1R-2166

Plains
DCP Plant to Lea Station 6-inch Sec. 31

Annual Report
2013

Basin Environmental Service Technologies, LLC

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Effective Solutions

2013
ANNUAL MONITORING REPORT

DCP PLANT TO LEA STATION 6-INCH SECTION 31
Unit Letter "K" (NESW), Section 31, Township 20 South, Range 37 East
Latitude 32.52733º North, Longitude 103.2906º West
Lea County, New Mexico
Plains SRS Number: 2009-084
NMOCD Reference Number: 1RP-2166

Prepared For:

PLAINS

Plains Marketing, LP
333 Clay Street, Suite 1600
Houston, Texas 77002

Prepared By:

Basin Environmental Service Technologies, LLC
P. O. Box 301
Lovington, New Mexico 88260

March 2014

Ben J. Arguijo
Project Manager

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INTRODUCTION

Basin Environmental Service Technologies, LLC (Basin Environmental), on behalf of Plains Pipeline, LP (Plains), is pleased to submit this *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 1st of each year. This report is intended to be viewed as a complete document with text, figures, tables, and appendices. This report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2013 only. For reference, a "Site Location Map" is provided as Figure 1.

Groundwater monitoring was conducted during each quarter of 2013 to assess the levels and extent of dissolved phase constituents and Phase-Separated Hydrocarbon (PSH). The groundwater monitoring events consisted of measuring static water levels in the monitor wells, checking for the presence of PSH, and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 feet were not sampled.

SITE DESCRIPTION AND BACKGROUND INFORMATION

The legal description of the site is Unit Letter "K" (NESW), Section 31, Township 20 South, Range 37 East, in Lea County, New Mexico. The property affected by the release is owned by The State of New Mexico and administered by the New Mexico State Land Office (NMSLO). The geographic coordinates of the release site are 32.52733° North latitude and 103.2906° West longitude.

On April 2, 2009, Plains discovered a crude oil release from a six (6)-inch steel pipeline. During initial response activities, Plains installed a temporary clamp on the pipeline to mitigate the release. The crude oil release resulted in a surface stain measuring approximately six (6) feet in width by eight (8) feet in length. Plains initially classified the release as “non-reportable”. Upon further investigation, Plains reclassified the release to "reportable" status and notified the NMOCD Hobbs District Office and submitted a "Release Notification and Corrective Action" (Form C-141) on April 29, 2009. The cause of the release was attributed to external corrosion of the pipeline. The C-141 indicated approximately twenty (20) barrels of crude oil was released from the pipeline, with no recovery.

On April 15, 2009, one (1) soil boring (SB-1) was advanced approximately ten (10) feet west of the release point to evaluate the vertical extent of soil impact. During advancement of the soil boring, groundwater was encountered at approximately seventy-seven (77) feet below ground surface (bgs). Temporary casing was installed in the boring to obtain a preliminary groundwater sample. On April 16, 2009, a groundwater sample (SB-1) was collected from the temporary casing and submitted to the laboratory for analysis of total dissolved solids (TDS), chlorides, and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Following the collection of the groundwater sample, the temporary casing was removed from the soil boring and the soil boring was plugged with cement and bentonite, as required by the New Mexico Office of the State Engineer (NMOSE). Laboratory analytical results indicated a benzene concentration of 1.915 mg/L, a BTEX concentration of 4.7711 mg/L, a chloride concentration of 54.6 mg/L, and a TDS concentration of 788 mg/L. Based on the analytical results of the submitted groundwater sample, Plains notified NMOCD representatives in the Hobbs District Office and the Santa Fe Office of the laboratory-confirmed impact to groundwater at the release site.

On June 2, 2009, following advancement of the soil boring, excavation of hydrocarbon-impacted soil commenced. Excavated soil was stockpiled on-site on a plastic liner to mitigate the potential leaching of the contaminants into the vadose zone. Approximately 1,400 cubic yards (cy) of soil was stockpiled on-site, pending final disposition. The final dimensions of the excavation were approximately seventy-seven (77) feet in width, approximately eighty (80) feet in length, and fifteen (15) feet in depth.

On September 21 through September 23, 2009, Plains installed and developed four (4) monitor wells (MW-1 through MW-4) at the release site, as approved by the NMOCD. Soil samples were collected at five (5) foot drilling intervals and field screened using a Photo-Ionization Detector (PID). Selected soil samples were submitted to the laboratory for determination of concentrations of BTEX and total petroleum hydrocarbons (TPH) using EPA Methods SW-846 8021b and SW-846 8015M, respectively.

Monitor well MW-1 was installed on the floor of the excavation, at approximately fifteen (15) feet bgs, to a total depth of approximately eighty-six (86) feet bgs. Soil samples collected at twenty-five (25) feet bgs, thirty-five (35) feet bgs, forty-five (45) feet bgs, fifty-five (55) feet bgs, sixty-five (65) feet bgs, and seventy-five (75) feet bgs were submitted to the laboratory for analysis. Laboratory analytical results indicated benzene concentrations were less than the appropriate laboratory method detection limit (MDL) for all of the submitted soil samples. BTEX concentrations ranged from 0.0359 mg/Kg for the soil sample collected at twenty-five (25) feet bgs to 13.444 mg/Kg for the soil sample collected at fifty-five (55) feet bgs. The TPH concentrations ranged from 286 mg/Kg for the soil sample collected at twenty-five (25) feet bgs to 1,538 mg/Kg for the soil sample collected at fifty-five (55) feet bgs.

Monitor well MW-2 is located approximately seventy-five (75) feet northwest (up-gradient) of the release point. The monitor well was installed to a total depth of approximately ninety (90) feet bgs. Soil samples collected at fifteen (15) feet bgs, thirty (30) feet bgs, forty-five (45) feet bgs, sixty (60) feet bgs, and seventy-five (75) feet bgs were submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all of the submitted soil samples.

Monitor well MW-3 is located approximately seventy-five (75) feet to the southwest (cross-gradient) of the release point. The monitor well was installed to a total depth of approximately ninety (90) feet bgs. Soil samples collected at fifteen (15) feet bgs, thirty (30) feet bgs, forty-five (45) feet bgs, and sixty (60) feet bgs were submitted to the laboratory for analysis. Laboratory analytical results indicated benzene concentrations ranged from less than the appropriate laboratory MDL for the soil samples collected at fifteen (15) feet bgs, thirty (30) feet bgs, forty-five (45) feet bgs, and sixty (60) feet bgs to 0.0025 mg/Kg for the soil sample collected at sixty (60) feet bgs. Analytical results indicated BTEX concentrations ranged from less than the appropriate laboratory MDL for the soil samples collected at fifteen (15) feet bgs, thirty (30) feet bgs, and forty-five (45) feet bgs to 0.0052 mg/Kg for the soil sample collected at sixty (60) feet bgs. TPH concentrations were less than the appropriate laboratory MDL for all of the submitted soil samples.

Monitor well MW-4 is located approximately seventy-five (75) feet to the southeast (down-gradient) of the release point. The monitor well was installed to a total depth of approximately eighty-nine (89) feet bgs. Soil samples collected at fifteen (15) feet bgs, thirty (30) feet bgs, forty-

five (45) feet bgs, and sixty (60) feet bgs were submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all of the submitted soil samples.

On January 25, 2011, one (1) additional monitoring well (MW-5) was installed to further monitor the down-gradient migration of the PSH plume. Monitor well MW-5 is located approximately sixty (60) feet to the southeast (down-gradient) of the release point. The monitor well was installed to a total depth of approximately ninety-five (95) feet bgs. Soil samples collected at fifteen (15) feet bgs, twenty-five (25) feet bgs, forty-five (45) feet bgs, sixty-five (65) feet bgs, and seventy-five (75) feet bgs were submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all of the submitted soil samples. PSH was not observed in monitor well MW-5.

On September 11, 2013, one (1) additional monitoring well (MW-6) was installed to further monitor the down-gradient migration of the PSH plume. Monitor well MW-6 is located approximately ninety-five (95) feet to the east (cross-gradient) of the release point. The monitor well was installed to a total depth of approximately one hundred (100) feet bgs. Soil samples collected at five (5) feet bgs, forty (40) feet bgs, and seventy-five (75) feet bgs were submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all of the submitted soil samples. PSH was not observed in monitor well MW-6.

Currently, a total of six (6) monitor wells are located at the DCP Plant to Lea Station 6-Inch Section 31 release site. Monitor wells MW-2, MW-3, MW-4, MW-5, and MW-6 are gauged and sampled on a quarterly schedule, while MW-1 is gauged weekly but not sampled due to the presence of PSH.

FIELD ACTIVITIES

Product Recovery Efforts

A measurable thickness of PSH was detected in monitor well MW-1 during the initial site investigation. Basin Environmental began manual, bi-weekly gauging and recovery of PSH from monitor well MW-1 in October 2009. Approximately 3,581 gallons (85.3 barrels) of PSH has been recovered from MW-1 since recovery operations began in 2009, and approximately 966 gallons (23.0 barrels) of PSH was recovered from MW-1 during the 2013 reporting period. The average PSH thickness measured in monitor well MW-1 during the reporting period was 2.87 feet, and the maximum PSH thickness was 3.39 feet on May 24, 2013. All recovered fluids are disposed of at an NMOCD- approved disposal facility near Monument, New Mexico.

In September 2012, a Mobile Dual-Phase Extraction (MDPE) unit was installed on monitor well MW-1 by Talon LPE. The MDPE unit is shared with the nearby release site known as DCP Plant to Lea Station 6-Inch #2 (NMOCD Reference #1RP-2136), and the location of the unit is alternated monthly. During the 2013 reporting period, approximately 903 gallons (21.5 barrels) of PSH in the vapor phase and approximately 102 gallons (2.4 barrels) of PSH in the liquid phase were recovered by the MDPE unit, for a total of approximately 1,005 equivalent gallons (23.9 barrels) of PSH. To date, a total of approximately 2,374 equivalent gallons (56.4 barrels) of PSH has been recovered from monitor well MW-1 by MDPE.

Groundwater Monitoring

The on-site monitor wells were gauged and sampled on February 5 (1Q2013), May 30 (2Q2013), August 5 (3Q2013), and November 13, 2013 (4Q2013). During these quarterly sampling events, the monitoring wells were purged of a minimum of three (3) well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos pump. Groundwater was allowed to recharge, and samples were obtained using disposable Teflon bailers. Water samples were stored in clean, glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a trailer-mounted polystyrene tank and disposed of at an NMOCD-approved disposal facility near Monument, New Mexico.

A yearly monitoring event for polyaromatic hydrocarbons (PAH) was conducted on December 23, 2013. Based on sampling criteria provided by the NMOCD, only monitor well MW-5 was subject to PAH monitoring during the 2013 calendar year.

Locations of the groundwater monitoring wells and the inferred groundwater elevations, which were constructed from the measurements collected during the 2013 quarterly sampling events, are depicted in Figures 2A through 2D. The "Groundwater Gradient Map" from the most recent sampling event (Figure 2D, November 13, 2013) indicates a general gradient of approximately 0.002 feet/foot to the southeast as measured between groundwater monitor wells MW-2 and MW-4.

On November 13, 2013, the corrected groundwater elevation ranged between 3,455.78 and 3,456.48 feet above mean sea level in monitor wells MW-4 and MW-2, respectively. The "2013 Groundwater Elevation Data" is provided as Table 1.

LABORATORY RESULTS

Groundwater samples collected from the monitor wells during the quarterly and yearly monitoring events were delivered to Xenco Laboratories in Odessa, Texas, for determination of BTEX and/or PAH constituent concentrations by EPA Methods SW846-8021b and SW846 8270C, respectively. A summary of benzene and BTEX constituent concentrations is presented in Table 2, "2013 Concentrations of Benzene & BTEX in Groundwater". A summary of PAH constituent concentrations is presented in Table 3, "Concentrations of Semi-Volatile Compounds in Groundwater". Laboratory analytical reports are provided as Appendix A. "Groundwater Concentration & Inferred PSH Extent" maps are provided as Figures 3A through 3D.

Baseline sampling of monitor well MW-6 was conducted on September 25, 2013. Laboratory analytical results from the baseline monitoring are summarized in Tables 3 through 6. Monitor Well Logs are provided as Appendix C.

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

Monitor well MW-1

Monitor well MW-1 was not sampled during the 2013 reporting period due to the presence of PSH in the monitor well.

Monitor well MW-2

Laboratory analytical results indicated benzene, ethylbenzene, toluene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMOCD regulatory standards during all four quarters of the reporting period.

Monitor well MW-3

Laboratory analytical results indicated benzene concentrations ranged from less than the laboratory MDL in 1Q2013, 3Q2013, and 4Q2013 to 0.0101 mg/L in 2Q2013. Toluene, ethylbenzene, and total xylene concentrations were less than the laboratory MDL in all submitted groundwater samples. Benzene concentrations exceeded NMOCD regulatory standards in 2Q2013. Toluene, ethylbenzene, and total xylene concentrations were less than NMOCD regulatory standards during all four quarters of the reporting period.

Monitor well MW-4

Laboratory analytical results indicated benzene concentrations ranged from less than the laboratory MDL in 1Q2013 and 2Q2013 to 0.0033 mg/L in 3Q2013. Toluene, ethylbenzene, and total xylene concentrations were less than the appropriate laboratory MDL during all four quarters of the reporting period. Benzene, toluene, ethylbenzene, and total xylene concentrations were less than NMOCD regulatory standards during all four quarters of the reporting period.

Monitor well MW-5

Laboratory analytical results indicated benzene concentrations ranged from 0.0013 mg/L in 4Q2013 to 0.0201 mg/L in 2Q2013. Toluene, ethylbenzene, and total xylene concentrations were less than the appropriate laboratory MDL during all four quarters of the reporting period. Benzene concentrations exceeded NMOCD regulatory standards in 2Q2013 and 3Q2013. Toluene, ethylbenzene, and total xylene concentrations were less than NMOCD regulatory standards during all four quarters of the reporting period.

PAH constituent concentrations were both less than the appropriate laboratory MDL and NMOCD regulatory standards in the groundwater sample collected on December 23, 2013.

Monitor well MW-6

Laboratory analytical results indicated benzene, ethylbenzene, toluene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMOCD regulatory standards in 3Q2013 and 4Q2013.

SUMMARY

This report presents the results of the monitoring activities for the 2013 annual monitoring period. Currently, there are six (6) groundwater monitor wells (MW-1 through MW-6) on-site. Monitor well MW-1 was not sampled in 2013 due to the presence of PSH in the monitor well. Monitor wells MW-2, MW-3, MW-4, and MW-5 were sampled during all four quarters of the monitoring period. Monitor well MW-6 was installed on September 11, 2013, and sampled during the third and fourth quarters of 2013. The results of these sampling events are summarized above.
The "Groundwater Gradient Map" from the most recent sampling event (Figure 2D, November 9, 2013) indicates a general gradient of approximately 0.002 feet/foot to the southeast as measured between groundwater monitor wells MW-2 and MW-4.

A measurable thickness of PSH was detected in monitor well MW-1 throughout the 2013 reporting period. The average PSH thickness measured in MW-1 during the reporting period was 2.87 feet, and the maximum PSH thickness was 3.39 feet on May 24, 2013.

During the reporting period, approximately 966 gallons (23.0 barrels) PSH was recovered, by manual recovery, from monitor well MW-1. A total of approximately 1,005 equivalent gallons (23.9 barrels) of PSH was recovered by Mobile Dual-Phase Extraction.

Review of laboratory analytical results generated from analysis of groundwater samples collected in 2013 indicated benzene concentrations were less than NMOCD regulatory standards in monitor wells MW-2, MW-4, and MW-6. However, benzene concentrations above NMOCD regulatory standards were detected in the groundwater samples from monitor wells MW-3 (2Q2013) and MW-5 (2Q2013 and 3Q2013).

ANTICIPATED ACTIONS

PSH recovery by Mobile Dual-Phase Extraction from monitor well MW-1 will continue on an alternating monthly basis during the 2014 monitoring period. During months when the MDPE unit is not active at the site, manual PSH recovery from monitor well MW-1 will be conducted on a semi-weekly schedule. All fluids recovered from MW-1 will be disposed of at an NMOCD-permitted disposal facility.

Monitor wells MW-2 through MW-6 will be monitored and sampled quarterly. Results from the 2014 sampling events will be reported in the 2014 *Annual Monitoring Report*, which will be submitted to the NMOCD by April 1, 2015.

LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this *Annual Monitoring Report* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin Environmental has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin Environmental has not conducted an independent examination of the facts contained in referenced materials and statements. Basin Environmental has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin Environmental has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental 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 Marketing, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or Plains Marketing, LP.

DISTRIBUTION

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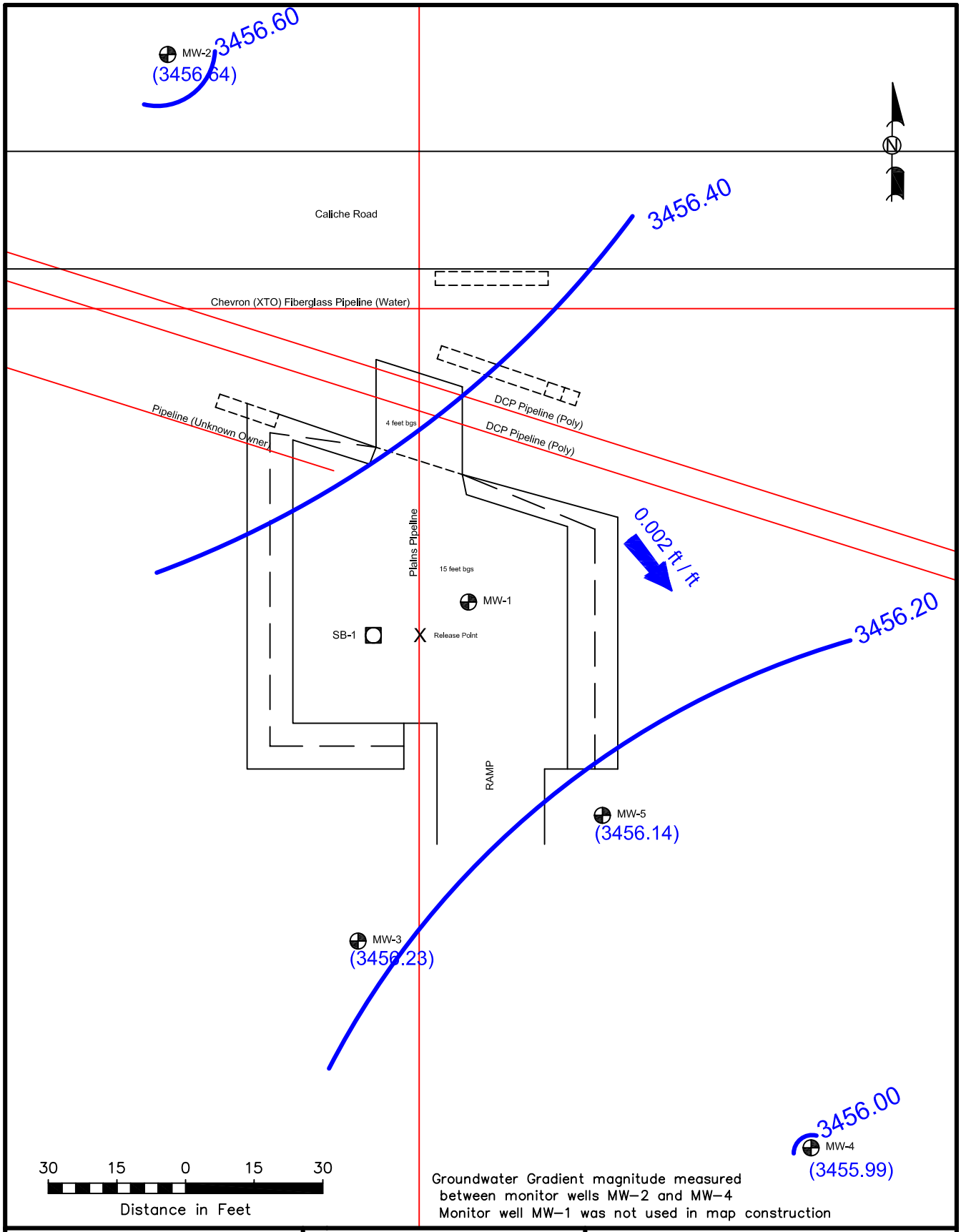
Figures

Figure 1
Site Location Map
Plains Pipeline, LP
DCP Plant to Lea Station 6" Section 31
Lea County, New Mexico
SRS #2009-084
1RP-2166

Basin Environmental Service Technologies, LLC

Drawn By: BJA	Checked By: BRB
March 28, 2011	Scale: 1" = 2000'



LEGEND:

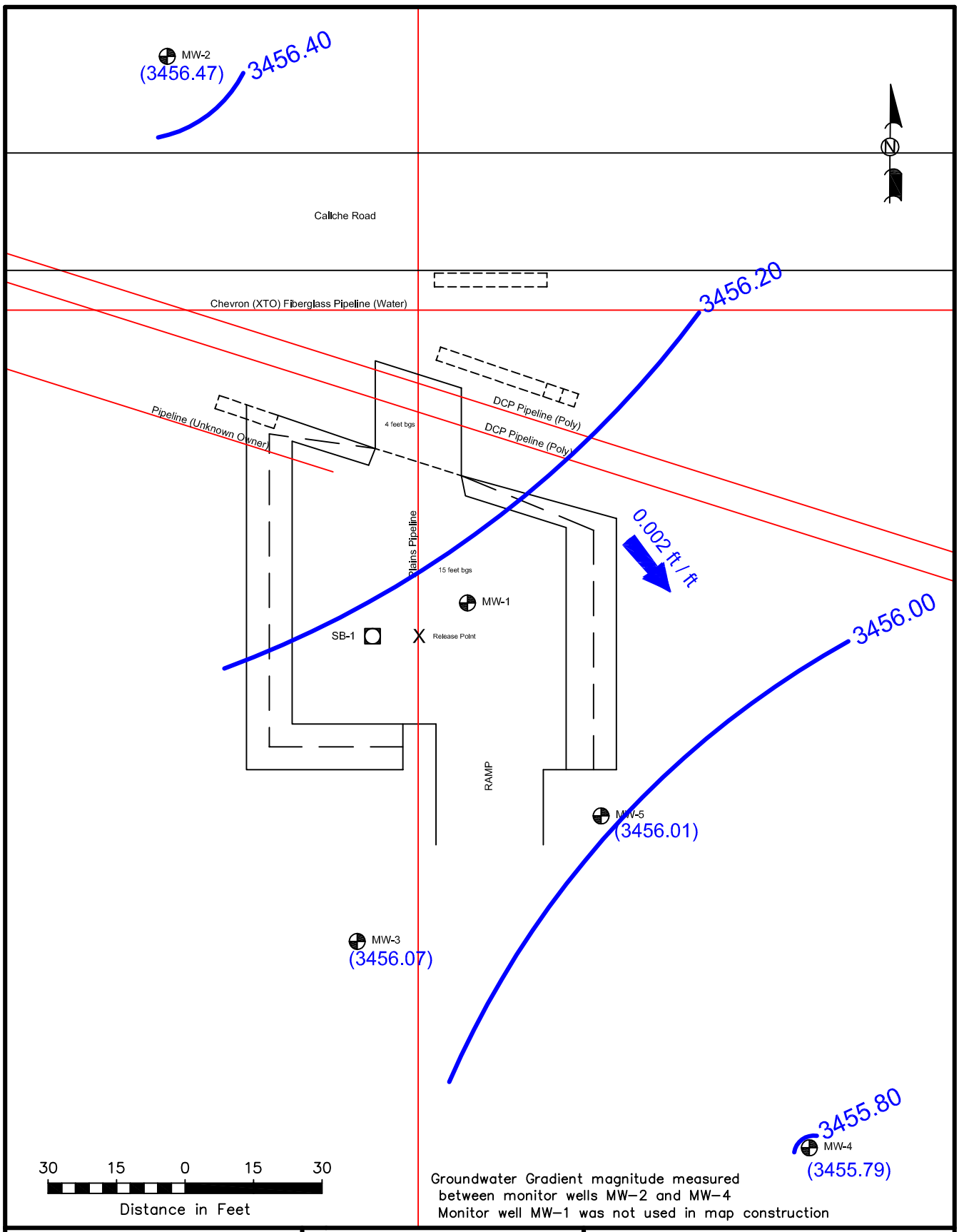
- Excavation Extent
- Pipeline
- Soil Boring
- Monitor Well
- Groundwater Gradient Contour Line
- (3801.46) Groundwater Elevation (feet)
- 0.003 ft / ft Groundwater Gradient Direction and Magnitude

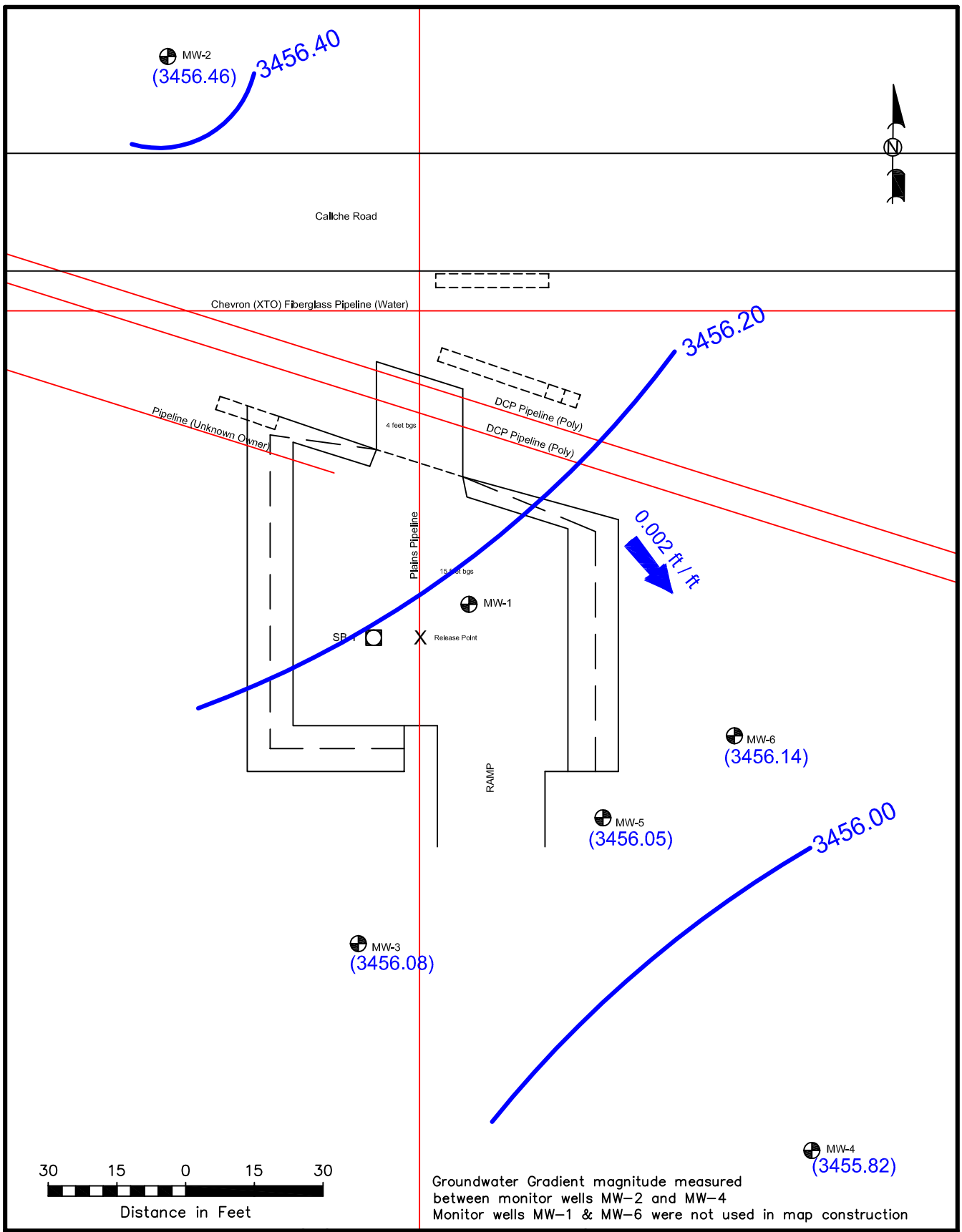
Figure 2A
Inferred Groundwater
Gradient Map (2/5/2013)

Plains Marketing, LP
DCP Plant to Lea Station 6-Inch Sec 31
Lea County, NM
1RP-2166

Basin Environmental Service Technologies, LLC

Scale: 1" = 30'	Drawn By: BJA	Checked By: BRB
April 10, 2013		


MW-2
(3456.47)
3456.40
Caliche Road
Chevron (XTO) Fiberglass Pipeline (Water)
3456.20
DCP Pipeline (Poly)
DCP Pipeline (Poly)
Pipeline (Unknown Owner)
4 feet bgs
Plains Pipeline
15 feet bgs
MW-1
SB-1
Release Point
0.002 ft / ft
3456.00
RAMP
MW-5
(3456.01)
MW-3
(3456.07)
3455.80
MW-4
(3455.79)
30 15 0 15 30
Distance in Feet
Groundwater Gradient magnitude measured
between monitor wells MW-2 and MW-4
Monitor well MW-1 was not used in map construction
LEGEND:
Excavation Extent
Pipeline
Soil Boring
Monitor Well
Groundwater Gradient Contour Line
(3801.46) Groundwater Elevation (feet)
0.003 ft / ft Groundwater Gradient Direction and Magnitude
Figure 2B
Inferred Groundwater
Gradient Map (5/30/2013)
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch Sec 31
Lea County, NM
1RP-2166
Basin Environmental Service Technologies, LLC
Scale: 1" = 30'
Drawn By: BJA
Checked By: BRB
July 17, 2013



LEGEND:

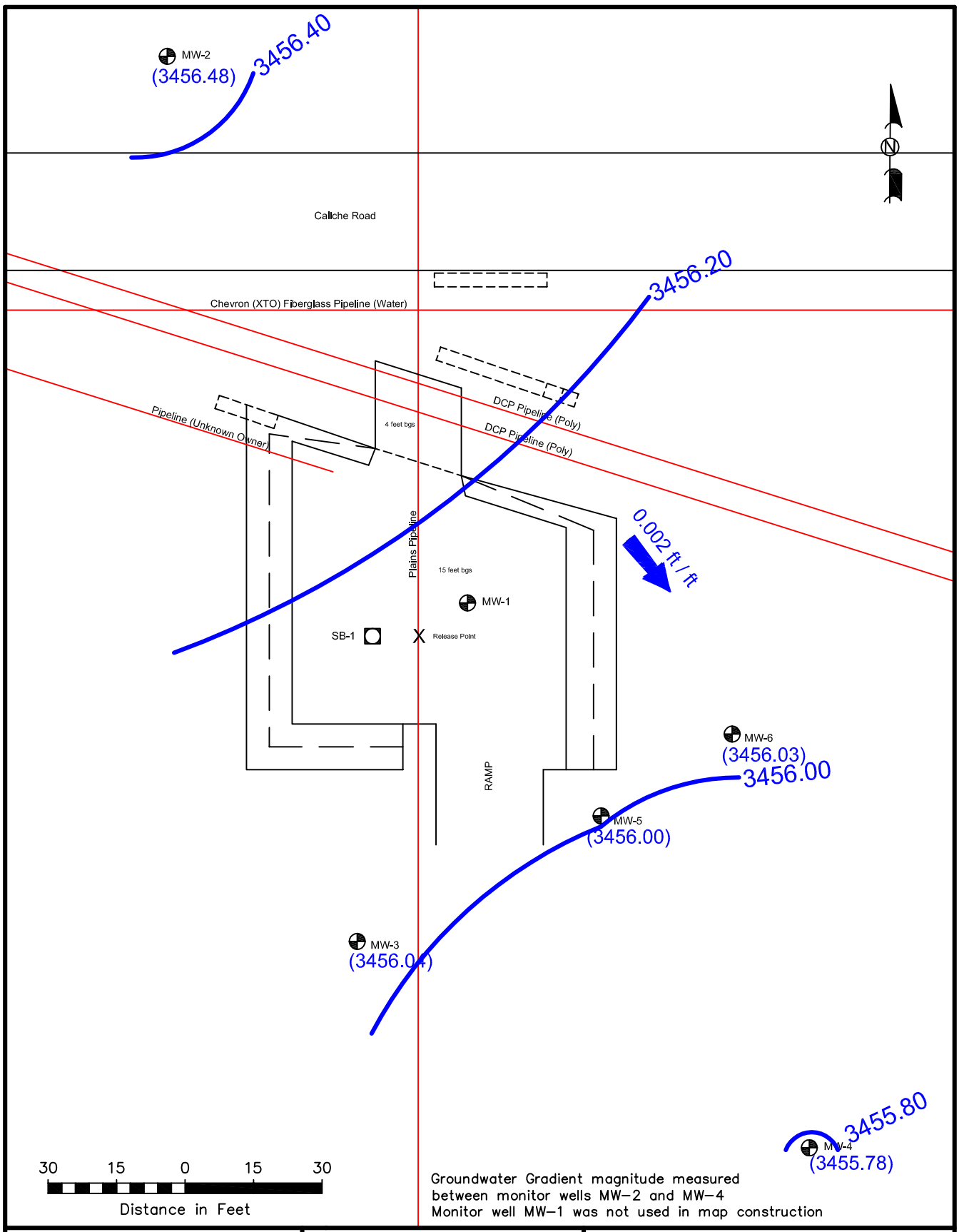
- Excavation Extent
- Pipeline
- Soil Boring
- Monitor Well
- Groundwater Gradient Contour Line
- (3801.46) Groundwater Elevation (feet)
- 0.003 ft / ft Groundwater Gradient Direction and Magnitude

Figure 2C
Inferred Groundwater
Gradient Map (8/5/2013)

Plains Marketing, LP
DCP Plant to Lea Station 6-Inch Sec 31
Lea County, NM
1RP-2166

Basin Environmental Service Technologies, LLC

Scale: 1" = 30'	Drawn By: BJA	Checked By: BRB
Oct. 10, 2013		



LEGEND:

- Excavation Extent
- Pipeline
- Soil Boring
- Monitor Well
- Groundwater Gradient Contour Line
- (3801.46) Groundwater Elevation (feet)
- 0.003 ft / ft Groundwater Gradient Direction and Magnitude

Figure 2D
Inferred Groundwater
Gradient Map (11/13/2013)

Plains Marketing, LP
DCP Plant to Lea Station 6-Inch Sec 31
Lea County, NM
1RP-2166

Basin Environmental Service Technologies, LLC

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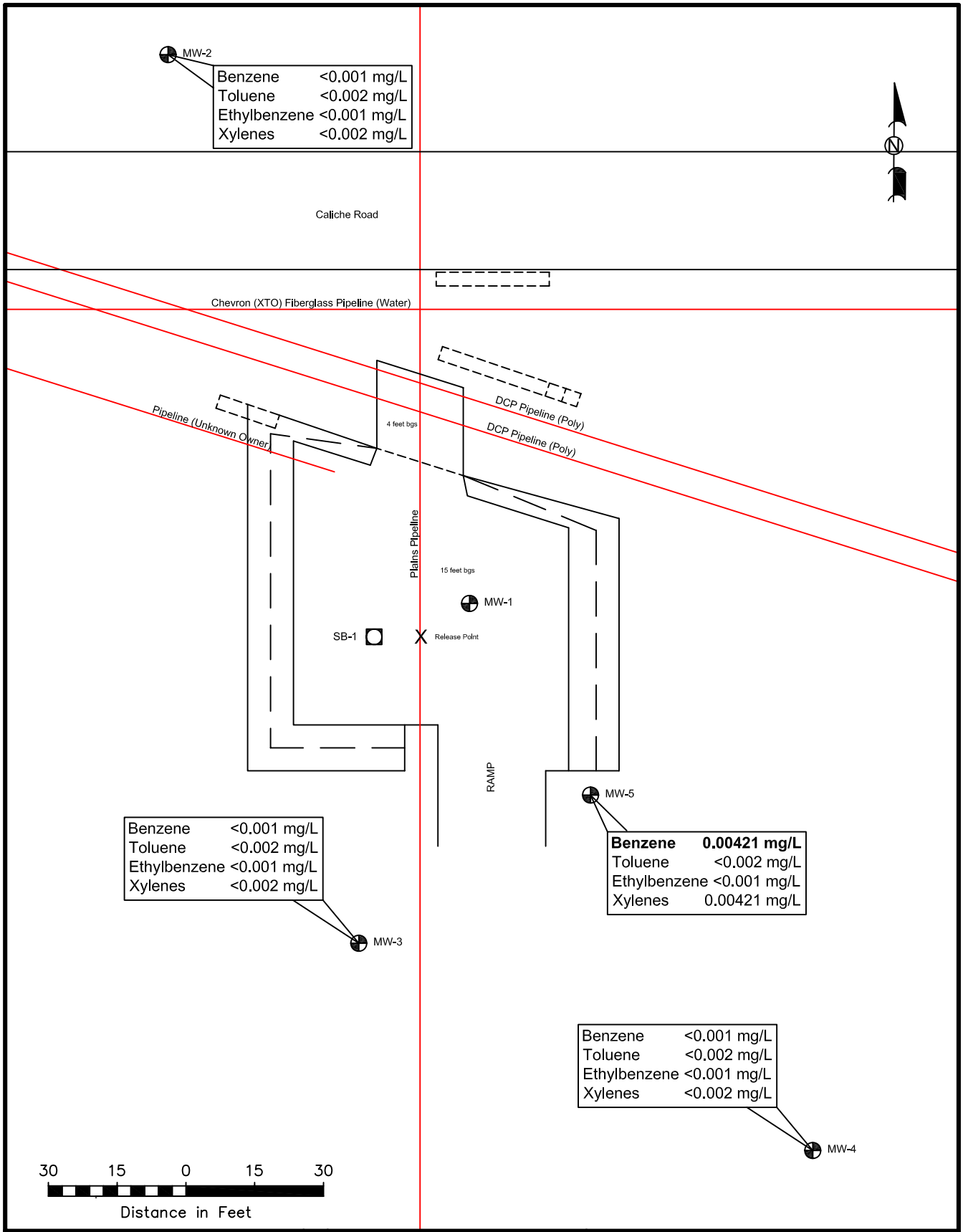
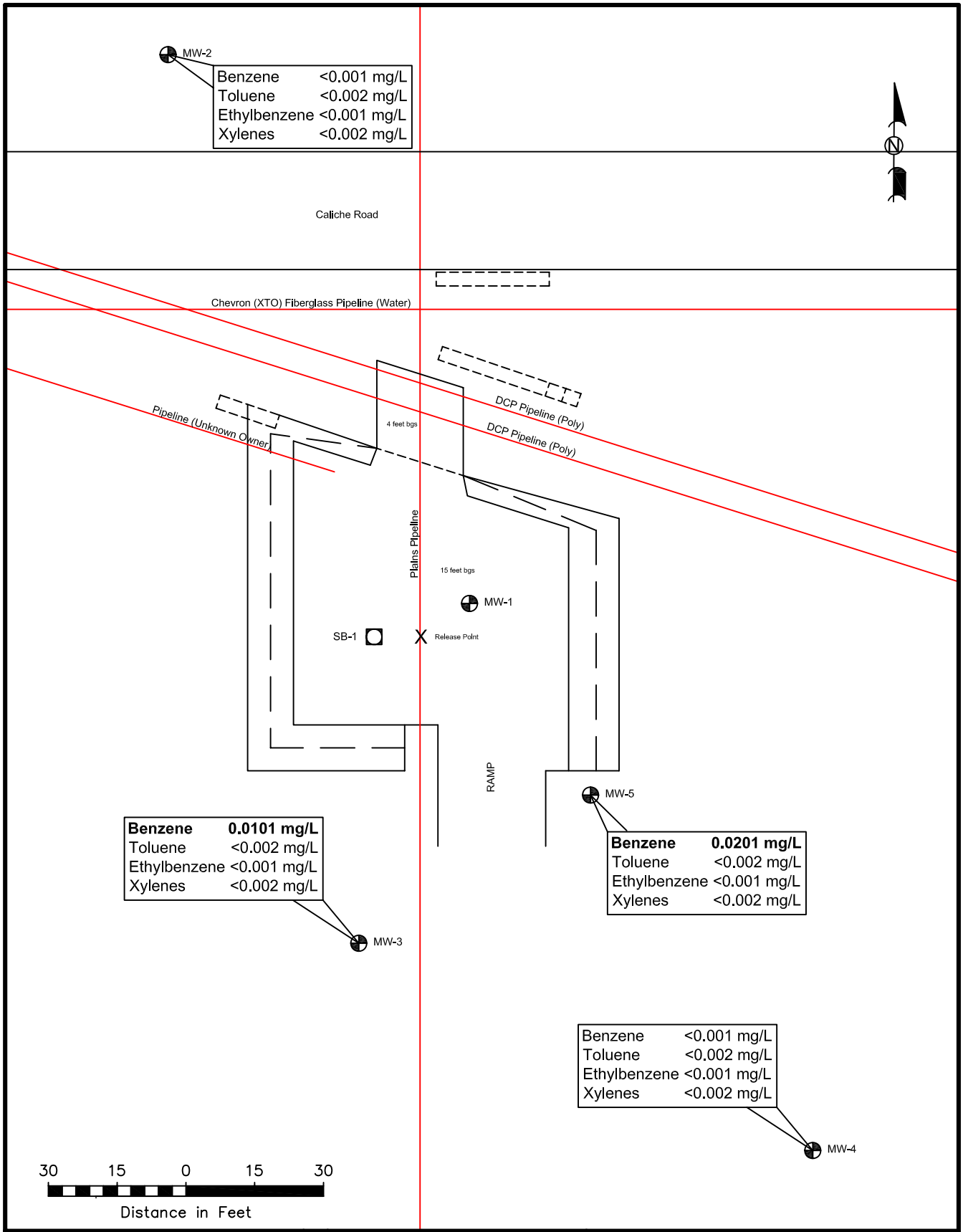


LEGEND:
- Excavation Extent
- Pipeline
- Soil Boring
- Monitor Well
- <0.001 Constituent Concentration (mg/L)

Figure 3A
Groundwater Concentration & Inferred PSH Extent Map
(2/5/2013)
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch Sec 31
Lea County, NM
1RP-2166

Basin Environmental Service Technologies, LLC

Scale: 1" = 30'	Drawn By: BJA	Prepared By: BJA
April 5, 2013		



LEGEND:
- Excavation Extent
- Pipeline
- Soil Boring
- Monitor Well
- <0.001 Constituent Concentration (mg/L)

Figure 3B
Groundwater Concentration & Inferred PSH Extent Map
(5/30/2013)
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch Sec 31
Lea County, NM
1RP-2166

Basin Environmental Service Technologies, LLC

Scale: 1" = 30'	Drawn By: BJA	Prepared By: BJA
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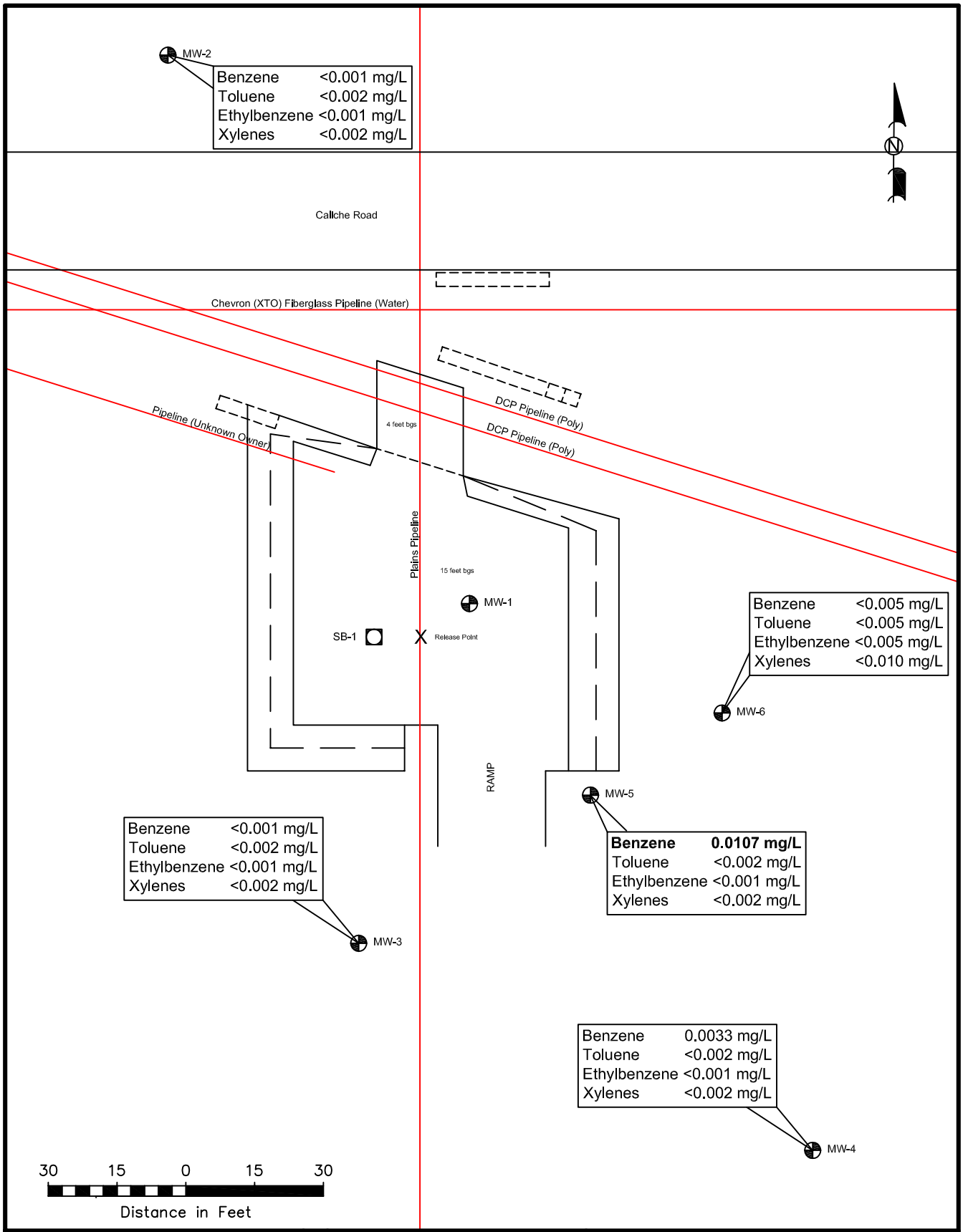

LEGEND:
Excavation Extent
Pipeline
Soil Boring
Monitor Well
<0.001 Constituent Concentration (mg/L)

Figure 3C
Groundwater Concentration & Inferred PSH Extent Map
3Q2013
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch Sec 31
Lea County, NM
1RP-2166

Basin Environmental Service Technologies, LLC

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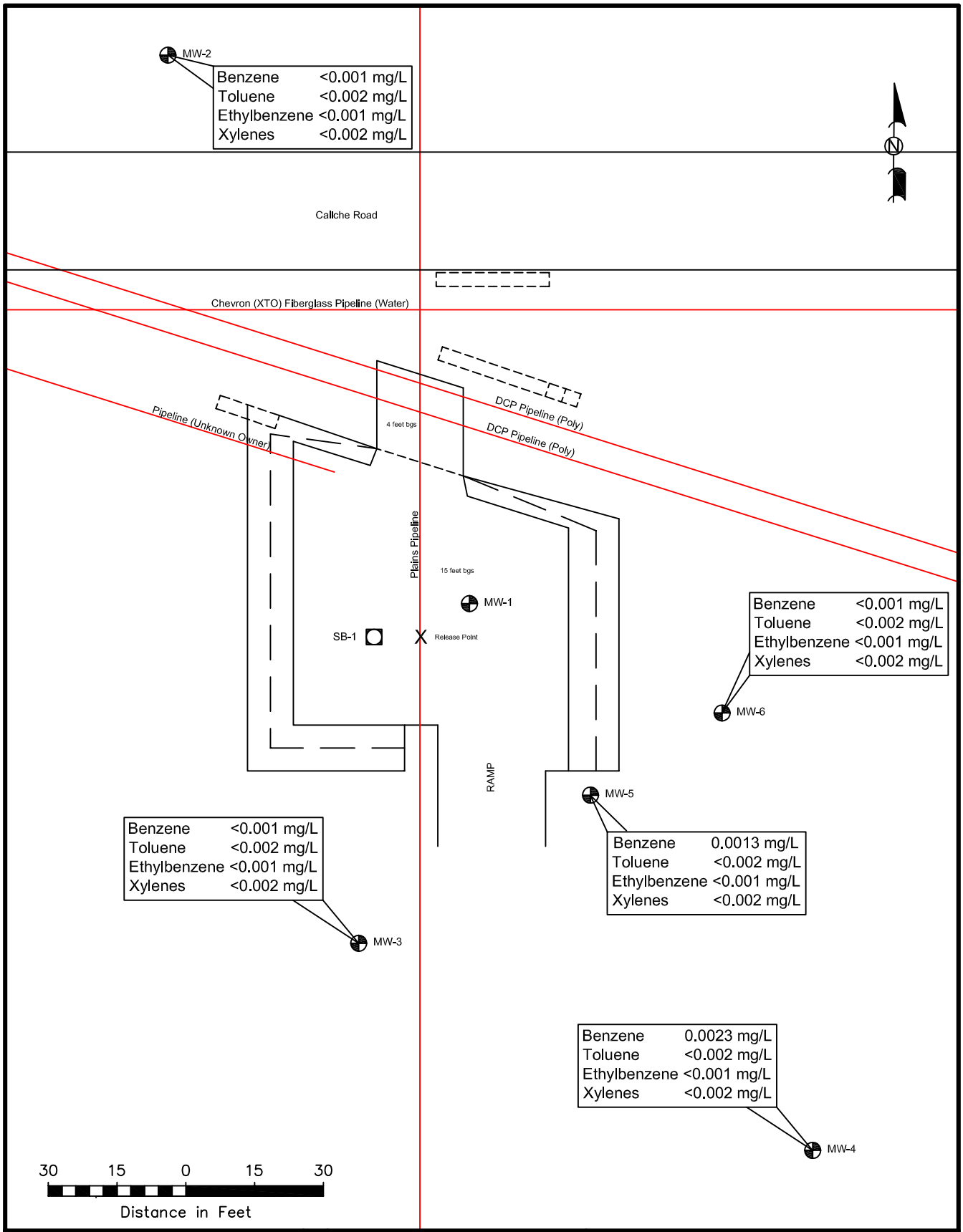

LEGEND:
- Excavation Extent
- Pipeline
- Soil Boring
- Monitor Well
- <0.001 Constituent Concentration (mg/L)

Figure 3D
Groundwater Concentration & Inferred PSH Extent Map
4Q2013
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch Sec 31
Lea County, NM
1RP-2166

Basin Environmental Service Technologies, LLC

Scale: 1" = 30'	Drawn By: BJA	Prepared By: BJA
January 22, 2014		

Tables

TABLE 1
2013 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
PLAINS SRS NO: 2009-084
NMOCD REF NO: 1RP-2166

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	2/5/2013	3,539.59	79.95	82.80	2.85	3,459.21
	5/30/2013	3,539.59	83.64	86.23	2.59	3,455.56
	8/5/2013	3,539.59	*	*	*	*
	11/13/2013	3,539.59	*	*	*	*
MW-2	2/5/2013	3,539.37	-	82.75	-	3,456.62
	5/30/2013	3,539.37	-	82.90	-	3,456.47
	8/5/2013	3,539.37	-	82.91	-	3,456.46
	11/13/2013	3,539.37	-	82.89	-	3,456.48
MW-3	2/5/2013	3,539.28	-	83.08	-	3,456.20
	5/30/2013	3,539.28	-	83.21	-	3,456.07
	8/5/2013	3,539.28	-	83.20	-	3,456.08
	11/13/2013	3,539.28	-	83.24	-	3,456.04
MW-4	2/5/2013	3,540.07	-	84.13	-	3,455.94
	5/30/2013	3,540.07	-	84.28	-	3,455.79
	8/5/2013	3,540.07	-	84.25	-	3,455.82
	11/13/2013	3,540.07	-	84.29	-	3,455.78
MW-5	2/5/2013	3,539.90	-	83.80	-	3,456.10
	5/30/2013	3,539.90	-	83.89	-	3,456.01
	8/5/2013	3,539.90	-	83.85	-	3,456.05
	11/13/2013	3,539.90	-	83.92	-	3,455.98
MW-6	9/25/2013	3540.82	-	83.80	-	3,457.02
	11/13/2013	3540.82	-	84.79	-	3,456.03

- = Not applicable

Elevations based on the North American Vertical Datum of 1988

** Due to the presence of a Mobile Dual Phase Extraction (MDPE) unit, monitor well MW-1 was not gauged during the 4Q2012 & 3Q2013 quarterly monitoring events.*

TABLE 2
2013 CONCENTRATIONS OF BENZENE & BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
PLAINS SRS NO. 2009-084
NMOCD REFERENCE NO: 1RP-2166

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8260b						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-2	02/05/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/30/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	08/05/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/13/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
MW-3	02/05/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/30/13	**0.0101**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0101
	08/05/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/13/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
MW-4	02/05/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/30/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	08/05/13	0.0033	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0033
	11/13/13	0.0023	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0023
MW-5	02/05/13	0.0042	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0042
	05/30/13	**0.0201**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0201
	08/05/13	**0.0107**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0107
	11/13/13	0.0013	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0013
MW-6	09/25/13	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050	<0.0100	<0.0100
	11/13/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
NMOCD CRITERIA		**0.01**	**0.75**	**0.75**	**TOTAL XYLENES 0.62**			

TABLE 3

CONCENTRATIONS OF RCRA & NMWQCC METALS IN GROUNDWATER

PLAINS PIPELINE, L.P.

DCP PLANT TO LEA STATION 6-INCH SEC. 31

LEA COUNTY, NEW MEXICO

NMOCD REFERENCE NUMBER 1RP-2166

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE		EPA SW846-6020A, EPA 7470A															
		Aluminum	Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Molybdenum	Nickel	Selenium	Silver	Zinc	Mercury
MW-6	9/26/2013	0.869	0.0265	0.0361	0.50	<0.010	49.0	<0.010	<0.020	0.517	0.0138	0.027	0.0429	<0.010	<0.020	<0.020	<0.030	<0.00020
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		5.0 mg/L	0.1 mg/L	1.0 mg/L	0.75 mg/L	0.01 mg/L	0.05 mg/L	0.05 mg/L	1.0 mg/L	1.0 mg/L	0.05 mg/L	0.2 mg/L	1.0 mg/L	0.2 mg/L	0.05 mg/L	0.05 mg/L	10 mg/L	0.002 mg/L

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
PLAINS PIPELINE, LP
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R9-2136

All water concentrations are in mg/L

Date Sampled	Sample Location	Acetone	Acrylonitrile	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone	MTBE	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane
9/26/2013	MW-6	<0.1	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		-	-	0.01 mg/L	-	-	-	-	-	-	-	-	-	-	-	0.01 mg/L	-	-

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
PLAINS PIPELINE, LP
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2166

All water concentrations are in mg/L

Date Sampled	Sample Location	2-Chloroethyl vinyl ether	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	p-Cymene(p-Isopropyltoluene)	Dibromochloromethane	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	Dibromomethane (methylene bromide)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluormethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene
9/26/2013	MW-6	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		-	0.1mg/L	-	-	-	-	-	-	0.0001 mg/L	-	-	-	-	-	0.005 mg/L	0.01 mg/L	0.005 mg/L	0.1mg/L

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
PLAINS PIPELINE, LP
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2166

All water concentrations are in mg/L

Date Sampled	Sample Location	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	Methylene chloride	4-Methyl-2-pentanone (MIBK)	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane
9/26/2013	MW-6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.05	<0.01	<0.005	<0.005	<0.005
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		-	-	-	-	-	-	-	0.75 mg/L	-	-	-	0.1mg/L	-	0.03 mg/L	-	-	-

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
PLAINS PIPELINE, LP
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2166

All water concentrations are in mg/L

Date Sampled	Sample Location	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	o-Xylene	m,p-Xylene	Vinyl Chloride
9/26/2013	MW-6	<0.005	<0.005	0.0458	<0.0099	<0.0099	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00597	0.0115	<0.0020
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		**0.02 mg/L**	**-**	**0.75 mg/L**	**-**	**-**	**0.06 mg/L**	**-**	**0.01 mg/ L**	**-**	**-**	**-**	**-**	**Total Xylene 0.62 mg/L**		**0.001 mg/L**

TABLE 5

CONCENTRATIONS OF SEMI-VOLATILE COMPOUNDS IN GROUNDWATER

PLAINS PIPELINE, L.P.
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
PLAINS SRS NO: 2009-084
NMOCD REF NO: 1RP-2166

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(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
MW-5	12/23/13	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	0.000535	<0.000049	<0.000049

TABLE 6
CONCENTRATIONS OF ANIONS/CATIONS IN GROUNDWATER
PLAINS PIPELINE, L.P.
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2166

All water concentrations are reported in mg/L

SAMPLE DATE	SAMPLE LOCATION	EPA SW375.4, 325,3, 310, 160.1 SW846 6010B										
		Calcium	Magnesium	Potassium	Sodium	Chloride	Sulfate	Bicarbonate	Carbonate	Nitrate	Phosphate	Flouride
9/26/2013	MW-6	49.0	21.7	7.19	155	**80.1**	288	201	<4.00	0.178	<0.0408	**2.21**
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		-	-	-	-	**250 mg/L**	**600 mg/L**	-	-	**10 mg/L**	-	**1.6 mg/L**

Appendices

Appendix A
Laboratory Analytical Reports

Analytical Report 457048

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

DCP Plant to Lea Station 6" Sec.31 SRS#2009-084

12-FEB-13

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

12-FEB-13

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

Reference: XENCO Report No(s): **457048**
DCP Plant to Lea Station 6" Sec.31 SRS#2009-084
Project Address: Lovington

Ben Arguijo:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 457048. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 457048 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Alejandro Montoya
New Mexico Laboratory Director

Sample Cross Reference 457048

PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6" Sec.31 SRS#2009-084

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	02-05-13 13:15		457048-001
MW-3	W	02-05-13 12:40		457048-002
MW-4	W	02-05-13 12:00		457048-003
MW-5	W	02-05-13 11:20		457048-004

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 457048

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" Sec.31 SRS#2009-084

Project Id:
Contact: Ben Arguijo
Project Location: Lovington

Date Received in Lab: Wed Feb-06-13 09:44 am
Report Date: 12-FEB-13
Project Manager: Nicholas Straccione

Analysis Requested													
	Lab Id:	457048-001		457048-002		457048-003		457048-004					
	Field Id:	MW-2		MW-3		MW-4		MW-5					
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER					
	Sampled:	Feb-05-13 13:15		Feb-05-13 12:40		Feb-05-13 12:00		Feb-05-13 11:20					
BTEX by EPA 8021B	***Extracted:***	Feb-11-13 12:00		Feb-11-13 12:00		Feb-11-13 12:00		Feb-11-13 12:00					
	Analyzed:	Feb-11-13 13:43		Feb-11-13 16:42		Feb-11-13 14:15		Feb-11-13 14:31					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Benzene		ND	0.00100	ND	0.00100	ND	0.00100	0.00421	0.00100				
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
m_p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Total Xylenes		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Total BTEX		ND	0.00100	ND	0.00100	ND	0.00100	0.00421	0.00100				

Alejandro Montoya
New Mexico Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantiation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave, Phoenix, AZ 85040	(602) 437-0330	

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" Sec.31 SRS#2009-084

Work Orders : 457048,

Project ID:

Lab Batch #: 906720 **Sample:** 457048-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/11/13 13:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 906720 **Sample:** 457048-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/11/13 14:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 906720 **Sample:** 457048-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/11/13 14:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 906720 **Sample:** 457048-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/11/13 16:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0253	0.0300	84	80-120	

Lab Batch #: 906720 **Sample:** 633678-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/11/13 13:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" Sec.31 SRS#2009-084

Work Orders : 457048,

Project ID:

Lab Batch #: 906720 **Sample:** 633678-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/11/13 12:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0249	0.0300	83	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 906720 **Sample:** 633678-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/11/13 13:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 906720 **Sample:** 457048-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/11/13 18:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0.0300	111	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 906720 **Sample:** 457048-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/11/13 19:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0314	0.0300	105	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec.31 SRS#2009-084

Work Order #: 457048 **Project ID:**

Analyst: KEB **Date Prepared:** 02/11/2013 **Date Analyzed:** 02/11/2013

Lab Batch ID: 906720 **Sample:** 633678-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0914	91	0.100	0.103	103	12	70-125	25	
Toluene	<0.00200	0.100	0.0907	91	0.100	0.101	101	11	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0913	91	0.100	0.103	103	12	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.174	87	0.200	0.200	100	14	70-131	25	
o-Xylene	<0.00100	0.100	0.0897	90	0.100	0.100	100	11	71-133	25	

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

Form 3 - MS / MSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec.31 SRS#2009-084

Work Order # : 457048 **Project ID:**

Lab Batch ID: 906720 **QC- Sample ID:** 457048-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 02/11/2013 **Date Prepared:** 02/11/2013 **Analyst:** KEB

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0893	89	0.100	0.104	104	15	70-125	25	
Toluene	<0.00200	0.100	0.0887	89	0.100	0.0961	96	8	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0915	92	0.100	0.0966	97	5	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.176	88	0.200	0.182	91	3	70-131	25	
o-Xylene	<0.00100	0.100	0.0828	83	0.100	0.0953	95	14	71-133	25	

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

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

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

CHAIN OF CUSTODY RECORD

XENCO Laboratories — Environmental Asbestos Radiochemistry

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800
Hobbs: 4008 N Grimes Hobbs, NM 88240 (575)392-7550

Page 1 of 1

LAB W.O #: 457048

Field billable Hrs :

Company: Basin Environmental Service Technologies, LLC		Phone: (575)396-2378	
Address: 3100 Plains Hwy.		Fax: (575)396-1429	
City: Lovington	State: NM	Zip: 88260	
PM/Attn: Ben Arguijo	Email:	bjarguijo@basinenv.com	
Project ID: DCP Plant to Lea Station 6" Sec. 31 SRS #2009-084		PO#: PAA-J. Henry	
Invoice To: Jason Henry Plains All American		Quote #:	

TAT Work Days = D Need results by:________ Time:________
Std (5-7D) 5Hrs 1D 2D 3D 4D (5D 7D) 10D 14D Other________

Sampler Signature: [signature]

Circle One Event: Daily Weekly Monthly (Quartely) Semi-Annual Annual N/A

Container Type Codes
VA Vial Amber; VC Vial Clear; VP Vial Pre-preserved; GA Glass Amber; GC Glass Clear; PA Plastic Amber; PC Plastic Clear; Other
ES Encore Sampler; TS TerraCore Sampler; AC Air Canister; TB Tedlar Bag; ZB Zip Lock Bag; PC Plastic Clear
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal 40ml, 125 ml, 250 ml, 500 ml, 1L, Other

Preservative Type Codes
A. None B. HNO_3 C. H_2SO_4 D. NaOH (E. HCl) F. MeOH G. $Na_2S_2O_3$ H. $NaHSO_4$ (I. Ice) J. MCAA K. ZnAc&NaOH L Asbc Acid&NaOH O.

Matrix Type Codes
(GW Ground Water) ~~WW Waste Water~~ DW Drinking Water SW Surface Water OW Ocean/Sea Water PL Product-Liquid PS Product-Solid SL Sludge Other
S Soil/Sediment/Solid W Wipe A Air O Oil T Tissue U Urine B Blood

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code	Field Filtered	Integrity OK (Y/N)	Total # of containers	Example Volatiles by 8260	TPH	BTEX	Chloride							Hold Sample (CALL) Run PAH on Highest TPH Only	REMARKS
Cont Type								VG		VP									
Pres Type								E,I		E,I									
								# Cont	Lab Only:										
1	MW-2	2/5/13	13:15	GW			3			X									
2	MW-3	2/5/13	12:40	GW			3			X									
3	MW-4	2/5/13	12:00	GW			3			X									
4	MW-5	2/5/13	11:20	GW			3			X									
5																			
6																			
7																			
8																			
9																			
0																			

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1 1.6 2 3

#	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[signature]	Basin Env	2.5.13	15:30	[signature]	MS	2/5/13	3:32
2								
3								
4					[signature]	Xenco	2/6/13	9:44

Lab Use Only	YES	NO	N/A
Non-Conformances found?			✓
Samples intact upon arrival?	✓		
Received on Wet Ice?	✓		
Labeled with proper preservatives?	✓		
Received within holding time?	✓		
Custody seals intact?	✓		
VOCs rec'd w/o headspace?	✓		
Proper containers used?	✓		
pH verified-acceptable, excl VOCs?	✓		✓
Received on time to meet HTs?	✓		

C.O.C. Serial #

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330
FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

Execution of this document by client creates a legal and binding agreement between client and Xenco for analytical and testing services provided by Xenco to client under Xenco's standard terms and conditions unless previously agreed in writing. Terms of payment are Net 30 days, and all past due amounts shall accrue interest at 1.5% per month until paid in full. All laboratory analytical data and reports generated by Xenco remain the exclusive property of Xenco until invoices for such data are paid in full. *Revision Date: Nov 12, 2009*

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 02/06/2013 09:44:00 AM

Work Order #: 457048

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6 *Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**Yes**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**Yes**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**Yes**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:	PH Device/Lot#:

Checklist completed by: _____ Date: _____

Checklist reviewed by: _____ Date: _____

Analytical Report 464200

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

DCP Plant to lea Staction 6" Sec. 31

2009-084

06-JUN-13

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

06-JUN-13

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

Reference: XENCO Report No(s): **464200**
DCP Plant to lea Staction 6" Sec. 31
Project Address: Lea County, NM

Ben Arguijo:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 464200. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 464200 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 464200

PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to lea Staction 6" Sec. 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	05-30-13 09:20		464200-001
MW-3	W	05-30-13 09:30		464200-002
MW-4	W	05-30-13 09:40		464200-003
MW-5	W	05-30-13 10:20		464200-004

CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: DCP Plant to lea Staction 6" Sec. 31

Project ID:	*2009-084*	Report Date:	*06-JUN-13*
Work Order Number(s):	*464200*	Date Received:	*05/30/2013*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-915358 BTEX by EPA 8021B
SW8021BM

Batch 915358, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 464200-001, -003.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Certificate of Analysis Summary 464200

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to lea Staction 6" Sec. 31

Project Id: 2009-084
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Thu May-30-13 04:09 pm
Report Date: 06-JUN-13
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	464200-001		464200-002		464200-003		464200-004					
	Field Id:	MW-2		MW-3		MW-4		MW-5					
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER					
	Sampled:	May-30-13 09:20		May-30-13 09:30		May-30-13 09:40		May-30-13 10:20					
BTEX by EPA 8021B	***Extracted:***	Jun-04-13 11:30		Jun-04-13 11:30		Jun-04-13 11:30		Jun-04-13 11:30					
	Analyzed:	Jun-04-13 13:51		Jun-04-13 14:07		Jun-04-13 14:23		Jun-05-13 03:33					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Benzene		ND	0.00100	0.0101	0.00100	ND	0.00100	0.0201	0.00100				
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
m,p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Total Xylenes		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Total BTEX		ND	0.00100	0.0101	0.00100	ND	0.00100	0.0201	0.00100				

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantiation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to lea Staction 6" Sec. 31

Work Orders : 464200, 464200 **Project ID:** 2009-084

Lab Batch #: 915358 **Sample:** 464200-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/04/13 13:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 915358 **Sample:** 464200-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/04/13 14:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 915358 **Sample:** 464200-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/04/13 14:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 915358 **Sample:** 464200-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/05/13 03:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 915358 **Sample:** 639146-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/04/13 13:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to lea Staction 6" Sec. 31

Work Orders : 464200, 464200 **Project ID:** 2009-084

Lab Batch #: 915358 **Sample:** 639146-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/04/13 12:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 915358 **Sample:** 639146-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/04/13 12:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

Lab Batch #: 915358 **Sample:** 464200-004 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/04/13 14:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 915358 **Sample:** 464200-004 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/04/13 15:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0347	0.0300	116	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: DCP Plant to lea Staction 6" Sec. 31

Work Order #: 464200, 464200 **Project ID:** 2009-084

Analyst: DYV **Date Prepared:** 06/04/2013 **Date Analyzed:** 06/04/2013

Lab Batch ID: 915358 **Sample:** 639146-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.107	107	0.100	0.106	106	1	70-125	25	
Toluene	<0.00200	0.100	0.106	106	0.100	0.111	111	5	70-125	25	
Ethylbenzene	<0.00100	0.100	0.118	118	0.100	0.118	118	0	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.215	108	0.200	0.220	110	2	70-131	25	
o-Xylene	<0.00100	0.100	0.107	107	0.100	0.106	106	1	71-133	25	

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

Form 3 - MS / MSD Recoveries

Project Name: DCP Plant to lea Staction 6" Sec. 31

Work Order # : 464200 **Project ID:** 2009-084

Lab Batch ID: 915358 **QC- Sample ID:** 464200-004 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 06/04/2013 **Date Prepared:** 06/04/2013 **Analyst:** DYV

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.0201	0.100	0.117	97	0.100	0.118	98	1	70-125	25	
Toluene	<0.00200	0.100	0.105	105	0.100	0.109	109	4	70-125	25	
Ethylbenzene	<0.00100	0.100	0.112	112	0.100	0.114	114	2	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.211	106	0.200	0.226	113	7	70-131	25	
o-Xylene	<0.00100	0.100	0.103	103	0.100	0.113	113	9	71-133	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

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

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Xenco Laboratories

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Ben J. Arguijo

Company Name: Basin Environmental Service Technologies, LLC

Company Address: P.O. Box 301

City/State/Zip: Lovington, NM 88260

Telephone No: (575)396-2378 Fax No: (575) 396-1429

Sampler Signature:

e-mail: pm@basinenv.com

Project Name: DCP Plant to Lea Staction 6" Sec. 31

Project #: 2009-084

Project Loc: Lea County, NM

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 464200

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludg GW=Groundwater S=Soil/Soil NP=Non-Potable Specify Othe	Analyze For: TCLP: TOTAL: TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260 X	RCI	N.O.R.M.	CHLORIDES	Total Dissolved Solids	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT 4 DAY
	MW-2			5/30/2013	9:20		3	X		X						GW									X						X
	MW-3			5/30/2013	9:30		3	X		X						GW									X						X
	MW-4			5/30/2013	9:40		3	X		X						GW									X						X
	MW-5			5/30/2013	10:20		3	X		X						GW									X						X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
	5/30/13	4:09	Perla Resendiz	5-30-13	4:00
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Shawnee Smith	5-31-13	11:00

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 10.0 1.5 °C

Final 1.000

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 05/30/2013 04:09:00 PM

Work Order #: 464200

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6 *Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**Yes**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**Yes**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**Yes**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:	PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 06/03/2013

Checklist reviewed by: Kelsey Brooks Date: 06/03/2013

Analytical Report 468120

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijjo

DCP Plant to Lea Station 6'' Sec. 31

SRS#2009-084

13-AUG-13

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-13-14-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

13-AUG-13

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

Reference: XENCO Report No(s): **468120**
DCP Plant to Lea Station 6'' Sec. 31
Project Address: Lovington, NM

Ben Arguijjo:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 468120. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 468120 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 468120

PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6" Sec. 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	08-05-13 09:30		468120-001
MW-3	W	08-05-13 10:00		468120-002
MW-4	W	08-05-13 10:30		468120-003
MW-5	W	08-05-13 11:00		468120-004

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 468120

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6'' Sec. 31

Project Id: SRS#2009-084
Contact: Ben Arguijjo
Project Location: Lovington, NM

Date Received in Lab: Wed Aug-07-13 02:00 pm
Report Date: 13-AUG-13
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	468120-001		468120-002		468120-003		468120-004					
	Field Id:	MW-2		MW-3		MW-4		MW-5					
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER					
	Sampled:	Aug-05-13 09:30		Aug-05-13 10:00		Aug-05-13 10:30		Aug-05-13 11:00					
BTEX by EPA 8021	***Extracted:***	Aug-12-13 09:00		Aug-12-13 09:00		Aug-09-13 09:00		Aug-09-13 09:00					
	Analyzed:	Aug-12-13 12:29		Aug-12-13 15:27		Aug-09-13 12:15		Aug-09-13 12:31					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Benzene		ND	0.00100	ND	0.00100	0.00331	0.00100	0.0107	0.00100				
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
m_p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Xylenes, Total		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Total BTEX		ND	0.00100	ND	0.00100	0.00331	0.00100	0.0107	0.00100				

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantiation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6'' Sec. 31

Work Orders : 468120,

Project ID: SRS#2009-084

Lab Batch #: 920355 **Sample:** 468120-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/09/13 12:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0249	0.0300	83	80-120	

Lab Batch #: 920355 **Sample:** 468120-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/09/13 12:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0250	0.0300	83	80-120	

Lab Batch #: 920411 **Sample:** 468120-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/12/13 12:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	80-120	
4-Bromofluorobenzene	0.0248	0.0300	83	80-120	

Lab Batch #: 920411 **Sample:** 468120-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/12/13 15:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0247	0.0300	82	80-120	

Lab Batch #: 920355 **Sample:** 642345-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/09/13 10:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0244	0.0300	81	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6'' Sec. 31

Work Orders : 468120, **Project ID:** SRS#2009-084

Lab Batch #: 920411 **Sample:** 642386-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/12/13 11:40

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0249	0.0300	83	80-120	

Lab Batch #: 920355 **Sample:** 642345-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/09/13 09:46

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0350	0.0300	117	80-120	
4-Bromofluorobenzene	0.0255	0.0300	85	80-120	

Lab Batch #: 920411 **Sample:** 642386-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/12/13 10:53

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 920355 **Sample:** 642345-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/09/13 10:02

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	0.0300	114	80-120	
4-Bromofluorobenzene	0.0253	0.0300	84	80-120	

Lab Batch #: 920411 **Sample:** 642386-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/12/13 11:08

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0351	0.0300	117	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6'' Sec. 31

Work Orders : 468120,

Project ID: SRS#2009-084

Lab Batch #: 920355 **Sample:** 468122-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/09/13 13:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0359	0.0300	120	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 920411 **Sample:** 468120-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/12/13 14:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0357	0.0300	119	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 920355 **Sample:** 468122-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/09/13 13:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0350	0.0300	117	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 920411 **Sample:** 468120-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/12/13 14:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: DCP Plant to Lea Station 6'' Sec. 31

Work Order #: 468120 **Project ID:** SRS#2009-084

Analyst: KEB **Date Prepared:** 08/09/2013 **Date Analyzed:** 08/09/2013

Lab Batch ID: 920355 **Sample:** 642345-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0978	98	0.100	0.0970	97	1	70-125	25	
Toluene	<0.00200	0.100	0.0912	91	0.100	0.0911	91	0	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0900	90	0.100	0.0905	91	1	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.178	89	0.200	0.179	90	1	70-131	25	
o-Xylene	<0.00100	0.100	0.0894	89	0.100	0.0898	90	0	71-133	25	

Analyst: KEB **Date Prepared:** 08/12/2013 **Date Analyzed:** 08/12/2013

Lab Batch ID: 920411 **Sample:** 642386-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.103	103	0.100	0.105	105	2	70-125	25	
Toluene	<0.00200	0.100	0.0950	95	0.100	0.0966	97	2	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0929	93	0.100	0.0945	95	2	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.184	92	0.200	0.187	94	2	70-131	25	
o-Xylene	<0.00100	0.100	0.0914	91	0.100	0.0928	93	2	71-133	25	

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

Form 3 - MS / MSD Recoveries

Project Name: DCP Plant to Lea Station 6'' Sec. 31

Work Order # : 468120 **Project ID:** SRS#2009-084

Lab Batch ID: 920355 **QC- Sample ID:** 468122-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 08/09/2013 **Date Prepared:** 08/09/2013 **Analyst:** KEB

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.107	107	0.100	0.102	102	5	70-125	25	
Toluene	<0.00200	0.100	0.0990	99	0.100	0.0955	96	4	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0999	100	0.100	0.0970	97	3	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.196	98	0.200	0.192	96	2	70-131	25	
o-Xylene	<0.00100	0.100	0.0991	99	0.100	0.0973	97	2	71-133	25	

Lab Batch ID: 920411 **QC- Sample ID:** 468120-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 08/12/2013 **Date Prepared:** 08/12/2013 **Analyst:** KEB

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.109	109	0.100	0.108	108	1	70-125	25	
Toluene	<0.00200	0.100	0.0998	100	0.100	0.0995	100	0	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0970	97	0.100	0.0967	97	0	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.192	96	0.200	0.192	96	0	70-131	25	
o-Xylene	<0.00100	0.100	0.0955	96	0.100	0.0957	96	0	71-133	25	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 08/07/2013 02:00:00 PM

Work Order #: 468120

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6 *Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**Yes**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**Yes**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:	PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 08/07/2013

Checklist reviewed by: Kelsey Brooks Date: 08/07/2013

CHAIN OF CUSTODY RECORD

XENCO Laboratories
Environmental Asbestos Radiochemistry
Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800
Hobbs: 4008 N Grimes Hobbs, NM 88240 (575)392-7550

LAB W.O#: 468120

Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington	State: NM	Zip: 88260
PM/Attn:	Ben Arguijo	Email:	bjarguijo@basinenv.com
Project ID:	DCP Plant to Lea Station 6" Sec. 31 SRS #2009-084	PO#:	PAA-J. Henry
Invoice To:	Jason Henry Plains All American	Quote #:	
Sampler Signature:		Circle One Event: Daily Weekly Monthly Quartely Semi-Annual Annual N/A	

TAT Work Days = D Need results by:_____ Time: _____

Std (5-7D) 5Hrs 1D 2D 3D 4D **5D 7D** 10D 14D Other_____

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Example Volatiles by 8260	TPH	BTEX	Chloride							Hold Sample (CALL) Run PAH on Highest TPH Only If
							# Cont	Lab Only:										
							Cont Type * VC			VP								
							Pres Type** E, I			E,I								
1	MW-2	8/5/13	9:30	GW			3			X								
2	MW-3	8/5/13	10:00	GW			3			X								
3	MW-4	8/5/13	10:30	GW			3			X								
4	MW-5	8/5/13	11:00	GW			3			X								
5																		
6																		
7																		
8																		
9																		
0																		

* Container Type Codes

VA Vial Amber ES Encore Sampler
VC Vial Clear TS TerraCore Sampler
VP Vial Pre-preserved AC Air Canister
GA Glass Amber TB Tedlar Bag
GC Glass Clear ZB Zip Lock Bag
PA Plastic Amber PC Plastic Clear
PC Plastic Clear
Other _____

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz , 1Gal 40ml, 125 ml, 250 ml, 500 ml, 1L, Other _____

** Preservative Type Codes

A. None E. HCL I. Ice
B. HNO_3 F. MeOH J. MCAA C.
H_2SO_4 G. $Na_2S_2O_3$ K. ZnAc&NaOH
D. NaOH H. $NaHSO_4$ L Asbc Acid&NaOH
O. _____

^ Matrix Type Codes

GW Ground Water S Soil/Sediment/Solid
WW Waste Water W Wipe
DW Drinking Water A Air
SW Surface Water O Oil
OW Ocean/Sea Water T Tissue
PL Product-Liquid U Urine
PS Product-Solid B Blood
SL Sludge
Other

REMARKS

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 **2** 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1 1.0°C 2 3 1.0

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1			8-6-13	8:40	Perla Resendo		8-6-13	8:40
2								
3								
4					Bill Rhincon		8-7-13	14:00

Lab Use Only	YES	NO	N/A
Non-Conformances found?			
Samples intact upon arrival?			
Received on Wet Ice?			
Labeled with proper preservatives?			
Received within holding time?			
Custody seals intact?			
VOCs rec'd w/o headspace?			
Proper containers used?			
pH verified-acceptable, excl VOCs?			
Received on time to meet HTs?			

C.O.C. Serial #

 Revision Date: Nov 12, 2009

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 08/07/2013 02:00:00 PM

Work Order #: 468120

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Air and Metal samples Acceptable Range: Ambient

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*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:	PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 08/07/2013

Checklist reviewed by: Kelsey Brooks Date: 08/07/2013

Analytical Report 471130

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

DCP Plant to Lea Station 6" Sec. 31

SRS#2009-084

02-OCT-13

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-13-15-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

02-OCT-13

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

Reference: XENCO Report No(s): **471130**
DCP Plant to Lea Station 6" Sec. 31
Project Address: Lea County, NM

Ben Arguijo:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 471130. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 471130 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 471130

PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6" Sec. 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-6	W	09-26-13 01:30		471130-001

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-923833 Inorganic Anions by EPA 300/300.1
E300

Batch 923833, Fluoride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 471130-001.
The Laboratory Control Sample for Fluoride is within laboratory Control Limits

Batch: LBA-923979 TCLP SVOCs
SW8270C

Batch 923979, 3,3-Dichlorobenzidine, 4-Chloroaniline, Aniline (Phenylamine, Aminobenzene), Phenol recovered below QC limits in the Matrix Spike. Benzoic Acid, di-n-Octyl Phthalate recovered above QC limits in the Matrix Spike.
Samples affected are: 471130-001.
The Laboratory Control Sample for Benzoic Acid, 4-Chloroaniline, di-n-Octyl Phthalate, Aniline (Phenylamine, Aminobenzene), 3,3-Dichlorobenzidine, Phenol is within laboratory Control Limits

SW8270C

Batch 923979, Benzo(b)fluoranthene recovered above QC limits in the Blank Spike Duplicate.
Samples affected are: 471130-001.

Certificate of Analysis Summary 471130

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" Sec. 31

Project Id: SRS#2009-084
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Thu Sep-26-13 04:03 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested								
	Lab Id:	471130-001						
	Field Id:	MW-6						
	Depth:							
	Matrix:	WATER						
	Sampled:	Sep-26-13 01:30						
Alkalinity by SM2320B SUB: TX104704215	***Extracted:***							
	Analyzed:	Oct-01-13 11:29						
	Units/RL:	mg/L	RL					
Alkalinity, Bicarbonate (as CaCO3)		201	4.00					
Alkalinity, Carbonate (as CaCO3)		ND	4.00					
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	***Extracted:***	Sep-27-13 10:30						
	Analyzed:	Sep-27-13 19:32						
	Units/RL:	mg/L	RL					
Chloride		80.1	1.00					
Fluoride		2.21	0.100					
Nitrite as N		0.178	0.0300					
Sulfate		255	1.00					
Orthophosphate (as P)		ND	0.0408					
Mercury by SW-846 7470A SUB: TX104704215	***Extracted:***	Sep-30-13 11:15						
	Analyzed:	Sep-30-13 16:42						
	Units/RL:	mg/L	RL					
Mercury		ND	0.000200					

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471130

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" Sec. 31

Project Id: SRS#2009-084
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Thu Sep-26-13 04:03 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	471130-001					
	Field Id:	MW-6					
	Depth:						
	Matrix:	WATER					
	Sampled:	Sep-26-13 01:30					
Metals per ICP by EPA 200.7 SUB: TX104704215	***Extracted:***	Sep-27-13 09:00					
	Analyzed:	Sep-30-13 14:51					
	Units/RL:	mg/L	RL				
Aluminum		0.869	0.200				
Arsenic		0.0265	0.0200				
Barium		0.0361	0.0100				
Boron		0.503	0.0500				
Cadmium		ND	0.0100				
Calcium		49.0	0.200				
Chromium		ND	0.0100				
Cobalt		ND	0.0100				
Copper		ND	0.0200				
Iron		0.517	0.200				
Lead		0.0138	0.0100				
Magnesium		21.7	0.200				
Manganese		0.0274	0.0200				
Molybdenum		0.0429	0.0100				
Nickel		ND	0.0100				
Potassium		7.19	0.500				
Selenium		0.0897	0.0300				
Silver		ND	0.0200				
Sodium		155	0.500				
Zinc		ND	0.0300				

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471130

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" Sec. 31

Project Id: SRS#2009-084
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Thu Sep-26-13 04:03 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	471130-001					
	Field Id:	MW-6					
	Depth:						
	Matrix:	WATER					
	Sampled:	Sep-26-13 01:30					
SVOAs by SW-846 8270C **SUB: TX104704215**	***Extracted:***	Sep-30-13 10:27					
	Analyzed:	Sep-30-13 19:35					
	Units/RL:	mg/L RL					
1,2,4-Trichlorobenzene		ND 0.00500					
1,2-Dichlorobenzene		ND 0.00500					
1,3-Dichlorobenzene		ND 0.00500					
1,4-Dichlorobenzene		ND 0.00500					
2,4,5-Trichlorophenol		ND 0.00500					
2,4,6-Trichlorophenol		ND 0.00500					
2,4-Dichlorophenol		ND 0.00500					
2,4-Dimethylphenol		ND 0.00500					
2,4-Dinitrophenol		ND 0.0100					
2,4-Dinitrotoluene		ND 0.00500					
2,6-Dinitrotoluene		ND 0.00500					
2-Chloronaphthalene		ND 0.00500					
2-Chlorophenol		ND 0.00500					
2-Methylnaphthalene		ND 0.00500					
2-methylphenol		ND 0.00500					
2-Nitroaniline		ND 0.0100					
2-Nitrophenol		ND 0.00500					
3&4-Methylphenol		ND 0.00500					
3,3-Dichlorobenzidine		ND 0.0100					
3-Nitroaniline		ND 0.0100					
4,6-dinitro-2-methyl phenol		ND 0.0100					
4-Bromophenyl-phenylether		ND 0.00500					
4-chloro-3-methylphenol		ND 0.00500					
4-Chloroaniline		ND 0.0100					
4-Chlorophenyl Phenyl Ether		ND 0.00500					

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Certificate of Analysis Summary 471130

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" Sec. 31

Project Id: SRS#2009-084
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Thu Sep-26-13 04:03 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	471130-001					
	Field Id:	MW-6					
	Depth:						
	Matrix:	WATER					
	Sampled:	Sep-26-13 01:30					
SVOAs by SW-846 8270C	***Extracted:***	Sep-30-13 10:27					
SUB: TX104704215	***Analyzed:***	Sep-30-13 19:35					
	Units/RL:	mg/L RL					
4-Nitroaniline		ND 0.0100					
4-Nitrophenol		ND 0.0100					
Acenaphthene		ND 0.00500					
Acenaphthylene		ND 0.00500					
Aniline (Phenylamine, Aminobenzene)		ND 0.0100					
Anthracene		ND 0.00500					
Benzo(a)anthracene		ND 0.00500					
Benzo(a)pyrene		ND 0.00500					
Benzo(b)fluoranthene		ND 0.00500					
Benzo(g,h,i)perylene		ND 0.00500					
Benzo(k)fluoranthene		ND 0.00500					
Benzoic Acid		ND 0.0300					
Benzyl Butyl Phthalate		ND 0.00500					
bis(2-chloroethoxy) methane		ND 0.00500					
bis(2-chloroethyl) ether		ND 0.00500					
bis(2-chloroisopropyl) ether		ND 0.00500					
bis(2-ethylhexyl) phthalate		ND 0.00500					
Chrysene		ND 0.00500					
Dibenz(a,h)anthracene		ND 0.00500					
Dibenzofuran		ND 0.00500					
Diethylphthalate		ND 0.00500					
Dimethyl Phthalate		ND 0.00500					
Di-n-butylphthalate		ND 0.00500					
di-n-Octyl Phthalate		ND 0.00500					
Fluoranthene		ND 0.00500					

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471130

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" Sec. 31

Project Id: SRS#2009-084
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Thu Sep-26-13 04:03 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	471130-001					
	Field Id:	MW-6					
	Depth:						
	Matrix:	WATER					
	Sampled:	Sep-26-13 01:30					
SVOAs by SW-846 8270C **SUB: TX104704215**	***Extracted:***	Sep-30-13 10:27					
	Analyzed:	Sep-30-13 19:35					
	Units/RL:	mg/L RL					
Fluorene		ND 0.00500					
Hexachlorobenzene		ND 0.00500					
Hexachlorobutadiene		ND 0.00500					
Hexachlorocyclopentadiene		ND 0.00500					
Hexachloroethane		ND 0.00500					
Indeno(1,2,3-c,d)Pyrene		ND 0.00500					
Isophorone		ND 0.00500					
Naphthalene		ND 0.00500					
Nitrobenzene		ND 0.00500					
N-Nitrosodi-n-Propylamine		ND 0.00500					
N-Nitrosodiphenylamine		ND 0.00500					
Pentachlorophenol		ND 0.0100					
Phenanthrene		ND 0.00500					
Phenol		ND 0.0100					
Pyrene		ND 0.00500					
Pyridine		ND 0.0100					

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471130

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" Sec. 31

Project Id: SRS#2009-084
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Thu Sep-26-13 04:03 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	471130-001					
	Field Id:	MW-6					
	Depth:						
	Matrix:	WATER					
	Sampled:	Sep-26-13 01:30					
VOAs by SW-846 8260B	***Extracted:***	Sep-30-13 16:41					
SUB: TX104704215	***Analyzed:***	Sep-30-13 17:31					
	Units/RL:	mg/L RL					
Benzene		ND 0.00500					
Bromobenzene		ND 0.00500					
Bromochloromethane		ND 0.00500					
Bromodichloromethane		ND 0.00500					
Bromoform		ND 0.00500					
Methyl bromide		ND 0.00500					
n-Butylbenzene		ND 0.00500					
Sec-Butylbenzene		ND 0.00500					
tert-Butylbenzene		ND 0.00500					
Carbon Tetrachloride		ND 0.00500					
Chlorobenzene		ND 0.00500					
Chloroethane		ND 0.0100					
Chloroform		ND 0.00500					
Methyl Chloride		ND 0.0100					
2-Chlorotoluene		ND 0.00500					
4-Chlorotoluene		ND 0.00500					
p-Cymene (p-Isopropyltoluene)		ND 0.00500					
Dibromochloromethane		ND 0.00500					
1,2-Dibromo-3-Chloropropane		ND 0.00500					
1,2-Dibromoethane		ND 0.00500					
Methylene bromide		ND 0.00500					
1,2-Dichlorobenzene		ND 0.00500					
1,3-Dichlorobenzene		ND 0.00500					
1,4-Dichlorobenzene		ND 0.00500					
Dichlorodifluoromethane		ND 0.00500					

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471130

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" Sec. 31

Project Id: SRS#2009-084
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Thu Sep-26-13 04:03 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	471130-001					
	Field Id:	MW-6					
	Depth:						
	Matrix:	WATER					
	Sampled:	Sep-26-13 01:30					
VOAs by SW-846 8260B	***Extracted:***	Sep-30-13 16:41					
SUB: TX104704215	***Analyzed:***	Sep-30-13 17:31					
	Units/RL:	mg/L RL					
1,1-Dichloroethane		ND 0.00500					
1,2-Dichloroethane		ND 0.00500					
1,1-Dichloroethene		ND 0.00500					
cis-1,2-Dichloroethylene		ND 0.00500					
trans-1,2-dichloroethylene		ND 0.00500					
1,2-Dichloropropane		ND 0.00500					
1,3-Dichloropropane		ND 0.00500					
2,2-Dichloropropane		ND 0.00500					
1,1-Dichloropropene		ND 0.00500					
cis-1,3-Dichloropropene		ND 0.00500					
trans-1,3-dichloropropene		ND 0.00500					
Ethylbenzene		ND 0.00500					
Hexachlorobutadiene		ND 0.00500					
Isopropylbenzene		ND 0.00500					
Methylene Chloride		ND 0.00500					
MTBE		ND 0.00500					
Naphthalene		ND 0.0100					
n-Propylbenzene		ND 0.00500					
Styrene		ND 0.00500					
1,1,1,2-Tetrachloroethane		ND 0.00500					
1,1,2,2-Tetrachloroethane		ND 0.00500					
Tetrachloroethylene		ND 0.00500					
Toluene		ND 0.00500					
1,2,3-Trichlorobenzene		ND 0.00500					
1,2,4-Trichlorobenzene		ND 0.00500					

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471130

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" Sec. 31

Project Id: SRS#2009-084
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Thu Sep-26-13 04:03 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	471130-001					
	Field Id:	MW-6					
	Depth:						
	Matrix:	WATER					
	Sampled:	Sep-26-13 01:30					
VOAs by SW-846 8260B	***Extracted:***	Sep-30-13 16:41					
SUB: TX104704215	***Analyzed:***	Sep-30-13 17:31					
	Units/RL:	mg/L RL					
1,1,1-Trichloroethane		ND 0.00500					
1,1,2-Trichloroethane		ND 0.00500					
Trichloroethylene		ND 0.00500					
Trichlorofluoromethane		ND 0.00500					
1,2,3-Trichloropropane		ND 0.00500					
1,2,4-Trimethylbenzene		ND 0.00500					
1,3,5-Trimethylbenzene		ND 0.00500					
o-Xylene		ND 0.00500					
m,p-Xylenes		ND 0.0100					
Vinyl Chloride		ND 0.00200					

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantiation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Orders : 471130,

Project ID: SRS#2009-084

Lab Batch #: 924014 **Sample:** 471130-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/30/13 17:31

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0502	0.0500	100	75-131	
1,2-Dichloroethane-D4	0.0510	0.0500	102	63-144	
Toluene-D8	0.0508	0.0500	102	80-117	
4-Bromofluorobenzene	0.0488	0.0500	98	74-124	

Lab Batch #: 923979 **Sample:** 471130-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/30/13 19:35

SVOAs by SW-846 8270C Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorophenol	19.2	50.0	38	30-100	
Phenol-d6	11.5	50.0	23	15-94	
Nitrobenzene-d5	36.4	50.0	73	46-111	
2-Fluorobiphenyl	38.7	50.0	77	44-117	
2,4,6-Tribromophenol	42.8	50.0	86	48-117	
Terphenyl-D14	46.7	50.0	93	46-126	

Lab Batch #: 924014 **Sample:** 644634-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/30/13 15:52

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0527	0.0500	105	75-131	
1,2-Dichloroethane-D4	0.0513	0.0500	103	63-144	
Toluene-D8	0.0505	0.0500	101	80-117	
4-Bromofluorobenzene	0.0484	0.0500	97	74-124	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Orders : 471130,

Project ID: SRS#2009-084

Lab Batch #: 923979 **Sample:** 644548-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/30/13 17:56

SURROGATE RECOVERY STUDY

SVOAs by SW-846 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorophenol	31.6	50.0	63	30-100	
Phenol-d6	23.0	50.0	46	15-94	
Nitrobenzene-d5	39.1	50.0	78	46-111	
2-Fluorobiphenyl	41.7	50.0	83	44-117	
2,4,6-Tribromophenol	43.2	50.0	86	48-117	
Terphenyl-D14	46.5	50.0	93	46-126	

Lab Batch #: 924014 **Sample:** 644634-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/30/13 14:32

SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0485	0.0500	97	75-131	
1,2-Dichloroethane-D4	0.0483	0.0500	97	63-144	
Toluene-D8	0.0511	0.0500	102	80-117	
4-Bromofluorobenzene	0.0482	0.0500	96	74-124	

Lab Batch #: 923979 **Sample:** 644548-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/30/13 18:16

SURROGATE RECOVERY STUDY

SVOAs by SW-846 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorophenol	30.2	50.0	60	30-100	
Phenol-d6	21.2	50.0	42	15-94	
Nitrobenzene-d5	40.1	50.0	80	46-111	
2-Fluorobiphenyl	43.3	50.0	87	44-117	
2,4,6-Tribromophenol	47.4	50.0	95	48-117	
Terphenyl-D14	46.6	50.0	93	46-126	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Orders : 471130,

Project ID: SRS#2009-084

Lab Batch #: 923979 **Sample:** 644548-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/30/13 18:36

SURROGATE RECOVERY STUDY

SVOAs by SW-846 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorophenol	29.8	50.0	60	30-100	
Phenol-d6	20.4	50.0	41	15-94	
Nitrobenzene-d5	40.8	50.0	82	46-111	
2-Fluorobiphenyl	44.2	50.0	88	44-117	
2,4,6-Tribromophenol	49.3	50.0	99	48-117	
Terphenyl-D14	47.3	50.0	95	46-126	

Lab Batch #: 924014 **Sample:** 470823-001 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 09/30/13 17:55

SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0498	0.0500	100	75-131	
1,2-Dichloroethane-D4	0.0487	0.0500	97	63-144	
Toluene-D8	0.0510	0.0500	102	80-117	
4-Bromofluorobenzene	0.0474	0.0500	95	74-124	

Lab Batch #: 923979 **Sample:** 471065-001 S / MS **Batch:** 1 **Matrix:** Solid

Units: mg/L **Date Analyzed:** 10/01/13 16:23

SURROGATE RECOVERY STUDY

SVOAs by SW-846 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorophenol	38.8	50.0	78	30-100	
Phenol-d6	8.00	50.0	16	15-94	
Nitrobenzene-d5	39.7	50.0	79	46-111	
2-Fluorobiphenyl	38.2	50.0	76	44-117	
2,4,6-Tribromophenol	49.6	50.0	99	48-117	
Terphenyl-D14	45.2	50.0	90	46-126	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Orders : 471130,

Project ID: SRS#2009-084

Lab Batch #: 924014 **Sample:** 470823-001 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 09/30/13 18:19

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0511	0.0500	102	75-131	
1,2-Dichloroethane-D4	0.0493	0.0500	99	63-144	
Toluene-D8	0.0512	0.0500	102	80-117	
4-Bromofluorobenzene	0.0474	0.0500	95	74-124	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Blank Spike Recovery

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 471130 **Project ID:** SRS#2009-084

Lab Batch #: 923833 **Sample:** 644470-1-BKS **Matrix:** Water

Date Analyzed: 09/27/2013 **Date Prepared:** 09/27/2013 **Analyst:** RKO

Reporting Units: mg/L **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<1.00	100	96.2	96	90-110	
Fluoride	<0.100	4.00	3.75	94	90-110	
Nitrite as N	<0.0300	6.08	6.07	100	90-110	
Sulfate	<1.00	100	97.5	98	90-110	

Lab Batch #: 923947 **Sample:** 644569-1-BKS **Matrix:** Water

Date Analyzed: 09/30/2013 **Date Prepared:** 09/30/2013 **Analyst:** ANS

Reporting Units: mg/L **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

Mercury by SW-846 7470A Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Mercury	<0.000200	0.00200	0.00212	106	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Blank Spike Recovery

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 471130 **Project ID:** SRS#2009-084

Lab Batch #: 924014 **Sample:** 644634-1-BKS **Matrix:** Water

Date Analyzed: 09/30/2013 **Date Prepared:** 09/30/2013 **Analyst:** ZHO

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene	<0.00500	0.0500	0.0465	93	68-123	
Bromobenzene	<0.00500	0.0500	0.0466	93	83-124	
Bromochloromethane	<0.00500	0.0500	0.0450	90	68-119	
Bromodichloromethane	<0.00500	0.0500	0.0484	97	72-132	
Bromoform	<0.00500	0.0500	0.0464	93	65-136	
Methyl bromide	<0.00500	0.0500	0.0489	98	48-120	
n-Butylbenzene	<0.00500	0.0500	0.0499	100	82-128	
Sec-Butylbenzene	<0.00500	0.0500	0.0495	99	83-130	
tert-Butylbenzene	<0.00500	0.0500	0.0484	97	83-131	
Carbon Tetrachloride	<0.00500	0.0500	0.0477	95	68-135	
Chlorobenzene	<0.00500	0.0500	0.0448	90	78-124	
Chloroethane	<0.0100	0.0500	0.0482	96	55-120	
Chloroform	<0.00500	0.0500	0.0471	94	71-119	
Methyl Chloride	<0.0100	0.0500	0.0441	88	54-114	
2-Chlorotoluene	<0.00500	0.0500	0.0460	92	83-128	
4-Chlorotoluene	<0.00500	0.0500	0.0474	95	81-125	
p-Cymene (p-Isopropyltoluene)	<0.00500	0.0500	0.0490	98	85-129	
Dibromochloromethane	<0.00500	0.0500	0.0471	94	74-135	
1,2-Dibromo-3-Chloropropane	<0.00500	0.0500	0.0443	89	62-134	
1,2-Dibromoethane	<0.00500	0.0500	0.0462	92	77-129	
Methylene bromide	<0.00500	0.0500	0.0480	96	71-124	
1,2-Dichlorobenzene	<0.00500	0.0500	0.0468	94	81-123	
1,3-Dichlorobenzene	<0.00500	0.0500	0.0467	93	82-126	
1,4-Dichlorobenzene	<0.00500	0.0500	0.0458	92	80-119	
Dichlorodifluoromethane	<0.00500	0.0500	0.0403	81	59-121	
1,1-Dichloroethane	<0.00500	0.0500	0.0458	92	75-125	
1,2-Dichloroethane	<0.00500	0.0500	0.0484	97	64-130	
1,1-Dichloroethene	<0.00500	0.0500	0.0447	89	68-116	
cis-1,2-Dichloroethylene	<0.00500	0.0500	0.0460	92	74-130	
trans-1,2-dichloroethylene	<0.00500	0.0500	0.0443	89	64-109	
1,2-Dichloropropane	<0.00500	0.0500	0.0486	97	72-127	
1,3-Dichloropropane	<0.00500	0.0500	0.0460	92	79-133	
2,2-Dichloropropane	<0.00500	0.0500	0.0506	101	71-134	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Blank Spike Recovery

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 471130 **Project ID:** SRS#2009-084

Lab Batch #: 924014 **Sample:** 644634-1-BKS **Matrix:** Water

Date Analyzed: 09/30/2013 **Date Prepared:** 09/30/2013 **Analyst:** ZHO

Reporting Units: mg/L **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
1,1-Dichloropropene	<0.00500	0.0500	0.0470	94	69-124	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0483	97	74-138	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0498	100	70-132	
Ethylbenzene	<0.00500	0.0500	0.0461	92	69-131	
Hexachlorobutadiene	<0.00500	0.0500	0.0473	95	74-130	
Isopropylbenzene	<0.00500	0.0500	0.0484	97	66-133	
Methylene Chloride	<0.00500	0.0500	0.0382	76	60-121	
MTBE	<0.00500	0.100	0.0958	96	60-152	
Naphthalene	<0.0100	0.0500	0.0488	98	69-140	
n-Propylbenzene	<0.00500	0.0500	0.0474	95	86-129	
Styrene	<0.00500	0.0500	0.0462	92	79-128	
1,1,1,2-Tetrachloroethane	<0.00500	0.0500	0.0462	92	78-131	
1,1,2,2-Tetrachloroethane	<0.00500	0.0500	0.0491	98	80-133	
Tetrachloroethylene	<0.00500	0.0500	0.0450	90	79-122	
Toluene	<0.00500	0.0500	0.0467	93	62-132	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0479	96	76-126	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0491	98	77-127	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0479	96	72-124	
1,1,2-Trichloroethane	<0.00500	0.0500	0.0485	97	71-135	
Trichloroethylene	<0.00500	0.0500	0.0465	93	74-123	
Trichlorofluoromethane	<0.00500	0.0500	0.0459	92	70-143	
1,2,3-Trichloropropane	<0.00500	0.0500	0.0474	95	75-134	
1,2,4-Trimethylbenzene	<0.00500	0.0500	0.0479	96	79-132	
1,3,5-Trimethylbenzene	<0.00500	0.0500	0.0486	97	72-139	
o-Xylene	<0.00500	0.0500	0.0456	91	67-132	
m,p-Xylenes	<0.0100	0.100	0.0926	93	69-132	
Vinyl Chloride	<0.00200	0.0500	0.0473	95	59-124	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 471130 **Project ID:** SRS#2009-084

Analyst: MKO **Date Prepared:** 09/27/2013 **Date Analyzed:** 09/30/2013

Lab Batch ID: 923948 **Sample:** 644458-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Metals per ICP by EPA 200.7 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Aluminum	<0.200	5.00	5.19	104	5.00	5.17	103	0	85-115	20	
Arsenic	<0.0200	1.00	1.02	102	1.00	1.02	102	0	85-115	20	
Barium	<0.0100	1.00	0.971	97	1.00	0.974	97	0	85-115	20	
Boron	<0.0500	1.00	1.07	107	1.00	1.07	107	0	85-115	20	
Cadmium	<0.0100	1.00	0.981	98	1.00	0.980	98	0	85-115	20	
Calcium	<0.200	25.0	24.5	98	25.0	24.4	98	0	85-115	20	
Chromium	<0.0100	1.00	1.01	101	1.00	1.02	102	1	85-115	20	
Cobalt	<0.0100	1.00	1.02	102	1.00	1.02	102	0	85-115	20	
Copper	<0.0200	1.00	0.996	100	1.00	0.998	100	0	85-115	20	
Iron	<0.200	5.00	5.23	105	5.00	5.11	102	2	85-115	20	
Lead	<0.0100	1.00	1.04	104	1.00	1.04	104	0	85-115	20	
Magnesium	<0.200	25.0	25.5	102	25.0	24.5	98	4	85-115	20	
Manganese	<0.0200	1.00	0.946	95	1.00	0.954	95	1	85-115	20	
Molybdenum	<0.0100	1.00	1.04	104	1.00	1.04	104	0	85-115	20	
Nickel	<0.0100	1.00	1.06	106	1.00	1.07	107	1	85-115	20	
Potassium	<0.500	10.0	10.5	105	10.0	10.4	104	1	85-115	20	
Selenium	<0.0300	1.00	1.04	104	1.00	1.04	104	0	85-115	20	
Silver	<0.0200	0.500	0.494	99	0.500	0.491	98	1	85-115	20	
Sodium	<0.500	25.0	26.4	106	25.0	26.2	105	1	85-115	20	
Zinc	<0.0300	1.00	1.00	100	1.00	1.00	100	0	85-115	20	

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

BS / BSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 471130 **Project ID:** SRS#2009-084

Analyst: CYE **Date Prepared:** 09/30/2013 **Date Analyzed:** 09/30/2013

Lab Batch ID: 923979 **Sample:** 644548-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

SVOAs by SW-846 8270C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0415	83	0.0500	0.0413	83	0	34-117	30	
1,2-Dichlorobenzene	<0.00500	0.0500	0.0412	82	0.0500	0.0403	81	2	38-111	30	
1,3-Dichlorobenzene	<0.00500	0.0500	0.0408	82	0.0500	0.0402	80	1	37-111	30	
1,4-Dichlorobenzene	<0.00500	0.0500	0.0405	81	0.0500	0.0399	80	1	37-111	30	
2,4,5-Trichlorophenol	<0.00500	0.0500	0.0461	92	0.0500	0.0466	93	1	39-125	30	
2,4,6-Trichlorophenol	<0.00500	0.0500	0.0452	90	0.0500	0.0455	91	1	42-125	30	
2,4-Dichlorophenol	<0.00500	0.0500	0.0433	87	0.0500	0.0429	86	1	38-120	30	
2,4-Dimethylphenol	<0.00500	0.0500	0.0413	83	0.0500	0.0419	84	1	39-117	30	
2,4-Dinitrophenol	<0.0100	0.0500	0.0347	69	0.0500	0.0377	75	8	13-152	40	
2,4-Dinitrotoluene	<0.00500	0.0500	0.0430	86	0.0500	0.0433	87	1	41-128	30	
2,6-Dinitrotoluene	<0.00500	0.0500	0.0430	86	0.0500	0.0434	87	1	42-127	30	
2-Chloronaphthalene	<0.00500	0.0500	0.0216	43	0.0500	0.0215	43	0	40-118	30	
2-Chlorophenol	<0.00500	0.0500	0.0402	80	0.0500	0.0393	79	2	41-108	30	
2-Methylnaphthalene	<0.00500	0.0500	0.0297	59	0.0500	0.0298	60	0	37-112	30	
2-methylphenol	<0.00500	0.0500	0.0376	75	0.0500	0.0368	74	2	36-105	30	
2-Nitroaniline	<0.0100	0.0500	0.0423	85	0.0500	0.0429	86	1	34-121	40	
2-Nitrophenol	<0.00500	0.0500	0.0418	84	0.0500	0.0421	84	1	38-125	30	
3&4-Methylphenol	<0.00500	0.0500	0.0362	72	0.0500	0.0347	69	4	35-96	30	
3,3-Dichlorobenzidine	<0.0100	0.0500	0.0466	93	0.0500	0.0480	96	3	29-141	40	
3-Nitroaniline	<0.0100	0.0500	0.0421	84	0.0500	0.0422	84	0	42-123	40	

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

BS / BSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 471130
Analyst: CYE
Lab Batch ID: 923979
Sample: 644548-1-BKS
Batch #: 1
Units: mg/L

Date Prepared: 09/30/2013

Project ID: SRS#2009-084
Date Analyzed: 09/30/2013
Matrix: Water

SVOAs by SW-846 8270C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
4,6-dinitro-2-methyl phenol	<0.0100	0.0500	0.0439	88	0.0500	0.0467	93	6	12-157	40	
4-Bromophenyl-phenylether	<0.00500	0.0500	0.0458	92	0.0500	0.0463	93	1	40-126	30	
4-chloro-3-methylphenol	<0.00500	0.0500	0.0427	85	0.0500	0.0426	85	0	40-119	30	
4-Chloroaniline	<0.0100	0.0500	0.0382	76	0.0500	0.0393	79	3	39-111	40	
4-Chlorophenyl Phenyl Ether	<0.00500	0.0500	0.0422	84	0.0500	0.0436	87	3	40-122	30	
4-Nitroaniline	<0.0100	0.0500	0.0413	83	0.0500	0.0416	83	1	42-125	40	
4-Nitrophenol	<0.0100	0.0500	0.0272	54	0.0500	0.0270	54	1	14-82	40	
Acenaphthene	<0.00500	0.0500	0.0422	84	0.0500	0.0428	86	1	41-116	30	
Acenaphthylene	<0.00500	0.0500	0.0419	84	0.0500	0.0424	85	1	41-118	30	
Aniline (Phenylamine, Aminobenzene)	<0.0100	0.0500	0.0326	65	0.0500	0.0327	65	0	31-100	40	
Anthracene	<0.00500	0.0500	0.0437	87	0.0500	0.0444	89	2	39-127	30	
Benzo(a)anthracene	<0.00500	0.0500	0.0455	91	0.0500	0.0467	93	3	40-129	30	
Benzo(a)pyrene	<0.00500	0.0500	0.0617	123	0.0500	0.0626	125	1	36-141	30	
Benzo(b)fluoranthene	<0.00500	0.0500	0.0649	130	0.0500	0.0724	145	11	34-139	30	H
Benzo(g,h,i)perylene	<0.00500	0.0500	0.0648	130	0.0500	0.0652	130	1	32-141	30	
Benzo(k)fluoranthene	<0.00500	0.0500	0.0568	114	0.0500	0.0525	105	8	31-139	30	
Benzoic Acid	<0.0300	0.150	0.0542	36	0.150	0.0658	44	19	27-71	50	
Benzyl Butyl Phthalate	<0.00500	0.0500	0.0462	92	0.0500	0.0459	92	1	44-133	30	
bis(2-chloroethoxy) methane	<0.00500	0.0500	0.0403	81	0.0500	0.0408	82	1	36-113	30	
bis(2-chloroethyl) ether	<0.00500	0.0500	0.0405	81	0.0500	0.0399	80	1	38-111	30	

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

BS / BSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 471130
Analyst: CYE
Lab Batch ID: 923979
Sample: 644548-1-BKS
Units: mg/L

Date Prepared: 09/30/2013
Batch #: 1

Project ID: SRS#2009-084
Date Analyzed: 09/30/2013
Matrix: Water

SVOAs by SW-846 8270C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
bis(2-chloroisopropyl) ether	<0.00500	0.0500	0.0397	79	0.0500	0.0388	78	2	32-110	30	
bis(2-ethylhexyl) phthalate	<0.00500	0.0500	0.0471	94	0.0500	0.0475	95	1	44-136	30	
Chrysene	<0.00500	0.0500	0.0468	94	0.0500	0.0469	94	0	41-124	30	
Dibenz(a,h)anthracene	<0.00500	0.0500	0.0653	131	0.0500	0.0667	133	2	35-143	30	
Dibenzofuran	<0.00500	0.0500	0.0429	86	0.0500	0.0434	87	1	41-119	30	
Diethylphthalate	<0.00500	0.0500	0.0430	86	0.0500	0.0445	89	3	41-125	30	
Dimethyl Phthalate	<0.00500	0.0500	0.0426	85	0.0500	0.0433	87	2	42-123	30	
Di-n-butylphthalate	<0.00500	0.0500	0.0442	88	0.0500	0.0452	90	2	41-133	30	
di-n-Octyl Phthalate	<0.00500	0.0500	0.0639	128	0.0500	0.0642	128	0	34-145	30	
Fluoranthene	<0.00500	0.0500	0.0436	87	0.0500	0.0445	89	2	38-132	30	
Fluorene	<0.00500	0.0500	0.0419	84	0.0500	0.0431	86	3	41-121	30	
Hexachlorobenzene	<0.00500	0.0500	0.0450	90	0.0500	0.0459	92	2	39-128	30	
Hexachlorobutadiene	<0.00500	0.0500	0.0417	83	0.0500	0.0420	84	1	31-120	30	
Hexachlorocyclopentadiene	<0.00500	0.0500	0.0233	47	0.0500	0.0242	48	4	15-117	30	
Hexachloroethane	<0.00500	0.0500	0.0396	79	0.0500	0.0390	78	2	37-109	30	
Indeno(1,2,3-c,d)Pyrene	<0.00500	0.0500	0.0648	130	0.0500	0.0662	132	2	35-141	30	
Isophorone	<0.00500	0.0500	0.0416	83	0.0500	0.0416	83	0	40-115	30	
Naphthalene	<0.00500	0.0500	0.0409	82	0.0500	0.0410	82	0	37-113	30	
Nitrobenzene	<0.00500	0.0500	0.0407	81	0.0500	0.0405	81	0	37-114	30	
N-Nitrosodi-n-Propylamine	<0.00500	0.0500	0.0411	82	0.0500	0.0404	81	2	38-117	30	

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

BS / BSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 471130
Analyst: CYE
Lab Batch ID: 923979
Sample: 644548-1-BKS
Date Prepared: 09/30/2013
Batch #: 1
Project ID: SRS#2009-084
Date Analyzed: 09/30/2013
Matrix: Water
Units: mg/L

SVOAs by SW-846 8270C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
N-Nitrosodiphenylamine	<0.00500	0.0500	0.0438	88	0.0500	0.0453	91	3	40-127	30	
Pentachlorophenol	<0.0100	0.0500	0.0464	93	0.0500	0.0479	96	3	10-137	40	
Phenanthrene	<0.00500	0.0500	0.0430	86	0.0500	0.0442	88	3	39-126	30	
Phenol	<0.0100	0.0500	0.0230	46	0.0500	0.0220	44	4	15-64	40	
Pyrene	<0.00500	0.0500	0.0460	92	0.0500	0.0463	93	1	40-130	30	
Pyridine	<0.0100	0.0500	0.0331	66	0.0500	0.0293	59	12	16-135	40	

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

Form 3 - MS Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 471130
Lab Batch #: 923948
Project ID: SRS#2009-084
Date Analyzed: 09/30/2013
Date Prepared: 09/27/2013
Analyst: MKO
QC- Sample ID: 471130-001 S
Batch #: 1
Matrix: Water
Reporting Units: mg/L

MATRIX / MATRIX SPIKE RECOVERY STUDY

Metals per ICP by EPA 200.7 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Aluminum	0.869	5.00	6.40	111	70-130	
Arsenic	0.0265	1.00	1.08	105	70-130	
Barium	0.0361	1.00	0.995	96	70-130	
Boron	0.503	1.00	1.57	107	70-130	
Cadmium	<0.0100	1.00	0.959	96	70-130	
Calcium	49.0	25.0	73.3	97	70-130	
Chromium	<0.0100	1.00	0.987	99	70-130	
Cobalt	<0.0100	1.00	1.02	102	70-130	
Copper	<0.0200	1.00	1.01	101	70-130	
Iron	0.517	5.00	5.68	103	70-130	
Lead	0.0138	1.00	0.987	97	70-130	
Magnesium	21.7	25.0	45.4	95	70-130	
Manganese	0.0274	1.00	0.999	97	70-130	
Molybdenum	0.0429	1.00	1.08	104	70-130	
Nickel	<0.0100	1.00	1.07	107	70-130	
Potassium	7.19	10.0	18.0	108	70-130	
Selenium	0.0897	1.00	1.13	104	70-130	
Silver	<0.0200	0.500	0.481	96	70-130	
Sodium	155	25.0	179	96	70-130	
Zinc	<0.0300	1.00	0.998	100	70-130	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 471130
Lab Batch #: 923979
Project ID: SRS#2009-084
Date Analyzed: 10/01/2013
Date Prepared: 10/01/2013
Analyst: CYE
QC- Sample ID: 471065-001 S
Batch #: 1
Matrix: Solid
Reporting Units: mg/L

MATRIX / MATRIX SPIKE RECOVERY STUDY

SVOAs by SW-846 8270C Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
1,2,4-Trichlorobenzene	<0.0250	0.250	0.181	72	34-117	
1,2-Dichlorobenzene	<0.0250	0.250	0.181	72	38-111	
1,3-Dichlorobenzene	<0.0250	0.250	0.175	70	37-111	
1,4-Dichlorobenzene	<0.0250	0.250	0.177	71	37-111	
2,4,5-Trichlorophenol	<0.0250	0.250	0.229	92	39-125	
2,4,6-Trichlorophenol	<0.0250	0.250	0.227	91	42-125	
2,4-Dichlorophenol	<0.0250	0.250	0.221	88	38-120	
2,4-Dimethylphenol	<0.0250	0.250	0.221	88	39-117	
2,4-Dinitrophenol	<0.0500	0.250	0.229	92	13-152	
2,4-Dinitrotoluene	<0.0250	0.250	0.216	86	41-128	
2,6-Dinitrotoluene	<0.0250	0.250	0.219	88	42-127	
2-Chloronaphthalene	<0.0250	0.250	0.195	78	40-118	
2-Chlorophenol	<0.0250	0.250	0.207	83	41-108	
2-Methylnaphthalene	<0.0250	0.250	0.184	74	37-112	
2-methylphenol	<0.0250	0.250	0.210	84	36-105	
2-Nitroaniline	<0.0500	0.250	0.231	92	34-121	
2-Nitrophenol	<0.0250	0.250	0.218	87	38-125	
3&4-Methylphenol	<0.0250	0.250	0.210	84	35-96	
3,3-Dichlorobenzidine	<0.0500	0.250	<0.0500	0	29-141	X
3-Nitroaniline	<0.0500	0.250	0.121	48	42-123	
4,6-dinitro-2-methyl phenol	<0.0500	0.250	0.208	83	12-157	
4-Bromophenyl-phenylether	<0.0250	0.250	0.214	86	40-126	
4-chloro-3-methylphenol	<0.0250	0.250	0.223	89	40-119	
4-Chloroaniline	<0.0500	0.250	<0.0500	0	39-111	X
4-Chlorophenyl Phenyl Ether	<0.0250	0.250	0.200	80	40-122	
4-Nitroaniline	<0.0500	0.250	0.169	68	42-125	
4-Nitrophenol	<0.0500	0.250	0.0946	38	14-82	
Acenaphthene	<0.0250	0.250	0.189	76	41-116	
Acenaphthylene	<0.0250	0.250	0.191	76	41-118	
Aniline (Phenylamine, Aminobenzene)	<0.0500	0.250	0.0607	24	31-100	X
Anthracene	<0.0250	0.250	0.212	85	39-127	
Benzo(a)anthracene	<0.0250	0.250	0.219	88	40-129	
Benzo(a)pyrene	<0.0250	0.250	0.298	119	36-141	
Benzo(b)fluoranthene	<0.0250	0.250	0.305	122	34-139	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 471130
Lab Batch #: 923979
Project ID: SRS#2009-084
Date Analyzed: 10/01/2013
Date Prepared: 10/01/2013
Analyst: CYE
QC- Sample ID: 471065-001 S
Batch #: 1
Matrix: Solid
Reporting Units: mg/L

MATRIX / MATRIX SPIKE RECOVERY STUDY

SVOAs by SW-846 8270C Analytes		Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Benzo(g,h,i)perylene	<0.0250	0.250	0.263	105	32-141	
Benzo(k)fluoranthene	<0.0250	0.250	0.321	128	31-139	
Benzoic Acid	0.879	0.750	1.95	143	27-71	X
Benzyl Butyl Phthalate	<0.0250	0.250	0.245	98	44-133	
bis(2-chloroethoxy) methane	<0.0250	0.250	0.204	82	36-113	
bis(2-chloroethyl) ether	<0.0250	0.250	0.201	80	38-111	
bis(2-chloroisopropyl) ether	<0.0250	0.250	0.191	76	32-110	
bis(2-ethylhexyl) phthalate	<0.0250	0.250	0.246	98	44-136	
Chrysene	<0.0250	0.250	0.215	86	41-124	
Dibenz(a,h)anthracene	<0.0250	0.250	0.274	110	35-143	
Dibenzofuran	<0.0250	0.250	0.194	78	41-119	
Diethylphthalate	<0.0250	0.250	0.225	90	41-125	
Dimethyl Phthalate	<0.0250	0.250	0.212	85	42-123	
Di-n-butylphthalate	<0.0250	0.250	0.234	94	41-133	
di-n-Octyl Phthalate	<0.0250	0.250	0.367	147	34-145	X
Fluoranthene	<0.0250	0.250	0.213	85	38-132	
Fluorene	<0.0250	0.250	0.200	80	41-121	
Hexachlorobenzene	<0.0250	0.250	0.198	79	39-128	
Hexachlorobutadiene	<0.0250	0.250	0.182	73	31-120	
Hexachlorocyclopentadiene	<0.0250	0.250	0.0932	37	15-117	
Hexachloroethane	<0.0250	0.250	0.186	74	37-109	
Indeno(1,2,3-c,d)Pyrene	<0.0250	0.250	0.273	109	35-141	
Isophorone	<0.0250	0.250	0.203	81	40-115	
Naphthalene	<0.0250	0.250	0.186	74	37-113	
Nitrobenzene	<0.0250	0.250	0.150	60	37-114	
N-Nitrosodi-n-Propylamine	<0.0250	0.250	0.203	81	38-117	
N-Nitrosodiphenylamine	<0.0250	0.250	0.205	82	40-127	
Pentachlorophenol	<0.0500	0.250	0.278	111	10-137	
Phenanthrene	<0.0250	0.250	0.212	85	39-126	
Phenol	<0.0500	0.250	<0.0500	0	15-64	X
Pyrene	<0.0250	0.250	0.221	88	40-130	
Pyridine	<0.0500	0.250	0.0523	21	16-135	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order # : 471130 **Project ID:** SRS#2009-084

Lab Batch ID: 923833 **QC- Sample ID:** 471125-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 09/27/2013 **Date Prepared:** 09/27/2013 **Analyst:** RKO

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	20.8	100	110	89	100	111	90	1	80-120	20	
Fluoride	0.125	4.00	3.03	73	4.00	3.11	75	3	80-120	20	X
Nitrite as N	0.104	6.08	6.14	99	6.08	6.25	101	2	80-120	20	
Sulfate	2.62	100	99.8	97	100	102	99	2	80-120	20	

Lab Batch ID: 923833 **QC- Sample ID:** 471125-002 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 09/27/2013 **Date Prepared:** 09/27/2013 **Analyst:** RKO

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	26.7	100	115	88	100	116	89	1	80-120	20	
Fluoride	<0.100	4.00	3.09	77	4.00	3.13	78	1	80-120	20	X
Nitrite as N	0.0976	6.08	6.36	103	6.08	6.30	102	1	80-120	20	
Sulfate	3.02	100	101	98	100	102	99	1	80-120	20	

Lab Batch ID: 923947 **QC- Sample ID:** 470880-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 09/30/2013 **Date Prepared:** 09/30/2013 **Analyst:** ANS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Mercury by SW-846 7470A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Mercury	<0.000200	0.00200	0.00205	103	0.00200	0.00207	104	1	75-125	20	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order # : 471130 **Project ID:** SRS#2009-084

Lab Batch ID: 923948 **QC- Sample ID:** 470864-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 09/30/2013 **Date Prepared:** 09/27/2013 **Analyst:** MKO

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Metals per ICP by EPA 200.7 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Aluminum	<0.200	5.00	5.18	104	5.00	5.13	103	1	70-130	20	
Arsenic	<0.0200	1.00	1.04	104	1.00	1.03	103	1	70-130	20	
Barium	<0.0100	1.00	0.967	97	1.00	0.963	96	0	70-130	20	
Boron	<0.0500	1.00	1.07	107	1.00	1.07	107	0	70-130	20	
Cadmium	<0.0100	1.00	0.965	97	1.00	0.958	96	1	70-130	20	
Calcium	0.354	25.0	24.3	96	25.0	24.1	95	1	70-130	20	
Chromium	<0.0100	1.00	1.00	100	1.00	0.991	99	1	70-130	20	
Cobalt	<0.0100	1.00	1.03	103	1.00	1.02	102	1	70-130	20	
Copper	<0.0200	1.00	1.04	104	1.00	1.03	103	1	70-130	20	
Iron	<0.200	5.00	5.06	101	5.00	5.01	100	1	70-130	20	
Lead	0.0120	1.00	1.02	101	1.00	1.00	99	2	70-130	20	
Magnesium	<0.200	25.0	24.7	99	25.0	23.9	96	3	70-130	20	
Manganese	<0.0200	1.00	0.956	96	1.00	0.969	97	1	70-130	20	
Molybdenum	<0.0100	1.00	1.03	103	1.00	1.02	102	1	70-130	20	
Nickel	<0.0100	1.00	1.09	109	1.00	1.08	108	1	70-130	20	
Potassium	19.3	10.0	29.4	101	10.0	29.8	105	1	70-130	20	
Selenium	<0.0300	1.00	1.04	104	1.00	1.03	103	1	70-130	20	
Silver	<0.0200	0.500	0.490	98	0.500	0.487	97	1	70-130	20	
Sodium	97.9	25.0	120	88	25.0	122	96	2	70-130	20	
Zinc	<0.0300	1.00	1.01	101	1.00	1.00	100	1	70-130	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

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

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order # : 471130 **Project ID:** SRS#2009-084

Lab Batch ID: 924014 **QC- Sample ID:** 470823-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 09/30/2013 **Date Prepared:** 09/30/2013 **Analyst:** ZHO

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00500	0.0500	0.0540	108	0.0500	0.0542	108	0	66-142	25	
Bromobenzene	<0.00500	0.0500	0.0517	103	0.0500	0.0519	104	0	75-125	25	
Bromochloromethane	<0.00500	0.0500	0.0509	102	0.0500	0.0529	106	4	60-140	25	
Bromodichloromethane	<0.00500	0.0500	0.0522	104	0.0500	0.0531	106	2	75-125	25	
Bromoform	<0.00500	0.0500	0.0495	99	0.0500	0.0509	102	3	75-125	25	
Methyl bromide	<0.00500	0.0500	0.0609	122	0.0500	0.0602	120	1	60-140	25	
n-Butylbenzene	<0.00500	0.0500	0.0559	112	0.0500	0.0549	110	2	75-125	25	
Sec-Butylbenzene	<0.00500	0.0500	0.0539	108	0.0500	0.0541	108	0	75-125	25	
tert-Butylbenzene	<0.00500	0.0500	0.0529	106	0.0500	0.0524	105	1	75-125	25	
Carbon Tetrachloride	<0.00500	0.0500	0.0516	103	0.0500	0.0540	108	5	62-125	25	
Chlorobenzene	<0.00500	0.0500	0.0505	101	0.0500	0.0507	101	0	60-133	25	
Chloroethane	<0.0100	0.0500	0.0598	120	0.0500	0.0567	113	5	60-140	25	
Chloroform	<0.00500	0.0500	0.0533	107	0.0500	0.0534	107	0	70-130	25	
Methyl Chloride	<0.0100	0.0500	0.0573	115	0.0500	0.0571	114	0	60-140	25	
2-Chlorotoluene	<0.00500	0.0500	0.0514	103	0.0500	0.0508	102	1	73-125	25	
4-Chlorotoluene	<0.00500	0.0500	0.0527	105	0.0500	0.0526	105	0	74-125	25	
p-Cymene (p-Isopropyltoluene)	<0.00500	0.0500	0.0542	108	0.0500	0.0543	109	0	75-125	25	
Dibromochloromethane	<0.00500	0.0500	0.0489	98	0.0500	0.0512	102	5	73-125	25	
1,2-Dibromo-3-Chloropropane	<0.00500	0.0500	0.0458	92	0.0500	0.0485	97	6	59-125	25	
1,2-Dibromoethane	<0.00500	0.0500	0.0493	99	0.0500	0.0494	99	0	73-125	25	
Methylene bromide	<0.00500	0.0500	0.0521	104	0.0500	0.0524	105	1	69-127	25	
1,2-Dichlorobenzene	<0.00500	0.0500	0.0512	102	0.0500	0.0510	102	0	75-125	25	
1,3-Dichlorobenzene	<0.00500	0.0500	0.0513	103	0.0500	0.0520	104	1	75-125	25	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order # : 471130 **Project ID:** SRS#2009-084

Lab Batch ID: 924014 **QC- Sample ID:** 470823-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 09/30/2013 **Date Prepared:** 09/30/2013 **Analyst:** ZHO

Reporting Units: mg/L

VOAs by SW-846 8260B

Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
1,4-Dichlorobenzene	<0.00500	0.0500	0.0513	103	0.0500	0.0509	102	1	75-125	25	
Dichlorodifluoromethane	<0.00500	0.0500	0.0477	95	0.0500	0.0485	97	2	70-130	25	
1,1-Dichloroethane	<0.00500	0.0500	0.0523	105	0.0500	0.0531	106	2	72-125	25	
1,2-Dichloroethane	<0.00500	0.0500	0.0538	108	0.0500	0.0538	108	0	68-127	25	
1,1-Dichloroethene	<0.00500	0.0500	0.0510	102	0.0500	0.0532	106	4	59-172	25	
cis-1,2-Dichloroethylene	<0.00500	0.0500	0.0524	105	0.0500	0.0533	107	2	75-125	25	
trans-1,2-dichloroethylene	<0.00500	0.0500	0.0536	107	0.0500	0.0533	107	1	75-125	25	
1,2-Dichloropropane	<0.00500	0.0500	0.0547	109	0.0500	0.0538	108	2	74-125	25	
1,3-Dichloropropane	<0.00500	0.0500	0.0511	102	0.0500	0.0505	101	1	75-125	25	
2,2-Dichloropropane	<0.00500	0.0500	0.0527	105	0.0500	0.0559	112	6	75-125	25	
1,1-Dichloropropene	<0.00500	0.0500	0.0530	106	0.0500	0.0531	106	0	75-125	25	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0525	105	0.0500	0.0538	108	2	74-125	25	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0534	107	0.0500	0.0542	108	1	66-125	25	
Ethylbenzene	<0.00500	0.0500	0.0512	102	0.0500	0.0519	104	1	75-125	25	
Hexachlorobutadiene	<0.00500	0.0500	0.0529	106	0.0500	0.0530	106	0	75-125	25	
Isopropylbenzene	<0.00500	0.0500	0.0534	107	0.0500	0.0529	106	1	75-125	25	
Methylene Chloride	<0.00500	0.0500	0.0492	98	0.0500	0.0488	98	1	75-125	25	
MTBE	<0.00500	0.100	0.105	105	0.100	0.106	106	1	65-135	25	
Naphthalene	<0.0100	0.0500	0.0531	106	0.0500	0.0528	106	1	70-130	25	
n-Propylbenzene	<0.00500	0.0500	0.0529	106	0.0500	0.0524	105	1	75-125	25	
Styrene	<0.00500	0.0500	0.0517	103	0.0500	0.0517	103	0	75-125	25	
1,1,1,2-Tetrachloroethane	<0.00500	0.0500	0.0499	100	0.0500	0.0520	104	4	72-125	25	
1,1,2,2-Tetrachloroethane	<0.00500	0.0500	0.0529	106	0.0500	0.0511	102	3	74-125	25	
Tetrachloroethylene	<0.00500	0.0500	0.0496	99	0.0500	0.0502	100	1	71-125	25	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order # : 471130 **Project ID:** SRS#2009-084

Lab Batch ID: 924014 **QC- Sample ID:** 470823-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 09/30/2013 **Date Prepared:** 09/30/2013 **Analyst:** ZHO

Reporting Units: mg/L

VOAs by SW-846 8260B

Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Toluene	<0.00500	0.0500	0.0526	105	0.0500	0.0528	106	0	59-139	25	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0524	105	0.0500	0.0538	108	3	75-137	25	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0518	104	0.0500	0.0529	106	2	75-135	25	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0527	105	0.0500	0.0542	108	3	75-125	25	
1,1,2-Trichloroethane	<0.00500	0.0500	0.0527	105	0.0500	0.0522	104	1	75-127	25	
Trichloroethylene	<0.00500	0.0500	0.0512	102	0.0500	0.0516	103	1	62-137	25	
Trichlorofluoromethane	<0.00500	0.0500	0.0519	104	0.0500	0.0522	104	1	60-140	25	
1,2,3-Trichloropropane	<0.00500	0.0500	0.0504	101	0.0500	0.0502	100	0	75-125	25	
1,2,4-Trimethylbenzene	<0.00500	0.0500	0.0535	107	0.0500	0.0527	105	2	75-125	25	
1,3,5-Trimethylbenzene	<0.00500	0.0500	0.0533	107	0.0500	0.0535	107	0	70-125	25	
o-Xylene	<0.00500	0.0500	0.0496	99	0.0500	0.0510	102	3	75-125	25	
m,p-Xylenes	<0.0100	0.100	0.103	103	0.100	0.104	104	1	75-125	25	
Vinyl Chloride	<0.00200	0.0500	0.0580	116	0.0500	0.0578	116	0	60-140	25	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 471130

Lab Batch #: 924098 **Project ID:** SRS#2009-084

Date Analyzed: 10/01/2013 11:29 **Date Prepared:** 10/01/2013 **Analyst:** ALA

QC- Sample ID: 471130-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

Alkalinity by SM2320B Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Alkalinity, Bicarbonate (as CaCO3)	201	203	1	20	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	U

Lab Batch #: 924098

Date Analyzed: 10/01/2013 11:29 **Date Prepared:** 10/01/2013 **Analyst:** ALA

QC- Sample ID: 471208-005 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

Alkalinity by SM2320B Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	<4.00	0	20	U
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	U

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 09/26/2013 04:03:53 PM

Work Order #: 471130

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	11
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6 *Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**Yes**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**Yes**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:	PH Device/Lot#:

Checklist completed by: Candace James
Candace James
Date: 09/26/2013

Checklist reviewed by:
Date:

CHAIN OF CUSTODY RECORD

XENCO Laboratories — Environmental Asbestos Radiochemistry

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800
Hobbs: 4008 N Grimes Hobbs, NM 88240 (575)392-7550

LAB W.O#: 471130

Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington	State: NM	Zip: 88260
PM/Attn:	Ben Arguijo	Email:	bjarguijo@basinenv.com
Project ID:	DCP Plant to Lea Station 6" Sec. 31 SRS #2009-084	PO#:	PAA-S. Harris
Invoice To:	Shawn Harris Plains All American	Quote #:	
Sampler Signature:		Circle One Event: Daily Weekly Monthly Quartely Semi-Annual Annual N/A	

TAT Work Days = D Need results by:_____ Time: _____

Std (5-7D) 5Hrs 1D 2D 3D 4D 5D 7D 10D 14D Other_____

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Example Volatiles by 8260	Metals (RCRA, NMWQCC)	VOC's by 8260	SOC's by 8270	General Chemistry							Hold Sample (CALL___) Run PAH on Highest TPH___ Only if
								Pres Type** E, I		B,I	E,I	I	I							
								# Cont	Lab Only:											
1	MW-6			GW			7			X	X	X	X							
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

* Container Type Codes

VA Vial Amber, VC Vial Clear, VP Vial Pre-preserved, GA Glass Amber, GC Glass Clear, PA Plastic Amber, PC Plastic Clear, Other _____
ES Encore Sampler, TS TerraCore Sampler, AC Air Canister, TB Tedlar Bag, ZB Zip Lock Bag, PC Plastic Clear
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz , 1Gal 40ml, 125 ml, 250 ml, 500 ml, 1L, Other _____

** Preservative Type Codes

A. None, E. HCL, I. Ice, B. HNO_3, F. MeOH, J. MCAA, C. H_2SO_4, G. $Na_2S_2O_3$, K. ZnAc&NaOH, D. NaOH, H. $NaHSO_4$, L Asbc Acid&NaOH, O. _____

^ Matrix Type Codes

GW Ground Water, WW Waste Water, DW Drinking Water, SW Surface Water, OW Ocean/Sea Water, PL Product-Liquid, PS Product-Solid, SL Sludge, Other _____
S Soil/Sediment/Solid, W Wipe, A Air, O Oil, T Tissue, U Urine, B Blood

REMARKS

See attached sheet for specific analyses requested.
Please report all SVOC's down to the MDL (vs. the RL).

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1 D 2 11° 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		ET	9-25-13	3:30		MS	9/25/13	330
2						Xenco		
3					via Fedex		9-26-13	1450
4								

Lab Use Only

	YES	NO	N/A
Non-Conformances found?			
Samples intact upon arrival?			
Received on Wet Ice?			
Labeled with proper preservatives?			
Received within holding time?			
Custody seals intact?			
VOCs rec'd w/o headspace?			
Proper containers used?			
pH verified-acceptable, excl VOCs?			
Received on time to meet HTs?			

C.O.C. Serial #

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330
FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

 Revision Date: Nov 12, 2009

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

1. All compounds listed in US EPA SW-846 Method 8260 (VOC's)

2. All compounds listed in US EPA SW-846 Method 8270 (SVOC's)

3. General Chemistry:

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

4. RCRA Metals:

   Arsenic
   Barium
   Cadmium
   Chromium
   Lead
   Mercury
   Selenium
   Silver

5. NMWQCC Metals:

   Aluminum
   Boron
   Cobalt
   Copper
   Iron
   Manganese
   Molybdenum
   Nickel
   Zinc

Analytical Report 474181

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

DCP Plant to Lea Station 6', Sec. 31

SRS#2009-084

22-NOV-13

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-13-15-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

22-NOV-13

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

Reference: XENCO Report No(s): **474181**
DCP Plant to Lea Station 6', Sec. 31
Project Address: New Mexico

Ben Arguijo:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 474181. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 474181 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 474181

PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6', Sec. 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	11-13-13 09:00		474181-001
MW-3	W	11-13-13 09:15		474181-002
MW-4	W	11-13-13 09:30		474181-003
MW-5	W	11-13-13 10:00		474181-004
MW-6	W	11-13-13 10:15		474181-005

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 474181

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6', Sec. 31

Project Id: SRS#2009-084
Contact: Ben Arguijo
Project Location: New Mexico

Date Received in Lab: Fri Nov-15-13 03:02 pm
Report Date: 22-NOV-13
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	474181-001		474181-002		474181-003		474181-004		474181-005	
	Field Id:	MW-2		MW-3		MW-4		MW-5		MW-6	
	Depth:										
	Matrix:	WATER		WATER		WATER		WATER		WATER	
	Sampled:	Nov-13-13 09:00		Nov-13-13 09:15		Nov-13-13 09:30		Nov-13-13 10:00		Nov-13-13 10:15	
BTEX by EPA 8021	***Extracted:***	Nov-21-13 15:00		Nov-21-13 15:00		Nov-21-13 15:00		Nov-21-13 15:00		Nov-21-13 15:00	
	Analyzed:	Nov-21-13 22:43		Nov-21-13 22:59		Nov-21-13 23:15		Nov-21-13 23:31		Nov-21-13 23:47	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		ND	0.00100	ND	0.00100	0.00232	0.00100	0.00132	0.00100	ND	0.00100
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
m_p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Xylenes, Total		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Total BTEX		ND	0.00100	ND	0.00100	0.00232	0.00100	0.00132	0.00100	ND	0.00100

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6', Sec. 31

Work Orders : 474181, **Project ID:** SRS#2009-084

Lab Batch #: 928301 **Sample:** 474181-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 22:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0265	0.0300	88	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

Lab Batch #: 928301 **Sample:** 474181-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 22:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0258	0.0300	86	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 928301 **Sample:** 474181-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 23:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0255	0.0300	85	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 928301 **Sample:** 474181-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 23:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

Lab Batch #: 928301 **Sample:** 474181-005 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 23:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0254	0.0300	85	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6', Sec. 31

Work Orders : 474181, **Project ID:** SRS#2009-084

Lab Batch #: 928301 **Sample:** 647366-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 18:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 928301 **Sample:** 647366-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 16:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 928301 **Sample:** 647366-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 17:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

Lab Batch #: 928301 **Sample:** 474260-017 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 17:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0328	0.0300	109	80-120	

Lab Batch #: 928301 **Sample:** 474260-017 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 17:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0327	0.0300	109	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: DCP Plant to Lea Station 6', Sec. 31

Work Order #: 474181 **Project ID:** SRS#2009-084

Analyst: ARM **Date Prepared:** 11/21/2013 **Date Analyzed:** 11/21/2013

Lab Batch ID: 928301 **Sample:** 647366-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0937	94	0.100	0.0936	94	0	70-125	25	
Toluene	<0.00200	0.100	0.0966	97	0.100	0.0964	96	0	70-125	25	
Ethylbenzene	<0.00100	0.100	0.105	105	0.100	0.104	104	1	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.213	107	0.200	0.212	106	0	70-131	25	
o-Xylene	<0.00100	0.100	0.106	106	0.100	0.107	107	1	71-133	25	

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

Form 3 - MS / MSD Recoveries

Project Name: DCP Plant to Lea Station 6', Sec. 31

Work Order # : 474181 **Project ID:** SRS#2009-084

Lab Batch ID: 928301 **QC- Sample ID:** 474260-017 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 11/21/2013 **Date Prepared:** 11/21/2013 **Analyst:** ARM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0963	96	0.100	0.0984	98	2	70-125	25	
Toluene	<0.00200	0.100	0.0994	99	0.100	0.103	103	4	70-125	25	
Ethylbenzene	<0.00100	0.100	0.108	108	0.100	0.113	113	5	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.220	110	0.200	0.229	115	4	70-131	25	
o-Xylene	<0.00100	0.100	0.110	110	0.100	0.114	114	4	71-133	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

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

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 11/15/2013 03:02:00 PM

Work Order #: 474181

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6 *Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**No**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**Yes**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:	PH Device/Lot#:

Checklist completed by: Candace James Date: 11/18/2013
Candace James

Checklist reviewed by: Kelsey Brooks Date: 11/18/2013
Kelsey Brooks

CHAIN OF CUSTODY RECORD

XENCO Laboratories
Environmental Asbestos Radiochemistry
Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800
Hobbs: 4008 N Grimes Hobbs, NM 88240 (575)392-7550

LAB. W.O # : 474181
Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington	State: NM	Zip: 88260
PM/Attn:	Ben Arguijo	Email:	bjarguijo@basinenv.com
Project ID:	DCP Plant to Lea Station 6" Sec. 31 SRS #2009-084	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

TAT Work Days = D Need results by:_____ Time: _____
Std (5-7D) 5Hrs 1D 2D 3D 4D **5D 7D** 10D 14D Other_____

Sampler Signature:

Circle One Event: Daily Weekly Monthly Quarterly Semi-Annual Annual N/A

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Example Volatiles by 8260	TPH	BTEX	Chloride							Hold Sample (CALL___) Run PAH on Highest TPH___ Only if
								# Cont	Lab Only:									
								Cont Type * VC		VP								
								Pres Type** E, I		E,I								
1	MW-2	11/13/13	0900	GW			3			X								
2	MW-3	11/13/13	0915	GW			3			X								
3	MW-4	11/13/13	0930	GW			3			X								
4	MW-5	11/13/13	1000	GW			3			X								
5	MW-6	11/13/13	1015	GW			3			X								
6																		
7																		
8																		
9																		
0																		

* Container Type Codes

VA Vial Amber ES Encore Sampler
VC Vial Clear TS TerraCore Sampler
VP Vial Pre-preserved AC Air Canister
GA Glass Amber TB Tedlar Bag
GC Glass Clear ZB Zip Lock Bag
PA Plastic Amber PC Plastic Clear
PC Plastic Clear
Other _____

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz , 1Gal 40ml, 125 ml, 250 ml, 500 ml, 1L, Other _____

** Preservative Type Codes

A. None E. HCL I. Ice
B. HNO_3 F. MeOH J. MCAA C.
H_2SO_4 G. $Na_2S_2O_3$ K. ZnAc&NaOH
D. NaOH H. $NaHSO_4$ L Asbc Acid&NaOH
O. _____

^ Matrix Type Codes

GW Ground Water S Soil/Sediment/Solid
WW Waste Water W Wipe
DW Drinking Water A Air
SW Surface Water O Oil
OW Ocean/Sea Water T Tissue
PL Product-Liquid U Urine
PS Product-Solid B Blood
SL Sludge
Other

REMARKS

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 **2** 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1 7.8 2 ___ 3 ___

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		ET	11-15-13	7:30		Basin Env.	11/15/13	0730
2		Basin Env.	11/15/13	1450		WS Xenco	11-15-13	1502
3					Julian M	Od Xenco	11-16-13	15:15
4								

Lab Use Only	YES	NO	N/A
Non-Conformances found?			
Samples intact upon arrival?			
Received on Wet Ice?			
Labeled with proper preservatives?			
Received within holding time?			
Custody seals intact?			
VOCs rec'd w/o headspace?			
Proper containers used?			
pH verified-acceptable, excl VOCs?			
Received on time to meet HTs?			

C.O.C. Serial #

Final Temp 5°C

 Revision Date: Nov 12, 2009

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 11/15/2013 03:02:00 PM

Work Order #: 474181

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
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#5 Custody Seals intact on sample bottles?	**N/A**
#6 *Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
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#12 Container label(s) legible and intact?	**Yes**
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#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**No**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**Yes**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:	PH Device/Lot#:

Checklist completed by: Candace James Date: 11/18/2013
Candace James

Checklist reviewed by: Kelsey Brooks Date: 11/18/2013
Kelsey Brooks

Analytical Report 476577

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

DCP Plant to Lea Station 6" Sec. 31

SRS#2009-084

03-JAN-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-13-15-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

03-JAN-14

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

Reference: XENCO Report No(s): **476577**
DCP Plant to Lea Station 6" Sec. 31
Project Address: Lea County, NM

Ben Arguijo:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 476577. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 476577 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 476577

PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6" Sec. 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-5	W	12-23-13 09:30		476577-001

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 476577

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" Sec. 31

Project Id: SRS#2009-084
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Thu Dec-26-13 08:50 am
Report Date: 03-JAN-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	476577-001					
	Field Id:	MW-5					
	Depth:						
	Matrix:	WATER					
	Sampled:	Dec-23-13 09:30					
PAHs by GCMS SIM SUB: TX104704215	***Extracted:***	Dec-30-13 09:24					
	Analyzed:	Dec-30-13 19:58					
	Units/RL:	mg/L RL					
Acenaphthene		ND 0.0000490					
Acenaphthylene		ND 0.0000490					
Anthracene		ND 0.0000490					
Benzo(a)anthracene		ND 0.0000490					
Benzo(a)pyrene		ND 0.0000490					
Benzo(b)fluoranthene		ND 0.0000490					
Benzo(g,h,i)perylene		ND 0.0000490					
Benzo(k)fluoranthene		ND 0.0000490					
Chrysene		ND 0.0000490					
Dibenz(a,h)anthracene		ND 0.0000490					
Dibenzofuran		ND 0.0000490					
Fluoranthene		ND 0.0000490					
Fluorene		ND 0.0000490					
Indeno(1,2,3-c,d)Pyrene		ND 0.0000490					
Naphthalene		ND 0.000490					
Phenanthrene		ND 0.0000490					
Pyrene		ND 0.0000490					

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Orders : 476577,

Project ID: SRS#2009-084

Lab Batch #: 931134 **Sample:** 476577-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12/30/13 19:58

SURROGATE RECOVERY STUDY

PAHs by GCMS SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.889	1.00	89	35-114	
2-Fluorobiphenyl	0.817	1.00	82	43-116	
Terphenyl-D14	0.934	1.00	93	33-141	

Lab Batch #: 931134 **Sample:** 649072-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12/30/13 15:18

SURROGATE RECOVERY STUDY

PAHs by GCMS SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.791	1.00	79	35-114	
2-Fluorobiphenyl	0.745	1.00	75	43-116	
Terphenyl-D14	0.836	1.00	84	33-141	

Lab Batch #: 931134 **Sample:** 649072-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12/30/13 17:53

SURROGATE RECOVERY STUDY

PAHs by GCMS SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.767	1.00	77	35-114	
2-Fluorobiphenyl	0.734	1.00	73	43-116	
Terphenyl-D14	0.756	1.00	76	33-141	

Lab Batch #: 931134 **Sample:** 649072-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12/30/13 18:10

SURROGATE RECOVERY STUDY

PAHs by GCMS SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.762	1.00	76	35-114	
2-Fluorobiphenyl	0.718	1.00	72	43-116	
Terphenyl-D14	0.794	1.00	79	33-141	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 476577 **Project ID:** SRS#2009-084

Analyst: PKH **Date Prepared:** 12/30/2013 **Date Analyzed:** 12/30/2013

Lab Batch ID: 931134 **Sample:** 649072-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

PAHs by GCMS SIM Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Acenaphthene	<0.0000500	0.00100	0.000738	74	0.00100	0.000778	78	5	57-90	25	
Acenaphthylene	<0.0000500	0.00100	0.000720	72	0.00100	0.000745	75	3	47-95	25	
Anthracene	<0.0000500	0.00100	0.000713	71	0.00100	0.000770	77	8	56-90	25	
Benzo(a)anthracene	<0.0000500	0.00100	0.000771	77	0.00100	0.000811	81	5	51-100	25	
Benzo(a)pyrene	<0.0000500	0.00100	0.000854	85	0.00100	0.000902	90	5	49-97	25	
Benzo(b)fluoranthene	<0.0000500	0.00100	0.000846	85	0.00100	0.000857	86	1	41-114	25	
Benzo(g,h,i)perylene	<0.0000500	0.00100	0.000819	82	0.00100	0.000857	86	5	51-105	25	
Benzo(k)fluoranthene	<0.0000500	0.00100	0.000732	73	0.00100	0.000800	80	9	54-103	25	
Chrysene	<0.0000500	0.00100	0.000713	71	0.00100	0.000774	77	8	60-101	25	
Dibenz(a,h)anthracene	<0.0000500	0.00100	0.000879	88	0.00100	0.000931	93	6	50-109	25	
Dibenzofuran	<0.0000500	0.00100	0.000739	74	0.00100	0.000810	81	9	55-91	25	
Fluoranthene	<0.0000500	0.00100	0.000739	74	0.00100	0.000779	78	5	58-93	25	
Fluorene	<0.0000500	0.00100	0.000733	73	0.00100	0.000782	78	6	58-93	25	
Indeno(1,2,3-c,d)Pyrene	<0.0000500	0.00100	0.000814	81	0.00100	0.000849	85	4	52-108	25	
Naphthalene	<0.000500	0.00100	0.000764	76	0.00100	0.000737	74	4	51-100	25	
Phenanthrene	<0.0000500	0.00100	0.000753	75	0.00100	0.000868	87	14	43-97	25	
Pyrene	<0.0000500	0.00100	0.000779	78	0.00100	0.000823	82	5	51-95	25	

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

CHAIN OF CUSTODY RECORD

XENCO Laboratories
Environmental Asbestos Radiochemistry
Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800
Hobbs: 4008 N Grimes Hobbs, NM 88240 (575)392-7550

** LAB W.O#: 476577

Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington	State: NM	Zip: 88260
PM/Attn:	Ben Arguijo	Email:	bjarguijo@basinenv.com
Project ID:	DCP Plant to Lea Station 6" Sec. 31 SRS #2009-084	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant - Plains All American	Quote #:	

TAT Work Days = D Need results by:_____ Time: _____

Std (5-7D) 5Hrs 1D 2D 3D 4D 5D 7D 10D 14D Other_____

Sampler Signature:

Circle One Event: Daily Weekly Monthly Quarterly Semi-Annual Annual N/A

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Pres Type** E, I	Example Volatiles by 8260	TPH	BTEX	Chloride	PAH						Hold Sample (CALL) on Highest TPH Run PAH Only if
														GA						
														I						
								# Cont	Lab Only:											
1	MW-5	12/23/13	9:30	GW			1							X						
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

* Container Type Codes

VA	Vial Amber	ES	Encore Sampler
VC	Vial Clear	TS	TerraCore Sampler
VP	Vial Pre-preserved	AC	Air Canister
GA	Glass Amber	TB	Tedlar Bag
GC	Glass Clear	ZB	Zip Lock Bag
PA	Plastic Amber	PC	Plastic Clear
PC	Plastic Clear		

Other _____

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz , 1Gal 40ml, 125 ml, 250 ml, 500 ml, 1L, Other _____

** Preservative Type Codes

A. None E. HCL I. Ice
B. HNO_3 F. MeOH J. MCAA C.
H_2SO_4 G. $Na_2S_2O_3$ K. ZnAc&NaOH
D. NaOH H. $NaHSO_4$ L Asbc Acid&NaOH
O. _____

^ Matrix Type Codes

GW	Ground Water	S	Soil/Sediment/Solid
WW	Waste Water	W	Wipe
DW	Drinking Water	A	Air
SW	Surface Water	O	Oil
OW	Ocean/Sea Water	T	Tissue
PL	Product-Liquid	U	Urine
PS	Product-Solid	B	Blood
SL	Sludge		

Other

REMARKS

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1 2 3 4.3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		CT	12-26-13	8:50	Perla Rosendo	NJ	12-26-13	8:50
2								
3								
4						Xenco	12-27-13	10:30

Lab Use Only	YES	NO	N/A
Non-Conformances found?			
Samples intact upon arrival?			
Received on Wet Ice?			
Labeled with proper preservatives?			
Received within holding time?			
Custody seals intact?			
VOCs rec'd w/o headspace?			
Proper containers used?			
pH verified-acceptable, excl VOCs?			
Received on time to meet HTs?			

C.O.C. Serial #

 Revision Date: Nov 12, 2009

Final 1.000

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 12/26/2013 08:50:00 AM

Work Order #: 476577

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6 *Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**Yes**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**N/A**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**N/A**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:	PH Device/Lot#:

Checklist completed by: Candace James Date: 12/27/2013
Candace James

Checklist reviewed by: Kelsey Brooks Date: 12/27/2013
Kelsey Brooks

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

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

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED
APR 29 2009
HOBBSOCD

Form C-141
Revised October 10, 2003

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 of Company	Plains Pipeline, LP	Contact	Jason Henry
Address	2530 Hwy 214 – Denver City, Tx 79323	Telephone No.	(575) 441-1099
Facility Name	DCP Plant to Lea Station 6-inch Sec. 31	Facility Type	Pipeline

Surface Owner NM SLO	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	31	20S	37E					Lea

Latitude N 32.52733° Longitude W 103.2906°

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 20 bbls	Volume Recovered 0 bbls
Source of Release 6" Steel Pipeline	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 04/02/2009 15:00
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? on 04/29/2009 Larry Johnson (initial estimate = 2-3 bbls based on small surface stain)	
By Whom? Jason Henry	Date and Hour 04/29/2009 @ 09:00 (revised to reportable on 04/29/2009)	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

External corrosion of 6" inch pipeline caused a release of crude oil. A clamp was installed on the pipeline to mitigate the release. Throughput for the subject line is 660 bbls/day and the operating pressure of the pipeline is 45 psi. The depth of the pipeline at the release point is approximately 2' bgs. The H2S concentration in the crude is less than 10 ppm and the gravity of the crude is 65.

Describe Area Affected and Cleanup Action Taken.*

The released crude resulted in a surface stain that measured approximately 6' x 8'. The impacted area will be remediated per applicable guidelines.

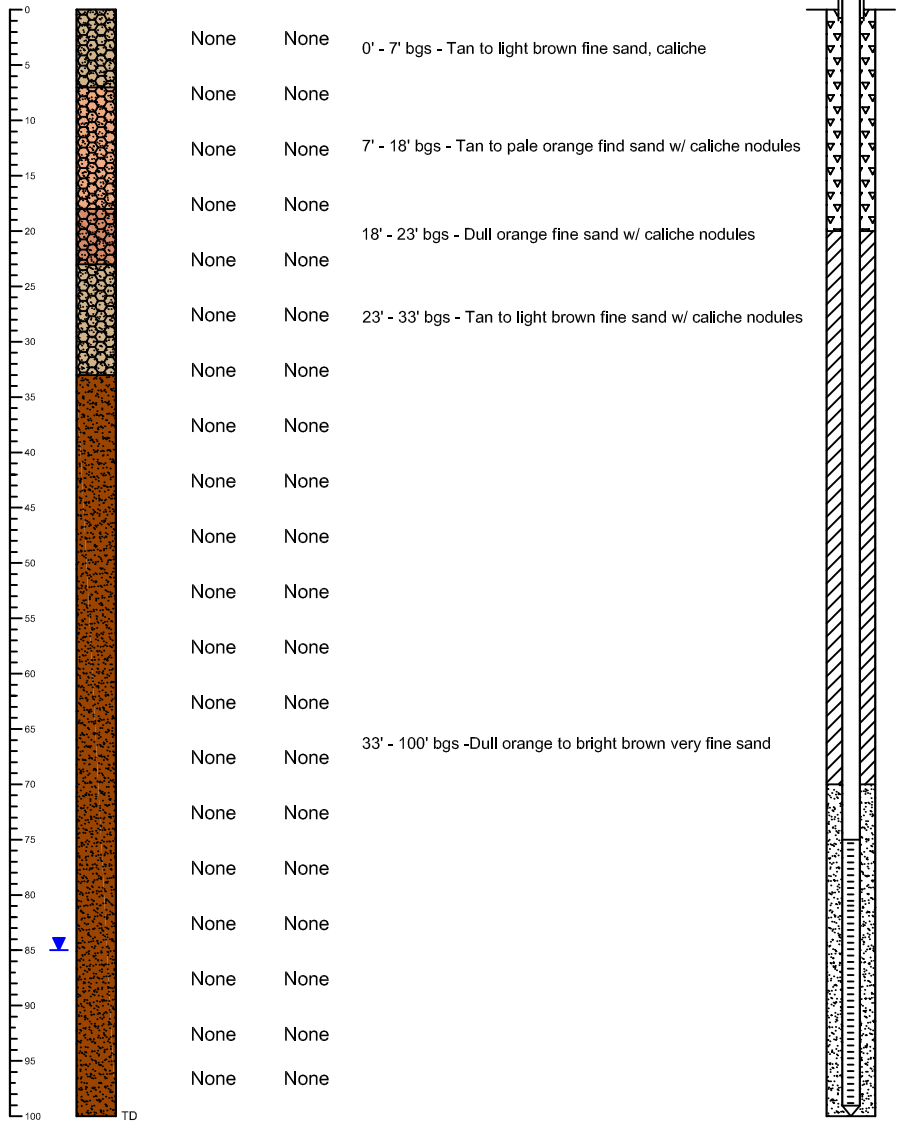
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger 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: Jason Henry	OIL CONSERVATION DIVISION	
Printed Name: Jason Henry	Approved by District Supervisor: L Johnson ENVIRONMENTAL ENGINEER	
Title: Remediation Coordinator	Approval Date: 4.29.09	Expiration Date: 6.29.09
E-mail Address: jhenry@paalp.com	Conditions of Approval:	Attached ☐ IRP# 09.4.2166
Date: 04/29/2009 Phone: (575) 441-1099		

* Attach Additional Sheets If Necessary

Appendix C
Monitor Well Logs

Monitor Well MW-6



Monitor Well MW-6

Date Drilled: September 11, 2013
Thickness of Bentonite Seal: 50 Ft
Depth of Exploratory Boring: 100 Ft bgs
Depth to Groundwater: 85 Ft bgs
Ground Water Elevation:

Indicates the PSH level measured on
Indicates the groundwater level measured on 9/12/2013
Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

Grout Surface Seal
Bentonite Pellet Seal
Sand Pack
Screen

Completion Notes

1.) The monitor well was advanced on date using air rotary drilling techniques.
2.) The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3.) The well is protected with a locked stick-up steel cover and 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 ground surface.

Monitor Well MW-6
DCP Plant to Lea Station 6-Inch Sec. 31
Lea County, New Mexico
Plains Marketing, LP

Basin Environmental Service Technologies, LLC

Prep By: BJA	Checked By: BRB
February 28, 2014	