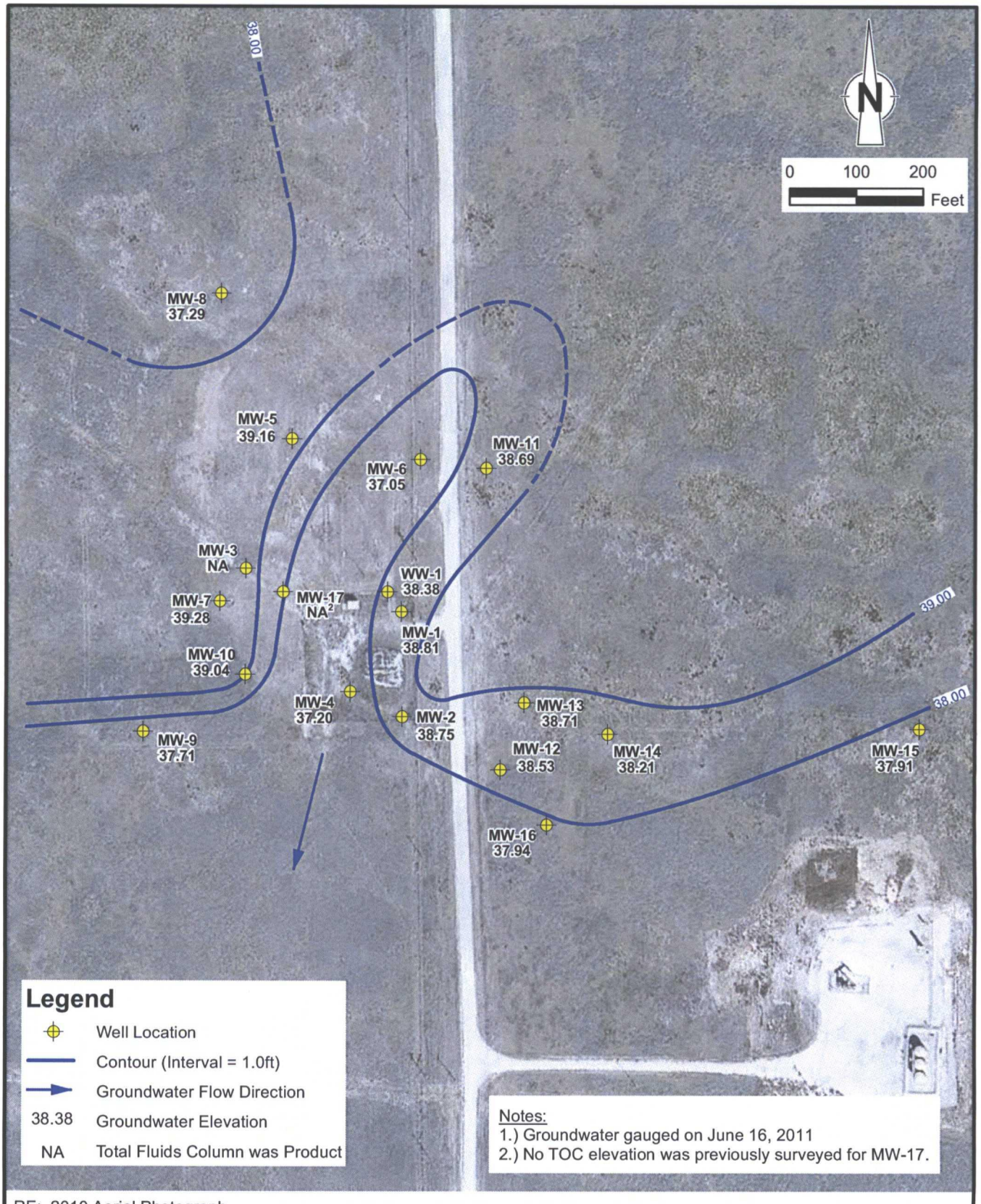
074682-11(002)PR-BR002 Apr 9/2012



RE: 2010 Aerial Photograph

figure 3
GROUNDWATER GRADIENT MAP - MARCH 2011
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.

074682-11(002)PR-BR011 Apr 12/2011



RE: 2010 Aerial Photograph

figure 4
GROUNDWATER GRADIENT MAP - JUNE 2011
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.

074682-11(002)PR-BR004 Apr 12/2012

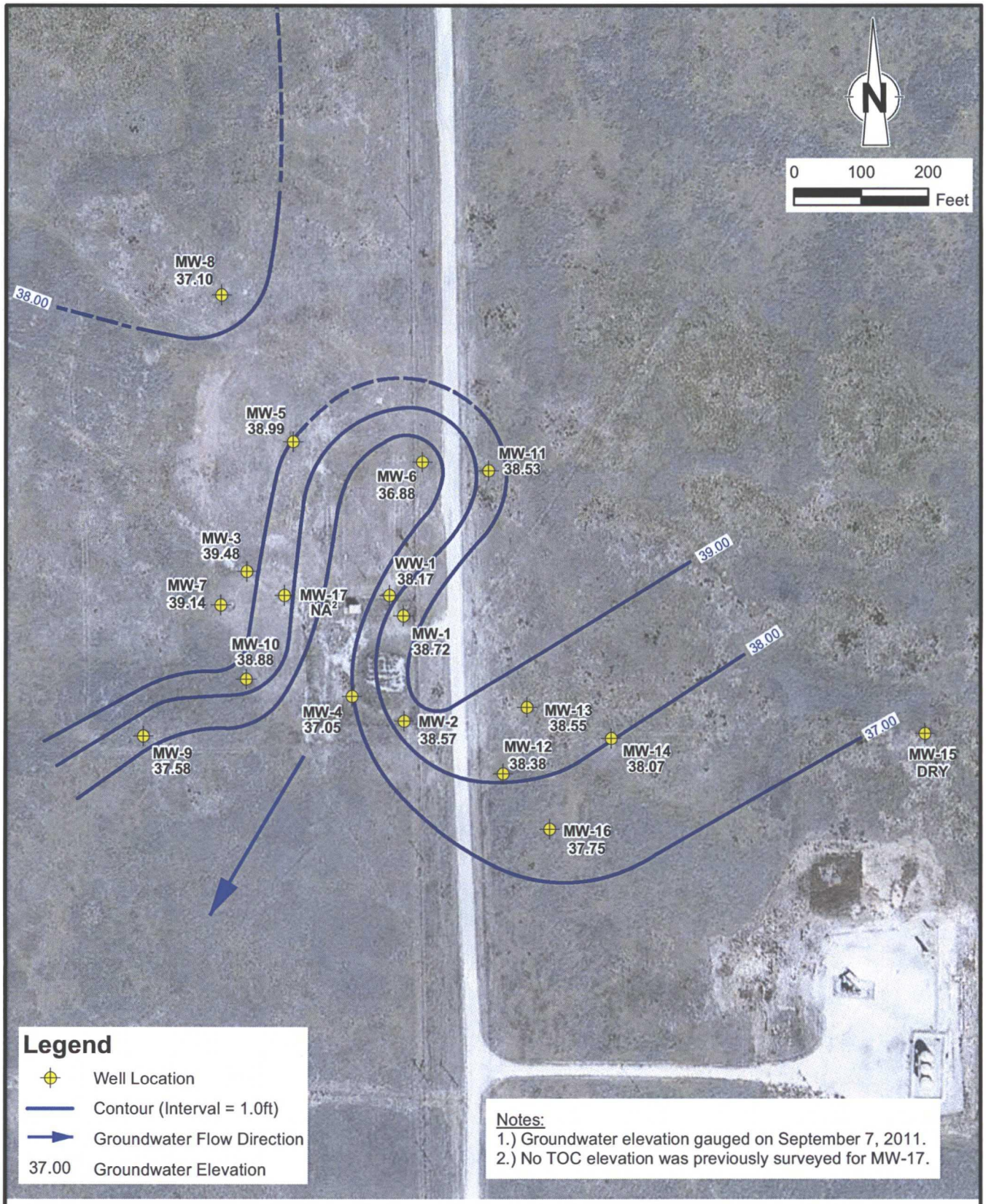


figure 5
GROUNDWATER GRADIENT MAP - SEPTEMBER 2011
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.

074682-11(002)PR-BR006 Apr 13/2012

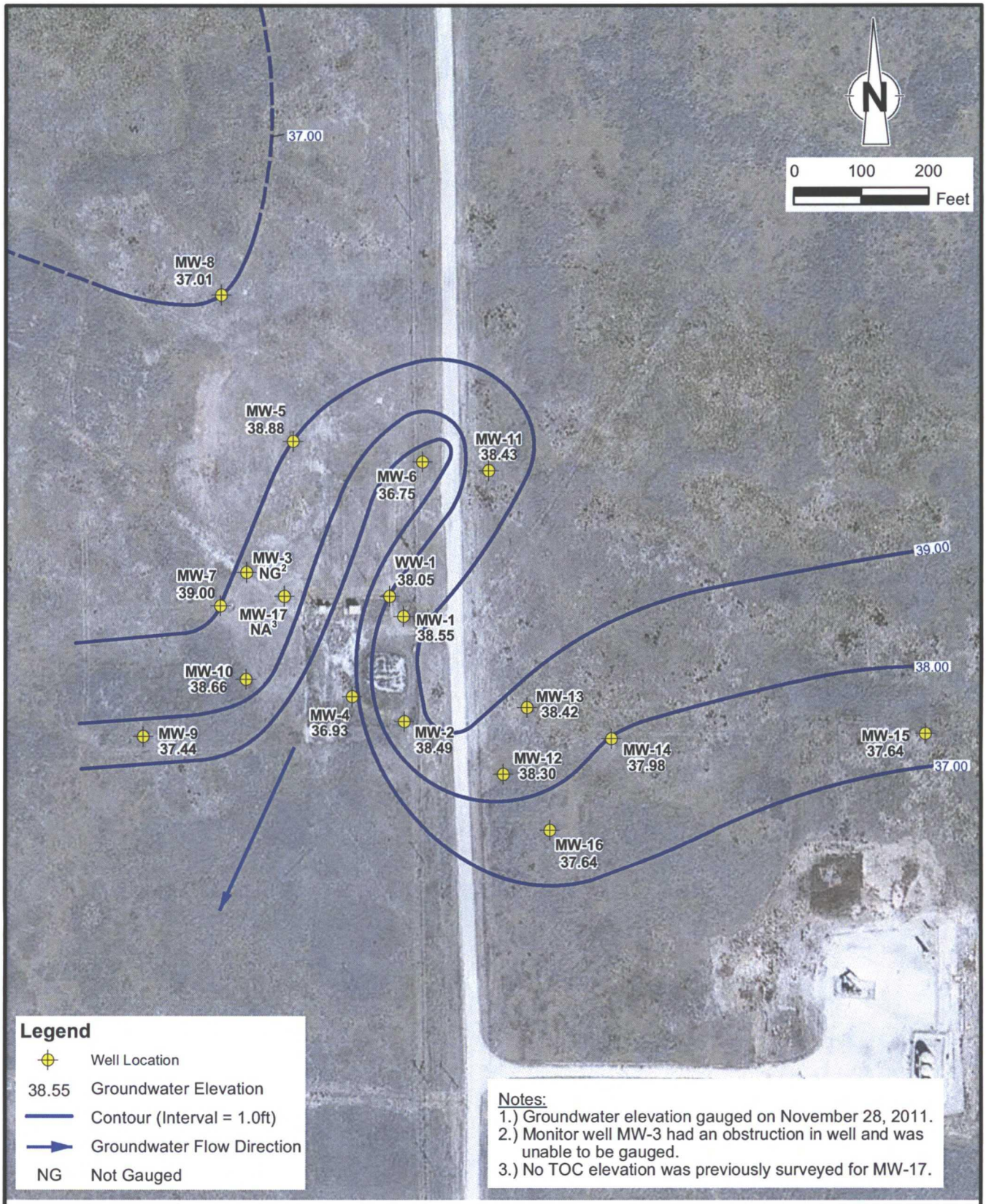
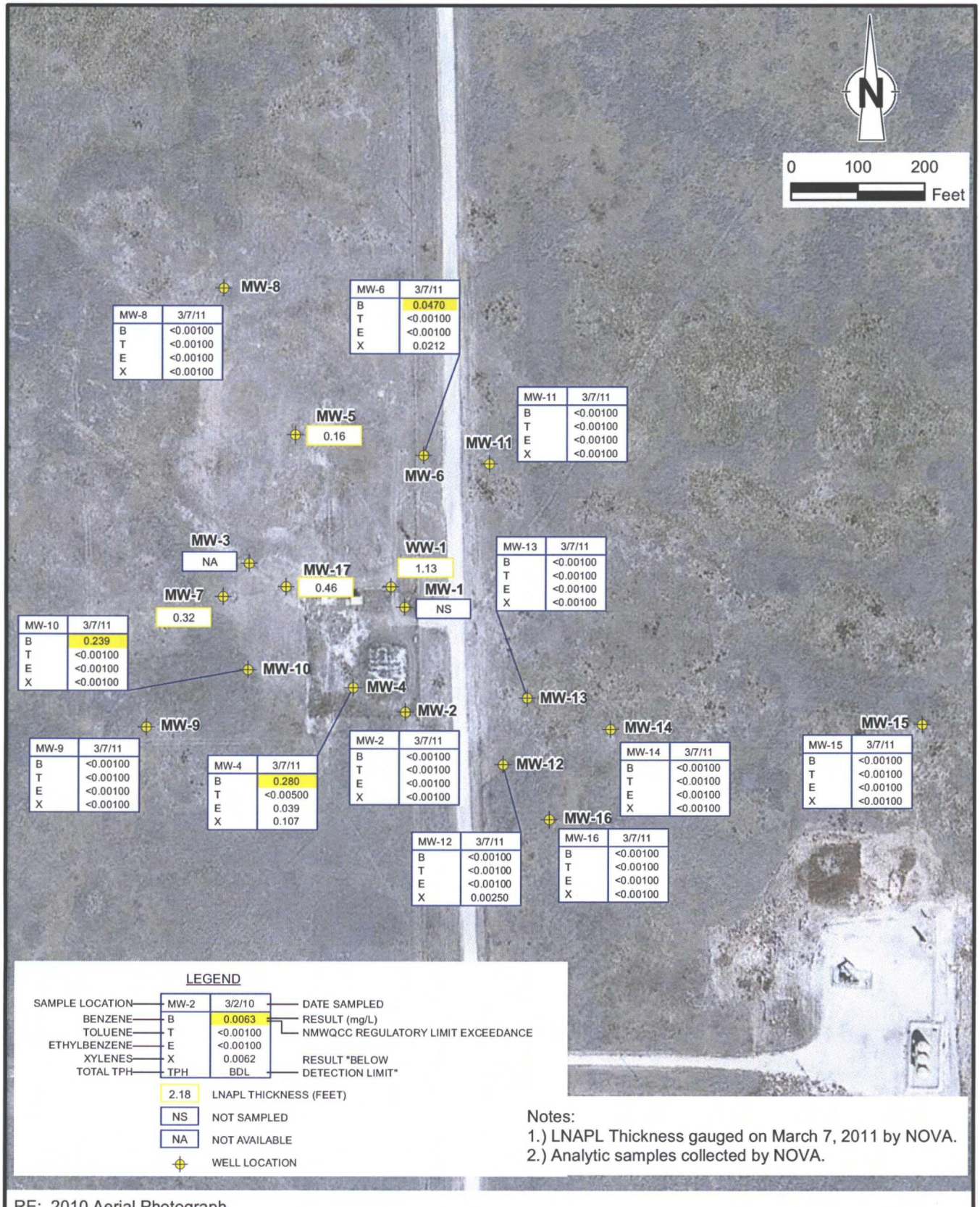


figure 6
GROUNDWATER GRADIENT MAP - DECEMBER 2011
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.

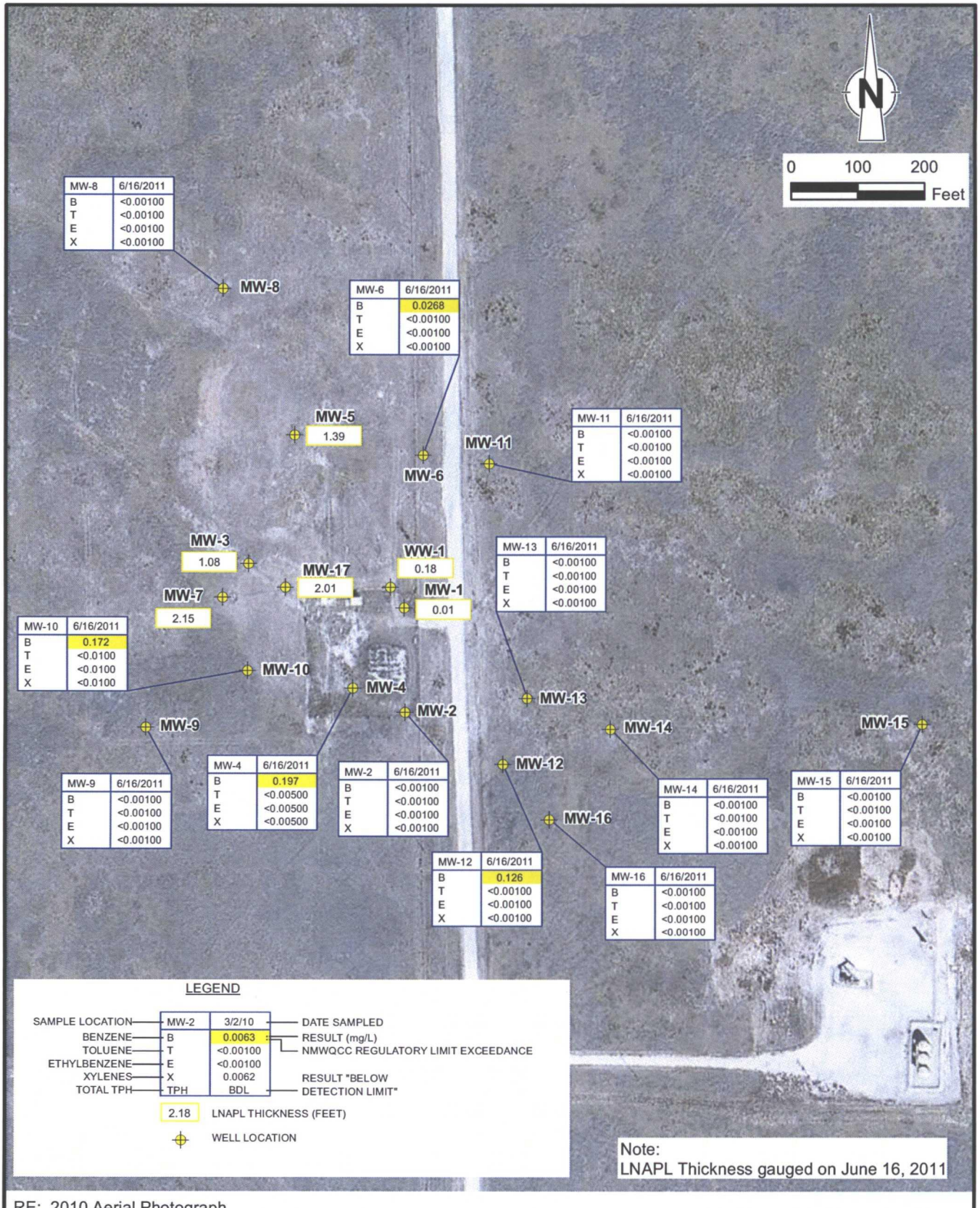
074682-11(002)PR-BR008 Apr 12/2012



RE: 2010 Aerial Photograph

figure 7

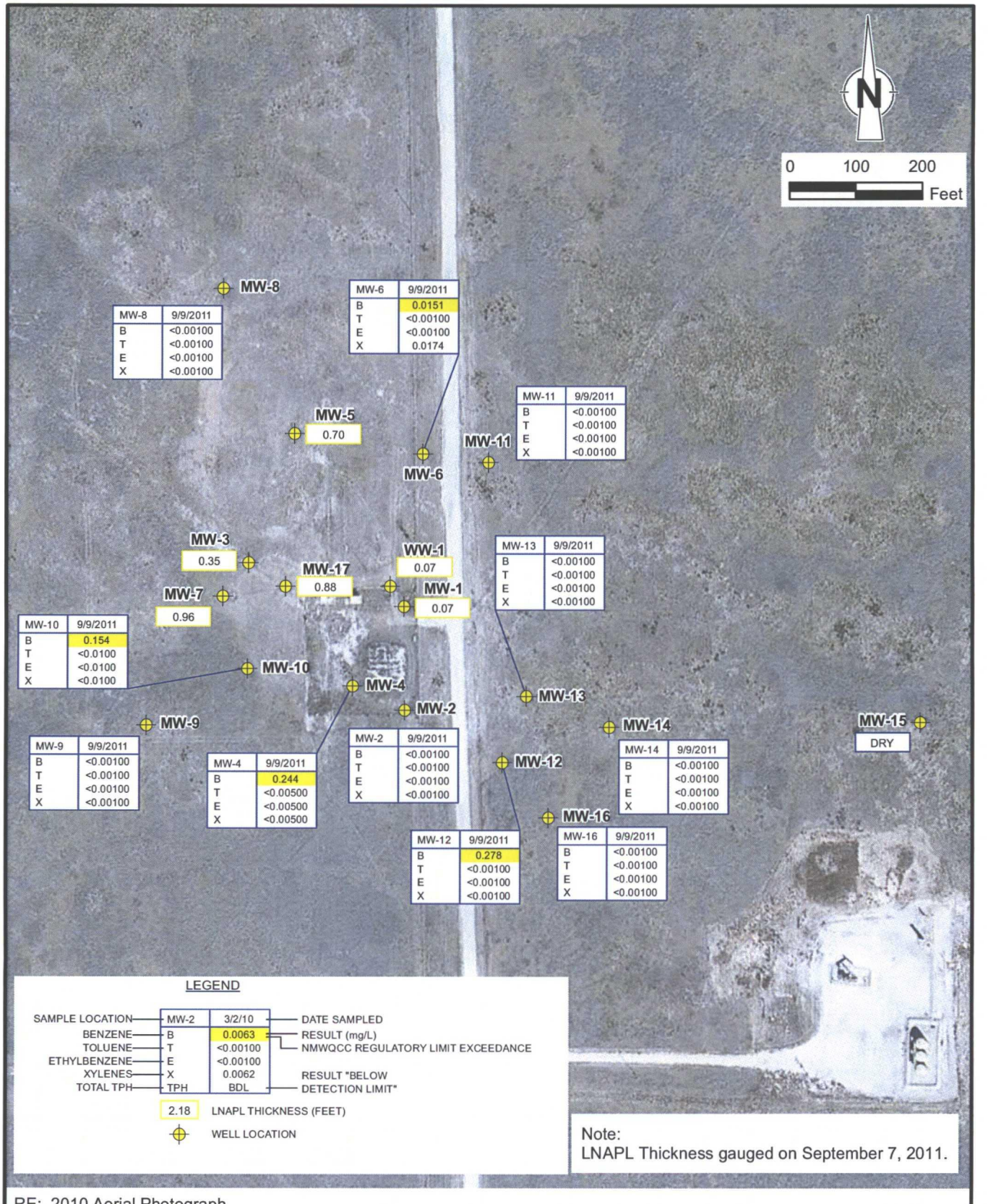
GROUNDWATER BTEX CONCENTRATION MAP - MARCH 2011
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.



RE: 2010 Aerial Photograph

figure 8

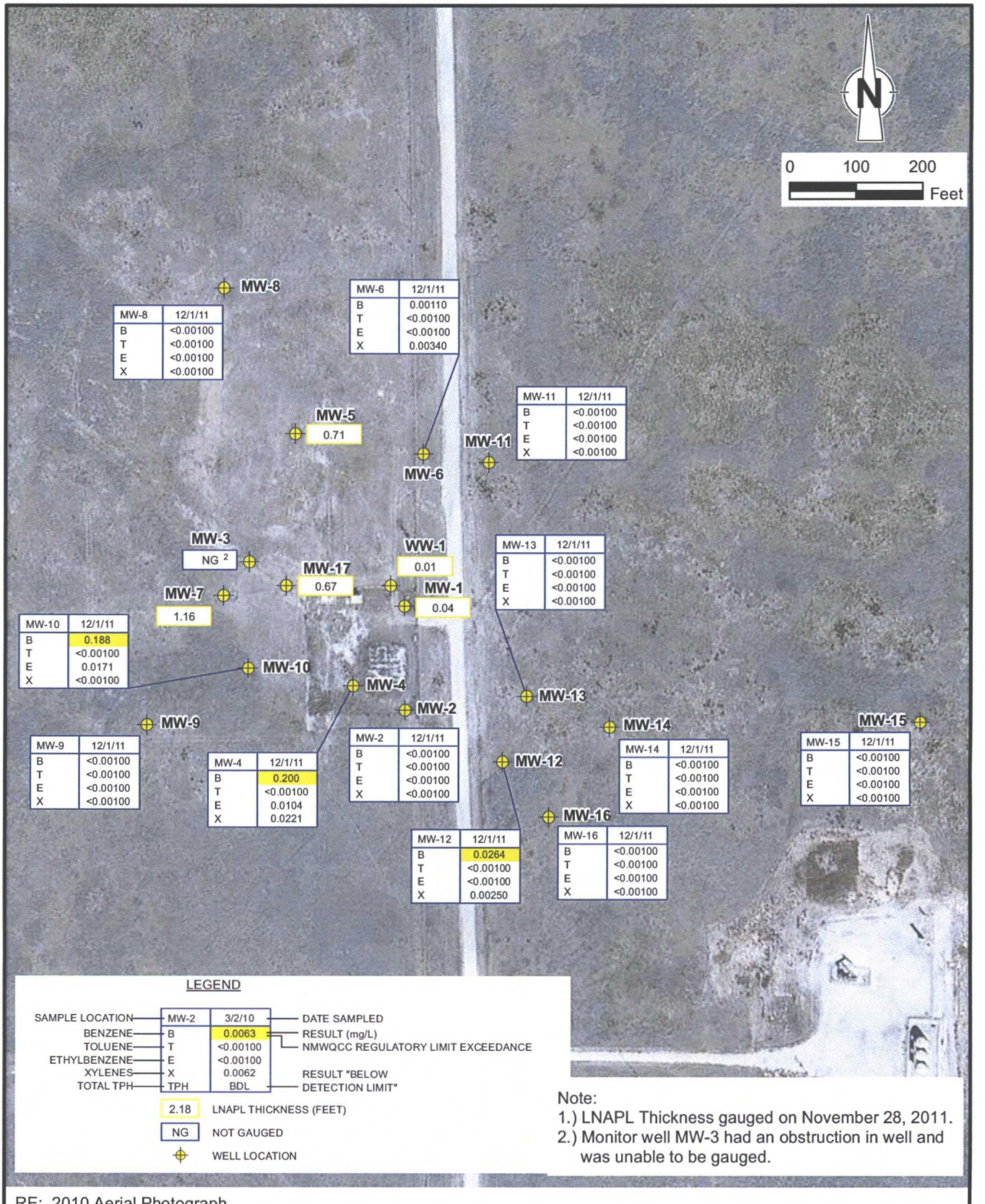
GROUNDWATER BTEX CONCENTRATION MAP - JUNE 2011
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.



RE: 2010 Aerial Photograph

figure 9

GROUNDWATER BTEX CONCENTRATION MAP - SEPTEMBER 2011
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.



RE: 2010 Aerial Photograph

figure 10

GROUNDWATER BTEX CONCENTRATION MAP - DECEMBER 2011
DENTON STATION
LEA COUNTY, NEW MEXICO
Plains Pipeline L.P.

074682-11(002)PR-BR009 Apr 9/2012

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	38.81	63.80	35 - 65
101.96	9/7/11	63.24	63.17	0.07	38.72	64.23	*4*
	11/28/11	63.41	63.37	0.04	38.55	64.75	4
MW-2	6/16/11	61.08	---	---	38.75	62.00	35-65
99.83	9/7/11	61.26	---	---	38.57	62.34	*4*
	11/28/11	61.34	---	---	38.49	62.97	4
MW-3	6/16/11	---	59.22	1.08	NA*	60.30	35 - 65
99.51	9/7/11	60.31	59.96	0.35	39.48	60.92	*4*
	11/28/11	Obstruction In Well					4
MW-4	6/16/11	61.05	---	---	37.20	72.58	35 - 65
98.25	9/7/11	61.20	---	---	37.05	72.63	*4*
	11/28/11	61.32	---	---	36.93	72.41	4
MW-5	6/16/11	62.18	60.79	1.39	39.16	72.20	35 - 65
100.21	9/7/11	61.79	61.09	0.70	38.99	69.83	*4*
	11/28/11	61.91	61.20	0.71	38.88	71.68	4
MW-6	6/16/11	62.76	---	---	37.05	73.61	35 - 65
99.81	9/7/11	62.93	---	---	36.88	74.31	*4*
	11/28/11	63.06	---	---	36.75	73.62	4
MW-7	6/16/11	61.70	59.55	2.15	39.28	67.63	35 - 65
99.24	9/7/11	60.88	59.92	0.96	39.14	67.63	*4*
	11/28/11	61.18	60.02	1.16	39.00	67.6	4
MW-8	6/16/11	61.95	---	---	37.29	74.05	35 - 65
99.24	9/7/11	62.14	---	---	37.10	73.21	*4*
	11/28/11	62.23	---	---	37.01	75.42	4
MW-9	6/16/11	60.95	---	---	37.71	73.30	35 - 65
98.66	9/7/11	61.08	---	---	37.58	73.21	*4*
	11/28/11	61.22	---	---	37.44	73.37	4
MW-10	6/16/11	59.16	---	---	39.04	66.28	35 - 65
98.20	9/7/11	59.32	---	---	38.88	66.13	*2*
	11/28/11	59.54	---	---	38.66	66.26	2
MW-11	6/16/11	60.76	---	---	38.69	62.60	35 - 65
99.45	9/7/11	60.92	---	---	38.53	62.63	*2*
	11/28/11	61.02	---	---	38.43	62.63	2
MW-12	6/16/11	58.43	---	---	38.53	67.18	35 - 65
96.96	9/7/11	58.58	---	---	38.38	67.63	*2*
	11/28/11	58.66	---	---	38.30	67.65	2
MW-13	6/16/11	58.81	---	---	38.71	63.91	35 - 65
97.52	9/7/11	58.97	---	---	38.55	64.32	*2*

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-13 *97.52*	11/28/11	59.10	---	---	38.42	64.01	2
MW-14 *97.41*	6/16/11	59.20	---	---	38.21	63.02	35 - 65
	9/7/11	59.34	---	---	38.07	63.41	2
	11/28/11	59.43	---	---	37.98	63.1	2
MW-15 *98.82*	6/16/11	60.91	---	---	37.91	66.55	35 - 65
	9/7/11		DRY			67.31	2
	11/28/11	61.18	---	---	37.64	66.81	2
MW-16 *96.04*	6/16/11	58.10	---	---	37.94	62.00	35 - 65
	9/7/11	58.29	---	---	37.75	62.13	2
	11/28/11	58.40	---	---	37.64	62.2	2
MW-17	6/16/11	63.11	61.10	2.01	---	75.10	35 - 65
	9/7/11	62.31	61.43	0.88	---	65.43	2
	11/28/11	62.31	61.64	0.67	---	75.15	2
WW-1 *100.16*	6/16/11	61.93	61.75	0.18	38.38	87.72	35 - 65
	9/7/11	62.05	61.98	0.07	38.17	73.45	*8*
	11/28/11	62.11	62.10	0.01	38.06	91.83	*8*

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 II
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 Oil Conservation Division 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
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
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
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
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
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
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
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
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

TABLE II
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 Oil Conservation Division Regulatory Limits		0.01	0.75	0.75	0.62	0.05
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
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
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

Notes:

1. Shaded cells indicate New Mexico Oil Conservation Division 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 III
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
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
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																		
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

TABLE III
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-10 (cont)	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
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																		
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
	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																		

TABLE III
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	Fyrene	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			

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.

TABLE 1

GROUNDWATER ELEVATION DATA

Plains Marketing, L.P.
Denton Station
New Mexico

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 1	01/12/11	101.96	sheen	62.56	0.00	39.40
MW - 1	01/19/11	101.96	sheen	62.86	0.00	39.10
MW - 1	02/23/11	101.96	sheen	62.93	0.00	39.03
MW - 1	03/03/11	101.96	sheen	63.02	0.00	38.94
MW - 1	*03/07/11*	101.96	sheen	60.91	0.00	41.05
MW - 1	03/10/11	101.96	sheen	63.03	0.00	38.93
MW - 1	03/15/11	101.96	sheen	63.07	0.00	38.89
MW - 1	03/17/11	101.96	sheen	63.03	0.00	38.93
MW - 1	03/22/11	101.96	sheen	63.06	0.00	38.90
MW - 1	03/24/11	101.96	sheen	63.03	0.00	38.93
MW - 1	03/29/11	101.96	sheen	63.02	0.00	38.94
MW - 1	04/01/11	101.96	sheen	63.07	0.00	38.89
MW - 1	04/08/11	101.96	sheen	63.06	0.00	38.90
MW - 1	04/12/11	101.96	sheen	63.05	0.00	38.91
MW - 1	04/14/11	101.96	sheen	63.03	0.00	38.93
MW - 2	*03/07/11*	99.83	-	60.67	0.00	39.16
MW - 3	01/12/11	99.51	59.06	ND	#VALUE!	#VALUE!
MW - 3	01/19/11	99.51	59.18	ND	#VALUE!	#VALUE!
MW - 3	02/23/11	99.51	59.13	60.55	1.42	40.17
MW - 3	03/03/11	99.51	59.20	60.30	1.10	40.15
MW - 3	*03/07/11*	99.51	59.20	ND	0.00	#VALUE!
MW - 3	03/10/11	99.51	59.31	60.30	0.99	40.05
MW - 3	03/15/11	99.51	59.30	60.30	1.00	40.06
MW - 3	03/17/11	99.51	59.28	60.30	1.02	40.08
MW - 3	03/22/11	99.51	59.31	60.30	0.99	40.05
MW - 3	03/24/11	99.51	59.25	60.30	1.05	40.10
MW - 3	03/29/11	99.51	59.26	60.30	1.04	40.09
MW - 3	04/01/11	99.51	59.19	60.30	1.11	40.15
MW - 3	04/08/11	99.51	59.20	60.30	1.10	40.15
MW - 3	04/12/11	99.51	59.17	60.30	1.13	40.17
MW - 3	04/14/11	99.51	59.20	60.30	1.10	40.15
MW - 4	01/12/11	98.25	sheen	60.72	0.00	37.53
MW - 4	01/19/11	98.25	-	60.72	0.00	37.53
MW - 4	02/23/11	98.25	-	60.95	0.00	37.30
MW - 4	03/03/11	98.25	sheen	60.91	0.00	37.34
MW - 4	*03/07/11*	98.25	sheen	60.91	0.00	37.34
MW - 4	03/10/11	98.25	sheen	60.93	0.00	37.32
MW - 4	03/15/11	98.25	sheen	60.95	0.00	37.30

TABLE 1

GROUNDWATER ELEVATION DATA

Plains Marketing, L.P.
Denton Station
New Mexico

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 4	03/17/11	98.25	sheen	60.93	0.00	37.32
MW - 4	03/22/11	98.25	sheen	60.96	0.00	37.29
MW - 4	03/24/11	98.25	sheen	60.90	0.00	37.35
MW - 4	03/24/11	98.25	sheen	60.89	0.00	37.36
MW - 4	04/01/11	98.25	sheen	60.98	0.00	37.27
MW - 4	04/08/11	98.25	sheen	60.96	0.00	37.29
MW - 4	04/12/11	98.25	sheen	60.99	0.00	37.26
MW - 4	04/14/11	98.25	sheen	61.02	0.00	37.23
MW - 5	01/12/11	100.21	sheen	60.09	0.00	40.12
MW - 5	01/19/11	100.21	sheen	60.70	0.00	39.51
MW - 5	02/23/11	100.21	61.04	61.38	0.34	39.12
MW - 5	03/03/11	100.21	60.86	61.02	0.16	39.33
MW - 5	*03/07/11*	100.21	60.86	61.02	0.16	39.33
MW - 5	03/10/11	100.21	60.86	61.05	0.19	39.32
MW - 5	03/15/11	100.21	60.90	61.05	0.15	39.29
MW - 5	03/17/11	100.21	60.89	61.00	0.11	39.30
MW - 5	03/22/11	100.21	60.91	61.04	0.13	39.28
MW - 5	03/24/11	100.21	60.80	61.05	0.25	39.37
MW - 5	03/29/11	100.21	60.81	61.00	0.19	39.37
MW - 5	04/01/11	100.21	60.86	61.00	0.14	39.33
MW - 5	04/08/11	100.21	60.85	61.01	0.16	39.34
MW - 5	04/12/11	100.21	60.80	60.99	0.19	39.38
MW - 5	04/14/11	100.21	60.85	61.03	0.18	39.33
MW - 6	01/12/11	99.81	sheen	61.93	0.00	37.88
MW - 6	01/19/11	99.81	sheen	62.45	0.00	37.36
MW - 6	02/23/11	99.81	sheen	62.65	0.00	37.16
MW - 6	03/03/11	99.81	sheen	62.63	0.00	37.18
MW - 6	*03/07/11*	99.81	sheen	62.63	0.00	37.18
MW - 6	03/10/11	99.81	sheen	62.64	0.00	37.17
MW - 6	03/15/11	99.81	sheen	62.67	0.00	37.14
MW - 6	03/17/11	99.81	sheen	62.64	0.00	37.17
MW - 6	03/22/11	99.81	sheen	62.66	0.00	37.15
MW - 6	03/24/11	99.81	sheen	62.60	0.00	37.21
MW - 6	03/29/11	99.81	sheen	62.59	0.00	37.22
MW - 6	04/01/11	99.81	sheen	62.63	0.00	37.18
MW - 6	04/08/11	99.81	sheen	62.60	0.00	37.21
MW - 6	04/12/11	99.81	sheen	62.60	0.00	37.21
MW - 6	04/14/11	99.81	sheen	62.55	0.00	37.26

TABLE 1

GROUNDWATER ELEVATION DATA

Plains Marketing, L.P.
Denton Station
New Mexico

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 7	01/12/11	99.24	59.41	60.17	0.76	39.72
MW - 7	01/19/11	99.24	59.53	59.97	0.44	39.64
MW - 7	02/23/11	99.24	59.56	61.11	1.55	39.45
MW - 7	03/03/11	99.24	59.78	60.10	0.32	39.41
MW - 7	*03/07/11*	99.24	59.78	60.10	0.32	39.41
MW - 7	03/10/11	99.24	59.76	60.08	0.32	39.43
MW - 7	03/15/11	99.24	59.80	60.10	0.30	39.40
MW - 7	03/17/11	99.24	59.80	60.08	0.28	39.40
MW - 7	03/22/11	99.24	59.81	60.09	0.28	39.39
MW - 7	03/24/11	99.24	59.80	60.05	0.25	39.40
MW - 7	03/29/11	99.24	59.85	60.05	0.20	39.36
MW - 7	04/01/11	99.24	59.82	60.10	0.28	39.38
MW - 7	04/08/11	99.24	59.84	60.08	0.24	39.36
MW - 7	04/12/11	99.24	59.86	60.03	0.17	39.35
MW - 7	04/14/11	99.24	59.95	60.05	0.10	39.28
MW - 8	*03/07/11*	99.24	-	61.52	0.00	37.72
MW - 9	*03/07/11*	98.66	-	60.54	0.00	38.12
MW - 10	03/03/11	98.20	sheen	59.04	0.00	39.16
MW - 10	*03/07/11*	98.20	sheen	59.04	0.00	39.16
MW - 10	03/10/11	98.20	sheen	59.05	0.00	39.15
MW - 10	03/15/11	98.20	sheen	59.07	0.00	39.13
MW - 10	03/17/11	98.20	sheen	59.04	0.00	39.16
MW - 10	03/22/11	98.20	sheen	59.06	0.00	39.14
MW - 10	03/24/11	98.20	sheen	59.01	0.00	39.19
MW - 10	03/29/11	98.20	sheen	59.00	0.00	39.20
MW - 10	04/01/11	98.20	sheen	59.04	0.00	39.16
MW - 10	04/08/11	98.20	sheen	59.02	0.00	39.18
MW - 10	04/12/11	98.20	sheen	59.00	0.00	39.20
MW - 10	04/14/11	98.20	sheen	59.02	0.00	39.18
MW - 11	*03/07/11*	99.45	-	60.30	0.00	39.15
MW - 12	*03/07/11*	96.96	-	57.73	0.00	39.23
MW - 13	*03/07/11*	97.52	-	58.36	0.00	39.16
MW - 14	*03/07/11*	97.41	-	58.68	0.00	38.73

TABLE 1

GROUNDWATER ELEVATION DATA

Plains Marketing, L.P.
Denton Station
New Mexico

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 15	*03/07/11*	99.09	-	60.40	0.00	38.69
MW - 16	*03/07/11*	96.04	-	57.71	0.00	38.33
MW - 17	01/12/11	-	61.07	61.59	0.52	-61.15
MW - 17	01/19/11	-	61.02	61.38	0.36	-61.07
MW - 17	02/23/11	-	60.97	62.83	1.86	-61.25
MW - 17	03/03/11	-	61.24	61.70	0.46	-61.31
MW - 17	03/10/11	-	61.25	61.60	0.35	-61.30
MW - 17	03/15/11	-	61.30	61.56	0.26	-61.34
MW - 17	*03/07/11*	-	61.24	61.70	0.46	-61.31
MW - 17	03/17/11	-	61.25	61.55	0.30	-61.30
MW - 17	03/22/11	-	61.30	61.56	0.26	-61.34
MW - 17	03/24/11	-	61.20	61.63	0.43	-61.26
MW - 17	03/29/11	-	61.21	61.58	0.37	-61.27
MW - 17	04/01/11	-	61.25	61.70	0.45	-61.32
MW - 17	04/08/11	-	61.30	61.70	0.40	-61.36
MW - 17	04/12/11	-	61.25	61.62	0.37	-61.31
MW - 17	04/14/11	-	61.20	61.53	0.33	-61.25
WW - 1	01/12/11	100.16	sheen	61.45	0.00	38.71
WW - 1	01/19/11	100.16	sheen	61.44	0.00	38.72
WW - 1	02/23/11	100.16	61.65	61.72	0.07	38.50
WW - 1	03/03/11	100.16	61.60	62.03	0.43	38.50
WW - 1	*03/07/11*	100.16	61.60	62.73	1.13	38.39
WW - 1	03/10/11	100.16	61.61	61.90	0.29	38.51
WW - 1	03/15/11	100.16	61.65	61.85	0.20	38.48
WW - 1	03/17/11	100.16	61.65	61.92	0.27	38.47
WW - 1	03/22/11	100.16	61.65	61.82	0.17	38.48
WW - 1	03/24/11	100.16	61.60	62.05	0.45	38.49
WW - 1	03/29/11	100.16	61.60	62.00	0.40	38.50
WW - 1	04/01/11	100.16	61.61	62.02	0.41	38.49
WW - 1	04/08/11	100.16	61.60	62.00	0.40	38.50
WW - 1	04/12/11	100.16	61.58	62.00	0.42	38.52
WW - 1	04/14/11	100.16	61.60	62.05	0.45	38.49

Elevations based on the North American Vertical Datum of 1929

* denotes change in Top of Casing Elevation due to site resurvey.

TRACEANALYSIS, INC.

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Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Jason Henry
Plains All American Houston

P.O. Box 4648
Houston, Tx, 77210-4648

Report Date: March 15, 2011

Work Order: 11030822

Project Location: New Mexico
Project Name: Denton Station
Project Number: TNM 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
259921	MW-8	water	2011-03-07	10:00	2011-03-08
259922	MW-9	water	2011-03-07	11:00	2011-03-08
259923	MW-13	water	2011-03-07	11:30	2011-03-08
259924	MW-14	water	2011-03-07	12:00	2011-03-08
259925	MW-15	water	2011-03-07	12:30	2011-03-08
259926	MW-16	water	2011-03-07	13:00	2011-03-08
259927	MW-2	water	2011-03-07	14:00	2011-03-08
259928	MW-11	water	2011-03-07	14:30	2011-03-08
259929	MW-12	water	2011-03-07	15:00	2011-03-08

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
259930	MW-6	water	2011-03-07	16:00	2011-03-08
259931	MW-10	water	2011-03-07	16:30	2011-03-08
259932	MW-4	water	2011-03-07	17:30	2011-03-08

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.

Michael Abel

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

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Denton Station were received by TraceAnalysis, Inc. on 2011-03-08 and assigned to work order 11030822. Samples for work order 11030822 were received intact without headspace and at a temperature of 2.0 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	67220	2011-03-11 at 14:52	79235	2011-03-12 at 03:58
BTEX	S 8021B	67229	2011-03-11 at 14:52	79243	2011-03-12 at 22:13

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 11030822 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: 259921 - MW-8

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79235	Date Analyzed:	2011-03-12	Analyzed By:	ME
Prep Batch:	67220	Sample Preparation:	2011-03-11	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.100	mg/L	1	0.100	100	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0960	mg/L	1	0.100	96	51.1 - 128

Sample: 259922 - MW-9

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79235	Date Analyzed:	2011-03-12	Analyzed By:	ME
Prep Batch:	67220	Sample Preparation:	2011-03-11	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0971	mg/L	1	0.100	97	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0899	mg/L	1	0.100	90	51.1 - 128

Sample: 259923 - MW-13

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79235	Date Analyzed:	2011-03-12	Analyzed By:	ME
Prep Batch:	67220	Sample Preparation:	2011-03-11	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.101	mg/L	1	0.100	101	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0916	mg/L	1	0.100	92	51.1 - 128

Sample: 259924 - MW-14

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79235	Date Analyzed:	2011-03-12	Analyzed By:	ME
Prep Batch:	67220	Sample Preparation:	2011-03-11	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0988	mg/L	1	0.100	99	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0834	mg/L	1	0.100	83	51.1 - 128

Sample: 259925 - MW-15

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79235	Date Analyzed:	2011-03-12	Analyzed By:	ME
Prep Batch:	67220	Sample Preparation:	2011-03-11	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0965	mg/L	1	0.100	96	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0816	mg/L	1	0.100	82	51.1 - 128

Sample: 259926 - MW-16

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79235	Date Analyzed:	2011-03-12	Analyzed By:	ME
Prep Batch:	67220	Sample Preparation:	2011-03-11	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0976	mg/L	1	0.100	98	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0914	mg/L	1	0.100	91	51.1 - 128

Sample: 259927 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79243	Date Analyzed:	2011-03-12	Analyzed By:	ME
Prep Batch:	67229	Sample Preparation:	2011-03-11	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0997	mg/L	1	0.100	100	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0983	mg/L	1	0.100	98	51.1 - 128

Sample: 259928 - MW-11

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79243	Date Analyzed:	2011-03-12	Analyzed By:	ME
Prep Batch:	67229	Sample Preparation:	2011-03-11	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0978	mg/L	1	0.100	98	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0840	mg/L	1	0.100	84	51.1 - 128

Sample: 259929 - MW-12

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79243	Date Analyzed:	2011-03-12	Analyzed By:	ME
Prep Batch:	67229	Sample Preparation:	2011-03-11	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0951	mg/L	1	0.100	95	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0793	mg/L	1	0.100	79	51.1 - 128

Sample: 259930 - MW-6

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79243	Date Analyzed:	2011-03-12	Analyzed By:	ME
Prep Batch:	67229	Sample Preparation:	2011-03-11	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**0.0470**	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		**0.0212**	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0963	mg/L	1	0.100	96	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.0813	mg/L	1	0.100	81	51.1 - 128

Sample: 259931 - MW-10

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79243	Date Analyzed:	2011-03-12	Analyzed By:	ME
Prep Batch:	67229	Sample Preparation:	2011-03-11	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**0.239**	mg/L	10	0.00100
Toluene		<0.0100	mg/L	10	0.00100
Ethylbenzene		<0.0100	mg/L	10	0.00100
Xylene		<0.0100	mg/L	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.925	mg/L	10	1.00	92	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.718	mg/L	10	1.00	72	51.1 - 128

Sample: 259932 - MW-4

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79243	Date Analyzed:	2011-03-12	Analyzed By:	ME
Prep Batch:	67229	Sample Preparation:	2011-03-11	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**0.280**	mg/L	5	0.00100
Toluene		<0.00500	mg/L	5	0.00100
Ethylbenzene		**0.0391**	mg/L	5	0.00100
Xylene		**0.107**	mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.390	mg/L	5	0.500	78	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.264	mg/L	5	0.500	53	51.1 - 128

Method Blank (1) QC Batch: 79235

QC Batch: 79235 Date Analyzed: 2011-03-12 Analyzed By: ME
Prep Batch: 67220 QC Preparation: 2011-03-11 Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000400	mg/L	0.001
Toluene		<0.000300	mg/L	0.001
Ethylbenzene		<0.000300	mg/L	0.001
Xylene		<0.000333	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0791	mg/L	1	0.100	79	70.2 - 118
4-Bromofluorobenzene (4-BFB)		0.0886	mg/L	1	0.100	89	47.3 - 116

Method Blank (1) QC Batch: 79243

QC Batch: 79243 Date Analyzed: 2011-03-12 Analyzed By: ME
Prep Batch: 67229 QC Preparation: 2011-03-11 Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000400	mg/L	0.001
Toluene		<0.000300	mg/L	0.001
Ethylbenzene		<0.000300	mg/L	0.001
Xylene		<0.000333	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0882	mg/L	1	0.100	88	70.2 - 118
4-Bromofluorobenzene (4-BFB)		0.0828	mg/L	1	0.100	83	47.3 - 116

Laboratory Control Spike (LCS-1)

QC Batch: 79235 Date Analyzed: 2011-03-12 Analyzed By: ME
Prep Batch: 67220 QC Preparation: 2011-03-11 Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.102	mg/L	1	0.100	<0.000400	102	82.9 - 108
Toluene	0.103	mg/L	1	0.100	<0.000300	103	82.7 - 107
Ethylbenzene	0.101	mg/L	1	0.100	<0.000300	101	78.8 - 106
Xylene	0.306	mg/L	1	0.300	<0.000333	102	79.3 - 106

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.102	mg/L	1	0.100	<0.000400	102	82.9 - 108	0	20
Toluene	0.102	mg/L	1	0.100	<0.000300	102	82.7 - 107	1	20
Ethylbenzene	0.102	mg/L	1	0.100	<0.000300	102	78.8 - 106	1	20
Xylene	0.306	mg/L	1	0.300	<0.000333	102	79.3 - 106	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)	0.0907	0.100	mg/L	1	0.100	91	100	67.3 - 113
4-Bromofluorobenzene (4-BFB)	0.105	0.113	mg/L	1	0.100	105	113	68.2 - 124

Laboratory Control Spike (LCS-1)

QC Batch: 79243 | Date Analyzed: 2011-03-12 | Analyzed By: ME
Prep Batch: 67229 | QC Preparation: 2011-03-11 | Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0930	mg/L	1	0.100	<0.000400	93	82.9 - 108
Toluene	0.0920	mg/L	1	0.100	<0.000300	92	82.7 - 107
Ethylbenzene	0.0876	mg/L	1	0.100	<0.000300	88	78.8 - 106
Xylene	0.266	mg/L	1	0.300	<0.000333	89	79.3 - 106

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.107	mg/L	1	0.100	<0.000400	107	82.9 - 108	14	20
Toluene	0.103	mg/L	1	0.100	<0.000300	103	82.7 - 107	11	20
Ethylbenzene	0.105	mg/L	1	0.100	<0.000300	105	78.8 - 106	18	20
Xylene	0.313	mg/L	1	0.300	<0.000333	104	79.3 - 106	16	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)	0.0868	0.103	mg/L	1	0.100	87	103	67.3 - 113

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	0.0866	0.104	mg/L	1	0.100	87	104	68.2 - 124

Matrix Spike (MS-1) Spiked Sample: 259747

QC Batch: 79235 | Date Analyzed: 2011-03-12 | Analyzed By: ME
Prep Batch: 67220 | QC Preparation: 2011-03-11 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.80	mg/L	10	1.00	0.8487	95	77.9 - 114
Toluene	0.948	mg/L	10	1.00	<0.00300	95	78.3 - 111
Ethylbenzene	0.916	mg/L	10	1.00	<0.00300	92	75.3 - 110
Xylene	2.73	mg/L	10	3.00	0.1985	84	75.7 - 109

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.82	mg/L	10	1.00	0.8487	97	77.9 - 114	1	20
Toluene	0.972	mg/L	10	1.00	<0.00300	97	78.3 - 111	2	20
Ethylbenzene	0.949	mg/L	10	1.00	<0.00300	95	75.3 - 110	4	20
Xylene	2.83	mg/L	10	3.00	0.1985	88	75.7 - 109	4	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)	0.927	0.886	mg/L	10	1	93	89	68.3 - 107
4-Bromofluorobenzene (4-BFB)	0.937	0.898	mg/L	10	1	94	90	60.1 - 135

Matrix Spike (MS-1) Spiked Sample: 259931

QC Batch: 79243 | Date Analyzed: 2011-03-12 | Analyzed By: ME
Prep Batch: 67229 | QC Preparation: 2011-03-11 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.13	mg/L	10	1.00	0.2392	89	77.9 - 114
Toluene	0.918	mg/L	10	1.00	<0.00300	92	78.3 - 111
Ethylbenzene	0.885	mg/L	10	1.00	<0.00300	88	75.3 - 110
Xylene	2.60	mg/L	10	3.00	<0.00333	87	75.7 - 109

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.15	mg/L	10	1.00	0.2392	91	77.9 - 114	2	20
Toluene	0.932	mg/L	10	1.00	<0.00300	93	78.3 - 111	2	20
Ethylbenzene	0.917	mg/L	10	1.00	<0.00300	92	75.3 - 110	4	20
Xylene	2.70	mg/L	10	3.00	<0.00333	90	75.7 - 109	4	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)	0.903	0.912	mg/L	10	1	90	91	68.3 - 107
4-Bromofluorobenzene (4-BFB)	0.787	0.809	mg/L	10	1	79	81	60.1 - 135

Standard (CCV-2)

QC Batch: 79235 Date Analyzed: 2011-03-12 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.100	100	80 - 120	2011-03-12
Toluene		mg/L	0.100	0.0982	98	80 - 120	2011-03-12
Ethylbenzene		mg/L	0.100	0.0932	93	80 - 120	2011-03-12
Xylene		mg/L	0.300	0.279	93	80 - 120	2011-03-12

Standard (CCV-3)

QC Batch: 79235 Date Analyzed: 2011-03-12 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0959	96	80 - 120	2011-03-12
Toluene		mg/L	0.100	0.0945	94	80 - 120	2011-03-12
Ethylbenzene		mg/L	0.100	0.0927	93	80 - 120	2011-03-12
Xylene		mg/L	0.300	0.276	92	80 - 120	2011-03-12

Standard (CCV-1)

QC Batch: 79243 Date Analyzed: 2011-03-12 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0904	90	80 - 120	2011-03-12

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/L	0.100	0.0888	89	80 - 120	2011-03-12
Ethylbenzene		mg/L	0.100	0.0856	86	80 - 120	2011-03-12
Xylene		mg/L	0.300	0.261	87	80 - 120	2011-03-12

Standard (CCV-2)

QC Batch: 79243 Date Analyzed: 2011-03-12 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0916	92	80 - 120	2011-03-12
Toluene		mg/L	0.100	0.0883	88	80 - 120	2011-03-12
Ethylbenzene		mg/L	0.100	0.0846	85	80 - 120	2011-03-12
Xylene		mg/L	0.300	0.246	82	80 - 120	2011-03-12

Standard (CCV-3)

QC Batch: 79243 Date Analyzed: 2011-03-12 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0987	99	80 - 120	2011-03-12
Toluene		mg/L	0.100	0.0975	98	80 - 120	2011-03-12
Ethylbenzene		mg/L	0.100	0.0959	96	80 - 120	2011-03-12
Xylene		mg/L	0.300	0.284	95	80 - 120	2011-03-12

LAB Order ID # 11030822

Page 1 of 2

TraceAnalysis, Inc.

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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: XTO

Phone #: 432-520-7720

Address: (Street, City, Zip) 2057 Commerce Midland TX 79703

Fax #: 432-520-7701

Contact Person: Ross R.

E-mail:

Invoice to: (If different from above)

Project #: 2013-00338

Project Name: Denton Station

Project Location (including state): New Mexico

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
25992	MW-8	3	VOA	X				X				X		3-7	10:00
922	MW-9														11:00
923	MW-13														11:30
924	MW-14														12:00
925	MW-15														12:30
926	MW-16														13:00
927	MW-2														14:00
928	MW-11														14:30
929	MW-12														15:00
930	MW-10														16:00
931	MW-20														16:30

ANALYSIS REQUEST (Circle or Specify Method No.)	Turn Around Time if different from standard	Hold
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, Fl, SO4, NO3, NO2, Alkalinity		
Na, Ca, Mg, K, TDS, EC		

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	XTO	3-8	7:00			3/8/11	0800	INST ___ °C OBS ___ °C COR ___ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
		3/8/11	1236		TA	3/8/11	1236	INST ___ °C OBS 2.6 °C COR 2.0 °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:

* all tests - Midland

- ☐ 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 # 1103022

Page 2 of 2

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: LOVG

Phone #: 432-520-7720

Address: (Street, City, Zip) 2057 Commerce Midland TX 79703

Fax #: 432-520-7701

Contact Person: Ron R

E-mail:

Invoice to: (If different from above)

Project #: 2003-00338

Project Name: Denton Station

Project Location (including state): New Mexico

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, Fl, S04, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC						Turn Around Time if different from standard	Hold
25932	MW-4	3	VOA	X				X				X		3-7	17:30		X																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	LOVG	3-8	7:00			3/8/11	0800	INST ____ °C OBS ____ °C COR ____ °C
		3/8/11	1236		TA	3/8/11	12:36	INST 2.0 °C OBS 2.0 °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 # ____

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

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Summary Report

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

Report Date: June 23, 2011

Work Order: 11061709

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
269674	Dup-4 061611	water	2011-06-16	00:00	2011-06-17
269675	Dup-5 061611	water	2011-06-16	00:00	2011-06-17
269676	MW-15 061611	water	2011-06-16	10:00	2011-06-17
269677	MW-16 061611	water	2011-06-16	10:15	2011-06-17
269678	MW-14 061611	water	2011-06-16	10:30	2011-06-17
269679	MW-12 061611	water	2011-06-16	10:45	2011-06-17
269680	MW-13 061611	water	2011-06-16	11:00	2011-06-17
269681	MW-11 061611	water	2011-06-16	11:10	2011-06-17
269682	MW-2 061611	water	2011-06-16	11:20	2011-06-17
269683	MW-9 061611	water	2011-06-16	11:40	2011-06-17
269684	MW-8 061611	water	2011-06-16	12:00	2011-06-17
269685	MW-6 061611	water	2011-06-16	12:15	2011-06-17
269686	MW-10 061611	water	2011-06-16	12:30	2011-06-17
269687	MW-4 061611	water	2011-06-16	12:45	2011-06-17

	BTEX			
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
269674 - Dup-4 061611	<0.00100	<0.00100	<0.00100	<0.00100
269675 - Dup-5 061611	<0.00100	<0.00100	<0.00100	<0.00100
269676 - MW-15 061611	<0.00100	<0.00100	<0.00100	<0.00100
269677 - MW-16 061611	<0.00100	<0.00100	<0.00100	<0.00100
269678 - MW-14 061611	<0.00100	<0.00100	<0.00100	<0.00100
269679 - MW-12 061611	**0.126**	<0.00100	<0.00100	<0.00100
269680 - MW-13 061611	<0.00100	<0.00100	<0.00100	<0.00100
269681 - MW-11 061611	<0.00100	<0.00100	<0.00100	<0.00100
269682 - MW-2 061611	<0.00100	<0.00100	<0.00100	<0.00100
269683 - MW-9 061611	<0.00100	<0.00100	<0.00100	<0.00100

continued ...

... continued

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
269684 - MW-8 061611	<0.00100	<0.00100	<0.00100	<0.00100
269685 - MW-6 061611	**0.0268**	<0.00100	<0.00100	<0.00100
269686 - MW-10 061611	**0.172**	<0.0100	<0.0100	<0.0100
269687 - MW-4 061611	**0.197**	<0.00500	<0.00500	<0.00500

TRACEANALYSIS, INC.

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5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@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 23, 2011

Work Order: 11061709

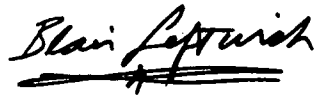
Project Location: Lea Co., NM
Project Name: Darr Angell Denton Station
Project Number: 074682
SRS #: 2003-00338

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
269674	Dup-4 061611	water	2011-06-16	00:00	2011-06-17
269675	Dup-5 061611	water	2011-06-16	00:00	2011-06-17
269676	MW-15 061611	water	2011-06-16	10:00	2011-06-17
269677	MW-16 061611	water	2011-06-16	10:15	2011-06-17
269678	MW-14 061611	water	2011-06-16	10:30	2011-06-17
269679	MW-12 061611	water	2011-06-16	10:45	2011-06-17
269680	MW-13 061611	water	2011-06-16	11:00	2011-06-17
269681	MW-11 061611	water	2011-06-16	11:10	2011-06-17
269682	MW-2 061611	water	2011-06-16	11:20	2011-06-17
269683	MW-9 061611	water	2011-06-16	11:40	2011-06-17
269684	MW-8 061611	water	2011-06-16	12:00	2011-06-17
269685	MW-6 061611	water	2011-06-16	12:15	2011-06-17
269686	MW-10 061611	water	2011-06-16	12:30	2011-06-17
269687	MW-4 061611	water	2011-06-16	12:45	2011-06-17

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

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



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

Report Contents

Case Narrative

Samples for project Darr Angell Denton Station were received by TraceAnalysis, Inc. on 2011-06-17 and assigned to work order 11061709. Samples for work order 11061709 were received intact without headspace and at a temperature of 3.7 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	69967	2011-06-21 at 10:35	82395	2011-06-21 at 10:35
BTEX	S 8021B	69993	2011-06-22 at 08:33	82424	2011-06-22 at 08:33

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 11061709 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: 269674 - Dup-4 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82395	Date Analyzed:	2011-06-21	Analyzed By:	ME
Prep Batch:	69967	Sample Preparation:	2011-06-21	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	<0.00100	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		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	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0875	mg/L	1	0.100	88	51.1 - 128

Sample: 269675 - Dup-5 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82395	Date Analyzed:	2011-06-21	Analyzed By:	ME
Prep Batch:	69967	Sample Preparation:	2011-06-21	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0879	mg/L	1	0.100	88	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0836	mg/L	1	0.100	84	51.1 - 128

Sample: 269676 - MW-15 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82395	Date Analyzed:	2011-06-21	Analyzed By:	ME
Prep Batch:	69967	Sample Preparation:	2011-06-21	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0903	mg/L	1	0.100	90	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0860	mg/L	1	0.100	86	51.1 - 128

Sample: 269677 - MW-16 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82395	Date Analyzed:	2011-06-21	Analyzed By:	ME
Prep Batch:	69967	Sample Preparation:	2011-06-21	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0776	mg/L	1	0.100	78	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0782	mg/L	1	0.100	78	51.1 - 128

Sample: 269678 - MW-14 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82395	Date Analyzed:	2011-06-21	Analyzed By:	ME
Prep Batch:	69967	Sample Preparation:	2011-06-21	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0922	mg/L	1	0.100	92	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0857	mg/L	1	0.100	86	51.1 - 128

Sample: 269679 - MW-12 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82395	Date Analyzed:	2011-06-21	Analyzed By:	ME
Prep Batch:	69967	Sample Preparation:	2011-06-21	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0934	mg/L	1	0.100	93	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0921	mg/L	1	0.100	92	51.1 - 128

Sample: 269680 - MW-13 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82395	Date Analyzed:	2011-06-21	Analyzed By:	ME
Prep Batch:	69967	Sample Preparation:	2011-06-21	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0847	mg/L	1	0.100	85	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0826	mg/L	1	0.100	83	51.1 - 128

Sample: 269681 - MW-11 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82395	Date Analyzed:	2011-06-21	Analyzed By:	ME
Prep Batch:	69967	Sample Preparation:	2011-06-21	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0903	mg/L	1	0.100	90	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0853	mg/L	1	0.100	85	51.1 - 128

Sample: 269682 - MW-2 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82395	Date Analyzed:	2011-06-21	Analyzed By:	ME
Prep Batch:	69967	Sample Preparation:	2011-06-21	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0770	mg/L	1	0.100	77	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0772	mg/L	1	0.100	77	51.1 - 128

Sample: 269683 - MW-9 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82395	Date Analyzed:	2011-06-21	Analyzed By:	ME
Prep Batch:	69967	Sample Preparation:	2011-06-21	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	<0.00100	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		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	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0904	mg/L	1	0.100	90	51.1 - 128

Sample: 269684 - MW-8 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82424	Date Analyzed:	2011-06-22	Analyzed By:	ME
Prep Batch:	69993	Sample Preparation:	2011-06-22	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0860	mg/L	1	0.100	86	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0766	mg/L	1	0.100	77	51.1 - 128

Sample: 269685 - MW-6 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82424	Date Analyzed:	2011-06-22	Analyzed By:	ME
Prep Batch:	69993	Sample Preparation:	2011-06-22	Prepared By:	ME

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.0268**	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0927	mg/L	1	0.100	93	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0856	mg/L	1	0.100	86	51.1 - 128

Sample: 269686 - MW-10 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82424	Date Analyzed:	2011-06-22	Analyzed By:	ME
Prep Batch:	69993	Sample Preparation:	2011-06-22	Prepared By:	ME

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.172**	mg/L	10	0.00100
Toluene		1	<0.0100	mg/L	10	0.00100
Ethylbenzene		1	<0.0100	mg/L	10	0.00100
Xylene		1	<0.0100	mg/L	10	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.912	mg/L	10	1.00	91	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.856	mg/L	10	1.00	86	51.1 - 128

Sample: 269687 - MW-4 061611

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82424	Date Analyzed:	2011-06-22	Analyzed By:	ME
Prep Batch:	69993	Sample Preparation:	2011-06-22	Prepared By:	ME

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.197**	mg/L	5	0.00100
Toluene		1	<0.00500	mg/L	5	0.00100
Ethylbenzene		1	<0.00500	mg/L	5	0.00100
Xylene		1	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.430	mg/L	5	0.500	86	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.406	mg/L	5	0.500	81	51.1 - 128

Method Blanks

Method Blank (1) QC Batch: 82395

QC Batch: 82395 | Date Analyzed: 2011-06-21 | Analyzed By: ME
Prep Batch: 69967 | QC Preparation: 2011-06-21 | Prepared By: ME

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0767	mg/L	1	0.100	77	70.2 - 118
4-Bromofluorobenzene (4-BFB)			0.0747	mg/L	1	0.100	75	47.3 - 116

Method Blank (1) QC Batch: 82424

QC Batch: 82424 | Date Analyzed: 2011-06-22 | Analyzed By: ME
Prep Batch: 69993 | QC Preparation: 2011-06-22 | Prepared By: ME

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0898	mg/L	1	0.100	90	70.2 - 118
4-Bromofluorobenzene (4-BFB)			0.0782	mg/L	1	0.100	78	47.3 - 116

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 82395 | Date Analyzed: 2011-06-21 | Analyzed By: ME
Prep Batch: 69967 | QC Preparation: 2011-06-21 | Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.103	mg/L	1	0.100	<0.000400	103	76.8 - 110
Toluene		1	0.108	mg/L	1	0.100	<0.000300	108	81 - 118
Ethylbenzene		1	0.0868	mg/L	1	0.100	<0.000300	87	78.8 - 118
Xylene		1	0.271	mg/L	1	0.300	<0.000333	90	80.3 - 119

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	0.103	mg/L	1	0.100	<0.000400	103	76.8 - 110	0	20
Toluene		1	0.109	mg/L	1	0.100	<0.000300	109	81 - 118	1	20
Ethylbenzene		1	0.0897	mg/L	1	0.100	<0.000300	90	78.8 - 118	3	20
Xylene		1	0.274	mg/L	1	0.300	<0.000333	91	80.3 - 119	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)	0.0762	0.0789	mg/L	1	0.100	76	79	66.6 - 114
4-Bromofluorobenzene (4-BFB)	0.0810	0.0839	mg/L	1	0.100	81	84	68.2 - 124

Laboratory Control Spike (LCS-1)

QC Batch: 82424 | Date Analyzed: 2011-06-22 | Analyzed By: ME
Prep Batch: 69993 | QC Preparation: 2011-06-22 | Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0999	mg/L	1	0.100	<0.000400	100	76.8 - 110
Toluene		1	0.107	mg/L	1	0.100	<0.000300	107	81 - 118
Ethylbenzene		1	0.0906	mg/L	1	0.100	<0.000300	91	78.8 - 118
Xylene		1	0.270	mg/L	1	0.300	<0.000333	90	80.3 - 119

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	0.106	mg/L	1	0.100	<0.000400	106	76.8 - 110	6	20
Toluene		1	0.115	mg/L	1	0.100	<0.000300	115	81 - 118	7	20
Ethylbenzene		1	0.0981	mg/L	1	0.100	<0.000300	98	78.8 - 118	8	20
Xylene		1	0.292	mg/L	1	0.300	<0.000333	97	80.3 - 119	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)	0.0918	0.0901	mg/L	1	0.100	92	90	66.6 - 114
4-Bromofluorobenzene (4-BFB)	0.0877	0.0873	mg/L	1	0.100	88	87	68.2 - 124

Matrix Spike (MS-1) Spiked Sample: 269683

QC Batch: 82395 | Date Analyzed: 2011-06-21 | Analyzed By: ME
Prep Batch: 69967 | QC Preparation: 2011-06-21 | Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.110	mg/L	1	0.100	<0.000400	110	77.9 - 114
Toluene		1	0.116	mg/L	1	0.100	<0.000300	116	78.3 - 111
Ethylbenzene		1	0.0963	mg/L	1	0.100	<0.000300	96	75.3 - 110
Xylene		1	0.287	mg/L	1	0.300	<0.000333	96	75.7 - 109

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	0.112	mg/L	1	0.100	<0.000400	112	77.9 - 114	2	20
Toluene		1	0.118	mg/L	1	0.100	<0.000300	118	78.3 - 111	2	20
Ethylbenzene		1	0.0985	mg/L	1	0.100	<0.000300	98	75.3 - 110	2	20
Xylene		1	0.295	mg/L	1	0.300	<0.000333	98	75.7 - 109	3	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)	0.0889	0.0889	mg/L	1	0.1	89	89	68.3 - 107
4-Bromofluorobenzene (4-BFB)	0.0918	0.0906	mg/L	1	0.1	92	91	60.1 - 135

Matrix Spike (MS-1) Spiked Sample: 269706

QC Batch: 82424 | Date Analyzed: 2011-06-22 | Analyzed By: ME
Prep Batch: 69993 | QC Preparation: 2011-06-22 | Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	6.05	mg/L	50	5.00	1.3048	95	77.9 - 114
Toluene		1	5.43	mg/L	50	5.00	<0.0150	109	78.3 - 111
Ethylbenzene		1	4.55	mg/L	50	5.00	<0.0150	91	75.3 - 110
Xylene		1	13.7	mg/L	50	15.0	<0.0166	91	75.7 - 109

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	6.00	mg/L	50	5.00	1.3048	94	77.9 - 114	1	20
Toluene		1	5.42	mg/L	50	5.00	<0.0150	108	78.3 - 111	0	20
Ethylbenzene		1	4.68	mg/L	50	5.00	<0.0150	94	75.3 - 110	3	20
Xylene		1	13.9	mg/L	50	15.0	<0.0166	93	75.7 - 109	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)	4.52	4.35	mg/L	50	5	90	87	68.3 - 107
4-Bromofluorobenzene (4-BFB)	4.46	4.22	mg/L	50	5	89	84	60.1 - 135

Calibration Standards

Standard (CCV-1)

QC Batch: 82395 | Date Analyzed: 2011-06-21 | Analyzed By: ME

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	2011-06-21
Toluene		1	mg/L	0.100	0.110	110	80 - 120	2011-06-21
Ethylbenzene		1	mg/L	0.100	0.0899	90	80 - 120	2011-06-21
Xylene		1	mg/L	0.300	0.277	92	80 - 120	2011-06-21

Standard (CCV-2)

QC Batch: 82395 | Date Analyzed: 2011-06-21 | Analyzed By: ME

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	2011-06-21
Toluene		1	mg/L	0.100	0.112	112	80 - 120	2011-06-21
Ethylbenzene		1	mg/L	0.100	0.0907	91	80 - 120	2011-06-21
Xylene		1	mg/L	0.300	0.279	93	80 - 120	2011-06-21

Standard (CCV-1)

QC Batch: 82424 | Date Analyzed: 2011-06-22 | Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.102	102	80 - 120	2011-06-22
Toluene		1	mg/L	0.100	0.108	108	80 - 120	2011-06-22
Ethylbenzene		1	mg/L	0.100	0.0910	91	80 - 120	2011-06-22
Xylene		1	mg/L	0.300	0.270	90	80 - 120	2011-06-22

Standard (CCV-2)

QC Batch: 82424 | Date Analyzed: 2011-06-22 | Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.108	108	80 - 120	2011-06-22
Toluene		1	mg/L	0.100	0.114	114	80 - 120	2011-06-22
Ethylbenzene		1	mg/L	0.100	0.0958	96	80 - 120	2011-06-22
Xylene		1	mg/L	0.300	0.287	96	80 - 120	2011-06-22

Standard (CCV-3)

QC Batch: 82424 | Date Analyzed: 2011-06-22 | Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.105	105	80 - 120	2011-06-22
Toluene		1	mg/L	0.100	0.112	112	80 - 120	2011-06-22
Ethylbenzene		1	mg/L	0.100	0.0950	95	80 - 120	2011-06-22
Xylene		1	mg/L	0.300	0.283	94	80 - 120	2011-06-22

Appendix

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	T104704392-10-TX	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.
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 # 11061709

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 West Midland, TX
Fax #: 686-0186
Contact Person: Todd Wells
E-mail: Twells@CRAworld.com
Invoice to: (If different from above) Jason Henry - Plains SRS # 2003-00338
Project #: 074682
Project Name: Darr Angell 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, Fl, S04, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC							Turn Around Time if different from standard	Hold
26974	Dup-4 061611	3		✓				✓						6-16-11	60		✓																									
675	Dup-5 061611	3		✓				✓						6-16-11	60		✓																									
676	MW-15 061611	3		✓				✓						6-16-11	1000		✓																									
677	MW-16 061611	3		✓				✓						6-16-11	1015		✓																									
678	MW-14 061611	3		✓				✓						6-16-11	1030		✓																									
679	MW-12 061611	3		✓				✓						6-16-11	1045		✓																									
680	MW-13 061611	3		✓				✓						6-16-11	1100		✓																									
681	MW-11 061611	3		✓				✓						6-16-11	1110		✓																									
682	MW-2 061611	3		✓				✓						6-16-11	1120		✓																									
683	MW-9 061611	3		✓				✓						6-16-11	1140		✓																									
684	MW-8 061611	3		✓				✓						6-16-11	1200		✓																									

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Todd Wells	CRA	6-17-11	0910		TA	6-17-11	9:10	INST ____ OBS 3.7 °C COR 3.7 °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C

LAB USE ONLY
Intact Y N
Headspace Y N NA
Log-In-Review

REMARKS:
* All tests Midland

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

Carrier # carry in

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

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LAB Order ID # 1106170 9

Page 2 of 2

TraceAnalysis, Inc.

CRA 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
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2501 Mayes Rd., Ste 100
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Tel (972) 242-7750

Company Name: CRA
Phone #: 432-686-0086
Address: (Street, City, Zip) 2135 S. Loop 250 West Midland, TX
Fax #: 686-0186
Contact Person: Todd Wells
E-mail: TWells@CRAworld.com
Invoice to: (If different from above) Jason Henry - Plains SRS # 2003-0038
Project #: 074682
Project Name: Dorr Angell 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
269685	MW-6 061611	3		✓				✓						6-16-11	1215
686	MW-10 061611	3		✓				✓						6-16-11	1230
687	MW-4 061611	3		✓				✓						6-16-11	1245
	[redacted]														

LAB # (LAB USE ONLY)	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, Fl, SO4, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
269685		✓																							
686		✓																							
687		✓																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Todd Wells	CRA	6/17/11	0910	[signature]	TA	6-17-11	9:10	INST ____ OBS 3.7 °C COR 3.7 °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C

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

REMARKS: * All tests Midland

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

Carrier # Courier

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

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Summary Report

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

Report Date: September 13, 2011

Work Order: 11090925

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
276717	DUP-1 090911	water	2011-09-09	00:00	2011-09-09
276718	MW-2 090911	water	2011-09-09	10:45	2011-09-09
276719	MW-4 090911	water	2011-09-09	11:35	2011-09-09
276720	MW-6 090911	water	2011-09-09	11:15	2011-09-09
276721	MW-8 090911	water	2011-09-09	11:05	2011-09-09
276722	MW-9 090911	water	2011-09-09	10:55	2011-09-09
276723	MW-10 090911	water	2011-09-09	11:25	2011-09-09
276724	MW-11 090911	water	2011-09-09	10:35	2011-09-09
276725	MW-12 090911	water	2011-09-09	10:15	2011-09-09
276726	MW-13 090911	water	2011-09-09	10:25	2011-09-09
276727	MW-14 090911	water	2011-09-09	10:05	2011-09-09
276728	MW-16 090911	water	2011-09-09	09:55	2011-09-09

	BTEX			
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
276717 - DUP-1 090911	**0.260**	<0.00100	<0.00100	<0.00100
276718 - MW-2 090911	<0.00100	<0.00100	<0.00100	<0.00100
276719 - MW-4 090911	**0.244**	<0.00500	<0.00500	<0.00500
276720 - MW-6 090911	**0.0151**	<0.00100	<0.00100	**0.0174**
276721 - MW-8 090911	<0.00100	<0.00100	<0.00100	<0.00100
276722 - MW-9 090911	<0.00100	<0.00100	<0.00100	<0.00100
276723 - MW-10 090911	**0.154**	<0.0100	<0.0100	<0.0100
276724 - MW-11 090911	<0.00100	<0.00100	<0.00100	<0.00100
276725 - MW-12 090911	**0.278**	<0.00100	<0.00100	<0.00100
276726 - MW-13 090911	<0.00100	<0.00100	<0.00100	<0.00100
276727 - MW-14 090911	<0.00100	<0.00100	<0.00100	<0.00100
276728 - MW-16 090911	<0.00100	<0.00100	<0.00100	<0.00100

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 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@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, 2011

Work Order: 11090925

Project Location: Lea Co., NM
Project Name: Darr Angell 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
276717	DUP-1 090911	water	2011-09-09	00:00	2011-09-09
276718	MW-2 090911	water	2011-09-09	10:45	2011-09-09
276719	MW-4 090911	water	2011-09-09	11:35	2011-09-09
276720	MW-6 090911	water	2011-09-09	11:15	2011-09-09
276721	MW-8 090911	water	2011-09-09	11:05	2011-09-09
276722	MW-9 090911	water	2011-09-09	10:55	2011-09-09
276723	MW-10 090911	water	2011-09-09	11:25	2011-09-09
276724	MW-11 090911	water	2011-09-09	10:35	2011-09-09
276725	MW-12 090911	water	2011-09-09	10:15	2011-09-09
276726	MW-13 090911	water	2011-09-09	10:25	2011-09-09
276727	MW-14 090911	water	2011-09-09	10:05	2011-09-09
276728	MW-16 090911	water	2011-09-09	09:55	2011-09-09

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

Report Contents

Case Narrative

Samples for project Darr Angell Denton Station were received by TraceAnalysis, Inc. on 2011-09-09 and assigned to work order 11090925. Samples for work order 11090925 were received intact without headspace and at a temperature of 4.0 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	71844	2011-09-09 at 16:30	84610	2011-09-09 at 17:45
BTEX	S 8021B	71868	2011-09-12 at 08:00	84644	2011-09-12 at 08:37

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 11090925 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: 276717 - DUP-1 090911

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	84610	Date Analyzed:	2011-09-09	Analyzed By:	AG
Prep Batch:	71844	Sample Preparation:	2011-09-09	Prepared By:	AG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.260**	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)			0.0987	mg/L	1	0.100	99	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0791	mg/L	1	0.100	79	67.5 - 140.8

Sample: 276718 - MW-2 090911

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	84644	Date Analyzed:	2011-09-12	Analyzed By:	AG
Prep Batch:	71868	Sample Preparation:	2011-09-12	Prepared By:	AG

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)	Qsr		0.131	mg/L	1	0.100	131	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	67.5 - 140.8

Sample: 276719 - MW-4 090911

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	84610	Date Analyzed:	2011-09-09	Analyzed By:	AG
Prep Batch:	71844	Sample Preparation:	2011-09-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.244**	mg/L	5	0.00100
Toluene	U	1	<0.00500	mg/L	5	0.00100
Ethylbenzene	U	1	<0.00500	mg/L	5	0.00100
Xylene	U	1	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.458	mg/L	5	0.500	92	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.354	mg/L	5	0.500	71	67.5 - 140.8

Sample: 276720 - MW-6 090911

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	84610	Date Analyzed:	2011-09-09	Analyzed By:	AG
Prep Batch:	71844	Sample Preparation:	2011-09-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.0151**	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		1	**0.0174**	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	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0753	mg/L	1	0.100	75	67.5 - 140.8

Sample: 276721 - MW-8 090911

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	84610	Date Analyzed:	2011-09-09	Analyzed By:	AG
Prep Batch:	71844	Sample Preparation:	2011-09-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	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	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0784	mg/L	1	0.100	78	67.5 - 140.8

Sample: 276722 - MW-9 090911

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	84610	Date Analyzed:	2011-09-09	Analyzed By:	AG
Prep Batch:	71844	Sample Preparation:	2011-09-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	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	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0800	mg/L	1	0.100	80	67.5 - 140.8

Sample: 276723 - MW-10 090911

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	84610	Date Analyzed:	2011-09-09	Analyzed By:	AG
Prep Batch:	71844	Sample Preparation:	2011-09-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.154**	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)			0.978	mg/L	10	1.00	98	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.737	mg/L	10	1.00	74	67.5 - 140.8

Sample: 276724 - MW-11 090911

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	84610	Date Analyzed:	2011-09-09	Analyzed By:	AG
Prep Batch:	71844	Sample Preparation:	2011-09-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	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	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0767	mg/L	1	0.100	77	67.5 - 140.8

Sample: 276725 - MW-12 090911

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	84610	Date Analyzed:	2011-09-09	Analyzed By:	AG
Prep Batch:	71844	Sample Preparation:	2011-09-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.278**	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)			0.0990	mg/L	1	0.100	99	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0768	mg/L	1	0.100	77	67.5 - 140.8

Sample: 276726 - MW-13 090911

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	84610	Date Analyzed:	2011-09-09	Analyzed By:	AG
Prep Batch:	71844	Sample Preparation:	2011-09-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	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	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0712	mg/L	1	0.100	71	67.5 - 140.8

Sample: 276727 - MW-14 090911

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	84610	Date Analyzed:	2011-09-09	Analyzed By:	AG
Prep Batch:	71844	Sample Preparation:	2011-09-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	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	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0730	mg/L	1	0.100	73	67.5 - 140.8

Sample: 276728 - MW-16 090911

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	84610	Date Analyzed:	2011-09-09	Analyzed By:	AG
Prep Batch:	71844	Sample Preparation:	2011-09-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	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	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0750	mg/L	1	0.100	75	67.5 - 140.8

Method Blanks

Method Blank (1) QC Batch: 84610

QC Batch: 84610 | Date Analyzed: 2011-09-09 | Analyzed By: AG
Prep Batch: 71844 | QC Preparation: 2011-09-09 | Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0870	mg/L	1	0.100	87	45.9 - 126.4

Method Blank (1) QC Batch: 84644

QC Batch: 84644 | Date Analyzed: 2011-09-12 | Analyzed By: AG
Prep Batch: 71868 | QC Preparation: 2011-09-12 | Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.109	mg/L	1	0.100	109	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0907	mg/L	1	0.100	91	45.9 - 126.4

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 84610 | Date Analyzed: 2011-09-09 | Analyzed By: AG
Prep Batch: 71844 | QC Preparation: 2011-09-09 | Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0998	mg/L	1	0.100	<0.000400	100	76.8 - 110.3
Toluene		1	0.102	mg/L	1	0.100	<0.000300	102	90.9 - 122.2
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000300	101	72.7 - 120.2
Xylene		1	0.300	mg/L	1	0.300	<0.000333	100	72.1 - 121.5

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	0.0967	mg/L	1	0.100	<0.000400	97	76.8 - 110.3	3	20
Toluene		1	0.0984	mg/L	1	0.100	<0.000300	98	90.9 - 122.2	4	20
Ethylbenzene		1	0.0980	mg/L	1	0.100	<0.000300	98	72.7 - 120.2	3	20
Xylene		1	0.291	mg/L	1	0.300	<0.000333	97	72.1 - 121.5	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)	0.103	0.104	mg/L	1	0.100	103	104	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0983	0.0964	mg/L	1	0.100	98	96	56.4 - 127.9

Laboratory Control Spike (LCS-1)

QC Batch: 84644 | Date Analyzed: 2011-09-12 | Analyzed By: AG
Prep Batch: 71868 | QC Preparation: 2011-09-12 | Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.101	mg/L	1	0.100	<0.000400	101	76.8 - 110.3
Toluene		1	0.102	mg/L	1	0.100	<0.000300	102	90.9 - 122.2
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000300	101	72.7 - 120.2
Xylene		1	0.301	mg/L	1	0.300	<0.000333	100	72.1 - 121.5

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	0.105	mg/L	1	0.100	<0.000400	105	76.8 - 110.3	4	20
Toluene		1	0.107	mg/L	1	0.100	<0.000300	107	90.9 - 122.2	5	20
Ethylbenzene		1	0.105	mg/L	1	0.100	<0.000300	105	72.7 - 120.2	4	20
Xylene		1	0.315	mg/L	1	0.300	<0.000333	105	72.1 - 121.5	4	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)	0.109	0.107	mg/L	1	0.100	109	107	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0992	0.100	mg/L	1	0.100	99	100	56.4 - 127.9

Matrix Spike (MS-1) Spiked Sample: 276716

QC Batch: 84610 | Date Analyzed: 2011-09-09 | Analyzed By: AG
Prep Batch: 71844 | QC Preparation: 2011-09-09 | Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	4.61	mg/L	50	5.00	<0.0200	92	66.9 - 128.2
Toluene		1	4.57	mg/L	50	5.00	<0.0150	91	81.6 - 122.9
Ethylbenzene		1	4.42	mg/L	50	5.00	<0.0150	88	62.7 - 117.9
Xylene		1	12.9	mg/L	50	15.0	<0.0166	86	62.9 - 118.2

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	4.60	mg/L	50	5.00	<0.0200	92	66.9 - 128.2	0	20
Toluene		1	4.58	mg/L	50	5.00	<0.0150	92	81.6 - 122.9	0	20
Ethylbenzene		1	4.46	mg/L	50	5.00	<0.0150	89	62.7 - 117.9	1	20
Xylene		1	13.1	mg/L	50	15.0	<0.0166	87	62.9 - 118.2	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	4.72	4.64	mg/L	50	5	94	93	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	3.98	3.87	mg/L	50	5	80	77	52.2 - 135.8

Matrix Spike (MS-1) Spiked Sample: 276740

QC Batch: 84644 | Date Analyzed: 2011-09-12 | Analyzed By: AG
Prep Batch: 71868 | QC Preparation: 2011-09-12 | Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	6.66	mg/L	50	5.00	1.5923	101	66.9 - 128.2
Toluene		1	5.14	mg/L	50	5.00	0.3113	96	81.6 - 122.9
Ethylbenzene		1	4.94	mg/L	50	5.00	0.28	93	62.7 - 117.9
Xylene		1	14.4	mg/L	50	15.0	0.8186	90	62.9 - 118.2

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	6.53	mg/L	50	5.00	1.5923	99	66.9 - 128.2	2	20
Toluene		1	5.14	mg/L	50	5.00	0.3113	96	81.6 - 122.9	0	20
Ethylbenzene		1	4.87	mg/L	50	5.00	0.28	92	62.7 - 117.9	1	20
Xylene		1	14.4	mg/L	50	15.0	0.8186	90	62.9 - 118.2	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)	5.49	5.06	mg/L	50	5	110	101	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	4.47	4.16	mg/L	50	5	89	83	52.2 - 135.8

Calibration Standards

Standard (CCV-1)

QC Batch: 84610 | Date Analyzed: 2011-09-09 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0959	96	80 - 120	2011-09-09
Toluene		1	mg/L	0.100	0.0955	96	80 - 120	2011-09-09
Ethylbenzene		1	mg/L	0.100	0.0932	93	80 - 120	2011-09-09
Xylene		1	mg/L	0.300	0.279	93	80 - 120	2011-09-09

Standard (CCV-2)

QC Batch: 84610 | Date Analyzed: 2011-09-09 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0967	97	80 - 120	2011-09-09
Toluene		1	mg/L	0.100	0.0948	95	80 - 120	2011-09-09
Ethylbenzene		1	mg/L	0.100	0.0895	90	80 - 120	2011-09-09
Xylene		1	mg/L	0.300	0.264	88	80 - 120	2011-09-09

Standard (CCV-3)

QC Batch: 84610 | Date Analyzed: 2011-09-09 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0949	95	80 - 120	2011-09-09
Toluene		1	mg/L	0.100	0.0939	94	80 - 120	2011-09-09
Ethylbenzene		1	mg/L	0.100	0.0907	91	80 - 120	2011-09-09
Xylene		1	mg/L	0.300	0.266	89	80 - 120	2011-09-09

Standard (CCV-1)

QC Batch: 84644 | Date Analyzed: 2011-09-12 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0999	100	80 - 120	2011-09-12
Toluene		1	mg/L	0.100	0.101	101	80 - 120	2011-09-12
Ethylbenzene		1	mg/L	0.100	0.0991	99	80 - 120	2011-09-12
Xylene		1	mg/L	0.300	0.295	98	80 - 120	2011-09-12

Standard (CCV-2)

QC Batch: 84644 | Date Analyzed: 2011-09-12 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.105	105	80 - 120	2011-09-12
Toluene		1	mg/L	0.100	0.105	105	80 - 120	2011-09-12
Ethylbenzene		1	mg/L	0.100	0.100	100	80 - 120	2011-09-12
Xylene		1	mg/L	0.300	0.296	99	80 - 120	2011-09-12

Appendix

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	T104704392-10-TX	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.
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 # 1104092S

Page 1 of 2

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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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: QRA
Phone #: 432-686-0084
Address: (Street, City, Zip) 2135 S. Loop 250 W. Midland TX
Fax #: 432-686-0186
Contact Person: Todd Wells
E-mail:
Invoice to: (If different from above) Jason Henry w/ Plains AllAmerican SRS # Denton Station
Project #: 074682
Project Name: Denton Station
Project Location (including state): Dow Ansell ranch 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, Fl, SO4, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
276717	Dup-1 090911	3		X				X						9-9-11			X																						
718	mw-2 090911	3		X				X						9-9-11	1045		X																						
719	mw-4 090911	3		X				X						9-9-11	1135		X																						
720	mw-6 090911	3		X				X						9-9-11	1115		X																						
721	mw-8 090911	3		X				X						9-9-11	1105		X																						
722	mw-9 090911	3		X				X						9-9-11	1055		X																						
723	mw-10 090911	3		X				X						9-9-11	1125		X																						
724	mw-11 090911	3		X				X						9-9-11	1035		X																						
725	mw-12 090911	3		X				X						9-9-11	1015		X																						
726	mw-13 090911	3		X				X						9-9-11	1025		X																						
727	mw-14 090911	3		X				X						9-9-11	1005		X																						

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	QRA	9-9-11	1425		T/A	9/9/11	14:25	INST ___ OBS 4.0 °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: All tests Midland

- ☐ 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.

ORIGINAL COPY

LAB Order ID # 1109092S

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
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200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
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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 #: 432-686-0084
Address: (Street, City, Zip) 21355 Loop 250 W. Midland TX
Fax #: 686-0186
Contact Person: Todd Wells
E-mail:
Invoice to: (If different from above) Jason Henry c/o Plains All American SRS# Denton Station
Project #: 074682
Project Name: Denton Station
Project Location (including state): Parr Angell Ranch 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 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, Fl, S04, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC						Turn Around Time if different from standard	Hold
	~~MW-15 090911~~ 6Q																																							
27628	MW-16 090911	3		X				X						9-9-11	955	X																										

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	CRA	9-9-11	1425		T/A	9/9/11	14:25	INST ___ OBS 4.0 °C COR ___ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ___ OBS ___ °C COR ___ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	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 # Carry

ORIGINAL COPY

Summary Report

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

Report Date: December 14, 2011

Work Order: 11120504

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
283644	MW 2 120111	water	2011-12-01	14:30	2011-12-02
283645	MW 4 120111	water	2011-12-01	14:15	2011-12-02
283646	MW 6 120111	water	2011-12-01	14:45	2011-12-02
283647	MW 8 120111	water	2011-12-01	15:10	2011-12-02
283648	MW 9 120111	water	2011-12-01	15:20	2011-12-02
283649	MW 10 120111	water	2011-12-01	15:40	2011-12-02
283650	MW 11 120111	water	2011-12-01	15:00	2011-12-02
283651	MW 12 120111	water	2011-12-01	15:15	2011-12-02
283652	MW 13 120111	water	2011-12-01	15:20	2011-12-02
283653	MW 14 120111	water	2011-12-01	16:15	2011-12-02
283654	MW 15 120111	water	2011-12-01	16:00	2011-12-02
283655	MW 16 120111	water	2011-12-01	15:45	2011-12-02
283656	Dup. 3 120111	water	2011-12-01	14:45	2011-12-02

	BTEX				MTBE
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)
283644 - MW 2 120111	<0.00100	<0.00100	<0.00100	<0.00100	
283645 - MW 4 120111	**0.200**	<0.00100 Qs	**0.0104**	**0.0221**	
283646 - MW 6 120111	**0.00110**	<0.00100 Qs	<0.00100	**0.00340**	
283647 - MW 8 120111	<0.00100	<0.00100	<0.00100	<0.00100	
283648 - MW 9 120111	<0.00100	<0.00100	<0.00100	<0.00100	
283649 - MW 10 120111	**0.188**	<0.00100 Qs	**0.0171**	<0.00100	
283650 - MW 11 120111	<0.00100	<0.00100	<0.00100	<0.00100	
283651 - MW 12 120111	**0.0264**	<0.00100	<0.00100	**0.00250**	
283652 - MW 13 120111	<0.00100	<0.00100	<0.00100	<0.00100	
283653 - MW 14 120111	<0.00100	<0.00100	<0.00100	<0.00100	
283654 - MW 15 120111	<0.00100	<0.00100	<0.00100	<0.00100	

continued ...

... continued

Sample - Field Code	BTEX Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE MTBE (mg/L)
283655 - MW 16 120111	<0.00100	<0.00100	<0.00100	<0.00100	
283656 - Dup. 3 120111	**0.00150**	<0.00100 Qs	<0.00100	**0.00320**	

Sample: 283645 - MW 4 120111

Param	Flag	Result	Units	RL
Naphthalene		**0.00122**	mg/L	0.0002
2-Methylnaphthalene		**0.000750**	mg/L	0.0002
1-Methylnaphthalene		**0.00250**	mg/L	0.0002
Acenaphthylene		<0.000184	mg/L	0.0002
Acenaphthene		<0.000184	mg/L	0.0002
Dibenzofuran		**0.000569**	mg/L	0.0002
Fluorene		**0.000610**	mg/L	0.0002
Anthracene	Qs	<0.000184	mg/L	0.0002
Phenanthrene	Qs	<0.000184	mg/L	0.0002
Fluoranthene		<0.000184	mg/L	0.0002
Pyrene		<0.000184	mg/L	0.0002
Benzo(a)anthracene	Qs	<0.000184	mg/L	0.0002
Chrysene		<0.000184	mg/L	0.0002
Benzo(b)fluoranthene		<0.000184	mg/L	0.0002
Benzo(k)fluoranthene		<0.000184	mg/L	0.0002
Benzo(a)pyrene		**0.000331**	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		**0.00118**	mg/L	0.0002
Dibenzo(a,h)anthracene		**0.000872**	mg/L	0.0002
Benzo(g,h,i)perylene		**0.00158**	mg/L	0.0002

Sample: 283646 - MW 6 120111

Param	Flag	Result	Units	RL
Naphthalene		**0.000675**	mg/L	0.0002
2-Methylnaphthalene		<0.000183	mg/L	0.0002
1-Methylnaphthalene		**0.00362**	mg/L	0.0002
Acenaphthylene		<0.000183	mg/L	0.0002
Acenaphthene		<0.000183	mg/L	0.0002
Dibenzofuran		<0.000183	mg/L	0.0002
Fluorene		**0.00104**	mg/L	0.0002
Anthracene	Qs	<0.000183	mg/L	0.0002
Phenanthrene	Qs	**0.00146**	mg/L	0.0002
Fluoranthene		<0.000183	mg/L	0.0002
Pyrene		<0.000183	mg/L	0.0002
Benzo(a)anthracene	Qs	<0.000183	mg/L	0.0002
Chrysene		<0.000183	mg/L	0.0002
Benzo(b)fluoranthene		<0.000183	mg/L	0.0002

continued ...

sample 283646 continued ...

Param	Flag	Result	Units	RL
Benzo(k)fluoranthene		<0.000183	mg/L	0.0002
Benzo(a)pyrene		<0.000183	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000183	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.000183	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000183	mg/L	0.0002

Sample: 283649 - MW 10 120111

Param	Flag	Result	Units	RL
Naphthalene		**0.000358**	mg/L	0.0002
2-Methylnaphthalene		<0.000183	mg/L	0.0002
1-Methylnaphthalene		**0.00355**	mg/L	0.0002
Acenaphthylene		<0.000183	mg/L	0.0002
Acenaphthene		<0.000183	mg/L	0.0002
Dibenzofuran		**0.00101**	mg/L	0.0002
Fluorene		**0.000873**	mg/L	0.0002
Anthracene	Qs	<0.000183	mg/L	0.0002
Phenanthrene	Qs	<0.000183	mg/L	0.0002
Fluoranthene		<0.000183	mg/L	0.0002
Pyrene		<0.000183	mg/L	0.0002
Benzo(a)anthracene	Qs	<0.000183	mg/L	0.0002
Chrysene		<0.000183	mg/L	0.0002
Benzo(b)fluoranthene		<0.000183	mg/L	0.0002
Benzo(k)fluoranthene		<0.000183	mg/L	0.0002
Benzo(a)pyrene		<0.000183	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000183	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.000183	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000183	mg/L	0.0002

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 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@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: December 14, 2011

Work Order: 11120504

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
283644	MW 2 120111	water	2011-12-01	14:30	2011-12-02
283645	MW 4 120111	water	2011-12-01	14:15	2011-12-02
283646	MW 6 120111	water	2011-12-01	14:45	2011-12-02
283647	MW 8 120111	water	2011-12-01	15:10	2011-12-02
283648	MW 9 120111	water	2011-12-01	15:20	2011-12-02
283649	MW 10 120111	water	2011-12-01	15:40	2011-12-02
283650	MW 11 120111	water	2011-12-01	15:00	2011-12-02
283651	MW 12 120111	water	2011-12-01	15:15	2011-12-02
283652	MW 13 120111	water	2011-12-01	15:20	2011-12-02
283653	MW 14 120111	water	2011-12-01	16:15	2011-12-02
283654	MW 15 120111	water	2011-12-01	16:00	2011-12-02
283655	MW 16 120111	water	2011-12-01	15:45	2011-12-02
283656	Dup. 3 120111	water	2011-12-01	14:45	2011-12-02

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

This report consists of a total of 23 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative

Samples for project Darr Angel Denton Station were received by TraceAnalysis, Inc. on 2011-12-02 and assigned to work order 11120504. Samples for work order 11120504 were received intact without headspace and at a temperature of 1.0 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	73834	2011-12-06 at 13:11	86957	2011-12-06 at 13:11
BTEX	S 8021B	73894	2011-12-08 at 08:47	87026	2011-12-08 at 08:47
PAH	S 8270D	73942	2011-12-07 at 15:00	87077	2011-12-12 at 11:05

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 11120504 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: 283644 - MW 2 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86957	Date Analyzed:	2011-12-06	Analyzed By:	ZLM
Prep Batch:	73834	Sample Preparation:	2011-12-06	Prepared By:	ZLM

Parameter		Flag		Cert	RL Result	Units	Dilution	RL
Benzene	U	U		1	<0.00100	mg/L	1	0.00100
Toluene	U	U		1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U		1	<0.00100	mg/L	1	0.00100
Xylene	U	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)			0.102	mg/L	1	0.100	102	70 - 130

Sample: 283645 - MW 4 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	87026	Date Analyzed:	2011-12-08	Analyzed By:	ZLM
Prep Batch:	73894	Sample Preparation:	2011-12-08	Prepared By:	ZLM

Parameter		Flag		Cert	RL Result	Units	Dilution	RL
Benzene				1	**0.200**	mg/L	1	0.00100
Toluene	Qs,U	Qs,U		1	<0.00100	mg/L	1	0.00100
Ethylbenzene				1	**0.0104**	mg/L	1	0.00100
Xylene				1	**0.0221**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0871	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	70 - 130

Sample: 283645 - MW 4 120111

Laboratory:	Lubbock				
Analysis:	PAH	Analytical Method:	S 8270D	Prep Method:	S 3510C
QC Batch:	87077	Date Analyzed:	2011-12-12	Analyzed By:	MN
Prep Batch:	73942	Sample Preparation:	2011-12-07	Prepared By:	MN

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene			1	**0.00122**	mg/L	0.922	0.000200
2-Methylnaphthalene			1	**0.000750**	mg/L	0.922	0.000200
1-Methylnaphthalene				**0.00250**	mg/L	0.922	0.000200
Acenaphthylene	U	U	1	<0.000184	mg/L	0.922	0.000200
Acenaphthene	U	U	1	<0.000184	mg/L	0.922	0.000200
Dibenzofuran			1	**0.000569**	mg/L	0.922	0.000200
Fluorene			1	**0.000610**	mg/L	0.922	0.000200
Anthracene	Qs,U	Qs,U	1	<0.000184	mg/L	0.922	0.000200
Phenanthrene	Qs,U	Qs,U		<0.000184	mg/L	0.922	0.000200
Fluoranthene	U	U		<0.000184	mg/L	0.922	0.000200
Pyrene	U	U	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)anthracene	Qs,U	Qs,U		<0.000184	mg/L	0.922	0.000200
Chrysene	U	U	1	<0.000184	mg/L	0.922	0.000200
Benzo(b)fluoranthene	U	U		<0.000184	mg/L	0.922	0.000200
Benzo(k)fluoranthene	U	U	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)pyrene			1	**0.000331**	mg/L	0.922	0.000200
Indeno(1,2,3-cd)pyrene	B	B	1	**0.00118**	mg/L	0.922	0.000200
Dibenzo(a,h)anthracene	B	B	1	**0.000872**	mg/L	0.922	0.000200
Benzo(g,h,i)perylene	B	B		**0.00158**	mg/L	0.922	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0448	mg/L	0.922	0.0800	56	10 - 117
2-Fluorobiphenyl			0.0427	mg/L	0.922	0.0800	53	10 - 99
Terphenyl-d14			0.0534	mg/L	0.922	0.0800	67	22.6 - 115

Sample: 283646 - MW 6 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	87026	Date Analyzed:	2011-12-08	Analyzed By:	ZLM
Prep Batch:	73894	Sample Preparation:	2011-12-08	Prepared By:	ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.00110**	mg/L	1	0.00100

continued ...

sample 283646 continued ...

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Toluene	Qs,U	Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene			1	**0.00340**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0794	mg/L	1	0.100	79	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0871	mg/L	1	0.100	87	70 - 130

Sample: 283646 - MW 6 120111

Laboratory:	Lubbock				
Analysis:	PAH	Analytical Method:	S 8270D	Prep Method:	S 3510C
QC Batch:	87077	Date Analyzed:	2011-12-12	Analyzed By:	MN
Prep Batch:	73942	Sample Preparation:	2011-12-07	Prepared By:	MN

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene			1	**0.000675**	mg/L	0.917	0.000200
2-Methylnaphthalene	U	U	1	<0.000183	mg/L	0.917	0.000200
1-Methylnaphthalene				**0.00362**	mg/L	0.917	0.000200
Acenaphthylene	U	U	1	<0.000183	mg/L	0.917	0.000200
Acenaphthene	U	U	1	<0.000183	mg/L	0.917	0.000200
Dibenzofuran	U	U	1	<0.000183	mg/L	0.917	0.000200
Fluorene			1	**0.00104**	mg/L	0.917	0.000200
Anthracene	Qs,U	Qs,U	1	<0.000183	mg/L	0.917	0.000200
Phenanthrene	Qs	Qs		**0.00146**	mg/L	0.917	0.000200
Fluoranthene	U	U		<0.000183	mg/L	0.917	0.000200
Pyrene	U	U	1	<0.000183	mg/L	0.917	0.000200
Benzo(a)anthracene	Qs,U	Qs,U		<0.000183	mg/L	0.917	0.000200
Chrysene	U	U	1	<0.000183	mg/L	0.917	0.000200
Benzo(b)fluoranthene	U	U		<0.000183	mg/L	0.917	0.000200
Benzo(k)fluoranthene	U	U	1	<0.000183	mg/L	0.917	0.000200
Benzo(a)pyrene	U	U	1	<0.000183	mg/L	0.917	0.000200
Indeno(1,2,3-cd)pyrene	U	U	1	<0.000183	mg/L	0.917	0.000200
Dibenzo(a,h)anthracene	U	U	1	<0.000183	mg/L	0.917	0.000200
Benzo(g,h,i)perylene	U	U		<0.000183	mg/L	0.917	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0479	mg/L	0.917	0.0800	60	10 - 117
2-Fluorobiphenyl			0.0473	mg/L	0.917	0.0800	59	10 - 99

continued ...

sample continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Terphenyl-d14			0.0537	mg/L	0.917	0.0800	67	22.6 - 115

Sample: 283647 - MW 8 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86957	Date Analyzed:	2011-12-06	Analyzed By:	ZLM
Prep Batch:	73834	Sample Preparation:	2011-12-06	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0985	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.104	mg/L	1	0.100	104	70 - 130

Sample: 283648 - MW 9 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86957	Date Analyzed:	2011-12-06	Analyzed By:	ZLM
Prep Batch:	73834	Sample Preparation:	2011-12-06	Prepared By:	ZLM

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

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

continued ...

sample continued ...

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

Sample: 283649 - MW 10 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	87026	Date Analyzed:	2011-12-08	Analyzed By:	ZLM
Prep Batch:	73894	Sample Preparation:	2011-12-08	Prepared By:	ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.188**	mg/L	1	0.00100
Toluene	Qs,U	Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene			1	**0.0171**	mg/L	1	0.00100
Xylene	U	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)			0.129	mg/L	1	0.100	129	70 - 130

Sample: 283649 - MW 10 120111

Laboratory:	Lubbock				
Analysis:	PAH	Analytical Method:	S 8270D	Prep Method:	S 3510C
QC Batch:	87077	Date Analyzed:	2011-12-12	Analyzed By:	MN
Prep Batch:	73942	Sample Preparation:	2011-12-07	Prepared By:	MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	**0.000358**	mg/L	0.917	0.000200
2-Methylnaphthalene	U	U	1	<0.000183	mg/L	0.917	0.000200
1-Methylnaphthalene			**0.00355**	mg/L	0.917	0.000200
Acenaphthylene	U	U	1	<0.000183	mg/L	0.917	0.000200
Acenaphthene	U	U	1	<0.000183	mg/L	0.917	0.000200
Dibenzofuran			1	**0.00101**	mg/L	0.917	0.000200
Fluorene			1	**0.000873**	mg/L	0.917	0.000200
Anthracene	Qs,U	Qs,U	1	<0.000183	mg/L	0.917	0.000200
Phenanthrene	Qs,U	Qs,U		<0.000183	mg/L	0.917	0.000200
Fluoranthene	U	U		<0.000183	mg/L	0.917	0.000200

continued ...

sample 283649 continued ...

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Pyrene	U	U	1	<0.000183	mg/L	0.917	0.000200
Benzo(a)anthracene	Qs,U	Qs,U		<0.000183	mg/L	0.917	0.000200
Chrysene	U	U	1	<0.000183	mg/L	0.917	0.000200
Benzo(b)fluoranthene	U	U		<0.000183	mg/L	0.917	0.000200
Benzo(k)fluoranthene	U	U	1	<0.000183	mg/L	0.917	0.000200
Benzo(a)pyrene	U	U	1	<0.000183	mg/L	0.917	0.000200
Indeno(1,2,3-cd)pyrene	U	U	1	<0.000183	mg/L	0.917	0.000200
Dibenzo(a,h)anthracene	U	U	1	<0.000183	mg/L	0.917	0.000200
Benzo(g,h,i)perylene	U	U		<0.000183	mg/L	0.917	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0505	mg/L	0.917	0.0800	63	10 - 117
2-Fluorobiphenyl			0.0481	mg/L	0.917	0.0800	60	10 - 99
Terphenyl-d14			0.0568	mg/L	0.917	0.0800	71	22.6 - 115

Sample: 283650 - MW 11 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86957	Date Analyzed:	2011-12-06	Analyzed By:	ZLM
Prep Batch:	73834	Sample Preparation:	2011-12-06	Prepared By:	ZLM

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	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)			0.110	mg/L	1	0.100	110	70 - 130

Sample: 283651 - MW 12 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86957	Date Analyzed:	2011-12-06	Analyzed By:	ZLM
Prep Batch:	73834	Sample Preparation:	2011-12-06	Prepared By:	ZLM

Parameter		Flag		Cert	RL Result	Units	Dilution	RL
Benzene				1	**0.0264**	mg/L	1	0.00100
Toluene	U	U		1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U		1	<0.00100	mg/L	1	0.00100
Xylene				1	**0.00250**	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)			0.108	mg/L	1	0.100	108	70 - 130

Sample: 283652 - MW 13 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86957	Date Analyzed:	2011-12-06	Analyzed By:	ZLM
Prep Batch:	73834	Sample Preparation:	2011-12-06	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0883	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0910	mg/L	1	0.100	91	70 - 130

Sample: 283653 - MW 14 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86957	Date Analyzed:	2011-12-06	Analyzed By:	ZLM
Prep Batch:	73834	Sample Preparation:	2011-12-06	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.109	mg/L	1	0.100	109	70 - 130
4-Bromofluorobenzene (4-BFB)			0.112	mg/L	1	0.100	112	70 - 130

Sample: 283654 - MW 15 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86957	Date Analyzed:	2011-12-06	Analyzed By:	ZLM
Prep Batch:	73834	Sample Preparation:	2011-12-06	Prepared By:	ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.109	mg/L	1	0.100	109	70 - 130
4-Bromofluorobenzene (4-BFB)			0.113	mg/L	1	0.100	113	70 - 130

Sample: 283655 - MW 16 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86957	Date Analyzed:	2011-12-06	Analyzed By:	ZLM
Prep Batch:	73834	Sample Preparation:	2011-12-06	Prepared By:	ZLM

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	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)			0.106	mg/L	1	0.100	106	70 - 130

Sample: 283656 - Dup. 3 120111

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	87026	Date Analyzed:	2011-12-08	Analyzed By:	ZLM
Prep Batch:	73894	Sample Preparation:	2011-12-08	Prepared By:	ZLM

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene			1	**0.00150**	mg/L	1	0.00100
Toluene	Qs,U	Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene			1	**0.00320**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0953	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	70 - 130

Method Blanks

Method Blank (1) QC Batch: 86957

QC Batch: 86957 | Date Analyzed: 2011-12-06 | Analyzed By: ZLM
Prep Batch: 73834 | QC Preparation: 2011-12-06 | Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000765	mg/L	0.001
Toluene		1	<0.000719	mg/L	0.001
Ethylbenzene		1	<0.000860	mg/L	0.001
Xylene		1	<0.000942	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.110	mg/L	1	0.100	110	70 - 130
4-Bromofluorobenzene (4-BFB)			0.115	mg/L	1	0.100	115	70 - 130

Method Blank (1) QC Batch: 87026

QC Batch: 87026 | Date Analyzed: 2011-12-08 | Analyzed By: ZLM
Prep Batch: 73894 | QC Preparation: 2011-12-08 | Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000765	mg/L	0.001
Toluene		1	<0.000719	mg/L	0.001
Ethylbenzene		1	<0.000860	mg/L	0.001
Xylene		1	<0.000942	mg/L	0.001

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)			0.108	mg/L	1	0.100	108	70 - 130

Method Blank (1) QC Batch: 87077

QC Batch: 87077 | Date Analyzed: 2011-12-12 | Analyzed By: MN
Prep Batch: 73942 | QC Preparation: 2011-12-07 | Prepared By: MN

Parameter	Flag	Cert	MDL Result	Units	RL
Naphthalene		1	<0.0000904	mg/L	0.0002
2-Methylnaphthalene		1	<0.000184	mg/L	0.0002
1-Methylnaphthalene			<0.000120	mg/L	0.0002
Acenaphthylene		1	<0.000101	mg/L	0.0002
Acenaphthene		1	<0.000122	mg/L	0.0002
Dibenzofuran		1	<0.000119	mg/L	0.0002
Fluorene		1	<0.000198	mg/L	0.0002
Anthracene		1	<0.000190	mg/L	0.0002
Phenanthrene			<0.000190	mg/L	0.0002
Fluoranthene			<0.000122	mg/L	0.0002
Pyrene		1	<0.000142	mg/L	0.0002
Benzo(a)anthracene			<0.000138	mg/L	0.0002
Chrysene		1	<0.000155	mg/L	0.0002
Benzo(b)fluoranthene			<0.000179	mg/L	0.0002
Benzo(k)fluoranthene		1	<0.000185	mg/L	0.0002
Benzo(a)pyrene		1	<0.000169	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		1	0.000511	mg/L	0.0002
Dibenzo(a,h)anthracene		1	0.000474	mg/L	0.0002
Benzo(g,h,i)perylene			0.000653	mg/L	0.0002

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0549	mg/L	1	0.0800	69	10 - 117
2-Fluorobiphenyl			0.0432	mg/L	1	0.0800	54	10 - 99
Terphenyl-d14			0.0530	mg/L	1	0.0800	66	22.6 - 115

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 86957 | Date Analyzed: 2011-12-06 | Analyzed By: ZLM
Prep Batch: 73834 | QC Preparation: 2011-12-06 | Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000765	102	70 - 130
Toluene		1	0.0987	mg/L	1	0.100	<0.000719	99	70 - 130
Ethylbenzene		1	0.0988	mg/L	1	0.100	<0.000860	99	70 - 130
Xylene		1	0.296	mg/L	1	0.300	<0.000942	99	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	0.0994	mg/L	1	0.100	<0.000765	99	70 - 130	3	20
Toluene		1	0.0961	mg/L	1	0.100	<0.000719	96	70 - 130	3	20
Ethylbenzene		1	0.0962	mg/L	1	0.100	<0.000860	96	70 - 130	3	20
Xylene		1	0.287	mg/L	1	0.300	<0.000942	96	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)	0.0917	0.0947	mg/L	1	0.100	92	95	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0904	0.0938	mg/L	1	0.100	90	94	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 87026 | Date Analyzed: 2011-12-08 | Analyzed By: ZLM
Prep Batch: 73894 | QC Preparation: 2011-12-08 | Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0961	mg/L	1	0.100	<0.000765	96	70 - 130
Toluene		1	0.0941	mg/L	1	0.100	<0.000719	94	70 - 130
Ethylbenzene		1	0.0933	mg/L	1	0.100	<0.000860	93	70 - 130
Xylene		1	0.281	mg/L	1	0.300	<0.000942	94	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	0.0969	mg/L	1	0.100	<0.000765	97	70 - 130	1	20
Toluene		1	0.0952	mg/L	1	0.100	<0.000719	95	70 - 130	1	20
Ethylbenzene		1	0.0951	mg/L	1	0.100	<0.000860	95	70 - 130	2	20
Xylene		1	0.285	mg/L	1	0.300	<0.000942	95	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)	0.0923	0.0917	mg/L	1	0.100	92	92	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0929	0.0931	mg/L	1	0.100	93	93	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 87077 | Date Analyzed: 2011-12-12 | Analyzed By: MN
Prep Batch: 73942 | QC Preparation: 2011-12-07 | Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene		1	0.0411	mg/L	1	0.0800	<0.0000904	51	10 - 89.9
2-Methylnaphthalene		1	0.0462	mg/L	1	0.0800	<0.000184	58	13.8 - 98.4
1-Methylnaphthalene			0.0529	mg/L	1	0.0800	<0.000120	66	13.1 - 103
Acenaphthylene		1	0.0576	mg/L	1	0.0800	<0.000101	72	20 - 104
Acenaphthene		1	0.0561	mg/L	1	0.0800	<0.000122	70	21.6 - 94.6
Dibenzofuran		1	0.0425	mg/L	1	0.0800	<0.000119	53	22.9 - 74.9
Fluorene		1	0.0646	mg/L	1	0.0800	<0.000198	81	30.8 - 109
Anthracene		1	0.0759	mg/L	1	0.0800	<0.000190	95	37.6 - 96.4
Phenanthrene			0.0793	mg/L	1	0.0800	<0.000190	99	42.4 - 99.8
Fluoranthene			0.0806	mg/L	1	0.0800	<0.000122	101	48 - 118
Pyrene		1	0.0752	mg/L	1	0.0800	<0.000142	94	45.3 - 109
Benzo(a)anthracene			0.0866	mg/L	1	0.0800	<0.000138	108	48 - 113
Chrysene		1	0.0692	mg/L	1	0.0800	<0.000155	86	35.2 - 175
Benzo(b)fluoranthene			0.0658	mg/L	1	0.0800	<0.000179	82	16.6 - 106
Benzo(k)fluoranthene		1	0.0673	mg/L	1	0.0800	<0.000185	84	36.8 - 99.4
Benzo(a)pyrene		1	0.0698	mg/L	1	0.0800	<0.000169	87	32.3 - 99.7
Indeno(1,2,3-cd)pyrene		1	0.0681	mg/L	1	0.0800	0.000511	84	34.1 - 106
Dibenzo(a,h)anthracene		1	0.0584	mg/L	1	0.0800	0.000474	72	47.1 - 103
Benzo(g,h,i)perylene			0.0719	mg/L	1	0.0800	0.000653	89	21.9 - 112

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
Naphthalene		1	0.0468	mg/L	1	0.0800	<0.0000904	58	10 - 89.9	13	20

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
2-Methylnaphthalene		1	0.0526	mg/L	1	0.0800	<0.000184	66	13.8 - 98.4	13	20
1-Methylnaphthalene			0.0600	mg/L	1	0.0800	<0.000120	75	13.1 - 103	13	20
Acenaphthylene		1	0.0670	mg/L	1	0.0800	<0.000101	84	20 - 104	15	20
Acenaphthene		1	0.0651	mg/L	1	0.0800	<0.000122	81	21.6 - 94.6	15	20
Dibenzofuran		1	0.0483	mg/L	1	0.0800	<0.000119	60	22.9 - 74.9	13	20
Fluorene		1	0.0708	mg/L	1	0.0800	<0.000198	88	30.8 - 109	9	20
Anthracene	Qs	Qs 1	0.0863	mg/L	1	0.0800	<0.000190	108	37.6 - 96.4	13	20
Phenanthrene	Qs	Qs	0.0904	mg/L	1	0.0800	<0.000190	113	42.4 - 99.8	13	20
Fluoranthene			0.0944	mg/L	1	0.0800	<0.000122	118	48 - 118	16	20
Pyrene		1	0.0836	mg/L	1	0.0800	<0.000142	104	45.3 - 109	11	20
Benzo(a)anthracene	Qs	Qs	0.0985	mg/L	1	0.0800	<0.000138	123	48 - 113	13	20
Chrysene		1	0.0792	mg/L	1	0.0800	<0.000155	99	35.2 - 175	14	20
Benzo(b)fluoranthene			0.0760	mg/L	1	0.0800	<0.000179	95	16.6 - 106	14	20
Benzo(k)fluoranthene		1	0.0765	mg/L	1	0.0800	<0.000185	96	36.8 - 99.4	13	20
Benzo(a)pyrene		1	0.0786	mg/L	1	0.0800	<0.000169	98	32.3 - 99.7	12	20
Indeno(1,2,3-cd)pyrene		1	0.0755	mg/L	1	0.0800	0.000511	94	34.1 - 106	10	20
Dibenzo(a,h)anthracene		1	0.0649	mg/L	1	0.0800	0.000474	80	47.1 - 103	10	20
Benzo(g,h,i)perylene			0.0796	mg/L	1	0.0800	0.000653	99	21.9 - 112	10	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Nitrobenzene-d5	0.0517	0.0579	mg/L	1	0.0800	65	72	10 - 117
2-Fluorobiphenyl	0.0488	0.0584	mg/L	1	0.0800	61	73	10 - 99
Terphenyl-d14	0.0804	0.0896	mg/L	1	0.0800	100	112	22.6 - 115

Matrix Spike (MS-1) Spiked Sample: 283601

QC Batch: 86957 | Date Analyzed: 2011-12-06 | Analyzed By: ZLM
Prep Batch: 73834 | QC Preparation: 2011-12-06 | Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.131	mg/L	1	0.100	0.0314	100	70 - 130
Toluene		1	0.0962	mg/L	1	0.100	<0.000719	96	70 - 130
Ethylbenzene		1	0.0973	mg/L	1	0.100	<0.000860	97	70 - 130
Xylene		1	0.291	mg/L	1	0.300	<0.000942	97	70 - 130

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

continued ...

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.132	mg/L	1	0.100	0.0314	101	70 - 130	1	20
Toluene		1	0.0980	mg/L	1	0.100	<0.000719	98	70 - 130	2	20
Ethylbenzene		1	0.0983	mg/L	1	0.100	<0.000860	98	70 - 130	1	20
Xylene		1	0.295	mg/L	1	0.300	<0.000942	98	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)	0.0996	0.0951	mg/L	1	0.1	100	95	70 - 130
4-Bromofluorobenzene (4-BFB)	0.100	0.0963	mg/L	1	0.1	100	96	70 - 130

Matrix Spike (MS-1) Spiked Sample: 283898

QC Batch: 87026 | Date Analyzed: 2011-12-08 | Analyzed By: ZLM
Prep Batch: 73894 | QC Preparation: 2011-12-08 | Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0845	mg/L	1	0.100	0.0019	83	70 - 130
Toluene		1	0.0808	mg/L	1	0.100	<0.000719	81	70 - 130
Ethylbenzene		1	0.0826	mg/L	1	0.100	<0.000860	83	70 - 130
Xylene		1	0.246	mg/L	1	0.300	<0.000942	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		1	0.0730	mg/L	1	0.100	0.0019	71	70 - 130	15	20
Toluene	Qs	Qs 1	0.0695	mg/L	1	0.100	<0.000719	70	70 - 130	15	20
Ethylbenzene		1	0.0716	mg/L	1	0.100	<0.000860	72	70 - 130	14	20
Xylene		1	0.214	mg/L	1	0.300	<0.000942	71	70 - 130	14	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.0892	mg/L	1	0.1	101	89	70 - 130
4-Bromofluorobenzene (4-BFB)	0.102	0.0925	mg/L	1	0.1	102	92	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 86957 Date Analyzed: 2011-12-06 Analyzed By: ZLM

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	2011-12-06
Toluene		1	mg/L	0.100	0.0977	98	80 - 120	2011-12-06
Ethylbenzene		1	mg/L	0.100	0.0977	98	80 - 120	2011-12-06
Xylene		1	mg/L	0.300	0.292	97	80 - 120	2011-12-06

Standard (CCV-2)

QC Batch: 86957 Date Analyzed: 2011-12-06 Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.102	102	80 - 120	2011-12-06
Toluene		1	mg/L	0.100	0.0985	98	80 - 120	2011-12-06
Ethylbenzene		1	mg/L	0.100	0.0980	98	80 - 120	2011-12-06
Xylene		1	mg/L	0.300	0.293	98	80 - 120	2011-12-06

Standard (CCV-3)

QC Batch: 86957 Date Analyzed: 2011-12-06 Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.100	100	80 - 120	2011-12-06
Toluene		1	mg/L	0.100	0.0969	97	80 - 120	2011-12-06
Ethylbenzene		1	mg/L	0.100	0.0959	96	80 - 120	2011-12-06
Xylene		1	mg/L	0.300	0.287	96	80 - 120	2011-12-06

Standard (CCV-1)

QC Batch: 87026 | Date Analyzed: 2011-12-08 | Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0994	99	80 - 120	2011-12-08
Toluene		1	mg/L	0.100	0.0959	96	80 - 120	2011-12-08
Ethylbenzene		1	mg/L	0.100	0.0964	96	80 - 120	2011-12-08
Xylene		1	mg/L	0.300	0.286	95	80 - 120	2011-12-08

Standard (CCV-2)

QC Batch: 87026 | Date Analyzed: 2011-12-08 | Analyzed By: ZLM

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	2011-12-08
Toluene		1	mg/L	0.100	0.0869	87	80 - 120	2011-12-08
Ethylbenzene		1	mg/L	0.100	0.0873	87	80 - 120	2011-12-08
Xylene		1	mg/L	0.300	0.261	87	80 - 120	2011-12-08

Standard (CCV-1)

QC Batch: 87077 | Date Analyzed: 2011-12-12 | Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	50.4	84	80 - 120	2011-12-12
2-Methylnaphthalene		1	mg/L	60.0	51.3	86	80 - 120	2011-12-12
1-Methylnaphthalene		/	mg/L	60.0	58.7	98	80 - 120	2011-12-12
Acenaphthylene		1	mg/L	60.0	51.0	85	80 - 120	2011-12-12
Acenaphthene		1	mg/L	60.0	50.4	84	80 - 120	2011-12-12
Dibenzofuran		1	mg/L	60.0	50.3	84	80 - 120	2011-12-12
Fluorene		1	mg/L	60.0	49.5	82	80 - 120	2011-12-12
Anthracene		1	mg/L	60.0	59.7	100	80 - 120	2011-12-12
Phenanthrene			mg/L	60.0	59.6	99	80 - 120	2011-12-12
Fluoranthene			mg/L	60.0	60.7	101	80 - 120	2011-12-12
Pyrene		1	mg/L	60.0	55.1	92	80 - 120	2011-12-12
Benzo(a)anthracene			mg/L	60.0	60.6	101	80 - 120	2011-12-12

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chrysene		1	mg/L	60.0	52.8	88	80 - 120	2011-12-12
Benzo(b)fluoranthene			mg/L	60.0	59.2	99	80 - 120	2011-12-12
Benzo(k)fluoranthene		1	mg/L	60.0	49.2	82	80 - 120	2011-12-12
Benzo(a)pyrene		1	mg/L	60.0	52.9	88	80 - 120	2011-12-12
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	52.8	88	80 - 120	2011-12-12
Dibenzo(a,h)anthracene		1	mg/L	60.0	54.2	90	80 - 120	2011-12-12
Benzo(g,h,i)perylene			mg/L	60.0	51.1	85	80 - 120	2011-12-12

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			58.1	mg/L	1	60.0	97	-
2-Fluorobiphenyl			53.6	mg/L	1	60.0	89	-
Terphenyl-d14			58.6	mg/L	1	60.0	98	-

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	T104704219-11-5	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less 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.
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 # 11120504

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 west, Midland 79703	Fax #: 432-686-0186
Contact Person: Todd Wells	E-mail: TWells@craworld.com
Invoice to: (If different from above) Jason Henry	
Project #: 074652	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	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, Fl, S04, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
283644	MW 2 12011	3	125	X				X						12-1	1430		X																								
645	MW 4 12011	4	1 L	X				X						12-1	1415		X			X																						
646	MW 6 12011	4	1 L	X				X						12-1	1445		X			X																						
647	MW 8 12011	3	125	X				X						12-1	1510		X																									
648	MW 9 12011	3	125	X				X						12-1	1520		X																									
649	MW 10 12011	4	1 L	X				X						12-1	1540		X			X																						
650	MW 11 12011	3	125	X				X						12-1	1500		X																									
651	MW 12 12011	3	125	X				X						12-1	1515		X																									
652	MW 13 12011	3	125	X				X						12-1	1530		X																									
653	MW 14 12011	3	125	X				X						12-1	1615		X																									
654	MW 15 12011	3	125	X				X						12-1	1600		X																									

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	CRA	12-2-11	1538					INST ____ °C OBS ____ °C COR ____ °C
								INST ____ °C OBS ____ °C COR ____ °C
				Brenda Ward	Trace Lubbock	12/2/11	15:38	INST IR °C OBS 0.9 °C COR 1.0 °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 # Courier

ORIGINAL COPY

LAB Order ID # 11120504

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
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200 East Sunset Rd., Suite E
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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) 2135 S. Loop 250 West, Midland 79703	Fax #: 432-686-0186
Contact Person: Todd Wells	E-mail: TWells@cramidland.com
Invoice to: (If different from above) Jason Henry	
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	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, Fl, S04, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC						Turn Around Time if different from standard	Hold
383555	MW 16 12 11	3	120 ml	X				X						12-1	1545		X																							
656	DUP 3 12 11	3	120 ml	X				X						12-1	1945		X																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	CRA	12-2-11	1538					INST ____ OBS ____ °C COR ____ °C
								INST ____ OBS ____ °C COR ____ °C
				Brenda Ward	TraceLubbock	12/2/11	15:38	INST IR OBS 0.9 °C COR 1.0 °C

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

ORIGINAL COPY

LAB USE ONLY

Intact Y / N

Headspace Y / N NA

Log-In-Review MM

REMARKS:

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

Carrier # Courier