2014
ANNUAL MONITORING REPORT

LF-59
LEA COUNTY, NEW MEXICO
NW ¼ SW ¼ SECTION 32, TOWNSHIP 19 SOUTH, RANGE 37 EAST
PLAINS SRS NUMBER: TNM-LF-59
NMOCD FILE NUMBER: 1R-0103

Prepared For:

PLAINS MARKETING, L.P.
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Prepared By:

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March 2015

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Electronic Copies of Laboratory Reports
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INTRODUCTION

On behalf of Plains Marketing, L.P. (Plains), TRC Solutions, Inc. (TRC) is pleased to submit this 2014 Annual Monitoring Report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. Beginning on May 29, 2004, project management responsibilities were assumed by TRC Solutions, Inc., preciously NOVA Safety and Environmental. The LF-59 Pipeline Release Site (the site), which was formerly the responsibility of Enron Oil Trading and Transportation (EOTT), is now the responsibility of Plains. The Release Notification and Corrective Action Form (C-141) is provided as Appendix B. This report is intended to be viewed as a complete document with text, figures, tables, and appendices. The report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2014 only. However, historic data tables as well as 2014 laboratory analytical reports are provided on the enclosed disk. For reference, the Site Location Map is provided as Figure 1. A Site Map is provided as Figure 2.

Groundwater monitoring was conducted during each quarter of 2014 to assess the levels and extent of dissolved phase constituents and Phase Separated Hydrocarbon (PSH). Each groundwater monitoring event consisted of measuring static water levels in monitor wells, checking for the presence of PSH on the water column and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 foot were sampled as per a NMOCD directive.

SITE DESCRIPTION AND BACKGROUND INFORMATION

The LF-59 Release Site occurred as two (2) separate releases of unknown volumes on unknown dates. The release occurred from an eight (8)-inch pipeline and was attributed to structural failure associated with internal pipeline corrosion. Approximately 6,900 cubic yards of impacted soil was excavated, sorted, shredded and combined with fertilizer to enhance bioremediation rates. Approximately 550 cubic yards of caliche rock was also stockpiled on-site as a result of the previously referenced soil treatment activity. The soil was spread onto an on-site treatment cell for aeration in March 2003. Soil in the treatment cell was sampled for baseline concentrations of Total Petroleum Hydrocarbon (TPH) and Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations using EPA Methods 8015M and 8260b, respectively. The treatment cell was resampled on September 7, 2005. Analytical results of this sampling event indicate Total Petroleum Hydrocarbons (TPH) concentrations had decreased to levels ranging between <50 to 115 mg/Kg total TPH.

A *Soil Closure Strategy and Site Restoration Work Plan* (Work Plan) was submitted to the NMOCD in July 2006. The Work Plan proposed soil remediation activities intended to progress the site toward an NMOCD approved closure.

On September 20, 2007, Plains received approval from the NMOCD to commence the activities outlined in the Work Plan. Following the completion of the soil remediation activities, a *Soil Closure Request*, dated February 2010 was submitted to the NMOCD for approval. On February 19, 2010, Plains received an email from the NMOCD approving the *Soil Closure Request* at the LF-59 Release Site.

In a correspondence dated August 23, 2010, the NMOCD approved the plugging of monitor well MW-6. On March 21, 2011, Plains properly plugged and abandoned MW-6 and a letter report documenting the activities was submitted to the NMOCD on April 19, 2011.

In a correspondence dated December 5, 2013, the NMOCD approved the plugging and abandonment of monitor well MW-1 and the installation of a replacement monitor well (MW-1A). On February 4, 2014, Plains properly plugged and abandoned MW-1 and installed monitor well MW-1A, located approximately fifteen (15) feet south of monitor well MW-1. Please reference monitor well MW-1A soil boring log provided as Appendix A. Monitor well MW-1 plugging reports were mailed to the NMOCD on March 13, 2014.

Currently, seven (7) groundwater monitor wells (MW-1A, MW-2 through MW-5, MW-7 and MW-8) are on-site.

FIELD ACTIVITIES

Groundwater Monitoring

Quarterly monitoring events for the reporting period were performed according to the following sampling schedule, which was approved by the NMOCD in correspondence dated November 5, 2012 and December 5, 2013.

NMOCD Approved Sampling Schedule			
MW-1	Plugged and Abandoned	MW-5	Annually
MW-1A	Quarterly	MW-6	Plugged and Abandoned
MW-2	Quarterly	MW-7	Annually
MW-3	Annually	MW-8	Semi-Annual
MW-4	Quarterly		

The site monitor wells were gauged and sampled on the following dates: February 4, May 7, August 26, and November 11, 2014. During each sampling event, sampled monitor wells were purged of a minimum of three (3) well volumes of water or until the wells failed to produce water using a PVC bailer or electric Grundfos pump. Groundwater was allowed to recharge and samples were collected using disposable Teflon samplers. Water samples were placed in clean, glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed at a licensed disposal facility.

Locations of the monitor wells and the inferred groundwater gradient, which were constructed from measurements collected during the four (4) quarterly monitoring events, are depicted on Figures 3A through 3D, the Inferred Groundwater Gradient Maps. Groundwater elevation data for 2014 is provided as Table 1. Historic groundwater elevation data beginning at project inception is provided on the enclosed data disk.

The most recent Groundwater Gradient Map, Figure 3D, indicates a general gradient of 0.015 feet per foot to the southwest as measured between groundwater monitor wells MW-5 and MW-7.

LABORATORY RESULTS

Groundwater samples obtained during the quarterly sampling events of 2014 were delivered to Trace Analysis, Inc. in Midland, Texas for determination of Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations by EPA Method 8021B. Based upon historic Polynuclear Aromatic Hydrocarbons (PAH) analytical data, PAH analysis was conducted at monitor well MW-1A. A listing of BTEX constituent concentrations for 2014 are summarized in Table 2 and the historic PAH constituent concentrations are summarized in Table 3. Copies of the laboratory reports generated for 2014 are provided on the enclosed data disk. The quarterly groundwater sample results for BTEX constituent concentrations are depicted on Figures 4A through 4D.

Monitor well MW-1 was plugged and abandoned on February 4, 2014, as approved by the NMOCD.

Monitor well MW-1A was installed on February 4, 2014 and is sampled on a quarterly schedule. Monitor well MW-1A was initially sampled on February 26, 2014. The analytical results indicate benzene concentrations ranged from <0.00100 mg/L during the 3rd quarter to 0.0277 mg/L during the 4th quarter of the reporting period. Benzene concentrations were above the NMOCD regulatory guideline of 0.01 mg/L during the 1st and 4th quarters of 2014. Toluene concentrations were below laboratory method detection limits (MDL) and NMOCD regulatory guidelines of 0.75 mg/L during all four (4) quarters of the reporting period. Ethylbenzene concentrations ranged from <0.00100 mg/L during the 3rd quarter to 0.00970 mg/L during the 4th quarter of the reporting period. Ethylbenzene concentrations were below the NMOCD regulatory guideline of 0.75 mg/L during all four (4) quarters of 2014. Xylene concentrations ranged from <0.00100 mg/L during the 3rd quarter to 0.00130 mg/L during the 4th quarter of the reporting period. Xylene concentrations were below the NMOCD regulatory guideline of 0.62 mg/L during all four (4) quarters of 2014. PAH analysis during the initial (1st quarter) sampling event indicated PAH constituents were below MDLs.

Monitor well MW-2 is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standard for each constituent during all four (4) quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory guidelines since the 4th quarter sampling event of 2003. PAH analysis was not conducted during the 4th quarter sampling event.

Monitor well MW-3 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standard for each constituent during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory guidelines since the 1st quarter sampling event of 2000. PAH analysis was not conducted during the 4th quarter sampling event.

Monitor well MW-4 is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory guidelines during all four (4) quarters of the reporting period. The analytical results indicate BTEX constituent

concentrations have been below NMOCD regulatory guidelines since the 3rd quarter sampling event of 2006. PAH analysis was not conducted during the 4th quarter sampling event.

Monitor well MW-5 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standard for each constituent during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory guidelines since the 1st quarter sampling event of 2000. PAH analysis was not conducted during the 4th quarter sampling event.

Monitor well MW-7 is sampled on an annual schedule. Analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standard for each constituent during the 4th quarter sampling events. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory guidelines since the 3rd quarter sampling event of 2001. PAH analysis was not conducted during the 4th quarter sampling event.

Monitor well MW-8 is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory guidelines since the 4th quarter sampling event of 2005. PAH analysis was not conducted during the 4th quarter sampling event.

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

SUMMARY

This report presents the results of monitoring activities for the 2014 annual monitoring period. Seven (7) groundwater monitor wells (MW-1A, MW-2 through MW-5, MW-7 and MW-8) are currently on-site. Monitor well MW-6 was plugged and abandoned on March 21, 2011 and monitor well MW-1 was plugged and abandoned on February 4, 2014. On February 4, 2014, monitor well MW-1A was installed approximately fifteen (15) feet south of monitor well MW-1. During the reporting period, no measurable thickness of PSH was detected in any of the site monitor wells.

The most recent Groundwater Gradient Map, Figure 3D, indicates a general gradient of 0.015 feet per foot to the southwest as measured between groundwater monitor wells MW-5 and MW-7.

A review of the laboratory analytical results for groundwater samples collected from monitor well MW-1A indicates benzene concentrations were below NMOCD regulatory guidelines during the 2nd and 3rd quarters of the reporting period and toluene, ethylbenzene and xylene concentrations were below NMOCD regulatory guidelines. Groundwater samples collected from the remaining six (6) monitor wells exhibited BTEX constituent concentrations below the NMOCD regulatory standard during all four (4) quarters of the reporting period.

Based on the results of PAH analysis over the past years, PAH analysis was conducted at monitor well MW-1A only. PAH analysis during the initial (1st quarter) sampling event indicated PAH constituents were below MDLs.

ANTICIPATED ACTIONS

PAH analysis will be conducted on monitor well MW-1A during the 2015 reporting period.

Groundwater monitoring and quarterly sampling will continue through 2015. An annual groundwater monitoring report will be submitted by April 1, 2016.

LIMITATIONS

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

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

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

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Figures

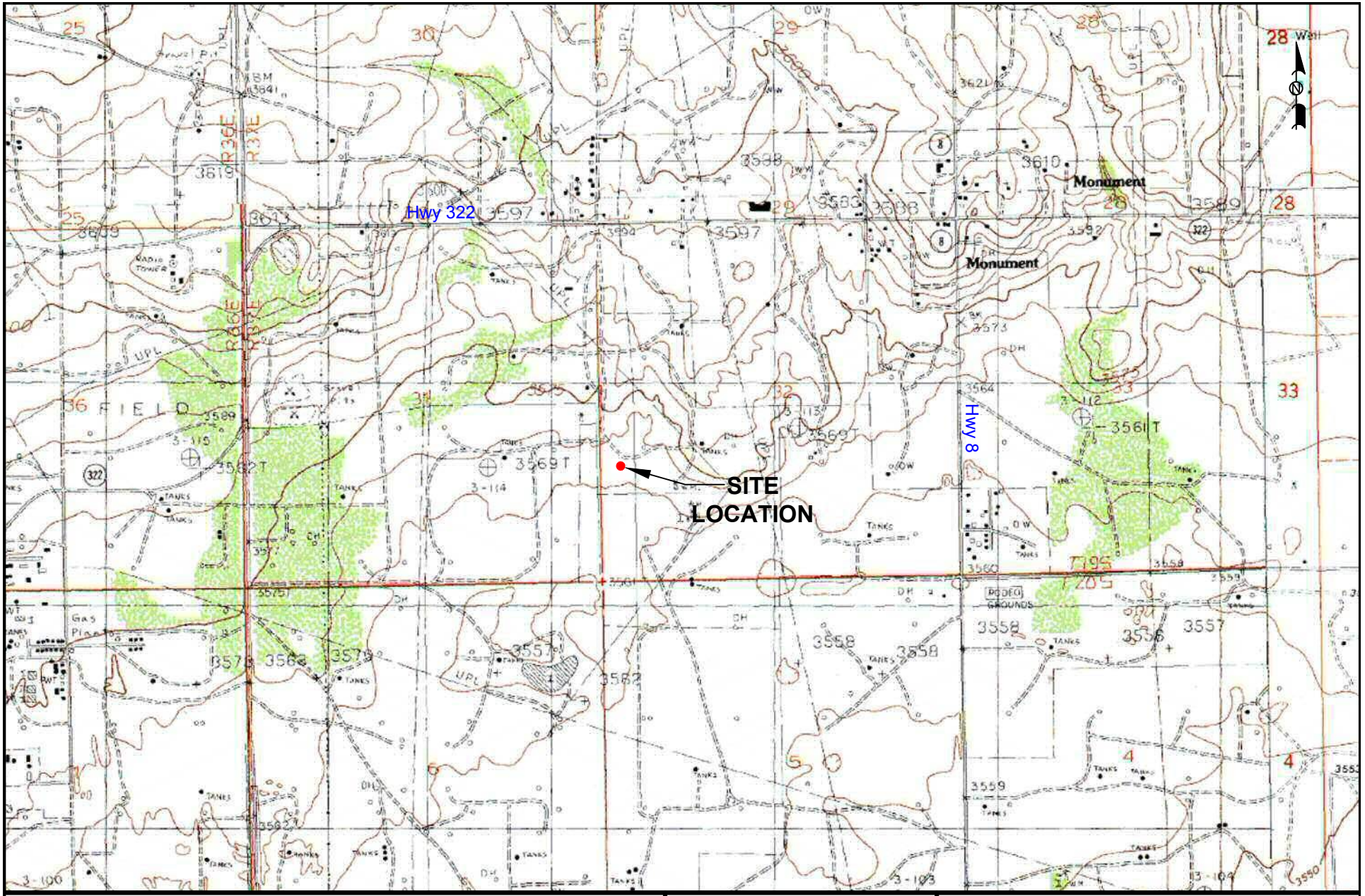
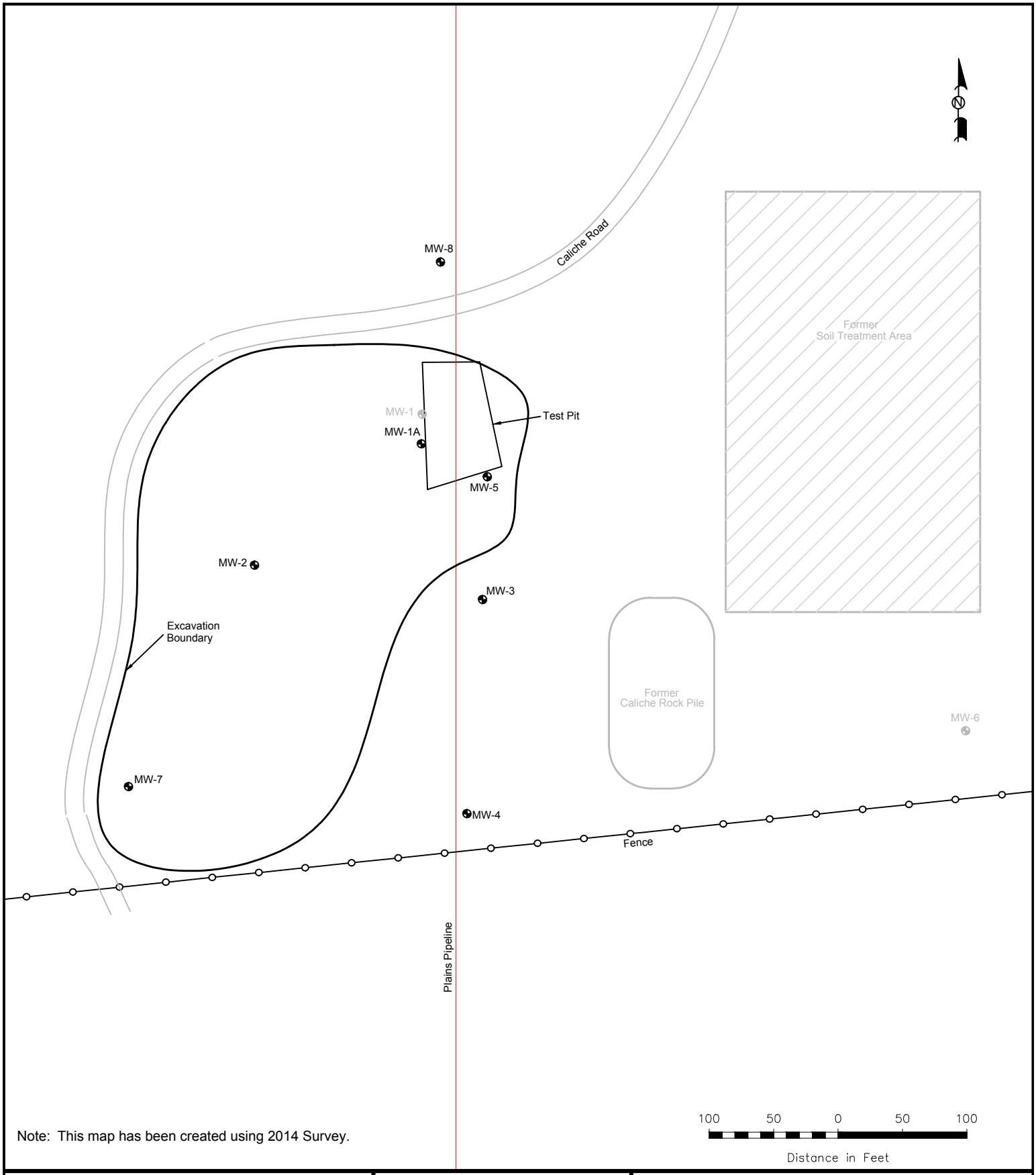


Figure 1
Site Location Map
Plains Marketing, L.P.
LF-59
NMOCD Reference # 1R-0103
Lea County, NM

NOVA safety and environmental
2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

June 10, 2014	Scale: 1" = 2000'	CAD By: TA	Checked By: CS
Lat. N 32° 36' 50.1" Long. W 103° 16' 47.6"		NW1/4 SW1/4 Sec 32 T19S R37E	



Note: This map has been created using 2014 Survey.

LEGEND:

- Monitor Well Location
- Pipeline

Figure 2

Site Map
NMOCD Reference # 1R-0103
Plains Marketing, L.P.
LF-59
Lea County, NM

NOVA safety and environmental
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June 10, 2014	Scale: 1" = 100'	CAD By: TA	Checked By: CS
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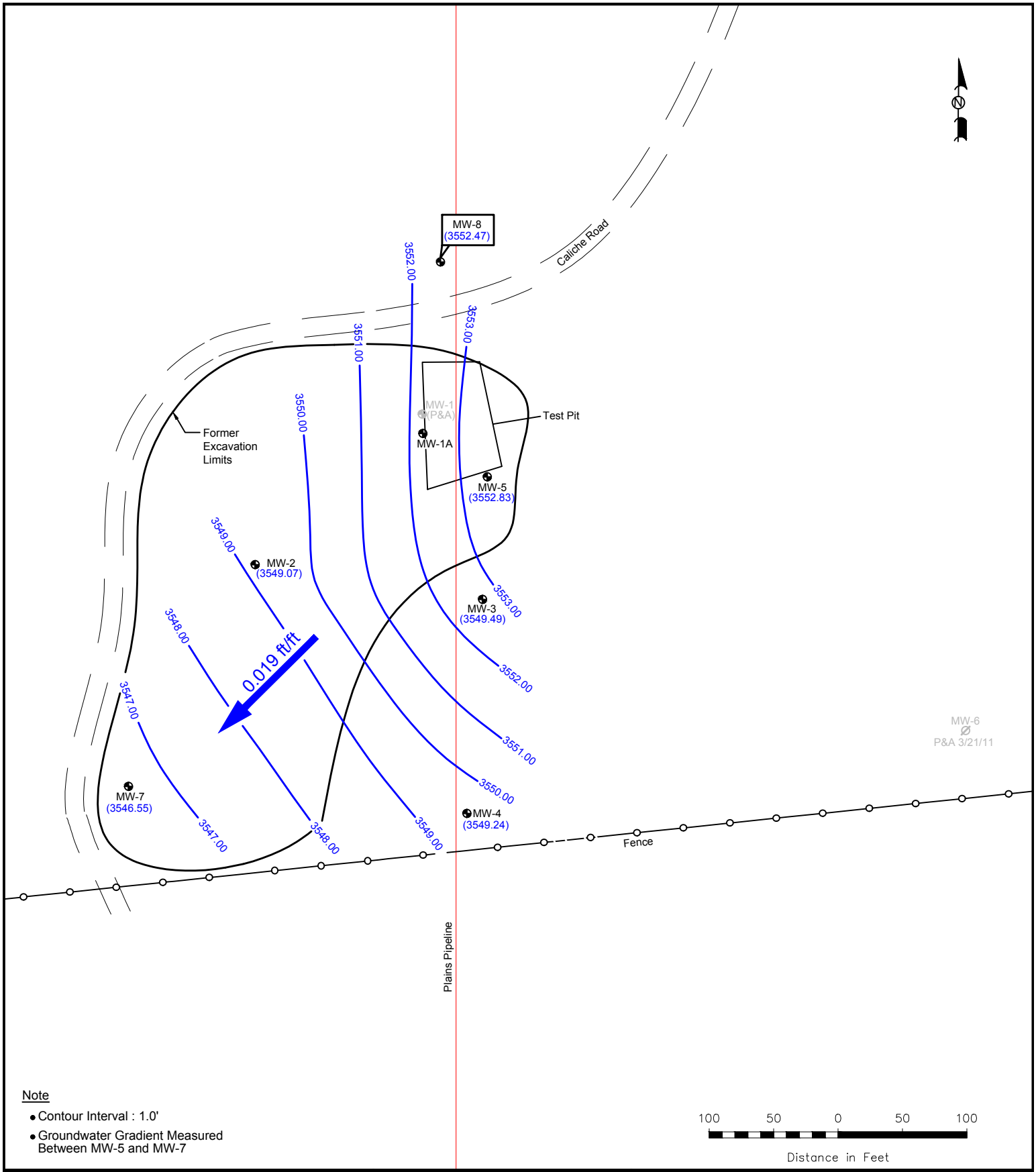

Note

- Contour Interval : 1.0'
- Groundwater Gradient Measured Between MW-5 and MW-7

100 50 0 50 100

Distance in Feet

LEGEND:

- Monitor Well Location
- Plugged and Abandoned Well
- Pipeline
- (3547.11) Groundwater Elevation in Feet
- Groundwater Elevation Contour Line
- 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 3A
Inferred Groundwater Gradient Map
(2/4/2014)
NMOCD Reference # 1R-0103
Plains Marketing, L.P.
LF-59
Lea County, NM

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April 12, 2013	Scale: 1" = 100'	CAD By: TA	Checked By: CS
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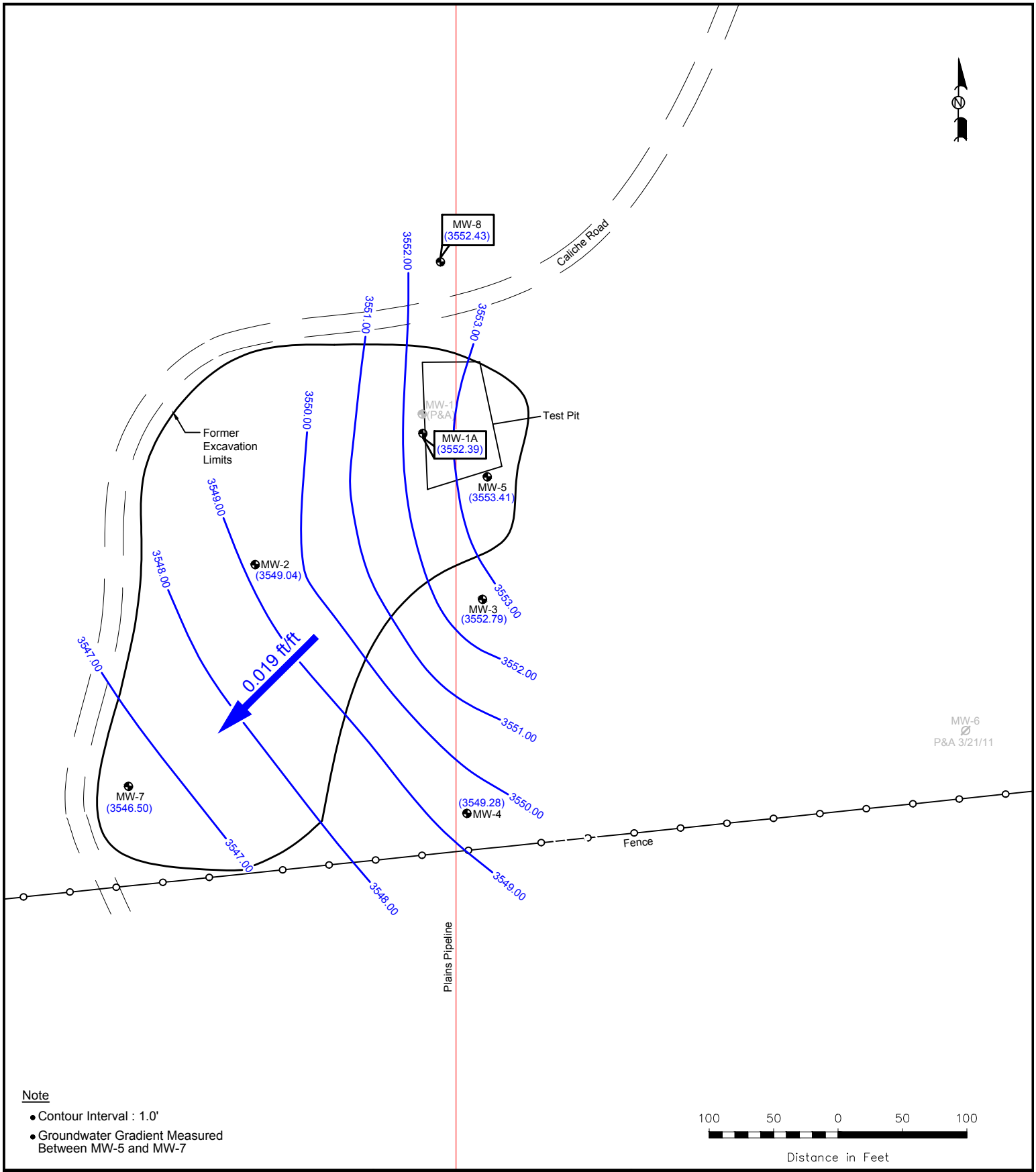

Note

- Contour Interval : 1.0'
- Groundwater Gradient Measured Between MW-5 and MW-7

100 50 0 50 100

Distance in Feet

LEGEND:

- Monitor Well Location
- Plugged and Abandoned Well
- Pipeline
- (3547.11) Groundwater Elevation in Feet
- Groundwater Elevation Contour Line
- 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 3B
Inferred Groundwater Gradient Map
(5/7/2014)
NMOCD Reference # 1R-0103
Plains Marketing, L.P.
LF-59
Lea County, NM

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September 24, 2014	Scale: 1" = 100'	CAD By: TA	Checked By: CS
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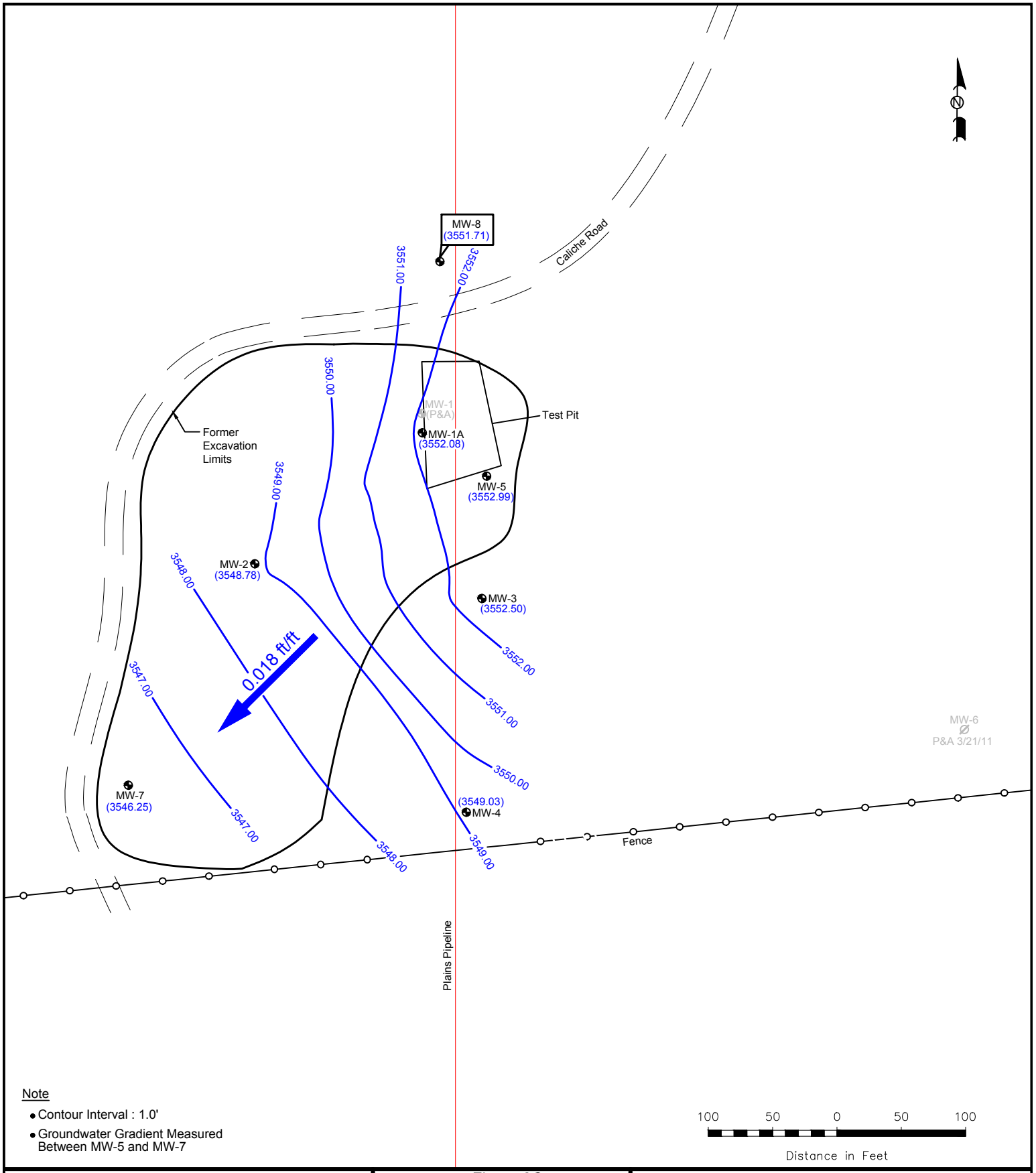

Note

- Contour Interval : 1.0'
- Groundwater Gradient Measured Between MW-5 and MW-7

100 50 0 50 100

Distance in Feet

LEGEND:

- Monitor Well Location
- Plugged and Abandoned Well
- Pipeline
- (3547.11) Groundwater Elevation in Feet
- Groundwater Elevation Contour Line
- 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 3C
Inferred Groundwater Gradient Map
(8/26/2014)
NMOCD Reference # 1R-0103
Plains Marketing, L.P.
LF-59
Lea County, NM

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September 24, 2014	Scale: 1" = 100'	CAD By: TA	Checked By: CS
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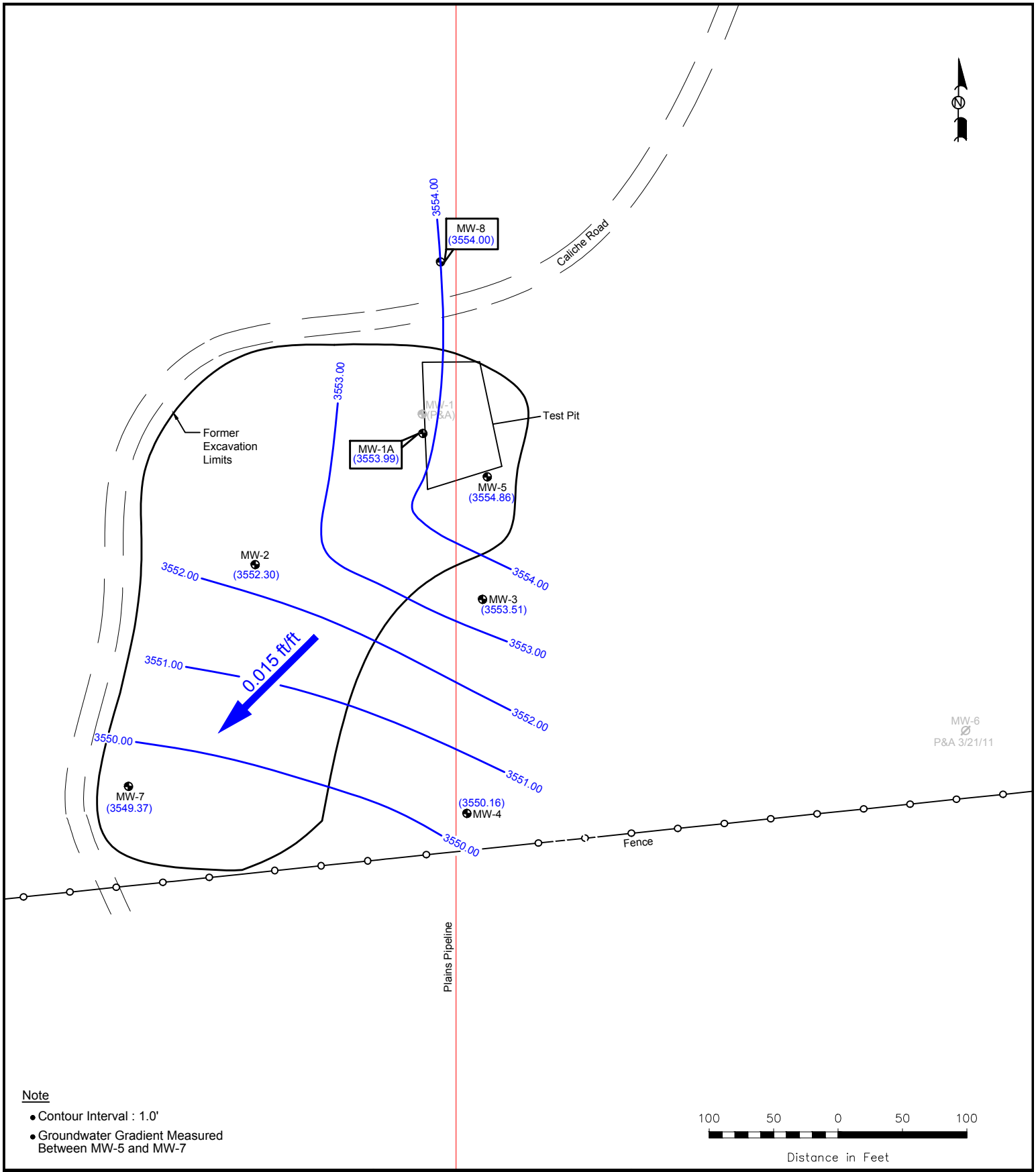

Note

- Contour Interval : 1.0'
- Groundwater Gradient Measured Between MW-5 and MW-7

100 50 0 50 100

Distance in Feet

LEGEND:

- Monitor Well Location
- Plugged and Abandoned Well
- Pipeline
- (3547.11) Groundwater Elevation in Feet
- Groundwater Elevation Contour Line
- 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 3D
Inferred Groundwater Gradient Map
(11/11/2014)
NMOCD Reference # 1R-0103
Plains Marketing, L.P.
LF-59
Lea County, NM

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November 14, 2014	Scale: 1" = 100'	CAD By: TA	Checked By: CS
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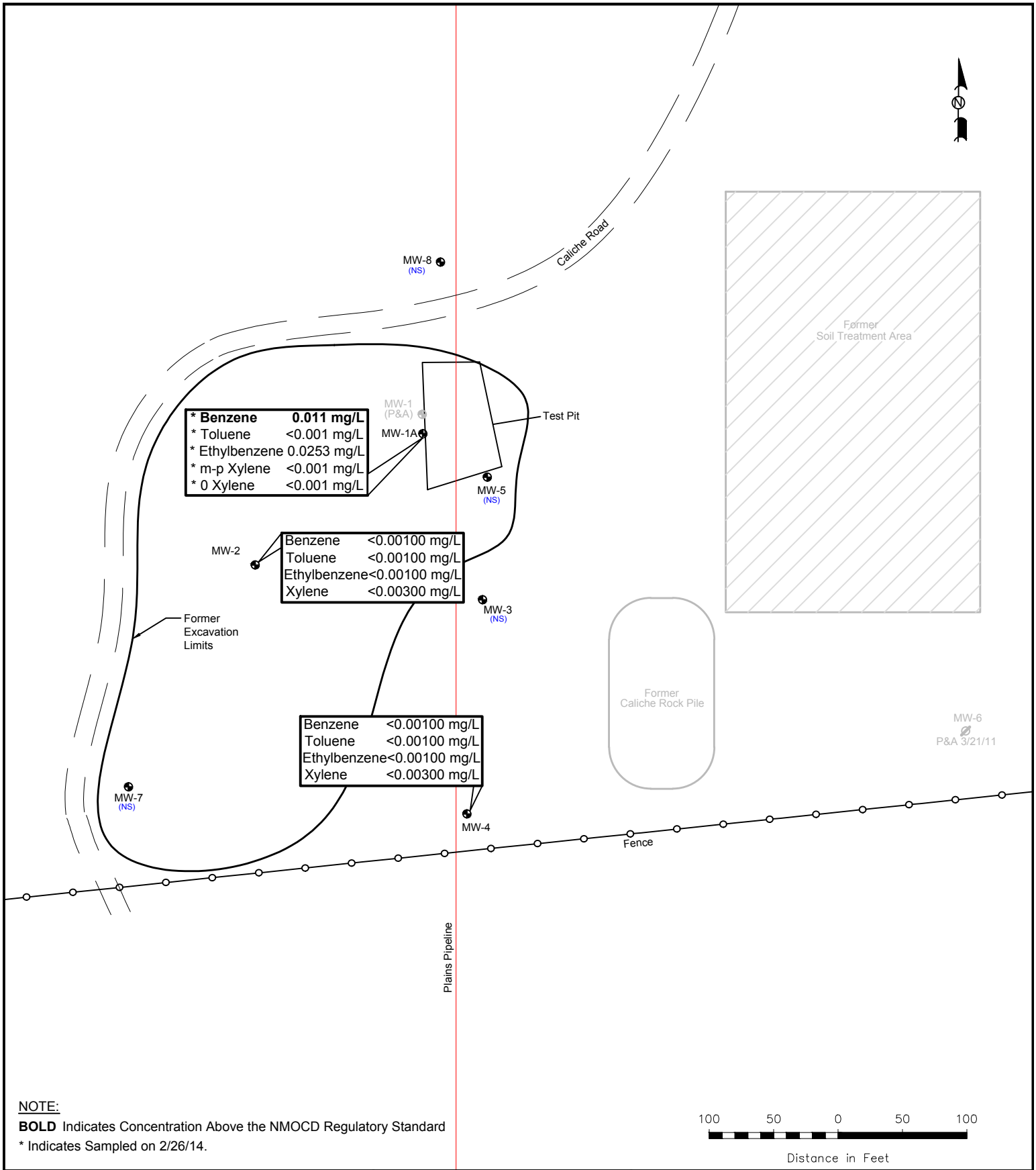

NOTE:

BOLD Indicates Concentration Above the NMOCD Regulatory Standard

* Indicates Sampled on 2/26/14.

LEGEND:

- Monitor Well Location
- Plugged and Abandoned Well
- Pipeline
- <0.001 Constituent Concentration (mg/L)
- (NS) Not Sampled

Figure 4A
Groundwater Concentration
Inferred PSH Extent Maps
(2/4/2014)
Plains Marketing, L.P.
LF-59
Lea County, NM
NMOCD Reference # 1R-0103

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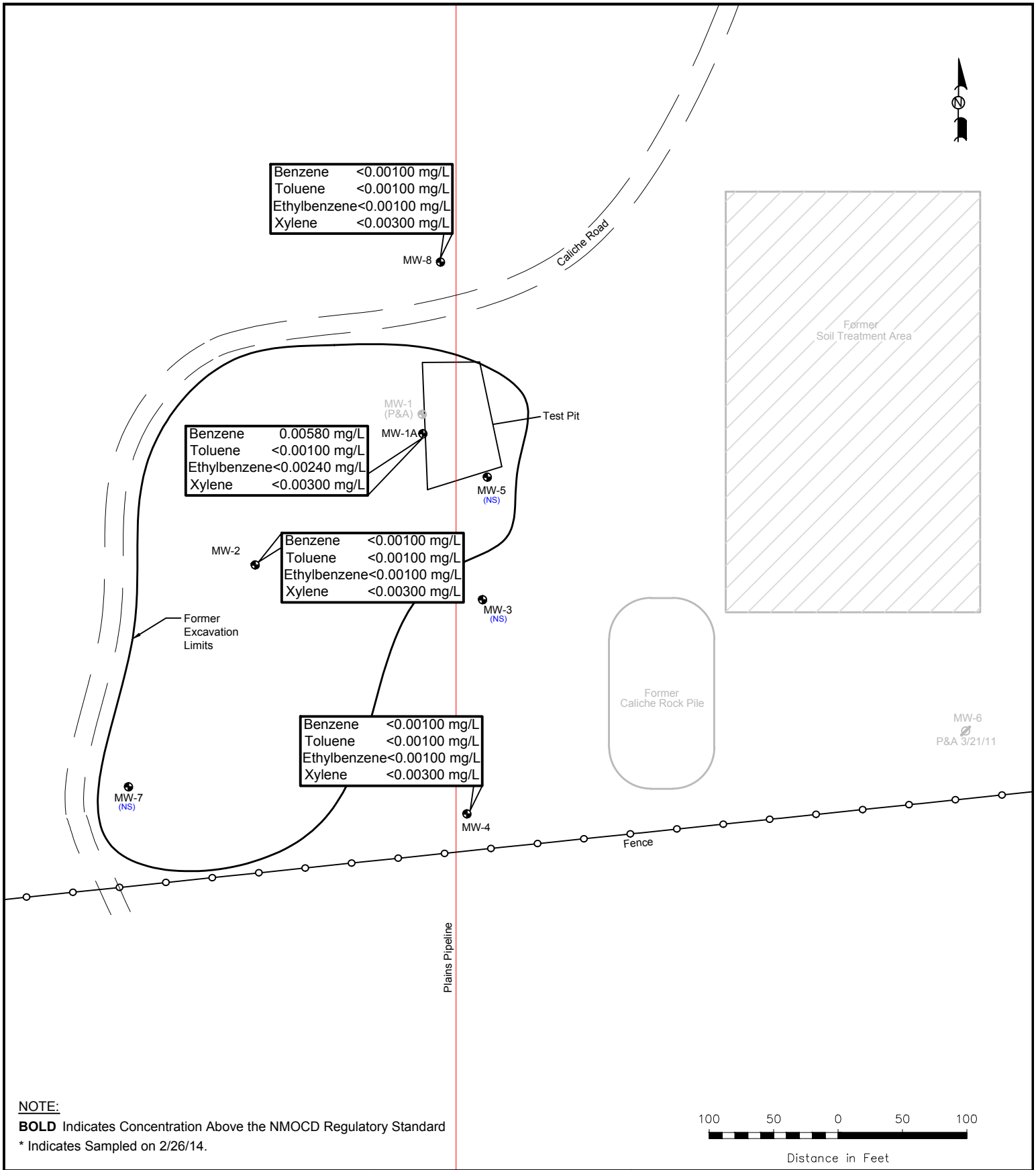

NOTE:

BOLD Indicates Concentration Above the NMOCD Regulatory Standard

* Indicates Sampled on 2/26/14.

LEGEND:

- Monitor Well Location
- Plugged and Abandoned Well
- Pipeline
- <0.001 Constituent Concentration (mg/L)
- (NS) Not Sampled

Figure 4B
Groundwater Concentration
Inferred PSH Extent Maps
(5/7/2014)
Plains Marketing, L.P.
LF-59
Lea County, NM
NMOCD Reference # 1R-0103

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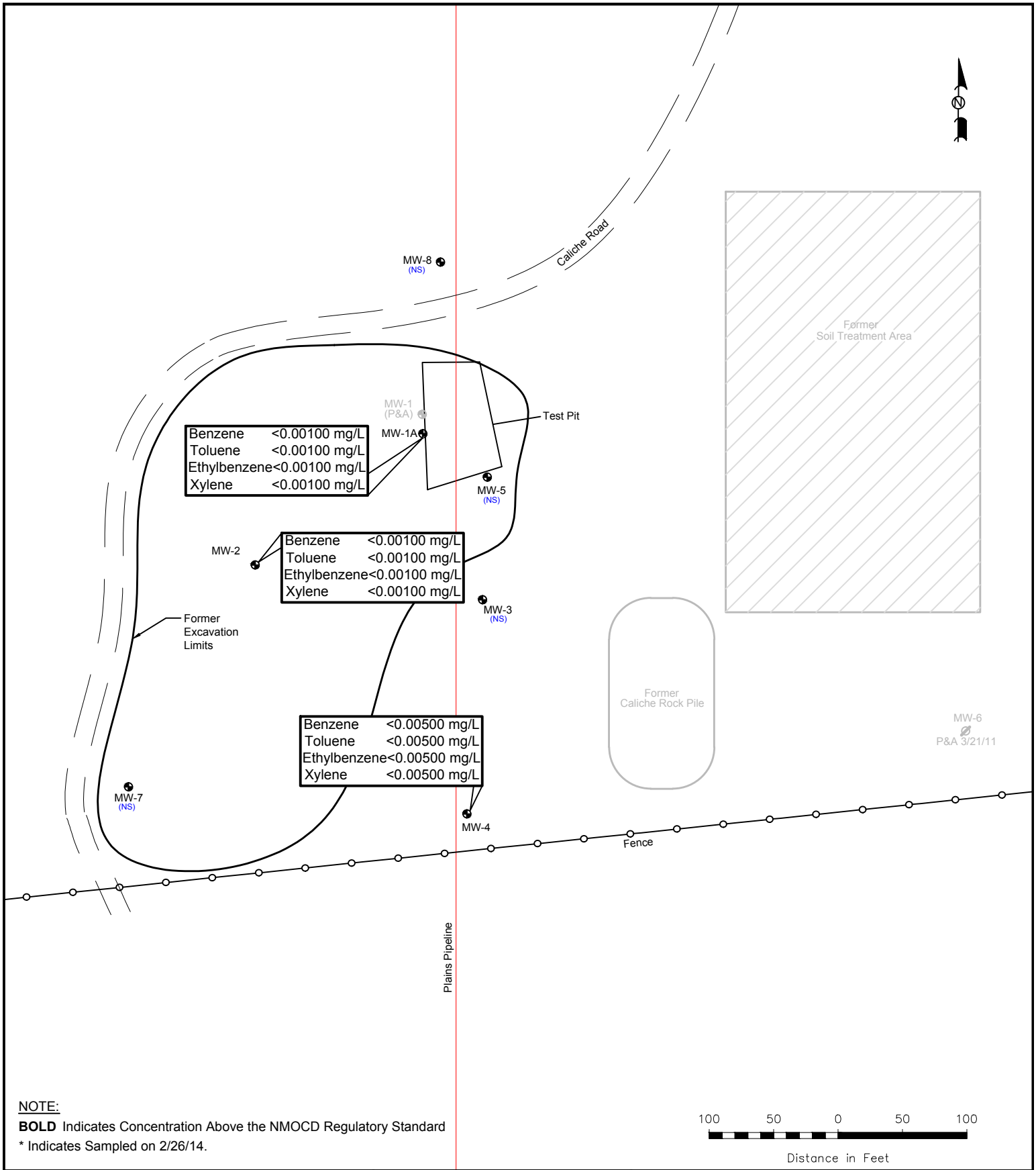

NOTE:

BOLD Indicates Concentration Above the NMOCD Regulatory Standard

* Indicates Sampled on 2/26/14.

LEGEND:

- Monitor Well Location
- Plugged and Abandoned Well
- Pipeline
- <0.001 Constituent Concentration (mg/L)
- (NS) Not Sampled

Figure 4C
Groundwater Concentration
Inferred PSH Extent Maps
(8/26/2014)
Plains Marketing, L.P.
LF-59
Lea County, NM
NMOCD Reference # 1R-0103

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September 24, 2014	Scale: 1" = 100'	CAD By: TA	Checked By: CS

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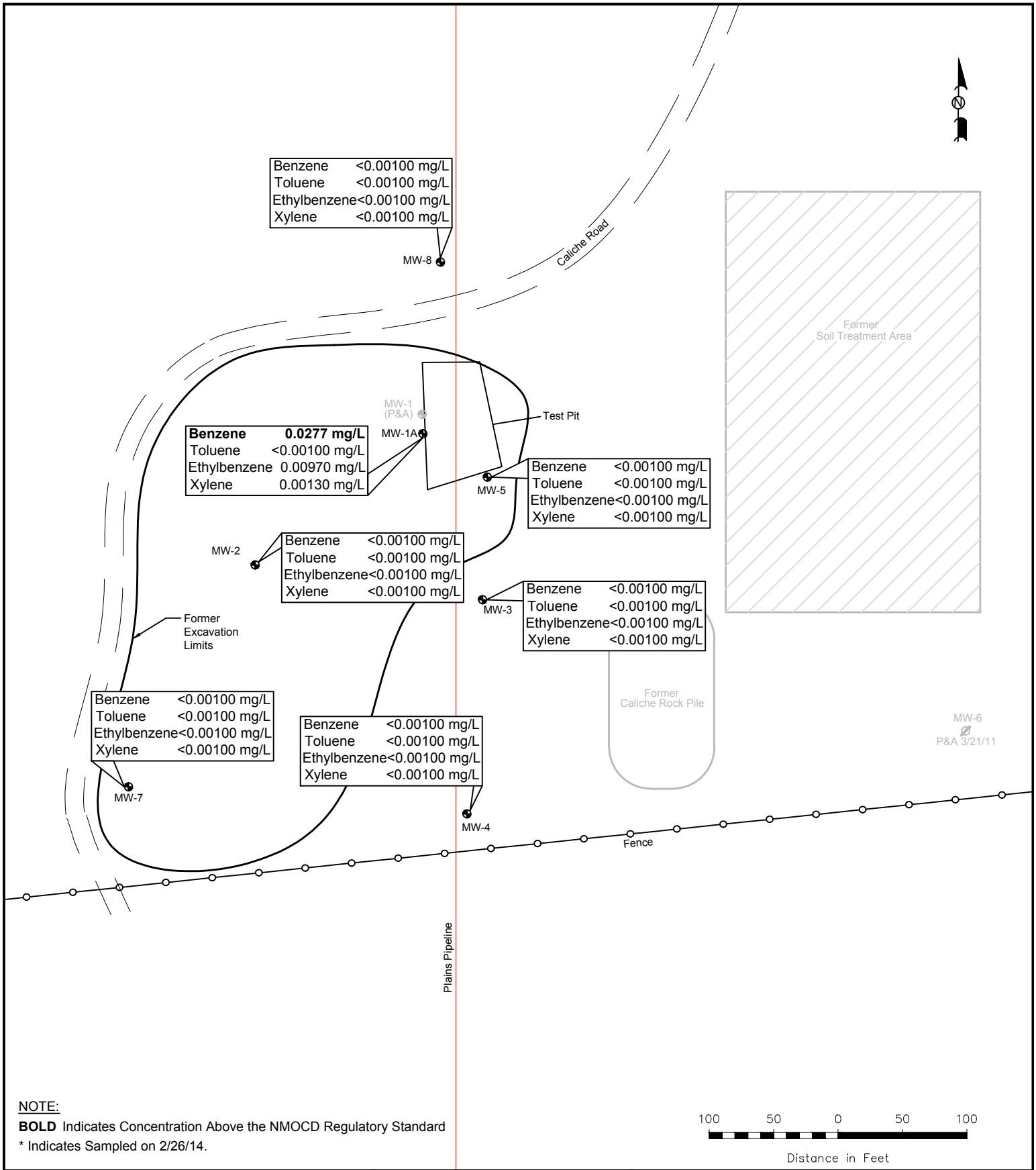

NOTE:

BOLD Indicates Concentration Above the NMOCD Regulatory Standard

* Indicates Sampled on 2/26/14.

LEGEND:

- Monitor Well Location
- Plugged and Abandoned Well
- Pipeline
- <0.001 Constituent Concentration (mg/L)
- (NS) Not Sampled

Figure 4D
Groundwater Concentration
Inferred PSH Extent Maps
(11/11/2014)
Plains Marketing, L.P.
LF-59
Lea County, NM
NMOCD Reference # 1R-0103

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December 16, 2014	Scale: 1" = 100'	CAD By: TA	Checked By: CS

Lat. N 32° 36' 50.1" Long. W 103° 16' 47.6"

Tables

TABLE 1

2014 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 1	01/23/14	3,572.21	-	19.73	0.00	3,552.48
MW - 1	*02/04/14*	3,572.21	Plugged and Abandoned			
MW - 1A	*02/26/14*	3,573.66	-	21.06	0.00	3,552.60
MW - 1A	03/27/14	3,573.66	-	21.10	0.00	3,552.56
MW - 1A	*05/07/14*	3,573.66	-	21.27	0.00	3,552.39
MW - 1A	05/30/14	3,573.66	-	21.30	0.00	3,552.36
MW - 1A	06/23/14	3,573.66	-	21.43	0.00	3,552.23
MW - 1A	07/28/14	3,573.66	-	21.60	0.00	3,552.06
MW - 1A	07/29/14	3,573.66	-	21.60	0.00	3,552.06
MW - 1A	*08/26/14*	3,573.66	-	21.58	0.00	3,552.08
MW - 1A	10/29/14	3,573.66	-	19.03	0.00	3,554.63
MW - 1A	10/31/14	3,573.66	-	-	-	-
MW - 1A	*11/11/14*	3,573.66	-	19.67	0.00	3,553.99
MW - 1A	12/01/14	3,573.66	-	20.47	0.00	3,553.19
MW - 2	*02/04/14*	3,571.46	-	22.39	0.00	3,549.07
MW - 2	*05/07/14*	3,571.46	-	22.42	0.00	3,549.04
MW - 2	07/28/14	3,571.46	-	22.59	0.00	3,548.87
MW - 2	*08/26/14*	3,571.46	-	22.68	0.00	3,548.78
MW - 2	10/29/14	3,571.46	-	18.68	0.00	3,552.78
MW - 2	*11/11/14*	3,571.46	-	19.16	0.00	3,552.30
MW - 3	*02/04/14*	3,573.46	-	20.63	0.00	3,552.83
MW - 3	*05/07/14*	3,573.46	-	20.67	0.00	3,552.79
MW - 3	07/28/14	3,573.46	-	20.90	0.00	3,552.56
MW - 3	*08/26/14*	3,573.46	-	20.96	0.00	3,552.50
MW - 3	10/29/14	3,573.46	-	19.76	0.00	3,553.70
MW - 3	*11/11/14*	3,573.46	-	19.95	0.00	3,553.51
MW - 4	*02/04/14*	3,570.15	-	20.66	0.00	3,549.49
MW - 4	*05/07/14*	3,570.15		20.87	0.00	3,549.28
MW - 4	07/28/14	3,570.15		21.05	0.00	3,549.10
MW - 4	*08/26/14*	3,570.15		21.12	0.00	3,549.03
MW - 4	10/29/14	3,570.15		19.97	0.00	3,550.18
MW - 4	*11/11/14*	3,570.15		19.99	0.00	3,550.16
MW - 5	*02/04/14*	3,572.92	-	19.45	0.00	3,553.47
MW - 5	*05/07/14*	3,572.92	-	19.51	0.00	3,553.41
MW - 5	07/28/14	3,572.92	-	19.83	0.00	3,553.09
MW - 5	*08/26/14*	3,572.92	-	19.93	0.00	3,552.99
MW - 5	10/29/14	3,572.92	-	17.59	0.00	3,555.33
MW - 5	*11/11/14*	3,572.92	-	18.06	0.00	3,554.86
MW - 7	*02/04/14*	3,569.75	-	23.20	0.00	3,546.55
MW - 7	*05/07/14*	3,569.75	-	23.25	0.00	3,546.50

TABLE 1

2014 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 7	07/28/14	3,569.75	-	23.45	0.00	3,546.30
MW - 7	*08/26/14*	3,569.75	-	23.50	0.00	3,546.25
MW - 7	10/29/14	3,569.75	-	20.04	0.00	3,549.71
MW - 7	*11/11/14*	3,569.75	-	20.38	0.00	3,549.37
MW - 8	*02/04/14*	3,573.59	-	21.12	0.00	3,552.47
MW - 8	*05/07/14*	3,573.59	-	21.16	0.00	3,552.43
MW - 8	07/28/14	3,573.59	-	21.75	0.00	3,551.84
MW - 8	*08/26/14*	3,573.59	-	21.88	0.00	3,551.71
MW - 8	10/29/14	3,573.59	-	18.66	0.00	3,554.93
MW - 8	*11/11/14*	3,573.59	-	19.59	0.00	3,554.00

**Complete Historical Tables are provided on the attached CD.*

TABLE 2

2014 CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD Reference Number 1R-0103

All results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p-XYLENES	o - XYLENE
NMOCD Regulatory Guideline		0.01	0.75	0.75	0.62	
MW - 1	02/04/14	Plugged and Abandoned				
MW - 1A	02/04/14	Installation				
MW - 1A	02/26/14	**0.0110**	<0.00100	0.00253	<0.00100	
MW - 1A	05/07/14	0.00580	<0.00100	0.00240	<0.00300	
MW - 1A	08/26/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 1A	11/11/14	**0.0277**	<0.00100	0.00970	0.00130	
MW - 2	02/04/14	<0.00100	<0.00100	<0.00100	<0.00300	
MW - 2	05/07/14	<0.00100	<0.00100	<0.00100	<0.00300	
MW - 2	08/26/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	11/11/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	02/04/14	Not Sampled on Current Sample Schedule				
MW - 3	05/07/14	Not Sampled on Current Sample Schedule				
MW - 3	08/26/14	Not Sampled on Current Sample Schedule				
MW - 3	11/11/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	02/04/14	<0.00100	<0.00100	<0.00100	<0.00300	
MW - 4	05/07/14	<0.00100	<0.00100	<0.00100	<0.00300	
MW - 4	08/26/14	<0.00500	<0.00500	<0.00500	<0.00500	
MW - 4	11/11/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	02/04/14	Not Sampled on Current Sample Schedule				
MW - 5	05/07/14	Not Sampled on Current Sample Schedule				
MW - 5	08/26/14	Not Sampled on Current Sample Schedule				
MW - 5	11/11/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	02/04/14	Not Sampled on Current Sample Schedule				
MW - 7	05/07/14	Not Sampled on Current Sample Schedule				
MW - 7	08/26/14	Not Sampled on Current Sample Schedule				
MW - 7	11/11/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	02/04/14	Not Sampled on Current Sample Schedule				
MW - 8	05/07/14	<0.00100	<0.00100	<0.00100	<0.00300	
MW - 8	08/26/14	Not Sampled on Current Sample Schedule				
MW - 8	11/11/14	<0.00100	<0.00100	<0.00100	<0.00100	

TABLE 3

2014 POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

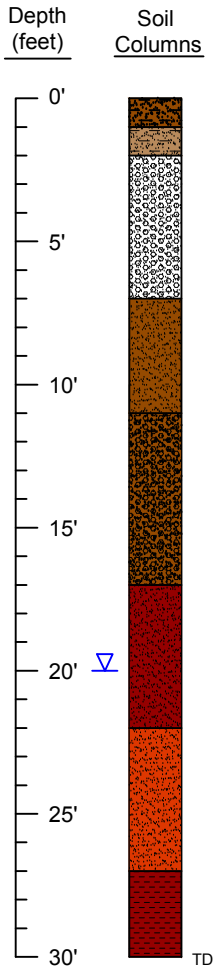
PLAINS MARKETING, L.P.
TNM LF-59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

All water concentrations are reported in mg/L

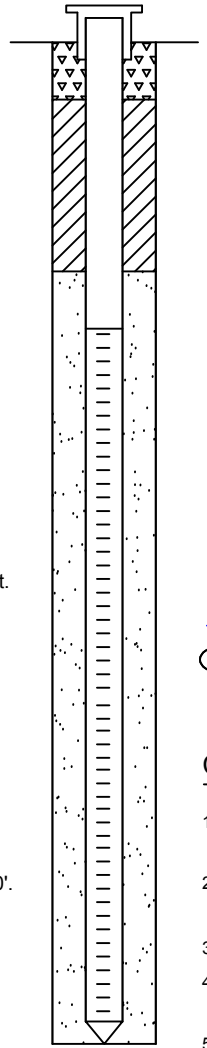
SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																		
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		--	--	**0.001 mg/L**	**0.0001 mg/L**	**0.0007 mg/L**	**0.001 mg/L**	--	**0.001 mg/L**	**0.0002 mg/L**	**0.0003 mg/L**	**0.001 mg/L**	**0.001 mg/L**	**0.0004 mg/L**	**0.001 mg/L**	**0.001 mg/L**	**0.03 mg/L**			--
MW-1A	02/26/14	<0.00492	<0.00492	**<0.00492**	**<0.00492**	**<0.00492**	**<0.00492**	<0.00492	**<0.00492**	**<0.00492**	**<0.00492**	**<0.00492**	**<0.00492**	**<0.00492**	**<0.00492**	**<0.00492**	**<5.00**	**<0.00492**	**<0.00492**	<0.00492
MW-2	11/11/14	Not Sampled as part of Quarterly Monitoring Event.																		
MW-3	11/11/14	Not Sampled as part of Quarterly Monitoring Event.																		
MW-4	11/11/14	Not Sampled as part of Quarterly Monitoring Event.																		
MW-5	11/11/14	Not Sampled as part of Quarterly Monitoring Event.																		
MW-7	11/11/14	Not Sampled as part of Quarterly Monitoring Event.																		
MW-8	11/11/14	Not Sampled as part of Quarterly Monitoring Event.																		

Soil Boring Log

Monitor Well MW-1A



Notes	Soil Description
No Odor	0 - 1' - Top soil (Brown silty sandy soil, with Caliche pebbles and cobbles)
	1 - 2' - Grayish brown fine grained sand, with lots of Caliche nodules.
	2 - 7' - White caliche with white, fine grained sand. Sand well rounded and well sorted.
	7 - 11' - Brown fine grained sand well rounded, well sorted.
Odor	
	11 - 17' - Brown fine grained well rounded and well sorted sand with white, hard caliche. Damp starting at 16'.
Strong Odor	
	17 - 22' - Red fine grained sand, well rounded moderately sorted, some clay content.
Odor	
	22 - 27' - Reddish tan sand, well rounded and well sorted. Wet.
	27 - 30' - Red, clay rich sand, well rounded, moderately sorted. Some gravel at 30'.



Monitor Well Details

Date Drilled 2-4-2014
Thickness of Bentonite Seal 6 ft
Length of PVC Well Screen 30 ft
Depth of PVC Well 30 ft
Depth of Exploratory Well 30 ft

Grout Surface Seal - 0' to 2'

Bentonite Pellet Seal - 2' to 8'

Sand Pack - 8' to 30'

Screen - 10' to 30'

▽ Indicates the ground water level measured on date.

Indicates samples selected for laboratory analysis.

PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

1. The monitor well was installed on date using Air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.010 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a stick-up and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from the ground surface.

Boring Log And Monitor Well Details

Monitor Well - 1A

Plains Pipeline, L.P. LF-59 Lea County, NM

NOVA Safety and Environmental

NOVA safety and environmental

Scale: N/A	Prep By: TA	Checked By: CS
March 21, 2014		

Historic Table 1

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 1	02/22/00	3,572.21	-	19.94	0.00	3,552.27
MW - 1	02/23/00	3,572.21	-	19.95	0.00	3,552.26
MW - 1	04/06/00	3,572.21	-	19.81	0.00	3,552.40
MW - 1	08/29/00	3,572.21	19.46	19.76	0.30	3,552.71
MW - 1	12/04/00	3,572.21	19.55	19.61	0.06	3,552.65
MW - 1	01/23/01	3,572.21	19.57	20.17	0.60	3,552.55
MW - 1	05/16/01	3,572.21	19.63	20.61	0.98	3,552.43
MW - 1	08/06/01	3,572.21	19.76	21.09	1.33	3,552.25
MW - 1	09/27/01	3,572.21	19.91	20.88	0.97	3,552.15
MW - 1	10/29/01	3,572.21	19.91	20.88	0.97	3,552.15
MW - 1	03/29/02	3,572.21	19.34	19.37	0.03	3,552.87
MW - 1	05/20/02	3,572.21	19.81	19.93	0.12	3,552.38
MW - 1	09/10/02	3,572.21	19.80	20.16	0.36	3,552.36
MW - 1	10/02/02	3,572.21	19.91	20.45	0.54	3,552.22
MW - 1	10/03/02	3,572.21	19.89	20.83	0.94	3,552.18
MW - 1	10/08/02	3,572.21	19.92	20.44	0.52	3,552.21
MW - 1	10/14/02	3,572.21	19.94	20.52	0.58	3,552.18
MW - 1	10/22/02	3,572.21	19.99	20.50	0.51	3,552.14
MW - 1	11/14/02	3,572.21	19.66	19.83	0.17	3,552.52
MW - 1	12/03/03	3,572.21	20.25	21.20	0.95	3,551.82
MW - 1	01/14/04	3,572.21	20.82	21.70	0.88	3,551.26
MW - 1	01/19/04	3,572.21	20.81	21.72	0.91	3,551.26
MW - 1	01/27/04	3,572.21	20.79	21.65	0.86	3,551.29
MW - 1	02/03/04	3,572.21	20.75	21.62	0.87	3,551.33
MW - 1	02/10/04	3,572.21	21.00	21.21	0.21	3,551.18
MW - 1	02/19/04	3,572.21	20.58	21.13	0.55	3,551.55
MW - 1	02/23/04	3,572.21	20.97	21.16	0.19	3,551.21
MW - 1	03/02/04	3,572.21	20.94	21.18	0.24	3,551.23
MW - 1	03/03/04	3,572.21	20.23	20.64	0.41	3,551.92
MW - 1	03/11/04	3,572.21	20.46	20.77	0.31	3,551.70
MW - 1	03/15/04	3,572.21	20.42	20.69	0.27	3,551.75
MW - 1	03/17/04	3,572.21	20.73	20.94	0.21	3,551.45
MW - 1	03/22/04	3,572.21	20.76	20.98	0.22	3,551.42
MW - 1	03/24/04	3,572.21	20.23	20.36	0.13	3,551.96
MW - 1	03/29/04	3,572.21	20.90	20.98	0.08	3,551.30
MW - 1	04/07/04	3,572.21	17.26	17.26	0.00	3,554.95
MW - 1	04/13/04	3,572.21	17.17	17.17	0.00	3,555.04
MW - 1	04/20/04	3,572.21	18.25	18.25	0.00	3,553.96
MW - 1	04/27/04	3,572.21	18.88	18.89	0.01	3,553.33
MW - 1	05/11/04	3,572.21	19.64	19.64	0.00	3,552.57
MW - 1	05/18/04	3,572.21	19.22	19.22	0.00	3,552.99
MW - 1	06/17/04	3,572.21	19.42	19.42	0.00	3,552.79
MW - 1	06/23/04	3,572.21	19.45	19.45	0.00	3,552.76
MW - 1	06/30/04	3,572.21	-	19.43	0.00	3,552.78
MW - 1	07/07/04	3,572.21	-	19.44	0.00	3,552.77
MW - 1	07/21/04	3,572.21	-	19.13	0.00	3,553.08

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 1	08/04/04	3,572.21	-	19.12	0.00	3,553.09
MW - 1	08/11/04	3,572.21	19.40	19.41	0.01	3,552.81
MW - 1	09/07/04	3,572.21	sheen	19.50	0.00	3,552.71
MW - 1	09/13/04	3,572.21	sheen	19.52	0.00	3,552.69
MW - 1	09/21/04	3,572.21	sheen	20.63	0.00	3,551.58
MW - 1	09/21/04	3,572.21	sheen	20.63	0.00	3,551.58
MW - 1	10/12/04	3,572.21	sheen	14.45	0.00	3,557.76
MW - 1	10/21/04	3,572.21	sheen	15.85	0.00	3,556.36
MW - 1	10/28/04	3,572.21	sheen	15.82	0.00	3,556.39
MW - 1	11/03/04	3,572.21	sheen	17.08	0.00	3,555.13
MW - 1	11/10/04	3,572.21	sheen	16.97	0.00	3,555.24
MW - 1	11/17/04	3,572.21	sheen	16.40	0.00	3,555.81
MW - 1	12/01/04	3,572.21	sheen	13.80	0.00	3,558.41
MW - 1	12/08/04	3,572.21	sheen	14.31	0.00	3,557.90
MW - 1	12/14/04	3,572.21	-	14.85	0.00	3,557.36
MW - 1	12/16/04	3,572.21	sheen	14.85	0.00	3,557.36
MW - 1	12/28/04	3,572.21	sheen	14.49	0.00	3,557.72
MW - 1	01/05/05	3,572.21	sheen	16.36	0.00	3,555.85
MW - 1	01/13/05	3,572.21	sheen	16.72	0.00	3,555.49
MW - 1	01/19/05	3,572.21	sheen	17.22	0.00	3,554.99
MW - 1	01/27/05	3,572.21	sheen	17.66	0.00	3,554.55
MW - 1	02/03/05	3,572.21	sheen	17.97	0.00	3,554.24
MW - 1	02/10/05	3,572.21	sheen	18.34	0.00	3,553.87
MW - 1	02/17/05	3,572.21	sheen	18.61	0.00	3,553.60
MW - 1	02/24/05	3,572.21	sheen	18.80	0.00	3,553.41
MW - 1	03/03/05	3,572.21	sheen	18.55	0.00	3,553.66
MW - 1	*03/08/05*	3,572.21	sheen	19.00	0.00	3,553.21
MW - 1	03/10/05	3,572.21	sheen	19.00	0.00	3,553.21
MW - 1	03/17/05	3,572.21	sheen	18.98	0.00	3,553.23
MW - 1	03/24/05	3,572.21	sheen	19.23	0.00	3,552.98
MW - 1	03/31/05	3,572.21	sheen	19.36	0.00	3,552.85
MW - 1	04/0705	3,572.21	sheen	19.29	0.00	3,552.92
MW - 1	04/14/05	3,572.21	sheen	19.23	0.00	3,552.98
MW - 1	05/24/05	3,572.21	sheen	20.09	0.00	3,552.12
MW - 1	*06/07/05*	3,572.21	sheen	19.43	0.00	3,552.78
MW - 1	06/23/05	3,572.21	sheen	19.51	0.00	3,552.70
MW - 1	07/28/05	3,572.21	sheen	19.58	0.00	3,552.63
MW - 1	08/24/05	3,572.21	sheen	18.19	0.00	3,554.02
MW - 1	*09/07/05*	3,572.21	-	18.96	0.00	3,553.25
MW - 1	09/30/05	3,572.21	-	19.29	0.00	3,552.92
MW - 1	10/28/05	3,572.21	sheen	19.42	0.00	3,552.79
MW - 1	11/16/05	3,572.21	sheen	19.50	0.00	3,552.71
MW - 1	*12/02/05*	3,572.21	-	19.54	0.00	3,552.67
MW - 1	12/30/05	3,572.21	sheen	19.59	0.00	3,552.62
MW - 1	01/18/06	3,572.21	sheen	19.60	0.00	3,552.61
MW - 1	02/17/06	3,572.21	sheen	19.60	0.00	3,552.61

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 1	*03/08/06*	3,572.21	sheen	19.59	0.00	3,552.62
MW - 1	03/20/06	3,572.21	sheen	19.64	0.00	3,552.57
MW - 1	04/19/06	3,572.21	sheen	19.62	0.00	3,552.59
MW - 1	05/25/06	3,572.21	20.61	20.72	0.11	3,551.58
MW - 1	*06/07/06*	3,572.21	sheen	19.62	0.00	3,552.59
MW - 1	07/13/06	3,572.21	sheen	19.28	0.00	3,552.93
MW - 1	07/27/06	3,572.21	sheen	19.61	0.00	3,552.60
MW - 1	08/10/06	3,572.21	-	19.49	0.00	3,552.72
MW - 1	*09/12/06*	3,572.21	-	14.64	0.00	3,557.57
MW - 1	09/16/06	3,572.21	sheen	14.71	0.00	3,557.50
MW - 1	10/04/06	3,572.21	-	19.66	0.00	3,552.55
MW - 1	11/15/06	3,572.21	-	19.26	0.00	3,552.95
MW - 1	*11/22/06*	3,572.21	-	18.75	0.00	3,553.46
MW - 1	01/11/07	3,572.21	-	19.40	0.00	3,552.81
MW - 1	02/05/07	3,572.21	-	19.43	0.00	3,552.78
MW - 1	*02/21/07*	3,572.21	-	19.54	0.00	3,552.67
MW - 1	03/27/07	3,572.21	-	19.44	0.00	3,552.77
MW - 1	*05/16/07*	3,572.21	-	19.34	0.00	3,552.87
MW - 1	*08/10/07*	3,572.21	-	19.51	0.00	3,552.70
MW - 1	*12/28/07*	3,572.21	-	19.60	0.00	3,552.61
MW - 1	*02/18/08*	3,572.21	-	19.60	0.00	3,552.61
MW - 1	02/29/08	3,572.21	-	19.64	0.00	3,552.57
MW - 1	*05/12/08*	3,572.21	-	19.67	0.00	3,552.54
MW - 1	*08/08/08*	3,572.21	-	19.78	0.00	3,552.43
MW - 1	08/12/08	3,572.21	-	19.76	0.00	3,552.45
MW - 1	10/08/08	3,572.21	-	19.98	0.00	3,552.23
MW - 1	10/24/08	3,572.21	-	19.71	0.00	3,552.50
MW - 1	10/28/08	3,572.21	-	19.70	0.00	3,552.51
MW - 1	11/03/08	3,572.21	-	19.81	0.00	3,552.40
MW - 1	*11/07/08*	3,572.21	-	19.74	0.00	3,552.47
MW - 1	11/10/08	3,572.21	-	19.78	0.00	3,552.43
MW - 1	11/17/08	3,572.21	-	19.78	0.00	3,552.43
MW - 1	11/24/08	3,572.21	-	19.94	0.00	3,552.27
MW - 1	12/01/08	3,572.21	-	21.62	0.00	3,550.59
MW - 1	12/08/08	3,572.21	-	19.85	0.00	3,552.36
MW - 1	12/15/08	3,572.21	-	21.49	0.00	3,550.72
MW - 1	12/19/08	3,572.21	-	19.78	0.00	3,552.43
MW - 1	12/22/08	3,572.21	-	19.78	0.00	3,552.43
MW - 1	12/29/08	3,572.21	-		0.00	3,572.21
MW - 1	01/07/09	3,572.21	-	19.83	0.00	3,552.38
MW - 1	*01/12/09*	3,572.21	-	18.81	0.00	3,553.40
MW - 1	*01/15/09*	3,572.21	-	19.86	0.00	3,552.35
MW - 1	*01/19/09*	3,572.21	-	19.83	0.00	3,552.38
MW - 1	*01/21/09*	3,572.21	-	19.87	0.00	3,552.34
MW - 1	*01/29/09*	3,572.21	-	19.86	0.00	3,552.35
MW - 1	*02/06/09*	3,572.21	-	19.85	0.00	3,552.36

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 1	*02/17/09*	3,572.21	-	19.87	0.00	3,552.34
MW - 1	02/23/09	3,572.21	-	19.94	0.00	3,552.27
MW - 1	*03/02/09*	3,572.21	-	19.92	0.00	3,552.29
MW - 1	03/05/09	3,572.21	-	21.01	0.00	3,551.20
MW - 1	03/09/09	3,572.21	-	20.03	0.00	3,552.18
MW - 1	*03/17/09*	3,572.21	-	21.01	0.00	3,551.20
MW - 1	03/18/09	3,572.21	-	21.02	0.00	3,551.19
MW - 1	03/26/09	3,572.21	-	19.95	0.00	3,552.26
MW - 1	03/30/09	3,572.21	-	20.02	0.00	3,552.19
MW - 1	04/06/09	3,572.21	-	19.97	0.00	3,552.24
MW - 1	04/13/09	3,572.21	-	21.03	0.00	3,551.18
MW - 1	04/16/09	3,572.21	-	19.96	0.00	3,552.25
MW - 1	04/20/09	3,572.21	-	19.93	0.00	3,552.28
MW - 1	04/23/09	3,572.21	-	21.04	0.00	3,551.17
MW - 1	04/27/09	3,572.21	-	21.03	0.00	3,551.18
MW - 1	04/30/09	3,572.21	-	19.92	0.00	3,552.29
MW - 1	*05/07/09*	3,572.21	-	19.90	0.00	3,552.31
MW - 1	05/21/09	3,572.21	-	19.72	0.00	3,552.49
MW - 1	05/26/09	3,572.21	-	19.76	0.00	3,552.45
MW - 1	06/02/09	3,572.21	-	19.74	0.00	3,552.47
MW - 1	06/08/09	3,572.21	-	19.78	0.00	3,552.43
MW - 1	06/17/09	3,572.21	-	21.02	0.00	3,551.19
MW - 1	06/29/09	3,572.21	-	21.01	0.00	3,551.20
MW - 1	07/07/09	3,572.21	-	19.74	0.00	3,552.47
MW - 1	07/14/09	3,572.21	-	19.67	0.00	3,552.54
MW - 1	07/21/09	3,572.21	-	19.56	0.00	3,552.65
MW - 1	07/27/09	3,572.21	-	19.68	0.00	3,552.53
MW - 1	07/30/09	3,572.21	-	19.65	0.00	3,552.56
MW - 1	*08/04/09*	3,572.21	-	19.69	0.00	3,552.52
MW - 1	08/06/09	3,572.21	-	19.66	0.00	3,552.55
MW - 1	08/19/09	3,572.21	-	19.70	0.00	3,552.51
MW - 1	08/27/09	3,572.21	-	19.71	0.00	3,552.50
MW - 1	08/31/09	3,572.21	-	19.72	0.00	3,552.49
MW - 1	09/10/09	3,572.21	-	19.66	0.00	3,552.55
MW - 1	09/17/09	3,572.21	-	19.65	0.00	3,552.56
MW - 1	09/25/09	3,572.21	-	19.63	0.00	3,552.58
MW - 1	09/29/09	3,572.21	-	19.78	0.00	3,552.43
MW - 1	10/06/09	3,572.21	-	19.71	0.00	3,552.50
MW - 1	10/19/09	3,572.21	-	19.79	0.00	3,552.42
MW - 1	10/26/09	3,572.21	-	19.86	0.00	3,552.35
MW - 1	11/06/09	3,572.21	-	19.68	0.00	3,552.53
MW - 1	*11/09/09*	3,572.21	-	19.79	0.00	3,552.42
MW - 1	12/08/09	3,572.21	-	19.71	0.00	3,552.50
MW - 1	01/05/10	3,572.21	-	19.79	0.00	3,552.42
MW - 1	*01/21/10*	3,572.21	-	19.70	0.00	3,552.51
MW - 1	*02/04/10*	3,572.21	-	19.70	0.00	3,552.51

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 1	03/03/10	3,572.21	-	19.78	0.00	3,552.43
MW - 1	04/16/10	3,572.21	-	19.76	0.00	3,552.45
MW - 1	*08/09/10*	3,572.21	-	19.79	0.00	3,552.42
MW - 1	*11/01/10*	3,572.21	-	19.52	0.00	3,552.69
MW - 1	*02/10/11*	3,572.21	-	19.52	0.00	3,552.69
MW - 1	*05/04/11*	3,572.21	-	19.65	0.00	3,552.56
MW - 1	05/26/11	3,572.21	-	19.68	0.00	3,552.53
MW - 1	06/09/11	3,572.21	-	19.69	0.00	3,552.52
MW - 1	06/13/11	3,572.21	-	19.65	0.00	3,552.56
MW - 1	06/29/11	3,572.21	-	19.70	0.00	3,552.51
MW - 1	07/07/11	3,572.21	-	19.71	0.00	3,552.50
MW - 1	07/08/11	3,572.21	-	19.54	0.00	3,552.67
MW - 1	08/01/11	3,572.21	-	19.68	0.00	3,552.53
MW - 1	*08/03/11*	3,572.21	-	19.53	0.00	3,552.68
MW - 1	09/12/11	3,572.21	-	19.80	0.00	3,552.41
MW - 1	10/31/11	3,572.21	-	20.00	0.00	3,552.21
MW - 1	*11/11/11*	3,572.21	-	19.77	0.00	3,552.44
MW - 1	12/07/11	3,572.21	-	19.74	0.00	3,552.47
MW - 1	12/21/11	3,572.21	-	19.75	0.00	3,552.46
MW - 1	01/03/12	3,572.21	-	19.75	0.00	3,552.46
MW - 1	01/11/12	3,572.21	-	19.71	0.00	3,552.50
MW - 1	*02/13/12*	3,572.21	-	19.78	0.00	3,552.43
MW - 1	03/19/12	3,572.21	-	19.73	0.00	3,552.48
MW - 1	*05/25/12*	3,572.21	-	19.72	0.00	3,552.49
MW - 1	06/21/12	3,572.21	-	19.71	0.00	3,552.50
MW - 1	*08/06/12*	3,572.21	-	19.81	0.00	3,552.40
MW - 1	*10/24/12*	3,572.21	-	19.76	0.00	3,552.45
MW - 1	*11/08/12*	3,572.21	-	19.73	0.00	3,552.48
MW - 1	*12/14/12*	3,572.21	-	19.76	0.00	3,552.45
MW - 1	01/24/13	3,572.21	-	19.80	0.00	3,552.41
MW - 1	02/04/13	3,572.21	-	19.76	0.00	3,552.45
MW - 1	*02/05/13*	3,572.21	-	19.74	0.00	3,552.47
MW - 1	03/26/13	3,572.21	-	19.78	0.00	3,552.43
MW - 1	*04/30/12*	3,572.21	-	19.83	0.00	3,552.38
MW - 1	05/01/13	3,572.21	-	19.83	0.00	3,552.38
MW - 1	*05/28/13*	3,572.21	-	19.78	0.00	3,552.43
MW - 1	05/30/13	3,572.21	-	19.80	0.00	3,552.41
MW - 1	06/12/13	3,572.21	-	19.84	0.00	3,552.37
MW - 1	07/02/13	3,572.21	-	19.99	0.00	3,552.22
MW - 1	08/06/13	3,572.21	-	17.82	0.00	3,554.39
MW - 1	*08/13/13*	3,572.21	-	19.68	0.00	3,552.53
MW - 1	09/25/13	3,572.21	-	19.66	0.00	3,552.55
MW - 1	10/25/13	3,572.21	-	19.76	0.00	3,552.45
MW - 1	*11/20/13*	3,572.21	-	19.65	0.00	3,552.56
MW - 1	12/23/13	3,572.21	-	19.70	0.00	3,552.51

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 2	02/22/00	3,571.46	-	22.95	0.00	3,548.51
MW - 2	02/23/00	3,571.46	-	22.95	0.00	3,548.51
MW - 2	04/06/00	3,571.46	-	22.87	0.00	3,548.59
MW - 2	08/29/00	3,571.46	-	22.06	0.00	3,549.40
MW - 2	12/04/00	3,571.46	-	22.48	0.00	3,548.98
MW - 2	01/23/01	3,571.46	-	22.54	0.00	3,548.92
MW - 2	05/16/01	3,571.46	-	22.53	0.00	3,548.93
MW - 2	08/06/01	3,571.46	-	22.74	0.00	3,548.72
MW - 2	09/27/01	3,571.46	-	22.85	0.00	3,548.61
MW - 2	10/29/01	3,571.46	-	22.85	0.00	3,548.61
MW - 2	03/29/02	3,571.46	-	21.86	0.00	3,549.60
MW - 2	05/20/02	3,571.46	-	22.51	0.00	3,548.95
MW - 2	09/10/02	3,571.46	-	22.59	0.00	3,548.87
MW - 2	11/14/02	3,571.46	-	22.12	0.00	3,549.34
MW - 2	12/03/03	3,571.46	-	22.99	0.00	3,548.47
MW - 2	03/03/04	3,571.46	-	23.01	0.00	3,548.45
MW - 2	05/18/04	3,571.46	-	21.06	0.00	3,550.40
MW - 2	09/07/04	3,571.46	-	22.10	0.00	3,549.36
MW - 2	12/14/04	3,571.46	-	16.61	0.00	3,554.85
MW - 2	*03/08/05*	UNABLE TO GAUGE				
MW - 2	*06/07/05*	3,571.46	-	21.82	0.00	3,549.64
MW - 2	*09/07/05*	3,571.46	-	20.60	0.00	3,550.86
MW - 2	*12/02/05*	3,571.46	-	22.06	0.00	3,549.40
MW - 2	*03/08/06*	3,571.46	-	22.30	0.00	3,549.16
MW - 2	*06/07/06*	3,571.46	-	22.36	0.00	3,549.10
MW - 2	07/13/06	3,571.46	-	22.26	0.00	3,549.20
MW - 2	07/27/06	3,571.46	-	22.31	0.00	3,549.15
MW - 2	08/10/06	3,571.46	-	22.16	0.00	3,549.30
MW - 2	*09/12/06*	3,571.46	-	16.31	0.00	3,555.15
MW - 2	09/16/06	3,571.46	-	16.78	0.00	3,554.68
MW - 2	10/04/06	3,571.46	-	16.35	0.00	3,555.11
MW - 2	11/15/06	3,571.46	-	16.00	0.00	3,555.46
MW - 2	*11/22/06*	3,571.46	-	19.95	0.00	3,551.51
MW - 2	01/11/07	3,571.46	-	21.40	0.00	3,550.06
MW - 2	*02/21/07*	3,571.46	-	21.89	0.00	3,549.57
MW - 2	*05/16/07*	3,571.46	-	22.04	0.00	3,549.42
MW - 2	*08/10/07*	3,571.46	-	22.19	0.00	3,549.27
MW - 2	*12/28/07*	3,571.46	-	22.38	0.00	3,549.08
MW - 2	*02/18/08*	3,571.46	-	22.42	0.00	3,549.04
MW - 2	*05/12/08*	3,571.46	-	22.41	0.00	3,549.05
MW - 2	*08/08/08*	3,571.46	-	22.45	0.00	3,549.01
MW - 2	*11/07/08*	3,571.46	-	22.43	0.00	3,549.03
MW - 2	*02/06/09*	3,571.46	-	22.48	0.00	3,548.98
MW - 2	04/13/09	3,571.46	-	21.02	0.00	3,550.44
MW - 2	*05/07/09*	3,571.46	-	22.49	0.00	3,548.97
MW - 2	07/07/09	3,571.46	-	22.39	0.00	3,549.07

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 2	*08/04/09*	3,571.46	-	22.31	0.00	3,549.15
MW - 2	*11/09/09*	3,571.46	-	22.35	0.00	3,549.11
MW - 2	01/05/10	3,571.46	-	22.40	0.00	3,549.06
MW - 2	*02/04/10*	3,571.46	-	22.42	0.00	3,549.04
MW - 2	*08/09/10*	3,571.46	-	22.35	0.00	3,549.11
MW - 2	*11/01/10*	3,571.46	-	21.78	0.00	3,549.68
MW - 2	*02/10/11*	3,571.46	-	21.80	0.00	3,549.66
MW - 2	*05/04/11*	3,571.46	-	22.34	0.00	3,549.12
MW - 2	*08/03/11*	3,571.46	-	21.82	0.00	3,549.64
MW - 2	*11/11/11*	3,571.46	-	22.48	0.00	3,548.98
MW - 2	*02/13/12*	3,571.46	-	22.48	0.00	3,548.98
MW - 2	*05/25/12*	3,571.46	-	22.45	0.00	3,549.01
MW - 2	*08/06/12*	3,571.46	-	22.51	0.00	3,548.95
MW - 2	*11/08/12*	3,571.46	-	22.42	0.00	3,549.04
MW - 2	*02/05/13*	3,571.46	-	22.43	0.00	3,549.03
MW - 2	*05/28/13*	3,571.46	-	22.48	0.00	3,548.98
MW - 2	*08/13/13*	3,571.46	-	22.41	0.00	3,549.05
MW - 2	*11/20/13*	3,571.46	-	22.33	0.00	3,549.13
MW - 3	02/22/00	3,573.46	-	20.95	0.00	3,552.51
MW - 3	02/23/00	3,573.46	-	20.92	0.00	3,552.54
MW - 3	04/06/00	3,573.46	-	20.85	0.00	3,552.61
MW - 3	08/29/00	3,573.46	-	20.53	0.00	3,552.93
MW - 3	12/04/00	3,573.46	-	20.64	0.00	3,552.82
MW - 3	01/23/01	3,573.46	-	20.60	0.00	3,552.86
MW - 3	05/16/01	3,573.46	-	20.69	0.00	3,552.77
MW - 3	08/06/01	3,573.46	-	20.89	0.00	3,552.57
MW - 3	09/27/01	3,573.46	-	20.96	0.00	3,552.50
MW - 3	10/29/01	3,573.46	-	20.96	0.00	3,552.50
MW - 3	03/29/02	3,573.46	-	20.54	0.00	3,552.92
MW - 3	05/20/02	3,573.46	-	20.78	0.00	3,552.68
MW - 3	09/10/02	3,573.46	-	20.82	0.00	3,552.64
MW - 3	11/14/02	3,573.46	-	20.68	0.00	3,552.78
MW - 3	12/03/03	3,573.46	-	21.18	0.00	3,552.28
MW - 3	03/03/04	3,573.46	-	21.17	0.00	3,552.29
MW - 3	05/18/04	3,573.46	-	20.24	0.00	3,553.22
MW - 3	09/07/04	3,573.46	-	20.58	0.00	3,552.88
MW - 3	12/14/04	3,573.46	-	18.47	0.00	3,554.99
MW - 3	*03/08/05*	3,573.46	-	20.28	0.00	3,553.18
MW - 3	*06/07/05*	3,573.46	-	20.46	0.00	3,553.00
MW - 3	*09/07/05*	3,573.46	-	20.19	0.00	3,553.27
MW - 3	*12/02/05*	3,573.46	-	20.53	0.00	3,552.93
MW - 3	*03/08/06*	3,573.46	-	20.57	0.00	3,552.89
MW - 3	*06/07/06*	3,573.46	-	20.62	0.00	3,552.84
MW - 3	*09/12/06*	3,573.46	-	18.42	0.00	3,555.04
MW - 3	*11/22/06*	3,573.46	-	20.13	0.00	3,553.33

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 3	*02/21/07*	3,573.46	-	20.49	0.00	3,552.97
MW - 3	*05/16/07*	3,573.46	-	20.46	0.00	3,553.00
MW - 3	*08/10/07*	3,573.46	-	20.53	0.00	3,552.93
MW - 3	*12/28/07*	3,573.46	-	26.00	0.00	3,547.46
MW - 3	*02/18/08*	3,573.46	-	20.60	0.00	3,552.86
MW - 3	*05/12/08*	3,573.46	-	20.61	0.00	3,552.85
MW - 3	*08/08/08*	3,573.46	-	20.65	0.00	3,552.81
MW - 3	*11/07/08*	3,573.46	-	20.73	0.00	3,552.73
MW - 3	*02/06/09*	3,573.46	-	*20.81*	*0.00*	*3,552.65*
MW - 3	*05/07/09*	3,573.46	-	20.68	0.00	3,552.78
MW - 3	*08/04/09*	3,573.46	-	20.58	0.00	3,552.88
MW - 3	*11/09/09*	3,573.46	-	20.63	0.00	3,552.83
MW - 3	01/05/10	3,573.46	-	20.66	0.00	3,552.80
MW - 3	*02/04/10*	3,573.46	-	20.66	0.00	3,552.80
MW - 3	*08/09/10*	3,573.46	-	20.64	0.00	3,552.82
MW - 3	*11/01/10*	3,573.46	-	20.54	0.00	3,552.92
MW - 3	*02/10/11*	3,573.46	-	20.53	0.00	3,552.93
MW - 3	*05/04/11*	3,573.46	-	20.60	0.00	3,552.86
MW - 3	*08/03/11*	3,573.46	-	20.50	0.00	3,552.96
MW - 3	*11/11/11*	3,573.46	-	20.72	0.00	3,552.74
MW - 3	*02/13/12*	3,573.46	-	20.69	0.00	3,552.77
MW - 3	*05/25/12*	3,573.46	-	20.69	0.00	3,552.77
MW - 3	*08/06/12*	3,573.46	-	20.72	0.00	3,552.74
MW - 3	*11/08/12*	3,573.46	-	20.67	0.00	3,552.79
MW - 3	*02/05/13*	3,573.46	-	20.89	0.00	3,552.57
MW - 3	*05/28/13*	3,573.46	-	20.76	0.00	3,552.70
MW - 3	*08/13/13*	3,573.46	-	20.65	0.00	3,552.81
MW - 3	*11/20/13*	3,573.46	-	20.62	0.00	3,552.84
MW - 4	02/22/00	3,570.15	21.94	22.00	0.06	3,548.20
MW - 4	04/06/00	3,570.15	20.88	20.90	0.02	3,549.27
MW - 4	08/29/00	3,570.15	20.43	20.54	0.11	3,549.70
MW - 4	12/04/00	3,570.15	20.54	20.68	0.14	3,549.59
MW - 4	01/23/01	3,570.15	20.62	20.81	0.19	3,549.50
MW - 4	05/16/01	3,570.15	20.57	20.89	0.32	3,549.53
MW - 4	08/06/01	3,570.15	20.83	21.07	0.24	3,549.28
MW - 4	09/27/01	3,570.15	20.89	21.16	0.27	3,549.22
MW - 4	10/29/01	3,570.15	20.89	21.16	0.27	3,549.22
MW - 4	03/29/02	3,570.15	20.62	20.75	0.13	3,549.51
MW - 4	05/20/02	3,570.15	20.64	20.93	0.29	3,549.47
MW - 4	09/10/02	3,570.15	20.65	20.98	0.33	3,549.45
MW - 4	10/08/02	3,570.15	20.74	21.14	0.40	3,549.35
MW - 4	10/14/02	3,570.15	20.76	20.92	0.16	3,549.37
MW - 4	10/22/02	3,570.15	20.82	20.90	0.08	3,549.32
MW - 4	11/14/02	3,570.15	20.45	20.50	0.05	3,549.69
MW - 4	12/03/03	3,570.15	20.93	21.19	0.26	3,549.18

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 4	01/14/04	3,570.15	21.43	21.86	0.43	3,548.66
MW - 4	01/19/04	3,570.15	21.42	21.85	0.43	3,548.67
MW - 4	01/27/04	3,570.15	21.47	21.91	0.44	3,548.61
MW - 4	02/03/04	3,570.15	21.42	21.90	0.48	3,548.66
MW - 4	02/10/04	3,570.15	20.40	20.68	0.28	3,549.71
MW - 4	02/19/04	3,570.15	21.18	21.47	0.29	3,548.93
MW - 4	02/23/04	3,570.15	20.36	20.57	0.21	3,549.76
MW - 4	03/02/04	3,570.15	20.41	20.59	0.18	3,549.71
MW - 4	03/03/04	3,570.15	21.00	21.14	0.14	3,549.13
MW - 4	03/11/04	3,570.15	21.18	21.33	0.15	3,548.95
MW - 4	03/15/04	3,570.15	21.15	21.19	0.04	3,548.99
MW - 4	03/17/04	3,570.15	21.46	21.60	0.14	3,548.67
MW - 4	03/22/04	3,570.15	21.51	21.65	0.14	3,548.62
MW - 4	03/24/04	3,570.15	20.96	21.02	0.06	3,549.18
MW - 4	03/29/04	3,570.15	21.48	21.57	0.09	3,548.66
MW - 4	04/07/04	3,570.15	-	21.10	0.00	3,549.05
MW - 4	04/13/04	3,570.15	-	19.63	0.00	3,550.52
MW - 4	04/20/04	3,570.15	-	20.06	0.00	3,550.09
MW - 4	04/27/04	3,570.15	-	20.35	0.00	3,549.80
MW - 4	05/11/04	3,570.15	-	20.86	0.00	3,549.29
MW - 4	05/18/04	3,570.15	-	20.62	0.00	3,549.53
MW - 4	06/17/04	3,570.15	20.65	20.66	0.01	3,549.50
MW - 4	06/23/04	3,570.15	-	20.68	0.00	3,549.47
MW - 4	06/30/04	3,570.15	-	20.66	0.00	3,549.49
MW - 4	07/07/04	3,570.15	20.67	20.68	0.01	3,549.48
MW - 4	07/21/04	3,570.15	-	20.48	0.00	3,549.67
MW - 4	07/23/04	3,570.15	-	20.48	0.00	3,549.67
MW - 4	08/04/04	3,570.15	-	20.47	0.00	3,549.68
MW - 4	08/11/04	3,570.15	-	20.47	0.00	3,549.68
MW - 4	09/07/04	3,570.15	sheen	19.52	0.00	3,550.63
MW - 4	09/13/04	3,570.15	sheen	20.55	0.00	3,549.60
MW - 4	09/21/04	3,570.15	sheen	19.59	0.00	3,550.56
MW - 4	10/12/04	3,570.15	sheen	19.20	0.00	3,550.95
MW - 4	10/21/04	3,570.15	sheen	19.62	0.00	3,550.53
MW - 4	10/28/04	3,570.15	sheen	19.60	0.00	3,550.55
MW - 4	11/03/04	3,570.15	sheen	19.89	0.00	3,550.26
MW - 4	11/10/04	3,570.15	sheen	19.80	0.00	3,550.35
MW - 4	11/17/04	3,570.15	sheen	19.97	0.00	3,550.18
MW - 4	12/01/04	3,570.15	sheen	19.39	0.00	3,550.76
MW - 4	12/08/04	3,570.15	sheen	19.49	0.00	3,550.66
MW - 4	12/14/04	3,570.15	-	19.70	0.00	3,550.45
MW - 4	12/16/04	3,570.15	sheen	19.70	0.00	3,550.45
MW - 4	12/28/04	3,570.15	sheen	19.51	0.00	3,550.64
MW - 4	01/05/05	3,570.15	sheen	20.00	0.00	3,550.15
MW - 4	01/13/05	3,570.15	sheen	19.98	0.00	3,550.17
MW - 4	01/19/05	3,570.15	sheen	20.01	0.00	3,550.14

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 4	01/27/05	3,570.15	sheen	20.08	0.00	3,550.07
MW - 4	02/03/05	3,570.15	sheen	20.11	0.00	3,550.04
MW - 4	02/10/05	3,570.15	sheen	20.17	0.00	3,549.98
MW - 4	02/17/05	3,570.15	sheen	20.23	0.00	3,549.92
MW - 4	02/24/05	3,570.15	sheen	20.19	0.00	3,549.96
MW - 4	03/03/05	3,570.15	sheen	20.14	0.00	3,550.01
MW - 4	*03/08/05*	3,570.15	sheen	20.33	0.00	3,549.82
MW - 4	03/10/05	3,570.15	sheen	20.33	0.00	3,549.82
MW - 4	03/17/05	3,570.15	sheen	20.29	0.00	3,549.86
MW - 4	03/24/05	3,570.15	sheen	20.33	0.00	3,549.82
MW - 4	03/31/05	3,570.15	sheen	20.38	0.00	3,549.77
MW - 4	04/07/05	3,570.15	sheen	20.37	0.00	3,549.78
MW - 4	04/14/05	3,570.15	sheen	20.29	0.00	3,549.86
MW - 4	05/24/05	3,570.15	sheen	18.99	0.00	3,551.16
MW - 4	*06/07/05*	3,570.15	sheen	20.39	0.00	3,549.76
MW - 4	06/23/05	3,570.15	sheen	20.50	0.00	3,549.65
MW - 4	07/28/05	3,570.15	sheen	20.50	0.00	3,549.65
MW - 4	08/24/05	3,570.15	sheen	20.49	0.00	3,549.66
MW - 4	*09/07/05*	3,570.15	sheen	20.25	0.00	3,549.90
MW - 4	09/30/05	3,570.15	-	20.30	0.00	3,549.85
MW - 4	10/28/05	3,570.15	sheen	20.61	0.00	3,549.54
MW - 4	11/16/05	3,570.15	sheen	20.62	0.00	3,549.53
MW - 4	*12/02/05*	3,570.15	-	20.67	0.00	3,549.48
MW - 4	12/30/05	3,570.15	sheen	20.82	0.00	3,549.33
MW - 4	01/18/06	3,570.15	sheen	20.82	0.00	3,549.33
MW - 4	02/17/06	3,570.15	sheen	20.83	0.00	3,549.32
MW - 4	*03/08/06*	3,570.15	sheen	20.75	0.00	3,549.40
MW - 4	03/20/06	3,570.15	sheen	20.61	0.00	3,549.54
MW - 4	04/19/06	3,570.15	sheen	20.60	0.00	3,549.55
MW - 4	05/25/06	3,570.15	sheen	20.61	0.00	3,549.54
MW - 4	*06/07/06*	3,570.15	20.61	20.62	0.01	3,549.54
MW - 4	06/08/06	3,570.15	20.59	20.61	0.02	3,549.56
MW - 4	07/13/06	3,570.15	sheen	20.59	0.00	3,549.56
MW - 4	07/27/06	3,570.15	sheen	20.77	0.00	3,549.38
MW - 4	08/10/06	3,570.15	sheen	20.84	0.00	3,549.31
MW - 4	*09/12/06*	3,570.15	-	19.65	0.00	3,550.50
MW - 4	09/16/06	3,570.15	sheen	19.67	0.00	3,550.48
MW - 4	10/04/06	3,570.15	sheen	19.71	0.00	3,550.44
MW - 4	11/15/06	3,570.15	sheen	19.42	0.00	3,550.73
MW - 4	*11/22/06*	3,570.15	sheen	20.10	0.00	3,550.05
MW - 4	01/11/07	3,570.15	20.42	20.43	0.01	3,549.73
MW - 4	02/05/07	3,570.15	sheen	20.49	0.00	3,549.66
MW - 4	*02/21/07*	3,570.15	sheen	20.65	0.00	3,549.50
MW - 4	03/27/07	3,570.15	20.52	20.54	0.02	3,549.63
MW - 4	05/16/07	3,570.15	sheen	20.54	0.00	3,549.61
MW - 4	08/10/07	3,570.15	20.56	20.58	0.02	3,549.59

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 4	*12/28/07*	3,570.15	sheen	20.83	0.00	3,549.32
MW - 4	*02/18/08*	3,570.15	-	20.90	0.00	3,549.25
MW - 4	04/10/08	3,570.15	20.61	20.68	0.07	3,549.53
MW - 4	*05/12/08*	3,570.15	20.61	20.67	0.06	3,549.53
MW - 4	06/27/08	3,570.15	20.67	20.77	0.10	3,549.47
MW - 4	07/16/08	3,570.15	20.57	20.67	0.10	3,549.57
MW - 4	*08/08/08*	3,570.15	20.52	20.57	0.05	3,549.62
MW - 4	08/12/08	3,570.15	-	20.61	0.00	3,549.54
MW - 4	10/08/08	3,570.15	-	19.78	0.00	3,550.37
MW - 4	10/24/08	3,570.15	-	20.78	0.00	3,549.37
MW - 4	11/03/08	3,570.15	-	20.94	0.00	3,549.21
MW - 4	*11/07/08*	3,570.15	-	20.96	0.00	3,549.19
MW - 4	11/10/08	3,570.15	-	20.98	0.00	3,549.17
MW - 4	11/17/08	3,570.15	-	21.05	0.00	3,549.10
MW - 4	11/24/08	3,570.15	-	20.01	0.00	3,550.14
MW - 4	12/01/08	3,570.15	-	26.92	0.00	3,543.23
MW - 4	12/08/08	3,570.15	-	20.11	0.00	3,550.04
MW - 4	12/15/08	3,570.15	-	26.95	0.00	3,543.20
MW - 4	12/19/08	3,570.15	-	20.85	0.00	3,549.30
MW - 4	12/22/08	3,570.15	-	20.64	0.00	3,549.51
MW - 4	12/29/08	3,570.15	-			
MW - 4	01/07/09	3,570.15	-	20.86	0.00	3,549.29
MW - 4	*01/12/09*	3,570.15	-	19.87	0.00	3,550.28
MW - 4	*01/15/09*	3,570.15	-	20.89	0.00	3,549.26
MW - 4	*01/19/09*	3,570.15	-	20.87	0.00	3,549.28
MW - 4	*01/21/09*	3,570.15	-	20.94	0.00	3,549.21
MW - 4	*01/29/09*	3,570.15	-	20.89	0.00	3,549.26
MW - 4	*02/06/09*	3,570.15	-	20.98	0.00	3,549.17
MW - 4	*02/17/09*	3,570.15	-	21.10	0.00	3,549.05
MW - 4	02/23/09	3,570.15	-	21.13	0.00	3,549.02
MW - 4	*03/02/09*	3,570.15	-	21.13	0.00	3,549.02
MW - 4	03/05/09	3,570.15	-	20.00	0.00	3,550.15
MW - 4	03/09/09	3,570.15	-	21.05	0.00	3,549.10
MW - 4	*03/17/09*	3,570.15	-	21.03	0.00	3,549.12
MW - 4	03/18/09	3,570.15	-	21.04	0.00	3,549.11
MW - 4	03/26/09	3,570.15	-	21.05	0.00	3,549.10
MW - 4	03/30/09	3,570.15	-	20.99	0.00	3,549.16
MW - 4	04/06/09	3,570.15	-	21.23	0.00	3,548.92
MW - 4	04/16/09	3,570.15	-	21.02	0.00	3,549.13
MW - 4	04/20/09	3,570.15	-	21.25	0.00	3,548.90
MW - 4	04/23/09	3,570.15	-	21.02	0.00	3,549.13
MW - 4	04/27/09	3,570.15	-	21.02	0.00	3,549.13
MW - 4	04/30/09	3,570.15	-	21.01	0.00	3,549.14
MW - 4	*05/07/09*	3,570.15	-	21.20	0.00	3,548.95
MW - 4	05/21/09	3,570.15	-	21.10	0.00	3,549.05
MW - 4	05/26/09	3,570.15	-	20.84	0.00	3,549.31

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 4	06/02/09	3,570.15	-	20.80	0.00	3,549.35
MW - 4	06/08/09	3,570.15	-	20.77	0.00	3,549.38
MW - 4	06/17/09	3,570.15	-	20.98	0.00	3,549.17
MW - 4	06/29/09	3,570.15	-	20.99	0.00	3,549.16
MW - 4	07/07/09	3,570.15	-	20.73	0.00	3,549.42
MW - 4	07/14/09	3,570.15	-	20.72	0.00	3,549.43
MW - 4	07/21/09	3,570.15	-	20.83	0.00	3,549.32
MW - 4	07/27/09	3,570.15	-	20.68	0.00	3,549.47
MW - 4	07/30/09	3,570.15	-	20.72	0.00	3,549.43
MW - 4	*08/04/09*	3,570.15	-	20.71	0.00	3,549.44
MW - 4	08/06/09	3,570.15	-	20.75	0.00	3,549.40
MW - 4	08/19/09	3,570.15	-	20.78	0.00	3,549.37
MW - 4	08/27/09	3,570.15	-	20.72	0.00	3,549.43
MW - 4	08/31/09	3,570.15	-	20.73	0.00	3,549.42
MW - 4	09/10/09	3,570.15	-	20.77	0.00	3,549.38
MW - 4	09/17/09	3,570.15	-	20.78	0.00	3,549.37
MW - 4	09/25/09	3,570.15	-	20.20	0.00	3,549.95
MW - 4	09/29/09	3,570.15	-	20.85	0.00	3,549.30
MW - 4	10/06/09	3,570.15	-	20.81	0.00	3,549.34
MW - 4	10/19/09	3,570.15	-	20.78	0.00	3,549.37
MW - 4	10/26/09	3,570.15	-	20.74	0.00	3,549.41
MW - 4	11/06/09	3,570.15	-	20.70	0.00	3,549.45
MW - 4	11/09/09	3,570.15	-	20.75	0.00	3,549.40
MW - 4	12/08/09	3,570.15	-	20.84	0.00	3,549.31
MW - 4	01/05/10	3,570.15	-	20.86	0.00	3,549.29
MW - 4	01/21/10	3,570.15	-	20.79	0.00	3,549.36
MW - 4	*02/04/10*	3,570.15	-	20.61	0.00	3,549.54
MW - 4	03/03/10	3,570.15	-	20.98	0.00	3,549.17
MW - 4	04/16/10	3,570.15	-	20.96	0.00	3,549.19
MW - 4	*08/09/10*	3,570.15	-	20.74	0.00	3,549.41
MW - 4	*11/01/10*	3,570.15	-	20.66	0.00	3,549.49
MW - 4	*02/10/11*	3,570.15	-	20.65	0.00	3,549.50
MW - 4	*05/04/11*	3,570.15	-	20.81	0.00	3,549.34
MW - 4	*08/03/11*	3,570.15	-	20.61	0.00	3,549.54
MW - 4	*11/11/11*	3,570.15	-	21.00	0.00	3,549.15
MW - 4	*02/13/12*	3,570.15	-	21.06	0.00	3,549.09
MW - 4	*05/25/12*	3,570.15	-	21.08	0.00	3,549.07
MW - 4	*08/06/12*	3,570.15	-	21.09	0.00	3,549.06
MW - 4	*11/08/12*	3,570.15	-	20.91	0.00	3,549.24
MW - 4	*02/05/13*	3,570.15	-	20.94	0.00	3,549.21
MW - 4	*05/28/13*	3,570.15	-	21.02	0.00	3,549.13
MW - 4	05/30/13	3,570.15	-	21.01	0.00	3,549.14
MW - 4	06/12/13	3,570.15	-	21.02	0.00	3,549.13
MW - 4	08/06/13	3,570.15	-	21.81	0.00	3,548.34
MW - 4	*08/13/13*	3,570.15	-	20.87	0.00	3,549.28
MW - 4	*11/20/13*	3,570.15	-	20.91	0.00	3,549.24

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 4	12/23/13	3,570.15	-	20.92	0.00	3,549.23
MW - 5	02/22/00	3,562.92	-	19.81	0.00	3,543.11
MW - 5	02/23/00	3,562.92	-	19.80	0.00	3,543.12
MW - 5	04/06/00	3,572.92	-	19.74	0.00	3,553.18
MW - 5	08/29/00	3,572.92	-	19.33	0.00	3,553.59
MW - 5	12/04/00	3,572.92	-	19.46	0.00	3,553.46
MW - 5	01/23/01	3,572.92	-	19.52	0.00	3,553.40
MW - 5	05/16/01	3,572.92	-	19.55	0.00	3,553.37
MW - 5	08/06/01	3,572.92	-	19.80	0.00	3,553.12
MW - 5	09/27/01	3,572.92	-	19.86	0.00	3,553.06
MW - 5	10/29/01	3,572.92	-	19.86	0.00	3,553.06
MW - 5	03/29/02	3,572.92	-	19.19	0.00	3,553.73
MW - 5	05/20/02	3,572.92	-	19.65	0.00	3,553.27
MW - 5	09/10/02	3,572.92	-	19.72	0.00	3,553.20
MW - 5	11/14/02	3,572.92	-	19.55	0.00	3,553.37
MW - 5	12/03/03	3,572.92	-	20.09	0.00	3,552.83
MW - 5	05/18/04	3,572.92	-	18.90	0.00	3,554.02
MW - 5	09/07/04	3,572.92	-	19.34	0.00	3,553.58
MW - 5	12/14/04	3,572.92	-	15.53	0.00	3,557.39
MW - 5	*03/08/05*	3,572.92	-	18.68	0.00	3,554.24
MW - 5	*06/07/05*	3,572.92	-	19.12	0.00	3,553.80
MW - 5	*09/07/05*	3,572.92	-	18.55	0.00	3,554.37
MW - 5	*12/02/05*	3,572.92	-	19.24	0.00	3,553.68
MW - 5	*03/08/06*	3,572.92	-	19.32	0.00	3,553.60
MW - 5	*06/07/06*	3,572.92	-	19.39	0.00	3,553.53
MW - 5	*09/12/06*	3,572.92	-	15.41	0.00	3,557.51
MW - 5	*11/22/06*	3,572.92	-	18.49	0.00	3,554.43
MW - 5	*02/21/07*	3,572.92	-	19.16	0.00	3,553.76
MW - 5	*05/16/07*	3,572.92	-	19.07	0.00	3,553.85
MW - 5	*08/10/07*	3,572.92	-	19.27	0.00	3,553.65
MW - 5	*12/28/07*	3,572.92	-	19.35	0.00	3,553.57
MW - 5	*02/18/08*	3,572.92	-	19.35	0.00	3,553.57
MW - 5	*05/08/08*	3,572.92	-	19.38	0.00	3,553.54
MW - 5	*08/08/08*	3,572.92	-	19.46	0.00	3,553.46
MW - 5	*11/07/08*	3,572.92	-	19.55	0.00	3,553.37
MW - 5	*02/06/09*	3,572.92	-	19.66	0.00	3,553.26
MW - 5	*05/07/09*	3,572.92	-	19.52	0.00	3,553.40
MW - 5	*08/04/09*	3,572.92	-	19.37	0.00	3,553.55
MW - 5	*11/09/09*	3,572.92	-	19.40	0.00	3,553.52
MW - 5	01/05/10	3,572.92	-	19.46	0.00	3,553.46
MW - 5	*02/04/10*	3,572.92	-	19.46	0.00	3,553.46
MW - 5	*08/09/10*	3,572.92	-	19.41	0.00	3,553.51
MW - 5	*11/01/10*	3,572.92	-	19.21	0.00	3,553.71
MW - 5	*02/10/11*	3,572.92	-	19.23	0.00	3,553.69
MW - 5	*05/04/11*	3,572.92	-	19.38	0.00	3,553.54

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 5	*08/03/11*	3,572.92	-	19.21	0.00	3,553.71
MW - 5	*11/11/11*	3,572.92	-	19.53	0.00	3,553.39
MW - 5	*02/13/12*	3,572.92	-	19.51	0.00	3,553.41
MW - 5	*05/25/12*	3,572.92	-	19.53	0.00	3,553.39
MW - 5	*08/06/12*	3,572.92	-	19.55	0.00	3,553.37
MW - 5	*11/08/12*	3,572.92	-	19.50	0.00	3,553.42
MW - 5	*02/05/13*	3,572.92	-	19.53	0.00	3,553.39
MW - 5	*05/28/13*	3,572.92	-	19.61	0.00	3,553.31
MW - 5	*08/13/13*	3,572.92	-	19.48	0.00	3,553.44
MW - 5	*11/20/13*	3,572.92	-	19.42	0.00	3,553.50
MW - 6	09/18/01	3,572.11	-	19.90	0.00	3,552.21
MW - 6	09/27/01	3,572.11	-	19.86	0.00	3,552.25
MW - 6	10/29/01	3,572.11	-	19.86	0.00	3,552.25
MW - 6	03/29/02	3,572.11	-	19.62	0.00	3,552.49
MW - 6	05/20/02	3,572.11	-	19.56	0.00	3,552.55
MW - 6	09/10/02	3,572.11	-	19.68	0.00	3,552.43
MW - 6	11/14/02	3,572.11	-	19.52	0.00	3,552.59
MW - 6	12/03/03	3,572.11	-	20.06	0.00	3,552.05
MW - 6	05/18/04	3,572.11	-	18.25	0.00	3,553.86
MW - 6	09/07/04	3,572.11	-	18.85	0.00	3,553.26
MW - 6	12/14/04	3,572.11	-	17.65	0.00	3,554.46
MW - 6	*03/08/05*	3,572.11	-	18.11	0.00	3,554.00
MW - 6	*06/07/05*	3,572.11	-	18.28	0.00	3,553.83
MW - 6	*09/07/05*	3,572.11	-	18.01	0.00	3,554.10
MW - 6	*12/02/05*	3,572.11	-	18.44	0.00	3,553.67
MW - 6	*03/08/06*	3,572.11	-	18.53	0.00	3,553.58
MW - 6	*06/07/06*	3,572.11	-	18.66	0.00	3,553.45
MW - 6	*09/12/06*	3,572.11	-	17.39	0.00	3,554.72
MW - 6	*11/22/06*	3,572.11	-	18.07	0.00	3,554.04
MW - 6	*02/21/07*	3,572.11	-	18.36	0.00	3,553.75
MW - 6	*05/16/07*	3,572.11	-	18.37	0.00	3,553.74
MW - 6	*08/10/07*	3,572.11	-	18.51	0.00	3,553.60
MW - 6	*12/28/07*	3,572.11	-	19.57	0.00	3,552.54
MW - 6	*02/18/08*	3,572.11	-	18.58	0.00	3,553.53
MW - 6	*05/08/08*	3,572.11	-	18.64	0.00	3,553.47
MW - 6	*08/08/08*	3,572.11	-	18.88	0.00	3,553.23
MW - 6	*11/07/08*	3,572.11	-	19.35	0.00	3,552.76
MW - 6	*02/06/09*	3,572.11	-	19.55	0.00	3,552.56
MW - 6	*05/07/09*	3,572.11	-	18.94	0.00	3,553.17
MW - 6	*08/04/09*	3,572.11	-	18.56	0.00	3,553.55
MW - 6	*11/09/09*	3,572.11	-	18.64	0.00	3,553.47
MW - 6	01/05/10	3,572.11	-	18.74	0.00	3,553.37
MW - 6	*02/04/10*	3,572.11	-	18.74	0.00	3,553.37
MW - 6	*08/09/10*	3,572.11	-	18.64	0.00	3,553.47
MW - 6	*11/01/10*	3,572.11	-	18.39	0.00	3,553.72

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 6	*02/10/11*	3,572.11	-	18.41	0.00	3,553.70
MW - 6	*05/04/11*	WELL PLUGGED & ABANDONED.				
MW - 7	09/18/01	3,569.75	-	23.35	0.00	3,546.40
MW - 7	09/27/01	3,569.75	-	23.35	0.00	3,546.40
MW - 7	10/29/01	3,569.75	-	23.35	0.00	3,546.40
MW - 7	03/29/02	3,569.75	-	19.82	0.00	3,549.93
MW - 7	04/16/02	3,569.75	-	22.28	0.00	3,547.47
MW - 7	05/13/02	3,569.75	-	22.90	0.00	3,546.85
MW - 7	05/20/02	3,569.75	-	22.95	0.00	3,546.80
MW - 7	09/10/02	3,569.75	-	23.00	0.00	3,546.75
MW - 7	11/14/02	3,569.75	-	21.19	0.00	3,548.56
MW - 7	12/03/03	3,569.75	-	23.54	0.00	3,546.21
MW - 7	05/18/04	3,569.75	-	21.38	0.00	3,548.37
MW - 7	09/07/04	3,569.75	-	22.35	0.00	3,547.40
MW - 7	12/14/04	3,569.75	-	18.25	0.00	3,551.50
MW - 7	*03/08/05*	3,569.75	-	21.48	0.00	3,548.27
MW - 7	*06/07/05*	3,569.75	-	22.27	0.00	3,547.48
MW - 7	*09/07/05*	3,569.75	-	21.21	0.00	3,548.54
MW - 7	*12/02/05*	3,569.75	-	22.64	0.00	3,547.11
MW - 7	*03/08/06*	3,569.75	-	22.99	0.00	3,546.76
MW - 7	*06/07/06*	3,569.75	-	23.06	0.00	3,546.69
MW - 7	*09/12/06*	3,569.75	-	15.57	0.00	3,554.18
MW - 7	*11/22/06*	3,569.75	-	20.81	0.00	3,548.94
MW - 7	*02/21/07*	3,569.75	-	22.41	0.00	3,547.34
MW - 7	*05/16/07*	3,569.75	-	22.60	0.00	3,547.15
MW - 7	*08/10/07*	3,569.75	-	22.84	0.00	3,546.91
MW - 7	*12/28/07*	3,569.75	-	23.05	0.00	3,546.70
MW - 7	*02/18/08*	3,569.75	-	23.12	0.00	3,546.63
MW - 7	*05/08/08*	3,569.75	-	23.16	0.00	3,546.59
MW - 7	*08/08/08*	3,569.75	-	23.19	0.00	3,546.56
MW - 7	*11/07/08*	3,569.75	-	23.15	0.00	3,546.60
MW - 7	*02/06/09*	3,569.75	-	23.31	0.00	3,546.44
MW - 7	*05/07/09*	3,569.75	-	23.34	0.00	3,546.41
MW - 7	*08/04/09*	3,569.75	-	23.01	0.00	3,546.74
MW - 7	*11/09/09*	3,569.75	-	23.13	0.00	3,546.62
MW - 7	01/05/10	3,569.75	-	23.22	0.00	3,546.53
MW - 7	*02/04/10*	3,569.75	-	23.22	0.00	3,546.53
MW - 7	*08/09/10*	3,569.75	-	23.12	0.00	3,546.63
MW - 7	*11/01/10*	3,569.75	-	22.31	0.00	3,547.44
MW - 7	*02/10/11*	3,569.75	-	22.31	0.00	3,547.44
MW - 7	*05/04/11*	3,569.75	-	23.13	0.00	3,546.62
MW - 7	*08/03/11*	3,569.75	-	22.31	0.00	3,547.44
MW - 7	*11/11/11*	3,569.75	-	23.28	0.00	3,546.47
MW - 7	*02/13/12*	3,569.75	-	23.30	0.00	3,546.45
MW - 7	*05/25/12*	3,569.75	-	23.29	0.00	3,546.46

TABLE 1

HISTORIC GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 7	*08/06/12*	3,569.75	-	23.34	0.00	3,546.41
MW - 7	*11/08/12*	3,569.75	-	23.23	0.00	3,546.52
MW - 7	*02/05/13*	3,569.75	-	23.29	0.00	3,546.46
MW - 7	*05/28/13*	3,569.75	-	23.35	0.00	3,546.40
MW - 7	*08/13/13*	3,569.75	-	23.05	0.00	3,546.70
MW - 7	*11/20/13*	3,569.75	-	23.10	0.00	3,546.65
MW - 8	10/07/05	3,573.59	-	20.75	0.00	3,552.84
MW - 8	*12/02/05*	3,573.59	-	20.90	0.00	3,552.69
MW - 8	*03/08/06*	3,573.59	-	20.95	0.00	3,552.64
MW - 8	*06/07/06*	3,573.59	-	21.06	0.00	3,552.53
MW - 8	*09/12/06*	3,573.59	-	15.85	0.00	3,557.74
MW - 8	*11/22/06*	3,573.59	-	20.53	0.00	3,553.06
MW - 8	*02/21/07*	3,573.59	-	20.93	0.00	3,552.66
MW - 8	*05/16/07*	3,573.59	-	21.96	0.00	3,551.63
MW - 8	*08/10/07*	3,573.59	-	21.01	0.00	3,552.58
MW - 8	*12/28/07*	3,573.59	-	21.04	0.00	3,552.55
MW - 8	*02/18/08*	3,573.59	-	21.06	0.00	3,552.53
MW - 8	*05/08/08*	3,573.59	-	21.08	0.00	3,552.51
MW - 8	*08/08/08*	3,573.59	-	21.19	0.00	3,552.40
MW - 8	*11/07/08*	3,573.59	-	21.11	0.00	3,552.48
MW - 8	*02/06/09*	3,573.59	-	21.19	0.00	3,552.40
MW - 8	*05/07/09*	3,573.59	-	21.14	0.00	3,552.45
MW - 8	*08/04/09*	3,573.59	-	21.08	0.00	3,552.51
MW - 8	*11/09/09*	3,573.59	-	21.10	0.00	3,552.49
MW - 8	01/05/10	3,573.59	-	21.14	0.00	3,552.45
MW - 8	*02/04/10*	3,573.59	-	21.13	0.00	3,552.46
MW - 8	*08/09/10*	3,573.59	-	21.12	0.00	3,552.47
MW - 8	*11/01/10*	3,573.59	-	20.97	0.00	3,552.62
MW - 8	*02/10/11*	3,573.59	-	20.97	0.00	3,552.62
MW - 8	*05/04/11*	3,573.59	-	21.08	0.00	3,552.51
MW - 8	*08/03/11*	3,573.59	-	20.95	0.00	3,552.64
MW - 8	*11/11/11*	3,573.59	-	21.26	0.00	3,552.33
MW - 8	*02/13/12*	3,573.59	-	21.18	0.00	3,552.41
MW - 8	*05/25/12*	3,573.59	-	21.23	0.00	3,552.36
MW - 8	*08/06/12*	3,573.59	-	21.21	0.00	3,552.38
MW - 8	*11/08/12*	3,573.59	-	21.14	0.00	3,552.45
MW - 8	*02/05/13*	3,573.59	-	21.21	0.00	3,552.38
MW - 8	*05/28/13*	3,573.59	-	21.30	0.00	3,552.29
MW - 8	*08/13/13*	3,573.59	-	21.11	0.00	3,552.48
MW - 8	*11/20/13*	3,573.59	-	21.07	0.00	3,552.52

Note: "-" denotes no PSH measured during gauging.
Elevations based on the North American Vertical Datum of 1929.

Historic Table 2

TABLE 2

HISTORIC CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD Reference Number 1R-0103

All results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p-XYLENES	o - XYLENE
NMOCD Regulatory Limit		**0.01**	**0.75**	**0.75**	**0.62**	
MW - 1	02/23/00	**0.12**	0.02	0.011	0.073	0.039
MW - 1	04/06/00	**0.355**	0.024	0.022	0.274	0.083
MW - 1	05/18/04	**1.74**	0.031	0.218	**1.16**	**0.415**
MW - 1	09/07/04	**1.16**	0.011	0.189	**1.21**	**0.335**
MW - 1	12/14/04	**0.309**	<0.005	0.116	0.572	
MW - 1	03/08/05	**0.19**	0.0198	0.173	0.556	
MW - 1	06/07/05	**0.554**	<0.200	<0.200	0.572	
MW - 1	09/07/05	**0.639**	<0.01	0.204	**0.985**	
MW - 1	12/02/05	**0.299**	<0.100	<0.100	<0.1	
MW - 1	03/08/06	**0.247**	<0.02	0.0436	0.154	
MW - 1	06/07/06	**0.198**	<0.005	0.0324	0.117	
MW - 1	09/12/06	**0.303**	<0.200	<0.200	0.498	
MW - 1	11/22/06	**0.407**	<0.00100	0.323	**0.949**	
MW - 1	02/21/07	**0.283**	<0.05000	0.14	0.348	
MW - 1	05/16/07	**0.213**	<0.02000	0.118	0.356	
MW - 1	08/10/07	**0.0109**	<0.00100	0.0038	0.0099	
MW - 1	12/28/07	**0.139**	<0.00500	0.0596	0.0882	
MW - 1	02/18/08	**0.117**	<0.00100	0.0303	0.0642	
MW - 1	05/12/08	**0.102**	<0.00100	0.0054	0.0079	
MW - 1	08/08/08	**0.105**	<0.00100	0.0310	0.0326	
MW - 1	11/07/08	**0.0375**	<0.00100	0.0060	0.0049	
MW - 1	02/06/09	**0.0110**	<0.00100	<0.00100	<0.00100	
MW - 1	05/07/09	**0.0148**	<0.00100	<0.00100	0.0070	
MW - 1	08/04/09	**0.0197**	<0.00100	<0.00100	<0.00100	
MW - 1	11/09/09	0.0060	<0.00100	<0.00100	<0.00100	
MW - 1	02/04/10	**0.0311**	<0.00100	<0.00100	<0.00100	
MW - 1	08/09/10	**0.1170**	<0.00100	0.0039	<0.00100	
MW - 1	11/01/10	**0.0822**	<0.00100	<0.00100	<0.00100	
MW - 1	02/10/11	**0.0242**	<0.00100	<0.00100	<0.00100	
MW - 1	05/04/11	**0.0275**	<0.00100	<0.00100	<0.00100	
MW - 1	08/03/11	**0.0880**	<0.00100	<0.00100	<0.00100	
MW - 1	11/11/11	**0.0388**	<0.00100	<0.00100	<0.00100	
MW - 1	02/13/12	**0.0257**	<0.00100	<0.00100	<0.00100	
MW - 1	05/25/12	**0.0913**	<0.00100	<0.00100	<0.00100	
MW - 1	08/06/12	**0.1530**	<0.00500	<0.00500	<0.00500	
MW - 1	11/08/12	0.0065	<0.00100	<0.00100	<0.00100	
MW - 1	02/05/13	**0.0133**	<0.00100	<0.00100	<0.00100	
MW - 1	05/28/13	**0.0189**	<0.00100	<0.00100	<0.00100	
MW - 1	08/13/13	0.0073	<0.00100	<0.00100	<0.00100	
MW - 1	11/20/13	0.00740	<0.00100	<0.00100	<0.00100	
MW - 1	02/04/14	Plugged and Abandoned				

TABLE 2

HISTORIC CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD Reference Number 1R-0103

All results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p-XYLENES	o - XYLENE
NMOCD Regulatory Limit		**0.01**	**0.75**	**0.75**	**0.62**	
MW - 1A	02/04/14	Installation				
MW - 1A	02/26/14	**0.0110**	<0.00100	0.00253	<0.00100	
MW - 1A	05/07/14	0.00580	<0.00100	0.00240	<0.00300	
MW - 1A	08/26/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 1A	11/11/14	0.0277	<0.00100	0.00970	0.00130	
MW - 2	02/23/00	**0.196**	0.004	<0.00100	0.037	0.003
MW - 2	04/06/00	**0.278**	0.005	0.002	0.086	<0.001
MW - 2	08/29/00	**0.272**	0.007	0.026	0.055	0.026
MW - 2	12/04/00	**0.046**	<0.00100	0.006	0.009	0.002
MW - 2	01/23/01	**0.111**	<0.00100	0.006	0.016	0.001
MW - 2	05/16/01	**0.0937**	<0.00100	<0.00100	0.0013	
MW - 2	08/06/01	**0.096**	<0.00100	0.025	0.013	0.002
MW - 2	10/29/01	**0.049**	<0.00100	0.024	0.003	0.001
MW - 2	03/29/02	**0.025**	0.004	0.023	0.101	0.036
MW - 2	05/20/02	**0.025**	<0.00100	0.037	0.048	0.03
MW - 2	09/10/02	**0.042**	<0.00100	0.019	0.018	0.007
MW - 2	11/14/02	**0.032**	<0.00100	0.018	0.032	0.013
MW - 2	12/03/03	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100
MW - 2	03/03/04	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100
MW - 2	05/18/04	0.00726	<0.00100	0.00802	0.0169	0.00673
MW - 2	09/07/04	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100
MW - 2	12/14/04	0.0039	<0.00100	0.0139	0.0149	
MW - 2	03/08/05	Not sampled due to well obstruction				
MW - 2	06/07/05	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	09/07/05	0.0022	<0.001	0.0238	0.0361	
MW - 2	12/02/05	0.0017	<0.001	0.0024	0.0025	
MW - 2	03/08/06	0.0058	<0.001	0.0054	0.0112	
MW - 2	06/07/06	<0.00500	<0.00500	<0.00500	<0.00500	
MW - 2	09/12/06	0.0092	<0.001	0.105	0.184	
MW - 2	11/22/06	0.0044	<0.001	0.0313	0.0384	
MW - 2	02/21/07	0.002	<0.001	0.005	0.0109	
MW - 2	05/16/07	<0.00100	<0.00100	0.0086	0.0122	
MW - 2	08/10/07	0.004	<0.001	0.0076	0.0201	
MW - 2	12/28/07	0.0019	<0.001	0.0057	0.0074	
MW - 2	02/18/08	0.0014	<0.001	0.0017	0.0033	
MW - 2	05/12/08	<0.00100	<0.00100	<0.00100	0.0015	
MW - 2	08/08/08	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	11/07/08	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	02/06/09	<0.00100	<0.00100	<0.00100	<0.00100	

TABLE 2

HISTORIC CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD Reference Number 1R-0103

All results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p-XYLENES	o - XYLENE
NMOCD Regulatory Limit		0.01	0.75	0.75	0.62	
MW - 2	05/07/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	08/04/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	11/09/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	02/04/10	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	08/09/10	0.0013	0.0013	0.001	0.0027	
MW - 2	11/01/10	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	02/10/11	0.007	0.007	<0.001	0.0197	
MW - 2	05/04/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	08/03/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	11/11/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	02/13/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	05/25/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	08/06/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	11/08/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	02/05/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	05/28/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	08/13/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	11/20/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	02/04/14	<0.00100	<0.00100	<0.00100	<0.00300	
MW - 2	05/07/14	<0.00100	<0.00100	<0.00100	<0.00300	
MW - 2	08/26/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 2	11/11/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	02/23/00	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	04/06/00	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	08/29/00	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	12/04/00	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	01/23/01	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	05/16/01	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	08/06/01	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	10/29/01	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	03/29/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	05/20/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	09/10/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	11/14/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	12/03/03	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100
MW - 3	03/03/04	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100
MW - 3	12/14/04	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	03/08/05	Not Sampled on Current Sample Schedule				
MW - 3	06/07/05	Not Sampled on Current Sample Schedule				
MW - 3	09/07/05	Not Sampled on Current Sample Schedule				

TABLE 2

HISTORIC CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD Reference Number 1R-0103

All results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p-XYLENES	o - XYLENE
NMOCD Regulatory Limit		**0.01**	**0.75**	**0.75**	**0.62**	
MW - 3	12/02/05	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	03/08/06	Not Sampled on Current Sample Schedule				
MW - 3	06/07/06	Not Sampled on Current Sample Schedule				
MW - 3	09/12/06	Not Sampled on Current Sample Schedule				
MW - 3	11/22/06	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	02/21/07	Not Sampled on Current Sample Schedule				
MW - 3	05/16/07	Not Sampled on Current Sample Schedule				
MW - 3	08/10/07	Not Sampled on Current Sample Schedule				
MW - 3	12/28/07	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	02/18/08	Not Sampled on Current Sample Schedule				
MW - 3	05/12/08	Not Sampled on Current Sample Schedule				
MW - 3	08/08/08	Not Sampled on Current Sample Schedule				
MW - 3	11/07/08	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	02/06/09	Not Sampled on Current Sample Schedule				
MW - 3	05/07/09	Not Sampled on Current Sample Schedule				
MW - 3	08/04/09	Not Sampled on Current Sample Schedule				
MW - 3	11/09/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	02/04/10	Not Sampled on Current Sample Schedule				
MW - 3	08/09/10	Not Sampled on Current Sample Schedule				
MW - 3	11/01/10	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	02/10/11	Not Sampled on Current Sample Schedule				
MW - 3	05/04/11	Not Sampled on Current Sample Schedule				
MW - 3	08/03/11	Not Sampled on Current Sample Schedule				
MW - 3	11/11/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	02/13/12	Not Sampled on Current Sample Schedule				
MW - 3	05/25/12	Not Sampled on Current Sample Schedule				
MW - 3	08/06/12	Not Sampled on Current Sample Schedule				
MW - 3	11/08/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	02/05/13	Not Sampled on Current Sample Schedule				
MW - 3	05/28/13	Not Sampled on Current Sample Schedule				
MW - 3	08/13/13	Not Sampled on Current Sample Schedule				
MW - 3	11/20/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 3	02/04/14	Not Sampled on Current Sample Schedule				
MW - 3	05/07/14	Not Sampled on Current Sample Schedule				
MW - 3	08/26/14	Not Sampled on Current Sample Schedule				
MW - 3	11/11/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	05/18/04	<0.00100	<0.00100	0.00157	0.00684	<0.00100
MW - 4	09/07/04	<0.00100	<0.00100	0.00225	<0.00200	<0.00100
MW - 4	12/14/04	<0.00500	<0.00500	<0.00500	<0.00500	
MW - 4	03/08/05	**0.0189**	0.0165	<0.01	0.0379	

TABLE 2

HISTORIC CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD Reference Number 1R-0103

All results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p-XYLENES	o - XYLENE
NMOCD Regulatory Limit		0.01	0.75	0.75	0.62	
MW - 4	06/07/05	<0.00500	<0.00500	<0.00500	<0.00500	
MW - 4	09/07/05	<0.00500	<0.00500	<0.00500	<0.00500	
MW - 4	12/02/05	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	03/08/06	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	06/07/06	Not sampled				
MW - 4	09/12/06	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	11/22/06	0.0018	<0.001	<0.001	0.0021	
MW - 4	02/21/07	<0.00100	<0.00100	<0.00100	0.0049	
MW - 4	05/16/07	<0.00100	<0.00100	<0.00100	0.0019	
MW - 4	08/10/07	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	12/28/07	<0.00100	<0.00100	<0.00100	0.0015	
MW - 4	02/18/08	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	05/12/08	0.0016	<0.001	<0.001	<0.001	
MW - 4	08/08/08	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	11/07/08	0.0088	0.0213	0.0052	0.0256	
MW - 4	02/06/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	05/07/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	08/04/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	11/09/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	02/04/10	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	08/09/10	<0.00100	<0.00100	<0.00100	0.002	
MW - 4	11/01/10	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	02/10/11	<0.00100	<0.00100	<0.00100	0.0195	
MW - 4	05/04/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	08/03/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	11/11/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	02/13/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	05/25/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	08/06/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	11/08/12	<0.00500	<0.00500	<0.00500	<0.005	
MW - 4	02/05/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	05/28/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	08/13/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	11/20/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 4	02/04/14	<0.00100	<0.00100	<0.00100	<0.00300	
MW - 4	05/07/14	<0.00100	<0.00100	<0.00100	<0.00300	
MW - 4	08/26/14	<0.00500	<0.00500	<0.00500	<0.00500	
MW - 4	11/11/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	02/23/00	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	04/06/00	<0.00100	<0.00100	<0.00100	<0.00100	

TABLE 2

HISTORIC CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD Reference Number 1R-0103

All results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p-XYLENES	o - XYLENE
NMOCD Regulatory Limit		0.01	0.75	0.75	0.62	
MW - 5	08/29/00	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	12/04/00	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	01/23/01	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	05/16/01	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	08/06/01	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	10/29/01	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	03/29/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	05/20/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	09/10/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	11/14/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	12/03/03	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100
MW - 5	03/03/04	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100
MW - 5	12/14/04	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	03/08/05	Not Sampled on Current Sample Schedule				
MW - 5	06/07/05	Not Sampled on Current Sample Schedule				
MW - 5	09/07/05	Not Sampled on Current Sample Schedule				
MW - 5	12/02/05	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	03/08/06	Not Sampled on Current Sample Schedule				
MW - 5	06/07/06	Not Sampled on Current Sample Schedule				
MW - 5	09/12/06	Not Sampled on Current Sample Schedule				
MW - 5	11/22/06	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	02/21/07	Not Sampled on Current Sample Schedule				
MW - 5	05/16/07	Not Sampled on Current Sample Schedule				
MW - 5	08/10/07	Not Sampled on Current Sample Schedule				
MW - 5	12/28/07	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	02/18/08	Not Sampled on Current Sample Schedule				
MW - 5	05/12/08	Not Sampled on Current Sample Schedule				
MW - 5	08/08/08	Not Sampled on Current Sample Schedule				
MW - 5	11/07/08	<0.00100	<0.00100	0.0012	0.0038	
MW - 5	02/06/09	Not Sampled on Current Sample Schedule				
MW - 5	05/07/09	Not Sampled on Current Sample Schedule				
MW - 5	08/04/09	Not Sampled on Current Sample Schedule				
MW - 5	11/09/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	02/04/10	Not Sampled on Current Sample Schedule				
MW - 5	08/09/10	Not Sampled on Current Sample Schedule				
MW - 5	11/01/10	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	02/10/11	Not Sampled on Current Sample Schedule				
MW - 5	05/04/11	Not Sampled on Current Sample Schedule				
MW - 5	08/03/11	Not Sampled on Current Sample Schedule				
MW - 5	11/11/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	02/13/12	Not Sampled on Current Sample Schedule				

TABLE 2

HISTORIC CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD Reference Number 1R-0103

All results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p-XYLENES	o - XYLENE
NMOCD Regulatory Limit		0.01	0.75	0.75	0.62	
MW - 5	05/25/12	Not Sampled on Current Sample Schedule				
MW - 5	08/06/12	Not Sampled on Current Sample Schedule				
MW - 5	11/08/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	02/05/13	Not Sampled on Current Sample Schedule				
MW - 5	05/28/13	Not Sampled on Current Sample Schedule				
MW - 5	08/13/13	Not Sampled on Current Sample Schedule				
MW - 5	11/20/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 5	02/04/14	Not Sampled on Current Sample Schedule				
MW - 5	05/07/14	Not Sampled on Current Sample Schedule				
MW - 5	08/26/14	Not Sampled on Current Sample Schedule				
MW - 5	11/11/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	09/27/01	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	10/29/01	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	03/29/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	05/20/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	09/10/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	11/14/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	12/03/03	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100
MW - 6	03/03/04	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100
MW - 6	12/14/04	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	03/08/05	Not Sampled on Current Sample Schedule				
MW - 6	06/07/05	Not Sampled on Current Sample Schedule				
MW - 6	09/07/05	Not Sampled on Current Sample Schedule				
MW - 6	12/02/05	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	03/08/06	Not Sampled on Current Sample Schedule				
MW - 6	06/07/06	Not Sampled on Current Sample Schedule				
MW - 6	09/12/06	Not Sampled on Current Sample Schedule				
MW - 6	11/22/06	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	02/21/07	Not Sampled on Current Sample Schedule				
MW - 6	05/16/07	Not Sampled on Current Sample Schedule				
MW - 6	08/10/07	Not Sampled on Current Sample Schedule				
MW - 6	12/28/07	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	02/18/08	Not Sampled on Current Sample Schedule				
MW - 6	05/12/08	Not Sampled on Current Sample Schedule				
MW - 6	08/08/08	Not Sampled on Current Sample Schedule				
MW - 6	11/07/08	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	02/06/09	Not Sampled on Current Sample Schedule				
MW - 6	05/07/09	Not Sampled on Current Sample Schedule				
MW - 6	08/04/09	Not Sampled on Current Sample Schedule				
MW - 6	11/09/09	<0.00100	<0.00100	<0.00100	<0.00100	

TABLE 2

HISTORIC CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD Reference Number 1R-0103

All results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p-XYLENES	o - XYLENE
NMOCD Regulatory Limit		**0.01**	**0.75**	**0.75**	**0.62**	
MW - 6	02/04/10	Not Sampled on Current Sample Schedule				
MW - 6	08/09/10	Not Sampled on Current Sample Schedule				
MW - 6	11/01/10	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 6	02/10/11	Not Sampled on Current Sample Schedule				
MW - 6	03/21/11	Well Plugged and Abandoned				
MW - 7	09/27/01	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	10/29/01	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	03/29/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	05/20/02	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	09/10/02	0.008	0.006	0.003	0.017	0.007
MW - 7	11/14/02	0.009	0.009	0.005	0.029	0.012
MW - 7	12/03/03	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100
MW - 7	03/03/04	0.00146	<0.001	<0.001	0.00369	<0.001
MW - 7	12/14/04	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	03/08/05	Not Sampled on Current Sample Schedule				
MW - 7	06/07/05	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	09/07/05	Not Sampled on Current Sample Schedule				
MW - 7	12/02/05	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	03/08/06	Not Sampled on Current Sample Schedule				
MW - 7	06/07/06	<0.00500	<0.00500	<0.00500	<0.00500	
MW - 7	09/12/06	Not Sampled on Current Sample Schedule				
MW - 7	11/22/06	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	02/21/07	Not Sampled on Current Sample Schedule				
MW - 7	05/16/07	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	08/10/07	Not Sampled on Current Sample Schedule				
MW - 7	12/28/07	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	02/18/08	Not Sampled on Current Sample Schedule				
MW - 7	05/12/08	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	08/08/08	Not Sampled on Current Sample Schedule				
MW - 7	11/07/08	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	02/06/09	Not Sampled on Current Sample Schedule				
MW - 7	05/07/09	<0.00100	<0.00100	0.0062	0.0088	
MW - 7	08/04/09	Not Sampled on Current Sample Schedule				
MW - 7	11/09/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	02/04/10	Not Sampled on Current Sample Schedule				
MW - 7	08/09/10	Not Sampled on Current Sample Schedule				
MW - 7	11/01/10	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	02/10/11	Not Sampled on Current Sample Schedule				
MW - 7	05/04/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	08/03/11	Not Sampled on Current Sample Schedule				

TABLE 2

HISTORIC CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD Reference Number 1R-0103

All results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p-XYLENES	o - XYLENE
NMOCD Regulatory Limit		0.01	0.75	0.75	0.62	
MW - 7	11/11/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	02/13/12	Not Sampled on Current Sample Schedule				
MW - 7	05/25/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	08/06/12	Not Sampled on Current Sample Schedule				
MW - 7	11/08/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	02/05/13	Not Sampled on Current Sample Schedule				
MW - 7	05/28/13	Not Sampled on Current Sample Schedule				
MW - 7	08/13/13	Not Sampled on Current Sample Schedule				
MW - 7	11/20/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 7	02/04/14	Not Sampled on Current Sample Schedule				
MW - 7	05/07/14	Not Sampled on Current Sample Schedule				
MW - 7	08/26/14	Not Sampled on Current Sample Schedule				
MW - 7	11/11/14	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	10/10/05	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	12/02/05	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	03/08/06	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	06/07/06	<0.00500	<0.00500	<0.00500	<0.00500	
MW - 8	09/12/06	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	11/22/06	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	02/21/07	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	05/16/07	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	08/10/07	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	12/28/07	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	02/18/08	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	05/12/08	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	08/08/08	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	11/07/08	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	02/06/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	05/07/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	08/04/09	<0.00100	0.0048	<0.00100	0.0152	
MW - 8	11/09/09	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	02/04/10	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	08/09/10	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	11/01/10	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	02/10/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	05/04/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	08/03/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	11/11/11	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	02/13/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	05/25/12	<0.00100	<0.00100	<0.00100	<0.00100	

TABLE 2

HISTORIC CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
LF - 59
LEA COUNTY, NEW MEXICO
NMOCD Reference Number 1R-0103

All results are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p-XYLENES	o - XYLENE
NMOCD Regulatory Limit		**0.01**	**0.75**	**0.75**	**0.62**	
MW - 8	08/06/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	11/08/12	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	02/05/13	Not Sampled on Current Sample Schedule				
MW - 8	05/28/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	08/13/13	Not Sampled on Current Sample Schedule				
MW - 8	11/20/13	<0.00100	<0.00100	<0.00100	<0.00100	
MW - 8	02/04/14	Not Sampled on Current Sample Schedule				
MW - 8	05/07/14	<0.00100	<0.00100	<0.00100	<0.00300	
MW - 8	08/26/14	Not Sampled on Current Sample Schedule				
MW - 8	11/11/14	<0.00100	<0.00100	<0.00100	<0.00100	

Historic Table 3

TABLE 3

HISTORIC POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.
TNM LF-59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																		
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		--	--	**0.001 mg/L**	**0.0001 mg/L**	**0.0007 mg/L**	**0.001 mg/L**	--	**0.001 mg/L**	**0.0002 mg/L**	**0.0003 mg/L**	**0.001 mg/L**	**0.001 mg/L**	**0.0004 mg/L**	**0.001 mg/L**	**0.001 mg/L**	**0.03 mg/L**			--
MW-1	11/07/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.0006	<0.000183	0.000691	<0.000183	0.00214	0.00479	0.00232	<0.000183
	11/09/09	<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
	11/01/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/16/11	Not Sampled as part of Quarterly Monitoring Event.																		
	11/08/12	Not Sampled as part of Quarterly Monitoring Event.																		
	11/20/13	Not Sampled as part of Quarterly Monitoring Event.																		
	02/04/14	Plugged and Abandoned																		
MW-1A	02/26/14	<0.00492	<0.00492	**<0.00492**	**<0.00492**	**<0.00492**	**<0.00492**	<0.00492	**<0.00492**	**<0.00492**	**<0.00492**	**<0.00492**	**<0.00492**	**<0.00492**	**<0.00492**	**<0.00492**	**<5.00**	**<0.00492**	**<0.00492**	<0.00492
MW-2	11/07/08	<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
	11/09/09	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/01/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/16/11	Not Sampled as part of Quarterly Monitoring Event.																		
	11/08/12	Not Sampled as part of Quarterly Monitoring Event.																		
	11/20/13	Not Sampled as part of Quarterly Monitoring Event.																		
	11/11/14	Not Sampled as part of Quarterly Monitoring Event.																		
MW-3	11/07/08	<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
	11/09/09	<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
	11/01/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/16/11	Not Sampled as part of Quarterly Monitoring Event.																		
	11/08/12	Not Sampled as part of Quarterly Monitoring Event.																		
	11/20/13	Not Sampled as part of Quarterly Monitoring Event.																		
	11/11/14	Not Sampled as part of Quarterly Monitoring Event.																		
MW-4	11/07/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	**0.00207**	<0.000185	**0.00103**	<0.000185	0.000684	0.00413	0.000546	0.00128
	11/09/09	<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	0.00078	<0.000184	<0.000184	0.00173	<0.000184	<0.000184
	11/01/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/16/11	<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
	11/08/12	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190	<0.00190

TABLE 3

HISTORIC POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.
TNM LF-59
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0103

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																		
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		—	—	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	—	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L			—
	11/20/13	Not Sampled as part of Quarterly Monitoring Event.																		
	11/11/14	Not Sampled as part of Quarterly Monitoring Event.																		
MW-5	11/07/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/09/09	<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
	11/01/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/16/11	Not Sampled as part of Quarterly Monitoring Event.																		
	11/08/12	Not Sampled as part of Quarterly Monitoring Event.																		
	11/20/13	Not Sampled as part of Quarterly Monitoring Event.																		
	11/11/14	Not Sampled as part of Quarterly Monitoring Event.																		
MW-7	11/07/08	<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
	11/09/09	<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
	11/01/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/16/11	Not Sampled as part of Quarterly Monitoring Event.																		
	11/08/12	Not Sampled as part of Quarterly Monitoring Event.																		
	11/20/13	Not Sampled as part of Quarterly Monitoring Event.																		
	11/11/14	Not Sampled as part of Quarterly Monitoring Event.																		
MW-8	11/07/08	<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
	11/09/09	<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
	11/01/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/16/11	Not Sampled as part of Quarterly Monitoring Event.																		
	11/08/12	Not Sampled as part of Quarterly Monitoring Event.																		
	11/20/13	Not Sampled as part of Quarterly Monitoring Event.																		
	11/11/14	Not Sampled as part of Quarterly Monitoring Event.																		

Laboratory Reports

TRACEANALYSIS, INC.

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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: February 17, 2014

Work Order: 14020627

Project Location: Monument, New Mexico
Project Name: LF-59
Project Number: NM-2005
SRS #: TNM-LF-59

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
354090	MW-1A @ 10'	soil	2014-02-04	09:40	2014-02-06
354091	MW-1A @ 15'	soil	2014-02-04	09:50	2014-02-06

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.

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

Report Contents

Case Narrative

Samples for project LF-59 were received by TraceAnalysis, Inc. on 2014-02-06 and assigned to work order 14020627. Samples for work order 14020627 were received intact at a temperature of 4.8 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	92304	2014-02-11 at 11:53	109254	2014-02-13 at 14:33
BTEX	S 8021B	92409	2014-02-13 at 17:03	109367	2014-02-14 at 15:51
TPH DRO - NEW	S 8015 D	92371	2014-02-12 at 13:30	109227	2014-02-13 at 09:08
TPH GRO	S 8015 D	92304	2014-02-11 at 11:53	109255	2014-02-13 at 14:36
TPH ORO	S 8015 D	92247	2014-02-07 at 15:00	109081	2014-02-10 at 09:02

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 14020627 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: 354090 - MW-1A @ 10'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	109367	Date Analyzed:	2014-02-14	Analyzed By:	AK
Prep Batch:	92409	Sample Preparation:	2014-02-13	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene		1	**0.0475**	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	1	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)			2.07	mg/Kg	1	2.00	104	70 - 130

Sample: 354090 - MW-1A @ 10'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	109227	Date Analyzed:	2014-02-13	Analyzed By:	RG
Prep Batch:	92371	Sample Preparation:	2014-02-12	Prepared By:	RG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO		1	**397**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			103	mg/Kg	1	100	103	70 - 130

Sample: 354090 - MW-1A @ 10'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	109255	Date Analyzed:	2014-02-13	Analyzed By:	AK
Prep Batch:	92304	Sample Preparation:	2014-02-11	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	**17.6**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.66	mg/Kg	1	2.00	83	70 - 130
4-Bromofluorobenzene (4-BFB)			2.29	mg/Kg	1	2.00	114	70 - 130

Sample: 354090 - MW-1A @ 10'

Laboratory:	Midland				
Analysis:	TPH ORO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	109081	Date Analyzed:	2014-02-10	Analyzed By:	RG
Prep Batch:	92247	Sample Preparation:	2014-02-07	Prepared By:	RG

Parameter	Flag	Cert	MDL Result	MQL Result	PQL Result	RL Result	Units	Dilution	MDL	MQL	PQL	RL
ORO	U		<11.3	<50.0	<50.0	<50.0	mg/Kg	1	11.3	50.0	50.0	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			101	mg/Kg	1	100	101	70 - 130
n-Triacontane			117	mg/Kg	1	100	117	70 - 130

Sample: 354091 - MW-1A @ 15'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	109254	Date Analyzed:	2014-02-13	Analyzed By:	AK
Prep Batch:	92304	Sample Preparation:	2014-02-11	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	1	<0.0200	mg/Kg	1	0.0200
Toluene	Qr,U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	Qr	1	**0.195**	mg/Kg	1	0.0200
Xylene	Qr	1	**0.955**	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.46	mg/Kg	1	2.00	73	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	3.59	mg/Kg	1	2.00	180	70 - 130

Sample: 354091 - MW-1A @ 15'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	109227	Date Analyzed:	2014-02-13	Analyzed By:	RG
Prep Batch:	92371	Sample Preparation:	2014-02-12	Prepared By:	RG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**890**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			111	mg/Kg	1	100	111	70 - 130

Sample: 354091 - MW-1A @ 15'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	109255	Date Analyzed:	2014-02-13	Analyzed By:	AK
Prep Batch:	92304	Sample Preparation:	2014-02-11	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	**114**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.51	mg/Kg	1	2.00	76	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	5.69	mg/Kg	1	2.00	284	70 - 130

Sample: 354091 - MW-1A @ 15'

Laboratory:	Midland				
Analysis:	TPH ORO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	109081	Date Analyzed:	2014-02-10	Analyzed By:	RG
Prep Batch:	92247	Sample Preparation:	2014-02-07	Prepared By:	RG

Parameter	Flag	Cert	MDL Result	MQL Result	PQL Result	RL Result	Units	Dilution	MDL	MQL	PQL	RL
ORO	U		<11.3	<50.0	<50.0	<50.0	mg/Kg	1	11.3	50.0	50.0	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			98.9	mg/Kg	1	100	99	70 - 130

continued ...

sample continued . . .

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			121	mg/Kg	1	100	121	70 - 130

Method Blanks

Method Blank (1) QC Batch: 109081

QC Batch:	109081	Date Analyzed:	2014-02-10	Analyzed By:	RG
Prep Batch:	92247	QC Preparation:	2014-02-07	Prepared By:	RG

Parameter	Flag	Cert	MDL Result	Units	RL
ORO			<11.3	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			102	mg/Kg	1	100	102	70 - 130
n-Triacontane			112	mg/Kg	1	100	112	70 - 130

Method Blank (1) QC Batch: 109227

QC Batch:	109227	Date Analyzed:	2014-02-13	Analyzed By:	RG
Prep Batch:	92371	QC Preparation:	2014-02-12	Prepared By:	RG

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<6.88	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			96.0	mg/Kg	1	100	96	70 - 130

Method Blank (1) QC Batch: 109254

QC Batch:	109254	Date Analyzed:	2014-02-13	Analyzed By:	AK
Prep Batch:	92304	QC Preparation:	2014-02-11	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00533	mg/Kg	0.02
Toluene		1	<0.00645	mg/Kg	0.02
Ethylbenzene		1	<0.0116	mg/Kg	0.02

continued . . .

method blank continued ...

Parameter	Flag	Cert	MDL Result	Units	RL
Xylene		1	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.78	mg/Kg	1	2.00	89	70 - 130
4-Bromofluorobenzene (4-BFB)			1.74	mg/Kg	1	2.00	87	70 - 130

Method Blank (1) QC Batch: 109255

QC Batch:	109255	Date Analyzed:	2014-02-13	Analyzed By:	AK
Prep Batch:	92304	QC Preparation:	2014-02-11	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.83	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.62	mg/Kg	1	2.00	81	70 - 130

Method Blank (1) QC Batch: 109367

QC Batch:	109367	Date Analyzed:	2014-02-14	Analyzed By:	AK
Prep Batch:	92409	QC Preparation:	2014-02-13	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00354	mg/Kg	0.02
Toluene		1	<0.00966	mg/Kg	0.02
Ethylbenzene		1	<0.00790	mg/Kg	0.02
Xylene		1	<0.00667	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.09	mg/Kg	1	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 109081 | Date Analyzed: 2014-02-10 | Analyzed By: RG
Prep Batch: 92247 | QC Preparation: 2014-02-07 | Prepared By: RG

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	108	102	mg/Kg	1	100	108	102	70 - 130
n-Triacontane	117	111	mg/Kg	1	100	117	111	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 109227 | Date Analyzed: 2014-02-13 | Analyzed By: RG
Prep Batch: 92371 | QC Preparation: 2014-02-12 | Prepared By: RG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		[1]	264	mg/Kg	1	250	<6.88	106	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
DRO		[1]	269	mg/Kg	1	250	<6.88	108	70 - 130	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	95.8	97.8	mg/Kg	1	100	96	98	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 109254 | Date Analyzed: 2014-02-13 | Analyzed By: AK
Prep Batch: 92304 | QC Preparation: 2014-02-11 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.58	mg/Kg	1	2.00	<0.00533	79	70 - 130
Toluene		1	1.71	mg/Kg	1	2.00	<0.00645	86	70 - 130
Ethylbenzene		1	1.77	mg/Kg	1	2.00	<0.0116	88	70 - 130
Xylene		1	5.45	mg/Kg	1	6.00	<0.00874	91	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	1.70	mg/Kg	1	2.00	<0.00533	85	70 - 130	7	20
Toluene		1	1.84	mg/Kg	1	2.00	<0.00645	92	70 - 130	7	20
Ethylbenzene		1	1.89	mg/Kg	1	2.00	<0.0116	94	70 - 130	7	20
Xylene		1	5.81	mg/Kg	1	6.00	<0.00874	97	70 - 130	6	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.52	1.56	mg/Kg	1	2.00	76	78	70 - 130
4-Bromofluorobenzene (4-BFB)	1.83	1.73	mg/Kg	1	2.00	92	86	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 109255 | Date Analyzed: 2014-02-13 | Analyzed By: AK
Prep Batch: 92304 | QC Preparation: 2014-02-11 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	14.1	mg/Kg	1	20.0	<2.32	70	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
GRO		1	14.1	mg/Kg	1	20.0	<2.32	70	70 - 130	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.54	1.42	mg/Kg	1	2.00	77	71	70 - 130
4-Bromofluorobenzene (4-BFB)	1.69	1.85	mg/Kg	1	2.00	84	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 109367 | Date Analyzed: 2014-02-14 | Analyzed By: AK
Prep Batch: 92409 | QC Preparation: 2014-02-13 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.94	mg/Kg	1	2.00	<0.00354	97	70 - 130
Toluene		1	2.06	mg/Kg	1	2.00	<0.00966	103	70 - 130
Ethylbenzene		1	2.16	mg/Kg	1	2.00	<0.00790	108	70 - 130
Xylene		1	6.67	mg/Kg	1	6.00	<0.00667	111	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.96	mg/Kg	1	2.00	<0.00354	98	70 - 130	1	20
Toluene		1	2.06	mg/Kg	1	2.00	<0.00966	103	70 - 130	0	20
Ethylbenzene		1	2.20	mg/Kg	1	2.00	<0.00790	110	70 - 130	2	20
Xylene		1	6.70	mg/Kg	1	6.00	<0.00667	112	70 - 130	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.04	2.06	mg/Kg	1	2.00	102	103	70 - 130
4-Bromofluorobenzene (4-BFB)	2.00	2.03	mg/Kg	1	2.00	100	101	70 - 130

Matrix Spike (MS-1) Spiked Sample: 354090

QC Batch: 109081 | Date Analyzed: 2014-02-10 | Analyzed By: RG
Prep Batch: 92247 | QC Preparation: 2014-02-07 | Prepared By: RG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
ORO			<11.3	mg/Kg	1	250	<11.3	0	-

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
ORO			<11.3	mg/Kg	1	250	<11.3	0	-	0	

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

continued ...

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	90.9	92.6	mg/Kg	1	100	91	93	70 - 130
n-Triacontane	100	101	mg/Kg	1	100	100	101	70 - 130

Matrix Spike (MS-1) Spiked Sample: 354080

QC Batch: 109227 | Date Analyzed: 2014-02-13 | Analyzed By: RG
Prep Batch: 92371 | QC Preparation: 2014-02-12 | Prepared By: RG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		[1]	234	mg/Kg	1	250	<6.88	94	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
DRO		[1]	232	mg/Kg	1	250	<6.88	93	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
n-Tricosane	87.6	87.5	mg/Kg	1	100	88	88	70 - 130

Matrix Spike (MS-1) Spiked Sample: 354101

QC Batch: 109254 | Date Analyzed: 2014-02-13 | Analyzed By: AK
Prep Batch: 92304 | QC Preparation: 2014-02-11 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		[1]	1.51	mg/Kg	1	2.00	<0.00533	76	70 - 130
Toluene		[1]	1.64	mg/Kg	1	2.00	<0.00645	82	70 - 130
Ethylbenzene		[1]	1.74	mg/Kg	1	2.00	<0.0116	87	70 - 130
Xylene		[1]	5.30	mg/Kg	1	6.00	<0.00874	88	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qr	Qr	3.02	mg/Kg	1	4.00	<0.00533	76	70 - 130	67	20
Toluene	Qr	Qr	3.29	mg/Kg	1	4.00	<0.00645	82	70 - 130	67	20
Ethylbenzene	Qr	Qr	3.45	mg/Kg	1	4.00	<0.0116	86	70 - 130	66	20
Xylene	Qr	Qr	10.5	mg/Kg	1	12.0	<0.00874	88	70 - 130	66	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)	1.48	2.86	mg/Kg	1	2	74	72	70 - 130
4-Bromofluorobenzene (4-BFB)	1.82	3.61	mg/Kg	1	2	91	90	70 - 130

Matrix Spike (MS-1) Spiked Sample: 354101

QC Batch: 109255 | Date Analyzed: 2014-02-13 | Analyzed By: AK
Prep Batch: 92304 | QC Preparation: 2014-02-11 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	23.4	mg/Kg	1	20.0	4	97	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	19.8	mg/Kg	1	20.0	4	79	70 - 130	17	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)	1.53	1.61	mg/Kg	1	2	76	80	70 - 130
4-Bromofluorobenzene (4-BFB)	1.76	2.10	mg/Kg	1	2	88	105	70 - 130

Matrix Spike (xMS-1) Spiked Sample: 354051

QC Batch: 109367 | Date Analyzed: 2014-02-14 | Analyzed By: AK
Prep Batch: 92409 | QC Preparation: 2014-02-13 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.78	mg/Kg	2	2.00	<0.00708	89	70 - 130

continued ...

matrix spikes continued ...

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Toluene		1	1.83	mg/Kg	2	2.00	<0.0193	92	70 - 130
Ethylbenzene		1	1.89	mg/Kg	2	2.00	<0.0158	94	70 - 130
Xylene		1	5.86	mg/Kg	2	6.00	<0.0133	98	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	1.87	mg/Kg	2	2.00	<0.00708	94	70 - 130	5	20
Toluene		1	1.98	mg/Kg	2	2.00	<0.0193	99	70 - 130	8	20
Ethylbenzene		1	2.03	mg/Kg	2	2.00	<0.0158	102	70 - 130	7	20
Xylene		1	6.29	mg/Kg	2	6.00	<0.0133	105	70 - 130	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	4.08	4.08	mg/Kg	2	4	102	102	70 - 130
4-Bromofluorobenzene (4-BFB)	3.96	3.96	mg/Kg	2	4	99	99	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 109227 | Date Analyzed: 2014-02-13 | Analyzed By: RG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	263	105	80 - 120	2014-02-13

Standard (CCV-2)

QC Batch: 109227 | Date Analyzed: 2014-02-13 | Analyzed By: RG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	271	108	80 - 120	2014-02-13

Standard (CCV-3)

QC Batch: 109227 | Date Analyzed: 2014-02-13 | Analyzed By: RG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	263	105	80 - 120	2014-02-13

Standard (CCV-1)

QC Batch: 109254 | Date Analyzed: 2014-02-13 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0893	89	80 - 120	2014-02-13
Toluene		1	mg/kg	0.100	0.0936	94	80 - 120	2014-02-13

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ethylbenzene		1	mg/kg	0.100	0.0924	92	80 - 120	2014-02-13
Xylene		1	mg/kg	0.300	0.282	94	80 - 120	2014-02-13

Standard (CCV-2)

QC Batch: 109254 Date Analyzed: 2014-02-13 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.110	110	80 - 120	2014-02-13
Toluene		1	mg/kg	0.100	0.109	109	80 - 120	2014-02-13
Ethylbenzene		1	mg/kg	0.100	0.0983	98	80 - 120	2014-02-13
Xylene		1	mg/kg	0.300	0.297	99	80 - 120	2014-02-13

Standard (CCV-3)

QC Batch: 109254 Date Analyzed: 2014-02-13 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0909	91	80 - 120	2014-02-13
Toluene		1	mg/kg	0.100	0.0959	96	80 - 120	2014-02-13
Ethylbenzene		1	mg/kg	0.100	0.0974	97	80 - 120	2014-02-13
Xylene		1	mg/kg	0.300	0.297	99	80 - 120	2014-02-13

Standard (CCV-1)

QC Batch: 109255 Date Analyzed: 2014-02-13 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.896	90	80 - 120	2014-02-13

Standard (CCV-2)

QC Batch: 109255 | Date Analyzed: 2014-02-13 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.797	80	80 - 120	2014-02-13

Standard (CCV-3)

QC Batch: 109255 | Date Analyzed: 2014-02-13 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.984	98	80 - 120	2014-02-13

Standard (CCV-1)

QC Batch: 109367 | Date Analyzed: 2014-02-14 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.105	105	80 - 120	2014-02-14
Toluene		1	mg/kg	0.100	0.108	108	80 - 120	2014-02-14
Ethylbenzene		1	mg/kg	0.100	0.108	108	80 - 120	2014-02-14
Xylene		1	mg/kg	0.300	0.330	110	80 - 120	2014-02-14

Standard (CCV-2)

QC Batch: 109367 | Date Analyzed: 2014-02-14 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.103	103	80 - 120	2014-02-14
Toluene		1	mg/kg	0.100	0.104	104	80 - 120	2014-02-14
Ethylbenzene		1	mg/kg	0.100	0.109	109	80 - 120	2014-02-14
Xylene		1	mg/kg	0.300	0.330	110	80 - 120	2014-02-14

Appendix

Report Definitions

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

Laboratory Certifications

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

Standard Flags

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

Attachments

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

LAB Order ID # 14020627

Page ____ of ____

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Ave, Ste 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

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

Company Name:	Nova Safety and Environmental	Phone #:	432-520-7720
Address:	2057 Commerce Dr, Midland, TX 79703	Fax #:	
Contact Person:	Curt Stanley	E-mail:	cstanley@novatraining.cc
Invoice to:	Plains		
Project #:	TNM-LF-59	Project Name:	LF-59
Project Location: (include state)	Monument, NM	Sampler Signature:	Matthew Green

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 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / DRO / TVHC 8015M	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B / 200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC			Turn Around Time if different from standard	Hold
354090	MW-1A @ 10'	1			x							x		2-4-14	0940		x	x																			
091	MW-1A @ 15'	1			x							x		2-4-14	0950		x	x																			

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Matthew Green	Nova	2-6-14	1425	[signature]	A	2/6/14	14:25	INST 124 OBS 4.9 °C COR 4.8 °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 ____
Carrier # [signature]

REMARKS: CC: Camille Midland - all

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

ORIGINAL COPY

TRACEANALYSIS, INC.

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

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: February 10, 2014

Work Order: 14020502

Project Location: Monument, New Mexico
Project Name: LF-59
Project Number: NM-2005
SRS #: TNM-LF-59

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
353780	MW-2	water	2014-02-04	16:20	2014-02-05
353781	MW-4	water	2014-02-04	16:38	2014-02-05
353782	MW-1	water	2014-02-04	16:55	2014-02-05

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

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

Report Contents

Case Narrative

Samples for project LF-59 were received by TraceAnalysis, Inc. on 2014-02-05 and assigned to work order 14020502. Samples for work order 14020502 were received intact without headspace and at a temperature of 3.6 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	92196	2014-02-06 at 12:28	109034	2014-02-07 at 08:31
BTEX	S 8021B	92233	2014-02-07 at 11:15	109073	2014-02-08 at 15:00

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 14020502 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: 353780 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	109034	Date Analyzed:	2014-02-07	Analyzed By:	AK
Prep Batch:	92196	Sample Preparation:	2014-02-06	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0990	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0835	mg/L	1	0.100	84	70 - 130

Sample: 353781 - MW-4

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	109073	Date Analyzed:	2014-02-08	Analyzed By:	AK
Prep Batch:	92233	Sample Preparation:	2014-02-07	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.103	mg/L	1	0.100	103	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0897	mg/L	1	0.100	90	70 - 130

Method Blanks

Method Blank (1) QC Batch: 109034

QC Batch: 109034 | Date Analyzed: 2014-02-07 | Analyzed By: AK
Prep Batch: 92196 | QC Preparation: 2014-02-06 | Prepared By: AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0986	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0830	mg/L	1	0.100	83	70 - 130

Method Blank (1) QC Batch: 109073

QC Batch: 109073 | Date Analyzed: 2014-02-08 | Analyzed By: AK
Prep Batch: 92233 | QC Preparation: 2014-02-07 | Prepared By: AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0990	mg/L	1	0.100	99	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 109034 | Date Analyzed: 2014-02-07 | Analyzed By: AK
Prep Batch: 92196 | QC Preparation: 2014-02-06 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.107	mg/L	1	0.100	<0.000238	107	70 - 130
Toluene		1	0.109	mg/L	1	0.100	<0.000181	109	70 - 130
Ethylbenzene		1	0.109	mg/L	1	0.100	<0.000247	109	70 - 130
Xylene		1	0.334	mg/L	1	0.300	<0.000189	111	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.112	mg/L	1	0.100	<0.000238	112	70 - 130	5	20
Toluene		1	0.114	mg/L	1	0.100	<0.000181	114	70 - 130	4	20
Ethylbenzene		1	0.116	mg/L	1	0.100	<0.000247	116	70 - 130	6	20
Xylene		1	0.356	mg/L	1	0.300	<0.000189	119	70 - 130	6	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.102	mg/L	1	0.100	101	102	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0975	0.102	mg/L	1	0.100	98	102	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 109073 | Date Analyzed: 2014-02-08 | Analyzed By: AK
Prep Batch: 92233 | QC Preparation: 2014-02-07 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.106	mg/L	1	0.100	<0.000238	106	70 - 130
Toluene		1	0.112	mg/L	1	0.100	<0.000181	112	70 - 130
Ethylbenzene		1	0.112	mg/L	1	0.100	<0.000247	112	70 - 130
Xylene		1	0.344	mg/L	1	0.300	<0.000189	115	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	0.105	mg/L	1	0.100	<0.000238	105	70 - 130	1	20
Toluene		1	0.110	mg/L	1	0.100	<0.000181	110	70 - 130	2	20
Ethylbenzene		1	0.111	mg/L	1	0.100	<0.000247	111	70 - 130	1	20
Xylene		1	0.340	mg/L	1	0.300	<0.000189	113	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)	0.105	0.104	mg/L	1	0.100	105	104	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0960	0.0961	mg/L	1	0.100	96	96	70 - 130

Matrix Spike (MS-1) Spiked Sample: 353780

QC Batch: 109034 | Date Analyzed: 2014-02-07 | Analyzed By: AK
Prep Batch: 92196 | QC Preparation: 2014-02-06 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0755	mg/L	1	0.100	<0.000238	76	70 - 130
Toluene		1	0.0752	mg/L	1	0.100	<0.000181	75	70 - 130
Ethylbenzene		1	0.0734	mg/L	1	0.100	<0.000247	73	70 - 130
Xylene		1	0.225	mg/L	1	0.300	<0.000189	75	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qr	Qr	1	0.113	mg/L	1	0.100	<0.000238	113	70 - 130	40	20
Toluene	Qr	Qr	1	0.115	mg/L	1	0.100	<0.000181	115	70 - 130	42	20
Ethylbenzene	Qr	Qr	1	0.115	mg/L	1	0.100	<0.000247	115	70 - 130	44	20
Xylene	Qr	Qr	1	0.351	mg/L	1	0.300	<0.000189	117	70 - 130	44	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)	0.0997	0.102	mg/L	1	0.1	100	102	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0956	0.102	mg/L	1	0.1	96	102	70 - 130

Matrix Spike (MS-1) Spiked Sample: 353791

QC Batch:	109073	Date Analyzed:	2014-02-08	Analyzed By:	AK
Prep Batch:	92233	QC Preparation:	2014-02-07	Prepared By:	AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0856	mg/L	1	0.100	<0.000238	86	70 - 130
Toluene		1	0.0828	mg/L	1	0.100	<0.000181	83	70 - 130
Ethylbenzene		1	0.0972	mg/L	1	0.100	<0.000247	97	70 - 130
Xylene		1	0.240	mg/L	1	0.300	<0.000189	80	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qr	Qr	1	0.113	mg/L	1	0.100	<0.000238	112	70 - 130	28	20
Toluene	Qr	Qr	1	0.109	mg/L	1	0.100	<0.000181	109	70 - 130	27	20
Ethylbenzene	Qr	Qr	1	0.125	mg/L	1	0.100	<0.000247	125	70 - 130	25	20
Xylene	Qr	Qr	1	0.316	mg/L	1	0.300	<0.000189	105	70 - 130	27	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)	0.107	0.108	mg/L	1	0.1	107	108	70 - 130
4-Bromofluorobenzene (4-BFB)	0.104	0.106	mg/L	1	0.1	104	106	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 109034 | Date Analyzed: 2014-02-07 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.111	111	80 - 120	2014-02-07
Toluene		1	mg/L	0.100	0.112	112	80 - 120	2014-02-07
Ethylbenzene		1	mg/L	0.100	0.113	113	80 - 120	2014-02-07
Xylene		1	mg/L	0.300	0.344	115	80 - 120	2014-02-07

Standard (CCV-2)

QC Batch: 109034 | Date Analyzed: 2014-02-07 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2014-02-07
Toluene		1	mg/L	0.100	0.103	103	80 - 120	2014-02-07
Ethylbenzene		1	mg/L	0.100	0.102	102	80 - 120	2014-02-07
Xylene		1	mg/L	0.300	0.314	105	80 - 120	2014-02-07

Standard (CCV-3)

QC Batch: 109034 | Date Analyzed: 2014-02-07 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.105	105	80 - 120	2014-02-07
Toluene		1	mg/L	0.100	0.107	107	80 - 120	2014-02-07
Ethylbenzene		1	mg/L	0.100	0.107	107	80 - 120	2014-02-07
Xylene		1	mg/L	0.300	0.329	110	80 - 120	2014-02-07

Standard (CCV-1)

QC Batch: 109073 | Date Analyzed: 2014-02-08 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.109	109	80 - 120	2014-02-08
Toluene		1	mg/L	0.100	0.111	111	80 - 120	2014-02-08
Ethylbenzene		1	mg/L	0.100	0.110	110	80 - 120	2014-02-08
Xylene		1	mg/L	0.300	0.335	112	80 - 120	2014-02-08

Standard (CCV-2)

QC Batch: 109073 | Date Analyzed: 2014-02-08 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.108	108	80 - 120	2014-02-08
Toluene		1	mg/L	0.100	0.110	110	80 - 120	2014-02-08
Ethylbenzene		1	mg/L	0.100	0.108	108	80 - 120	2014-02-08
Xylene		1	mg/L	0.300	0.332	111	80 - 120	2014-02-08

Standard (CCV-3)

QC Batch: 109073 | Date Analyzed: 2014-02-08 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0997	100	80 - 120	2014-02-08
Toluene		1	mg/L	0.100	0.106	106	80 - 120	2014-02-08
Ethylbenzene		1	mg/L	0.100	0.108	108	80 - 120	2014-02-08
Xylene		1	mg/L	0.300	0.329	110	80 - 120	2014-02-08

Appendix

Report Definitions

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

Laboratory Certifications

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

Standard Flags

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

Attachments

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

LAB Order ID # 14020502

Page 1 of 1

TraceAnalysis, Inc.

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Brandon & Clark
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Hobbs, NM 88240
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Fax (575) 392-4508

Company Name: Nova
Phone #: 432-520-7720
Address: (Street, City, Zip) 2057 commerce dr
Fax #:
Contact Person: curt stanley
E-mail:
Invoice to:
(If different from above)
Project #: TNM-LF-59
Project Name: LF-59
Project Location (including state): nm
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC						Turn Around Time if different from standard	Hold
553780	MW-2	3	VOA	X				X				X		2/4/14	1620		X																							
781	MW-4	↓	↓	↓				↓				↓			1638		X																							
782	MW-1	↓	↓	↓				↓				↓		↓	1655		X																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
John Flores	Nova	2/5/14			TA	2/5/14	8:06	INST (Ky) OBS 3.7 °C COR 3.6 °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: Midland all
cc: Camille

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

Carrier # dary

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

ORIGINAL COPY

TRACEANALYSIS, INC.

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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: March 19, 2014

Work Order: 14022712

Project Location: Monument, New Mexico
Project Name: LF-59
Project Number: NM-2005
SRS #: TNM-LF-59

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
356102	MW-1A	water	2014-02-26	12:45	2014-02-27

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 58 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 LF-59 were received by TraceAnalysis, Inc. on 2014-02-27 and assigned to work order 14022712. Samples for work order 14022712 were received intact without headspace and at a temperature of 0.7 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Ag, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
Alkalinity	SM 2320B	92894	2014-03-04 at 07:50	109849	2014-03-04 at 16:50
Al, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
As, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
Ba, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
B, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
Ca, Dissolved	S 6010C	92914	2014-03-05 at 14:00	109917	2014-03-06 at 11:42
Cd, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
Chloride (IC)	E 300.0	92813	2014-02-28 at 11:43	109764	2014-02-28 at 11:43
Co, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
Cr, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
Cu, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
Fe, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
Fluoride (IC)	E 300.0	92813	2014-02-28 at 11:43	109764	2014-02-28 at 11:43
Hg, Total	S 7470A	92848	2014-03-03 at 08:15	109810	2014-03-03 at 14:00
K, Dissolved	S 6010C	92914	2014-03-05 at 14:00	109917	2014-03-06 at 11:42
Mg, Dissolved	S 6010C	92914	2014-03-05 at 14:00	109917	2014-03-06 at 11:42
Mn, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
Mo, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
Na, Dissolved	S 6010C	92914	2014-03-05 at 14:00	109917	2014-03-06 at 11:42
Ni, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
NO3 (IC)	E 300.0	92813	2014-02-28 at 11:43	109764	2014-02-28 at 11:43
Pb, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
PO4 (IC)	E 300.0	92813	2014-02-28 at 11:43	109764	2014-02-28 at 11:43
Semivolatiles	S 8270D	93051	2014-03-01 at 15:00	110046	2014-03-11 at 14:14
Se, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42
SO4 (IC)	E 300.0	92813	2014-02-28 at 11:43	109764	2014-02-28 at 11:43
Volatiles	S 8260 C	92835	2014-02-28 at 12:00	109793	2014-02-28 at 12:00
Zn, Total	S 6010C	92917	2014-03-05 at 14:51	109912	2014-03-06 at 11:42

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 14022712 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: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	Al, Total	Analytical Method:	S 6010C	Prep Method:	S 3010A
QC Batch:	109912	Date Analyzed:	2014-03-06	Analyzed By:	LM
Prep Batch:	92917	Sample Preparation:	2014-03-06	Prepared By:	PM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Total Aluminum		2	**1.08**	mg/L	1	0.0500

Sample: 356102 - MW-1A

Laboratory:	Midland				
Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	109849	Date Analyzed:	2014-03-04	Analyzed By:	AR
Prep Batch:	92894	Sample Preparation:	2014-03-04	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Hydroxide Alkalinity	U	3	<20.0	mg/L as CaCo3	1	20.0
Carbonate Alkalinity	U	3	<20.0	mg/L as CaCo3	1	20.0
Bicarbonate Alkalinity		3	**323**	mg/L as CaCo3	1	20.0
Total Alkalinity		3	**323**	mg/L as CaCo3	1	20.0

Sample: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	B, Total	Analytical Method:	S 6010C	Prep Method:	S 3010A
QC Batch:	109912	Date Analyzed:	2014-03-06	Analyzed By:	LM
Prep Batch:	92917	Sample Preparation:	2014-03-06	Prepared By:	PM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Total Boron	Qs	2	**0.241**	mg/L	1	0.0100

Sample: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	Cations	Analytical Method:	S 6010C	Prep Method:	S 3005A
QC Batch:	109917	Date Analyzed:	2014-03-06	Analyzed By:	LM
Prep Batch:	92914	Sample Preparation:	2014-03-05	Prepared By:	PM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Dissolved Calcium		2	**168**	mg/L	1	1.00
Dissolved Potassium		2	**5.53**	mg/L	1	1.00
Dissolved Magnesium		2	**29.4**	mg/L	1	1.00
Dissolved Sodium		2	**134**	mg/L	1	1.00

Sample: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	Co, Total	Analytical Method:	S 6010C	Prep Method:	S 3010A
QC Batch:	109912	Date Analyzed:	2014-03-06	Analyzed By:	LM
Prep Batch:	92917	Sample Preparation:	2014-03-06	Prepared By:	PM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Total Cobalt	U		<0.0100	mg/L	1	0.0100

Sample: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	Cu, Total	Analytical Method:	S 6010C	Prep Method:	S 3010A
QC Batch:	109912	Date Analyzed:	2014-03-06	Analyzed By:	LM
Prep Batch:	92917	Sample Preparation:	2014-03-06	Prepared By:	PM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Total Copper	U		<0.00500	mg/L	1	0.00500

Sample: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	Fe, Total	Analytical Method:	S 6010C	Prep Method:	S 3010A
QC Batch:	109912	Date Analyzed:	2014-03-06	Analyzed By:	LM
Prep Batch:	92917	Sample Preparation:	2014-03-06	Prepared By:	PM

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Total Iron			**0.632**		mg/L	1	0.0100

Sample: 356102 - MW-1A

Laboratory:	El Paso				
Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	109764	Date Analyzed:	2014-02-28	Analyzed By:	JR
Prep Batch:	92813	Sample Preparation:	2014-02-28	Prepared By:	JR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Fluoride		1	**0.605**		mg/L	1	0.500
Chloride		1	**308**		mg/L	10	2.50
Nitrate-N		1	**10.9**		mg/L	5	0.500
PO4-P	U	1	<0.815		mg/L	1	0.815
Sulfate		1	**69.7**		mg/L	5	2.50

Sample: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	Mn, Total	Analytical Method:	S 6010C	Prep Method:	S 3010A
QC Batch:	109912	Date Analyzed:	2014-03-06	Analyzed By:	LM
Prep Batch:	92917	Sample Preparation:	2014-03-06	Prepared By:	PM

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Total Manganese		2	**0.103**		mg/L	1	0.00500

Sample: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	Mo, Total	Analytical Method:	S 6010C	Prep Method:	S 3010A
QC Batch:	109912	Date Analyzed:	2014-03-06	Analyzed By:	LM
Prep Batch:	92917	Sample Preparation:	2014-03-06	Prepared By:	PM

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Total Molybdenum	U	2	<0.0500		mg/L	1	0.0500

Sample: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	Ni, Total	Analytical Method:	S 6010C	Prep Method:	S 3010A
QC Batch:	109912	Date Analyzed:	2014-03-06	Analyzed By:	LM
Prep Batch:	92917	Sample Preparation:	2014-03-06	Prepared By:	PM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Nickel	U	2	<0.0100	mg/L	1	0.0100

Sample: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	Semivolatiles	Analytical Method:	S 8270D	Prep Method:	S 3510C
QC Batch:	110046	Date Analyzed:	2014-03-11	Analyzed By:	MN
Prep Batch:	93051	Sample Preparation:	2014-03-01	Prepared By:	MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Pyridine	U	2	<0.00492	mg/L	0.985	0.00500
N-Nitrosodimethylamine	U	2	<0.00492	mg/L	0.985	0.00500
2-Picoline	U	2	<0.00492	mg/L	0.985	0.00500
Methyl methanesulfonate	U	2	<0.00492	mg/L	0.985	0.00500
Ethyl methanesulfonate	U	2	<0.00492	mg/L	0.985	0.00500
Phenol	U	2	<0.00492	mg/L	0.985	0.00500
Aniline	U	2	<0.00492	mg/L	0.985	0.00500
bis(2-chloroethyl)ether	U	2	<0.00492	mg/L	0.985	0.00500
2-Chlorophenol	U	2	<0.00492	mg/L	0.985	0.00500
1,3-Dichlorobenzene (meta)	U	2	<0.00492	mg/L	0.985	0.00500
1,4-Dichlorobenzene (para)	U	2	<0.00492	mg/L	0.985	0.00500
Benzyl alcohol	U	2	<0.00492	mg/L	0.985	0.00500
1,2-Dichlorobenzene (ortho)	U	2	<0.00492	mg/L	0.985	0.00500
2-Methylphenol	U	2	<0.00492	mg/L	0.985	0.00500
bis(2-chloroisopropyl)ether	U	2	<0.00492	mg/L	0.985	0.00500
4-Methylphenol / 3-Methylphenol	U	2	<0.00492	mg/L	0.985	0.00500
N-Nitrosodi-n-propylamine	U	2	<0.00492	mg/L	0.985	0.00500
Hexachloroethane	U	2	<0.00492	mg/L	0.985	0.00500
Acetophenone	U	2	<0.00492	mg/L	0.985	0.00500
Nitrobenzene	U	2	<0.00492	mg/L	0.985	0.00500
N-Nitrosopiperidine	U	2	<0.00492	mg/L	0.985	0.00500
Isophorone	U	2	<0.00492	mg/L	0.985	0.00500
2-Nitrophenol	U	2	<0.00492	mg/L	0.985	0.00500
2,4-Dimethylphenol	U	2	<0.00492	mg/L	0.985	0.00500
bis(2-chloroethoxy)methane	U	2	<0.00492	mg/L	0.985	0.00500
2,4-Dichlorophenol	U	2	<0.00492	mg/L	0.985	0.00500

continued ...

sample 356102 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
1,2,4-Trichlorobenzene	U	2	<0.00492	mg/L	0.985	0.00500
Benzoic acid	U	2	<0.00492	mg/L	0.985	0.00500
Naphthalene	U	2	<0.00492	mg/L	0.985	0.00500
4-Chloroaniline	U	2	<0.00492	mg/L	0.985	0.00500
2,6-Dichlorophenol	U	2	<0.00985	mg/L	0.985	0.0100
Hexachlorobutadiene	U	2	<0.00492	mg/L	0.985	0.00500
N-Nitroso-di-n-butylamine	U	2	<0.00492	mg/L	0.985	0.00500
4-Chloro-3-methylphenol	U	2	<0.00492	mg/L	0.985	0.00500
2-Methylnaphthalene	U	2	<0.00492	mg/L	0.985	0.00500
1-Methylnaphthalene	U		<0.00492	mg/L	0.985	0.00500
1,2,4,5-Tetrachlorobenzene	U	2	<0.00492	mg/L	0.985	0.00500
Hexachlorocyclopentadiene	U	2	<0.00492	mg/L	0.985	0.00500
2,4,6-Trichlorophenol	U	2	<0.00985	mg/L	0.985	0.0100
2,4,5-Trichlorophenol	U	2	<0.00492	mg/L	0.985	0.00500
2-Chloronaphthalene	U	2	<0.00492	mg/L	0.985	0.00500
1-Chloronaphthalene	U	2	<0.00492	mg/L	0.985	0.00500
2-Nitroaniline	U	2	<0.00492	mg/L	0.985	0.00500
Dimethylphthalate	U	2	<0.00492	mg/L	0.985	0.00500
Acenaphthylene	U	2	<0.00492	mg/L	0.985	0.00500
2,6-Dinitrotoluene	U	2	<0.00492	mg/L	0.985	0.00500
3-Nitroaniline	U	2	<0.00492	mg/L	0.985	0.00500
Acenaphthene	U	2	<0.00492	mg/L	0.985	0.00500
2,4-Dinitrophenol	U	2	<0.00492	mg/L	0.985	0.00500
Dibenzofuran	U	2	<0.00492	mg/L	0.985	0.00500
Pentachlorobenzene	U	2	<0.00492	mg/L	0.985	0.00500
4-Nitrophenol	U	2	<0.0246	mg/L	0.985	0.0250
2,4-Dinitrotoluene	U	2	<0.00492	mg/L	0.985	0.00500
1-Naphthylamine	U	2	<0.00492	mg/L	0.985	0.00500
2,3,4,6-Tetrachlorophenol	U	2	<0.00985	mg/L	0.985	0.0100
2-Naphthylamine	U	2	<0.00492	mg/L	0.985	0.00500
Fluorene	U	2	<0.00492	mg/L	0.985	0.00500
4-Chlorophenyl-phenylether	U	2	<0.00492	mg/L	0.985	0.00500
Diethylphthalate	U	2	<0.00492	mg/L	0.985	0.00500
4-Nitroaniline	U	2	<0.00492	mg/L	0.985	0.00500
Diphenylhydrazine	U		<0.00492	mg/L	0.985	0.00500
4,6-Dinitro-2-methylphenol	U	2	<0.00492	mg/L	0.985	0.00500
Diphenylamine	U	2	<0.00492	mg/L	0.985	0.00500
4-Bromophenyl-phenylether	U	2	<0.00492	mg/L	0.985	0.00500
Phenacetin	U	2	<0.00492	mg/L	0.985	0.00500
Hexachlorobenzene	U	2	<0.00492	mg/L	0.985	0.00500
4-Aminobiphenyl	U	2	<0.00492	mg/L	0.985	0.00500
Pentachlorophenol	U	2	<0.00985	mg/L	0.985	0.0100
Anthracene	U	2	<0.00492	mg/L	0.985	0.00500

continued . . .

sample 356102 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Pentachloronitrobenzene	U	2	<0.00492	mg/L	0.985	0.00500
Pronamide	U	2	<0.00492	mg/L	0.985	0.00500
Phenanthrene	U	2	<0.00492	mg/L	0.985	0.00500
Di-n-butylphthalate	U	2	<0.00492	mg/L	0.985	0.00500
Fluoranthene	U	2	<0.00492	mg/L	0.985	0.00500
Benzidine	U	2	<0.0246	mg/L	0.985	0.0250
Pyrene	U	2	<0.00492	mg/L	0.985	0.00500
p-Dimethylaminoazobenzene	U		<0.00492	mg/L	0.985	0.00500
Butylbenzylphthalate	U	2	<0.00492	mg/L	0.985	0.00500
Benzo(a)anthracene	U	2	<0.00492	mg/L	0.985	0.00500
3,3-Dichlorobenzidine	U	2	<0.00492	mg/L	0.985	0.00500
Chrysene	U	2	<0.00492	mg/L	0.985	0.00500
bis(2-ethylhexyl)phthalate	U	2	<0.00492	mg/L	0.985	0.00500
Di-n-octylphthalate	U	2	<0.00492	mg/L	0.985	0.00500
Benzo(b)fluoranthene	U	2	<0.00492	mg/L	0.985	0.00500
Benzo(k)fluoranthene	U	2	<0.00492	mg/L	0.985	0.00500
7,12-Dimethylbenz(a)anthracene	U	2	<0.00492	mg/L	0.985	0.00500
Benzo(a)pyrene	U	2	<0.00492	mg/L	0.985	0.00500
3-Methylcholanthrene	U	2	<0.00492	mg/L	0.985	0.00500
Dibenzo(a,j)acridine	U	2	<0.00492	mg/L	0.985	0.00500
Indeno(1,2,3-cd)pyrene	U	2	<0.00492	mg/L	0.985	0.00500
Dibenzo(a,h)anthracene	U	2	<0.00492	mg/L	0.985	0.00500
Benzo(g,h,i)perylene	U	2	<0.00492	mg/L	0.985	0.00500

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol	Qsr	Qsr		0.00940	mg/L	0.985	0.0800	12	19 - 119
Phenol-d5	Qsr	Qsr		0.00740	mg/L	0.985	0.0800	9	10 - 120
Nitrobenzene-d5	Qsr	Qsr		0.0186	mg/L	0.985	0.0800	23	44 - 120
2-Fluorobiphenyl	Qsr	Qsr		0.0241	mg/L	0.985	0.0800	30	44 - 119
2,4,6-Tribromophenol	Qc	Qc		0.0648	mg/L	0.985	0.0800	81	43 - 140
Terphenyl-d14				0.0612	mg/L	0.985	0.0800	76	50 - 134

Sample: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	Total 8 Metals	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	109810	Date Analyzed:	2014-03-03	Analyzed By:	TP
Prep Batch:	92848	Sample Preparation:	2014-03-03	Prepared By:	TP
Laboratory:	Lubbock				
Analysis:	Total 8 Metals	Analytical Method:	S 6010C	Prep Method:	S 3010A
QC Batch:	109912	Date Analyzed:	2014-03-06	Analyzed By:	LM
Prep Batch:	92917	Sample Preparation:	2014-03-06	Prepared By:	PM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Silver	U	2	<0.00500	mg/L	1	0.00500
Total Arsenic	U	2	<0.0100	mg/L	1	0.0100
Total Barium		2	**0.240**	mg/L	1	0.0100
Total Cadmium	U	2	<0.0100	mg/L	1	0.0100
Total Chromium	U	2	<0.0100	mg/L	1	0.0100
Total Mercury	U	2	<0.000200	mg/L	1	0.000200
Total Lead	U	2	<0.0100	mg/L	1	0.0100
Total Selenium	U	2	<0.0200	mg/L	1	0.0200

Sample: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	Volatiles	Analytical Method:	S 8260 C	Prep Method:	S 5030B
QC Batch:	109793	Date Analyzed:	2014-02-28	Analyzed By:	KB
Prep Batch:	92835	Sample Preparation:	2014-02-28	Prepared By:	KB

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Bromochloromethane	U	2	<1.00	µg/L	1	1.00
Dichlorodifluoromethane	Qc,U	2	<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)	U	2	<1.00	µg/L	1	1.00
Vinyl Chloride	U	2	<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)	Qc,U	2	<5.00	µg/L	1	5.00
Chloroethane	Qc,U	2	<1.00	µg/L	1	1.00
Trichlorofluoromethane	Qc,U	2	<1.00	µg/L	1	1.00
Acetone	Qc,U	2	<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)	U	2	<5.00	µg/L	1	5.00
Carbon Disulfide	U	2	<1.00	µg/L	1	1.00
Acrylonitrile	U	2	<1.00	µg/L	1	1.00
2-Butanone (MEK)	Qc,U	2	<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)	U	2	<5.00	µg/L	1	5.00
2-Hexanone	U	2	<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene	U	2	<10.0	µg/L	1	10.0
1,1-Dichloroethene	U	2	<1.00	µg/L	1	1.00
Methylene chloride	U	2	<5.00	µg/L	1	5.00
MTBE	U	2	<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene	U	2	<1.00	µg/L	1	1.00
1,1-Dichloroethane	U	2	<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene	U	2	<1.00	µg/L	1	1.00
2,2-Dichloropropane	Qc,U	2	<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)	U	2	<1.00	µg/L	1	1.00
Chloroform	U	2	<1.00	µg/L	1	1.00
1,1,1-Trichloroethane	U	2	<1.00	µg/L	1	1.00

continued . . .

sample 356102 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
1,1-Dichloropropene	U	2	<1.00	µg/L	1	1.00
Benzene		2	**11.0**	µg/L	1	1.00
Carbon Tetrachloride	U	2	<1.00	µg/L	1	1.00
1,2-Dichloropropane	U	2	<1.00	µg/L	1	1.00
Trichloroethene (TCE)	U	2	<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)	U	2	<1.00	µg/L	1	1.00
Bromodichloromethane	U	2	<1.00	µg/L	1	1.00
2-Chloroethyl vinyl ether	U	2	<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene	U	2	<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene	U	2	<1.00	µg/L	1	1.00
Toluene	U	2	<1.00	µg/L	1	1.00
1,1,2-Trichloroethane	U	2	<1.00	µg/L	1	1.00
1,3-Dichloropropane	U	2	<1.00	µg/L	1	1.00
Dibromochloromethane	U	2	<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)	U	2	<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)	Qc,U	2	<1.00	µg/L	1	1.00
Chlorobenzene	U	2	<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane	U	2	<1.00	µg/L	1	1.00
Ethylbenzene		2	**2.53**	µg/L	1	1.00
m,p-Xylene		2	<1.00	µg/L	1	1.00
Bromoform	U	2	<1.00	µg/L	1	1.00
Styrene	Qr,U	2	<1.00	µg/L	1	1.00
o-Xylene	U	2	<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane	U	2	<1.00	µg/L	1	1.00
2-Chlorotoluene	U	2	<1.00	µg/L	1	1.00
1,2,3-Trichloropropane	U	2	<1.00	µg/L	1	1.00
Isopropylbenzene		2	<1.00	µg/L	1	1.00
Bromobenzene	U	2	<1.00	µg/L	1	1.00
n-Propylbenzene		2	<1.00	µg/L	1	1.00
1,3,5-Trimethylbenzene	U	2	<1.00	µg/L	1	1.00
tert-Butylbenzene	U	2	<1.00	µg/L	1	1.00
1,2,4-Trimethylbenzene		2	<1.00	µg/L	1	1.00
1,4-Dichlorobenzene (para)	U	2	<1.00	µg/L	1	1.00
sec-Butylbenzene	U	2	<1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)	U	2	<1.00	µg/L	1	1.00
p-Isopropyltoluene	U	2	<1.00	µg/L	1	1.00
4-Chlorotoluene	U	2	<1.00	µg/L	1	1.00
1,2-Dichlorobenzene (ortho)	U	2	<1.00	µg/L	1	1.00
n-Butylbenzene	U	2	<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane	U	2	<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene	U	2	<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene	U	2	<5.00	µg/L	1	5.00
Naphthalene	U	2	<5.00	µg/L	1	5.00

continued . . .

sample 356102 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Hexachlorobutadiene	U	2	<5.00	µg/L	1	5.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane			52.1	µg/L	1	50.0	104	70 - 130
Toluene-d8			49.9	µg/L	1	50.0	100	70 - 130
4-Bromofluorobenzene (4-BFB)			49.1	µg/L	1	50.0	98	70 - 130

Sample: 356102 - MW-1A

Laboratory:	Lubbock				
Analysis:	Zn, Total	Analytical Method:	S 6010C	Prep Method:	S 3010A
QC Batch:	109912	Date Analyzed:	2014-03-06	Analyzed By:	LM
Prep Batch:	92917	Sample Preparation:	2014-03-06	Prepared By:	PM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Zinc		2	**0.109**	mg/L	1	0.0100

Method Blanks

Method Blank (1) QC Batch: 109764

QC Batch:	109764	Date Analyzed:	2014-02-28	Analyzed By:	JR
Prep Batch:	92813	QC Preparation:	2014-02-28	Prepared By:	JR

Parameter	Flag	Cert	MDL Result	Units	RL
Fluoride		1	<0.0439	mg/L	0.5
Chloride		1	<0.678	mg/L	2.5
Nitrate-N		1	<0.0426	mg/L	0.5
PO4-P		1	<0.0197	mg/L	0.815
Sulfate		1	<0.0237	mg/L	2.5

Method Blank (1) QC Batch: 109793

QC Batch:	109793	Date Analyzed:	2014-02-28	Analyzed By:	KB
Prep Batch:	92835	QC Preparation:	2014-02-28	Prepared By:	KB

Parameter	Flag	Cert	MDL Result	Units	RL
Bromochloromethane		2	<0.310	µg/L	1
Dichlorodifluoromethane		2	<0.340	µg/L	1
Chloromethane (methyl chloride)		2	<0.490	µg/L	1
Vinyl Chloride		2	<0.460	µg/L	1
Bromomethane (methyl bromide)		2	<0.510	µg/L	5
Chloroethane		2	<0.440	µg/L	1
Trichlorofluoromethane		2	<0.470	µg/L	1
Acetone		2	<2.99	µg/L	10
Iodomethane (methyl iodide)		2	<0.330	µg/L	5
Carbon Disulfide		2	<0.300	µg/L	1
Acrylonitrile		2	<0.410	µg/L	1
2-Butanone (MEK)		2	<0.660	µg/L	5
4-Methyl-2-pentanone (MIBK)		2	<0.340	µg/L	5
2-Hexanone		2	<0.550	µg/L	5
trans 1,4-Dichloro-2-butene		2	<0.260	µg/L	10
1,1-Dichloroethene		2	<0.350	µg/L	1
Methylene chloride		2	<1.15	µg/L	5
MTBE		2	<0.300	µg/L	1

continued . . .

method blank continued ...

Parameter	Flag	Cert	MDL Result	Units	RL
trans-1,2-Dichloroethene		2	<0.330	µg/L	1
1,1-Dichloroethane		2	<0.350	µg/L	1
cis-1,2-Dichloroethene		2	<0.280	µg/L	1
2,2-Dichloropropane		2	<0.360	µg/L	1
1,2-Dichloroethane (EDC)		2	<0.350	µg/L	1
Chloroform		2	<0.280	µg/L	1
1,1,1-Trichloroethane		2	<0.320	µg/L	1
1,1-Dichloropropene		2	<0.280	µg/L	1
Benzene		2	<0.370	µg/L	1
Carbon Tetrachloride		2	<0.370	µg/L	1
1,2-Dichloropropane		2	<0.320	µg/L	1
Trichloroethene (TCE)		2	<0.360	µg/L	1
Dibromomethane (methylene bromide)		2	<0.280	µg/L	1
Bromodichloromethane		2	<0.260	µg/L	1
2-Chloroethyl vinyl ether		2	<0.370	µg/L	5
cis-1,3-Dichloropropene		2	<0.230	µg/L	1
trans-1,3-Dichloropropene		2	<0.200	µg/L	1
Toluene		2	<0.330	µg/L	1
1,1,2-Trichloroethane		2	<0.360	µg/L	1
1,3-Dichloropropane		2	<0.300	µg/L	1
Dibromochloromethane		2	<0.230	µg/L	1
1,2-Dibromoethane (EDB)		2	<0.260	µg/L	1
Tetrachloroethene (PCE)		2	<0.480	µg/L	1
Chlorobenzene		2	<0.290	µg/L	1
1,1,1,2-Tetrachloroethane		2	<0.330	µg/L	1
Ethylbenzene		2	<0.310	µg/L	1
m,p-Xylene		2	<0.570	µg/L	1
Bromoform		2	<0.210	µg/L	1
Styrene		2	<0.290	µg/L	1
o-Xylene		2	<0.300	µg/L	1
1,1,2,2-Tetrachloroethane		2	<0.180	µg/L	1
2-Chlorotoluene		2	<0.300	µg/L	1
1,2,3-Trichloropropane		2	<0.210	µg/L	1
Isopropylbenzene		2	<0.300	µg/L	1
Bromobenzene		2	<0.280	µg/L	1
n-Propylbenzene		2	<0.270	µg/L	1
1,3,5-Trimethylbenzene		2	<0.280	µg/L	1
tert-Butylbenzene		2	<0.220	µg/L	1
1,2,4-Trimethylbenzene		2	<0.310	µg/L	1
1,4-Dichlorobenzene (para)		2	<0.220	µg/L	1
sec-Butylbenzene		2	<0.280	µg/L	1
1,3-Dichlorobenzene (meta)		2	<0.260	µg/L	1
p-Isopropyltoluene		2	<0.260	µg/L	1
4-Chlorotoluene		2	<0.260	µg/L	1

continued ...

method blank continued ...

Parameter	Flag	Cert	MDL Result	Units	RL
1,2-Dichlorobenzene (ortho)		2	<0.250	µg/L	1
n-Butylbenzene		2	<0.240	µg/L	1
1,2-Dibromo-3-chloropropane		2	<0.290	µg/L	5
1,2,3-Trichlorobenzene		2	<0.180	µg/L	5
1,2,4-Trichlorobenzene		2	<0.230	µg/L	5
Naphthalene		2	<1.38	µg/L	5
Hexachlorobutadiene		2	0.780	µg/L	5

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane			51.3	µg/L	1	50.0	103	70 - 130
Toluene-d8			49.3	µg/L	1	50.0	99	70 - 130
4-Bromofluorobenzene (4-BFB)			47.2	µg/L	1	50.0	94	70 - 130

Method Blank (1) QC Batch: 109810

QC Batch: 109810 Date Analyzed: 2014-03-03 Analyzed By: TP
Prep Batch: 92848 QC Preparation: 2014-03-03 Prepared By: TP

Parameter	Flag	Cert	MDL Result	Units	RL
Total Mercury		2	<0.0000602	mg/L	0.0002

Method Blank (1) QC Batch: 109849

QC Batch: 109849 Date Analyzed: 2014-03-04 Analyzed By: AR
Prep Batch: 92894 QC Preparation: 2014-03-04 Prepared By: AR

Parameter	Flag	Cert	MDL Result	Units	RL
Hydroxide Alkalinity		3	<20.0	mg/L as CaCo3	20
Carbonate Alkalinity		3	<20.0	mg/L as CaCo3	20
Bicarbonate Alkalinity		3	<20.0	mg/L as CaCo3	20
Total Alkalinity		3	<20.0	mg/L as CaCo3	20

Method Blank (1) QC Batch: 109912

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Parameter	Flag	Cert	MDL Result	Units	RL
Total Aluminum		2	<0.0164	mg/L	0.05

Method Blank (1) QC Batch: 109912

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Parameter	Flag	Cert	MDL Result	Units	RL
Total Boron		2	<0.00348	mg/L	0.01

Method Blank (1) QC Batch: 109912

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Parameter	Flag	Cert	MDL Result	Units	RL
Total Cobalt			<0.00251	mg/L	0.01

Method Blank (1) QC Batch: 109912

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Parameter	Flag	Cert	MDL Result	Units	RL
Total Copper			<0.00101	mg/L	0.005

Method Blank (1) QC Batch: 109912

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Parameter	Flag	Cert	MDL Result	Units	RL
Total Iron			<0.00892	mg/L	0.01

Method Blank (1) QC Batch: 109912

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Parameter	Flag	Cert	MDL Result	Units	RL
Total Manganese		2	<0.00201	mg/L	0.005

Method Blank (1) QC Batch: 109912

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Parameter	Flag	Cert	MDL Result	Units	RL
Total Molybdenum		2	<0.000552	mg/L	0.05

Method Blank (1) QC Batch: 109912

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Parameter	Flag	Cert	MDL Result	Units	RL
Total Nickel		2	<0.00129	mg/L	0.01

Method Blank (1) QC Batch: 109912

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Parameter	Flag	Cert	MDL Result	Units	RL
Total Zinc		2	<0.00467	mg/L	0.01

Method Blank (1) QC Batch: 109912

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Parameter	Flag	Cert	MDL Result	Units	RL
Total Silver		2	<0.000352	mg/L	0.005
Total Arsenic		2	<0.00258	mg/L	0.01
Total Barium		2	<0.00310	mg/L	0.01
Total Cadmium		2	<0.000281	mg/L	0.01
Total Chromium		2	<0.00130	mg/L	0.01
Total Lead		2	<0.00246	mg/L	0.01
Total Selenium		2	<0.00420	mg/L	0.02

Method Blank (1) QC Batch: 109917

QC Batch: 109917 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92914 | QC Preparation: 2014-03-05 | Prepared By: PM

Parameter	Flag	Cert	MDL Result	Units	RL
Dissolved Calcium		2	<0.0441	mg/L	1
Dissolved Potassium		2	<0.0443	mg/L	1
Dissolved Magnesium		2	<0.0296	mg/L	1
Dissolved Sodium		2	<0.172	mg/L	1

Method Blank (1) QC Batch: 110046

QC Batch: 110046 | Date Analyzed: 2014-03-11 | Analyzed By: MN
Prep Batch: 93051 | QC Preparation: 2014-03-01 | Prepared By: MN

Parameter	Flag	Cert	MDL Result	Units	RL
Pyridine		2	<0.00133	mg/L	0.005
N-Nitrosodimethylamine		2	<0.000694	mg/L	0.005
2-Picoline		2	<0.00125	mg/L	0.005
Methyl methanesulfonate		2	<0.00120	mg/L	0.005
Ethyl methanesulfonate		2	<0.000568	mg/L	0.005
Phenol		2	<0.000555	mg/L	0.005
Aniline		2	<0.00134	mg/L	0.005
bis(2-chloroethyl)ether		2	<0.00108	mg/L	0.005
2-Chlorophenol		2	<0.00106	mg/L	0.005
1,3-Dichlorobenzene (meta)		2	<0.000782	mg/L	0.005
1,4-Dichlorobenzene (para)		2	<0.000686	mg/L	0.005
Benzyl alcohol		2	<0.00117	mg/L	0.005
1,2-Dichlorobenzene (ortho)		2	<0.000707	mg/L	0.005
2-Methylphenol		2	<0.000881	mg/L	0.005
bis(2-chloroisopropyl)ether		2	<0.000547	mg/L	0.005
4-Methylphenol / 3-Methylphenol		2	<0.00150	mg/L	0.005
N-Nitrosodi-n-propylamine		2	<0.000938	mg/L	0.005
Hexachloroethane		2	<0.000748	mg/L	0.005
Acetophenone		2	<0.000798	mg/L	0.005
Nitrobenzene		2	<0.000702	mg/L	0.005
N-Nitrosopiperidine		2	<0.000976	mg/L	0.005
Isophorone		2	<0.000976	mg/L	0.005
2-Nitrophenol		2	<0.000943	mg/L	0.005
2,4-Dimethylphenol		2	<0.00109	mg/L	0.005
bis(2-chloroethoxy)methane		2	<0.00102	mg/L	0.005
2,4-Dichlorophenol		2	<0.00116	mg/L	0.005
1,2,4-Trichlorobenzene		2	<0.000675	mg/L	0.005
Benzoic acid		2	<0.00120	mg/L	0.005
Naphthalene		2	<0.000832	mg/L	0.005
4-Chloroaniline		2	<0.00122	mg/L	0.005
2,6-Dichlorophenol		2	<0.00120	mg/L	0.01
Hexachlorobutadiene		2	<0.00249	mg/L	0.005
N-Nitroso-di-n-butylamine		2	<0.00115	mg/L	0.005
4-Chloro-3-methylphenol		2	<0.00128	mg/L	0.005
2-Methylnaphthalene		2	<0.000739	mg/L	0.005
1-Methylnaphthalene			<0.00104	mg/L	0.005
1,2,4,5-Tetrachlorobenzene		2	<0.000764	mg/L	0.005
Hexachlorocyclopentadiene		2	<0.000511	mg/L	0.005
2,4,6-Trichlorophenol		2	<0.000809	mg/L	0.01
2,4,5-Trichlorophenol		2	<0.00112	mg/L	0.005
2-Chloronaphthalene		2	<0.000878	mg/L	0.005

continued . . .

method blank continued . . .

Parameter	Flag	Cert	MDL Result	Units	RL
1-Chloronaphthalene		2	<0.000811	mg/L	0.005
2-Nitroaniline		2	<0.000832	mg/L	0.005
Dimethylphthalate		2	<0.000875	mg/L	0.005
Acenaphthylene		2	<0.000817	mg/L	0.005
2,6-Dinitrotoluene		2	<0.000863	mg/L	0.005
3-Nitroaniline		2	<0.00179	mg/L	0.005
Acenaphthene		2	<0.000731	mg/L	0.005
2,4-Dinitrophenol		2	<0.00168	mg/L	0.005
Dibenzofuran		2	<0.000857	mg/L	0.005
Pentachlorobenzene		2	<0.000862	mg/L	0.005
4-Nitrophenol		2	<0.00123	mg/L	0.025
2,4-Dinitrotoluene		2	<0.00142	mg/L	0.005
1-Naphthylamine		2	<0.000803	mg/L	0.005
2,3,4,6-Tetrachlorophenol		2	<0.000858	mg/L	0.01
2-Naphthylamine		2	<0.000985	mg/L	0.005
Fluorene		2	<0.000699	mg/L	0.005
4-Chlorophenyl-phenylether		2	<0.000608	mg/L	0.005
Diethylphthalate		2	<0.000746	mg/L	0.005
4-Nitroaniline		2	<0.00105	mg/L	0.005
Diphenylhydrazine			<0.000571	mg/L	0.005
4,6-Dinitro-2-methylphenol		2	<0.00124	mg/L	0.005
Diphenylamine		2	<0.000798	mg/L	0.005
4-Bromophenyl-phenylether		2	<0.000799	mg/L	0.005
Phenacetin		2	<0.000695	mg/L	0.005
Hexachlorobenzene		2	<0.000668	mg/L	0.005
4-Aminobiphenyl		2	<0.00104	mg/L	0.005
Pentachlorophenol		2	<0.00120	mg/L	0.01
Anthracene		2	<0.000803	mg/L	0.005
Pentachloronitrobenzene		2	<0.000613	mg/L	0.005
Pronamide		2	<0.000611	mg/L	0.005
Phenanthrene		2	<0.000777	mg/L	0.005
Di-n-butylphthalate		2	<0.00296	mg/L	0.005
Fluoranthene		2	<0.000665	mg/L	0.005
Benzidine		2	<0.00124	mg/L	0.025
Pyrene		2	<0.000690	mg/L	0.005
p-Dimethylaminoazobenzene			<0.00106	mg/L	0.005
Butylbenzylphthalate		2	<0.000758	mg/L	0.005
Benzo(a)anthracene		2	<0.000768	mg/L	0.005
3,3-Dichlorobenzidine		2	<0.000620	mg/L	0.005
Chrysene		2	<0.000611	mg/L	0.005
bis(2-ethylhexyl)phthalate		2	<0.000997	mg/L	0.005
Di-n-octylphthalate		2	<0.000801	mg/L	0.005
Benzo(b)fluoranthene		2	<0.000626	mg/L	0.005
Benzo(k)fluoranthene		2	<0.000603	mg/L	0.005

continued . . .

method blank continued ...

Parameter	Flag	Cert	MDL Result	Units	RL
7,12-Dimethylbenz(a)anthracene		2	<0.000685	mg/L	0.005
Benzo(a)pyrene		2	<0.000540	mg/L	0.005
3-Methylcholanthrene		2	<0.000738	mg/L	0.005
Dibenzo(a,j)acridine		2	<0.00162	mg/L	0.005
Indeno(1,2,3-cd)pyrene		2	<0.000515	mg/L	0.005
Dibenzo(a,h)anthracene		2	<0.000512	mg/L	0.005
Benzo(g,h,i)perylene		2	<0.000589	mg/L	0.005

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol			0.0486	mg/L	1	0.0800	61	19 - 119
Phenol-d5			0.0549	mg/L	1	0.0800	69	10 - 120
Nitrobenzene-d5			0.0492	mg/L	1	0.0800	62	44 - 120
2-Fluorobiphenyl			0.0630	mg/L	1	0.0800	79	44 - 119
2,4,6-Tribromophenol			0.0757	mg/L	1	0.0800	95	43 - 140
Terphenyl-d14			0.0538	mg/L	1	0.0800	67	50 - 134

Duplicates (1) Duplicated Sample: 356458

QC Batch: 109849 | Date Analyzed: 2014-03-04 | Analyzed By: AR
Prep Batch: 92894 | QC Preparation: 2014-03-04 | Prepared By: AR

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	3	<20.0	<20.0	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	3	<20.0	<20.0	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	3	114	113	mg/L as CaCo3	1	1	20
Total Alkalinity	3	114	113	mg/L as CaCo3	1	1	20

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 109764 | Date Analyzed: 2014-02-28 | Analyzed By: JR
Prep Batch: 92813 | QC Preparation: 2014-02-28 | Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Fluoride		1	5.00	mg/L	1	5.00	<0.0439	100	90 - 110
Chloride		1	24.7	mg/L	1	25.0	<0.678	99	90 - 110
Nitrate-N		1	4.97	mg/L	1	5.00	<0.0426	99	90 - 110
PO4-P		1	26.2	mg/L	1	25.0	<0.0197	105	90 - 110
Sulfate		1	24.9	mg/L	1	25.0	<0.0237	100	90 - 110

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
Fluoride		1	4.95	mg/L	1	5.00	<0.0439	99	90 - 110	1	20
Chloride		1	24.4	mg/L	1	25.0	<0.678	98	90 - 110	1	20
Nitrate-N		1	4.91	mg/L	1	5.00	<0.0426	98	90 - 110	1	20
PO4-P		1	25.9	mg/L	1	25.0	<0.0197	104	90 - 110	1	20
Sulfate		1	24.6	mg/L	1	25.0	<0.0237	98	90 - 110	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 109793 | Date Analyzed: 2014-02-28 | Analyzed By: KB
Prep Batch: 92835 | QC Preparation: 2014-02-28 | Prepared By: KB

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromochloromethane		2	53.1	µg/L	1	50.0	<0.310	106	77 - 128
Dichlorodifluoromethane		2	46.4	µg/L	1	50.0	<0.340	93	43.1 - 158
Chloromethane (methyl chloride)		2	46.0	µg/L	1	50.0	<0.490	92	64.5 - 143
Vinyl Chloride		2	47.4	µg/L	1	50.0	<0.460	95	62.9 - 149
Bromomethane (methyl bromide)		2	68.4	µg/L	1	50.0	<0.510	137	38.9 - 180
Chloroethane		2	61.0	µg/L	1	50.0	<0.440	122	64.6 - 150
Trichlorofluoromethane		2	55.1	µg/L	1	50.0	<0.470	110	52.6 - 157
Acetone		2	50.1	µg/L	1	50.0	<2.99	100	18.6 - 181

continued ...

control spikes continued . . .

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Iodomethane (methyl iodide)		2	53.0	µg/L	1	50.0	<0.330	106	75.6 - 136
Carbon Disulfide		2	52.0	µg/L	1	50.0	<0.300	104	78.1 - 132
Acrylonitrile		2	50.1	µg/L	1	50.0	<0.410	100	65.2 - 132
2-Butanone (MEK)		2	49.3	µg/L	1	50.0	<0.660	99	46.2 - 135
4-Methyl-2-pentanone (MIBK)		2	49.2	µg/L	1	50.0	<0.340	98	60.7 - 134
2-Hexanone		2	56.0	µg/L	1	50.0	<0.550	112	50.5 - 133
trans 1,4-Dichloro-2-butene		2	52.6	µg/L	1	50.0	<0.260	105	43.5 - 142
1,1-Dichloroethene		2	52.6	µg/L	1	50.0	<0.350	105	73.1 - 133
Methylene chloride		2	47.2	µg/L	1	50.0	<1.15	94	74.4 - 128
MTBE		2	50.9	µg/L	1	50.0	<0.300	102	72.9 - 133
trans-1,2-Dichloroethene		2	54.2	µg/L	1	50.0	<0.330	108	79.6 - 126
1,1-Dichloroethane		2	52.3	µg/L	1	50.0	<0.350	105	80 - 126
cis-1,2-Dichloroethene		2	53.4	µg/L	1	50.0	<0.280	107	80 - 126
2,2-Dichloropropane		2	63.0	µg/L	1	50.0	<0.360	126	51.5 - 152
1,2-Dichloroethane (EDC)		2	52.4	µg/L	1	50.0	<0.350	105	73.3 - 131
Chloroform		2	51.4	µg/L	1	50.0	<0.280	103	75.6 - 128
1,1,1-Trichloroethane		2	57.0	µg/L	1	50.0	<0.320	114	75.8 - 135
1,1-Dichloropropene		2	55.5	µg/L	1	50.0	<0.280	111	80 - 131
Benzene		2	53.8	µg/L	1	50.0	<0.370	108	80 - 124
Carbon Tetrachloride		2	56.4	µg/L	1	50.0	<0.370	113	76.7 - 136
1,2-Dichloropropane		2	51.6	µg/L	1	50.0	<0.320	103	76.7 - 129
Trichloroethene (TCE)		2	49.3	µg/L	1	50.0	<0.360	99	72.5 - 142
Dibromomethane (methylene bromide)		2	52.8	µg/L	1	50.0	<0.280	106	72.6 - 128
Bromodichloromethane		2	52.0	µg/L	1	50.0	<0.260	104	74.8 - 129
2-Chloroethyl vinyl ether		2	56.8	µg/L	1	50.0	<0.370	114	48.6 - 140
cis-1,3-Dichloropropene		2	53.1	µg/L	1	50.0	<0.230	106	75.6 - 131
trans-1,3-Dichloropropene		2	55.5	µg/L	1	50.0	<0.200	111	68.8 - 131
Toluene		2	51.7	µg/L	1	50.0	<0.330	103	78.8 - 126
1,1,2-Trichloroethane		2	45.8	µg/L	1	50.0	<0.360	92	74 - 120
1,3-Dichloropropane		2	47.4	µg/L	1	50.0	<0.300	95	71.5 - 121
Dibromochloromethane		2	47.8	µg/L	1	50.0	<0.230	96	72.5 - 120
1,2-Dibromoethane (EDB)		2	47.4	µg/L	1	50.0	<0.260	95	75.2 - 120
Tetrachloroethene (PCE)		2	32.9	µg/L	1	50.0	<0.480	66	28.2 - 170
Chlorobenzene		2	46.2	µg/L	1	50.0	<0.290	92	80 - 120
1,1,1,2-Tetrachloroethane		2	47.5	µg/L	1	50.0	<0.330	95	74.8 - 123
Ethylbenzene		2	49.8	µg/L	1	50.0	<0.310	100	80 - 120
m,p-Xylene		2	100	µg/L	1	100	<0.570	100	80 - 120
Bromoform		2	48.1	µg/L	1	50.0	<0.210	96	67.2 - 123
Styrene		2	50.4	µg/L	1	50.0	<0.290	101	74.5 - 127
o-Xylene		2	50.1	µg/L	1	50.0	<0.300	100	77.6 - 124
1,1,2,2-Tetrachloroethane		2	46.2	µg/L	1	50.0	<0.180	92	60.3 - 123
2-Chlorotoluene		2	47.4	µg/L	1	50.0	<0.300	95	80 - 120
1,2,3-Trichloropropane		2	44.2	µg/L	1	50.0	<0.210	88	72.8 - 120
Isopropylbenzene		2	48.6	µg/L	1	50.0	<0.300	97	80 - 123

continued . . .

control spikes continued . . .

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromobenzene		2	44.3	µg/L	1	50.0	<0.280	89	77.8 - 120
n-Propylbenzene		2	48.6	µg/L	1	50.0	<0.270	97	79.7 - 121
1,3,5-Trimethylbenzene		2	51.7	µg/L	1	50.0	<0.280	103	80 - 122
tert-Butylbenzene		2	51.5	µg/L	1	50.0	<0.220	103	80 - 122
1,2,4-Trimethylbenzene		2	50.9	µg/L	1	50.0	<0.310	102	80 - 123
1,4-Dichlorobenzene (para)		2	46.4	µg/L	1	50.0	<0.220	93	78.1 - 120
sec-Butylbenzene		2	51.1	µg/L	1	50.0	<0.280	102	80 - 122
1,3-Dichlorobenzene (meta)		2	47.4	µg/L	1	50.0	<0.260	95	80 - 120
p-Isopropyltoluene		2	51.4	µg/L	1	50.0	<0.260	103	80 - 124
4-Chlorotoluene		2	47.5	µg/L	1	50.0	<0.260	95	80 - 120
1,2-Dichlorobenzene (ortho)		2	47.6	µg/L	1	50.0	<0.250	95	78.3 - 120
n-Butylbenzene		2	51.8	µg/L	1	50.0	<0.240	104	80 - 122
1,2-Dibromo-3-chloropropane		2	44.8	µg/L	1	50.0	<0.290	90	59 - 122
1,2,3-Trichlorobenzene		2	53.3	µg/L	1	50.0	<0.180	107	51.4 - 144
1,2,4-Trichlorobenzene		2	54.0	µg/L	1	50.0	<0.230	108	69.6 - 129
Naphthalene		2	47.2	µg/L	1	50.0	<1.38	94	57.9 - 135
Hexachlorobutadiene		2	51.4	µg/L	1	50.0	0.78	103	75.8 - 133

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
Bromochloromethane		2	53.8	µg/L	1	50.0	<0.310	108	77 - 128	1	20
Dichlorodifluoromethane		2	49.4	µg/L	1	50.0	<0.340	99	43.1 - 158	6	20
Chloromethane (methyl chloride)		2	45.1	µg/L	1	50.0	<0.490	90	64.5 - 143	2	20
Vinyl Chloride		2	47.8	µg/L	1	50.0	<0.460	96	62.9 - 149	1	20
Bromomethane (methyl bromide)		2	72.6	µg/L	1	50.0	<0.510	145	38.9 - 180	6	20
Chloroethane		2	64.4	µg/L	1	50.0	<0.440	129	64.6 - 150	5	20
Trichlorofluoromethane		2	54.7	µg/L	1	50.0	<0.470	109	52.6 - 157	1	20
Acetone		2	48.4	µg/L	1	50.0	<2.99	97	18.6 - 181	3	20
Iodomethane (methyl iodide)		2	53.6	µg/L	1	50.0	<0.330	107	75.6 - 136	1	20
Carbon Disulfide		2	53.7	µg/L	1	50.0	<0.300	107	78.1 - 132	3	20
Acrylonitrile		2	47.5	µg/L	1	50.0	<0.410	95	65.2 - 132	5	20
2-Butanone (MEK)		2	47.7	µg/L	1	50.0	<0.660	95	46.2 - 135	3	20
4-Methyl-2-pentanone (MIBK)		2	47.0	µg/L	1	50.0	<0.340	94	60.7 - 134	5	20
2-Hexanone		2	54.4	µg/L	1	50.0	<0.550	109	50.5 - 133	3	20
trans 1,4-Dichloro-2-butene		2	49.4	µg/L	1	50.0	<0.260	99	43.5 - 142	6	20
1,1-Dichloroethene		2	52.3	µg/L	1	50.0	<0.350	105	73.1 - 133	1	20
Methylene chloride		2	47.5	µg/L	1	50.0	<1.15	95	74.4 - 128	1	20
MTBE		2	50.0	µg/L	1	50.0	<0.300	100	72.9 - 133	2	20
trans-1,2-Dichloroethene		2	53.8	µg/L	1	50.0	<0.330	108	79.6 - 126	1	20
1,1-Dichloroethane		2	52.7	µg/L	1	50.0	<0.350	105	80 - 126	1	20
cis-1,2-Dichloroethene		2	53.6	µg/L	1	50.0	<0.280	107	80 - 126	0	20
2,2-Dichloropropane		2	64.7	µg/L	1	50.0	<0.360	129	51.5 - 152	3	20
1,2-Dichloroethane (EDC)		2	51.0	µg/L	1	50.0	<0.350	102	73.3 - 131	3	20

continued . . .

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloroform		2	51.6	µg/L	1	50.0	<0.280	103	75.6 - 128	0	20
1,1,1-Trichloroethane		2	57.3	µg/L	1	50.0	<0.320	115	75.8 - 135	0	20
1,1-Dichloropropene		2	55.1	µg/L	1	50.0	<0.280	110	80 - 131	1	20
Benzene		2	54.7	µg/L	1	50.0	<0.370	109	80 - 124	2	20
Carbon Tetrachloride		2	56.6	µg/L	1	50.0	<0.370	113	76.7 - 136	0	20
1,2-Dichloropropane		2	51.0	µg/L	1	50.0	<0.320	102	76.7 - 129	1	20
Trichloroethene (TCE)		2	50.2	µg/L	1	50.0	<0.360	100	72.5 - 142	2	20
Dibromomethane (methylene bromide)		2	51.4	µg/L	1	50.0	<0.280	103	72.6 - 128	3	20
Bromodichloromethane		2	51.4	µg/L	1	50.0	<0.260	103	74.8 - 129	1	20
2-Chloroethyl vinyl ether		2	54.9	µg/L	1	50.0	<0.370	110	48.6 - 140	3	20
cis-1,3-Dichloropropene		2	52.8	µg/L	1	50.0	<0.230	106	75.6 - 131	1	20
trans-1,3-Dichloropropene		2	54.2	µg/L	1	50.0	<0.200	108	68.8 - 131	2	20
Toluene		2	52.0	µg/L	1	50.0	<0.330	104	78.8 - 126	1	20
1,1,2-Trichloroethane		2	45.3	µg/L	1	50.0	<0.360	91	74 - 120	1	20
1,3-Dichloropropane		2	47.0	µg/L	1	50.0	<0.300	94	71.5 - 121	1	20
Dibromochloromethane		2	47.4	µg/L	1	50.0	<0.230	95	72.5 - 120	1	20
1,2-Dibromoethane (EDB)		2	47.0	µg/L	1	50.0	<0.260	94	75.2 - 120	1	20
Tetrachloroethene (PCE)		2	40.2	µg/L	1	50.0	<0.480	80	28.2 - 170	20	20
Chlorobenzene		2	47.2	µg/L	1	50.0	<0.290	94	80 - 120	2	20
1,1,1,2-Tetrachloroethane		2	47.7	µg/L	1	50.0	<0.330	95	74.8 - 123	0	20
Ethylbenzene		2	50.3	µg/L	1	50.0	<0.310	101	80 - 120	1	20
m,p-Xylene		2	101	µg/L	1	100	<0.570	101	80 - 120	1	20
Bromoform		2	46.9	µg/L	1	50.0	<0.210	94	67.2 - 123	2	20
Styrene		2	51.0	µg/L	1	50.0	<0.290	102	74.5 - 127	1	20
o-Xylene		2	50.6	µg/L	1	50.0	<0.300	101	77.6 - 124	1	20
1,1,2,2-Tetrachloroethane		2	44.0	µg/L	1	50.0	<0.180	88	60.3 - 123	5	20
2-Chlorotoluene		2	48.8	µg/L	1	50.0	<0.300	98	80 - 120	3	20
1,2,3-Trichloropropane		2	42.2	µg/L	1	50.0	<0.210	84	72.8 - 120	5	20
Isopropylbenzene		2	50.0	µg/L	1	50.0	<0.300	100	80 - 123	3	20
Bromobenzene		2	44.9	µg/L	1	50.0	<0.280	90	77.8 - 120	1	20
n-Propylbenzene		2	49.8	µg/L	1	50.0	<0.270	100	79.7 - 121	2	20
1,3,5-Trimethylbenzene		2	53.0	µg/L	1	50.0	<0.280	106	80 - 122	2	20
tert-Butylbenzene		2	52.9	µg/L	1	50.0	<0.220	106	80 - 122	3	20
1,2,4-Trimethylbenzene		2	52.4	µg/L	1	50.0	<0.310	105	80 - 123	3	20
1,4-Dichlorobenzene (para)		2	47.5	µg/L	1	50.0	<0.220	95	78.1 - 120	2	20
sec-Butylbenzene		2	53.2	µg/L	1	50.0	<0.280	106	80 - 122	4	20
1,3-Dichlorobenzene (meta)		2	48.7	µg/L	1	50.0	<0.260	97	80 - 120	3	20
p-Isopropyltoluene		2	53.0	µg/L	1	50.0	<0.260	106	80 - 124	3	20
4-Chlorotoluene		2	48.7	µg/L	1	50.0	<0.260	97	80 - 120	2	20
1,2-Dichlorobenzene (ortho)		2	48.5	µg/L	1	50.0	<0.250	97	78.3 - 120	2	20
n-Butylbenzene		2	53.2	µg/L	1	50.0	<0.240	106	80 - 122	3	20
1,2-Dibromo-3-chloropropane		2	41.5	µg/L	1	50.0	<0.290	83	59 - 122	8	20
1,2,3-Trichlorobenzene		2	51.2	µg/L	1	50.0	<0.180	102	51.4 - 144	4	20
1,2,4-Trichlorobenzene		2	54.5	µg/L	1	50.0	<0.230	109	69.6 - 129	1	20

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene		2	44.7	µg/L	1	50.0	<1.38	89	57.9 - 135	5	20
Hexachlorobutadiene		2	52.9	µg/L	1	50.0	0.78	106	75.8 - 133	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
Dibromofluoromethane	52.5	51.3	µg/L	1	50.0	105	103	70 - 130
Toluene-d8	48.7	48.4	µg/L	1	50.0	97	97	70 - 130
4-Bromofluorobenzene (4-BFB)	52.2	51.2	µg/L	1	50.0	104	102	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 109810 | Date Analyzed: 2014-03-03 | Analyzed By: TP
Prep Batch: 92848 | QC Preparation: 2014-03-03 | Prepared By: TP

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury		2	0.00400	mg/L	1	0.00400	<0.0000602	100	85 - 115

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
Total Mercury		2	0.00388	mg/L	1	0.00400	<0.0000602	97	85 - 115	3	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum		2	1.05	mg/L	1	1.00	<0.0164	105	85 - 115

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
Total Aluminum		2	1.04	mg/L	1	1.00	<0.0164	104	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Boron		[2]	0.0467	mg/L	1	0.0500	<0.00348	93	85 - 115

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
Total Boron		[2]	0.0472	mg/L	1	0.0500	<0.00348	94	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt			0.270	mg/L	1	0.250	<0.00251	108	85 - 115

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
Total Cobalt			0.265	mg/L	1	0.250	<0.00251	106	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper			0.124	mg/L	1	0.125	<0.00101	99	85 - 115

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
Total Copper			0.121	mg/L	1	0.125	<0.00101	97	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron			0.549	mg/L	1	0.500	<0.00892	110	85 - 115

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
Total Iron			0.535	mg/L	1	0.500	<0.00892	107	85 - 115	3	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese		2	0.274	mg/L	1	0.250	<0.00201	110	85 - 115

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
Total Manganese		2	0.269	mg/L	1	0.250	<0.00201	108	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum		2	0.552	mg/L	1	0.500	<0.000552	110	85 - 115

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
Total Molybdenum		2	0.549	mg/L	1	0.500	<0.000552	110	85 - 115	0	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel		2	0.286	mg/L	1	0.250	<0.00129	114	85 - 115

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
Total Nickel		2	0.284	mg/L	1	0.250	<0.00129	114	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc		2	0.259	mg/L	1	0.250	<0.00467	104	85 - 115

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
Total Zinc		2	0.259	mg/L	1	0.250	<0.00467	104	85 - 115	0	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver		2	0.135	mg/L	1	0.125	<0.000352	108	85 - 115
Total Arsenic		2	0.488	mg/L	1	0.500	<0.00258	98	85 - 115
Total Barium		2	1.13	mg/L	1	1.00	<0.00310	113	85 - 115
Total Cadmium		2	0.261	mg/L	1	0.250	<0.000281	104	85 - 115
Total Chromium		2	0.0955	mg/L	1	0.100	<0.00130	96	85 - 115
Total Lead		2	0.526	mg/L	1	0.500	<0.00246	105	85 - 115
Total Selenium		2	0.495	mg/L	1	0.500	<0.00420	99	85 - 115

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
Total Silver		2	0.133	mg/L	1	0.125	<0.000352	106	85 - 115	2	20
Total Arsenic		2	0.486	mg/L	1	0.500	<0.00258	97	85 - 115	0	20
Total Barium		2	1.11	mg/L	1	1.00	<0.00310	111	85 - 115	2	20
Total Cadmium		2	0.258	mg/L	1	0.250	<0.000281	103	85 - 115	1	20
Total Chromium		2	0.104	mg/L	1	0.100	<0.00130	104	85 - 115	8	20
Total Lead		2	0.523	mg/L	1	0.500	<0.00246	105	85 - 115	1	20
Total Selenium		2	0.488	mg/L	1	0.500	<0.00420	98	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 109917 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92914 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium		2	55.8	mg/L	1	52.5	<0.0441	106	85 - 115
Dissolved Potassium		2	55.3	mg/L	1	57.5	<0.0443	96	85 - 115

continued ...

control spikes continued ...

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Magnesium		2	54.9	mg/L	1	52.5	<0.0296	104	85 - 115
Dissolved Sodium		2	55.1	mg/L	1	52.5	<0.172	105	85 - 115

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
Dissolved Calcium		2	55.7	mg/L	1	52.5	<0.0441	106	85 - 115	0	20
Dissolved Potassium		2	55.5	mg/L	1	57.5	<0.0443	96	85 - 115	0	20
Dissolved Magnesium		2	55.3	mg/L	1	52.5	<0.0296	105	85 - 115	1	20
Dissolved Sodium		2	56.2	mg/L	1	52.5	<0.172	107	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 110046 | Date Analyzed: 2014-03-11 | Analyzed By: MN
Prep Batch: 93051 | QC Preparation: 2014-03-01 | Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Phenol		2	0.0552	mg/L	1	0.0800	<0.000555	69	10 - 120
2-Chlorophenol		2	0.0553	mg/L	1	0.0800	<0.00106	69	38 - 117
1,4-Dichlorobenzene (para)		2	0.0590	mg/L	1	0.0800	<0.000686	74	29 - 112
N-Nitrosodi-n-propylamine		2	0.0685	mg/L	1	0.0800	<0.000938	86	49 - 119
1,2,4-Trichlorobenzene		2	0.0616	mg/L	1	0.0800	<0.000675	77	29 - 116
Naphthalene		2	0.0523	mg/L	1	0.0800	<0.000832	65	40 - 121
4-Chloro-3-methylphenol		2	0.0573	mg/L	1	0.0800	<0.00128	72	52 - 119
Acenaphthylene		2	0.0563	mg/L	1	0.0800	<0.000817	70	41 - 130
Acenaphthene		2	0.0523	mg/L	1	0.0800	<0.000731	65	47 - 122
4-Nitrophenol		2	0.0407	mg/L	1	0.0800	<0.00123	51	10 - 140
2,4-Dinitrotoluene		2	0.0508	mg/L	1	0.0800	<0.00142	64	57 - 128
Fluorene		2	0.0523	mg/L	1	0.0800	<0.000699	65	52 - 124
Pentachlorophenol		2	0.0570	mg/L	1	0.0800	<0.00120	71	35 - 138
Anthracene		2	0.0542	mg/L	1	0.0800	<0.000803	68	57 - 123
Phenanthrene		2	0.0535	mg/L	1	0.0800	<0.000777	67	59 - 120
Fluoranthene		2	0.0477	mg/L	1	0.0800	<0.000665	60	57 - 128
Pyrene		2	0.0499	mg/L	1	0.0800	<0.000690	62	57 - 126
Benzo(a)anthracene		2	0.0508	mg/L	1	0.0800	<0.000768	64	58 - 125
Chrysene		2	0.0514	mg/L	1	0.0800	<0.000611	64	59 - 123
Benzo(b)fluoranthene		2	0.0491	mg/L	1	0.0800	<0.000626	61	53 - 131
Benzo(k)fluoranthene		2	0.0565	mg/L	1	0.0800	<0.000603	71	57 - 129
Benzo(a)pyrene		2	0.0549	mg/L	1	0.0800	<0.000540	69	54 - 128

continued ...

control spikes continued ...

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Indeno(1,2,3-cd)pyrene		[2]	0.0528	mg/L	1	0.0800	<0.000515	66	52 - 134
Dibenzo(a,h)anthracene		[2]	0.0493	mg/L	1	0.0800	<0.000512	62	51 - 134
Benzo(g,h,i)perylene		[2]	0.0528	mg/L	1	0.0800	<0.000589	66	50 - 134

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
Phenol		[2]	0.0530	mg/L	1	0.0800	<0.000555	66	10 - 120	4	20
2-Chlorophenol		[2]	0.0547	mg/L	1	0.0800	<0.00106	68	38 - 117	1	20
1,4-Dichlorobenzene (para)		[2]	0.0601	mg/L	1	0.0800	<0.000686	75	29 - 112	2	20
N-Nitrosodi-n-propylamine		[2]	0.0578	mg/L	1	0.0800	<0.000938	72	49 - 119	17	20
1,2,4-Trichlorobenzene		[2]	0.0633	mg/L	1	0.0800	<0.000675	79	29 - 116	3	20
Naphthalene		[2]	0.0541	mg/L	1	0.0800	<0.000832	68	40 - 121	3	20
4-Chloro-3-methylphenol		[2]	0.0629	mg/L	1	0.0800	<0.00128	79	52 - 119	9	20
Acenaphthylene		[2]	0.0598	mg/L	1	0.0800	<0.000817	75	41 - 130	6	20
Acenaphthene		[2]	0.0540	mg/L	1	0.0800	<0.000731	68	47 - 122	3	20
4-Nitrophenol		[2]	0.0405	mg/L	1	0.0800	<0.00123	51	10 - 140	0	20
2,4-Dinitrotoluene		[2]	0.0523	mg/L	1	0.0800	<0.00142	65	57 - 128	3	20
Fluorene		[2]	0.0554	mg/L	1	0.0800	<0.000699	69	52 - 124	6	20
Pentachlorophenol		[2]	0.0560	mg/L	1	0.0800	<0.00120	70	35 - 138	2	20
Anthracene		[2]	0.0552	mg/L	1	0.0800	<0.000803	69	57 - 123	2	20
Phenanthrene		[2]	0.0552	mg/L	1	0.0800	<0.000777	69	59 - 120	3	20
Fluoranthene		[2]	0.0533	mg/L	1	0.0800	<0.000665	67	57 - 128	11	20
Pyrene		[2]	0.0570	mg/L	1	0.0800	<0.000690	71	57 - 126	13	20
Benzo(a)anthracene		[2]	0.0531	mg/L	1	0.0800	<0.000768	66	58 - 125	4	20
Chrysene		[2]	0.0535	mg/L	1	0.0800	<0.000611	67	59 - 123	4	20
Benzo(b)fluoranthene		[2]	0.0517	mg/L	1	0.0800	<0.000626	65	53 - 131	5	20
Benzo(k)fluoranthene		[2]	0.0544	mg/L	1	0.0800	<0.000603	68	57 - 129	4	20
Benzo(a)pyrene		[2]	0.0547	mg/L	1	0.0800	<0.000540	68	54 - 128	0	20
Indeno(1,2,3-cd)pyrene		[2]	0.0557	mg/L	1	0.0800	<0.000515	70	52 - 134	5	20
Dibenzo(a,h)anthracene		[2]	0.0522	mg/L	1	0.0800	<0.000512	65	51 - 134	6	20
Benzo(g,h,i)perylene		[2]	0.0487	mg/L	1	0.0800	<0.000589	61	50 - 134	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
2-Fluorophenol	0.0544	0.0544	mg/L	1	0.0800	68	68	19 - 119
Phenol-d5	0.0560	0.0546	mg/L	1	0.0800	70	68	10 - 120
Nitrobenzene-d5	0.0531	0.0455	mg/L	1	0.0800	66	57	44 - 120
2-Fluorobiphenyl	0.0569	0.0553	mg/L	1	0.0800	71	69	44 - 119
2,4,6-Tribromophenol	0.0740	0.0788	mg/L	1	0.0800	92	98	43 - 140
Terphenyl-d14	0.0513	0.0619	mg/L	1	0.0800	64	77	50 - 134

Matrix Spike (MS-1) Spiked Sample: 356102

QC Batch: 109764 | Date Analyzed: 2014-02-28 | Analyzed By: JR
Prep Batch: 92813 | QC Preparation: 2014-02-28 | Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Fluoride		[1]	283	mg/L	55.6	278	<2.44	102	80 - 120
Chloride		[1]	1740	mg/L	55.6	1390	308	103	80 - 120
Nitrate-N		[1]	292	mg/L	55.6	278	10.9	101	80 - 120
PO4-P		[1]	1470	mg/L	55.6	1390	<1.10	106	80 - 120
Sulfate		[1]	1480	mg/L	55.6	1390	69.7	101	80 - 120

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
Fluoride		[1]	280	mg/L	55.6	278	<2.44	100	80 - 120	1	20
Chloride		[1]	1730	mg/L	55.6	1390	308	102	80 - 120	1	20
Nitrate-N		[1]	289	mg/L	55.6	278	10.9	100	80 - 120	1	20
PO4-P		[1]	1460	mg/L	55.6	1390	<1.10	105	80 - 120	1	20
Sulfate		[1]	1460	mg/L	55.6	1390	69.7	100	80 - 120	1	20

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

Matrix Spike (MS-1) Spiked Sample: 356102

QC Batch: 109793 | Date Analyzed: 2014-02-28 | Analyzed By: KB
Prep Batch: 92835 | QC Preparation: 2014-02-28 | Prepared By: KB

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromochloromethane		[2]	53.7	µg/L	1	50.0	<0.310	107	73.4 - 137
Dichlorodifluoromethane		[2]	45.6	µg/L	1	50.0	<0.340	91	28.8 - 163
Chloromethane (methyl chloride)		[2]	45.2	µg/L	1	50.0	<0.490	90	52.5 - 157
Vinyl Chloride		[2]	47.7	µg/L	1	50.0	<0.460	95	55.3 - 157
Bromomethane (methyl bromide)		[2]	64.6	µg/L	1	50.0	<0.510	129	10 - 228
Chloroethane		[2]	56.8	µg/L	1	50.0	<0.440	114	47.8 - 180
Trichlorofluoromethane		[2]	56.7	µg/L	1	50.0	<0.470	113	47.5 - 169
Acetone		[2]	28.5	µg/L	1	50.0	<2.99	57	10 - 147
Iodomethane (methyl iodide)		[2]	50.0	µg/L	1	50.0	<0.330	100	68.6 - 146
Carbon Disulfide		[2]	49.1	µg/L	1	50.0	<0.300	98	72.8 - 147
Acrylonitrile		[2]	52.3	µg/L	1	50.0	<0.410	105	54 - 145
2-Butanone (MEK)		[2]	37.6	µg/L	1	50.0	<0.660	75	29.1 - 130
4-Methyl-2-pentanone (MIBK)		[2]	51.3	µg/L	1	50.0	<0.340	103	31.7 - 165

continued ...

matrix spikes continued . . .

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
2-Hexanone		2	47.4	µg/L	1	50.0	<0.550	95	21.3 - 144
trans 1,4-Dichloro-2-butene		2	51.4	µg/L	1	50.0	<0.260	103	10 - 151
1,1-Dichloroethene		2	53.3	µg/L	1	50.0	<0.350	107	73.6 - 139
Methylene chloride		2	47.4	µg/L	1	50.0	<1.15	95	78.6 - 130
MTBE		2	52.7	µg/L	1	50.0	<0.300	105	63.4 - 148
trans-1,2-Dichloroethene		2	53.6	µg/L	1	50.0	<0.330	107	79.1 - 132
1,1-Dichloroethane		2	52.6	µg/L	1	50.0	<0.350	105	80 - 135
cis-1,2-Dichloroethene		2	52.0	µg/L	1	50.0	<0.280	104	80 - 133
2,2-Dichloropropane		2	49.7	µg/L	1	50.0	<0.360	99	10 - 160
1,2-Dichloroethane (EDC)		2	56.7	µg/L	1	50.0	<0.350	113	69.4 - 147
Chloroform		2	54.1	µg/L	1	50.0	<0.280	108	76.9 - 138
1,1,1-Trichloroethane		2	58.9	µg/L	1	50.0	<0.320	118	75 - 149
1,1-Dichloropropene		2	55.8	µg/L	1	50.0	<0.280	112	80 - 137
Benzene		2	62.7	µg/L	1	50.0	11	103	79.2 - 134
Carbon Tetrachloride		2	60.3	µg/L	1	50.0	<0.370	121	66.6 - 153
1,2-Dichloropropane		2	51.5	µg/L	1	50.0	<0.320	103	80 - 136
Trichloroethene (TCE)		2	48.6	µg/L	1	50.0	<0.360	97	69.2 - 141
Dibromomethane (methylene bromide)		2	54.8	µg/L	1	50.0	<0.280	110	71.2 - 137
Bromodichloromethane		2	54.5	µg/L	1	50.0	<0.260	109	73.6 - 142
2-Chloroethyl vinyl ether		2	<0.370	µg/L	1	50.0	<0.370	0	0 - 120
cis-1,3-Dichloropropene		2	51.8	µg/L	1	50.0	<0.230	104	68.6 - 135
trans-1,3-Dichloropropene		2	56.6	µg/L	1	50.0	<0.200	113	64.5 - 134
Toluene		2	52.1	µg/L	1	50.0	<0.330	104	80 - 134
1,1,2-Trichloroethane		2	47.6	µg/L	1	50.0	<0.360	95	75.6 - 122
1,3-Dichloropropane		2	48.5	µg/L	1	50.0	<0.300	97	67.6 - 142
Dibromochloromethane		2	49.6	µg/L	1	50.0	<0.230	99	66.6 - 131
1,2-Dibromoethane (EDB)		2	49.8	µg/L	1	50.0	<0.260	100	72.1 - 123
Tetrachloroethene (PCE)		2	31.7	µg/L	1	50.0	<0.480	63	42.5 - 120
Chlorobenzene		2	46.9	µg/L	1	50.0	<0.290	94	80 - 120
1,1,1,2-Tetrachloroethane		2	49.9	µg/L	1	50.0	<0.330	100	76.2 - 127
Ethylbenzene		2	53.3	µg/L	1	50.0	2.53	102	80 - 122
m,p-Xylene		2	104	µg/L	1	100	0.76	103	80 - 122
Bromoform		2	50.7	µg/L	1	50.0	<0.210	101	54.3 - 137
Styrene		2	32.4	µg/L	1	50.0	<0.290	65	10 - 186
o-Xylene		2	51.0	µg/L	1	50.0	<0.300	102	78 - 128
1,1,2,2-Tetrachloroethane		2	47.7	µg/L	1	50.0	<0.180	95	62.1 - 138
2-Chlorotoluene		2	45.8	µg/L	1	50.0	<0.300	92	77 - 126
1,2,3-Trichloropropane		2	43.4	µg/L	1	50.0	<0.210	87	63.4 - 134
Isopropylbenzene		2	46.0	µg/L	1	50.0	0.59	91	80 - 124
Bromobenzene		2	42.1	µg/L	1	50.0	<0.280	84	78 - 123
n-Propylbenzene		2	45.6	µg/L	1	50.0	0.29	91	74 - 127
1,3,5-Trimethylbenzene		2	48.8	µg/L	1	50.0	<0.280	98	70 - 128
tert-Butylbenzene		2	48.4	µg/L	1	50.0	<0.220	97	78.8 - 123
1,2,4-Trimethylbenzene		2	49.7	µg/L	1	50.0	0.37	99	76 - 125

continued . . .

matrix spikes continued . . .

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,4-Dichlorobenzene (para)		2	45.1	µg/L	1	50.0	<0.220	90	76.4 - 120
sec-Butylbenzene		2	47.9	µg/L	1	50.0	<0.280	96	75.9 - 124
1,3-Dichlorobenzene (meta)		2	45.3	µg/L	1	50.0	<0.260	91	76.4 - 120
p-Isopropyltoluene		2	47.8	µg/L	1	50.0	<0.260	96	76 - 124
4-Chlorotoluene		2	45.9	µg/L	1	50.0	<0.260	92	76.8 - 126
1,2-Dichlorobenzene (ortho)		2	46.6	µg/L	1	50.0	<0.250	93	77.5 - 120
n-Butylbenzene		2	47.9	µg/L	1	50.0	<0.240	96	71.5 - 128
1,2-Dibromo-3-chloropropane		2	48.7	µg/L	1	50.0	<0.290	97	39.2 - 146
1,2,3-Trichlorobenzene		2	52.5	µg/L	1	50.0	<0.180	105	47.1 - 139
1,2,4-Trichlorobenzene		2	50.7	µg/L	1	50.0	<0.230	101	62.1 - 127
Naphthalene		2	47.5	µg/L	1	50.0	<1.38	95	47 - 142
Hexachlorobutadiene		2	42.1	µg/L	1	50.0	<0.310	84	58.9 - 133

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
Bromochloromethane		2	55.1	µg/L	1	50.0	<0.310	110	73.4 - 137	3	20
Dichlorodifluoromethane		2	46.1	µg/L	1	50.0	<0.340	92	28.8 - 163	1	20
Chloromethane (methyl chloride)		2	46.5	µg/L	1	50.0	<0.490	93	52.5 - 157	3	20
Vinyl Chloride		2	49.1	µg/L	1	50.0	<0.460	98	55.3 - 157	3	20
Bromomethane (methyl bromide)		2	55.6	µg/L	1	50.0	<0.510	111	10 - 228	15	20
Chloroethane		2	54.4	µg/L	1	50.0	<0.440	109	47.8 - 180	4	20
Trichlorofluoromethane		2	54.4	µg/L	1	50.0	<0.470	109	47.5 - 169	4	20
Acetone		2	26.6	µg/L	1	50.0	<2.99	53	10 - 147	7	20
Iodomethane (methyl iodide)		2	51.9	µg/L	1	50.0	<0.330	104	68.6 - 146	4	20
Carbon Disulfide		2	51.2	µg/L	1	50.0	<0.300	102	72.8 - 147	4	20
Acrylonitrile		2	54.2	µg/L	1	50.0	<0.410	108	54 - 145	4	20
2-Butanone (MEK)		2	40.5	µg/L	1	50.0	<0.660	81	29.1 - 130	7	20
4-Methyl-2-pentanone (MIBK)		2	54.3	µg/L	1	50.0	<0.340	109	31.7 - 165	6	20
2-Hexanone		2	48.7	µg/L	1	50.0	<0.550	97	21.3 - 144	3	20
trans 1,4-Dichloro-2-butene		2	47.8	µg/L	1	50.0	<0.260	96	10 - 151	7	20
1,1-Dichloroethene		2	50.0	µg/L	1	50.0	<0.350	100	73.6 - 139	6	20
Methylene chloride		2	48.2	µg/L	1	50.0	<1.15	96	78.6 - 130	2	20
MTBE		2	55.1	µg/L	1	50.0	<0.300	110	63.4 - 148	4	20
trans-1,2-Dichloroethene		2	55.0	µg/L	1	50.0	<0.330	110	79.1 - 132	3	20
1,1-Dichloroethane		2	54.4	µg/L	1	50.0	<0.350	109	80 - 135	3	20
cis-1,2-Dichloroethene		2	54.3	µg/L	1	50.0	<0.280	109	80 - 133	4	20
2,2-Dichloropropane		2	50.8	µg/L	1	50.0	<0.360	102	10 - 160	2	20
1,2-Dichloroethane (EDC)		2	56.2	µg/L	1	50.0	<0.350	112	69.4 - 147	1	20
Chloroform		2	53.9	µg/L	1	50.0	<0.280	108	76.9 - 138	0	20
1,1,1-Trichloroethane		2	58.1	µg/L	1	50.0	<0.320	116	75 - 149	1	20
1,1-Dichloropropene		2	57.3	µg/L	1	50.0	<0.280	115	80 - 137	3	20
Benzene		2	65.0	µg/L	1	50.0	11	108	79.2 - 134	4	20
Carbon Tetrachloride		2	59.2	µg/L	1	50.0	<0.370	118	66.6 - 153	2	20

continued . . .

matrix spikes continued . . .

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,2-Dichloropropane		2	53.6	µg/L	1	50.0	<0.320	107	80 - 136	4	20
Trichloroethene (TCE)		2	50.4	µg/L	1	50.0	<0.360	101	69.2 - 141	4	20
Dibromomethane (methylene bromide)		2	55.6	µg/L	1	50.0	<0.280	111	71.2 - 137	1	20
Bromodichloromethane		2	54.2	µg/L	1	50.0	<0.260	108	73.6 - 142	1	20
2-Chloroethyl vinyl ether		2	<0.370	µg/L	1	50.0	<0.370	0	0 - 120	0	20
cis-1,3-Dichloropropene		2	51.7	µg/L	1	50.0	<0.230	103	68.6 - 135	0	20
trans-1,3-Dichloropropene		2	54.9	µg/L	1	50.0	<0.200	110	64.5 - 134	3	20
Toluene		2	53.4	µg/L	1	50.0	<0.330	107	80 - 134	2	20
1,1,2-Trichloroethane		2	47.5	µg/L	1	50.0	<0.360	95	75.6 - 122	0	20
1,3-Dichloropropane		2	49.8	µg/L	1	50.0	<0.300	100	67.6 - 142	3	20
Dibromochloromethane		2	49.6	µg/L	1	50.0	<0.230	99	66.6 - 131	0	20
1,2-Dibromoethane (EDB)		2	49.8	µg/L	1	50.0	<0.260	100	72.1 - 123	0	20
Tetrachloroethene (PCE)		2	31.6	µg/L	1	50.0	<0.480	63	42.5 - 120	0	20
Chlorobenzene		2	47.7	µg/L	1	50.0	<0.290	95	80 - 120	2	20
1,1,1,2-Tetrachloroethane		2	49.6	µg/L	1	50.0	<0.330	99	76.2 - 127	1	20
Ethylbenzene		2	53.1	µg/L	1	50.0	2.53	101	80 - 122	0	20
m,p-Xylene		2	104	µg/L	1	100	0.76	103	80 - 122	0	20
Bromoform		2	51.0	µg/L	1	50.0	<0.210	102	54.3 - 137	1	20
Styrene	Qr Qr	2	40.6	µg/L	1	50.0	<0.290	81	10 - 186	22	20
o-Xylene		2	51.4	µg/L	1	50.0	<0.300	103	78 - 128	1	20
1,1,2,2-Tetrachloroethane		2	49.1	µg/L	1	50.0	<0.180	98	62.1 - 138	3	20
2-Chlorotoluene		2	48.6	µg/L	1	50.0	<0.300	97	77 - 126	6	20
1,2,3-Trichloropropane		2	44.6	µg/L	1	50.0	<0.210	89	63.4 - 134	3	20
Isopropylbenzene		2	50.9	µg/L	1	50.0	0.59	101	80 - 124	10	20
Bromobenzene		2	45.0	µg/L	1	50.0	<0.280	90	78 - 123	7	20
n-Propylbenzene		2	49.1	µg/L	1	50.0	0.29	98	74 - 127	7	20
1,3,5-Trimethylbenzene		2	51.4	µg/L	1	50.0	<0.280	103	70 - 128	5	20
tert-Butylbenzene		2	51.6	µg/L	1	50.0	<0.220	103	78.8 - 123	6	20
1,2,4-Trimethylbenzene		2	52.2	µg/L	1	50.0	0.37	104	76 - 125	5	20
1,4-Dichlorobenzene (para)		2	47.2	µg/L	1	50.0	<0.220	94	76.4 - 120	5	20
sec-Butylbenzene		2	50.9	µg/L	1	50.0	<0.280	102	75.9 - 124	6	20
1,3-Dichlorobenzene (meta)		2	48.6	µg/L	1	50.0	<0.260	97	76.4 - 120	7	20
p-Isopropyltoluene		2	51.4	µg/L	1	50.0	<0.260	103	76 - 124	7	20
4-Chlorotoluene		2	47.1	µg/L	1	50.0	<0.260	94	76.8 - 126	3	20
1,2-Dichlorobenzene (ortho)		2	49.3	µg/L	1	50.0	<0.250	99	77.5 - 120	6	20
n-Butylbenzene		2	51.1	µg/L	1	50.0	<0.240	102	71.5 - 128	6	20
1,2-Dibromo-3-chloropropane		2	49.6	µg/L	1	50.0	<0.290	99	39.2 - 146	2	20
1,2,3-Trichlorobenzene		2	54.5	µg/L	1	50.0	<0.180	109	47.1 - 139	4	20
1,2,4-Trichlorobenzene		2	54.0	µg/L	1	50.0	<0.230	108	62.1 - 127	6	20
Naphthalene		2	50.7	µg/L	1	50.0	<1.38	101	47 - 142	6	20
Hexachlorobutadiene		2	47.0	µg/L	1	50.0	<0.310	94	58.9 - 133	11	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
Dibromofluoromethane	54.2	52.2	µg/L	1	50	108	104	70 - 130
Toluene-d8	48.8	48.2	µg/L	1	50	98	96	70 - 130
4-Bromofluorobenzene (4-BFB)	53.8	52.1	µg/L	1	50	108	104	70 - 130

Matrix Spike (xMS-1) Spiked Sample: 356127

QC Batch: 109810 | Date Analyzed: 2014-03-03 | Analyzed By: TP
Prep Batch: 92848 | QC Preparation: 2014-03-03 | Prepared By: TP

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury		2	0.00382	mg/L	1	0.00400	<0.0000602	96	75 - 125

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
Total Mercury		2	0.00380	mg/L	1	0.00400	<0.0000602	95	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 356330

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum		2	1.17	mg/L	1	1.00	0.2261	94	75 - 125

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
Total Aluminum		2	1.17	mg/L	1	1.00	0.2261	94	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 356330

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Boron		[2]	0.497	mg/L	1	0.0500	0.4394	115	75 - 125

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
Total Boron	[Qs]	[Qs] [2]	0.506	mg/L	1	0.0500	0.4394	133	75 - 125	2	20

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

Matrix Spike (MS-1) Spiked Sample: 356330

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt			0.239	mg/L	1	0.250	<0.00251	96	75 - 125

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
Total Cobalt			0.241	mg/L	1	0.250	<0.00251	96	75 - 125	1	20

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

Matrix Spike (MS-1) Spiked Sample: 356330

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper			0.114	mg/L	1	0.125	<0.00101	91	75 - 125

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
Total Copper			0.116	mg/L	1	0.125	<0.00101	93	75 - 125	2	20

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

Matrix Spike (MS-1) Spiked Sample: 356330

QC Batch: 109912 Date Analyzed: 2014-03-06 Analyzed By: LM
Prep Batch: 92917 QC Preparation: 2014-03-05 Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron			0.734	mg/L	1	0.500	0.2578	95	75 - 125

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
Total Iron			0.748	mg/L	1	0.500	0.2578	98	75 - 125	2	20

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

Matrix Spike (MS-1) Spiked Sample: 356330

QC Batch: 109912 Date Analyzed: 2014-03-06 Analyzed By: LM
Prep Batch: 92917 QC Preparation: 2014-03-05 Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese		2	0.504	mg/L	1	0.250	0.2502	102	75 - 125

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
Total Manganese		2	0.512	mg/L	1	0.250	0.2502	105	75 - 125	2	20

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

Matrix Spike (MS-1) Spiked Sample: 356330

QC Batch: 109912 Date Analyzed: 2014-03-06 Analyzed By: LM
Prep Batch: 92917 QC Preparation: 2014-03-05 Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum		2	0.494	mg/L	1	0.500	<0.000552	99	75 - 125

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
Total Molybdenum		2	0.494	mg/L	1	0.500	<0.000552	99	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 356330

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel		2	0.238	mg/L	1	0.250	<0.00129	95	75 - 125

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
Total Nickel		2	0.239	mg/L	1	0.250	<0.00129	96	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 356330

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc		2	0.363	mg/L	1	0.250	0.124	96	75 - 125

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
Total Zinc		2	0.370	mg/L	1	0.250	0.124	98	75 - 125	2	20

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

Matrix Spike (MS-1) Spiked Sample: 356330

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92917 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver		2	0.129	mg/L	1	0.125	<0.000352	103	75 - 125
Total Arsenic		2	0.480	mg/L	1	0.500	<0.00258	96	75 - 125
Total Barium		2	0.993	mg/L	1	1.00	<0.00310	99	75 - 125
Total Cadmium		2	0.240	mg/L	1	0.250	<0.000281	96	75 - 125
Total Chromium		2	0.0802	mg/L	1	0.100	<0.00130	80	75 - 125
Total Lead		2	0.440	mg/L	1	0.500	<0.00246	88	75 - 125
Total Selenium		2	0.432	mg/L	1	0.500	<0.00420	86	75 - 125

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
Total Silver		2	0.131	mg/L	1	0.125	<0.000352	105	75 - 125	2	20
Total Arsenic		2	0.486	mg/L	1	0.500	<0.00258	97	75 - 125	1	20
Total Barium		2	1.01	mg/L	1	1.00	<0.00310	101	75 - 125	2	20
Total Cadmium		2	0.240	mg/L	1	0.250	<0.000281	96	75 - 125	0	20
Total Chromium		2	0.0812	mg/L	1	0.100	<0.00130	81	75 - 125	1	20
Total Lead		2	0.444	mg/L	1	0.500	<0.00246	89	75 - 125	1	20
Total Selenium		2	0.433	mg/L	1	0.500	<0.00420	87	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 356309

QC Batch: 109917 | Date Analyzed: 2014-03-06 | Analyzed By: LM
Prep Batch: 92914 | QC Preparation: 2014-03-05 | Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium		2	762	mg/L	1	525	177.8	111	75 - 125
Dissolved Potassium		2	620	mg/L	1	575	53.38	98	75 - 125
Dissolved Magnesium		2	724	mg/L	1	525	151.3	109	75 - 125
Dissolved Sodium		2	1090	mg/L	1	525	492.9	114	75 - 125

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
Dissolved Calcium		2	760	mg/L	1	525	177.8	111	75 - 125	0	20

continued ...

matrix spikes continued . . .

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Potassium		2	627	mg/L	1	575	53.38	100	75 - 125	1	20
Dissolved Magnesium		2	716	mg/L	1	525	151.3	108	75 - 125	1	20
Dissolved Sodium		2	1070	mg/L	1	525	492.9	110	75 - 125	2	20

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

Calibration Standards

Standard (CCV-1)

QC Batch: 109764 | Date Analyzed: 2014-02-28 | Analyzed By: JR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		1	mg/L	5.00	4.97	99	90 - 110	2014-02-28
Chloride		1	mg/L	25.0	24.5	98	90 - 110	2014-02-28
Nitrate-N		1	mg/L	5.00	4.94	99	90 - 110	2014-02-28
PO4-P		1	mg/L	25.0	26.0	104	90 - 110	2014-02-28
Sulfate		1	mg/L	25.0	24.7	99	90 - 110	2014-02-28

Standard (CCV-2)

QC Batch: 109764 | Date Analyzed: 2014-02-28 | Analyzed By: JR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		1	mg/L	5.00	4.96	99	90 - 110	2014-02-28
Chloride		1	mg/L	25.0	24.5	98	90 - 110	2014-02-28
Nitrate-N		1	mg/L	5.00	4.94	99	90 - 110	2014-02-28
PO4-P		1	mg/L	25.0	26.0	104	90 - 110	2014-02-28
Sulfate		1	mg/L	25.0	24.7	99	90 - 110	2014-02-28

Standard (CCV-3)

QC Batch: 109764 | Date Analyzed: 2014-02-28 | Analyzed By: JR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		1	mg/L	5.00	4.97	99	90 - 110	2014-02-28
Chloride		1	mg/L	25.0	24.6	98	90 - 110	2014-02-28
Nitrate-N		1	mg/L	5.00	4.94	99	90 - 110	2014-02-28
PO4-P		1	mg/L	25.0	26.1	104	90 - 110	2014-02-28
Sulfate		1	mg/L	25.0	24.7	99	90 - 110	2014-02-28

Standard (CCV-1)

QC Batch: 109793 | Date Analyzed: 2014-02-28 | Analyzed By: KB

Param		Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromochloromethane			2	µg/L	50.0	54.8	110	80 - 120	2014-02-28
Dichlorodifluoromethane	Qc	Qc	2	µg/L	50.0	63.1	126	80 - 120	2014-02-28
Chloromethane (methyl chloride)			2	µg/L	50.0	54.6	109	80 - 120	2014-02-28
Vinyl Chloride			2	µg/L	50.0	58.6	117	80 - 120	2014-02-28
Bromomethane (methyl bromide)	Qc	Qc	2	µg/L	50.0	88.1	176	80 - 120	2014-02-28
Chloroethane	Qc	Qc	2	µg/L	50.0	76.3	153	80 - 120	2014-02-28
Trichlorofluoromethane	Qc	Qc	2	µg/L	50.0	69.7	139	80 - 120	2014-02-28
Acetone	Qc	Qc	2	µg/L	50.0	31.1	62	80 - 120	2014-02-28
Iodomethane (methyl iodide)			2	µg/L	50.0	53.9	108	80 - 120	2014-02-28
Carbon Disulfide			2	µg/L	50.0	53.7	107	80 - 120	2014-02-28
Acrylonitrile			2	µg/L	50.0	46.9	94	80 - 120	2014-02-28
2-Butanone (MEK)	Qc	Qc	2	µg/L	50.0	37.8	76	80 - 120	2014-02-28
4-Methyl-2-pentanone (MIBK)			2	µg/L	50.0	43.4	87	80 - 120	2014-02-28
2-Hexanone			2	µg/L	50.0	42.7	85	80 - 120	2014-02-28
trans 1,4-Dichloro-2-butene			2	µg/L	50.0	51.5	103	80 - 120	2014-02-28
1,1-Dichloroethene			2	µg/L	50.0	51.1	102	80 - 120	2014-02-28
Methylene chloride			2	µg/L	50.0	47.2	94	80 - 120	2014-02-28
MTBE			2	µg/L	50.0	49.0	98	80 - 120	2014-02-28
trans-1,2-Dichloroethene			2	µg/L	50.0	53.4	107	80 - 120	2014-02-28
1,1-Dichloroethane			2	µg/L	50.0	53.0	106	80 - 120	2014-02-28
cis-1,2-Dichloroethene			2	µg/L	50.0	52.9	106	80 - 120	2014-02-28
2,2-Dichloropropane	Qc	Qc	2	µg/L	50.0	66.9	134	80 - 120	2014-02-28
1,2-Dichloroethane (EDC)			2	µg/L	50.0	54.1	108	80 - 120	2014-02-28
Chloroform			2	µg/L	50.0	53.4	107	80 - 120	2014-02-28
1,1,1-Trichloroethane			2	µg/L	50.0	59.1	118	80 - 120	2014-02-28
1,1-Dichloropropene			2	µg/L	50.0	57.0	114	80 - 120	2014-02-28
Benzene			2	µg/L	50.0	54.8	110	80 - 120	2014-02-28
Carbon Tetrachloride			2	µg/L	50.0	59.6	119	80 - 120	2014-02-28
1,2-Dichloropropane			2	µg/L	50.0	52.1	104	80 - 120	2014-02-28
Trichloroethene (TCE)			2	µg/L	50.0	50.4	101	80 - 120	2014-02-28
Dibromomethane (methylene bromide)			2	µg/L	50.0	52.7	105	80 - 120	2014-02-28
Bromodichloromethane			2	µg/L	50.0	53.0	106	80 - 120	2014-02-28
2-Chloroethyl vinyl ether			2	µg/L	50.0	57.0	114	80 - 120	2014-02-28
cis-1,3-Dichloropropene			2	µg/L	50.0	53.7	107	80 - 120	2014-02-28
trans-1,3-Dichloropropene			2	µg/L	50.0	55.4	111	80 - 120	2014-02-28
Toluene			2	µg/L	50.0	52.8	106	80 - 120	2014-02-28
1,1,2-Trichloroethane			2	µg/L	50.0	45.2	90	80 - 120	2014-02-28
1,3-Dichloropropane			2	µg/L	50.0	46.7	93	80 - 120	2014-02-28
Dibromochloromethane			2	µg/L	50.0	47.8	96	80 - 120	2014-02-28
1,2-Dibromoethane (EDB)			2	µg/L	50.0	46.2	92	80 - 120	2014-02-28
Tetrachloroethene (PCE)	Qc	Qc	2	µg/L	50.0	32.2	64	80 - 120	2014-02-28

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chlorobenzene		2	µg/L	50.0	47.7	95	80 - 120	2014-02-28
1,1,1,2-Tetrachloroethane		2	µg/L	50.0	48.6	97	80 - 120	2014-02-28
Ethylbenzene		2	µg/L	50.0	50.9	102	80 - 120	2014-02-28
m,p-Xylene		2	µg/L	100	103	103	80 - 120	2014-02-28
Bromoform		2	µg/L	50.0	47.7	95	80 - 120	2014-02-28
Styrene		2	µg/L	50.0	51.5	103	80 - 120	2014-02-28
o-Xylene		2	µg/L	50.0	51.8	104	80 - 120	2014-02-28
1,1,2,2-Tetrachloroethane		2	µg/L	50.0	44.1	88	80 - 120	2014-02-28
2-Chlorotoluene		2	µg/L	50.0	49.3	99	80 - 120	2014-02-28
1,2,3-Trichloropropane		2	µg/L	50.0	43.3	87	80 - 120	2014-02-28
Isopropylbenzene		2	µg/L	50.0	50.0	100	80 - 120	2014-02-28
Bromobenzene		2	µg/L	50.0	45.1	90	80 - 120	2014-02-28
n-Propylbenzene		2	µg/L	50.0	50.5	101	80 - 120	2014-02-28
1,3,5-Trimethylbenzene		2	µg/L	50.0	53.7	107	80 - 120	2014-02-28
tert-Butylbenzene		2	µg/L	50.0	53.2	106	80 - 120	2014-02-28
1,2,4-Trimethylbenzene		2	µg/L	50.0	53.1	106	80 - 120	2014-02-28
1,4-Dichlorobenzene (para)		2	µg/L	50.0	48.2	96	80 - 120	2014-02-28
sec-Butylbenzene		2	µg/L	50.0	53.9	108	80 - 120	2014-02-28
1,3-Dichlorobenzene (meta)		2	µg/L	50.0	49.1	98	80 - 120	2014-02-28
p-Isopropyltoluene		2	µg/L	50.0	54.0	108	80 - 120	2014-02-28
4-Chlorotoluene		2	µg/L	50.0	48.8	98	80 - 120	2014-02-28
1,2-Dichlorobenzene (ortho)		2	µg/L	50.0	48.3	97	80 - 120	2014-02-28
n-Butylbenzene		2	µg/L	50.0	54.7	109	80 - 120	2014-02-28
1,2-Dibromo-3-chloropropane		2	µg/L	50.0	41.9	84	80 - 120	2014-02-28
1,2,3-Trichlorobenzene		2	µg/L	50.0	50.2	100	80 - 120	2014-02-28
1,2,4-Trichlorobenzene		2	µg/L	50.0	53.5	107	80 - 120	2014-02-28
Naphthalene		2	µg/L	50.0	42.6	85	80 - 120	2014-02-28
Hexachlorobutadiene		2	µg/L	50.0	54.1	108	80 - 120	2014-02-28

Standard (CCV-2)

QC Batch: 109793 Date Analyzed: 2014-02-28 Analyzed By: KB

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromochloromethane		2	µg/L	50.0	53.7	107	80 - 120	2014-02-28
Dichlorodifluoromethane		2	µg/L	50.0	45.1	90	80 - 120	2014-02-28
Chloromethane (methyl chloride)		2	µg/L	50.0	46.0	92	80 - 120	2014-02-28
Vinyl Chloride		2	µg/L	50.0	47.4	95	80 - 120	2014-02-28
Bromomethane (methyl bromide)	Qc	Qc	2	µg/L	50.0	39.2	78	80 - 120	2014-02-28

continued ...

standard continued ...

Param		Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloroethane	Qc	Qc	2	µg/L	50.0	39.3	79	80 - 120	2014-02-28
Trichlorofluoromethane			2	µg/L	50.0	54.6	109	80 - 120	2014-02-28
Acetone	Qc	Qc	2	µg/L	50.0	37.9	76	80 - 120	2014-02-28
Iodomethane (methyl iodide)			2	µg/L	50.0	47.3	95	80 - 120	2014-02-28
Carbon Disulfide			2	µg/L	50.0	47.2	94	80 - 120	2014-02-28
Acrylonitrile			2	µg/L	50.0	51.7	103	80 - 120	2014-02-28
2-Butanone (MEK)			2	µg/L	50.0	41.3	83	80 - 120	2014-02-28
4-Methyl-2-pentanone (MIBK)			2	µg/L	50.0	48.1	96	80 - 120	2014-02-28
2-Hexanone			2	µg/L	50.0	48.5	97	80 - 120	2014-02-28
trans 1,4-Dichloro-2-butene			2	µg/L	50.0	42.3	85	80 - 120	2014-02-28
1,1-Dichloroethene			2	µg/L	50.0	54.7	109	80 - 120	2014-02-28
Methylene chloride			2	µg/L	50.0	47.0	94	80 - 120	2014-02-28
MTBE			2	µg/L	50.0	51.5	103	80 - 120	2014-02-28
trans-1,2-Dichloroethene			2	µg/L	50.0	53.4	107	80 - 120	2014-02-28
1,1-Dichloroethane			2	µg/L	50.0	52.6	105	80 - 120	2014-02-28
cis-1,2-Dichloroethene			2	µg/L	50.0	52.8	106	80 - 120	2014-02-28
2,2-Dichloropropane			2	µg/L	50.0	45.7	91	80 - 120	2014-02-28
1,2-Dichloroethane (EDC)			2	µg/L	50.0	54.0	108	80 - 120	2014-02-28
Chloroform			2	µg/L	50.0	53.8	108	80 - 120	2014-02-28
1,1,1-Trichloroethane			2	µg/L	50.0	55.4	111	80 - 120	2014-02-28
1,1-Dichloropropene			2	µg/L	50.0	56.0	112	80 - 120	2014-02-28
Benzene			2	µg/L	50.0	54.2	108	80 - 120	2014-02-28
Carbon Tetrachloride			2	µg/L	50.0	56.6	113	80 - 120	2014-02-28
1,2-Dichloropropane			2	µg/L	50.0	52.6	105	80 - 120	2014-02-28
Trichloroethene (TCE)			2	µg/L	50.0	53.4	107	80 - 120	2014-02-28
Dibromomethane (methylene bromide)			2	µg/L	50.0	53.9	108	80 - 120	2014-02-28
Bromodichloromethane			2	µg/L	50.0	52.8	106	80 - 120	2014-02-28
2-Chloroethyl vinyl ether			2	µg/L	50.0	49.6	99	80 - 120	2014-02-28
cis-1,3-Dichloropropene			2	µg/L	50.0	47.7	95	80 - 120	2014-02-28
trans-1,3-Dichloropropene			2	µg/L	50.0	51.2	102	80 - 120	2014-02-28
Toluene			2	µg/L	50.0	50.3	101	80 - 120	2014-02-28
1,1,2-Trichloroethane			2	µg/L	50.0	46.7	93	80 - 120	2014-02-28
1,3-Dichloropropane			2	µg/L	50.0	49.3	99	80 - 120	2014-02-28
Dibromochloromethane			2	µg/L	50.0	47.9	96	80 - 120	2014-02-28
1,2-Dibromoethane (EDB)			2	µg/L	50.0	48.7	97	80 - 120	2014-02-28
Tetrachloroethene (PCE)			2	µg/L	50.0	59.0	118	80 - 120	2014-02-28
Chlorobenzene			2	µg/L	50.0	47.0	94	80 - 120	2014-02-28
1,1,1,2-Tetrachloroethane			2	µg/L	50.0	49.2	98	80 - 120	2014-02-28
Ethylbenzene			2	µg/L	50.0	50.3	101	80 - 120	2014-02-28
m,p-Xylene			2	µg/L	100	102	102	80 - 120	2014-02-28
Bromoform			2	µg/L	50.0	47.4	95	80 - 120	2014-02-28
Styrene			2	µg/L	50.0	50.6	101	80 - 120	2014-02-28
o-Xylene			2	µg/L	50.0	51.1	102	80 - 120	2014-02-28

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
1,1,2,2-Tetrachloroethane		2	µg/L	50.0	40.9	82	80 - 120	2014-02-28
2-Chlorotoluene		2	µg/L	50.0	47.5	95	80 - 120	2014-02-28
1,2,3-Trichloropropane		2	µg/L	50.0	45.0	90	80 - 120	2014-02-28
Isopropylbenzene		2	µg/L	50.0	47.4	95	80 - 120	2014-02-28
Bromobenzene		2	µg/L	50.0	44.2	88	80 - 120	2014-02-28
n-Propylbenzene		2	µg/L	50.0	48.0	96	80 - 120	2014-02-28
1,3,5-Trimethylbenzene		2	µg/L	50.0	50.7	101	80 - 120	2014-02-28
tert-Butylbenzene		2	µg/L	50.0	50.8	102	80 - 120	2014-02-28
1,2,4-Trimethylbenzene		2	µg/L	50.0	50.7	101	80 - 120	2014-02-28
1,4-Dichlorobenzene (para)		2	µg/L	50.0	45.4	91	80 - 120	2014-02-28
sec-Butylbenzene		2	µg/L	50.0	49.1	98	80 - 120	2014-02-28
1,3-Dichlorobenzene (meta)		2	µg/L	50.0	46.4	93	80 - 120	2014-02-28
p-Isopropyltoluene		2	µg/L	50.0	49.5	99	80 - 120	2014-02-28
4-Chlorotoluene		2	µg/L	50.0	46.7	93	80 - 120	2014-02-28
1,2-Dichlorobenzene (ortho)		2	µg/L	50.0	46.5	93	80 - 120	2014-02-28
n-Butylbenzene		2	µg/L	50.0	47.5	95	80 - 120	2014-02-28
1,2-Dibromo-3-chloropropane		2	µg/L	50.0	43.6	87	80 - 120	2014-02-28
1,2,3-Trichlorobenzene		2	µg/L	50.0	50.5	101	80 - 120	2014-02-28
1,2,4-Trichlorobenzene		2	µg/L	50.0	48.7	97	80 - 120	2014-02-28
Naphthalene		2	µg/L	50.0	43.7	87	80 - 120	2014-02-28
Hexachlorobutadiene		2	µg/L	50.0	43.9	88	80 - 120	2014-02-28

Standard (CCV-1)

QC Batch: 109810 Date Analyzed: 2014-03-03 Analyzed By: TP

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		2	mg/L	0.00500	0.00504	101	90 - 110	2014-03-03

Standard (CCV-2)

QC Batch: 109810 Date Analyzed: 2014-03-03 Analyzed By: TP

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		2	mg/L	0.00500	0.00493	99	90 - 110	2014-03-03

Standard (ICV-1)

QC Batch: 109849 | Date Analyzed: 2014-03-04 | Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		3	mg/L as CaCo3	0.00	<20.0		-	2014-03-04
Carbonate Alkalinity		3	mg/L as CaCo3	0.00	252		-	2014-03-04
Bicarbonate Alkalinity		3	mg/L as CaCo3	0.00	<20.0		-	2014-03-04
Total Alkalinity		3	mg/L as CaCo3	250	258	103	90 - 110	2014-03-04

Standard (CCV-1)

QC Batch: 109849 | Date Analyzed: 2014-03-04 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		3	mg/L as CaCo3	0.00	33.0		-	2014-03-04
Carbonate Alkalinity		3	mg/L as CaCo3	0.00	220		-	2014-03-04
Bicarbonate Alkalinity		3	mg/L as CaCo3	0.00	<20.0		-	2014-03-04
Total Alkalinity		3	mg/L as CaCo3	250	253	101	90 - 110	2014-03-04

Standard (ICV-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		2	mg/L	1.00	1.02	102	90 - 110	2014-03-06

Standard (ICV-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		2	mg/L	1.00	1.02	102	90 - 110	2014-03-06

Standard (ICV-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt			mg/L	1.00	1.03	103	90 - 110	2014-03-06

Standard (ICV-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper			mg/L	1.00	1.03	103	90 - 110	2014-03-06

Standard (ICV-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron			mg/L	1.00	1.02	102	90 - 110	2014-03-06

Standard (ICV-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		2	mg/L	1.00	1.02	102	90 - 110	2014-03-06

Standard (ICV-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		2	mg/L	1.00	1.02	102	90 - 110	2014-03-06

Standard (ICV-1)

QC Batch: 109912 Date Analyzed: 2014-03-06 Analyzed By: LM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		2	mg/L	1.00	1.03	103	90 - 110	2014-03-06

Standard (ICV-1)

QC Batch: 109912 Date Analyzed: 2014-03-06 Analyzed By: LM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		2	mg/L	1.00	1.02	102	90 - 110	2014-03-06

Standard (ICV-1)

QC Batch: 109912 Date Analyzed: 2014-03-06 Analyzed By: LM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		2	mg/L	0.125	0.126	101	90 - 110	2014-03-06
Total Arsenic		2	mg/L	1.00	1.00	100	90 - 110	2014-03-06
Total Barium		2	mg/L	1.00	1.02	102	90 - 110	2014-03-06
Total Cadmium		2	mg/L	1.00	1.02	102	90 - 110	2014-03-06
Total Chromium		2	mg/L	1.00	1.02	102	90 - 110	2014-03-06
Total Lead		2	mg/L	1.00	1.02	102	90 - 110	2014-03-06
Total Selenium		2	mg/L	1.00	1.01	101	90 - 110	2014-03-06

Standard (CCV-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		2	mg/L	1.00	1.02	102	90 - 110	2014-03-06

Standard (CCV-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		2	mg/L	1.00	1.03	103	90 - 110	2014-03-06

Standard (CCV-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt			mg/L	1.00	1.05	105	90 - 110	2014-03-06

Standard (CCV-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper			mg/L	1.00	1.04	104	90 - 110	2014-03-06

Standard (CCV-1)

QC Batch: 109912 | Date Analyzed: 2014-03-06 | Analyzed By: LM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron			mg/L	1.00	1.04	104	90 - 110	2014-03-06

Standard (CCV-1)

QC Batch: 109912 Date Analyzed: 2014-03-06 Analyzed By: LM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		2	mg/L	1.00	1.03	103	90 - 110	2014-03-06

Standard (CCV-1)

QC Batch: 109912 Date Analyzed: 2014-03-06 Analyzed By: LM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		2	mg/L	1.00	1.04	104	90 - 110	2014-03-06

Standard (CCV-1)

QC Batch: 109912 Date Analyzed: 2014-03-06 Analyzed By: LM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		2	mg/L	1.00	1.05	105	90 - 110	2014-03-06

Standard (CCV-1)

QC Batch: 109912 Date Analyzed: 2014-03-06 Analyzed By: LM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		2	mg/L	1.00	1.03	103	90 - 110	2014-03-06

Standard (CCV-1)

QC Batch: 109912 Date Analyzed: 2014-03-06 Analyzed By: LM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		2	mg/L	0.125	0.129	103	90 - 110	2014-03-06
Total Arsenic		2	mg/L	1.00	1.02	102	90 - 110	2014-03-06
Total Barium		2	mg/L	1.00	1.05	105	90 - 110	2014-03-06
Total Cadmium		2	mg/L	1.00	1.03	103	90 - 110	2014-03-06
Total Chromium		2	mg/L	1.00	1.04	104	90 - 110	2014-03-06
Total Lead		2	mg/L	1.00	1.03	103	90 - 110	2014-03-06
Total Selenium		2	mg/L	1.00	1.05	105	90 - 110	2014-03-06

Standard (ICV-1)

QC Batch: 109917 Date Analyzed: 2014-03-06 Analyzed By: LM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		2	mg/L	51.0	52.7	103	90 - 110	2014-03-06
Dissolved Potassium		2	mg/L	55.0	56.7	103	90 - 110	2014-03-06
Dissolved Magnesium		2	mg/L	51.0	51.6	101	90 - 110	2014-03-06
Dissolved Sodium		2	mg/L	51.0	51.3	100	90 - 110	2014-03-06

Standard (CCV-1)

QC Batch: 109917 Date Analyzed: 2014-03-06 Analyzed By: LM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		2	mg/L	51.0	50.2	98	90 - 110	2014-03-06

continued . . .

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Potassium		2	mg/L	55.0	55.5	101	90 - 110	2014-03-06
Dissolved Magnesium		2	mg/L	51.0	48.8	96	90 - 110	2014-03-06
Dissolved Sodium		2	mg/L	51.0	50.0	98	90 - 110	2014-03-06

Standard (CCV-1)

QC Batch: 110046 Date Analyzed: 2014-03-11 Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		2	mg/L	60.0	68.6	114	80 - 120	2014-03-11
1,4-Dichlorobenzene (para)		2	mg/L	60.0	60.0	100	80 - 120	2014-03-11
2-Nitrophenol		2	mg/L	60.0	67.3	112	80 - 120	2014-03-11
2,4-Dichlorophenol		2	mg/L	60.0	65.0	108	80 - 120	2014-03-11
Hexachlorobutadiene		2	mg/L	60.0	60.7	101	80 - 120	2014-03-11
4-Chloro-3-methylphenol		2	mg/L	60.0	57.6	96	80 - 120	2014-03-11
2,4,6-Trichlorophenol		2	mg/L	60.0	62.8	105	80 - 120	2014-03-11
Acenaphthene		2	mg/L	60.0	60.5	101	80 - 120	2014-03-11
Diphenylamine		2	mg/L	60.0	58.0	97	80 - 120	2014-03-11
Pentachlorophenol		2	mg/L	60.0	60.0	100	80 - 120	2014-03-11
Fluoranthene		2	mg/L	60.0	61.8	103	80 - 120	2014-03-11
Di-n-octylphthalate		2	mg/L	60.0	60.3	100	80 - 120	2014-03-11
Benzo(a)pyrene		2	mg/L	60.0	60.9	102	80 - 120	2014-03-11

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol			71.3	mg/L	1	60.0	119	80 - 120
Phenol-d5			68.7	mg/L	1	60.0	114	80 - 120
Nitrobenzene-d5			53.9	mg/L	1	60.0	90	80 - 120
2-Fluorobiphenyl			59.3	mg/L	1	60.0	99	80 - 120
2,4,6-Tribromophenol	Qc,Qsr	Qc,Qsr	79.2	mg/L	1	60.0	132	80 - 120
Terphenyl-d14			60.8	mg/L	1	60.0	101	80 - 120

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	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock
3	NELAP	T104704392-13-7	Midland

Standard Flags

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

Attachments

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

LAB Order ID # 140227 12

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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Lubbock, Texas 79424
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1 (800) 378-1296

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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

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

Company Name: Nova
Phone #: 432 520 7720
Address: (Street, City, Zip) 2057 commerce
Fax #:
Contact Person: Curt Stanley
E-mail:
Invoice to:
(If different from above)
Project #:
Project Name: LE 59
Project Location (including state): NM
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC	1 See attached form				Turn Around Time if different from standard	Hold
356102	mw-1A	8	VOA	X				X	X			X		2/26/14	1245																				X				

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
John Flores	Nova	2/27			TA	2/27/14	808	INST KL OBS 1.7 °C COR 0.7 °C
	TA	2/27/14	1530					INST ____ OBS ____ °C COR ____ °C
					TA	2/28/14	9:00	INST IR3 OBS 3.7 °C COR 3.0 °C

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

REMARKS: Midland-all Lubbock-VOC/SVOC/metals EP-anion

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

Carrier #: FS 937405

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

NMOCD - Analytical Parameters for Initial Groundwater Sampling (3-12-08)

Field Parameters

specific conductance
pH
temperature
depth to water

General Chemistry

- Calcium
- Magnesium
- Potassium
- Sodium
- Chloride
- Sulfate
- Bicarbonate Alkalinity
- Carbonate Alkalinity
- Nitrate
- Phosphate
- Fluoride

RCRA Metals

- Arsenic
- Barium
- Cadmium
- Chromium
- Lead
- Mercury
- Selenium
- Silver

Additional WQCC Metals

- Copper
- Iron
- Manganese
- Zinc
- Aluminum
- Boron
- Cobalt
- Molybdenum
- Nickel

All compounds listed in U.S. EPA SW-846 Methods: 8260 (VOCs) & 8270 (SVOCs)

Cation-Anion Balance Sheet

DATE: 3/19/2014

Sample #	Calcium ppm	Magnesium ppm	Sodium ppm	Potassium ppm	Alkalinity ppm	Sulfate ppm	Chloride ppm	Nitrate-N ppm	Fluoride ppm	Bromide ppm	TDS ppm	EC µMHOs/cm
356102	168	29.4	134	5.53	323.00	69.7	308	10.9	0.605			

Sample #	Calcium in meq/L	Magnesium in meq/L	Sodium in meq/L	Potassium in meq/L	Alkalinity in meq/L	Sulfate in meq/L	Chloride in meq/L	Nitrate-N in meq/L	Fluoride in meq/L	Bromide in meq/L	**Total Cations in meq/L**	**Total Anions in meq/L**	**% Difference***
356102	8.38	2.42	5.83	0.14	6.46	1.45	8.69	0.78	0.03	0.00	16.77	17.41	1.863067125

	EC/Cation	EC/Anion
356102	1677.29834	1740.98322

range 0 to 0

TDS/EC	TDS/Cat		TDS/Anion
#DIV/0!	0.00		0.00

needs to be 0.55-0.77

TRACEANALYSIS, INC.

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5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: May 13, 2014

Work Order: 14050801

Project Location: Monument, New Mexico
Project Name: LF-59
Project Number: NM-2005
SRS #: TNM-LF-59

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
362434	MW-8	water	2014-05-07	12:45	2014-05-08
362435	MW-2	water	2014-05-07	12:56	2014-05-08
362436	MW-4	water	2014-05-07	13:20	2014-05-08
362437	MW-1A	water	2014-05-07	13:40	2014-05-08

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.

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

Report Contents

Case Narrative

Samples for project LF-59 were received by TraceAnalysis, Inc. on 2014-05-08 and assigned to work order 14050801. Samples for work order 14050801 were received intact at a temperature of 4.7 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	94566	2014-05-08 at 10:00	111832	2014-05-09 at 08:01
BTEX	S 8021B	94576	2014-05-09 at 10:41	111877	2014-05-12 at 08:16

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 14050801 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: 362434 - MW-8

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	111832	Date Analyzed:	2014-05-09	Analyzed By:	AK
Prep Batch:	94566	Sample Preparation:	2014-05-08	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0945	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0823	mg/L	1	0.100	82	70 - 130

Sample: 362435 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	111832	Date Analyzed:	2014-05-09	Analyzed By:	AK
Prep Batch:	94566	Sample Preparation:	2014-05-08	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0991	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0877	mg/L	1	0.100	88	70 - 130

Sample: 362436 - MW-4

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	111877	Date Analyzed:	2014-05-12	Analyzed By:	AK
Prep Batch:	94576	Sample Preparation:	2014-05-09	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0930	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0866	mg/L	1	0.100	87	70 - 130

Sample: 362437 - MW-1A

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	111832	Date Analyzed:	2014-05-09	Analyzed By:	AK
Prep Batch:	94566	Sample Preparation:	2014-05-08	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qr	1	**0.00580**	mg/L	1	0.00100
Toluene	Qr,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr	1	**0.00240**	mg/L	1	0.00100
Xylene	Qr,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0962	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0837	mg/L	1	0.100	84	70 - 130

Method Blanks

Method Blank (1) QC Batch: 111832

QC Batch:	111832	Date Analyzed:	2014-05-09	Analyzed By:	AK
Prep Batch:	94566	QC Preparation:	2014-05-08	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0976	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0859	mg/L	1	0.100	86	70 - 130

Method Blank (1) QC Batch: 111877

QC Batch:	111877	Date Analyzed:	2014-05-12	Analyzed By:	AK
Prep Batch:	94576	QC Preparation:	2014-05-09	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0987	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0879	mg/L	1	0.100	88	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 111832 | Date Analyzed: 2014-05-09 | Analyzed By: AK
Prep Batch: 94566 | QC Preparation: 2014-05-08 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000238	102	70 - 130
Toluene		1	0.104	mg/L	1	0.100	<0.000181	104	70 - 130
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000247	101	70 - 130
Xylene		1	0.308	mg/L	1	0.300	<0.000189	103	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	0.103	mg/L	1	0.100	<0.000238	103	70 - 130	1	20
Toluene		1	0.106	mg/L	1	0.100	<0.000181	106	70 - 130	2	20
Ethylbenzene		1	0.103	mg/L	1	0.100	<0.000247	103	70 - 130	2	20
Xylene		1	0.314	mg/L	1	0.300	<0.000189	105	70 - 130	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0989	0.0970	mg/L	1	0.100	99	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.106	0.103	mg/L	1	0.100	106	103	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 111877 | Date Analyzed: 2014-05-12 | Analyzed By: AK
Prep Batch: 94576 | QC Preparation: 2014-05-09 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.101	mg/L	1	0.100	<0.000238	101	70 - 130
Toluene		1	0.103	mg/L	1	0.100	<0.000181	103	70 - 130
Ethylbenzene		1	0.100	mg/L	1	0.100	<0.000247	100	70 - 130
Xylene		1	0.307	mg/L	1	0.300	<0.000189	102	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	0.0972	mg/L	1	0.100	<0.000238	97	70 - 130	4	20
Toluene		1	0.100	mg/L	1	0.100	<0.000181	100	70 - 130	3	20
Ethylbenzene		1	0.0978	mg/L	1	0.100	<0.000247	98	70 - 130	2	20
Xylene		1	0.300	mg/L	1	0.300	<0.000189	100	70 - 130	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0973	0.0964	mg/L	1	0.100	97	96	70 - 130
4-Bromofluorobenzene (4-BFB)	0.101	0.104	mg/L	1	0.100	101	104	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 362435

QC Batch: 111832 | Date Analyzed: 2014-05-09 | Analyzed By: AK
Prep Batch: 94566 | QC Preparation: 2014-05-08 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		[1]	0.105	mg/L	1	0.100	<0.000238	105	70 - 130
Toluene		[1]	0.107	mg/L	1	0.100	<0.000181	107	70 - 130
Ethylbenzene		[1]	0.102	mg/L	1	0.100	<0.000247	102	70 - 130
Xylene		[1]	0.309	mg/L	1	0.300	<0.000189	103	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	[Qr]	[Qr]	[1]	0.0798	mg/L	1	0.100	<0.000238	80	70 - 130	27	20
Toluene	[Qr]	[Qr]	[1]	0.0807	mg/L	1	0.100	<0.000181	81	70 - 130	28	20
Ethylbenzene	[Qr]	[Qr]	[1]	0.0774	mg/L	1	0.100	<0.000247	77	70 - 130	27	20
Xylene	[Qr]	[Qr]	[1]	0.236	mg/L	1	0.300	<0.000189	79	70 - 130	27	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)	0.0994	0.0987	mg/L	1	0.1	99	99	70 - 130
4-Bromofluorobenzene (4-BFB)	0.104	0.102	mg/L	1	0.1	104	102	70 - 130

Matrix Spike (MS-1) Spiked Sample: 362457

QC Batch: 111877 | Date Analyzed: 2014-05-12 | Analyzed By: AK
Prep Batch: 94576 | QC Preparation: 2014-05-09 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		[1]	5.50	mg/L	50	5.00	0.319	104	70 - 130
Toluene		[1]	5.24	mg/L	50	5.00	<0.00905	105	70 - 130
Ethylbenzene		[1]	5.17	mg/L	50	5.00	0.0937	102	70 - 130
Xylene		[1]	15.5	mg/L	50	15.0	<0.00945	103	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	5.44	mg/L	50	5.00	0.319	102	70 - 130	1	20
Toluene		1	5.11	mg/L	50	5.00	<0.00905	102	70 - 130	2	20
Ethylbenzene		1	5.03	mg/L	50	5.00	0.0937	99	70 - 130	3	20
Xylene		1	15.2	mg/L	50	15.0	<0.00945	101	70 - 130	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5.09	4.89	mg/L	50	5	102	98	70 - 130
4-Bromofluorobenzene (4-BFB)	5.21	5.18	mg/L	50	5	104	104	70 - 130

Calibration Standards

Standard (CCV-2)

QC Batch: 111832 | Date Analyzed: 2014-05-09 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.100	100	80 - 120	2014-05-09
Toluene		1	mg/L	0.100	0.103	103	80 - 120	2014-05-09
Ethylbenzene		1	mg/L	0.100	0.0975	98	80 - 120	2014-05-09
Xylene		1	mg/L	0.300	0.297	99	80 - 120	2014-05-09

Standard (CCV-2)

QC Batch: 111877 | Date Analyzed: 2014-05-12 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0994	99	80 - 120	2014-05-12
Toluene		1	mg/L	0.100	0.101	101	80 - 120	2014-05-12
Ethylbenzene		1	mg/L	0.100	0.0953	95	80 - 120	2014-05-12
Xylene		1	mg/L	0.300	0.291	97	80 - 120	2014-05-12

Appendix

Report Definitions

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

Laboratory Certifications

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

Standard Flags

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

Attachments

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

LAB Order ID # 14050801

Page 1 of 1

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
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Tel (432) 689-6301
Fax (432) 689-6313

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

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

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

Company Name: NOVA
Phone #: 432-520-7720
Address: (Street, City, Zip) 2057 COMMERCE DR MIDLAND, TX 79703
Fax #:
Contact Person: CURT STANLEY
E-mail: cjbryant@pogp.com
Invoice to:
(If different from above)
Project #: NM-2005
Project Name: LF-59
Project Location (including state): 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
36434	MW-8	3	VOA's	X				X				X		5/7/14	1245
435	MW-2	↓	↓	↓				↓				↓		↓	1256
436	MW-4														1320
437	MW-1A														1340

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

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	NOVA	5/8/14			TA	5/8/14	8:06	INST 1kg
								OBS 17 °C
								COR 4.7 °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: Midland - all

- [ ] 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 # Carr

TRACEANALYSIS, INC.

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

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: September 2, 2014

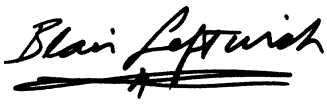
Work Order: 14082701

Project Location: Monument, New Mexico
Project Name: LF-59
Project Number: NM-2005
SRS #: TNM LF-59

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
372980	MW 2	water	2014-08-26	10:55	2014-08-27
372981	MW 4	water	2014-08-26	12:33	2014-08-27
372982	MW 1A	water	2014-08-26	11:40	2014-08-27

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.



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

Report Contents

Case Narrative

Samples for project LF-59 were received by TraceAnalysis, Inc. on 2014-08-27 and assigned to work order 14082701. Samples for work order 14082701 were received intact without headspace and at a temperature of 4.2 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	97277	2014-08-28 at 13:00	115033	2014-08-28 at 15:00
BTEX	S 8021B	97314	2014-08-31 at 13:15	115101	2014-08-31 at 13:15

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 14082701 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: 372980 - MW 2

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	115033	Date Analyzed:	2014-08-28	Analyzed By:	KB
Prep Batch:	97277	Sample Preparation:	2014-08-28	Prepared By:	KB

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.109	mg/L	1	0.100	109	75.4 - 120
4-Bromofluorobenzene (4-BFB)		5	0.0993	mg/L	1	0.100	99	74.6 - 120

Sample: 372981 - MW 4

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	115101	Date Analyzed:	2014-08-31	Analyzed By:	MT
Prep Batch:	97314	Sample Preparation:	2014-08-31	Prepared By:	MT

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene [1]	U	1,2,3,4,5	<0.00500	mg/L	5	0.00100
Toluene	U	1,2,3,4,5	<0.00500	mg/L	5	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00500	mg/L	5	0.00100
Xylene	U	1,2,3,4,5	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.462	mg/L	5	0.500	92	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.429	mg/L	5	0.500	86	70 - 130

Sample: 372982 - MW 1A

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	115033	Date Analyzed:	2014-08-28	Analyzed By:	KB
Prep Batch:	97277	Sample Preparation:	2014-08-28	Prepared By:	KB

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.104	mg/L	1	0.100	104	75.4 - 120
4-Bromofluorobenzene (4-BFB)		5	0.0904	mg/L	1	0.100	90	74.6 - 120

Method Blanks

Method Blank (1) QC Batch: 115033

QC Batch: 115033 | Date Analyzed: 2014-08-28 | Analyzed By: KB
Prep Batch: 97277 | QC Preparation: 2014-08-28 | Prepared By: KB

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1,2,3,4,5	<0.000188	mg/L	0.001
Toluene		1,2,3,4,5	<0.000160	mg/L	0.001
Ethylbenzene		1,2,3,4,5	<0.000119	mg/L	0.001
Xylene		1,2,3,4,5	<0.000142	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.103	mg/L	1	0.100	103	75.4 - 120
4-Bromofluorobenzene (4-BFB)		5	0.0925	mg/L	1	0.100	92	74.6 - 120

Method Blank (1) QC Batch: 115101

QC Batch: 115101 | Date Analyzed: 2014-08-31 | Analyzed By: MT
Prep Batch: 97314 | QC Preparation: 2014-08-31 | Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1,2,3,4,5	<0.000303	mg/L	0.001
Toluene		1,2,3,4,5	<0.000303	mg/L	0.001
Ethylbenzene		1,2,3,4,5	<0.000266	mg/L	0.001
Xylene		1,2,3,4,5	<0.000265	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0903	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0853	mg/L	1	0.100	85	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 115033 | Date Analyzed: 2014-08-28 | Analyzed By: KB
Prep Batch: 97277 | QC Preparation: 2014-08-28 | Prepared By: KB

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.103	mg/L	1	0.100	<0.000188	103	74.3 - 120
Toluene		1,2,3,4,5	0.103	mg/L	1	0.100	<0.000160	103	77.6 - 120
Ethylbenzene		1,2,3,4,5	0.103	mg/L	1	0.100	<0.000119	103	78.5 - 120
Xylene		1,2,3,4,5	0.292	mg/L	1	0.300	<0.000142	97	77.6 - 120

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		1,2,3,4,5	0.103	mg/L	1	0.100	<0.000188	103	74.3 - 120	0	20
Toluene		1,2,3,4,5	0.103	mg/L	1	0.100	<0.000160	103	77.6 - 120	0	20
Ethylbenzene		1,2,3,4,5	0.105	mg/L	1	0.100	<0.000119	105	78.5 - 120	2	20
Xylene		1,2,3,4,5	0.299	mg/L	1	0.300	<0.000142	100	77.6 - 120	2	20

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

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5	0.108	0.109	mg/L	1	0.100	108	109	75.4 - 120
4-Bromofluorobenzene (4-BFB)	5	0.113	0.117	mg/L	1	0.100	113	117	74.6 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 115101 | Date Analyzed: 2014-08-31 | Analyzed By: MT
Prep Batch: 97314 | QC Preparation: 2014-08-31 | Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.0951	mg/L	1	0.100	<0.000303	95	70 - 130
Toluene		1,2,3,4,5	0.0966	mg/L	1	0.100	<0.000303	97	70 - 130
Ethylbenzene		1,2,3,4,5	0.0938	mg/L	1	0.100	<0.000266	94	70 - 130
Xylene		1,2,3,4,5	0.285	mg/L	1	0.300	<0.000265	95	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		1,2,3,4,5	0.0941	mg/L	1	0.100	<0.000303	94	70 - 130	1	20
Toluene		1,2,3,4,5	0.0963	mg/L	1	0.100	<0.000303	96	70 - 130	0	20
Ethylbenzene		1,2,3,4,5	0.0933	mg/L	1	0.100	<0.000266	93	70 - 130	0	20
Xylene		1,2,3,4,5	0.284	mg/L	1	0.300	<0.000265	95	70 - 130	0	20

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

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5	0.0922	0.0924	mg/L	1	0.100	92	92	70 - 130
4-Bromofluorobenzene (4-BFB)	5	0.0896	0.0884	mg/L	1	0.100	90	88	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 372898

QC Batch: 115033 | Date Analyzed: 2014-08-28 | Analyzed By: KB
Prep Batch: 97277 | QC Preparation: 2014-08-28 | Prepared By: KB

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.935	mg/L	5	0.500	0.432	101	50.2 - 129
Toluene		1,2,3,4,5	0.550	mg/L	5	0.500	<0.000800	110	58.1 - 129
Ethylbenzene		1,2,3,4,5	0.630	mg/L	5	0.500	0.0938	107	58.1 - 127
Xylene		1,2,3,4,5	1.88	mg/L	5	1.50	0.322	104	53.1 - 128

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		1,2,3,4,5	0.914	mg/L	5	0.500	0.432	96	50.2 - 129	2	20
Toluene		1,2,3,4,5	0.540	mg/L	5	0.500	<0.000800	108	58.1 - 129	2	20
Ethylbenzene		1,2,3,4,5	0.618	mg/L	5	0.500	0.0938	105	58.1 - 127	2	20
Xylene		1,2,3,4,5	1.84	mg/L	5	1.50	0.322	101	53.1 - 128	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)	5	0.475	0.456	mg/L	5	0.5	95	91	75.4 - 120
4-Bromofluorobenzene (4-BFB)	5	0.591	0.566	mg/L	5	0.5	118	113	74.6 - 120

Calibration Standards

Standard (CCV-2)

QC Batch: 115033 | Date Analyzed: 2014-08-28 | Analyzed By: KB

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.104	104	80 - 120	2014-08-28
Toluene		1,2,3,4,5	mg/L	0.100	0.104	104	80 - 120	2014-08-28
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.106	106	80 - 120	2014-08-28
Xylene		1,2,3,4,5	mg/L	0.300	0.299	100	80 - 120	2014-08-28

Standard (CCV-3)

QC Batch: 115033 | Date Analyzed: 2014-08-28 | Analyzed By: KB

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.100	100	80 - 120	2014-08-28
Toluene		1,2,3,4,5	mg/L	0.100	0.0995	100	80 - 120	2014-08-28
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.101	101	80 - 120	2014-08-28
Xylene		1,2,3,4,5	mg/L	0.300	0.286	95	80 - 120	2014-08-28

Standard (CCV-1)

QC Batch: 115101 | Date Analyzed: 2014-08-31 | Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0973	97	80 - 120	2014-08-31
Toluene		1,2,3,4,5	mg/L	0.100	0.0987	99	80 - 120	2014-08-31
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.0958	96	80 - 120	2014-08-31
Xylene		1,2,3,4,5	mg/L	0.300	0.294	98	80 - 120	2014-08-31

Standard (CCV-2)

QC Batch: 115101 | Date Analyzed: 2014-08-31 | Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0970	97	80 - 120	2014-08-31
Toluene		1,2,3,4,5	mg/L	0.100	0.0974	97	80 - 120	2014-08-31
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.0929	93	80 - 120	2014-08-31
Xylene		1,2,3,4,5	mg/L	0.300	0.281	94	80 - 120	2014-08-31

Appendix

Report Definitions

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

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-93	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-14-10	Lubbock
5		2013-083	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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.

F	Description
U	The analyte is not detected above the SDL

Result Comments

1 Dilution due to matrix.

Attachments

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

LAB Order ID # 140827O1

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

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

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

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

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

Company Name: NOUA
Phone #: (432) 520-7220
Address: (Street, City, Zip) 2057 Commerce Midland TX
Fax #:
Contact Person: Curt Stanley
E-mail:
Invoice to: (If different from above) Plains
Project #: TNM - L.F. 59
Project Name: L.F. 59
Project Location (including state):
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
372980	mw 2	3	VOA	X				X				X		8/26/14	1055
981	mw 4	|	|	|				|				|		|	1233
982	mw 1A	|	|	|				|				|		|	1140

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

Relinquished by: — **Company:** NOUA — **Date:** 8/27/14 — **Time:** 8:19
Received by: — **Company:** TA — **Date:** 8/27/14 — **Time:** 8:19
INST Ice
OBS 4.3 °C
COR 4.2 °C

Relinquished by: — **Company:** TA — **Date:** 8/27/14 — **Time:** 15:30
Received by: — **Company:** — **Date:** — **Time:**
INST ____
OBS ____ °C
COR ____ °C

Relinquished by: — **Company:** — **Date:** — **Time:**
Received by: BC, TA — **Company:** — **Date:** 8/28/14 — **Time:** 8:30am
INST IR3
OBS 5.4 °C
COR 5.3 °C

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

REMARKS: Lubbock all

- [ ] 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 # Cur 1650ZR580367

TRACEANALYSIS, INC.

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

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: November 19, 2014

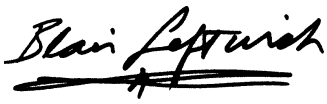
Work Order: 14111223

Project Location: Monument, New Mexico
Project Name: LF-59
Project Number: NM-2005
SRS #: TNM LF-59

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
379215	MW-3	water	2014-11-11	15:30	2014-11-12
379216	MW-5	water	2014-11-11	15:42	2014-11-12
379217	MW-7	water	2014-11-11	15:54	2014-11-12
379218	MW-8	water	2014-11-11	16:08	2014-11-12
379219	MW-2	water	2014-11-11	16:29	2014-11-12
379220	MW-1A	water	2014-11-11	16:43	2014-11-12
379221	MW-4	water	2014-11-11	16:58	2014-11-12

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.



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

Report Contents

Case Narrative

Samples for project LF-59 were received by TraceAnalysis, Inc. on 2014-11-12 and assigned to work order 14111223. Samples for work order 14111223 were received intact without headspace and at a temperature of 3.4 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	99119	2014-11-15 at 12:31	117232	2014-11-15 at 12:31
BTEX	S 8021B	99149	2014-11-17 at 14:43	117274	2014-11-17 at 14:43

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 14111223 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: 379215 - MW-3

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	117232	Date Analyzed:	2014-11-15	Analyzed By:	JS
Prep Batch:	99119	Sample Preparation:	2014-11-15	Prepared By:	JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene		1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0943	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0932	mg/L	1	0.100	93	70 - 130

Sample: 379216 - MW-5

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	117232	Date Analyzed:	2014-11-15	Analyzed By:	JS
Prep Batch:	99119	Sample Preparation:	2014-11-15	Prepared By:	JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0955	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0946	mg/L	1	0.100	95	70 - 130

Sample: 379217 - MW-7

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	117232	Date Analyzed:	2014-11-15	Analyzed By:	JS
Prep Batch:	99119	Sample Preparation:	2014-11-15	Prepared By:	JS

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0933	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0918	mg/L	1	0.100	92	70 - 130

Sample: 379218 - MW-8

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	117232	Date Analyzed:	2014-11-15	Analyzed By:	JS
Prep Batch:	99119	Sample Preparation:	2014-11-15	Prepared By:	JS

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0945	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0937	mg/L	1	0.100	94	70 - 130

Sample: 379219 - MW-2

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	117232	Date Analyzed:	2014-11-15	Analyzed By:	JS
Prep Batch:	99119	Sample Preparation:	2014-11-15	Prepared By:	JS

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0948	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0933	mg/L	1	0.100	93	70 - 130

Sample: 379220 - MW-1A

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	117232	Date Analyzed:	2014-11-15	Analyzed By:	JS
Prep Batch:	99119	Sample Preparation:	2014-11-15	Prepared By:	JS

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1,2,3,4,5	**0.0277**	mg/L	1	0.00100
Toluene		1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene		1,2,3,4,5	**0.00970**	mg/L	1	0.00100
Xylene		1,2,3,4,5	**0.00130**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0926	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0929	mg/L	1	0.100	93	70 - 130

Sample: 379221 - MW-4

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	117274	Date Analyzed:	2014-11-17	Analyzed By:	JS
Prep Batch:	99149	Sample Preparation:	2014-11-17	Prepared By:	JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene		1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0981	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0919	mg/L	1	0.100	92	70 - 130

Method Blanks

Method Blank (1) QC Batch: 117232

QC Batch: 117232 | Date Analyzed: 2014-11-15 | Analyzed By: JS
Prep Batch: 99119 | QC Preparation: 2014-11-15 | Prepared By: JS

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1,2,3,4,5	<0.000303	mg/L	0.001
Toluene		1,2,3,4,5	<0.000303	mg/L	0.001
Ethylbenzene		1,2,3,4,5	<0.000266	mg/L	0.001
Xylene		1,2,3,4,5	<0.000265	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0939	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0930	mg/L	1	0.100	93	70 - 130

Method Blank (1) QC Batch: 117274

QC Batch: 117274 | Date Analyzed: 2014-11-17 | Analyzed By: JS
Prep Batch: 99149 | QC Preparation: 2014-11-17 | Prepared By: JS

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1,2,3,4,5	<0.000303	mg/L	0.001
Toluene		1,2,3,4,5	<0.000303	mg/L	0.001
Ethylbenzene		1,2,3,4,5	<0.000266	mg/L	0.001
Xylene		1,2,3,4,5	<0.000265	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0960	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0922	mg/L	1	0.100	92	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 117232 | Date Analyzed: 2014-11-15 | Analyzed By: JS
Prep Batch: 99119 | QC Preparation: 2014-11-15 | Prepared By: JS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.0945	mg/L	1	0.100	<0.000303	94	70 - 130
Toluene		1,2,3,4,5	0.0965	mg/L	1	0.100	<0.000303	96	70 - 130
Ethylbenzene		1,2,3,4,5	0.0958	mg/L	1	0.100	<0.000266	96	70 - 130
Xylene		1,2,3,4,5	0.293	mg/L	1	0.300	<0.000265	98	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1,2,3,4,5	0.0953	mg/L	1	0.100	<0.000303	95	70 - 130	1	20
Toluene		1,2,3,4,5	0.0947	mg/L	1	0.100	<0.000303	95	70 - 130	2	20
Ethylbenzene		1,2,3,4,5	0.0935	mg/L	1	0.100	<0.000266	94	70 - 130	2	20
Xylene		1,2,3,4,5	0.286	mg/L	1	0.300	<0.000265	95	70 - 130	2	20

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

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5	0.0962	0.0967	mg/L	1	0.100	96	97	70 - 130
4-Bromofluorobenzene (4-BFB)	5	0.0944	0.0940	mg/L	1	0.100	94	94	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 117274 | Date Analyzed: 2014-11-17 | Analyzed By: JS
Prep Batch: 99149 | QC Preparation: 2014-11-17 | Prepared By: JS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.0936	mg/L	1	0.100	<0.000303	94	70 - 130
Toluene		1,2,3,4,5	0.0961	mg/L	1	0.100	<0.000303	96	70 - 130
Ethylbenzene		1,2,3,4,5	0.0953	mg/L	1	0.100	<0.000266	95	70 - 130
Xylene		1,2,3,4,5	0.291	mg/L	1	0.300	<0.000265	97	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		1,2,3,4,5	0.0970	mg/L	1	0.100	<0.000303	97	70 - 130	4	20
Toluene		1,2,3,4,5	0.0967	mg/L	1	0.100	<0.000303	97	70 - 130	1	20
Ethylbenzene		1,2,3,4,5	0.0959	mg/L	1	0.100	<0.000266	96	70 - 130	1	20
Xylene		1,2,3,4,5	0.293	mg/L	1	0.300	<0.000265	98	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)	5	0.0980	0.0977	mg/L	1	0.100	98	98	70 - 130
4-Bromofluorobenzene (4-BFB)	5	0.0940	0.0929	mg/L	1	0.100	94	93	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 379126

QC Batch: 117232 | Date Analyzed: 2014-11-15 | Analyzed By: JS
Prep Batch: 99119 | QC Preparation: 2014-11-15 | Prepared By: JS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.0957	mg/L	1	0.100	<0.000303	96	70 - 130
Toluene		1,2,3,4,5	0.0956	mg/L	1	0.100	<0.000303	96	70 - 130
Ethylbenzene		1,2,3,4,5	0.0949	mg/L	1	0.100	<0.000266	95	70 - 130
Xylene		1,2,3,4,5	0.290	mg/L	1	0.300	<0.000265	97	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1,2,3,4,5	0.0997	mg/L	1	0.100	<0.000303	100	70 - 130	4	20
Toluene		1,2,3,4,5	0.0995	mg/L	1	0.100	<0.000303	100	70 - 130	4	20
Ethylbenzene		1,2,3,4,5	0.0986	mg/L	1	0.100	<0.000266	99	70 - 130	4	20
Xylene		1,2,3,4,5	0.302	mg/L	1	0.300	<0.000265	101	70 - 130	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)	5	0.0959	0.0970	mg/L	1	0.1	96	97	70 - 130
4-Bromofluorobenzene (4-BFB)	5	0.0939	0.0949	mg/L	1	0.1	94	95	70 - 130

Matrix Spike (MS-1) Spiked Sample: 379752

QC Batch: 117274 | Date Analyzed: 2014-11-17 | Analyzed By: JS
Prep Batch: 99149 | QC Preparation: 2014-11-17 | Prepared By: JS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.192	mg/L	1	0.100	0.0782	114	70 - 130
Toluene		1,2,3,4,5	0.0976	mg/L	1	0.100	<0.000303	98	70 - 130
Ethylbenzene		1,2,3,4,5	0.106	mg/L	1	0.100	0.0106	95	70 - 130
Xylene		1,2,3,4,5	0.287	mg/L	1	0.300	0.0055	94	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		1,2,3,4,5	0.172	mg/L	1	0.100	0.0782	94	70 - 130	11	20
Toluene		1,2,3,4,5	0.100	mg/L	1	0.100	<0.000303	100	70 - 130	2	20
Ethylbenzene		1,2,3,4,5	0.109	mg/L	1	0.100	0.0106	98	70 - 130	3	20
Xylene		1,2,3,4,5	0.299	mg/L	1	0.300	0.0055	98	70 - 130	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)	5	0.0965	0.0984	mg/L	1	0.1	96	98	70 - 130
4-Bromofluorobenzene (4-BFB)	5	0.0929	0.0933	mg/L	1	0.1	93	93	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 117232 | Date Analyzed: 2014-11-15 | Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0951	95	80 - 120	2014-11-15
Toluene		1,2,3,4,5	mg/L	0.100	0.0974	97	80 - 120	2014-11-15
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.0963	96	80 - 120	2014-11-15
Xylene		1,2,3,4,5	mg/L	0.300	0.295	98	80 - 120	2014-11-15

Standard (CCV-2)

QC Batch: 117232 | Date Analyzed: 2014-11-15 | Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0978	98	80 - 120	2014-11-15
Toluene		1,2,3,4,5	mg/L	0.100	0.0977	98	80 - 120	2014-11-15
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.0964	96	80 - 120	2014-11-15
Xylene		1,2,3,4,5	mg/L	0.300	0.295	98	80 - 120	2014-11-15

Standard (CCV-3)

QC Batch: 117232 | Date Analyzed: 2014-11-15 | Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0979	98	80 - 120	2014-11-15
Toluene		1,2,3,4,5	mg/L	0.100	0.0972	97	80 - 120	2014-11-15
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.0960	96	80 - 120	2014-11-15
Xylene		1,2,3,4,5	mg/L	0.300	0.293	98	80 - 120	2014-11-15

Standard (CCV-1)

QC Batch: 117274 | Date Analyzed: 2014-11-17 | Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0972	97	80 - 120	2014-11-17
Toluene		1,2,3,4,5	mg/L	0.100	0.0972	97	80 - 120	2014-11-17
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.0960	96	80 - 120	2014-11-17
Xylene		1,2,3,4,5	mg/L	0.300	0.293	98	80 - 120	2014-11-17

Standard (CCV-2)

QC Batch: 117274 | Date Analyzed: 2014-11-17 | Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0959	96	80 - 120	2014-11-17
Toluene		1,2,3,4,5	mg/L	0.100	0.0954	95	80 - 120	2014-11-17
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.0941	94	80 - 120	2014-11-17
Xylene		1,2,3,4,5	mg/L	0.300	0.288	96	80 - 120	2014-11-17

Appendix

Report Definitions

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

Laboratory Certifications

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

Standard Flags

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

F	Description
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 # 14111223

Page _____ of _____

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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

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

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

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

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

Company Name: Nova
Phone #: 432) 520-7720
Address: (Street, City, Zip) 2057 Commerce Midland Tx
Fax #:
Contact Person: Curt Stanley
E-mail:
Invoice to: (If different from above) Plains
Project #: TNM LF-59
Project Name: LF-59
Project Location (including state):
Sampler Signature: Manuel Herrera

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC						Turn Around Time if different from standard	Hold
377315	mw 3	3	VOA	X				X				X		11/11/14	1530		X																									
216	mw 5	↓	↓	↓				↓				↓		↓	1542		↓																										
217	mw 7														1554																												
218	mw 8														1608																												
219	mw 2														1629																												
220	mw 1-A														1643																												
221	mw 4	↓	↓	↓				↓				↓		↓	1658		↓																										

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Manuel Herrera	Nova	11/12/14	0809		TA	11/12/14	8:09	INST IR1 OBS 35 °C COR 34 °C
	TA	11/12/14	15:30					INST ____ OBS ____ °C COR ____ °C
				BC TA 11-13-14			830	INST IR3 OBS 7.8 °C COR 7.7 °C

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

REMARKS: Lubbock

- ☐ 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 # Carrier LSZR844399

ORIGINAL COPY

Release Notification and Corrective Action
NMOCD Form C-141

811 South First
Artesia, NM 88210
District II - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

Oil Conservation Division

2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

STATE Byrd LF. 1999-59

Submit 2 copies to Appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☑ Initial Report ☐ Final Report

Name: SOTT Energy Pipeline	Contact: Lennah FROST
Address: PO Box 1660	Telephone No.: 915/6843467
Facility Name:	Facility Type: Pipeline

Surface Owner	Mineral Owner	Lease No.
State of New Mexico		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	32	19S	37E					Lea

NATURE OF RELEASE

Type of Release: Crude oil	Volume of Release: 260 bbls / Volume Recovered: 200 bbls
Source of Release: Crude oil Pipeline	Date and Hour of Occurrence: 7/18/99 1pm / Date and Hour of Discovery: 7/18/99 1PM
Was Immediate Notice Given? ☑ Yes ☐ No ☐ Not Required	If YES, To Whom? Chris Williams
By Whom? Lennah Frost	Date and Hour: 7/18/99 - 2:30p
Was a Watercourse Reached? ☐ Yes ☒ No	If Yes, Volume Impacting the Watercourse:

If a Watercourse was Impacted, Describe Fully. (Attach Additional Sheets If Necessary)

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary)
Internal Corrosion - Leak Clamped off will replace pipe ASAP

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)
Spill occurred in a previously remediated site. Will evaluate for cleanup this week

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

Signature: Lennah Frost	OIL CONSERVATION DIVISION
Printed Name: Lennah Frost	Approved by District Supervisor:
Title: SR. ENV. ENG	Approval Date: / Expiration Date:
Date: 7-20-99 Phone: 915/6843467	Conditions of Approval: / Attached ☐