1R-2136

Plains
DCP Plant to Lea Station
6-inch #2

Annual Report
2013

Basin Environmental Service Technologies, LLC

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Effective Solutions

2013
ANNUAL MONITORING REPORT

PLAINS MARKETING, LP
DCP Plant to Lea Station 6-Inch #2
Unit Letter "F" (SE/NW), Section 31, Township 20 South, Range 37 East
Latitude 32.5316667º North, Longitude 103.2911111º West
Lea County, New Mexico
Plains SRS # 2009-039
NMOCD Reference # 1RP-2136

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 Marketing, 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 DCP Plant to Lea Station 6" #2 release site is Unit Letter “F” (SE/NW), 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 32.5316667^{o} North latitude and 103.2911111^{o} West longitude.

On February 12, 2009, Plains discovered a crude oil release from a six-inch (6") steel pipeline. During initial response activities, Plains installed a temporary clamp on the pipeline to mitigate the release. Approximately twenty-five barrels (25 bbls) of crude oil was released from the Plains pipeline, resulting in a surface stain measuring approximately ten feet (10') in width and twelve feet (12') in length. Plains notified the NMOCD Hobbs District Office of the release, and a "Release Notification and Corrective Action" (Form C-141) was submitted. The cause of the release was attributed to external corrosion of the pipeline.

On February 17, 2009, following initial response activities, excavation of hydrocarbon-impacted soil began at the site. Excavated soil was stockpiled on-site on a plastic liner to mitigate the potential leaching of contaminants into the vadose zone. Approximately two thousand, seven hundred cubic yards (2,700 yd^3) of soil was stockpiled on-site during excavation activities. The final dimensions of the excavation were approximately sixty-six feet (66') in width, approximately eighty feet (80') in length, and approximately fifteen feet (15') in depth. Upon completion of the excavation activities, confirmation soil samples were collected from the excavation and stockpiles. Review of laboratory analytical results indicated soil samples collected from the excavation and stockpiles were less than NMOCD regulatory standards.

On April 15, 2009, a soil boring (SB-1) was advanced at the release site to evaluate the vertical extent of soil impact. During the advancement of the soil boring, groundwater was encountered at approximately sixty-one feet (61') drilling depth, or approximately seventy-six feet (76') below ground surface (bgs). A temporary casing was installed in the soil boring to allow a groundwater

sample to be collected for analysis. During the collection of the groundwater sample, a measurable thickness of PSH was observed on the groundwater. Plains immediately notified NMOCD representatives in the Hobbs District Office and the NMOCD Environmental Bureau (Santa Fe) of the impact to groundwater at the release site. On April 16, 2009, soil boring SB-1 was converted to a-inch (4") monitor well (MW-1).

On June 29, 2009, three (3) additional monitoring wells (MW-2, MW-3, and MW-4) were installed to evaluate the status of the groundwater at the site. Monitor well MW-2 is located approximately one hundred and thirty-five feet (135') to the northwest (up-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately ninety feet (90') bgs. Monitor well MW-3 is located approximately eighty feet (80') to the southwest (cross-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately ninety feet (90') bgs. Monitor well MW-4 is located approximately one hundred and fifteen feet (115') to the southeast (down-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately eighty-eight feet (88') bgs. PSH was not observed in monitor wells MW-2, MW-3, or MW-4.

On August 25, 2009, a twenty (20) mil polyurethane liner was installed in the excavation. Monitor well (MW-1), located within the excavation, was extended to the top of the excavation using a four-inch (4") diameter PVC riser. The riser was fitted with a forty (40) mil boot, which was chemically welded to the twenty (20) mil liner to ensure impermeability of the liner. The liner was cushioned by a six-inch (6") layer of sand above and below the liner to protect the liner from damage during backfilling. The excavation was backfilled with the stockpiled soil and compacted in twelve-inch (12") lifts. The disturbed areas were contoured to fit the surrounding topography and seeded with an NMSLO-approved seeding mixture. Supplemental seeding occurred on October 12, 2010.

On January 24, 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 fifty feet (50') to the southeast (down-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately ninety-five feet (95') bgs. PSH was not observed in monitor well MW-5. Laboratory analytical results of soil samples collected during the installation of monitor well MW-5 indicated benzene, BTEX, and TPH concentrations were less than NMOCD regulatory standards in all submitted soil samples.

On September 10, 2013, two (2) additional monitoring wells (MW-6 and MW-7) were installed to further monitor the down-gradient migration of the dissolved-phase plume and to delineate the horizontal extent of PSH. Monitor well MW-6 is located approximately one hundred and twenty-five feet (125') to the east-southeast (cross-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately ninety-five feet (95') bgs. PSH was not observed in monitor well MW-6. Monitor well MW-7 is located approximately one hundred and seventy-five feet (175') to the southeast (down-gradient) of monitor well MW-1. Laboratory analytical results of soil samples collected during the installation of monitor wells MW-6 and MW-7 indicated benzene, BTEX, and TPH concentrations were less than NMOCD regulatory standards in all submitted soil samples.

Currently, a total of seven (7) monitor wells are located at the DCP Plant to Lea Station 6-Inch #2 release site. Monitor wells MW-2 through MW-7 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 MW-1 in April 2009. Approximately 3,995 gallons (95.1 barrels) of PSH has been recovered from MW-1 since recovery operations began in 2009, and approximately 607 gallons (14.4 barrels) of PSH was recovered from MW-1 during the 2013 reporting period. The average PSH thickness measured in MW-1 during the reporting period was 3.50 feet, and the maximum PSH thickness was 3.75 feet on April 15, 2013. All recovered fluids are disposed of at an NMOCD-approved disposal facility near Monument, New Mexico.

On July 18, 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 Sec. 31 (NMOCD Reference #1RP-2166), and the location of the unit is alternated monthly. During the 2013 reporting period, approximately 1,374 gallons (32.7 barrels) of PSH in the vapor phase and approximately 380 gallons (9.0 barrels) of PSH in the liquid phase were recovered by the MDPE unit, for a total of approximately 1,754 equivalent gallons (41.8 barrels) of PSH. To date, approximately 3,258 equivalent gallons (77.6 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 8 (2Q2013), August 5 (3Q2013), and November 13, 2013 (4Q2013). During these quarterly sampling events, the monitoring wells were purged using a PVC bailer or electrical Grundfos pump of a minimum of three (3) well volumes of water or until the wells were dry. 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 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 monitor wells MW-2 and MW-4.

On November 13, 2013, the corrected groundwater elevation ranged between 3,459.12 and 3,459.69 feet above mean sea level in monitor wells MW-4 and MW-1, respectively. The "2013 Groundwater Elevation Data" is provided as Table 1.

LABORATORY RESULTS

Groundwater samples collected from the monitor wells during the 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 wells MW-6 and MW-7 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 concentrations ranged from less than the laboratory method detection limit (MDL) in 1Q2013, 3Q2013, and 4Q2013 to 0.0079 mg/L in 2Q2013. Toluene concentrations ranged from less than the laboratory MDL in 1Q2013, 3Q2013, and 4Q2013 to 0.0027 mg/L in 2Q2013. Ethylbenzene concentrations ranged from less than the laboratory MDL in 1Q2013, 3Q2013, and 4Q2013 to 0.0026 mg/L in 2Q2013. Total xylene concentrations ranged from less than the laboratory MDL in 1Q2013, 3Q2013, and 4Q2013 to 0.0167 mg/L in 2Q2013. Benzene and BTEX constituent concentrations were less than NMOCD regulatory standards during all four quarters of the reporting period.

Monitor well MW-3

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-4

Laboratory analytical results indicated benzene concentrations ranged from 0.0014 mg/L in 4Q2013 to 0.0181 mg/L in 1Q2013. Toluene, ethylbenzene, and total xylene concentrations were less than the appropriate laboratory MDL in all submitted groundwater samples. Benzene concentrations exceeded NMOCD regulatory standards in 1Q2013. 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 0.011 mg/L in 3Q2013 to 6.50 mg/L in 4Q2013. Toluene concentrations ranged from less than the laboratory MDL in 1Q2013, 3Q2013, and 4Q2013 to 0.242 mg/L in 2Q2013. Ethylbenzene concentrations ranged from less than the laboratory MDL in 1Q2013, 3Q2013, and 4Q2013 to 0.132 mg/L in 2Q2013. Total xylene concentrations ranged from less than the laboratory MDL in 1Q2013, 3Q2013, and 4Q2013 to 0.138 mg/L in 2Q2013. Benzene concentrations exceeded NMOCD regulatory standards during all four quarters of the reporting period. Toluene, ethylbenzene, and total xylene concentrations were less than NMOCD regulatory standards during all four quarters of the reporting period.

PAH constituent concentrations in the groundwater sample collected on December 23, 2013, were both less than the appropriate laboratory MDL and NMOCD regulatory standards, with the exception of naphthalene, which exhibited a concentration of 0.00054 mg/L.

Monitor well MW-6

Laboratory analytical results indicated benzene concentrations ranged from less than the laboratory MDL in 3Q2013 to 0.0047 mg/L in 4Q2013. Toluene, ethylbenzene, and total xylene concentrations were less than the appropriate laboratory MDL in all submitted groundwater samples. Benzene, toluene, ethylbenzene, and total xylene concentrations were less than NMOCD regulatory standards during all four quarters of the reporting period.

Monitor well MW-7

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.

SUMMARY

This report presents the results of groundwater monitoring activities for the 2013 annual monitoring period. Currently, there are seven (7) groundwater monitor wells (MW-1 through MW-7) 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 wells MW-6 and MW-7 were installed on September

10, 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 13, 2013) indicates a general gradient of approximately 0.002 feet/foot to the southeast as measured between 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 3.50 feet, and the maximum PSH thickness was 3.75 feet on April 15, 2013.

During the reporting period, approximately 607 gallons (14.4 barrels) of PSH was recovered, by manual recovery, from monitor well MW-1. A total of 1,754 equivalent gallons (41.8 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 the NMOCD regulatory standard in monitor wells MW-2, MW-3, MW-6, and MW-7. However, benzene concentrations above NMOCD standards were detected in the groundwater samples from monitor wells MW-4 (1Q2013) and MW-5 (all four quarters of the reporting period).

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-7 will be monitored and sampled quarterly. Results of 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

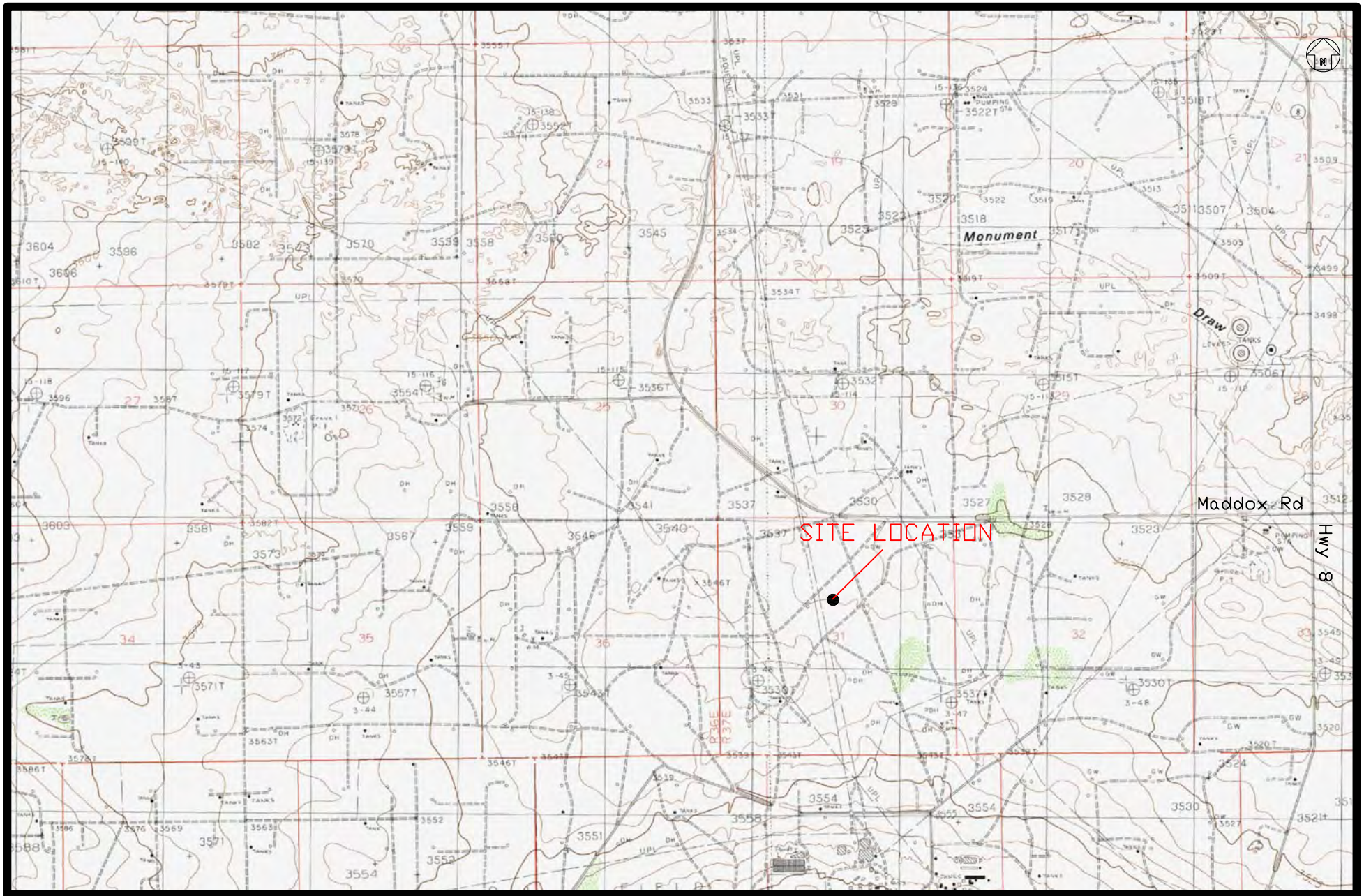
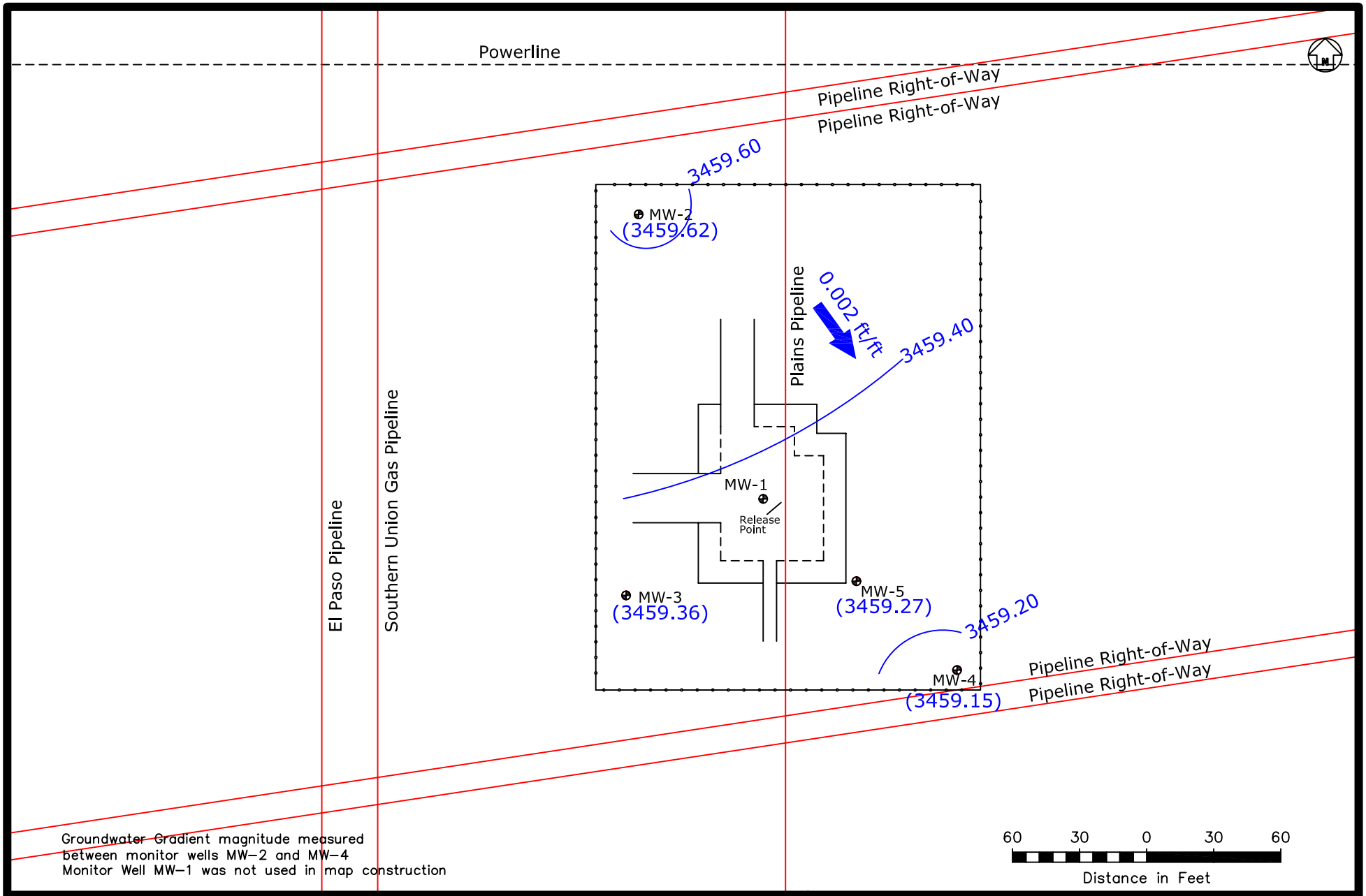


Figure 1
Site Location Map
Plains Pipeline, L.P.
DCP Plant to Lea Station 6-Inch #2
Lea County, New Mexico
SRS 2009-039
1RP-2136

Basin Environmental Services

Prep By: CDS	Checked By: CDS
March 16, 2009	Scale 1"=3000'



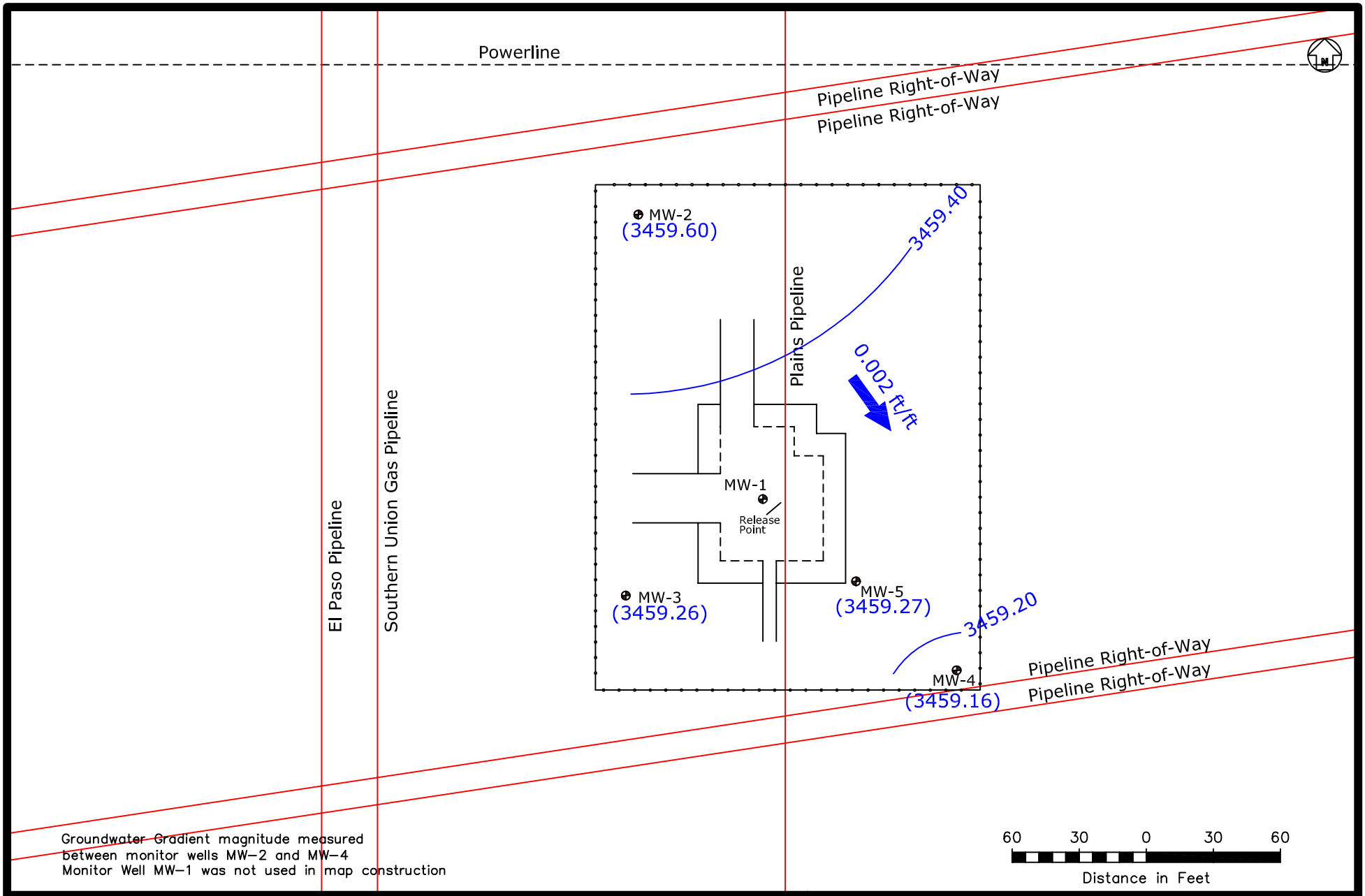
Legend:

- Excavation Extents
- Pipeline
- MW-1 Monitor Well
- Powerline
- Fence
- (3801.46) 0.003 ft / ft — Groundwater Gradient Contour Line, Groundwater Elevation (feet), Groundwater Gradient Direction and Magnitude

Figure 2A
Inferred Groundwater Gradient Map
(2/13/2013)
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch #2
Lea County, NM
1RP-2136

Basin Environmental Service Technologies, LLC

Prep By: BJA	Checked By: BRB
April 10, 2013	Scale 1"=60'



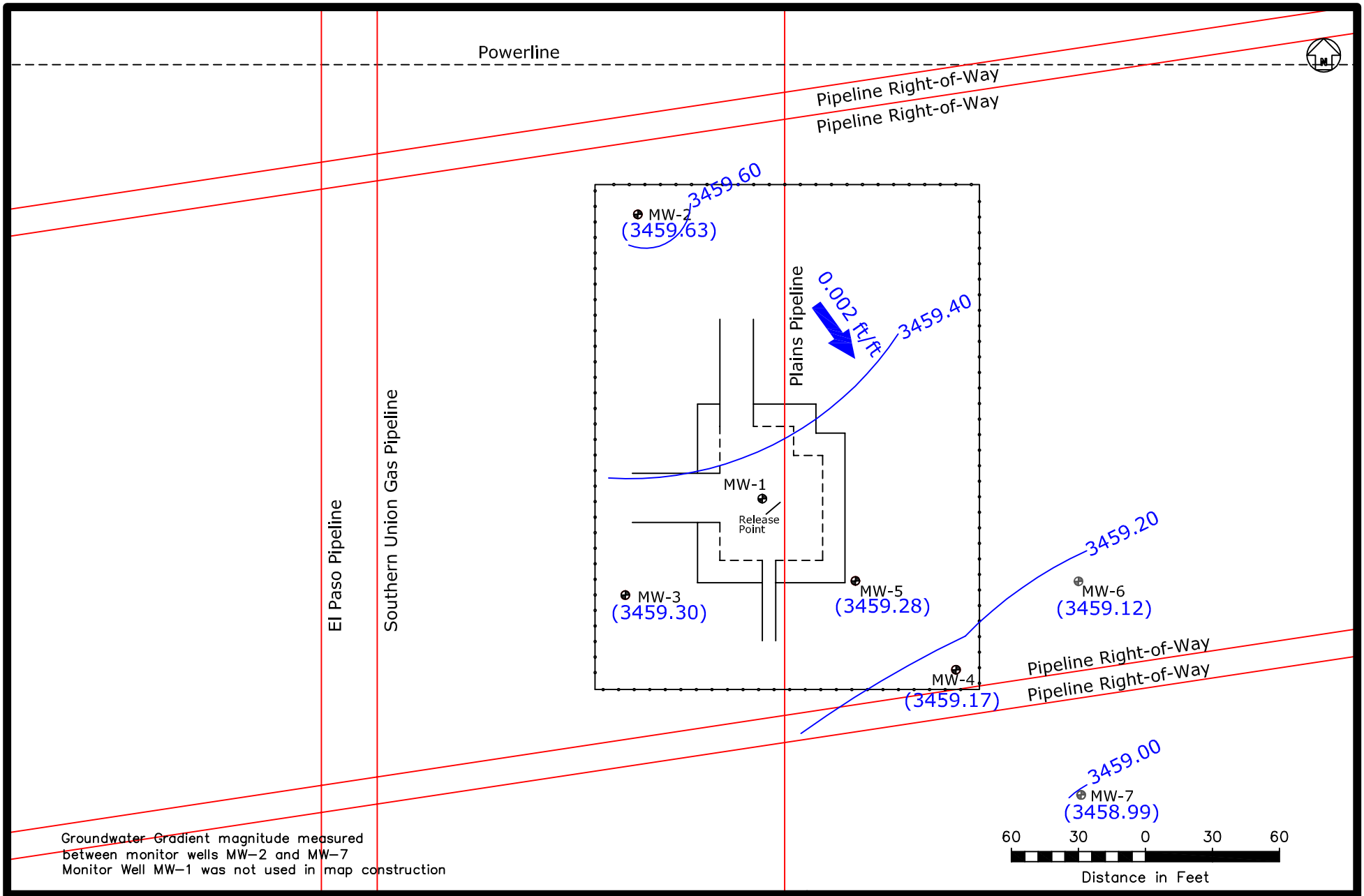
Legend:

- Excavation Extents
- Pipeline
- MW-1 Monitor Well
- Powerline
- Fence
- (3801.46) 0.003 ft / ft — Groundwater Gradient Contour Line; Groundwater Elevation (feet); Groundwater Gradient Direction and Magnitude

Figure 2B
Inferred Groundwater Gradient Map
(5/8/2013)
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch #2
Lea County, NM
1RP-2136

Basin Environmental Service Technologies, LLC

Prep By: BJA	Checked By: BRB
July 17, 2013	Scale 1"=60'



Legend:

- Excavation Extents
- Pipeline
- MW-1 Monitor Well
- Powerline
- Fence
- (3801.46) 0.003 ft / ft — Groundwater Gradient Contour Line; Groundwater Elevation (feet); Groundwater Gradient Direction and Magnitude

Figure 2C
Inferred Groundwater Gradient Map
(9/25/2013)
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch #2
Lea County, NM
1RP-2136

Basin Environmental Service Technologies, LLC

Prep By: BJA	Checked By: BRB
October 10, 2013	Scale 1"=60'

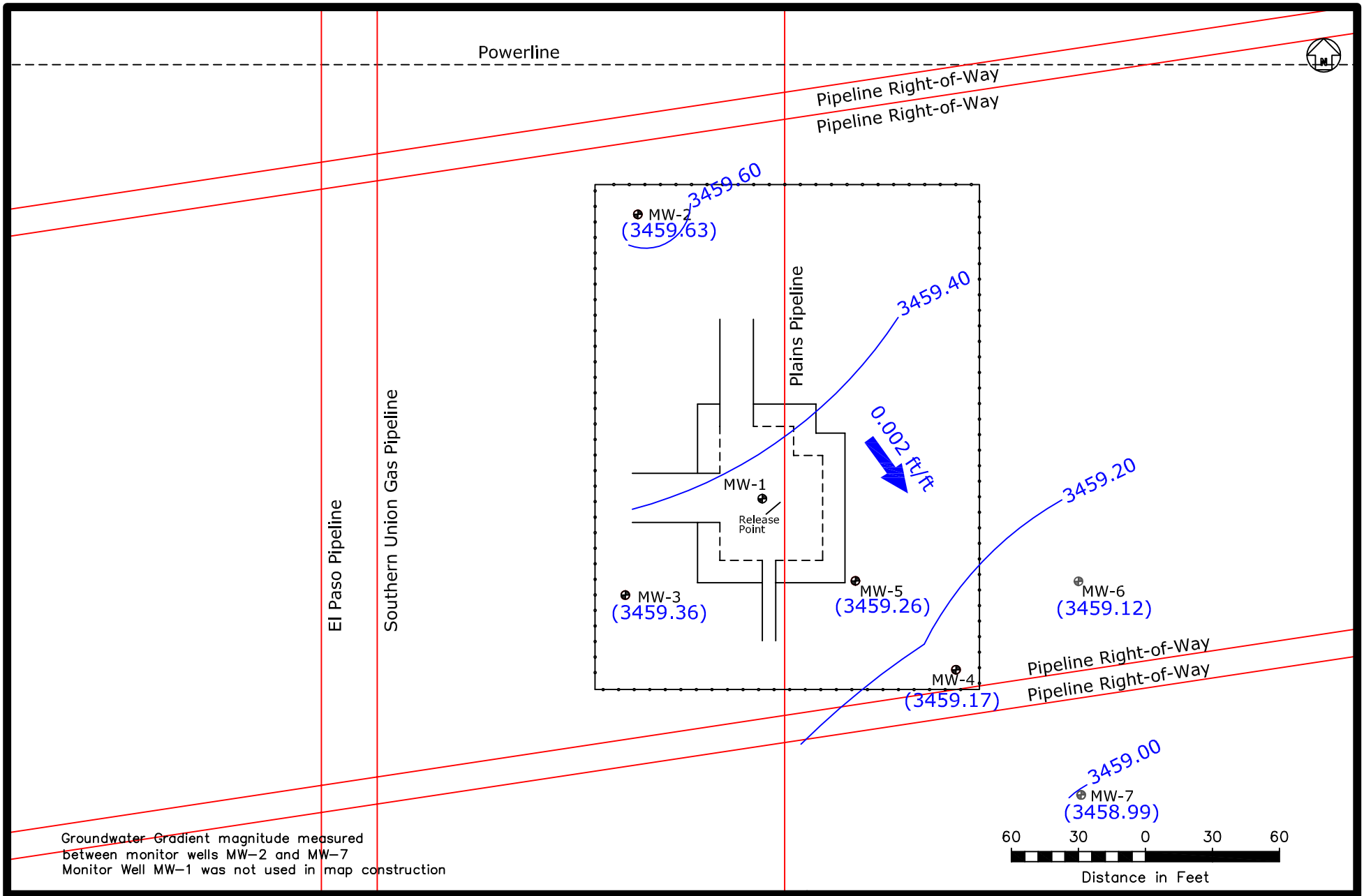
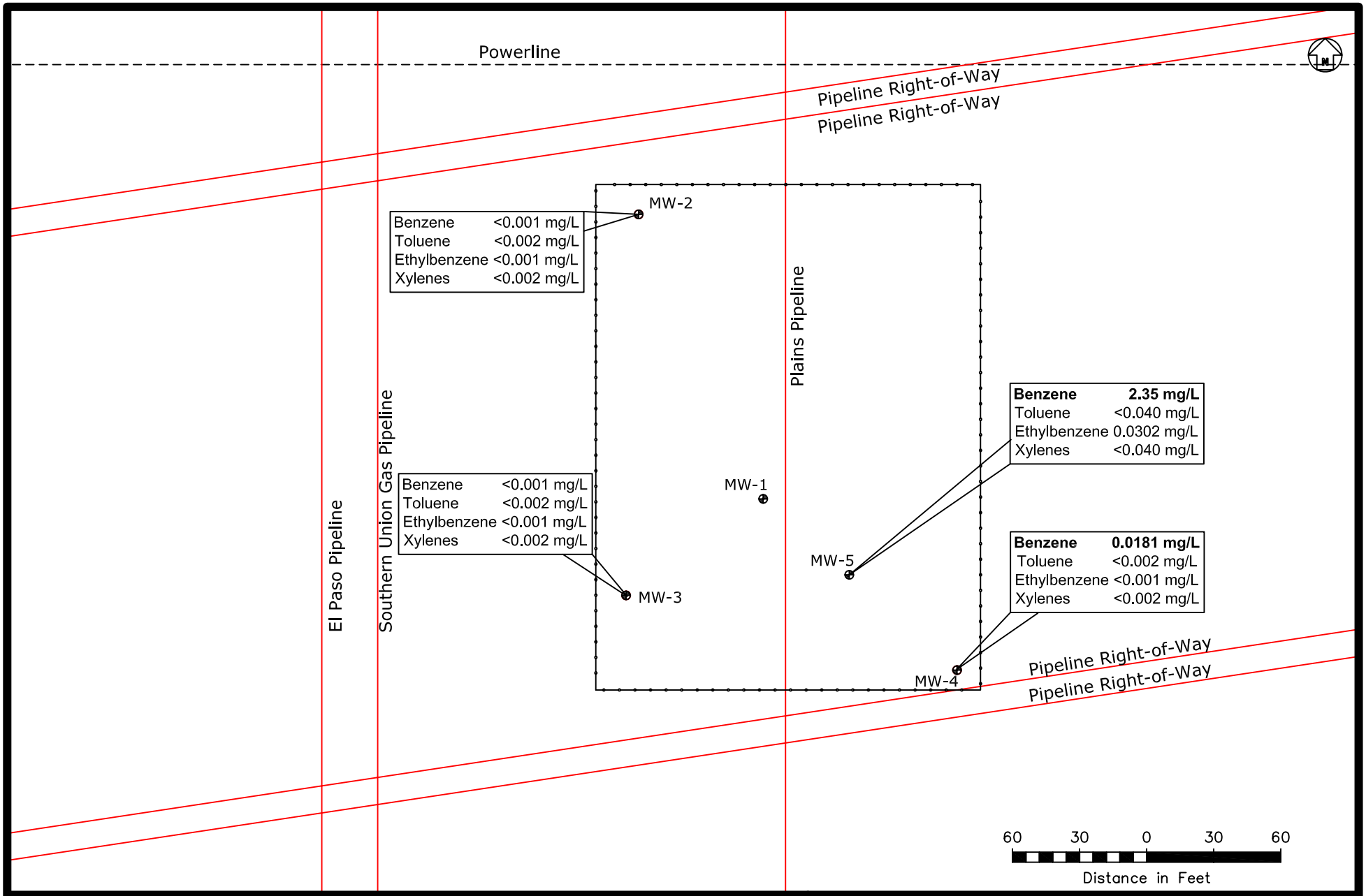


Figure 2D
Inferred Groundwater Gradient Map
(3/13/2013)
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch #2
Lea County, NM
1RP-2136

Basin Environmental Service Technologies, LLC

Prep By: BJA	Checked By: BRB
February 28, 2014	Scale 1"=60'



Legend:

- Excavation Extents
- Pipeline
- Monitor Well
- Powerline
- Fence

Figure 3A
Groundwater Concentration Map
(2/13/2013)
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch #2
Lea County, NM
1RP-2136

Basin Environmental Service Technologies, LLC

Prep By: BJA	Checked By: BRB
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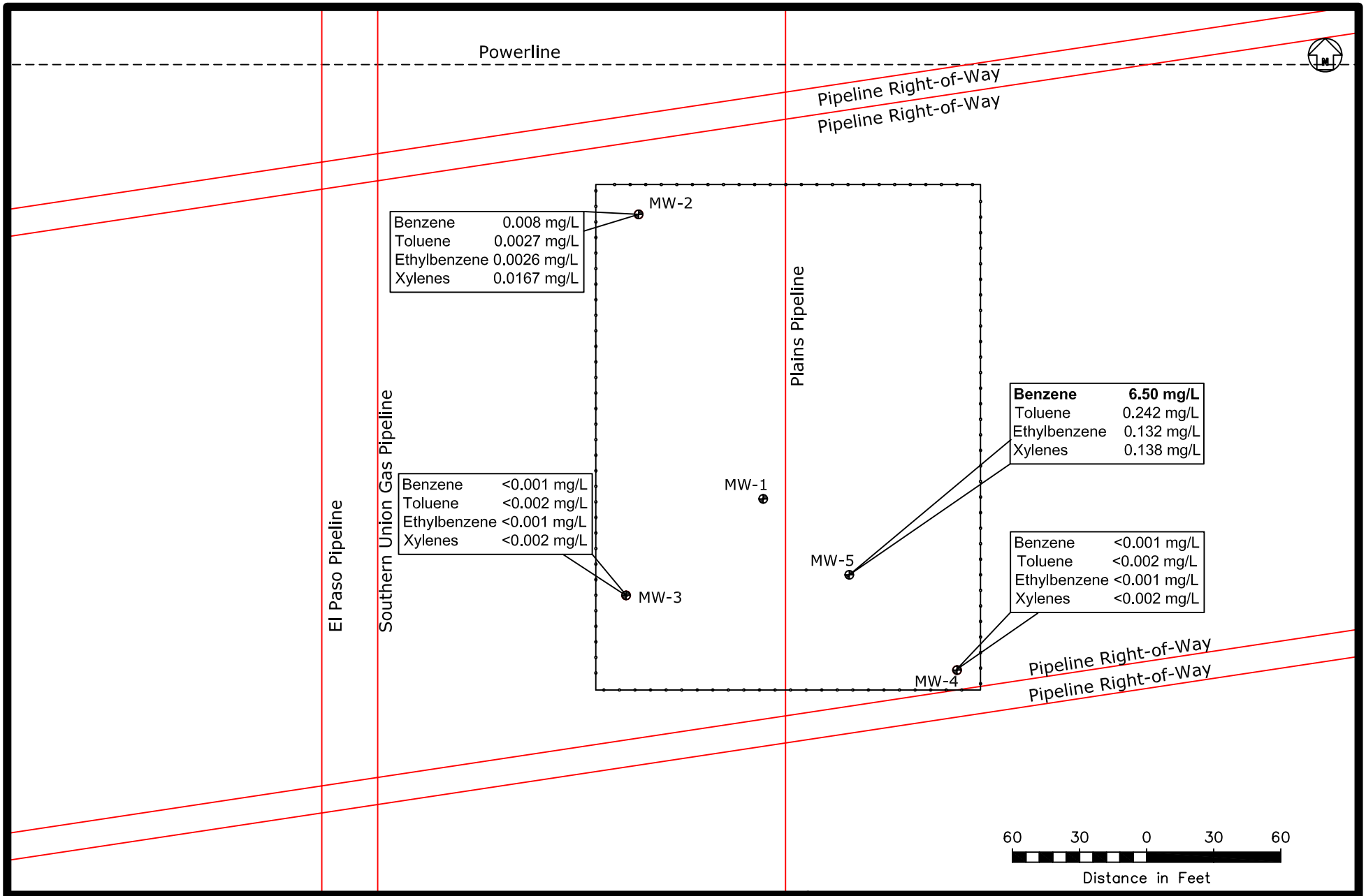

Legend:

- Excavation Extents
- Pipeline
- Monitor Well
- Powerline
- Fence

Figure 3B
Groundwater Concentration Map
(5/8/2013)
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch #2
Lea County, NM
1RP-2136

Basin Environmental Service Technologies, LLC

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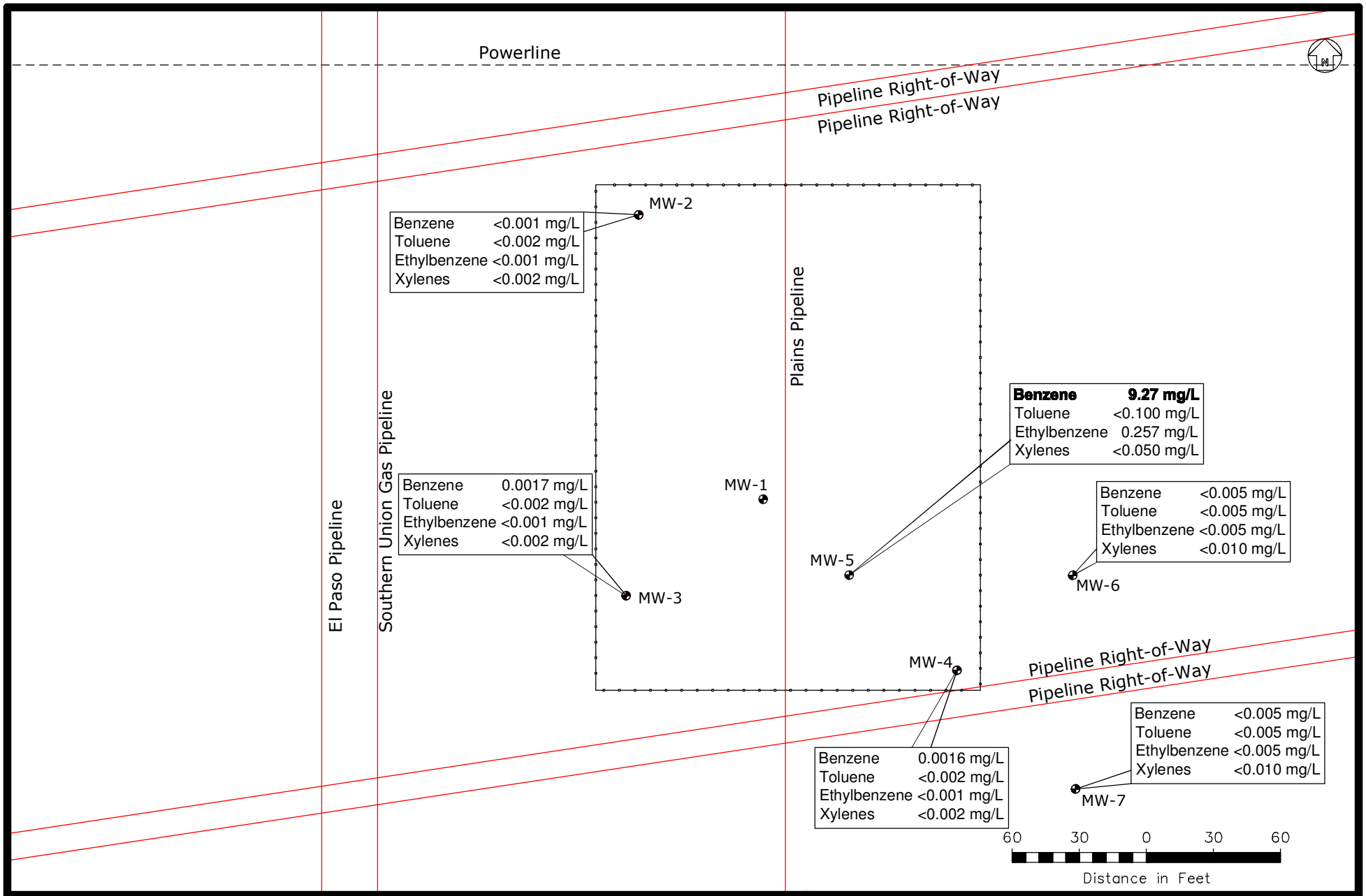

Legend:

- Excavation Extents
- Pipeline
- Monitor Well
- Powerline
- Fence

Figure 3C
Groundwater Concentration Map
3Q2013
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch #2
Lea County, NM
1RP-2136

Basin Environmental Service Technologies, LLC

Prep By: BJA	Checked By: BRB
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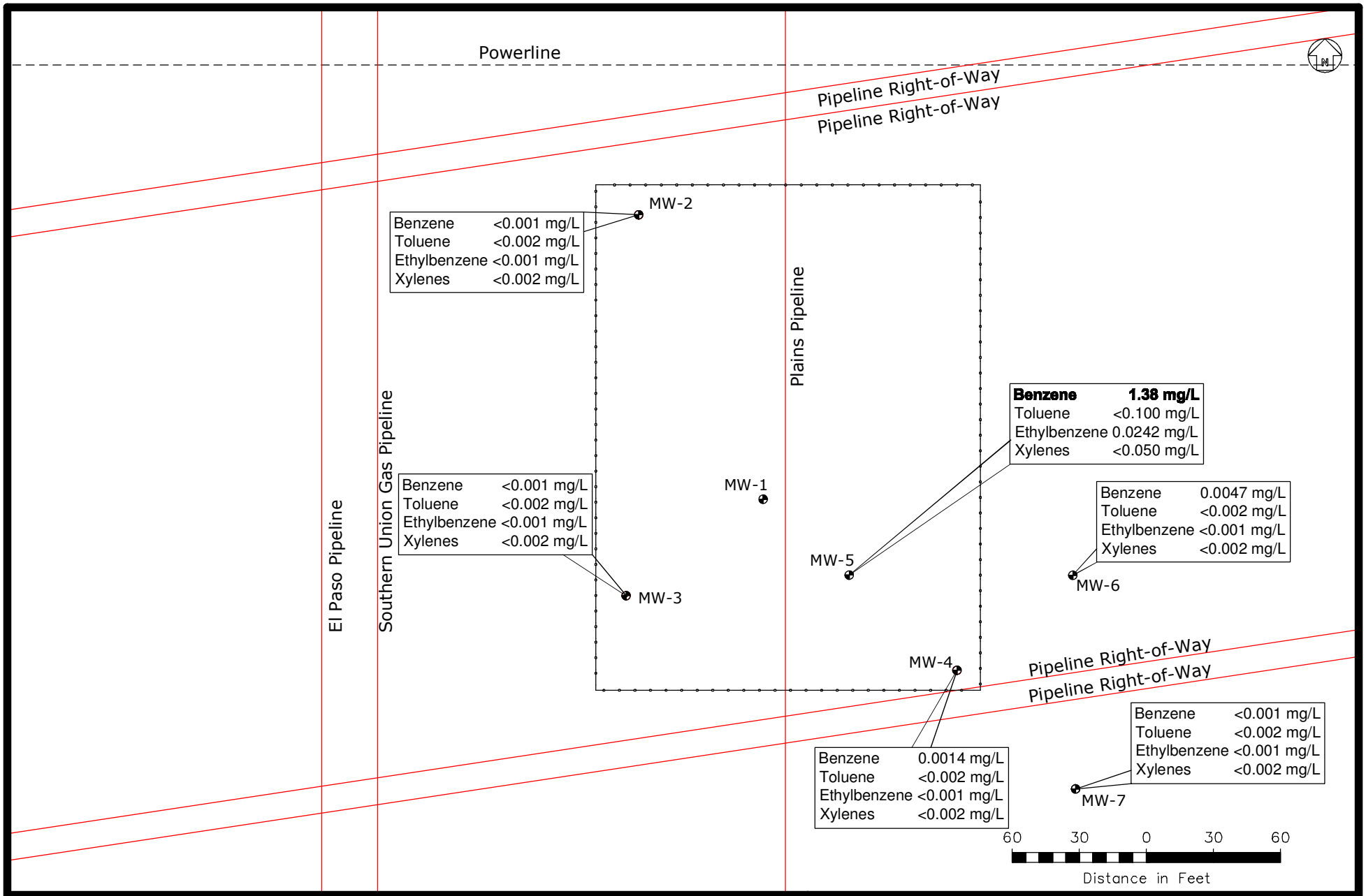

Legend:

- Excavation Extents
- Pipeline
- Monitor Well
- Powerline
- Fence

Figure 4C
Groundwater Concentration Map
4Q2013
Plains Marketing, LP
DCP Plant to Lea Station 6-Inch #2
Lea County, NM
1RP-2136

Basin Environmental Service Technologies, LLC

Prep By: BJA	Checked By: BRB
January 22, 2014	Scale 1"=60'

Tables

TABLE 1

2013 GROUNDWATER ELEVATION DATA

PLAINS PIPELINE, L.P.
DCP PLANT TO LEA STATION 6-INCH #2
LEA COUNTY, NEW MEXICO
PLAINS SRS NO: 2009-039
NMOCD REF NO: 1RP-2136

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	02/13/13	3,540.25	*	*	*	*
	05/08/13	3,540.25	79.92	83.46	3.54	3,459.80
	08/05/13	3,540.25	80.01	83.63	3.62	3,459.70
	09/25/13	3,540.25	80.02	83.62	3.60	3,459.69
	11/13/13	3,540.25	80.02	83.62	3.60	3,459.69
MW-2	02/13/13	3,538.31	-	78.69	-	3,459.62
	05/08/13	3,538.31	-	78.71	-	3,459.60
	08/05/13	3,538.31	-	78.65	-	3,459.66
	09/25/13	3,538.31	-	78.68	-	3,459.63
	11/13/13	3,538.31	-	78.68	-	3,459.63
MW-3	02/13/13	3,538.94	-	79.67	-	3,459.27
	05/08/13	3,538.94	-	79.68	-	3,459.26
	08/05/13	3,538.94	-	79.56	-	3,459.38
	09/25/13	3,538.94	-	79.64	-	3,459.30
	11/13/13	3,538.94	-	79.58	-	3,459.36
MW-4	02/13/13	3,539.67	-	80.51	-	3,459.16
	05/08/13	3,539.67	-	80.51	-	3,459.16
	08/05/13	3,539.67	-	80.49	-	3,459.18
	09/25/13	3,539.67	-	80.50	-	3,459.17
	11/13/13	3,539.67	-	80.50	-	3,459.17
MW-5	02/13/13	3,539.55	-	80.28	-	3,459.27
	05/08/13	3,539.55	-	80.28	-	3,459.27
	08/05/13	3,539.55	-	80.26	-	3,459.29
	09/25/13	3,539.55	-	80.27	-	3,459.28
	11/13/13	3,539.55	-	80.29	-	3,459.26
MW-6	09/25/13	3,539.22	-	80.10	-	3,459.12
	11/13/13	3,539.22	-	80.10	-	3,459.12
MW-7	09/25/13	3,538.97	-	79.98	-	3,458.99
	11/13/13	3,538.97	-	79.98	-	3,458.99

Elevations based on the North American Vertical Datum of 1988

- = Not applicable

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

TABLE 2

2013 CONCENTRATIONS OF BENZENE & BTEX IN GROUNDWATER

PLAINS PIPELINE, L.P.
DCP PLANT TO LEA STATION 6-INCH #2
LEA COUNTY, NEW MEXICO
PLAINS SRS NO. 2009-039
NMOCD REFERENCE NO: 1R-2136

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b						
		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
	05/08/13	0.0079	0.0027	0.0026	0.0102	0.0065	0.0167	0.0298
	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
	05/08/13	<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-4	02/05/13	**0.0181**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0181
	05/08/13	<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	0.0331
	11/13/13	0.0014	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0014
MW-5	02/05/13	**2.35**	<0.0400	0.0302	<0.0400	<0.0200	<0.0400	2.38
	05/08/13	**6.50**	0.242	0.132	0.138	<0.0500	0.1380	7.01
	08/05/13	**0.011**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.011
	11/13/13	**1.38**	<0.0020	0.0242	<0.0020	<0.0010	<0.0020	1.40
MW-6	09/25/13	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050	<0.0100	<0.0100
	11/13/13	0.0047	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0047
MW-7	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 #2

LEA COUNTY, NEW MEXICO

NMOCD REFERENCE NUMBER 1RP-2136

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	9/25/2013	25.6	0.0223	0.559	0.613	<0.010	0.0219	0.0139	<0.020	19.3	0.031	0.768	0.0298	0.0331	0.033	<0.020	0.0627	<0.0002
MW-7	9/25/2013	1.80	<0.020	0.103	0.584	<0.010	<0.010	<0.010	<0.020	1.26	0.015	0.0542	0.0347	<0.010	0.0391	<0.020	<0.030	<0.0002
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 #2
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R9-2136

All water concentrations are in mg/L

Date Sampled	Sample Location	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone	MTBE	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane
9/25/2013	MW-6	<0.005	<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
9/25/2013	MW-7	<0.005	<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 #2
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2136

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
9/25/2013	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
9/25/2013	MW-7	<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 #2
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2136

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
9/25/2013	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
9/25/2013	MW-7	<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	-	-	-	0.1 mg/L	-	0.03 mg/L	-	-	-

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
PLAINS PIPELINE, LP
DCP PLANT TO LEA STATION 6-INCH #2
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2136

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
9/25/2013	MW-6	<0.005	<0.005	0.0676	<0.0099	<0.0099	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.0020
9/25/2013	MW-7	<0.005	<0.005	0.0676	<0.0099	<0.0099	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<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 #2
LEA COUNTY, NEW MEXICO
PLAINS SRS NO: 2009-039
NMOCD REF NO: 1RP-2136

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 #2
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP -2136

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
9/25/2013	MW-6	266	109	22.8	711	**1,000**	752	224	<4.00	1.18	<0.0408	1.00
9/25/2013	MW-7	177	99.2	17.4	683	**921**	679	214	<4.00	1.21	<0.0408	0.811
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 457614

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

Dcp Plant to Lea Station 6" #2 SRS #2009-039

19-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)

19-FEB-13

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

Reference: XENCO Report No(s): **457614**
Dcp Plant to Lea Station 6" #2 SRS #2009-039
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) 457614. 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. 457614 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,

Nicholas Straccione
Project Manager

Sample Cross Reference 457614

PLAINS ALL AMERICAN EH&S, Midland, TX

Dcp Plant to Lea Station 6" #2 SRS #2009-039

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	02-13-13 12:40		457614-001
MW-3	W	02-13-13 12:15		457614-002
MW-4	W	02-13-13 11:55		457614-003
MW-5	W	02-13-13 11:30		457614-004

CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Dcp Plant to Lea Station 6" #2 SRS #2009-039

Project ID:
Work Order Number(s): *457614*

Report Date: *19-FEB-13*
Date Received: *02/13/2013*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 457614

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Dcp Plant to Lea Station 6" #2 SRS #2009-039

Project Id:
Contact: Ben Arguijo
Project Location: Lovington

Date Received in Lab: Wed Feb-13-13 01:55 pm
Report Date: 19-FEB-13
Project Manager: Nicholas Straccione

Analysis Requested													
	Lab Id:	457614-001		457614-002		457614-003		457614-004					
	Field Id:	MW-2		MW-3		MW-4		MW-5					
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER					
	Sampled:	Feb-13-13 12:40		Feb-13-13 12:15		Feb-13-13 11:55		Feb-13-13 11:30					
BTEX by EPA 8021B	***Extracted:***	Feb-18-13 07:50		Feb-18-13 07:50		Feb-18-13 07:50		Feb-18-13 07:50					
	Analyzed:	Feb-18-13 14:42		Feb-18-13 14:59		Feb-18-13 15:15		Feb-18-13 16:04					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Benzene		ND	0.00100	ND	0.00100	0.0181	0.00100	2.35	0.0200				
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.0400				
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	0.0302	0.0200				
m_p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.0400				
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.0200				
Total Xylenes		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.0200				
Total BTEX		ND	0.00100	ND	0.00100	0.0181	0.00100	2.38	0.0200				

Nicholas Straccione
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

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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" #2 SRS #2009-039

Work Orders : 457614,

Project ID:

Lab Batch #: 907262 **Sample:** 457614-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/18/13 14:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 907262 **Sample:** 457614-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/18/13 14:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0254	0.0300	85	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

Lab Batch #: 907262 **Sample:** 457614-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/18/13 15:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 907262 **Sample:** 457614-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/18/13 16:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 907262 **Sample:** 633992-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/18/13 09:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0337	0.0300	112	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" #2 SRS #2009-039

Work Orders : 457614,

Project ID:

Lab Batch #: 907262 **Sample:** 633992-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/18/13 08:41

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 907262 **Sample:** 633992-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/18/13 08:58

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY 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	0.0285	0.0300	95	80-120	

Lab Batch #: 907262 **Sample:** 457601-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/18/13 14:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY 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	0.0315	0.0300	105	80-120	

Lab Batch #: 907262 **Sample:** 457601-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/18/13 14:26

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0317	0.0300	106	80-120	
4-Bromofluorobenzene	0.0321	0.0300	107	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" #2 SRS #2009-039

Work Order #: 457614 **Project ID:**

Analyst: KEB **Date Prepared:** 02/18/2013 **Date Analyzed:** 02/18/2013

Lab Batch ID: 907262 **Sample:** 633992-1-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	0.0825	83	0.100	0.0901	90	9	70-125	25	
Toluene	<0.00200	0.100	0.0813	81	0.100	0.0913	91	12	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0808	81	0.100	0.0907	91	12	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.159	80	0.200	0.176	88	10	70-131	25	
o-Xylene	<0.00100	0.100	0.0761	76	0.100	0.0832	83	9	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" #2 SRS #2009-039

Work Order # : 457614 **Project ID:**

Lab Batch ID: 907262 **QC- Sample ID:** 457601-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 02/18/2013 **Date Prepared:** 02/18/2013 **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	0.100	100	0.100	0.0983	98	2	70-125	25	
Toluene	<0.00200	0.100	0.0953	95	0.100	0.0991	99	4	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0982	98	0.100	0.0990	99	1	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.188	94	0.200	0.193	97	3	70-131	25	
o-Xylene	<0.00100	0.100	0.0938	94	0.100	0.0994	99	6	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

XENCO Laboratories

Environmental Asbestos Radiochemistry

CHAIN OF CUSTODY RECORD

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#: 457614

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" #2 SRS #2009-039		PO#: PAA-J. Henry	
Invoice To: Jason Henry Plains All American		Quote #:	
Sampler Signature: [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 VG / Pres Type E,I / Example Volatiles by 8260	TPH	BTEX	Chloride							Hold Sample / Only RunPAH (OAH...)
								Cont Type*		VP								
								Pres Type**		E,I								
								# Cont	Lab Only:									
1	MW-2	2/13/13	12:40	GW			3			X								
2	MW-3	2/13/13	12:15	GW			3			X								
3	MW-4	2/13/13	11:55	GW			3			X								
4	MW-5	2/13/13	11:30	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 0.2 2 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[signature]	~~BESS~~ Basin Env	2.13.13	13:55	[signature]	MS	2/13/13	1:55pm
2								
3					B. [signature]		2/14/13	13:40
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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 02/14/2013 01:40:00 PM

Work Order #: 457614

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)?	2.8
#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 462809

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

SRS #2009-039

DCP Plant to Lea Station 6" #2

14-MAY-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)

14-MAY-13

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

Reference: XENCO Report No(s): **462809**
SRS #2009-039
Project Address: Lovington,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) 462809. 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. 462809 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 462809

PLAINS ALL AMERICAN EH&S, Midland, TX

SRS #2009-039

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	05-08-13 11:25		462809-001
MW-3	W	05-08-13 11:35		462809-002
MW-4	W	05-08-13 11:45		462809-003
MW-5	W	05-08-13 11:10		462809-004

Project ID:	*DCP Plant to Lea Station*	Report Date:	*14-MAY-13*
Work Order Number(s):	*462809*	Date Received:	*05/08/2013*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 462809

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: SRS #2009-039

Project Id: DCP Plant to Lea Station 6" #2
Contact: Ben Arguijo
Project Location: Lovington,NM

Date Received in Lab: Wed May-08-13 01:20 pm
Report Date: 14-MAY-13
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	462809-001		462809-002		462809-003		462809-004					
	Field Id:	MW-2		MW-3		MW-4		MW-5					
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER					
	Sampled:	May-08-13 11:25		May-08-13 11:35		May-08-13 11:45		May-08-13 11:10					
BTEX by EPA 8021B	***Extracted:***	May-13-13 17:00		May-13-13 17:00		May-13-13 17:00		May-13-13 17:00					
	Analyzed:	May-13-13 19:01		May-13-13 19:17		May-13-13 19:34		May-14-13 12:47					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Benzene		0.00790	0.00100	ND	0.00100	ND	0.00100	6.50	0.0500				
Toluene		0.00267	0.00200	ND	0.00200	ND	0.00200	0.242	0.100				
Ethylbenzene		0.00257	0.00100	ND	0.00100	ND	0.00100	0.132	0.0500				
m_p-Xylenes		0.0102	0.00200	ND	0.00200	ND	0.00200	0.138	0.100				
o-Xylene		0.00648	0.00100	ND	0.00100	ND	0.00100	ND	0.0500				
Total Xylenes		0.0167	0.00100	ND	0.00100	ND	0.00100	0.138	0.0500				
Total BTEX		0.0298	0.00100	ND	0.00100	ND	0.00100	7.01	0.0500				

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: SRS #2009-039

Work Orders : 462809, **Project ID:** DCP Plant to Lea Station 6" #2

Lab Batch #: 913641 **Sample:** 462809-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/13/13 19:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0319	0.0300	106	80-120	

Lab Batch #: 913641 **Sample:** 462809-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/13/13 19:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	0.0300	114	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 913641 **Sample:** 462809-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/13/13 19:34

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	0.0328	0.0300	109	80-120	

Lab Batch #: 913641 **Sample:** 462809-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/14/13 12:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 913641 **Sample:** 638024-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/13/13 18:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0255	0.0300	85	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	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: SRS #2009-039

Work Orders : 462809, **Project ID:** DCP Plant to Lea Station 6" #2

Lab Batch #: 913641 **Sample:** 638024-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/13/13 18:11

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY 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	0.0281	0.0300	94	80-120	

Lab Batch #: 913641 **Sample:** 638024-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/13/13 18:28

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 913641 **Sample:** 462809-002 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/14/13 12:14

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 913641 **Sample:** 462809-002 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/14/13 12:30

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY 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	0.0322	0.0300	107	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: SRS #2009-039

Work Order #: 462809 **Project ID:** DCP Plant to Lea Station 6" #2

Analyst: DYV **Date Prepared:** 05/13/2013 **Date Analyzed:** 05/13/2013

Lab Batch ID: 913641 **Sample:** 638024-1-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	0.102	102	0.100	0.108	108	6	70-125	25	
Toluene	<0.00200	0.100	0.109	109	0.100	0.112	112	3	70-125	25	
Ethylbenzene	<0.00100	0.100	0.115	115	0.100	0.114	114	1	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.211	106	0.200	0.218	109	3	70-131	25	
o-Xylene	<0.00100	0.100	0.103	103	0.100	0.110	110	7	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: SRS #2009-039

Work Order # : 462809 **Project ID:** DCP Plant to Lea Station 6" #2

Lab Batch ID: 913641 **QC- Sample ID:** 462809-002 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 05/14/2013 **Date Prepared:** 05/13/2013 **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	<0.00100	0.100	0.0917	92	0.100	0.107	107	15	70-125	25	
Toluene	<0.00200	0.100	0.0937	94	0.100	0.110	110	16	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0986	99	0.100	0.117	117	17	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.182	91	0.200	0.220	110	19	70-131	25	
o-Xylene	<0.00100	0.100	0.0882	88	0.100	0.111	111	23	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.

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#: 462809

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" #2 SRS #2009-039	PO#:	PAA-J. Henry
Invoice To:	Jason Henry Plains All American	Quote #:	
Sampler Signature:		Circle One Event: Daily Weekly Monthly Quarterly 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 Type * VC										VP									
Pres Type** E, I										E,I									
# Cont	Lab Only:																		
1	MW-2	5-8-13	11:25	GW			3			X									
2	MW-3	5-8-13	11:35	GW			3			X									
3	MW-4	5-8-13	11:45	GW			3			X									
4	MW-5	5-8-13	11:10	GW			3			X									
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 1.5 2 3 16.07

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[signature]	Basin	5-8-13	1320	[signature]	MS	5-8-13	13:20
2					[signature]	Xenco	5-9-13	13:30
3								
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 #

 Revision Date: Nov 12, 2009

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 05/08/2013 01:20:00 PM

Work Order #: 462809

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: 05/09/2013

Checklist reviewed by: Kelsey Brooks Date: 05/09/2013

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

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
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

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
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

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
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

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
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

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
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

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	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

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	0.0255	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

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	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

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	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

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0351	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

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY 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

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY 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

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY 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

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY 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	Cont Type * VC	Example Volatiles by 8260	TPH	BTEX	Chloride							Hold Sample (CALL) Run PAH on Highest TPH Only If
								Pres Type** E, I		VP	E,I								
								# Cont	Lab Only:										
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

Temperature Measuring device used :

Sample Receipt Checklist	Comments
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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 471127

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

DCP Plant to Lea Station 6" #2

SRS#2009-039

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): **471127**
DCP Plant to Lea Station 6" #2
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) 471127. 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. 471127 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 471127

PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6" #2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-6	W	09-25-13 11:30		471127-001
MW-7	W	09-25-13 12:00		471127-002

Sample receipt non conformances and comments:

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: 471127-002, -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: 471127-002, -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: 471127-002, -001.

Certificate of Analysis Summary 471127

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" #2

Project Id: SRS#2009-039
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Wed Sep-25-13 04:30 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested									
	Lab Id:	471127-001		471127-002					
	Field Id:	MW-6		MW-7					
	Depth:								
	Matrix:	WATER		WATER					
	Sampled:	Sep-25-13 11:30		Sep-25-13 12:00					
Alkalinity by SM2320B SUB: TX104704215	***Extracted:***								
	Analyzed:	Sep-27-13 11:56		Sep-27-13 11:56					
	Units/RL:	mg/L	RL	mg/L	RL				
Alkalinity, Bicarbonate (as CaCO3)		224	4.00	214	4.00				
Alkalinity, Carbonate (as CaCO3)		ND	4.00	ND	4.00				
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	***Extracted:***	Sep-27-13 10:30		Sep-27-13 10:30					
	Analyzed:	Sep-27-13 18:17		Sep-27-13 19:13					
	Units/RL:	mg/L	RL	mg/L	RL				
Chloride		1000 D	10.0	921 D	10.0				
Fluoride		1.000	0.100	0.811	0.100				
Nitrite as N		1.18	0.0300	1.21	0.0300				
Sulfate		752 D	10.0	679 D	10.0				
Orthophosphate (as P)		ND	0.0408	ND	0.0408				
Mercury by SW-846 7470A SUB: TX104704215	***Extracted:***	Sep-30-13 11:15		Sep-30-13 11:15					
	Analyzed:	Sep-30-13 14:48		Sep-30-13 14:51					
	Units/RL:	mg/L	RL	mg/L	RL				
Mercury		ND	0.000200	ND	0.000200				

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471127

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" #2

Project Id: SRS#2009-039
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Wed Sep-25-13 04:30 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested									
	Lab Id:	471127-001		471127-002					
	Field Id:	MW-6		MW-7					
	Depth:								
	Matrix:	WATER		WATER					
	Sampled:	Sep-25-13 11:30		Sep-25-13 12:00					
Metals per ICP by EPA 200.7 SUB: TX104704215	***Extracted:***	Sep-27-13 09:00		Sep-27-13 09:00					
	Analyzed:	Sep-30-13 14:39		Sep-30-13 14:45					
	Units/RL:	mg/L	RL	mg/L	RL				
Aluminum		25.6	0.200	1.80	0.200				
Arsenic		0.0223	0.0200	ND	0.0200				
Barium		0.559	0.0100	0.103	0.0100				
Boron		0.613	0.0500	0.584	0.0500				
Cadmium		ND	0.0100	ND	0.0100				
Calcium		266	0.200	177	0.200				
Chromium		0.0219	0.0100	ND	0.0100				
Cobalt		0.0139	0.0100	ND	0.0100				
Copper		ND	0.0200	ND	0.0200				
Iron		19.3	0.200	1.26	0.200				
Lead		0.0310	0.0100	0.0150	0.0100				
Magnesium		109	0.200	99.2	0.200				
Manganese		0.768	0.0200	0.0542	0.0200				
Molybdenum		0.0298	0.0100	0.0347	0.0100				
Nickel		0.0331	0.0100	ND	0.0100				
Potassium		22.8	0.500	17.4	0.500				
Selenium		0.0330	0.0300	0.0391	0.0300				
Silver		ND	0.0200	ND	0.0200				
Sodium		711	50.0	683	50.0				
Zinc		0.0627	0.0300	ND	0.0300				

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471127

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" #2

Project Id: SRS#2009-039
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Wed Sep-25-13 04:30 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	471127-001		471127-002			
	Field Id:	MW-6		MW-7			
	Depth:						
	Matrix:	WATER		WATER			
	Sampled:	Sep-25-13 11:30		Sep-25-13 12:00			
SVOAs by SW-846 8270C SUB: TX104704215	***Extracted:***	Sep-30-13 10:21		Sep-30-13 10:24			
	Analyzed:	Sep-30-13 18:56		Sep-30-13 19:15			
	Units/RL:	mg/L	RL	mg/L	RL		
1,2,4-Trichlorobenzene		ND	0.00500	ND	0.00500		
1,2-Dichlorobenzene		ND	0.00500	ND	0.00500		
1,3-Dichlorobenzene		ND	0.00500	ND	0.00500		
1,4-Dichlorobenzene		ND	0.00500	ND	0.00500		
2,4,5-Trichlorophenol		ND	0.00500	ND	0.00500		
2,4,6-Trichlorophenol		ND	0.00500	ND	0.00500		
2,4-Dichlorophenol		ND	0.00500	ND	0.00500		
2,4-Dimethylphenol		ND	0.00500	ND	0.00500		
2,4-Dinitrophenol		ND	0.0100	ND	0.0100		
2,4-Dinitrotoluene		ND	0.00500	ND	0.00500		
2,6-Dinitrotoluene		ND	0.00500	ND	0.00500		
2-Chloronaphthalene		ND	0.00500	ND	0.00500		
2-Chlorophenol		ND	0.00500	ND	0.00500		
2-Methylnaphthalene		ND	0.00500	ND	0.00500		
2-methylphenol		ND	0.00500	ND	0.00500		
2-Nitroaniline		ND	0.0100	ND	0.0100		
2-Nitrophenol		ND	0.00500	ND	0.00500		
3&4-Methylphenol		ND	0.00500	ND	0.00500		
3,3-Dichlorobenzidine		ND	0.0100	ND	0.0100		
3-Nitroaniline		ND	0.0100	ND	0.0100		
4,6-dinitro-2-methyl phenol		ND	0.0100	ND	0.0100		
4-Bromophenyl-phenylether		ND	0.00500	ND	0.00500		
4-chloro-3-methylphenol		ND	0.00500	ND	0.00500		
4-Chloroaniline		ND	0.0100	ND	0.0100		
4-Chlorophenyl Phenyl Ether		ND	0.00500	ND	0.00500		

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471127

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" #2

Project Id: SRS#2009-039
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Wed Sep-25-13 04:30 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	471127-001		471127-002			
	Field Id:	MW-6		MW-7			
	Depth:						
	Matrix:	WATER		WATER			
	Sampled:	Sep-25-13 11:30		Sep-25-13 12:00			
SVOAs by SW-846 8270C SUB: TX104704215	***Extracted:***	Sep-30-13 10:21		Sep-30-13 10:24			
	Analyzed:	Sep-30-13 18:56		Sep-30-13 19:15			
	Units/RL:	mg/L	RL	mg/L	RL		
4-Nitroaniline		ND	0.0100	ND	0.0100		
4-Nitrophenol		ND	0.0100	ND	0.0100		
Acenaphthene		ND	0.00500	ND	0.00500		
Acenaphthylene		ND	0.00500	ND	0.00500		
Aniline (Phenylamine, Aminobenzene)		ND	0.0100	ND	0.0100		
Anthracene		ND	0.00500	ND	0.00500		
Benzo(a)anthracene		ND	0.00500	ND	0.00500		
Benzo(a)pyrene		ND	0.00500	ND	0.00500		
Benzo(b)fluoranthene		ND	0.00500	ND	0.00500		
Benzo(g,h,i)perylene		ND	0.00500	ND	0.00500		
Benzo(k)fluoranthene		ND	0.00500	ND	0.00500		
Benzoic Acid		ND	0.0300	ND	0.0300		
Benzyl Butyl Phthalate		ND	0.00500	ND	0.00500		
bis(2-chloroethoxy) methane		ND	0.00500	ND	0.00500		
bis(2-chloroethyl) ether		ND	0.00500	ND	0.00500		
bis(2-chloroisopropyl) ether		ND	0.00500	ND	0.00500		
bis(2-ethylhexyl) phthalate		ND	0.00500	ND	0.00500		
Chrysene		ND	0.00500	ND	0.00500		
Dibenz(a,h)anthracene		ND	0.00500	ND	0.00500		
Dibenzofuran		ND	0.00500	ND	0.00500		
Diethylphthalate		ND	0.00500	ND	0.00500		
Dimethyl Phthalate		ND	0.00500	ND	0.00500		
Di-n-butylphthalate		ND	0.00500	ND	0.00500		
di-n-Octyl Phthalate		ND	0.00500	ND	0.00500		
Fluoranthene		ND	0.00500	ND	0.00500		

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471127

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" #2

Project Id: SRS#2009-039
Contact: Ben Arguijo
Project Location: Lea County, NM

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Project Manager: Kelsey Brooks

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	Field Id:	MW-6		MW-7			
	Depth:						
	Matrix:	WATER		WATER			
	Sampled:	Sep-25-13 11:30		Sep-25-13 12:00			
SVOAs by SW-846 8270C SUB: TX104704215	***Extracted:***	Sep-30-13 10:21		Sep-30-13 10:24			
	Analyzed:	Sep-30-13 18:56		Sep-30-13 19:15			
	Units/RL:	mg/L	RL	mg/L	RL		
Fluorene		ND	0.00500	ND	0.00500		
Hexachlorobenzene		ND	0.00500	ND	0.00500		
Hexachlorobutadiene		ND	0.00500	ND	0.00500		
Hexachlorocyclopentadiene		ND	0.00500	ND	0.00500		
Hexachloroethane		ND	0.00500	ND	0.00500		
Indeno(1,2,3-c,d)Pyrene		ND	0.00500	ND	0.00500		
Isophorone		ND	0.00500	ND	0.00500		
Naphthalene		ND	0.00500	ND	0.00500		
Nitrobenzene		ND	0.00500	ND	0.00500		
N-Nitrosodi-n-Propylamine		ND	0.00500	ND	0.00500		
N-Nitrosodiphenylamine		ND	0.00500	ND	0.00500		
Pentachlorophenol		ND	0.0100	ND	0.0100		
Phenanthrene		ND	0.00500	ND	0.00500		
Phenol		ND	0.0100	ND	0.0100		
Pyrene		ND	0.00500	ND	0.00500		
Pyridine		ND	0.0100	ND	0.0100		

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471127

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" #2

Project Id: SRS#2009-039
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Wed Sep-25-13 04:30 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	471127-001		471127-002			
	Field Id:	MW-6		MW-7			
	Depth:						
	Matrix:	WATER		WATER			
	Sampled:	Sep-25-13 11:30		Sep-25-13 12:00			
VOAs by SW-846 8260B SUB: TX104704215	***Extracted:***	Sep-29-13 17:17		Sep-29-13 17:24			
	Analyzed:	Sep-29-13 20:34		Sep-29-13 23:28			
	Units/RL:	mg/L	RL	mg/L	RL		
Benzene		ND	0.00500	ND	0.00500		
Bromobenzene		ND	0.00500	ND	0.00500		
Bromochloromethane		ND	0.00500	ND	0.00500		
Bromodichloromethane		ND	0.00500	ND	0.00500		
Bromoform		ND	0.00500	ND	0.00500		
Methyl bromide		ND	0.00500	ND	0.00500		
n-Butylbenzene		ND	0.00500	ND	0.00500		
Sec-Butylbenzene		ND	0.00500	ND	0.00500		
tert-Butylbenzene		ND	0.00500	ND	0.00500		
Carbon Tetrachloride		ND	0.00500	ND	0.00500		
Chlorobenzene		ND	0.00500	ND	0.00500		
Chloroethane		ND	0.0100	ND	0.0100		
Chloroform		ND	0.00500	ND	0.00500		
Methyl Chloride		ND	0.0100	ND	0.0100		
2-Chlorotoluene		ND	0.00500	ND	0.00500		
4-Chlorotoluene		ND	0.00500	ND	0.00500		
p-Cymene (p-Isopropyltoluene)		ND	0.00500	ND	0.00500		
Dibromochloromethane		ND	0.00500	ND	0.00500		
1,2-Dibromo-3-Chloropropane		ND	0.00500	ND	0.00500		
1,2-Dibromoethane		ND	0.00500	ND	0.00500		
Methylene bromide		ND	0.00500	ND	0.00500		
1,2-Dichlorobenzene		ND	0.00500	ND	0.00500		
1,3-Dichlorobenzene		ND	0.00500	ND	0.00500		
1,4-Dichlorobenzene		ND	0.00500	ND	0.00500		
Dichlorodifluoromethane		ND	0.00500	ND	0.00500		

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471127

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" #2

Project Id: SRS#2009-039
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Wed Sep-25-13 04:30 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	471127-001		471127-002			
	Field Id:	MW-6		MW-7			
	Depth:						
	Matrix:	WATER		WATER			
	Sampled:	Sep-25-13 11:30		Sep-25-13 12:00			
VOAs by SW-846 8260B SUB: TX104704215	***Extracted:***	Sep-29-13 17:17		Sep-29-13 17:24			
	Analyzed:	Sep-29-13 20:34		Sep-29-13 23:28			
	Units/RL:	mg/L	RL	mg/L	RL		
1,1-Dichloroethane		ND	0.00500	ND	0.00500		
1,2-Dichloroethane		ND	0.00500	ND	0.00500		
1,1-Dichloroethene		ND	0.00500	ND	0.00500		
cis-1,2-Dichloroethylene		ND	0.00500	ND	0.00500		
trans-1,2-dichloroethylene		ND	0.00500	ND	0.00500		
1,2-Dichloropropane		ND	0.00500	ND	0.00500		
1,3-Dichloropropane		ND	0.00500	ND	0.00500		
2,2-Dichloropropane		ND	0.00500	ND	0.00500		
1,1-Dichloropropene		ND	0.00500	ND	0.00500		
cis-1,3-Dichloropropene		ND	0.00500	ND	0.00500		
trans-1,3-dichloropropene		ND	0.00500	ND	0.00500		
Ethylbenzene		ND	0.00500	ND	0.00500		
Hexachlorobutadiene		ND	0.00500	ND	0.00500		
Isopropylbenzene		ND	0.00500	ND	0.00500		
Methylene Chloride		ND	0.00500	ND	0.00500		
MTBE		ND	0.00500	ND	0.00500		
Naphthalene		ND	0.0100	ND	0.0100		
n-Propylbenzene		ND	0.00500	ND	0.00500		
Styrene		ND	0.00500	ND	0.00500		
1,1,1,2-Tetrachloroethane		ND	0.00500	ND	0.00500		
1,1,2,2-Tetrachloroethane		ND	0.00500	ND	0.00500		
Tetrachloroethylene		ND	0.00500	ND	0.00500		
Toluene		ND	0.00500	ND	0.00500		
1,2,3-Trichlorobenzene		ND	0.00500	ND	0.00500		
1,2,4-Trichlorobenzene		ND	0.00500	ND	0.00500		

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 471127

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" #2

Project Id: SRS#2009-039
Contact: Ben Arguijo
Project Location: Lea County, NM

Date Received in Lab: Wed Sep-25-13 04:30 pm
Report Date: 02-OCT-13
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	471127-001		471127-002			
	Field Id:	MW-6		MW-7			
	Depth:						
	Matrix:	WATER		WATER			
	Sampled:	Sep-25-13 11:30		Sep-25-13 12:00			
VOAs by SW-846 8260B SUB: TX104704215	***Extracted:***	Sep-29-13 17:17		Sep-29-13 17:24			
	Analyzed:	Sep-29-13 20:34		Sep-29-13 23:28			
	Units/RL:	mg/L	RL	mg/L	RL		
1,1,1-Trichloroethane		ND	0.00500	ND	0.00500		
1,1,2-Trichloroethane		ND	0.00500	ND	0.00500		
Trichloroethylene		ND	0.00500	ND	0.00500		
Trichlorofluoromethane		ND	0.00500	ND	0.00500		
1,2,3-Trichloropropane		ND	0.00500	ND	0.00500		
1,2,4-Trimethylbenzene		ND	0.00500	ND	0.00500		
1,3,5-Trimethylbenzene		ND	0.00500	ND	0.00500		
o-Xylene		ND	0.00500	ND	0.00500		
m,p-Xylenes		ND	0.0100	ND	0.0100		
Vinyl Chloride		ND	0.00200	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" #2

Work Orders : 471127,

Project ID: SRS#2009-039

Lab Batch #: 923905 **Sample:** 471127-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/29/13 20:34

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0515	0.0500	103	75-131	
1,2-Dichloroethane-D4	0.0535	0.0500	107	63-144	
Toluene-D8	0.0512	0.0500	102	80-117	
4-Bromofluorobenzene	0.0503	0.0500	101	74-124	

Lab Batch #: 923905 **Sample:** 471127-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/29/13 23:28

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0544	0.0500	109	75-131	
1,2-Dichloroethane-D4	0.0535	0.0500	107	63-144	
Toluene-D8	0.0512	0.0500	102	80-117	
4-Bromofluorobenzene	0.0499	0.0500	100	74-124	

Lab Batch #: 923979 **Sample:** 471127-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/30/13 18:56

SVOAs by SW-846 8270C Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorophenol	25.1	50.0	50	30-100	
Phenol-d6	15.8	50.0	32	15-94	
Nitrobenzene-d5	42.8	50.0	86	46-111	
2-Fluorobiphenyl	44.0	50.0	88	44-117	
2,4,6-Tribromophenol	47.1	50.0	94	48-117	
Terphenyl-D14	46.9	50.0	94	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" #2

Work Orders : 471127,

Project ID: SRS#2009-039

Lab Batch #: 923979 **Sample:** 471127-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/30/13 19:15

SVOAs by SW-846 8270C Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorophenol	21.5	50.0	43	30-100	
Phenol-d6	13.1	50.0	26	15-94	
Nitrobenzene-d5	34.3	50.0	69	46-111	
2-Fluorobiphenyl	36.5	50.0	73	44-117	
2,4,6-Tribromophenol	37.9	50.0	76	48-117	
Terphenyl-D14	39.6	50.0	79	46-126	

Lab Batch #: 923905 **Sample:** 644575-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/29/13 15:24

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0495	0.0500	99	75-131	
1,2-Dichloroethane-D4	0.0517	0.0500	103	63-144	
Toluene-D8	0.0480	0.0500	96	80-117	
4-Bromofluorobenzene	0.0497	0.0500	99	74-124	

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

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

SVOAs by SW-846 8270C Analytes	SURROGATE RECOVERY STUDY 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	

* 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" #2

Work Orders : 471127,

Project ID: SRS#2009-039

Lab Batch #: 923905 **Sample:** 644575-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/29/13 14:08

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0514	0.0500	103	75-131	
1,2-Dichloroethane-D4	0.0502	0.0500	100	63-144	
Toluene-D8	0.0492	0.0500	98	80-117	
4-Bromofluorobenzene	0.0502	0.0500	100	74-124	

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

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

SVOAs by SW-846 8270C Analytes	SURROGATE RECOVERY STUDY 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	

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

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

SVOAs by SW-846 8270C Analytes	SURROGATE RECOVERY STUDY 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	

* 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" #2

Work Orders : 471127,

Project ID: SRS#2009-039

Lab Batch #: 923905 **Sample:** 470940-007 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/29/13 21:48

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0523	0.0500	105	75-131	
1,2-Dichloroethane-D4	0.0511	0.0500	102	63-144	
Toluene-D8	0.0497	0.0500	99	80-117	
4-Bromofluorobenzene	0.0510	0.0500	102	74-124	

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

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

SVOAs by SW-846 8270C Analytes	SURROGATE RECOVERY STUDY 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	

Lab Batch #: 923905 **Sample:** 470940-007 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/29/13 22:13

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0542	0.0500	108	75-131	
1,2-Dichloroethane-D4	0.0543	0.0500	109	63-144	
Toluene-D8	0.0497	0.0500	99	80-117	
4-Bromofluorobenzene	0.0506	0.0500	101	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" #2

Work Order #: 471127 **Project ID:** SRS#2009-039

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
Fluoride	<0.100	4.00	3.75	94	90-110	
Nitrite as N	<0.0300	6.08	6.07	100	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" #2

Work Order #: 471127 **Project ID:** SRS#2009-039

Lab Batch #: 923905 **Sample:** 644575-1-BKS **Matrix:** Water

Date Analyzed: 09/29/2013 **Date Prepared:** 09/29/2013 **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	0.0531	106	68-123	
Bromobenzene	<0.00500	0.0500	0.0540	108	83-124	
Bromochloromethane	<0.00500	0.0500	0.0534	107	68-119	
Bromodichloromethane	<0.00500	0.0500	0.0578	116	72-132	
Bromoform	<0.00500	0.0500	0.0512	102	65-136	
Methyl bromide	<0.00500	0.0500	0.0470	94	48-120	
n-Butylbenzene	<0.00500	0.0500	0.0554	111	82-128	
Sec-Butylbenzene	<0.00500	0.0500	0.0575	115	83-130	
tert-Butylbenzene	<0.00500	0.0500	0.0560	112	83-131	
Carbon Tetrachloride	<0.00500	0.0500	0.0565	113	68-135	
Chlorobenzene	<0.00500	0.0500	0.0528	106	78-124	
Chloroethane	<0.0100	0.0500	0.0544	109	55-120	
Chloroform	<0.00500	0.0500	0.0547	109	71-119	
Methyl Chloride	<0.0100	0.0500	0.0508	102	54-114	
2-Chlorotoluene	<0.00500	0.0500	0.0541	108	83-128	
4-Chlorotoluene	<0.00500	0.0500	0.0546	109	81-125	
p-Cymene (p-Isopropyltoluene)	<0.00500	0.0500	0.0559	112	85-129	
Dibromochloromethane	<0.00500	0.0500	0.0560	112	74-135	
1,2-Dibromo-3-Chloropropane	<0.00500	0.0500	0.0541	108	62-134	
1,2-Dibromoethane	<0.00500	0.0500	0.0550	110	77-129	
Methylene bromide	<0.00500	0.0500	0.0554	111	71-124	
1,2-Dichlorobenzene	<0.00500	0.0500	0.0537	107	81-123	
1,3-Dichlorobenzene	<0.00500	0.0500	0.0534	107	82-126	
1,4-Dichlorobenzene	<0.00500	0.0500	0.0525	105	80-119	
Dichlorodifluoromethane	<0.00500	0.0500	0.0528	106	59-121	
1,1-Dichloroethane	<0.00500	0.0500	0.0546	109	75-125	
1,2-Dichloroethane	<0.00500	0.0500	0.0537	107	64-130	
1,1-Dichloroethene	<0.00500	0.0500	0.0527	105	68-116	
cis-1,2-Dichloroethylene	<0.00500	0.0500	0.0534	107	74-130	
trans-1,2-dichloroethylene	<0.00500	0.0500	0.0513	103	64-109	
1,2-Dichloropropane	<0.00500	0.0500	0.0541	108	72-127	
1,3-Dichloropropane	<0.00500	0.0500	0.0538	108	79-133	
2,2-Dichloropropane	<0.00500	0.0500	0.0593	119	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" #2

Work Order #: 471127 **Project ID:** SRS#2009-039

Lab Batch #: 923905 **Sample:** 644575-1-BKS **Matrix:** Water

Date Analyzed: 09/29/2013 **Date Prepared:** 09/29/2013 **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	0.0529	106	69-124	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0604	121	74-138	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0592	118	70-132	
Ethylbenzene	<0.00500	0.0500	0.0548	110	69-131	
Hexachlorobutadiene	<0.00500	0.0500	0.0522	104	74-130	
Isopropylbenzene	<0.00500	0.0500	0.0568	114	66-133	
Methylene Chloride	<0.00500	0.0500	0.0508	102	60-121	
MTBE	<0.00500	0.100	0.116	116	60-152	
Naphthalene	<0.0100	0.0500	0.0531	106	69-140	
n-Propylbenzene	<0.00500	0.0500	0.0548	110	86-129	
Styrene	<0.00500	0.0500	0.0565	113	79-128	
1,1,1,2-Tetrachloroethane	<0.00500	0.0500	0.0581	116	78-131	
1,1,2,2-Tetrachloroethane	<0.00500	0.0500	0.0574	115	80-133	
Tetrachloroethylene	<0.00500	0.0500	0.0516	103	79-122	
Toluene	<0.00500	0.0500	0.0527	105	62-132	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0514	103	76-126	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0522	104	77-127	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0572	114	72-124	
1,1,2-Trichloroethane	<0.00500	0.0500	0.0556	111	71-135	
Trichloroethylene	<0.00500	0.0500	0.0535	107	74-123	
Trichlorofluoromethane	<0.00500	0.0500	0.0588	118	70-143	
1,2,3-Trichloropropane	<0.00500	0.0500	0.0580	116	75-134	
1,2,4-Trimethylbenzene	<0.00500	0.0500	0.0551	110	79-132	
1,3,5-Trimethylbenzene	<0.00500	0.0500	0.0551	110	72-139	
o-Xylene	<0.00500	0.0500	0.0554	111	67-132	
m,p-Xylenes	<0.0100	0.100	0.109	109	69-132	
Vinyl Chloride	<0.00200	0.0500	0.0525	105	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" #2

Work Order #: 471127 **Project ID:** SRS#2009-039

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" #2

Work Order #: 471127 **Project ID:** SRS#2009-039

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" #2

Work Order #: 471127
Analyst: CYE
Lab Batch ID: 923979
Sample: 644548-1-BKS
Units: mg/L

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

Project ID: SRS#2009-039
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" #2

Work Order #: 471127
Analyst: CYE
Lab Batch ID: 923979
Sample: 644548-1-BKS
Units: mg/L

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

Project ID: SRS#2009-039
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" #2

Work Order #: 471127
Analyst: CYE
Lab Batch ID: 923979
Sample: 644548-1-BKS
Units: mg/L

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

Project ID: SRS#2009-039
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
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" #2

Work Order #: 471127
Lab Batch #: 923948
Project ID: SRS#2009-039
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" #2

Work Order #: 471127
Lab Batch #: 923979
Project ID: SRS#2009-039
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" #2

Work Order #: 471127
Lab Batch #: 923979
Project ID: SRS#2009-039
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" #2

Work Order # : 471127 **Project ID:** SRS#2009-039

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
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	

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
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	

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" #2

Work Order # : 471127 **Project ID:** SRS#2009-039

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
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" #2

Work Order # : 471127 **Project ID:** SRS#2009-039

Lab Batch ID: 923905 **QC- Sample ID:** 470940-007 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 09/29/2013 **Date Prepared:** 09/29/2013 **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	0.0478	96	0.0500	0.0484	97	1	66-142	25	
Bromobenzene	<0.00500	0.0500	0.0503	101	0.0500	0.0500	100	1	75-125	25	
Bromochloromethane	<0.00500	0.0500	0.0509	102	0.0500	0.0519	104	2	60-140	25	
Bromodichloromethane	<0.00500	0.0500	0.0518	104	0.0500	0.0515	103	1	75-125	25	
Bromoform	<0.00500	0.0500	0.0442	88	0.0500	0.0451	90	2	75-125	25	
Methyl bromide	<0.00500	0.0500	0.0455	91	0.0500	0.0479	96	5	60-140	25	
n-Butylbenzene	<0.00500	0.0500	0.0469	94	0.0500	0.0469	94	0	75-125	25	
Sec-Butylbenzene	<0.00500	0.0500	0.0511	102	0.0500	0.0511	102	0	75-125	25	
tert-Butylbenzene	<0.00500	0.0500	0.0492	98	0.0500	0.0497	99	1	75-125	25	
Carbon Tetrachloride	<0.00500	0.0500	0.0497	99	0.0500	0.0521	104	5	62-125	25	
Chlorobenzene	<0.00500	0.0500	0.0470	94	0.0500	0.0465	93	1	60-133	25	
Chloroethane	<0.0100	0.0500	0.0467	93	0.0500	0.0496	99	6	60-140	25	
Chloroform	<0.00500	0.0500	0.0514	103	0.0500	0.0526	105	2	70-130	25	
Methyl Chloride	<0.0100	0.0500	0.0439	88	0.0500	0.0468	94	6	60-140	25	
2-Chlorotoluene	<0.00500	0.0500	0.0507	101	0.0500	0.0514	103	1	73-125	25	
4-Chlorotoluene	<0.00500	0.0500	0.0492	98	0.0500	0.0496	99	1	74-125	25	
p-Cymene (p-Isopropyltoluene)	<0.00500	0.0500	0.0486	97	0.0500	0.0493	99	1	75-125	25	
Dibromochloromethane	<0.00500	0.0500	0.0485	97	0.0500	0.0489	98	1	73-125	25	
1,2-Dibromo-3-Chloropropane	<0.00500	0.0500	0.0536	107	0.0500	0.0547	109	2	59-125	25	
1,2-Dibromoethane	<0.00500	0.0500	0.0490	98	0.0500	0.0490	98	0	73-125	25	
Methylene bromide	<0.00500	0.0500	0.0508	102	0.0500	0.0494	99	3	69-127	25	
1,2-Dichlorobenzene	<0.00500	0.0500	0.0497	99	0.0500	0.0497	99	0	75-125	25	
1,3-Dichlorobenzene	<0.00500	0.0500	0.0481	96	0.0500	0.0476	95	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" #2

Work Order # : 471127 **Project ID:** SRS#2009-039

Lab Batch ID: 923905 **QC- Sample ID:** 470940-007 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 09/29/2013 **Date Prepared:** 09/29/2013 **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	0.0471	94	0.0500	0.0472	94	0	75-125	25	
Dichlorodifluoromethane	<0.00500	0.0500	0.0482	96	0.0500	0.0502	100	4	70-130	25	
1,1-Dichloroethane	<0.00500	0.0500	0.0503	101	0.0500	0.0517	103	3	72-125	25	
1,2-Dichloroethane	<0.00500	0.0500	0.0487	97	0.0500	0.0493	99	1	68-127	25	
1,1-Dichloroethene	<0.00500	0.0500	0.0482	96	0.0500	0.0512	102	6	59-172	25	
cis-1,2-Dichloroethylene	<0.00500	0.0500	0.0498	100	0.0500	0.0508	102	2	75-125	25	
trans-1,2-dichloroethylene	<0.00500	0.0500	0.0476	95	0.0500	0.0487	97	2	75-125	25	
1,2-Dichloropropane	<0.00500	0.0500	0.0490	98	0.0500	0.0483	97	1	74-125	25	
1,3-Dichloropropane	<0.00500	0.0500	0.0473	95	0.0500	0.0469	94	1	75-125	25	
2,2-Dichloropropane	<0.00500	0.0500	0.0513	103	0.0500	0.0544	109	6	75-125	25	
1,1-Dichloropropene	<0.00500	0.0500	0.0476	95	0.0500	0.0484	97	2	75-125	25	
cis-1,3-Dichloropropene	<0.00500	0.0500	0.0485	97	0.0500	0.0478	96	1	74-125	25	
trans-1,3-dichloropropene	<0.00500	0.0500	0.0478	96	0.0500	0.0469	94	2	66-125	25	
Ethylbenzene	<0.00500	0.0500	0.0482	96	0.0500	0.0482	96	0	75-125	25	
Hexachlorobutadiene	<0.00500	0.0500	0.0468	94	0.0500	0.0460	92	2	75-125	25	
Isopropylbenzene	<0.00500	0.0500	0.0496	99	0.0500	0.0496	99	0	75-125	25	
Methylene Chloride	<0.00500	0.0500	0.0489	98	0.0500	0.0500	100	2	75-125	25	
MTBE	<0.00500	0.100	0.112	112	0.100	0.113	113	1	65-135	25	
Naphthalene	<0.0100	0.0500	0.0508	102	0.0500	0.0521	104	3	70-130	25	
n-Propylbenzene	<0.00500	0.0500	0.0499	100	0.0500	0.0509	102	2	75-125	25	
Styrene	<0.00500	0.0500	0.0492	98	0.0500	0.0486	97	1	75-125	25	
1,1,1,2-Tetrachloroethane	<0.00500	0.0500	0.0517	103	0.0500	0.0526	105	2	72-125	25	
1,1,2,2-Tetrachloroethane	<0.00500	0.0500	0.0577	115	0.0500	0.0582	116	1	74-125	25	
Tetrachloroethylene	<0.00500	0.0500	0.0458	92	0.0500	0.0464	93	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" #2

Work Order # : 471127 **Project ID:** SRS#2009-039

Lab Batch ID: 923905 **QC- Sample ID:** 470940-007 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 09/29/2013 **Date Prepared:** 09/29/2013 **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	0.0459	92	0.0500	0.0464	93	1	59-139	25	
1,2,3-Trichlorobenzene	<0.00500	0.0500	0.0478	96	0.0500	0.0485	97	1	75-137	25	
1,2,4-Trichlorobenzene	<0.00500	0.0500	0.0455	91	0.0500	0.0467	93	3	75-135	25	
1,1,1-Trichloroethane	<0.00500	0.0500	0.0516	103	0.0500	0.0533	107	3	75-125	25	
1,1,2-Trichloroethane	<0.00500	0.0500	0.0494	99	0.0500	0.0488	98	1	75-127	25	
Trichloroethylene	<0.00500	0.0500	0.0468	94	0.0500	0.0472	94	1	62-137	25	
Trichlorofluoromethane	<0.00500	0.0500	0.0523	105	0.0500	0.0537	107	3	60-140	25	
1,2,3-Trichloropropane	<0.00500	0.0500	0.0526	105	0.0500	0.0539	108	2	75-125	25	
1,2,4-Trimethylbenzene	<0.00500	0.0500	0.0492	98	0.0500	0.0495	99	1	75-125	25	
1,3,5-Trimethylbenzene	<0.00500	0.0500	0.0495	99	0.0500	0.0500	100	1	70-125	25	
o-Xylene	<0.00500	0.0500	0.0498	100	0.0500	0.0495	99	1	75-125	25	
m,p-Xylenes	<0.0100	0.100	0.0965	97	0.100	0.0954	95	1	75-125	25	
Vinyl Chloride	<0.00200	0.0500	0.0454	91	0.0500	0.0496	99	9	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" #2

Work Order #: 471127

Lab Batch #: 923806 **Project ID:** SRS#2009-039

Date Analyzed: 09/27/2013 11:56 **Date Prepared:** 09/27/2013 **Analyst:** ALA

QC- Sample ID: 471011-001 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)	<4.00	<4.00	0	20	U
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	U

Lab Batch #: 923806

Date Analyzed: 09/27/2013 11:56 **Date Prepared:** 09/27/2013 **Analyst:** ALA

QC- Sample ID: 471127-001 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)	224	224	0	20	
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: 09/25/2013 04:30:00 PM

Work Order #: 471127

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 Date: 09/26/2013
Candace James

Checklist reviewed by: Kelsey Brooks Date: 09/27/2013
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#: 471127

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" #2 SRS #2009-039	PO#:	PAA-S. Harris
Invoice To:	Shawn Harris Plains All American	Quote #:	

Sampler Signature:

Circle One Event: Daily Weekly Monthly Quarterly 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	Metals (RCRA, NMWQCC)	VOC's by 8260	SOC's by 8270	General Chemistry							Hold Sample (CALL___) Run PAH on Highest TPH___ Only if
	Cont Type * VC								PC	VP	GA	PC							
	Pres Type** E, I								B,I	E,I	I	I							
	# Cont								Lab Only:										
1	MW-6	9-25	11:30	GW			7		X	X	X	X							
2	MW-7	9-25	12:00	GW			7		X	X	X	X							
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

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.7 2 11°C 3

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

 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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 09/25/2013 04:30:00 PM

Work Order #: 471127

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

Temperature Measuring device used :

Sample Receipt Checklist	Comments
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#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 — Date: 09/26/2013

Candace James

Checklist reviewed by: Kelsey Brooks — Date: 09/27/2013

Kelsey Brooks

Analytical Report 474180

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

DCP Plant to Lea Station 6" #2

SRS#2009-039

25-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)

25-NOV-13

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

Reference: XENCO Report No(s): **474180**
DCP Plant to Lea Station 6" #2
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) 474180. 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. 474180 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 474180

PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6" #2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	11-13-13 11:00		474180-001
MW-3	W	11-13-13 11:15		474180-002
MW-4	W	11-13-13 11:30		474180-003
MW-5	W	11-13-13 12:00		474180-004
MW-6	W	11-13-13 10:30		474180-005
MW-7	W	11-13-13 10:45		474180-006

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 474180

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" #2

Project Id: SRS#2009-039
Contact: Ben Arguijo
Project Location: New Mexico

Date Received in Lab: Fri Nov-15-13 03:02 pm
Report Date: 25-NOV-13
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	474180-001		474180-002		474180-003		474180-004		474180-005		474180-006	
	Field Id:	MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Nov-13-13 11:00		Nov-13-13 11:15		Nov-13-13 11:30		Nov-13-13 12:00		Nov-13-13 10:30		Nov-13-13 10:45	
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-22-13 12:00		Nov-22-13 12:00	
	Analyzed:	Nov-21-13 19:46		Nov-21-13 20:02		Nov-21-13 21:38		Nov-22-13 12:53		Nov-22-13 17:08		Nov-22-13 17:25	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		ND	0.00100	ND	0.00100	0.00135	0.00100	1.38	0.0100	0.00465	0.00100	ND	0.00100
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.0200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	0.0242	0.0100	ND	0.00100	ND	0.00100
m_p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.0200	ND	0.00200	ND	0.00200
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.0100	ND	0.00100	ND	0.00100
Xylenes, Total		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.0100	ND	0.00100	ND	0.00100
Total BTEX		ND	0.00100	ND	0.00100	0.00135	0.00100	1.40	0.0100	0.00465	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" #2

Work Orders : 474180, **Project ID:** SRS#2009-039

Lab Batch #: 928301 **Sample:** 474180-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 19:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0253	0.0300	84	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 928301 **Sample:** 474180-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 20:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0259	0.0300	86	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 928301 **Sample:** 474180-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/21/13 21:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0249	0.0300	83	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 928301 **Sample:** 474180-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/22/13 12:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 928368 **Sample:** 474180-005 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/22/13 17:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0326	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.

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" #2

Work Orders : 474180, **Project ID:** SRS#2009-039

Lab Batch #: 928368 **Sample:** 474180-006 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/22/13 17:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

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 #: 928368 **Sample:** 647436-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/22/13 16:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0327	0.0300	109	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 #: 928368 **Sample:** 647436-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/22/13 15:30

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	0.0325	0.0300	108	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" #2

Work Orders : 474180, **Project ID:** SRS#2009-039

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 #: 928368 **Sample:** 647436-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/22/13 15:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0321	0.0300	107	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 #: 928368 **Sample:** 474413-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/22/13 16:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0326	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.

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" #2

Work Orders : 474180, **Project ID:** SRS#2009-039

Lab Batch #: 928368 **Sample:** 474413-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/22/13 16:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	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" #2

Work Order #: 474180 **Project ID:** SRS#2009-039

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	

Analyst: ARM **Date Prepared:** 11/22/2013 **Date Analyzed:** 11/22/2013

Lab Batch ID: 928368 **Sample:** 647436-1-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	0.0906	91	0.100	0.0931	93	3	70-125	25	
Toluene	<0.00200	0.100	0.0944	94	0.100	0.0951	95	1	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0910	91	0.100	0.0902	90	1	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.205	103	0.200	0.205	103	0	70-131	25	
o-Xylene	<0.00100	0.100	0.0990	99	0.100	0.0991	99	0	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" #2

Work Order # : 474180 **Project ID:** SRS#2009-039

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	

Lab Batch ID: 928368 **QC- Sample ID:** 474413-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 11/22/2013 **Date Prepared:** 11/22/2013 **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	0.0241	0.100	0.116	92	0.100	0.112	88	4	70-125	25	
Toluene	<0.00200	0.100	0.0978	98	0.100	0.0925	93	6	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0933	93	0.100	0.0901	90	3	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.213	107	0.200	0.204	102	4	70-131	25	
o-Xylene	<0.00100	0.100	0.101	101	0.100	0.0980	98	3	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: 11/15/2013 03:02:00 PM

Work Order #: 474180

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

;roool-c

Page 1 of 1

LAB W.O # : 474180

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" #2 SRS #2009-039	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant 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_____

* 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

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	TPH	BTEX	Chloride						Hold Sample (CALL___) Run PAH on Highest TPH___ Only if
								Pres Type** E, I										
								# Cont	Lab Only:									
1	MW-2	11/13/13	1100	GW			3			X								
2	MW-3	11/13/13	1115	GW			3			X								
3	MW-4	11/13/13	1130	GW			3			X								
4	MW-5	11/13/13	1200	GW			3			X								
5	MW-6	11/13/13	1030	GW			3			X								
6	MW-7	11/13/13	1045	GW			3			X								
7																		
8																		
9																		
0																		

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 ___

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?			

	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		M/S Xenco	11-15-13	1502
3					Julian M	Od Xenco	11-16-13	15:15
4								

C.O.C. Serial #

Final Temp 5°C

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

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 #: 474180

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**
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#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

Analytical Report 476575

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

DCP PLant to Lea Station 6" #2

SRS#2009-039

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): **476575**
DCP PLant to Lea Station 6" #2
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) 476575. 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. 476575 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 476575

PLAINS ALL AMERICAN EH&S, Midland, TX

DCP PLant to Lea Station 6" #2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-5	W	12-23-13 10:15		476575-001

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 476575

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP PLant to Lea Station 6" #2

Project Id: SRS#2009-039
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:	476575-001					
	Field Id:	MW-5					
	Depth:						
	Matrix:	WATER					
	Sampled:	Dec-23-13 10:15					
PAHs by GCMS SIM SUB: TX104704215	***Extracted:***	Dec-30-13 09:21					
	Analyzed:	Dec-30-13 19:40					
	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		0.000535 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" #2

Work Orders : 476575, **Project ID:** SRS#2009-039

Lab Batch #: 931134 **Sample:** 476575-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12/30/13 19:40

SURROGATE RECOVERY STUDY

PAHs by GCMS SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.871	1.00	87	35-114	
2-Fluorobiphenyl	0.864	1.00	86	43-116	
Terphenyl-D14	0.882	1.00	88	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" #2

Work Order #: 476575 **Project ID:** SRS#2009-039

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
;roool-c

Page 1 of 1

LAB W.O #: 476575

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" #2 SRS #2009-039	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

Sampler Signature: [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______ (5D 7D circled)

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Example Volatiles by 8260 (Cont Type* VC; Pres Type** E, I)	TPH	BTEX	Chloride	PAH (GA; I)						Hold Sample (CALL__) Run PAH on Highest TPH__ Only if	REMARKS
1	MW-5	12/23/13	10:15	GW			1					X							
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
0																			

Cont — Lab Only:

*** 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

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	[signature]	ET	12-26-13	8:50	[signature]	MS	12-26-13	8:50
2								
3								
4					[signature]	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 #

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

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 #: 476575

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
625 N. French Dr., Hobbs, NM 88240
District II
301 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

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 #2	Facility Type	Pipeline

Surface Owner NM SLO	Mineral Owner	Lease No. 30-025-06283

LOCATION OF RELEASE

Unit Letter F | Section ~~36~~ 31 | Township 20S | Range 37E | Feet from the | North/South Line | Feet from the | East/West Line | County Lea

Latitude N 32.5316667° Longitude W 103.2911111° (District Facility)

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 25 bbls	Volume Recovered 0 bbls
Source of Release 6" Steel Pipeline	Date and Hour of Occurrence 02/12/2009	Date and Hour of Discovery 02/12/2009 12:30
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? Larry Johnson (revised release volume on 02/25/2009)	
By Whom? Jason Henry	Date and Hour 02/25/2009 @ 14:00	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
MAR 23 2009
HOBBSOCD

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 10' x 12'. The impacted area will be remediated per applicable guidelines.

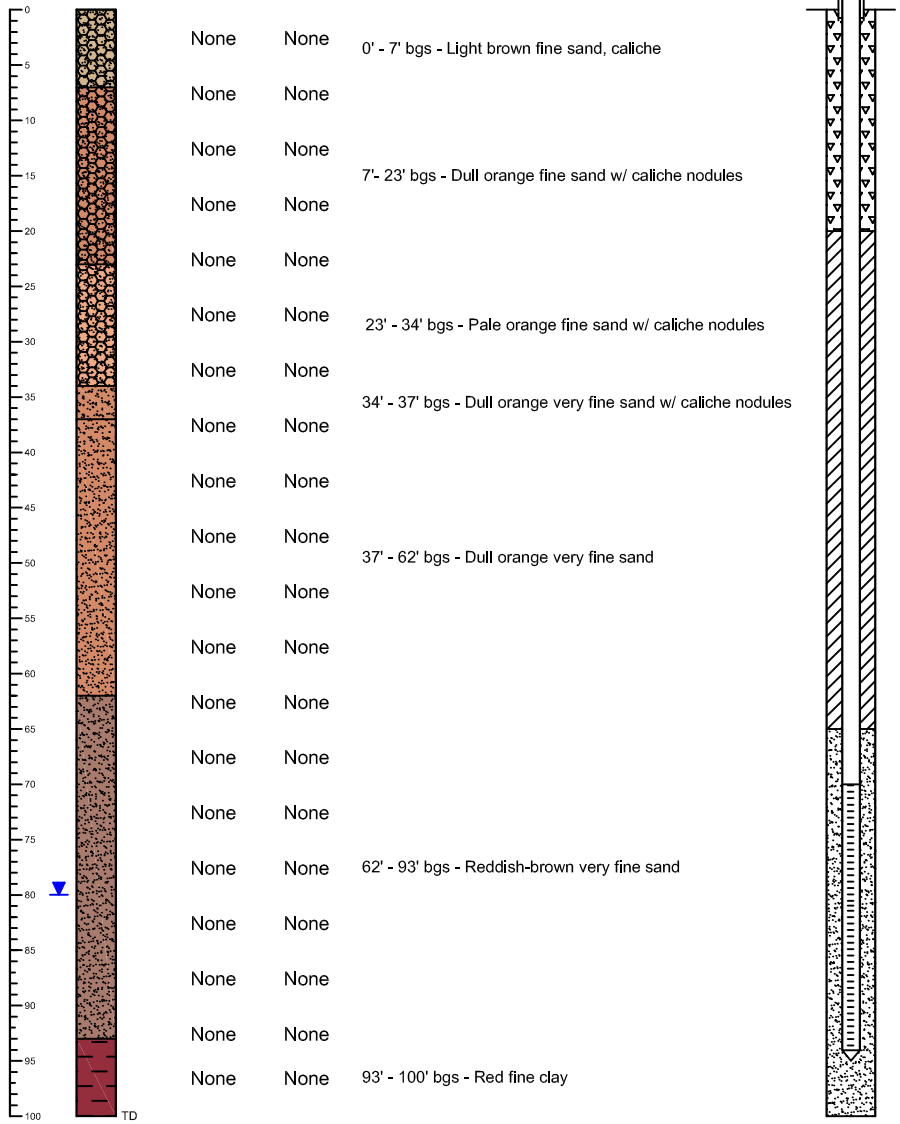
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger 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:
Title: Remediation Coordinator	Approval Date: / Expiration Date:
E-mail Address: jhenry@paalp.com	Conditions of Approval: 1RP-2136 / Attached ☐
Date: 03/23/2009 Phone: (575) 441-1099	

Attach Additional Sheets If Necessary

Appendix C
Monitor Well Logs

Monitor Well MW-6



Drilling Depth	Soil Columns	Petroleum Odor	Petroleum Stain	Soil Description
		None	None	0' - 7' bgs - Light brown fine sand, caliche
		None	None	
		None	None	7'- 23' bgs - Dull orange fine sand w/ caliche nodules
		None	None	
		None	None	
		None	None	23' - 34' bgs - Pale orange fine sand w/ caliche nodules
		None	None	
		None	None	34' - 37' bgs - Dull orange very fine sand w/ caliche nodules
		None	None	
		None	None	
		None	None	37' - 62' bgs - Dull orange very fine sand
		None	None	
		None	None	
		None	None	
		None	None	
		None	None	
		None	None	62' - 93' bgs - Reddish-brown very fine sand
		None	None	
		None	None	
		None	None	
		None	None	
		None	None	93' - 100' bgs - Red fine clay

Monitor Well MW-6

Date Drilled: September 10, 2013
Thickness of Bentonite Seal: 45 Ft
Depth of Exploratory Boring: 100 Ft bgs
Depth to Groundwater: 80 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

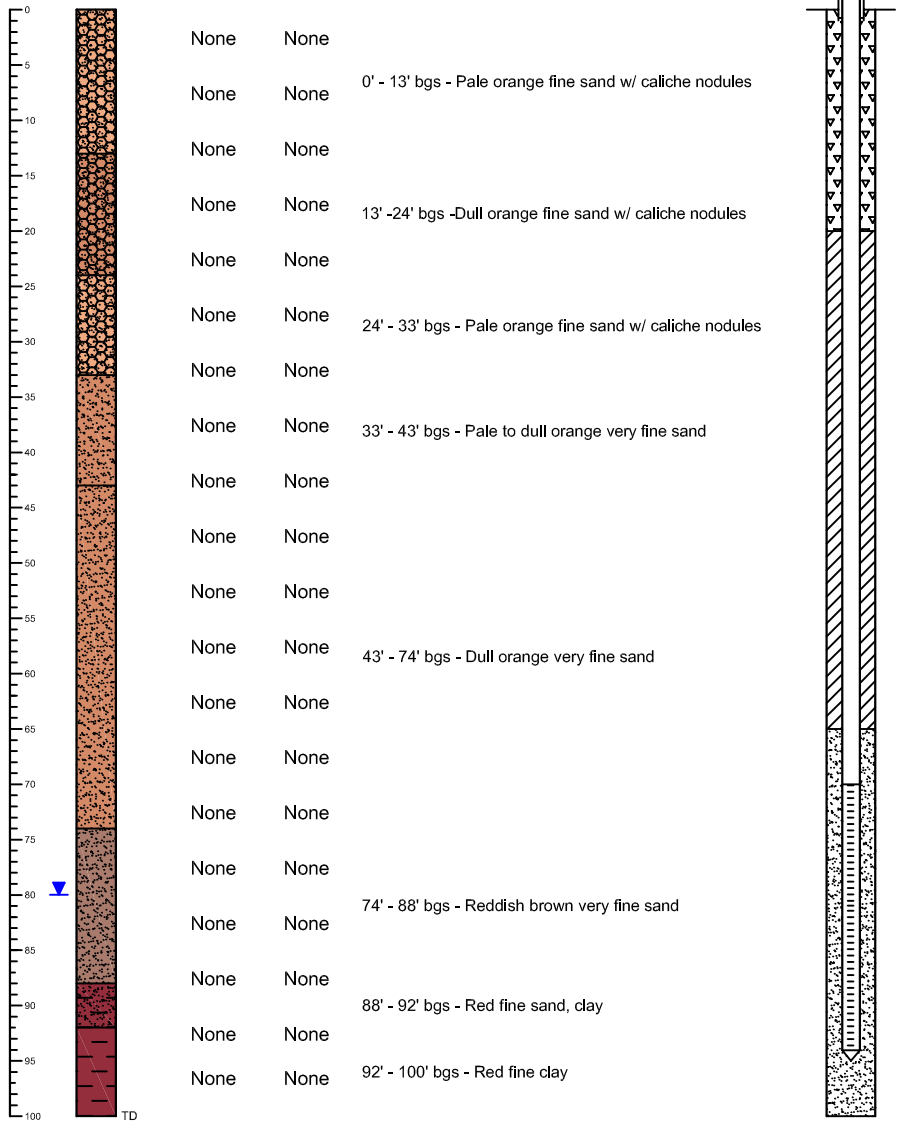
1.) The monitor well was advanced on date using air rotary drilling techniques.
2.) The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3.) The well is protected with a locked stick-up steel cover and compression cap.
4.) The lines between material types 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 #2
Lea County, New Mexico
Plains Marketing, LP

Basin Environmental Service Technologies, LLC

Prep By: BJA	Checked By: BRB
February 28, 2014	

Monitor Well MW-7



Petroleum Odor	Petroleum Stain	Soil Description
None	None	
None	None	0' - 13' bgs - Pale orange fine sand w/ caliche nodules
None	None	
None	None	13' -24' bgs -Dull orange fine sand w/ caliche nodules
None	None	
None	None	24' - 33' bgs - Pale orange fine sand w/ caliche nodules
None	None	
None	None	33' - 43' bgs - Pale to dull orange very fine sand
None	None	
None	None	
None	None	
None	None	43' - 74' bgs - Dull orange very fine sand
None	None	
None	None	
None	None	
None	None	
None	None	74' - 88' bgs - Reddish brown very fine sand
None	None	
None	None	88' - 92' bgs - Red fine sand, clay
None	None	
None	None	92' - 100' bgs - Red fine clay

Monitor Well MW-7

Date Drilled September 10, 2013
Thickness of Bentonite Seal 45 Ft
Depth of Exploratory Boring 100 Ft bgs
Depth to Groundwater 80 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 4" 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-7
DCP Plant to Lea Station 6-Inch #2
Lea County, New Mexico
Plains Marketing, LP

Basin Environmental Service Technologies, LLC

Prep By: BJA	Checked By: BRB
February 28, 2014	