Basin Environmental Service Technologies, LLC
3100 Plains Highway
P. O. Box 301 Lovington, New Mexico 88260
Office: (575) 396-2378
Fax: (575) 396-1429

Effective Solutions

January 23, 2015

RECEIVED
By OCD; Dr. Oberding at 8:47 am, May 25, 2016

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

RE: Plains Marketing, LP
Lovington Gathering WTI
NMOCD Reference #1R-838/AP-96
Unit Letter H of Section 6, Township 17 South, Range 37 East
Lea County, New Mexico

Dear Mr. Griswold:

Basin Environmental Service Technologies, LLC (Basin Environmental), on behalf of Plains Marketing, LP (Plains), is pleased to submit the attached Annual Monitoring Report, dated December 2014, for the Lovington Gathering WTI release site located in Section 6 of Township 17 South, Range 37 East, in Lea County, New Mexico. The Annual Monitoring Report summarizes groundwater monitoring and remediation activities performed at the site during the 2014 calendar year.

Based on review of laboratory analytical results from monthly, quarterly, and/or semi-annual groundwater samples collected at the Lovington Gathering WTI site from 2009 through 2014, Plains and Basin Environmental propose the following activities for the 2015 monitoring period:

- **Continue quarterly monitoring of monitor wells MW-3 and MW-7.**
- **Continue semi-annual monitoring of monitor wells MW-4 and MW-5.**
- **Increase the sampling frequency for monitor well MW-1 from semi-annually to quarterly.**
- **Reduce the sampling frequency for monitor wells MW-6, MW-9, and MW-10 from quarterly to semi-annually.**
- **Cease groundwater monitoring and plug and abandon monitor wells MW-2 and MW-8.**

Plains and Basin Environmental also propose the following changes to groundwater monitoring activities presently conducted at the five (5) locations on the adjacent Goff Dairy #9 Pivot (Goff Dairy Well, Goff Dairy - Ctr. Pivot Well, Goff Dairy - Ctr. Pivot Beginning, Goff Dairy - Ctr. Pivot End, and JW Well):

- **Reduce the sampling frequency for the Goff Dairy and JW Wells from quarterly to semi-annually.**
- **Cease monitoring of the three (3) Center Pivot locations (Goff Dairy - Ctr. Pivot Well, Goff Dairy - Ctr. Pivot Beginning, and Goff Dairy - Ctr. Pivot End).**

Summaries of laboratory analytical results and justifications for the proposed changes are included in Sections 5.0 and 6.0 of the enclosed Annual Monitoring Report.

Should you have any questions or comments, please do not hesitate to contact me at (575) 396-2378.

Respectfully,

Ben J. Arguijo
Project Manager
Basin Environmental Service Technologies, LLC

CC: Dr. Tomas Oberding, NMOCD - Hobbs District Office

Enclosure

Basin Environmental Service Technologies, LLC

3100 Plains Highway
P. O. Box 301
Lovington, New Mexico 88260
bjarguijo@basinenv.com
Office: (575) 396-2378 Fax: (575) 396-1429

Effective Solutions

2014 ANNUAL MONITORING REPORT

LOVINGTON GATHERING WTI
Unit Letter "H" (SE/NE), Section 6, Township 17 South, Range 37 East
Latitude 32º 51' 56.0" North, Longitude 103º 17' 07.2" West
Lea County, New Mexico
Plains SRS Number: 2006-142
NMOCD Reference Number: 1RP-838/AP-96

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

January 2015

Ben J. Arguijo
Project Manager

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

1.0 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 1 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 groundwater monitoring events conducted in calendar year 2014 only.

Groundwater monitoring was conducted during each quarter of 2014 to assess the levels and extent of dissolved phase constituents and phase-separated hydrocarbons (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.

2.0 SITE DESCRIPTION & BACKGROUND INFORMATION

The legal description of the Lovington Gathering WTI release site is Unit Letter "H" (SE/NE), Section 6, Township 17 South, Range 37 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32º 51' 56.0" North latitude and 103º 17' 07.2" West longitude. A "Site Location Map" is provided as Figure 1.

On April 21, 2006, Basin Environmental, on behalf of Plains, responded to a pipeline release to repair the pipeline and excavate impacted soil. The Lovington Gathering WTI pipeline was repaired utilizing a pipeline clamp, and visibly stained soil was excavated and placed on a polyurethane plastic liner to mitigate any further hydrocarbon impact to the underlying soil. Approximately twelve barrels (12 bbls) of crude oil were released from the pipeline, and eight barrels (8 bbls) were recovered, resulting in a net loss of four barrels (4 bbls) of crude oil. The excavated area was fenced in and is characterized by a Plains pipeline right-of-way adjacent to an idled Plains pump station.

The release occurred in a pasture containing various oil and gas production facilities and resulted in a visibly stained surface area measuring approximately one thousand, five hundred square feet (1,500 ft^2). Excavation activities conducted during the initial response and subsequent remediation of the site covered an area measuring approximately thirty feet (30') in length by twenty-seven feet (27') in width and ranging from in depth from approximately five feet (5') to six feet (6'). Excavated soil was placed on a six-millimeter (6mm) polyurethane plastic liner for future remedial action. Utilizing olfactory and visual senses and photo-ionization detector (PID) technology, it was determined that Volatile Organic Compounds (VOC's) remained in the sidewalls and floor of the excavation.

In July 2006, a soil investigation was conducted to further delineate the horizontal and vertical extent of impacted soil. Eleven (11) soil borings were advanced to depths ranging from approximately thirty feet (30') to approximately seventy-five feet (75') below ground surface (bgs). Based on laboratory analytical results from soil samples collected during advancement of the soil borings, three (3) groundwater monitoring wells (MW-1 through MW-3) were installed to evaluate the status of the groundwater.

Based on laboratory analytical results from the initial groundwater monitoring event (October 5, 2006), four (4) additional monitor wells (MW-4 through MW-7) were installed in November 2006.

During installation of the groundwater monitor wells (MW-1 through MW-7), there was no visual evidence of PSH in any of the collected soil samples. Laboratory analytical results indicated benzene, toluene, ethylbenzene, and total xylenes (BTEX) and total petroleum hydrocarbon (TPH) concentrations in all submitted soil samples were less than the appropriate laboratory method detection limit (MDL), with the exception of soil samples collected from monitor well MW-3, which exhibited TPH concentrations of 2,080 mg/kg and 121 mg/kg at fifty-five feet (55') and seventy-five feet (75') bgs, respectively.

Laboratory analytical results of groundwater monitoring at monitor well MW-7 indicated additional monitor wells were required to fully delineate the down-gradient boundary of the dissolved-phase plume. On February 7, 2007, monitor well MW-8 was installed down-gradient of monitor well MW-7. Laboratory analytical results of soil samples collected during the installation of monitor well MW-8 indicated benzene and BTEX concentrations were both less than the appropriate laboratory MDL and less than the NMOCD regulatory standard of 10 mg/kg and 50 mg/kg for benzene and BTEX, respectively. Laboratory analytical results indicated TPH concentrations were both less than the laboratory MDL and less than the NMOCD regulatory standard of 100 mg/kg for soil samples collected at ten feet (10') and twenty-five feet (25') bgs. Soil samples collected at fifty feet (50') and seventy-five feet (75') bgs exhibited TPH concentrations of 14 mg/kg (below NMOCD standards) and 101 mg/kg, respectively.

On August 13, 2007, monitor well MW-9 was installed to further delineate the down-gradient boundary of the dissolved-phase plume. Laboratory analytical results of soil samples collected during the installation of monitor well MW-9 indicated benzene, BTEX, and TPH concentrations were both less than the appropriate laboratory MDL and less than NMOCD regulatory standards in the five (5) submitted soil samples.

On October 28, 2009, monitor well MW-10 was installed to further delineate the down-gradient boundary of the dissolved-phase plume. Laboratory analytical results of soil samples collected during the installation of monitor well MW-10 indicated benzene, BTEX, and TPH concentrations were less than NMOCD regulatory standards in the seven (7) submitted soil samples.

Currently, there are ten (10) groundwater monitoring wells on-site: MW-1 which is up-gradient of the release site; MW-4 and MW-5, which are cross-gradient; and MW-2, MW-3, and MW-6 through MW-10, which are down-gradient of the release site.

3.0 FIELD ACTIVITIES

3.1 Groundwater Remediation Activities

Basin Environmental began manual recovery of hydrocarbon-impacted groundwater from monitor well MW-9 in November 2009 to control the down-gradient migration of the dissolved-phase plume. Recovery from monitor well MW-10 commenced in April 2011 at the behest of the NMOCD. Based on the reduction in dissolved-phase plume concentrations at the site, in the *July – September 2013 Quarterly Monitoring Report* (dated October 2013), Plains requested permission from the NMOCD to cease groundwater recovery activities. On November 4, 2013, the request was granted by a representative of the NMOCD's Santa Fe District Office, and weekly recovery from MW-9 and MW-10 ceased on November 8, 2013.

On May 15, 2013, an Oxygen Release Compound (ORC®) filter sock was installed in monitor well MW-3 to facilitate enhanced aerobic biodegradation of the dissolved-phase plume. The ORC sock was replaced following the November 17, 2014, quarterly monitoring event. An ORC sock was also placed in monitor well MW-7 at this time.

3.2 Groundwater Monitoring

Currently, monitor wells MW-2, MW-3, MW-6, MW-7, MW-9, and MW-10 are sampled on a quarterly basis. Based on the reduction in dissolved-phase plume concentrations at the site, in the *July – September 2013 Quarterly Monitoring Report* (dated October 2013), Plains requested permission from the NMOCD to reduce the sampling frequency for monitor wells MW-1, MW-4, MW-5, and MW-8 from quarterly to semiannually. The request was granted by a representative of the NMOCD's Santa Fe District Office on November 4, 2013, and the four (4) wells are currently sampled during the first and third calendar quarters (i.e., January – March and July – September).

Groundwater monitoring events were conducted on February 13 (1Q2014), May 9 (2Q2014), August 7 (3Q2014), and November 17, 2014 (4Q2014) to assess the levels and extent of dissolved-phase constituents in the on-site monitor wells. The groundwater monitoring events consisted of measuring static water levels in the on-site monitor wells (MW-1 through MW-10), checking for the presence of PSH, and purging and sampling of each well exhibiting sufficient recharge. The monitor wells were purged using disposable Teflon bailers 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 clean, disposable Teflon bailers. Water samples were stored in clean, plastic or glass containers provided by the laboratory and placed on ice in the field. Purged water was collected in a trailer-mounted polystyrene tank and disposed of at an NMOCD-approved disposal facility near Monument, New Mexico.

Per NMOCD request, quarterly monitoring events were also conducted at five (5) locations (Goff Dairy Well, Goff Dairy - Ctr. Pivot Well, Goff Dairy - Ctr. Pivot Beginning, Goff Dairy - Ctr. Pivot End, and JW Well) on property adjacent to the release site (Goff Dairy #9 Pivot).

Diminished well volume and recharge in monitor well MW-2 attributable to the use of a large-capacity irrigation well (Goff Dairy Well) on the adjacent Goff Dairy #9 Pivot precluded sample collection from the monitor well during all four quarterly monitoring events. Similarly, diminished well volume and recharge precluded sample collection from monitor wells MW-4, MW-5, MW-6, and MW-10 during the 3Q2014 monitoring event.

Prior to the 1Q2014, 2Q2014, and 4Q2014 quarterly monitoring events, the Ctr. Pivot Well was valved off to facilitate harvesting activities and/or cattle grazing in the Goff Dairy #9 Pivot, precluding sample collection from the well itself and the two (2) locations on the center pivot (Goff Dairy - Ctr. Pivot Beginning and Goff Dairy - Ctr. Pivot End).

Following the 1Q2014 quarterly/semi-annual monitoring event, several sample vials were broken in transit to the laboratory, which necessitated the resampling of monitor wells MW-1, MW-4, MW-8, and the Goff Dairy Well on February 26, 2014. Similarly, following the 2Q2014 and 3Q2014 monitoring events, laboratory analytical errors necessitated resampling of monitor well MW-3 on September 6, 2014, and monitor well MW-7 on June 24 and August 27, 2014.

Locations of groundwater monitoring wells and inferred groundwater gradients, which were constructed from groundwater elevation measurements collected during each of the quarterly monitoring events, are depicted in Figures 2A through 2D. The groundwater gradient map from the most recent monitoring event, 4Q2014, indicates a general gradient of approximately 0.002 feet/foot to the southeast, as measured between monitor wells MW-1 and MW-10. The corrected groundwater elevation (measured in feet above mean sea level) ranged between 3,714.88 feet in monitor well MW-10 and 3,716.09 feet in monitor well MW-5. Groundwater elevation data is provided in Table 1, "Groundwater Elevation Data".

Based on a review of laboratory analytical results and sampling criteria provided by the NMOCD, none of the on-site monitor wells were subject to annual polyaromatic hydrocarbon (PAH) monitoring in 2014.

No PSH was detected in any of the on-site monitor wells during the 2014 reporting period.

4.0 LABORATORY RESULTS

Groundwater samples collected from the on-site monitor wells, the Goff Dairy irrigation wells, and the Goff Dairy Center Pivot during the quarterly and semi-annual monitoring events were delivered to Xenco Laboratories in Odessa, Texas, for determination of BTEX concentrations by EPA Method SW846-8021b. Laboratory analytical results were compared to NMOCD and New Mexico Water Quality Control Commission (NMWQCC) regulatory limits based on the New Mexico groundwater standards found in Section 20.6.2.3103 of the New Mexico Administrative Code (NMAC). Table 2 summarizes the "Concentrations of BTEX, Fluoride & Chromium in Groundwater".

4.1 Quarterly Monitoring Data

Data collected during the quarterly groundwater monitoring events is summarized below. Groundwater contaminant concentrations for the quarterly monitoring events are depicted in Figures 3A through 3D.

- **Monitor Well MW-2:**
    - Diminished well volume and recharge precluded sample collection from monitor well MW-2 during all four quarterly monitoring events of the 2014 reporting period.
- **Monitor Well MW-3:**
    - Benzene concentrations ranged from 0.0028 mg/L in 1Q2014 to 0.1190 mg/L in 4Q2014. Toluene concentrations ranged from less than the laboratory MDL in 1Q2014, 2Q2014, and 3Q2014 to 0.0069 mg/L in 4Q2014. Ethylbenzene concentrations were less than the laboratory MDL in all submitted groundwater samples. Total xylene concentrations ranged from less than the laboratory MDL in 1Q2014, 2Q2014, and 3Q2014 to 0.0438 mg/L in 4Q2014. Benzene concentrations exceeded the NMWQCC regulatory standard of 0.010 mg/L in 3Q2014 and 4Q2014. Toluene, ethylbenzene, and total xylene concentrations were less than NMWQCC regulatory standards in all submitted groundwater samples.

- **Monitor Well MW-6:**

    - Benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMWQCC regulatory standards in all submitted groundwater samples.
    - Diminished well volume and recharge precluded sample collection from monitor well MW-6 during the 3Q2014 quarterly monitoring event.

- **Monitor Well MW-7:**

    - Benzene concentrations ranged from less than the laboratory MDL in 1Q2014 and 2Q2014 to 0.1770 mg/L in 4Q2014. Toluene, ethylbenzene, and total xylene concentrations were less than the appropriate laboratory MDL in all submitted groundwater samples. Benzene concentrations exceeded the NMWQCC regulatory standard of 0.010 mg/L in 4Q2014. Toluene, ethylbenzene, and total xylene concentrations were less than NMWQCC regulatory standards in all submitted groundwater samples.

- **Monitor Well MW-9:**

    - Benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMWQCC regulatory standards in all submitted groundwater samples.

- **Monitor Well MW-10:**

    - Benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMWQCC regulatory standards in all submitted groundwater samples.

    - Diminished well volume and recharge precluded sample collection from monitor well MW-10 during the 3Q2014 quarterly monitoring event.

- **Goff Dairy Well:**

    - Benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMWQCC regulatory standards in all submitted groundwater samples.

- **Goff Dairy - Ctr. Pivot Well:**

    - Benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMWQCC regulatory standards during 3Q2014.

    - Harvesting activities and cattle grazing precluded sample collection from the well during the 1Q2014, 2Q2014, and 4Q2014 quarterly monitoring events.

- **Goff Dairy - Ctr. Pivot Beginning:**

    - Benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMWQCC regulatory standards during 3Q2014.

    - Harvesting activities and cattle grazing precluded sample collection from the center pivot during the 1Q2014, 2Q2014, and 4Q2014 quarterly monitoring events.

- **Goff Dairy - Ctr. Pivot End:**

    - Benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMWQCC regulatory standards during 3Q2014.

    - Harvesting activities and cattle grazing precluded sample collection from the center pivot during the 1Q2014, 2Q2014, and 4Q2014 quarterly monitoring events.

- **JW Well:**

    - Benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMWQCC regulatory standards in all submitted groundwater samples.

4.2 Semi-Annual Monitoring Data

Data collected during the 1Q2014 and 3Q2014 semi-annual monitoring events is summarized below. Groundwater contaminant concentrations for the semi-annual monitoring events are depicted in Figures 3A through 3D.

- **Monitor Well MW-1:**

    - Benzene concentrations ranged from 0.0255 mg/L in 3Q2014 to 0.0474 mg/L in 1Q2014. Toluene, ethylbenzene, and total xylene concentrations were less than the appropriate laboratory MDL in all submitted groundwater samples. Benzene concentrations exceeded the NMWQCC regulatory standard of 0.010 mg/L in 1Q2014 and 3Q2014. Toluene, ethylbenzene, and total xylene concentrations were less than NMWQCC regulatory standards in all submitted groundwater samples.

- **Monitor Well MW-4:**

    - Benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMWQCC regulatory standards during 1Q2014.

    - Diminished well volume and recharge precluded sample collection from monitor well MW-4 during the 3Q2014 quarterly monitoring event.

- **Monitor Well MW-5:**

    - Benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMWQCC regulatory standards during 1Q2014.

    - Diminished well volume and recharge precluded sample collection from monitor well MW-5 during the 3Q2014 quarterly monitoring event.

- **Monitor Well MW-8:**

    - Benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMWQCC regulatory standards in all submitted groundwater samples.

Benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMWQCC regulatory standards in all groundwater samples collected from monitor wells MW-4, MW-5, MW-6, MW-8, MW-9, and MW-10 and the five (5) Goff Dairy locations during the reporting period.

5.0 SAMPLING FREQUENCY MODIFICATION REQUESTS

Monitor well MW-6 is sampled on a quarterly basis. Review of laboratory analytical results indicate BTEX constituent concentrations in monitor well MW-6 have been less than NMWQCC regulatory standards in all groundwater samples collected since May 23, 2012, and less than the appropriate laboratory MDL in all groundwater samples collected since February 22, 2013. Monitor well MW-6 was also found to be dry during 3Q2013 and 3Q2014. Plains hereby requests permission to reduce the sampling frequency for monitor well MW-6 from quarterly to semi-annually. Review of historical laboratory analytical data indicates the highest BTEX constituent detections in the well have typically occurred during the first and fourth calendar quarters. Therefore, Plains proposes to sample the monitor well during the first and fourth quarters of each calendar year (i.e., January – March and October – December).

Monitor well MW-9 was placed on a quarterly monitoring schedule with NMOCD approval on November 4, 2013. Review of laboratory analytical results indicate BTEX constituent concentrations in monitor well MW-9 have been less than NMWQCC regulatory standards in all monthly and/or quarterly groundwater samples collected since March 22, 2011, and less than the appropriate laboratory MDL in all groundwater samples collected since December 14, 2011. Plains hereby requests permission to reduce the sampling frequency for monitor well MW-9 from quarterly to semi-annually. Review of historical laboratory analytical data indicates the highest BTEX constituent detections in the well have typically occurred during the first and third calendar quarters. Therefore, Plains proposes to sample the monitor well during the first and third quarters of each calendar year (i.e., January – March and July – September).

Monitor well MW-10 was placed on a quarterly monitoring schedule with NMOCD approval on November 4, 2013. Review of laboratory analytical results indicate BTEX constituent concentrations in monitor well MW-10 have been less than NMWQCC regulatory standards in all monthly and/or quarterly groundwater samples collected since November 9, 2011, and less than the appropriate

laboratory MDL in all groundwater samples collected since November 27, 2012. Monitor well MW-10 was also found to be dry in 3Q2012, 3Q2013, and 3Q2014. Plains hereby requests permission to reduce the sampling frequency for monitor well MW-10 from quarterly to semi-annually. Review of historical laboratory analytical data indicates the highest BTEX constituent detections in the well have typically occurred during the first and third calendar quarters. Therefore, Plains proposes to sample the monitor well during the first and third quarters of each calendar year (i.e., January – March and July – September).

The five (5) locations on the Goff Dairy #9 Pivot (Goff Dairy Well, Goff Dairy - Ctr. Pivot Well, Goff Dairy - Ctr. Pivot Beginning, Goff Dairy - Ctr. Pivot End, and JW Well) were placed on a quarterly monitoring schedule with NMOCD approval on November 4, 2013. BTEX constituent concentrations in the Goff Dairy Well have been both less than NMWQCC regulatory standards and less than the appropriate laboratory MDL in all monthly and/or quarterly groundwater samples collected since March 1, 2012. BTEX constituent concentrations in the JW Well have been both less than NMWQCC regulatory standards and less than the appropriate laboratory MDL in all monthly and/or quarterly groundwater samples collected since sampling was initiated on July 14, 2011. Plains hereby requests permission to reduce the sampling frequency for the Goff Dairy and JW Wells from quarterly to semi-annually. Plains proposes to sample the wells during the first and third quarters of each calendar year (i.e., January – March and July – September).

Due to frequent harvesting activities and cattle grazing on the Goff Dairy #9 Pivot, only one (1) quarterly sample was able to be collected from the three (3) Center Pivot locations (Goff Dairy - Ctr. Pivot Well, Goff Dairy - Ctr. Pivot Beginning, and Goff Dairy - Ctr. Pivot End) during the 2014 monitoring period. Since there have been no detections of BTEX constituents at any of the Center Pivot locations since sampling commenced on July 7, 2011, Plains hereby requests permission to cease groundwater monitoring activities at these three (3) locations.

Monitor well MW-1 was placed on a semi-annual monitoring schedule with NMOCD approval on November 4, 2013. Review of laboratory analytical results indicates benzene concentrations in the well exceeded NMWQCC regulatory standards in 1Q2014 and 3Q2014. Based on these laboratory analytical results, Plains proposes to increase the sampling frequency for monitor well MW-1 from semi-annual to quarterly.

6.0 MONITOR WELL PLUGGING REQUEST

Monitor well MW-2 has been found to be dry during eleven (11) of the last thirteen (13) quarterly monitoring events, and no groundwater samples have been able to be obtained from the well since 2Q2013. Laboratory analytical results indicate BTEX constituent concentrations were less than NMWQCC regulatory standards in the only two (2) groundwater samples that have been able to be obtained from the monitor well since 3Q2011.

Monitor well MW-8 was placed on a semi-annual monitoring schedule with NMOCD approval on November 4, 2013. Review of laboratory analytical results indicate BTEX constituent concentrations in monitor well MW-8 have been less than NMWQCC regulatory standards in all quarterly and/or semi-annual groundwater samples collected since June 18, 2009, and less than the appropriate laboratory MDL in all groundwater samples collected since August 24, 2011.

Based on the information presented above, Plains hereby requests permission to cease groundwater monitoring activities at monitor wells MW-2 and MW-8 and to plug and abandon (P&A) the monitor wells pursuant to NMOSE and NMOCD regulatory requirements.

7.0 ANTICIPATED ACTIONS

The following table summarizes the proposed monitor well P&A and sampling schedule changes detailed in Sections 5.0 and 6.0 above:

Location	Current Schedule	Proposed Schedule
MW-1	2/Yr (1Q,3Q)	1/Qtr
MW-2	1/Qtr	N/A (P&A)
MW-3	1/Qtr	1/Qtr (No Change)
MW-4	2/Yr (1Q,3Q)	2/Yr (No Change)
MW-5	2/Yr (1Q,3Q)	2/Yr (No Change)
MW-6	1/Qtr	2/Yr (1Q,4Q)
MW-7	1/Qtr	1/Qtr (No Change)
MW-8	2/Yr (1Q,3Q)	N/A (P&A)
MW-9	1/Qtr	2/Yr (1Q,3Q)
MW-10	1/Qtr	2/Yr (1Q,3Q)
Goff Dairy Well	1/Qtr	2/Yr (1Q,3Q)
JW Well	1/Qtr	2/Yr (1Q,3Q)
Goff Dairy - Ctr. Pivot Well	1/Qtr	N/A
Goff Dairy - Ctr. Pivot Beg.	1/Qtr	N/A
Goff Dairy - Ctr. Pivot End	1/Qtr	N/A

Quarterly monitoring and groundwater sampling of monitor wells MW-1, MW-3, and MW-7 will continue throughout the 2014 calendar year. Semi-annual monitoring of monitor wells MW-4, MW-5, MW-6, MW-9, MW-10, the Goff Dairy Well, and the JW Well will continue throughout the 2014 calendar year.

The ORC filter socks installed in monitor wells MW-3 and MW-7 to facilitate enhanced aerobic biodegradation of the dissolved-phase plume will be inspected and replaced (if necessary) on a quarterly basis.

An *Annual Monitoring Report* for the 2015 reporting period will be submitted to the NMOCD by April 1, 2016.

8.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this *Quarterly 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.

9.0 DISTRIBUTION

Copy 1: Jim Griswold
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Edwardj.hansen@state.nm.us

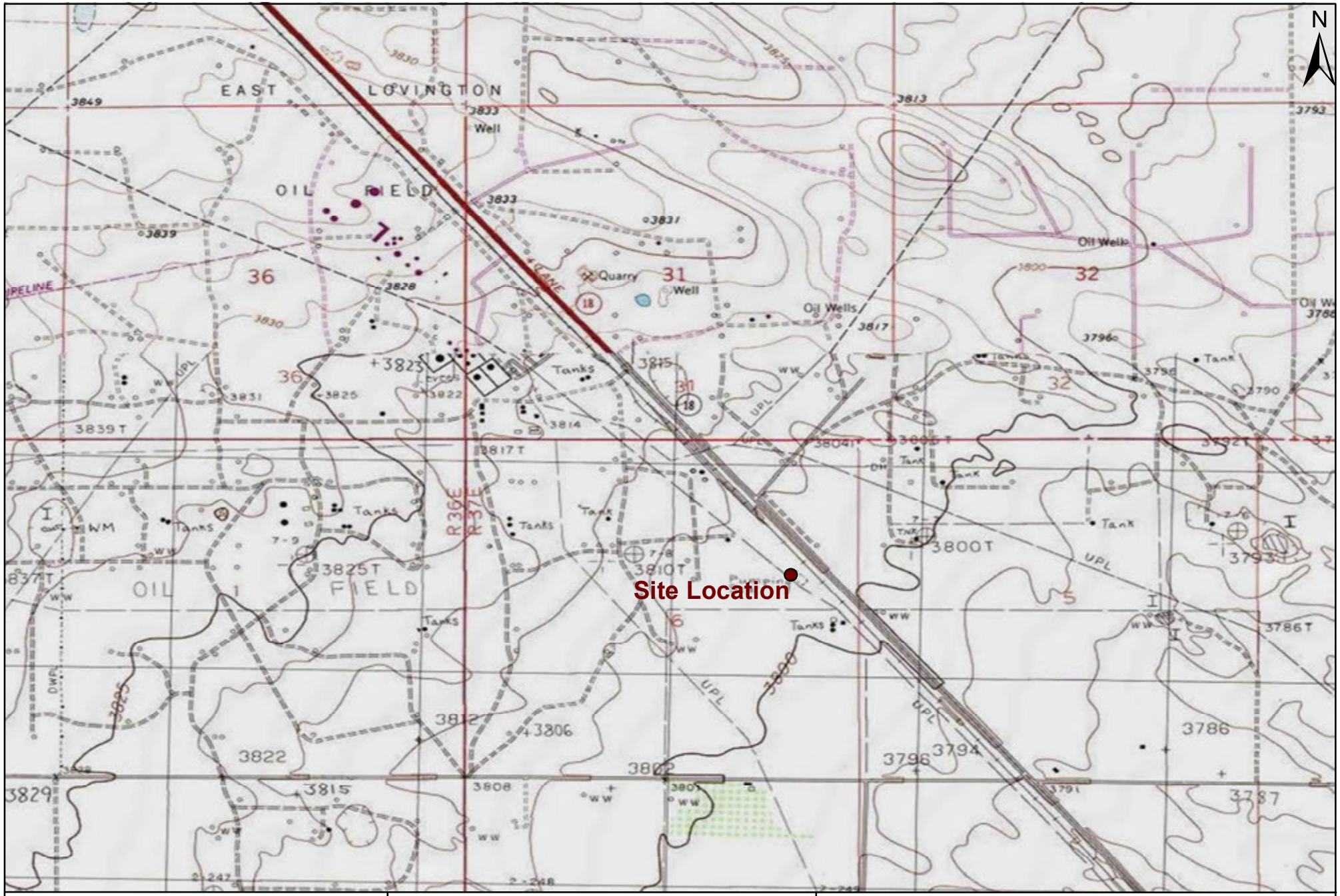
Copy 2: Dr. Tomas Oberding
New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240
tomas.oberding@state.nm.us

Copy 3: Jeff Dann
Plains Marketing, L.P.
333 Clay Street
Suite 1600
Houston, Texas 77002
jpdann@paalp.com

Copy 4: Camille Bryant
Plains Marketing, L.P.
2530 State Highway 214
Denver City, Texas 79323
cjbryant@paalp.com

Copy 5: Basin Environmental Service Technologies, LLC
P. O. Box 301
Lovington, New Mexico 88260
bjarguijo@basinenv.com

Figures



1,000 500 0 1,000 2,000

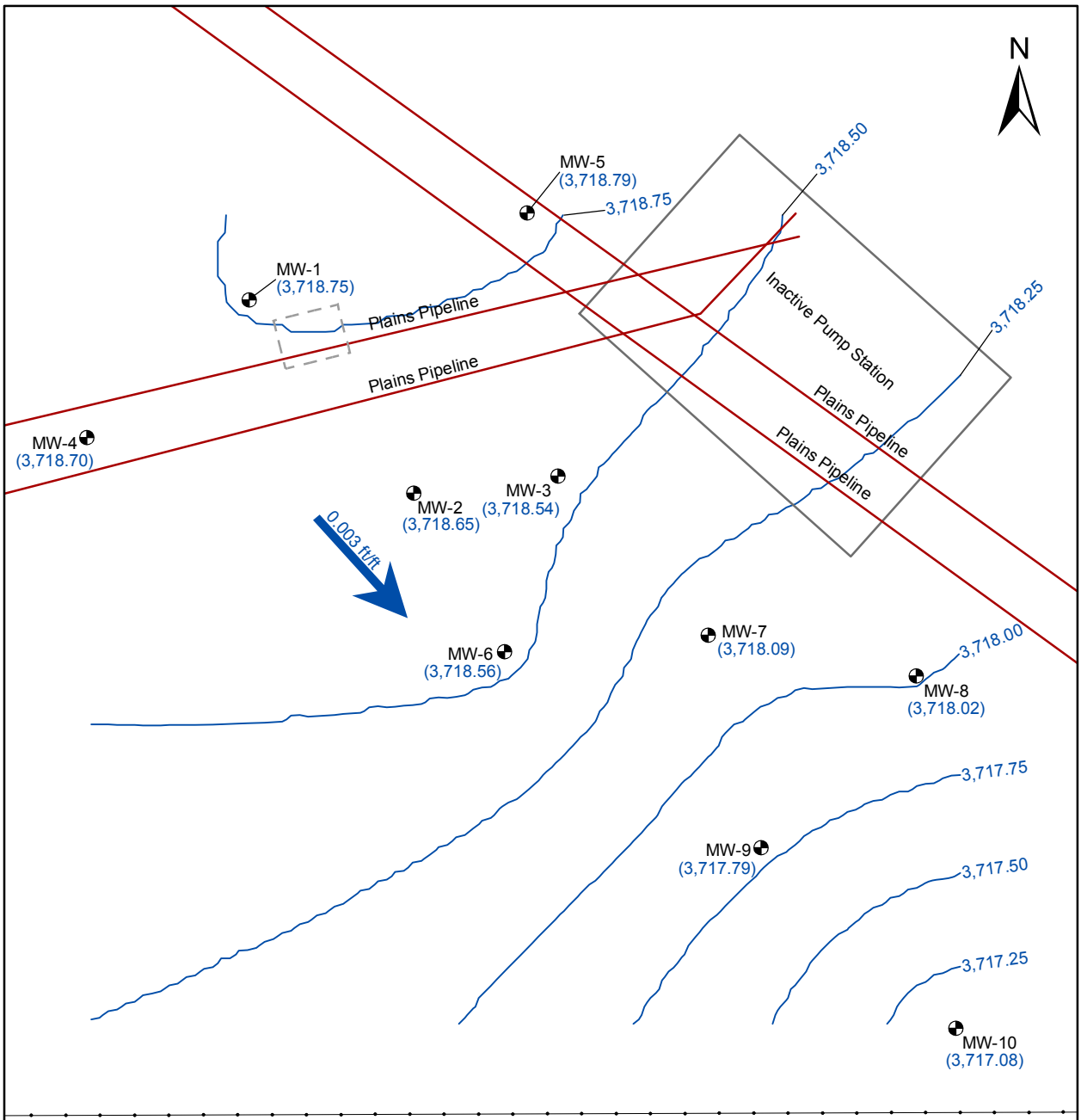
Distance in Feet

Figure 1
Site Location Map
Plains Marketing, LP
Lovington Gathering WTI
Lea County, New Mexico
Plains SRS #: 2006-142
NMOCD Reference #: 1RP-838

Basin Environmental Service Technologies
Effective Solutions

Basin Environmental Service Technologies, LLC
3100 Plains Hwy.
Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
July 2, 2013	Scale: 1" = 2,000'



Groundwater Gradient magnitude measured between monitor wells MW-1 and MW-10.

30 15 0 30 60 90 Feet

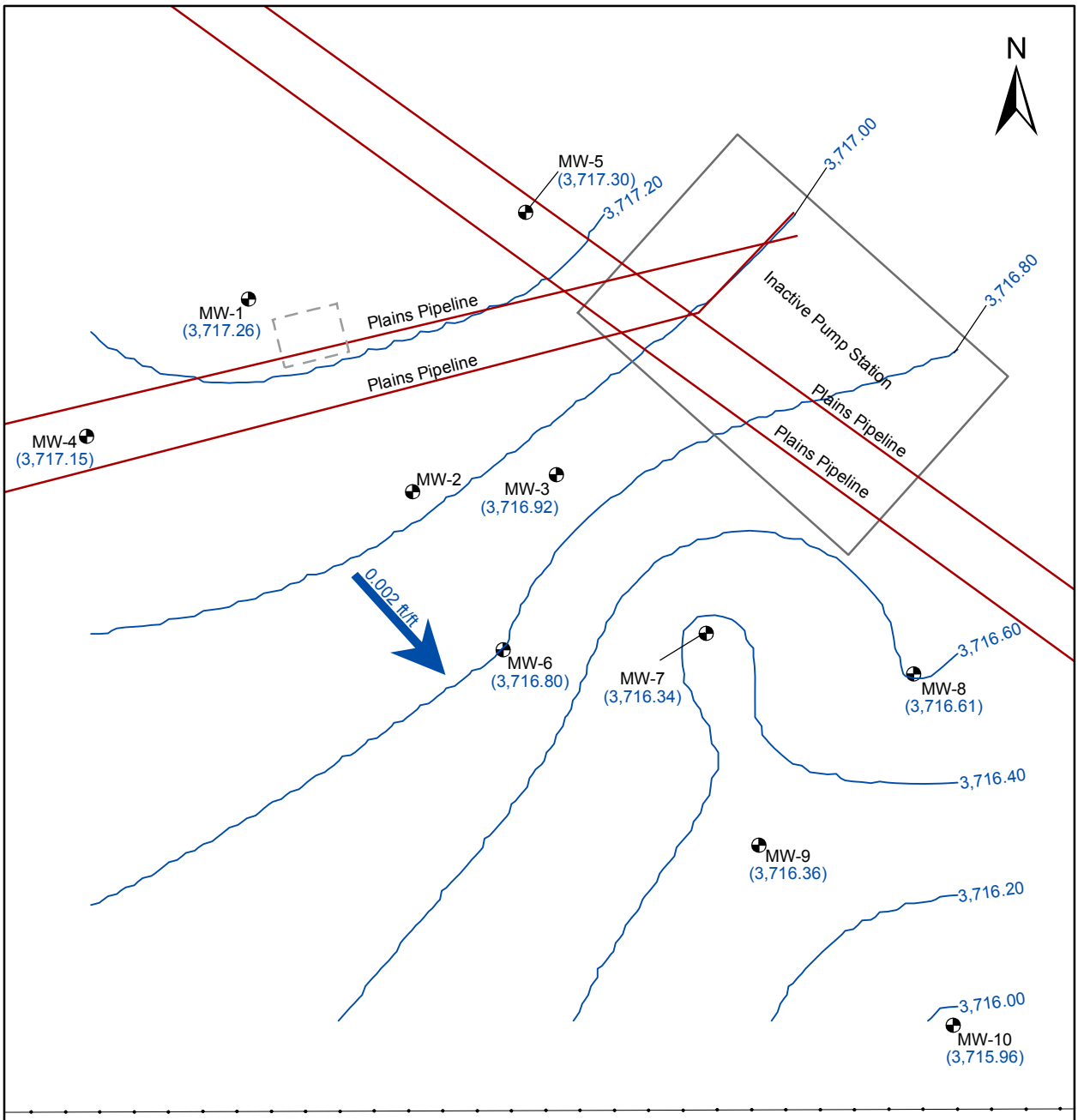
Goff Dairy Well

Legend:
- Pipeline
- Fence
- Excavation Extent
- (3,720) Groundwater Elevation (ft)
- 0.009 ft/ft Groundwater Gradient & Magnitude
- Monitor Well
- Irrigation Well

Figure 2A
Inferred Groundwater Gradient Map
1Q2014
Plains Marketing, LP
Lovington Gathering WTI
Lea County, New Mexico
Plains SRS #: 2006-142
NMOCD Reference #: AP-96

Basin Environmental Service Technologies
3100 Plains Hwy.
Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
April 2, 2014	Scale: 1" = 100'



Groundwater Gradient magnitude measured between monitor wells MW-1 and MW-10.
Monitor well MW-2 was not used in map construction.

30 15 0 30 60 90 Feet

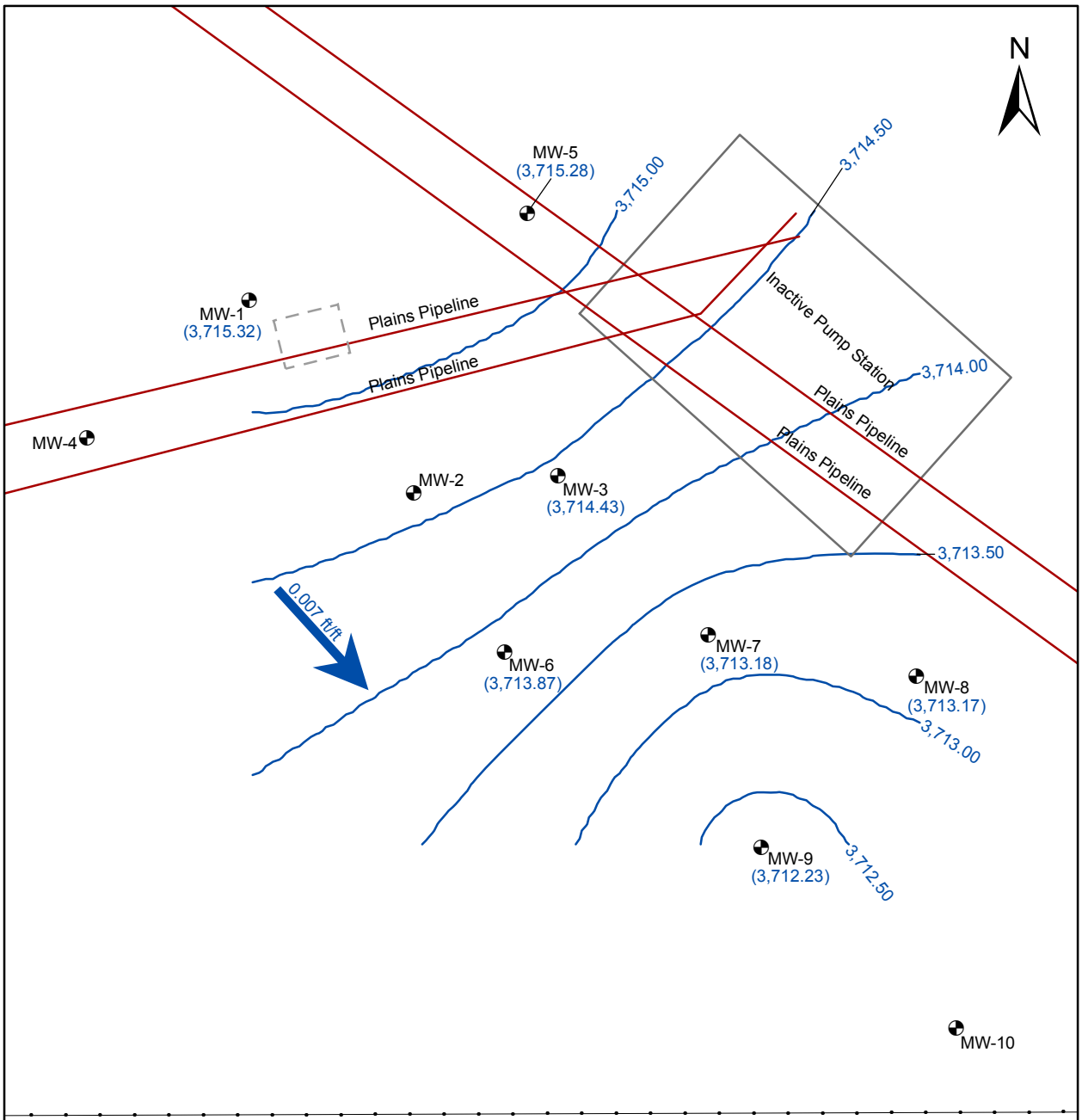
Goff Dairy Well

Legend:
- Pipeline
- Fence
- Excavation Extent
- (3,720) Groundwater Elevation (ft)
- 0.009 ft/ft Groundwater Gradient & Magnitude
- Monitor Well
- Irrigation Well

Figure 2B
Inferred Groundwater Gradient Map
2Q2014
Plains Marketing, LP
Lovington Gathering WTI
Lea County, New Mexico
Plains SRS #: 2006-142
NMOCD Reference #: AP-96

Basin Environmental Service Technologies
3100 Plains Hwy.
Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
May 10, 2014	Scale: 1" = 100'



Groundwater Gradient magnitude measured between monitor wells MW-1 and MW-9. Monitor wells MW-2, MW-4 & MW-10 were not used in map construction.

30 15 0 30 60 90 Feet

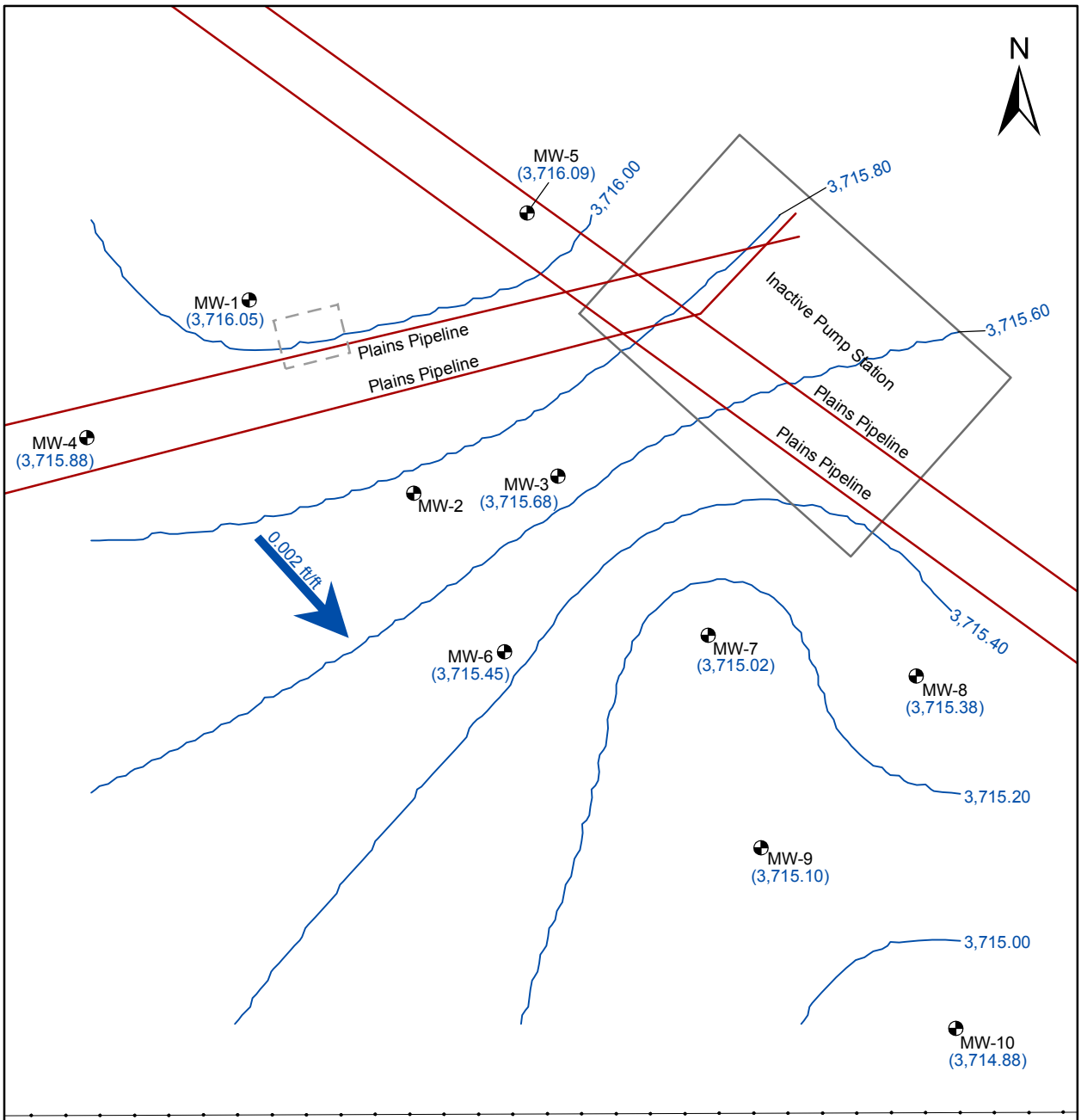
Goff Dairy Well

Legend:
- Pipeline
- Fence
- Excavation Extent
- (3,720) Groundwater Elevation (ft)
- 0.009 ft/ft Groundwater Gradient & Magnitude
- Monitor Well
- Irrigation Well

Figure 2C
Inferred Groundwater Gradient Map
3Q2014
Plains Marketing, LP
Lovington Gathering WTI
Lea County, New Mexico
Plains SRS #: 2006-142
NMOCD Reference #: AP-96

Basin Environmental Service Technologies
3100 Plains Hwy.
Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
Oct. 28, 2014	Scale: 1" = 100'



Groundwater Gradient magnitude measured between monitor wells MW-1 and MW-10.
Monitor well MW-2 was not used in map construction.

30 15 0 30 60 90 Feet

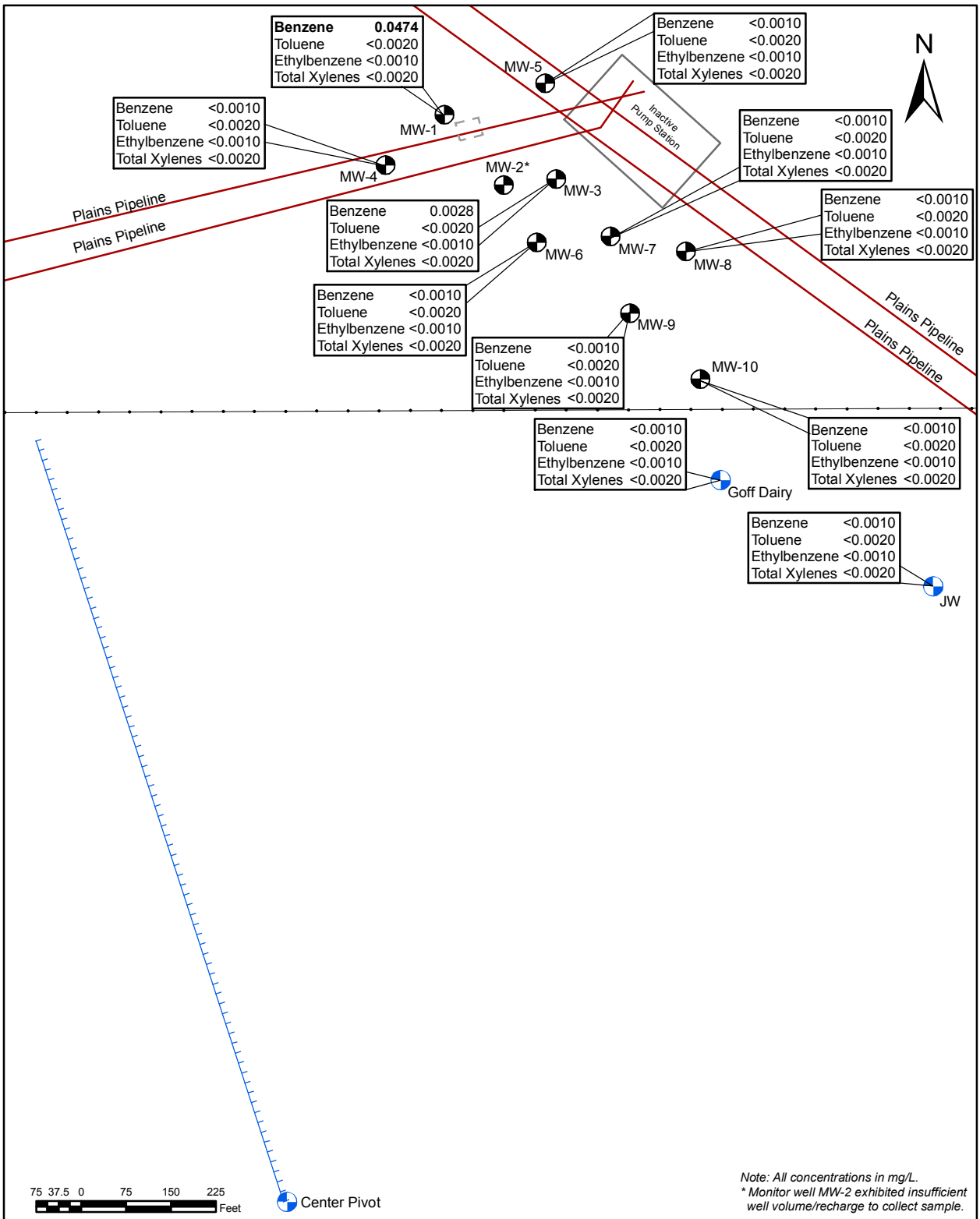
Goff Dairy Well

Legend:
- Pipeline
- Fence
- Excavation Extent
- (3,720) Groundwater Elevation (ft)
- 0.009 ft/ft Groundwater Gradient & Magnitude
- Monitor Well
- Irrigation Well

Figure 2D
Inferred Groundwater Gradient Map
4Q2014
Plains Marketing, LP
Lovington Gathering WTI
Lea County, New Mexico
Plains SRS #: 2006-142
NMOCD Reference #: AP-96

Basin Environmental Service Technologies
3100 Plains Hwy.
Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
Dec. 4, 2014	Scale: 1" = 100'

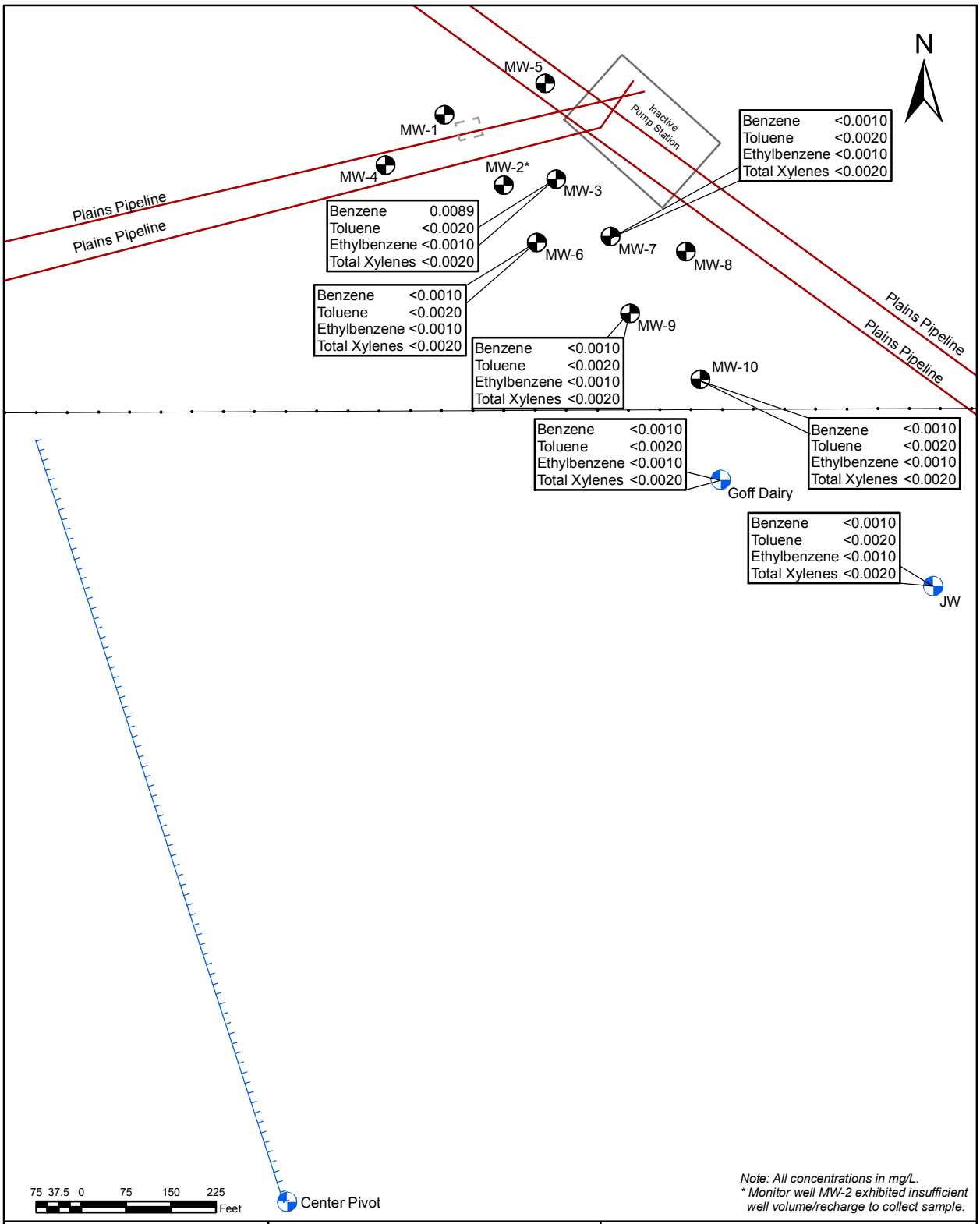


Legend:
- Pipeline
- Excavation Extent
- Fence
- Center Pivot
- Monitor Well
- Irrigation Well

Figure 3A
Groundwater Concentration Map - 1Q2014
Plains Marketing, LP
Lovington Gathering WTI
Lea County, New Mexico
Plains SRS #: 2006-142
NMOCD Reference #: AP-96

Basin Environmental Service Technologies
3100 Plains Hwy.
Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
March 21, 2014	Scale: 1" = 250'



Legend:
- Pipeline
- Excavation Extent
- Fence
- Center Pivot
- Monitor Well
- Irrigation Well

Figure 3B
Groundwater Concentration Map - 2Q2014
Plains Marketing, LP
Lovington Gathering WTI
Lea County, New Mexico
Plains SRS #: 2006-142
NMOCD Reference #: AP-96

Basin Environmental Service Technologies
3100 Plains Hwy.
Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
July 23, 2014	Scale: 1" = 250'

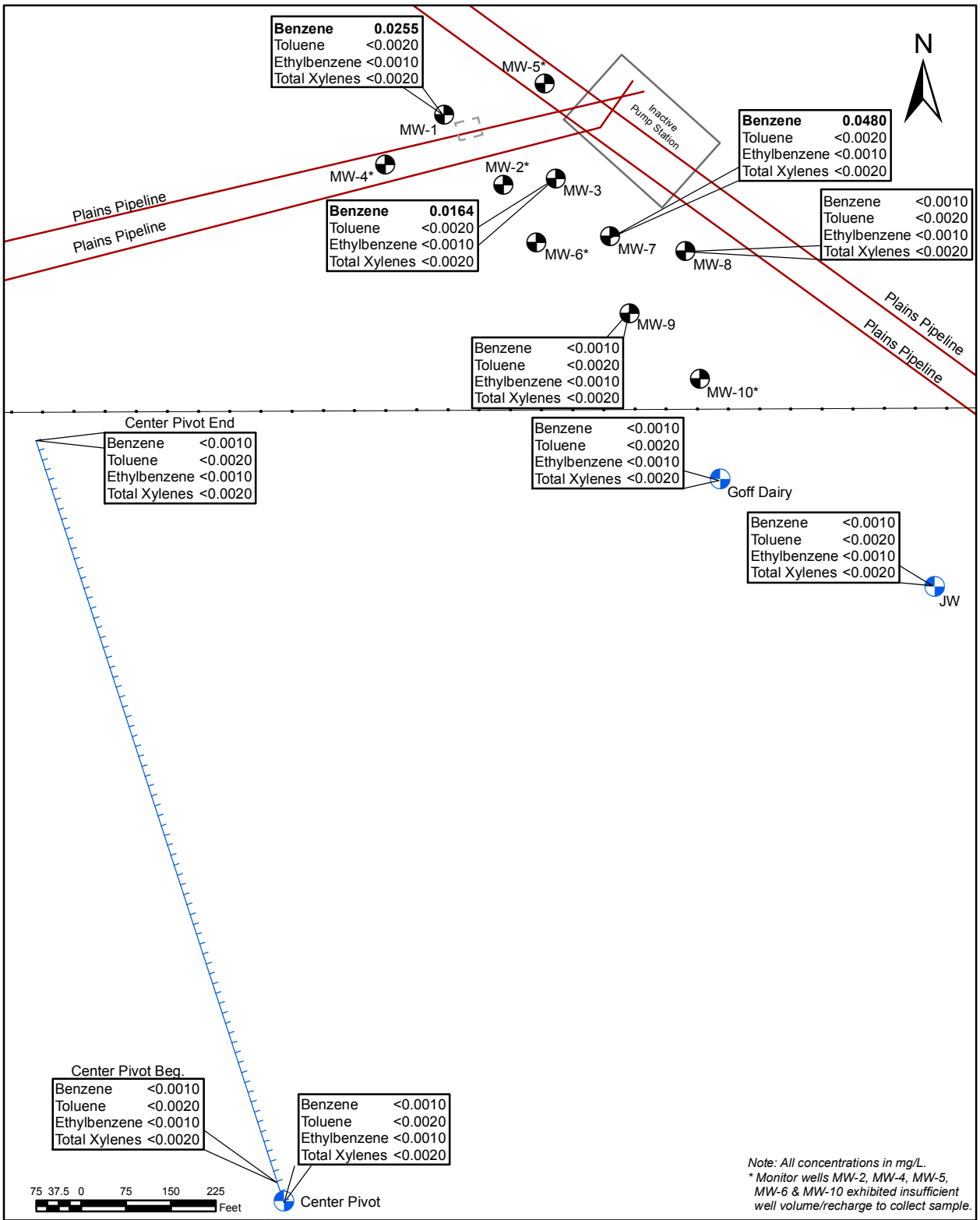


Figure 3C
Groundwater Concentration Map - 3Q2014
Plains Marketing, LP
Lovington Gathering WTI
Lea County, New Mexico
Plains SRS #: 2006-142
NMOCD Reference #: AP-96

Basin Environmental Service Technologies
3100 Plains Hwy.
Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
Oct. 28, 2014	Scale: 1" = 250'

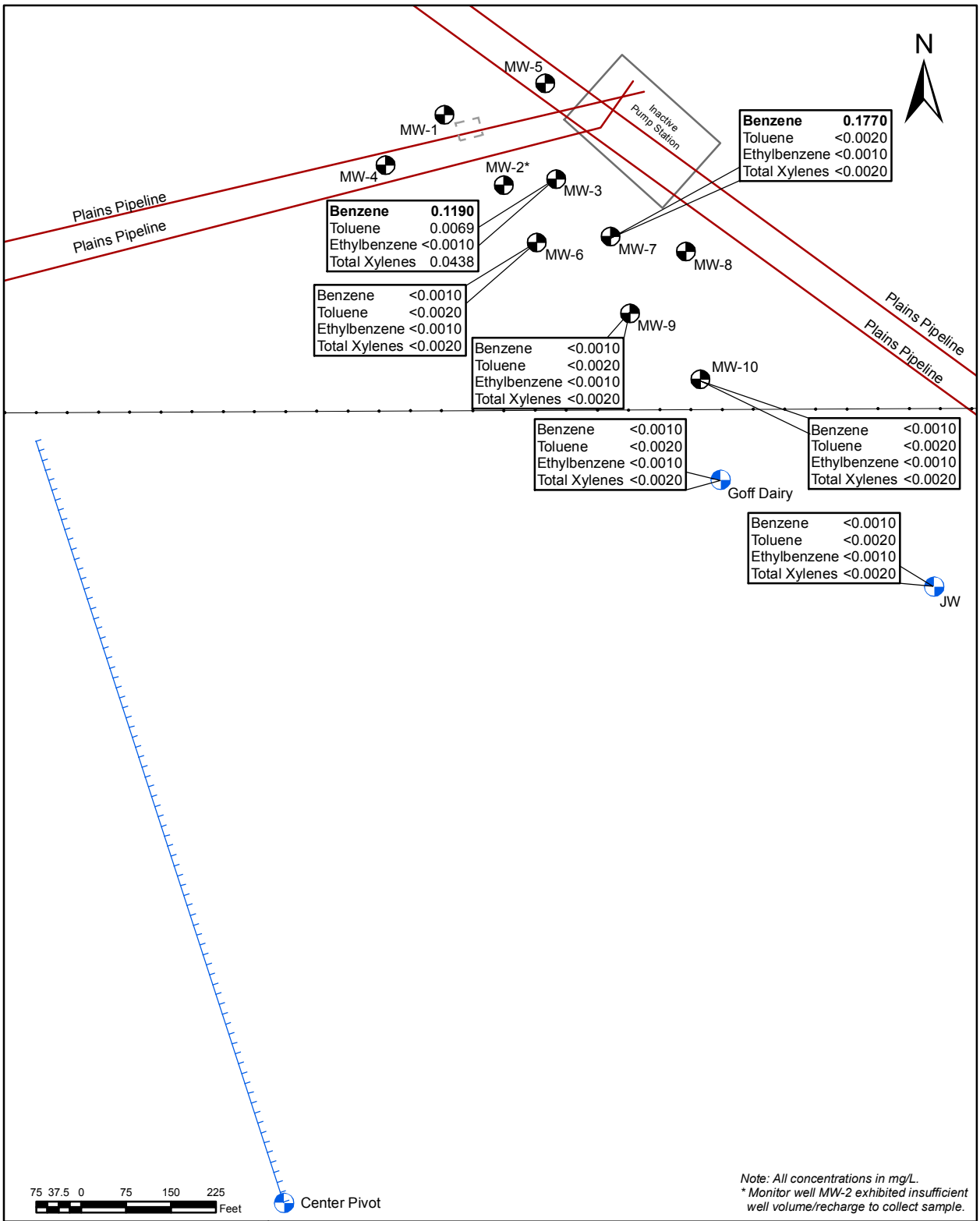


Figure 3D
Groundwater Concentration Map - 4Q2014
Plains Marketing, LP
Lovington Gathering WTI
Lea County, New Mexico
Plains SRS #: 2006-142
NMOCD Reference #: AP-96

Basin Environmental Service Technologies
3100 Plains Hwy.
Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
Dec. 4, 2014	Scale: 1" = 250'

Tables

TABLE 1
GROUNDWATER ELEVATION DATA

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: 1RP-838

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	10/05/06	3,806.60	-	78.00	-	3,728.60
	12/28/06	3,806.60	-	78.00	-	3,728.60
	03/16/07	3,806.60	-	79.50	-	3,727.10
	05/31/07	3,806.60	-	78.97	-	3,727.63
	09/25/07	3,806.60	-	80.16	-	3,726.44
	11/30/07	3,806.60	-	79.94	-	3,726.66
	03/11/08	3,806.60	-	79.82	-	3,726.78
	06/14/08	3,806.60	-	81.44	-	3,725.16
	09/17/08	3,806.60	-	81.27	-	3,725.33
	12/02/08	3,806.60	-	81.05	-	3,725.55
	03/03/09	3,806.60	-	81.56	-	3,725.04
	06/18/09	3,806.60	-	82.95	-	3,723.65
	09/01/09	3,806.60	-	84.36	-	3,722.24
	12/18/09	3,806.60	-	83.00	-	3,723.60
	03/04/10	3,806.60	-	82.23	-	3,724.37
	05/25/10	3,806.60	-	82.83	-	3,723.77
	08/30/10	3,806.60	-	85.37	-	3,721.23
	11/11/10	3,806.60	-	83.00	-	3,723.60
	03/22/11	3,806.60	-	85.07	-	3,721.53
	05/27/11	3,806.60	-	86.56	-	3,720.04
	08/24/11	3,806.60	-	88.80	-	3,717.80
	11/09/11	3,806.60	-	87.80	-	3,718.80
	02/06/12	3,806.60	-	86.30	-	3,720.30
	05/23/12	3,806.60	-	87.88	-	3,718.72
	08/28/12	3,806.60	-	89.25	-	3,717.35
	11/27/12	3,806.60	-	88.83	-	3,717.77
	02/22/13	3,806.60	-	87.53	-	3,719.07
	05/23/13	3,806.60	-	89.37	-	3,717.23
	08/21/13	3,806.60	-	89.56	-	3,717.04
	02/13/14	3,806.60	-	87.85	-	3,718.75
	05/09/14	3,806.60	-	89.34	-	3,717.26
	08/07/14	3,806.60	-	91.28	-	3,715.32
	11/17/14	3,806.60	-	90.55	-	3,716.05
MW-2	10/05/06	3,806.31	-	77.94	-	3,728.37
	12/28/06	3,806.31	-	77.94	-	3,728.37
	03/16/07	3,806.31	-	79.13	-	3,727.18
	05/31/07	3,806.31	-	78.82	-	3,727.49
	09/25/07	3,806.31	-	80.13	-	3,726.18
	11/30/07	3,806.31	-	79.88	-	3,726.43
	03/11/08	3,806.31	-	80.09	-	3,726.22

TABLE 1
GROUNDWATER ELEVATION DATA

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: 1RP-838

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-2	06/14/08	3,806.31	-	81.73	-	3,724.58
	09/17/08	3,806.31	-	81.20	-	3,725.11
	12/02/08	3,806.31	-	80.92	-	3,725.39
	03/03/09	3,806.31	-	81.60	-	3,724.71
	06/18/09	3,806.31	-	83.22	-	3,723.09
	09/01/09	3,806.31	-	84.61	-	3,721.70
	12/18/09	3,806.31	-	82.90	-	3,723.41
	03/04/10	3,806.31	-	82.04	-	3,724.27
	05/25/10	3,806.31	-	82.72	-	3,723.59
	08/30/10	3,806.31	-	85.73	-	3,720.58
	11/11/10	3,806.31	-	82.90	-	3,723.41
	03/22/11	3,806.31	-	85.30	-	3,721.01
	05/27/11	3,806.31	-	87.11	-	3,719.20
	08/24/11	3,806.31	-	87.55	-	3,718.76
	11/09/11	3,806.31	-	88.10	-	3,719.21
	02/06/12	3,806.31	-	84.20	-	3,722.11
	05/23/12	3,806.31	-	Dry	-	Dry
	08/28/12	3,806.31	-	Dry	-	Dry
	11/27/12	3,806.31	-	Dry	-	Dry
	02/22/13	3,806.31	-	87.41	-	3,718.90
	05/23/13	3,806.31	-	Dry	-	Dry
	08/21/13	3,806.31	-	Dry	-	Dry
	02/13/14	3,806.31	-	87.66	-	3,718.65
	05/09/14	3,806.31	-	Dry	-	Dry
	08/07/14	3,806.31	-	Dry	-	Dry
	11/17/14	3,806.31	-	Dry	-	Dry
MW-3	10/05/06	3,806.19	-	77.85	-	3,728.34
	12/28/06	3,806.19	-	77.85	-	3,728.34
	03/16/07	3,806.19	-	79.13	-	3,727.06
	05/31/07	3,806.19	-	78.73	-	3,727.46
	09/25/07	3,806.19	-	80.03	-	3,726.16
	11/30/07	3,806.19	-	79.77	-	3,726.42
	03/11/08	3,806.19	-	80.50	-	3,725.69
	06/14/08	3,806.19	-	81.72	-	3,724.47
	09/17/08	3,806.19	-	81.10	-	3,725.09
	12/02/08	3,806.19	-	80.79	-	3,725.40
	03/03/09	3,806.19	-	81.56	-	3,724.63
	06/18/09	3,806.19	-	83.25	-	3,722.94
	09/01/09	3,806.19	-	84.55	-	3,721.64
	12/18/09	3,806.19	-	82.76	-	3,723.43

TABLE 1
GROUNDWATER ELEVATION DATA

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: 1RP-838

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-3	03/04/10	3,806.19	-	81.91	-	3,724.28
	05/25/10	3,806.19	-	82.63	-	3,723.56
	08/30/10	3,806.19	-	85.74	-	3,720.45
	11/11/10	3,806.19	-	82.76	-	3,723.43
	03/22/11	3,806.19	-	82.35	-	3,723.84
	05/27/11	3,806.19	-	86.98	-	3,719.21
	08/24/11	3,806.19	-	89.20	-	3,716.99
	11/09/11	3,806.19	-	88.10	-	3,719.09
	02/06/12	3,806.19	-	85.90	-	3,720.29
	05/23/12	3,806.19	-	88.20	-	3,717.99
	08/28/12	3,806.19	-	89.40	-	3,716.79
	11/27/12	3,806.19	-	88.84	-	3,717.35
	02/22/13	3,806.19	-	87.37	-	3,718.82
	05/23/13	3,806.19	-	89.34	-	3,716.85
	08/21/13	3,806.19	-	91.02	-	3,715.17
	02/13/14	3,806.19	-	87.65	-	3,718.54
	05/09/14	3,806.19	-	89.27	-	3,716.92
	08/07/14	3,806.19	-	91.76	-	3,714.43
	11/17/14	3,806.19	-	90.51	-	3,715.68
MW-4	12/28/06	3,806.67	-	78.73	-	3,727.94
	03/16/07	3,806.67	-	79.17	-	3,727.50
	05/30/07	3,806.67	-	79.09	-	3,727.58
	09/25/07	3,806.67	-	80.35	-	3,726.32
	11/30/07	3,806.67	-	80.09	-	3,726.58
	03/11/08	3,806.67	-	79.95	-	3,726.72
	06/14/08	3,806.67	-	81.60	-	3,725.07
	09/17/08	3,806.67	-	81.41	-	3,725.26
	12/02/08	3,806.67	-	81.13	-	3,725.54
	03/03/09	3,806.67	-	81.67	-	3,725.00
	06/18/09	3,806.67	-	83.13	-	3,723.54
	09/01/09	3,806.67	-	84.54	-	3,722.13
	12/18/09	3,806.67	-	83.14	-	3,723.53
	03/04/10	3,806.67	-	82.33	-	3,724.34
	05/25/10	3,806.67	-	82.94	-	3,723.73
	08/30/10	3,806.67	-	85.57	-	3,721.10
	11/11/10	3,806.67	-	83.14	-	3,723.53
	03/22/11	3,806.67	-	85.21	-	3,721.46
	05/27/11	3,806.67	-	86.77	-	3,719.90
	08/24/11	3,806.67	-	89.00	-	3,717.67
	11/09/11	3,806.67	-	88.20	-	3,719.47

TABLE 1
GROUNDWATER ELEVATION DATA

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: 1RP-838

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-4	02/06/12	3,806.67	-	86.45	-	3,720.22
	05/23/12	3,806.67	-	88.15	-	3,718.52
	08/28/12	3,806.67	-	89.87	-	3,716.80
	11/27/12	3,806.67	-	89.05	-	3,717.62
	02/22/13	3,806.67	-	87.69	-	3,718.98
	05/23/13	3,806.67	-	89.65	-	3,717.02
	08/21/13	3,806.67	-	Dry	-	Dry
	02/13/14	3,806.67	-	87.97	-	3,718.70
	05/09/14	3,806.67	-	89.52	-	3,717.15
	08/07/14	3,806.31	-	Dry	-	Dry
	11/17/14	3,806.67	-	90.79	-	3,715.88
MW-5	12/28/06	3,806.30	-	78.23	-	3,728.07
	03/16/07	3,806.30	-	78.79	-	3,727.51
	05/30/07	3,806.30	-	78.71	-	3,727.59
	09/25/07	3,806.30	-	79.89	-	3,726.41
	11/30/07	3,806.30	-	79.61	-	3,726.69
	03/11/08	3,806.30	-	79.61	-	3,726.69
	06/14/08	3,806.30	-	81.20	-	3,725.10
	09/17/08	3,806.30	-	80.96	-	3,725.34
	12/02/08	3,806.30	-	80.75	-	3,725.55
	03/03/09	3,806.30	-	81.33	-	3,724.97
	06/18/09	3,806.30	-	82.71	-	3,723.59
	09/01/09	3,806.30	-	84.07	-	3,722.23
	12/18/09	3,806.30	-	82.70	-	3,723.60
	03/04/10	3,806.30	-	81.95	-	3,724.35
	05/25/10	3,806.30	-	82.55	-	3,723.75
	08/30/10	3,806.30	-	85.09	-	3,721.21
	11/11/10	3,806.30	-	82.70	-	3,723.60
	03/22/11	3,806.30	-	84.83	-	3,721.47
	05/27/11	3,806.30	-	86.26	-	3,720.04
	08/24/11	3,806.30	-	88.50	-	3,717.80
	11/09/11	3,806.30	-	87.50	-	3,719.80
	02/06/12	3,806.30	-	86.00	-	3,720.30
	05/23/12	3,806.30	-	87.60	-	3,718.70
	08/28/12	3,806.30	-	88.95	-	3,717.35
	11/27/12	3,806.30	-	88.43	-	3,717.87
	02/22/13	3,806.30	-	87.24	-	3,719.06
	05/23/13	3,806.30	-	89.00	-	3,717.30
	08/21/13	3,806.30	-	89.25	-	3,717.05
	02/13/14	3,806.30	-	87.51	-	3,718.79

TABLE 1
GROUNDWATER ELEVATION DATA

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: 1RP-838

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-5	05/09/14	3,806.30	-	89.00	-	3,717.30
	08/07/14	3,806.30	-	91.02	-	3,715.28
	11/17/14	3,806.30	-	90.21	-	3,716.09
MW-6	12/28/06	3,806.08	-	78.42	-	3,727.66
	03/16/07	3,806.08	-	79.20	-	3,726.88
	05/30/07	3,806.08	-	78.75	-	3,727.33
	09/25/07	3,806.08	-	80.10	-	3,725.98
	11/30/07	3,806.08	-	79.73	-	3,726.35
	03/11/08	3,806.08	-	79.95	-	3,726.13
	06/14/08	3,806.08	-	82.01	-	3,724.07
	09/17/08	3,806.08	-	81.09	-	3,724.99
	12/02/08	3,806.08	-	80.77	-	3,725.31
	03/03/09	3,806.08	-	81.67	-	3,724.41
	06/18/09	3,806.08	-	83.48	-	3,722.60
	09/01/09	3,806.08	-	84.83	-	3,721.25
	12/18/09	3,806.08	-	82.75	-	3,723.33
	03/04/10	3,806.08	-	81.86	-	3,724.22
	05/25/10	3,806.08	-	82.65	-	3,723.43
	08/30/10	3,806.08	-	92.36	-	3,713.72
	11/11/10	3,806.08	-	82.75	-	3,723.33
	03/22/11	3,806.08	-	85.64	-	3,720.44
	05/27/11	3,806.08	-	87.34	-	3,718.74
	08/24/11	3,806.08	-	89.70	-	3,716.38
	11/09/11	3,806.08	-	88.40	-	3,718.68
	02/06/12	3,806.08	-	86.00	-	3,720.08
	05/23/12	3,806.08	-	89.58	-	3,716.50
	08/28/12	3,806.08	-	89.40	-	3,716.68
	11/27/12	3,806.08	-	89.02	-	3,717.06
	02/22/13	3,806.08	-	87.40	-	3,718.68
	05/23/13	3,806.08	-	89.60	-	3,716.48
	08/21/13	3,806.08	-	Dry	-	Dry
	02/13/14	3,806.08	-	87.52	-	3,718.56
	05/09/14	3,806.08	-	89.28	-	3,716.80
	08/07/14	3,806.08	-	92.21	-	3,713.87
	11/17/14	3,806.08	-	90.63	-	3,715.45
MW-7	12/28/06	3,806.05	-	78.40	-	3,727.65
	03/16/07	3,806.05	-	79.35	-	3,726.70
	05/31/07	3,806.05	-	78.71	-	3,727.34
	09/25/07	3,806.05	-	80.09	-	3,725.96

TABLE 1
GROUNDWATER ELEVATION DATA

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: 1RP-838

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-7	11/30/07	3,806.05	-	79.80	-	3,726.25
	03/11/08	3,806.05	-	80.32	-	3,725.73
	06/14/08	3,806.05	-	81.19	-	3,724.86
	09/17/08	3,806.05	-	81.08	-	3,724.97
	12/02/08	3,806.05	-	80.70	-	3,725.35
	03/03/09	3,806.05	-	81.75	-	3,724.30
	06/18/09	3,806.05	-	83.63	-	3,722.42
	09/01/09	3,806.05	-	84.91	-	3,721.14
	12/18/09	3,806.05	-	83.16	-	3,722.89
	03/04/10	3,806.05	-	82.25	-	3,723.80
	05/25/10	3,806.05	-	83.10	-	3,722.95
	08/30/10	3,806.05	-	86.80	-	3,719.25
	11/11/10	3,806.05	-	83.16	-	3,722.89
	03/22/11	3,806.05	-	86.33	-	3,719.72
	05/27/11	3,806.05	-	87.93	-	3,718.12
	08/24/11	3,806.05	-	90.30	-	3,715.75
	11/09/11	3,806.05	-	88.00	-	3,719.05
	02/06/12	3,806.05	-	86.35	-	3,719.70
	05/23/12	3,806.05	-	89.25	-	3,716.80
	08/28/12	3,806.05	-	89.90	-	3,716.15
	11/27/12	3,806.05	-	89.51	-	3,716.54
	02/22/13	3,806.05	-	87.81	-	3,718.24
	05/23/13	3,806.05	-	89.99	-	3,716.06
	08/21/13	3,806.05	-	92.15	-	3,713.90
	02/13/14	3,806.05	-	88.25	-	3,717.80
	05/09/14	3,806.05	-	89.71	-	3,716.34
	08/07/14	3,806.05	-	92.87	-	3,713.18
	11/17/14	3,806.05	-	91.03	-	3,715.02
MW-8	03/16/07	3,805.89	-	78.78	-	3,727.11
	05/31/07	3,805.89	-	78.64	-	3,727.25
	09/25/07	3,805.89	-	80.03	-	3,725.86
	11/30/07	3,805.89	-	79.70	-	3,726.19
	03/11/08	3,805.89	-	80.16	-	3,725.73
	06/14/08	3,805.89	-	82.38	-	3,723.51
	09/17/08	3,805.89	-	80.97	-	3,724.92
	12/02/08	3,805.89	-	80.58	-	3,725.31
	03/03/09	3,805.89	-	81.79	-	3,724.10
	06/18/09	3,805.89	-	83.79	-	3,722.10
	09/01/09	3,805.89	-	84.98	-	3,720.91
	12/18/09	3,805.89	-	82.59	-	3,723.30

TABLE 1
GROUNDWATER ELEVATION DATA

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: 1RP-838

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-8	03/04/10	3,805.89	-	81.71	-	3,724.18
	05/25/10	3,805.89	-	82.59	-	3,723.30
	08/30/10	3,805.89	-	86.58	-	3,719.31
	11/11/10	3,805.89	-	82.59	-	3,723.30
	03/22/11	3,805.89	-	86.11	-	3,719.78
	05/27/11	3,805.89	-	87.68	-	3,718.21
	08/24/11	3,805.89	-	90.20	-	3,715.69
	11/09/11	3,805.89	-	88.36	-	3,718.53
	02/06/12	3,805.89	-	85.80	-	3,720.09
	05/23/12	3,805.89	-	88.78	-	3,717.11
	08/28/12	3,805.89	-	89.99	-	3,715.90
	11/27/12	3,805.89	-	89.07	-	3,716.82
	02/22/13	3,805.89	-	87.32	-	3,718.57
	05/23/13	3,805.89	-	89.55	-	3,716.34
	08/21/13	3,805.89	-	89.82	-	3,716.07
	02/13/14	3,805.89	-	87.87	-	3,718.02
	05/09/14	3,805.89	-	89.28	-	3,716.61
	08/07/14	3,805.89	-	92.72	-	3,713.17
	11/17/14	3,805.89	-	90.51	-	3,715.38
MW-9	09/25/07	3,806.02	-	80.38	-	3,725.64
	11/30/07	3,806.02	-	79.89	-	3,726.13
	03/11/08	3,806.02	-	80.69	-	3,725.33
	06/14/08	3,806.02	-	83.11	-	3,722.91
	09/17/08	3,806.02	-	81.19	-	3,724.83
	12/02/08	3,806.02	-	80.81	-	3,725.21
	03/03/09	3,806.02	-	82.29	-	3,723.73
	06/18/09	3,806.02	-	84.45	-	3,721.57
	09/01/09	3,806.02	-	85.61	-	3,720.41
	10/05/09	3,806.02	-	84.59	-	3,721.43
	12/18/09	3,806.02	-	82.90	-	3,723.12
	03/04/10	3,806.02	-	81.96	-	3,724.06
	05/25/10	3,806.02	-	83.08	-	3,722.94
	08/30/10	3,806.02	-	87.62	-	3,718.40
	11/11/10	3,806.02	-	84.59	-	3,721.43
	03/22/11	3,806.02	-	87.01	-	3,719.01
	05/27/11	3,806.02	-	88.61	-	3,717.41
	08/24/11	3,806.02	-	91.30	-	3,714.72
	11/09/11	3,806.02	-	89.15	-	3,717.87
	12/14/11	3,806.02	-	91.25	-	3,714.77
	01/05/12	3,806.02	-	86.26	-	3,719.76

TABLE 1
GROUNDWATER ELEVATION DATA

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: 1RP-838

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-9	*02/06/12*	3,806.02	-	86.20	-	3,719.82
	03/01/12	3,806.02	-	86.40	-	3,719.62
	04/18/12	3,806.02	-	87.68	-	3,718.34
	05/23/12	3,806.02	-	88.82	-	3,717.20
	06/19/12	3,806.02	-	87.75	-	3,718.27
	07/30/12	3,806.02	-	89.92	-	3,716.10
	08/28/12	3,806.02	-	92.34	-	3,713.68
	09/11/12	3,806.02	-	89.57	-	3,716.45
	10/31/12	3,806.02	-	89.71	-	3,716.31
	11/27/12	3,806.02	-	89.13	-	3,716.89
	12/19/12	3,806.02	-	89.30	-	3,716.72
	01/30/13	3,806.02	-	87.58	-	3,718.44
	02/22/13	3,806.02	-	87.68	-	3,718.34
	03/27/13	3,806.02	-	87.69	-	3,718.33
	04/09/13	3,806.02	-	91.08	-	3,714.94
	05/29/13	3,806.02	-	90.03	-	3,715.99
	06/25/13	3,806.02	-	90.76	-	3,715.26
	07/16/13	3,806.02	-	92.21	-	3,713.81
	08/21/13	3,806.02	-	91.83	-	3,714.19
	09/19/13	3,806.02	-	91.96	-	3,714.06
	10/23/13	3,806.02	-	90.14	-	3,715.88
	02/13/14	3,806.02	-	92.19	-	3,713.83
	05/09/14	3,806.02	-	89.66	-	3,716.36
	08/07/14	3,806.02	-	93.79	-	3,712.23
	11/17/14	3,806.02	-	90.92	-	3,715.10
MW-10	11/02/09	3,806.08	-	82.99	-	3,723.09
	12/18/09	3,806.08	-	82.94	-	3,723.14
	03/04/10	3,806.08	-	82.03	-	3,724.05
	05/25/10	3,806.08	-	83.44	-	3,722.64
	08/30/10	3,806.08	-	90.15	-	3,715.93
	11/11/10	3,806.08	-	83.44	-	3,722.64
	03/22/11	3,806.08	-	89.55	-	3,716.53
	05/27/11	3,806.08	-	91.22	-	3,714.86
	08/24/11	*3,806.08*	-	*94.20*	-	3,711.88
	10/10/11	3,806.08	-	91.40	-	3,714.68
	10/31/11	3,806.08	-	91.65	-	3,714.43
	11/09/11	3,806.08	-	90.85	-	3,715.23
	12/14/11	3,806.08	-	91.60	-	3,714.48
	01/05/12	3,806.08	-	86.30	-	3,719.78
	02/06/12	3,806.08	-	90.10	-	3,715.98

TABLE 1
GROUNDWATER ELEVATION DATA

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: 1RP-838

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-10	03/01/12	3,806.08	-	90.25	-	3,715.83
	04/18/12	3,806.08	-	88.82	-	3,717.26
	05/23/12	3,806.08	-	91.55	-	3,714.53
	06/19/12	3,806.08	-	86.75	-	3,719.33
	07/30/12	3,806.08	-	Dry	-	Dry
	08/28/12	3,806.08	-	94.98	-	3,711.10
	09/11/12	3,806.08	-	93.72	-	3,712.36
	10/31/12	3,806.08	-	90.25	-	3,715.83
	11/27/12	3,806.08	-	90.84	-	3,715.24
	12/19/12	3,806.08	-	91.10	-	3,714.98
	01/30/13	3,806.08	-	87.67	-	3,718.41
	02/22/13	3,806.08	-	89.99	-	3,716.09
	03/27/13	3,806.08	-	89.91	-	3,716.17
	04/09/13	3,806.08	-	93.48	-	3,712.60
	05/23/13	3,806.08	-	90.14	-	3,715.94
	06/25/13	3,806.08	-	92.77	-	3,713.31
	07/16/13	3,806.08	-	92.75	-	3,713.33
	08/21/13	3,806.08	-	Dry	-	Dry
	09/19/13	3,806.08	-	Dry	-	Dry
	10/23/13	3,806.08	-	89.91	-	3,716.17
	02/13/14	3,806.08	-	89.00	-	3,717.08
	05/09/14	3,806.08	-	90.12	-	3,715.96
	08/07/14	3,806.31	-	Dry	-	Dry
	11/17/14	3,806.08	-	91.20	-	3,714.88

Elevations based on the North American Vertical Datum of 1929.

- = Not applicable

TABLE 2
CONCENTRATIONS OF BTEX, FLUORIDE & CHROMIUM IN GROUNDWATER

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: AP-96

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b							300.1	SW846-6010C
		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)	FLUORIDE (mg/L)	CHROMIUM (mg/L)
MW-1	10/05/06	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	12/28/06	<0.0010	<0.0010	<0.0010	0.002	<0.0010	0.0020	0.0020	-	-
	03/16/07	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	05/31/07	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	09/25/07	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/30/07	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/11/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/14/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/17/08	**0.0200**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0200	-	-
	12/02/08	**0.0350**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0350	-	-
	03/03/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/18/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/01/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/18/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/04/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/25/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/30/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/11/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/22/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/27/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/24/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/09/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/06/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/28/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/27/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/22/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/26/14	**0.0474**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0474	-	-
	08/07/14	**0.0255**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0255	-	-
MW-2	10/05/06	0.0100	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0100	-	-
	12/28/06	**0.1610**	<0.0010	<0.0010	0.0240	<0.0010	0.0240	0.1850	-	-
	03/16/07	**0.1540**	<0.0010	<0.0010	0.0150	<0.0010	0.0150	0.1690	-	-
	05/31/07	0.0050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0050	-	-
	09/25/07	**0.0500**	<0.0010	<0.0010	0.0030	<0.0010	0.0030	0.0530	-	-
	11/30/07	**0.9280**	<0.0010	<0.005	0.0360	<0.005	0.0360	0.9640	-	-
	03/11/08	**0.0950**	<0.0020	<0.0010	0.0032	<0.0010	0.0032	0.0982	-	-
	06/14/08	0.0030	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0030	-	-
	09/17/08	**0.1590**	<0.0020	<0.0010	0.0040	<0.0010	0.0040	0.1630	-	-
	12/02/08	**0.0500**	0.0020	<0.0010	0.0070	0.0010	0.0080	0.0600	-	-

TABLE 2
CONCENTRATIONS OF BTEX, FLUORIDE & CHROMIUM IN GROUNDWATER

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: AP-96

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b							300.1	SW846-6010C
		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)	FLUORIDE (mg/L)	CHROMIUM (mg/L)
MW-2	03/03/09	**0.0356**	<0.0020	<0.0010	0.0026	<0.0010	0.0026	0.0382	-	-
	06/18/09	0.0097	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0097	-	-
	09/01/09	**0.0842**	<0.0020	<0.0010	0.0083	<0.0010	0.0083	0.0925	-	-
	12/18/09	**0.0129**	<0.0020	<0.0010	0.0095	<0.0010	0.0095	0.0224	-	-
	03/04/10	0.0026	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0026	-	-
	05/25/10	0.0023	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0023	-	-
	08/30/10	**0.0406**	<0.0020	<0.0010	0.0132	<0.0010	0.0132	0.0538	-	-
	11/11/10	0.0087	<0.0020	<0.0010	0.0910	<0.0010	0.0910	0.0997	-	-
	03/22/11	**0.0361**	<0.0020	<0.0010	0.0605	0.0011	0.0616	0.0977	-	-
	05/27/11	0.0022	<0.0020	<0.0010	0.0030	<0.0010	0.0030	0.0052	-	-
	09/30/11	**0.1790**	<0.0020	0.0028	0.0035	0.0021	0.0056	0.1870	-	-
	11/09/11	Dry								
	02/06/12	0.0019	<0.0020	<0.0010	0.0021	0.0010	0.0031	0.0050	-	-
	05/23/12	Dry								
	08/28/12	Dry								
	11/27/12	Dry								
	02/28/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/13	Dry								
	08/21/13	Dry								
	11/08/13	Dry								
	02/13/14	Dry								
	05/09/14	Dry								
	08/07/14	Dry								
	11/17/14	Dry								
MW-3	10/05/06	**6.60**	<0.0010	<0.0010	0.0720	<0.0010	0.0720	6.67	-	-
	12/28/06	**1.02**	<0.0010	0.0050	0.0280	<0.0010	0.0280	1.05	-	-
	03/16/07	**1.48**	<0.0010	0.0130	0.0340	<0.0010	0.0340	1.53	-	-
	05/31/07	**1.66**	0.0100	0.0340	0.0290	0.0120	0.0410	1.75	-	-
	09/25/07	**0.4940**	0.0230	0.0200	0.0140	0.0070	0.0210	0.56	-	-
	11/30/07	**5.93**	0.0270	0.2730	0.1410	0.0740	0.2150	6.45	-	-
	03/11/08	**1.16**	0.1070	0.1770	0.0660	0.1390	0.2050	1.65	-	-
	06/14/08	**0.2140**	0.0020	0.0070	0.0120	0.0050	0.0170	0.2400	-	-
	09/17/08	**0.0260**	<0.0020	<0.0010	0.0020	<0.0010	0.0020	0.0280	-	-
	12/02/08	**0.0240**	<0.0020	<0.0010	0.0040	0.0010	0.0050	0.0290	-	-
	03/03/09	**1.37**	0.0305	0.0251	0.0173	0.0158	0.0331	1.46	-	-
	06/18/09	0.0031	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/01/09	0.0073	0.0033	<0.0010	0.0028	0.0015	0.0043	0.0149	-	-
	12/18/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/04/10	0.0011	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0011	-	-
	05/25/10	**0.0109**	0.0033	<0.0010	0.0048	0.0027	0.0075	0.0217	-	-
	08/30/10	0.0092	0.0036	<0.0010	0.0060	0.0033	0.0093	0.0221	-	-

TABLE 2
CONCENTRATIONS OF BTEX, FLUORIDE & CHROMIUM IN GROUNDWATER

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: AP-96

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b							300.1	SW846-6010C
		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)	FLUORIDE (mg/L)	CHROMIUM (mg/L)
MW-3	11/11/10	0.0033	<0.0020	<0.0010	0.0023	0.0013	0.0036	0.0069	-	-
	03/22/11	0.0090	0.0028	<0.0010	0.0082	0.0038	0.0119	0.0238	-	-
	05/27/11	**0.0205**	<0.0020	<0.0010	0.0031	0.0012	0.0042	0.0247	-	-
	08/24/11	**0.0262**	0.0033	<0.0010	0.0083	0.0031	0.0114	0.0409	-	-
	11/09/11	0.0021	<0.0020	<0.0010	0.0023	0.0011	0.0035	0.0056	-	-
	02/06/12	**0.0214**	0.0031	0.0013	0.0075	0.0035	0.0110	0.0367	-	-
	05/23/12	0.0093	0.0020	<0.0010	0.0058	0.0026	0.0085	0.0198	-	-
	08/28/12	0.0075	<0.0020	<0.0010	<0.0020	0.0014	0.0014	0.0088	-	-
	11/27/12	**0.0120**	0.0028	0.0011	0.0071	0.0025	0.0096	0.0256	-	-
	02/22/13	**0.0112**	<0.0020	<0.0010	0.0030	0.0021	0.0051	0.0163	-	-
	05/23/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/08/13	0.0024	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0024	-	-
	02/13/14	0.0028	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/09/14	0.0089	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0089	-	-
	09/16/14	**0.0164**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0164	-	-
	11/17/14	**0.1190**	0.0069	<0.0010	0.0367	0.0071	0.0438	0.1700	-	-
MW-4	12/28/06	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	03/16/07	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	05/30/07	<0.0010	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	-	-
	09/25/07	<0.0010	0.0010	<0.0010	<0.0020	<0.0010	<0.0020	0.0010	-	-
	11/30/07	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/11/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/14/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/17/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/02/08	<0.0010	0.0060	<0.0010	<0.0020	<0.0010	<0.0020	0.0060	-	-
	03/03/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/18/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/01/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/18/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/04/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/25/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/30/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/11/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/22/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/27/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	**4.76**	<0.0050
	08/24/11	0.0012	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0012	-	-
	11/09/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/06/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/28/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-

TABLE 2
CONCENTRATIONS OF BTEX, FLUORIDE & CHROMIUM IN GROUNDWATER

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: AP-96

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b							300.1	SW846-6010C
		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)	FLUORIDE (mg/L)	CHROMIUM (mg/L)
MW-4	11/27/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/22/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	Dry								
	02/26/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/07/14	Dry								
MW-5	12/28/06	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	03/16/07	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	05/30/07	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	09/25/07	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/30/07	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/11/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/14/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/17/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/02/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/03/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/18/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/01/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/18/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/04/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/25/10	0.0014	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0014	-	-
	08/30/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/11/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/22/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/27/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/24/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/09/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/06/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/28/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/27/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/22/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/13/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/07/14	Dry								
MW-6	12/28/06	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	03/16/07	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	05/30/07	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	09/25/07	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-

TABLE 2
CONCENTRATIONS OF BTEX, FLUORIDE & CHROMIUM IN GROUNDWATER

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: AP-96

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b							300.1	SW846-6010C
		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)	FLUORIDE (mg/L)	CHROMIUM (mg/L)
MW-6	11/30/07	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/11/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/14/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/17/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/02/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/03/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/18/09	0.0044	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0044	-	-
	09/01/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/18/09	**0.0130**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0130	-	-
	03/04/10	0.0063	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0063	-	-
	05/25/10	0.0059	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0059	-	-
	08/30/10	0.0053	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0053	-	-
	11/11/10	0.0082	<0.0020	<0.0010	0.0035	<0.0010	0.0035	0.0117	-	-
	03/22/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/27/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/24/11	**0.1050**	<0.0020	<0.0010	0.0597	0.0031	0.0628	0.1680	-	-
	11/09/11	0.0036	<0.0020	<0.0010	0.0388	<0.0010	0.0388	0.0424	-	-
	02/06/12	**0.0129**	<0.0020	0.0011	0.1330	<0.0010	0.1330	0.1470	-	-
	05/23/12	0.0077	<0.0010	<0.0010	0.1570	<0.0010	0.1570	0.1650	-	-
	08/28/12	<0.0010	<0.0020	<0.0010	0.0026	<0.0010	0.0026	0.0026	-	-
	11/27/12	0.0012	<0.0020	<0.0010	0.0414	<0.0010	0.0414	0.0426	-	-
	02/22/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	Dry								
	11/08/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/13/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/09/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/07/14	Dry								
	11/17/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
MW-7	12/28/06	**0.0470**	<0.0010	<0.0010	0.0010	<0.0010	0.0010	0.0480	-	-
	03/16/07	**0.0470**	<0.0010	<0.0010	0.0150	<0.0010	0.0150	0.0620	-	-
	05/31/07	**0.0390**	<0.0010	<0.0010	0.0050	<0.0010	0.0050	0.0440	-	-
	09/25/07	**0.0370**	<0.0010	<0.0010	0.0300	<0.0010	0.0300	0.0670	-	-
	11/30/07	**0.0260**	<0.0020	<0.0010	0.0220	<0.0010	0.0220	0.0480	-	-
	03/11/08	**0.0950**	<0.0020	<0.0010	0.0032	<0.0010	0.0032	0.0982	-	-
	06/14/08	**0.1380**	<0.0020	<0.0010	0.0160	<0.0010	0.0160	0.1540	-	-
	09/17/08	**0.3530**	<0.0020	<0.0010	0.0030	<0.0010	0.0030	0.3560	-	-
	12/02/08	**0.0360**	<0.0020	<0.0010	0.0030	0.0020	0.0050	0.0410	-	-
	03/03/09	**0.0775**	<0.0020	<0.0010	0.0327	<0.0010	0.0327	0.1102	-	-
	06/18/09	**0.0570**	<0.0020	<0.0010	0.0329	<0.0010	0.0329	0.0899	-	-
	09/01/09	**0.0120**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0120	-	-

TABLE 2
CONCENTRATIONS OF BTEX, FLUORIDE & CHROMIUM IN GROUNDWATER

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: AP-96

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b							300.1	SW846-6010C
		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)	FLUORIDE (mg/L)	CHROMIUM (mg/L)
MW-7	12/18/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/04/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/25/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/30/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/11/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/22/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/27/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/24/11	0.0019	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0019	-	-
	11/09/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/06/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/28/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/27/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/22/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/13	0.0087	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0087	-	-
	08/21/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/08/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/13/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/24/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/27/14	**0.0480**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0480	-	-
	11/17/14	**0.1770**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.1770	-	-
MW-8	03/16/07	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	05/31/07	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	-	-
	09/25/07	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/30/07	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/11/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/14/08	0.0080	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0080	-	-
	09/17/08	**0.5680**	<0.0100	<0.005	<0.0100	<0.005	<0.0100	0.5680	-	-
.	12/02/08	**0.2340**	0.0460	0.0080	0.0410	0.0130	0.0540	0.3420	-	-
	03/03/09	**0.0284**	<0.0020	<0.0010	0.0068	<0.0010	0.0068	0.0352	-	-
	06/18/09	0.0045	<0.0020	0.0016	0.0032	<0.0010	0.0032	0.0093	-	-
	09/01/09	0.0013	<0.0020	0.0011	0.0141	<0.0010	0.0141	0.0165	-	-
	12/18/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/04/10	<0.0010	<0.0020	0.0011	<0.0020	<0.0010	<0.0020	0.0011	-	-
	05/25/10	0.0012	<0.0020	0.0010	<0.0020	<0.0010	<0.0020	0.0022	-	-
	08/30/10	<0.0010	<0.0020	0.0014	<0.0020	<0.0010	<0.0020	0.0014	-	-
	11/11/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/22/11	<0.0010	<0.0020	<0.0010	<0.0020	0.0015	0.0015	0.0015	-	-
	05/27/11	<0.0010	<0.0020	<0.0010	<0.0020	0.0026	0.0026	0.0026	-	-
	08/24/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/09/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-

TABLE 2
CONCENTRATIONS OF BTEX, FLUORIDE & CHROMIUM IN GROUNDWATER

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: AP-96

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b							300.1	SW846-6010C
		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)	FLUORIDE (mg/L)	CHROMIUM (mg/L)
MW-8	02/06/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/28/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/27/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/22/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/26/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/07/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
MW-9	09/25/07	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/30/07	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/11/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/14/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/17/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/02/08	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/03/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/18/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/01/09	**0.9717**	0.0641	<0.0100	0.0867	0.0422	0.1289	1.16	-	-
	09/10/09	**1.84**	<0.0200	<0.0100	0.0537	<0.0100	0.0537	1.89	-	-
	10/05/09	**0.9850**	<0.0020	<0.0010	0.0442	<0.0010	0.0442	1.03	-	-
	12/18/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/04/10	**0.0192**	<0.0020	<0.0010	0.0027	<0.0010	0.0027	0.0219	-	-
	05/25/10	**0.0421**	<0.0020	<0.0010	0.0063	<0.0010	0.0063	0.0484	-	-
	08/30/10	**0.1259**	<0.0020	<0.0010	0.0344	<0.0010	0.0344	0.1603	-	-
	11/11/10	**0.0265**	<0.0020	<0.0010	0.0097	<0.0010	0.0097	0.0362	-	-
	03/22/11	0.0034	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0034	-	-
	05/27/11	0.0041	<0.0020	<0.0010	0.0033	<0.0010	0.0033	0.0073	-	-
	08/24/11	<0.0010	<0.0020	<0.0010	0.0024	<0.0010	0.0024	0.0024	-	-
	11/09/11	0.0018	<0.0020	<0.0010	0.0035	<0.0010	0.0035	0.0053	-	-
	12/14/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	01/05/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/06/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/01/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	04/18/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/19/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	07/30/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/28/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/11/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/31/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/27/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-

TABLE 2
CONCENTRATIONS OF BTEX, FLUORIDE & CHROMIUM IN GROUNDWATER

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: AP-96

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b							300.1	SW846-6010C
		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)	FLUORIDE (mg/L)	CHROMIUM (mg/L)
MW-9	12/19/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	01/30/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/22/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/27/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	04/09/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/29/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/25/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	07/16/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/19/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/23/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/13/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/09/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/07/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/17/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
MW-10	11/02/09	<0.005	<0.005	<0.005	<0.010	<0.005	<0.010	<0.010	-	-
	03/04/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/25/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/30/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/11/10	**0.0350**	<0.0020	<0.0010	0.0035	<0.0010	0.0035	0.0385	-	-
	03/22/11	**0.0568**	<0.0020	<0.0010	0.00333	<0.0010	0.0033	0.0601	-	-
	05/27/11	**1.52**	<0.0020	0.0011	0.0113	<0.0010	0.0113	1.53	-	-
	07/11/11	**3.00**	0.0027	0.0037	0.0248	0.0023	0.0271	3.03	-	-
	08/24/11	**0.6540**	<0.0020	0.0016	0.0177	0.0026	0.0203	0.6760	-	-
	10/10/11	**0.1830**	<0.0020	<0.0010	0.121	<0.0010	0.1210	0.3040	-	-
	10/31/11	**0.0530**	<0.0020	0.0014	0.0944	0.0022	0.0966	0.1510	-	-
	11/09/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/14/11	0.0085	0.0023	<0.0010	0.0261	<0.0010	0.0261	0.0368	-	-
	01/05/12	0.0043	<0.0020	<0.0010	0.0126	<0.0010	0.0126	0.0169	-	-
	02/06/12	0.0023	<0.0020	<0.0010	0.0064	<0.0010	0.0064	0.0088	-	-
	03/01/12	0.0013	<0.0020	<0.0010	0.0042	<0.0010	0.0042	0.0056	-	-
	04/18/12	0.0034	<0.0020	<0.0010	0.0175	<0.0010	0.0175	0.0209	-	-
	05/23/12	0.0039	<0.0010	<0.0010	0.1030	<0.0010	0.1030	0.1070	-	-
	06/19/12	<0.0010	<0.0010	<0.0010	0.0157	<0.0010	0.0157	0.0157	-	-
	07/30/12	Dry								
	08/28/12	<0.0010	<0.0020	<0.0010	0.0134	0.0014	0.0148	0.0148	-	-
	09/11/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/31/12	<0.0010	<0.0020	0.0012	0.0031	0.0015	0.0046	0.0058	-	-
	11/27/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/19/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	01/30/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-

TABLE 2
CONCENTRATIONS OF BTEX, FLUORIDE & CHROMIUM IN GROUNDWATER

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: AP-96

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b							300.1	SW846-6010C
		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)	FLUORIDE (mg/L)	CHROMIUM (mg/L)
MW-10	02/22/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/27/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	04/09/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/25/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	07/16/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	Dry								
	09/19/13	Dry								
	10/23/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/13/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/09/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/07/14	Dry								
	11/17/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
Goff Dairy Well	05/27/11	0.0013	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0012	-	-
	07/11/11	0.0026	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0026	-	-
	08/24/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/10/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/31/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/09/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/14/11	<0.0010	<0.0020	0.0011	<0.0020	<0.0010	<0.0020	0.0011	-	-
	01/05/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/06/12	<0.0010	<0.0020	0.0011	0.0020	<0.0010	0.0020	0.0031	-	-
	03/01/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	04/18/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	07/30/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/28/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/11/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/27/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	04/09/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/25/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	07/16/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/19/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/23/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/26/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/09/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/07/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/17/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-

TABLE 2
CONCENTRATIONS OF BTEX, FLUORIDE & CHROMIUM IN GROUNDWATER

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: AP-96

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b							300.1	SW846-6010C
		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)	FLUORIDE (mg/L)	CHROMIUM (mg/L)
Goff Dairy - Ctr. Pivot Well	07/07/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/24/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/10/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/31/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/09/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/14/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	01/05/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/06/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/01/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	04/18/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/19/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	07/30/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/28/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/11/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/31/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/27/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	12/19/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/28/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/27/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	04/09/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/25/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/08/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/07/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
Goff Dairy - Ctr. Pivot Beg.	07/07/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/24/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/10/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/31/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/09/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/01/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	04/18/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/19/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	07/30/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/11/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/31/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/27/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/28/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/27/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-

TABLE 2
CONCENTRATIONS OF BTEX, FLUORIDE & CHROMIUM IN GROUNDWATER

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: AP-96

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b							300.1	SW846-6010C
		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)	FLUORIDE (mg/L)	CHROMIUM (mg/L)
Goff Dairy - Ctr. Pivot Beg.	04/09/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/25/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/08/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/07/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
Goff Dairy - Ctr. Pivot End	07/07/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/24/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/10/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/31/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/09/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/01/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	04/18/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/19/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	07/30/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/11/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/31/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/27/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/28/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/27/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	04/09/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/25/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/08/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/07/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
JW Well	07/14/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/24/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/10/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/31/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/09/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/01/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	04/18/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/23/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/19/12	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	07/30/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/28/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/11/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	10/31/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/27/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-

TABLE 2
CONCENTRATIONS OF BTEX, FLUORIDE & CHROMIUM IN GROUNDWATER

PLAINS MARKETING, LP
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2006-142
NMOCD REFERENCE #: AP-96

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b							300.1	SW846-6010C
		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)	FLUORIDE (mg/L)	CHROMIUM (mg/L)
JW Well	12/19/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	01/31/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/28/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	03/27/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	04/09/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/29/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	06/25/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	07/16/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/21/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	09/19/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/08/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	02/13/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	05/09/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	08/07/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
	11/17/14	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	-	-
NMOCD REGULATORY STANDARD		**0.01**	**0.75**	**0.75**	**TOTAL XYLENES 0.62**				**1.6**	**0.05**

Appendices

Appendix A
Laboratory Analytical Reports

Analytical Report 479541

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

Lovington Gathering WTI

SRS#2006-142

21-FEB-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

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-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)

21-FEB-14

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

Reference: XENCO Report No(s): **479541**
Lovington Gathering WTI
Project Address: 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) 479541. 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. 479541 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 479541

PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-3	W	02-13-14 11:50		479541-002
MW-5	W	02-13-14 11:20		479541-003
MW-6	W	02-13-14 12:30		479541-004
MW-7	W	02-13-14 13:45		479541-005
MW-9	W	02-13-14 14:20		479541-006
MW-10	W	02-13-14 15:30		479541-007
JW Well	W	02-13-14 07:30		479541-008
MW-1	W	02-13-14 10:15		Not Analyzed

CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI

Project ID: *SRS#2006-142*
Work Order Number(s): *479541*

Report Date: *21-FEB-14*
Date Received: *02/14/2014*

Sample receipt non conformances and comments:

Samples Received Broken. No samples left for MW-4, MW-8 and Goff Dairy Well

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 479541

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS#2006-142
Contact: Ben Arguijo
Project Location: NM

Date Received in Lab: Fri Feb-14-14 08:35 am
Report Date: 21-FEB-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	479541-002		479541-003		479541-004		479541-005		479541-006		479541-007	
	Field Id:	MW-3		MW-5		MW-6		MW-7		MW-9		MW-10	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Feb-13-14 11:50		Feb-13-14 11:20		Feb-13-14 12:30		Feb-13-14 13:45		Feb-13-14 14:20		Feb-13-14 15:30	
BTEX by EPA 8021	***Extracted:***	Feb-19-14 09:00		Feb-19-14 09:00		Feb-19-14 09:00		Feb-19-14 09:00		Feb-19-14 09:00		Feb-19-14 09:00	
	Analyzed:	Feb-19-14 12:04		Feb-19-14 12:20		Feb-19-14 12:36		Feb-19-14 12:52		Feb-19-14 13:08		Feb-19-14 13:24	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		0.00276	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
m_p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Xylenes, Total		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Total BTEX		0.00276	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 479541

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS#2006-142
Contact: Ben Arguijo
Project Location: NM

Date Received in Lab: Fri Feb-14-14 08:35 am
Report Date: 21-FEB-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	479541-008					
	Field Id:	JW Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	Feb-13-14 07:30					
BTEX by EPA 8021	***Extracted:***	Feb-19-14 09:00					
	Analyzed:	Feb-19-14 13:40					
	Units/RL:	mg/L RL					
Benzene		ND 0.00100					
Toluene		ND 0.00200					
Ethylbenzene		ND 0.00100					
m_p-Xylenes		ND 0.00200					
o-Xylene		ND 0.00100					
Xylenes, Total		ND 0.00100					
Total BTEX		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

	Phone	Fax
4143 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave, Phoenix, AZ 85040	(602) 437-0330	

Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 479541,

Project ID: SRS#2006-142

Lab Batch #: 934362 **Sample:** 479541-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/19/14 12:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 934362 **Sample:** 479541-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/19/14 12:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 934362 **Sample:** 479541-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/19/14 12:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 934362 **Sample:** 479541-005 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/19/14 12:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0266	0.0300	89	80-120	

Lab Batch #: 934362 **Sample:** 479541-006 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/19/14 13:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0266	0.0300	89	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: Lovington Gathering WTI

Work Orders : 479541,

Project ID: SRS#2006-142

Lab Batch #: 934362 **Sample:** 479541-007 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/19/14 13:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 934362 **Sample:** 479541-008 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/19/14 13:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 934362 **Sample:** 651272-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/19/14 10:45

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	0.0270	0.0300	90	80-120	

Lab Batch #: 934362 **Sample:** 651272-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/19/14 09:56

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	0.0305	0.0300	102	80-120	

Lab Batch #: 934362 **Sample:** 651272-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/19/14 10:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0310	0.0300	103	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: Lovington Gathering WTI

Work Orders : 479541, **Project ID:** SRS#2006-142

Lab Batch #: 934362 **Sample:** 479541-003 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/19/14 15:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0310	0.0300	103	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 934362 **Sample:** 479541-003 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/19/14 16:05

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	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: Lovington Gathering WTI

Work Order #: 479541 **Project ID:** SRS#2006-142

Analyst: KEB **Date Prepared:** 02/19/2014 **Date Analyzed:** 02/19/2014

Lab Batch ID: 934362 **Sample:** 651272-1-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	0.108	108	0.100	0.110	110	2	70-125	25	
Toluene	<0.00200	0.100	0.110	110	0.100	0.113	113	3	70-125	25	
Ethylbenzene	<0.00100	0.100	0.110	110	0.100	0.113	113	3	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.218	109	0.200	0.224	112	3	70-131	25	
o-Xylene	<0.00100	0.100	0.109	109	0.100	0.113	113	4	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: Lovington Gathering WTI

Work Order # : 479541 **Project ID:** SRS#2006-142

Lab Batch ID: 934362 **QC- Sample ID:** 479541-003 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 02/19/2014 **Date Prepared:** 02/19/2014 **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	0.108	108	0.100	0.115	115	6	70-125	25	
Toluene	<0.00200	0.100	0.109	109	0.100	0.117	117	7	70-125	25	
Ethylbenzene	<0.00100	0.100	0.109	109	0.100	0.118	118	8	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.214	107	0.200	0.232	116	8	70-131	25	
o-Xylene	<0.00100	0.100	0.108	108	0.100	0.117	117	8	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: 02/14/2014 08:35:00 AM

Work Order #: 479541

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)?	5.7
#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?	**N/A**
#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?	**No**
#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#:

NonConformance:
Samples received broken. Not enough samples left for MW-4 and MW-8
Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **DateTime :** _____

Checklist completed by: _____ Date: 02/18/2014
Julian Martinez

Checklist reviewed by: _____ Date: 02/19/2014
Kelsey Brooks

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

LAB W.O #: 479541

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:	cjbryant@paalp.com, bjarguijo@basinenv.com
Project ID:	Lovington Gathering WTI SRS #2006-142	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_____

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Pres Type** E, I	Example Volatiles by 8260	BTEX								Hold Sample (CALL ___) Run PAH on Highest TPH___ Only if
								# Cont			VP								
											E,I								
1	MW-1	2-13-14	10:15	GW			3			X									
2	~~MW-2~~			GW			3			X									
3	MW-3	2-13-14	11:50	GW			3			X									
4	MW-4	2-13-14	09:55	GW			3			X									
5	MW-5	2-13-14	11:20	GW			3			X									
6	MW-6	2-13-14	12:30	GW			3			X									
7	MW-7	2-13-14	13:45	GW			3			X									
8	MW-8	2-13-14	14:45	GW			3			X									
9	MW-9	2-13-14	14:20	GW			3			X									
0	MW-10	2-13-14	15:30	GW			3			X									

* Container Type Codes

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

** Preservative Type Codes

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

^ Matrix Type Codes

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

REMARKS

Received 1 Broken.
1
Received 1 Broken.
Received 3 Broken.
Received 2 Broken.
Received 2 Broken.
Received 2 Broken.
Received 3 Broken.
Received 2 Broken.
Received 2 Broken.

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	15.7 2.5 H 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		Basin	2-14-14	06:45		Basin	2-14-14	06:45
2		Basin	2-14-14	4:35		MS Xenco	2-14-14	0835
3					Julian M	Xenco Odessa	2-17-14	13:00
4								

Lab Use Only

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

C.O.C. Serial #

 Revision Date: Nov 12, 2009

CHAIN OF CUSTODY RECORD

XENCO Laboratories
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 — 479541

LAB W.O#: ~~479542~~

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:	cjbryant@paalp.com, bjarguijo@basinenv.com
Project ID:	Lovington Gathering WTI SRS #2006-142	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

Sampler Signature:

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	# Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Pres Type** E, I	Example Volatiles by 8260	BTEX	Hold Sample (CALL) Run PAH on Highest TPH Only if	# Cont
									VP				
									E,I				
1	Goff Dairy Well	2-13-14	10:45	GW			3				X		
2	~~Goff Dairy - Ctr. Pivot Well~~			~~GW~~			~~3~~				X		
3	~~Goff Dairy - Ctr. Pivot Beg.~~			GW			3				X		
4	~~Goff Dairy - Ctr. Pivot End~~			~~GW~~			~~3~~				X		
5	JW Well	2-13-14	07:30	GW			3				X		
6													
7													
8													
9													
10													

* Container Type Codes

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

** Preservative Type Codes

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

^ Matrix Type Codes

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

REMARKS

Received 2 Broken
Received 2 Broken

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	CCC & 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

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		Basin	2-14-14	06:45		Basin	2-14-14	06:45
2		Basin	2-14-14	4:35		M/S Xenco	2-14-14	0835
3						Xenco Odessa	2-17-14	13:00
4								

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

C.O.C. Serial #

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

 Revision Date: Nov 12, 2009

Final 1.000

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 02/14/2014 08:35:00 AM

Work Order #: 479541

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)?	5.7
#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?	**N/A**
#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?	**No**
#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#:

NonConformance:
Samples received broken. Not enough samples left for MW-4 and MW-8
Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **DateTime :** _____

Checklist completed by: _____ Date: 02/18/2014
Julian Martinez

Checklist reviewed by: _____ Date: 02/19/2014
Kelsey Brooks

Analytical Report 480162

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

Lovington Gathering WTI

SRS#2006-142

04-MAR-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

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-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)

04-MAR-14

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

Reference: XENCO Report No(s): **480162**
Lovington Gathering WTI
Project Address: 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) 480162. 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. 480162 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 480162

PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Goff Dairy Well	W	02-26-14 09:00		480162-001
MW-1	W	02-26-14 10:00		480162-002
MW-4	W	02-26-14 10:30		480162-003
MW-8	W	02-26-14 11:15		480162-004
Sample Blank	W	02-26-14 06:45		480162-005

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Hits Summary 480162

PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id : **MW-1**
Lab Sample Id : 480162-002

Matrix : Water
Date Collected : 02.26.14 10.00
Date Received : 02.27.14 12.55

% Moisture :

Analytical Method : BTEX by EPA 8021
Seq Number 935334

Prep Method: SW5030B
Date Prep: 02.28.14 14.00

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0474	mg/L	02.28.14 19.50		1
Total BTEX		0.0474	mg/L	02.28.14 19.50		1

Certificate of Analysis Summary 480162

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS#2006-142
Contact: Ben Arguijo
Project Location: NM

Date Received in Lab: Thu Feb-27-14 12:55 pm
Report Date: 04-MAR-14
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	480162-001		480162-002		480162-003		480162-004		480162-005	
	Field Id:	Goff Dairy Well		MW-1		MW-4		MW-8		Sample Blank	
	Depth:										
	Matrix:	WATER		WATER		WATER		WATER		WATER	
	Sampled:	Feb-26-14 09:00		Feb-26-14 10:00		Feb-26-14 10:30		Feb-26-14 11:15		Feb-26-14 06:45	
BTEX by EPA 8021	***Extracted:***	Feb-28-14 14:00		Feb-28-14 14:00		Feb-28-14 14:00		Feb-28-14 14:00		Feb-28-14 14:00	
	Analyzed:	Feb-28-14 19:02		Feb-28-14 19:50		Feb-28-14 19:34		Feb-28-14 19:18		Mar-03-14 14:18	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		ND	0.00100	0.0474	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
m_p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Xylenes, Total		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Total BTEX		ND	0.00100	0.0474	0.00100	ND	0.00100	ND	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: Lovington Gathering WTI

Work Orders : 480162, 480162 **Project ID:** SRS#2006-142

Lab Batch #: 935334 **Sample:** 480162-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/28/14 19:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0265	0.0300	88	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 935334 **Sample:** 480162-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/28/14 19:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 935334 **Sample:** 480162-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/28/14 19:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 935334 **Sample:** 480162-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/28/14 19:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

Lab Batch #: 935334 **Sample:** 480162-005 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/03/14 14:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0280	0.0300	93	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 480162, 480162 **Project ID:** SRS#2006-142

Lab Batch #: 935334 **Sample:** 651880-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/28/14 16:50

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	0.0271	0.0300	90	80-120	

Lab Batch #: 935334 **Sample:** 651880-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/28/14 17:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 935334 **Sample:** 651880-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/28/14 17:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 935334 **Sample:** 480162-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/28/14 17:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 935334 **Sample:** 480162-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 02/28/14 18:14

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	0.0311	0.0300	104	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: Lovington Gathering WTI

Work Order #: 480162, 480162 **Project ID:** SRS#2006-142

Analyst: ARM **Date Prepared:** 02/28/2014 **Date Analyzed:** 02/28/2014

Lab Batch ID: 935334 **Sample:** 651880-1-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	0.0919	92	0.100	0.0914	91	1	70-125	25	
Toluene	<0.00200	0.100	0.0908	91	0.100	0.0908	91	0	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0954	95	0.100	0.0958	96	0	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.197	99	0.200	0.198	99	1	70-131	25	
o-Xylene	<0.00100	0.100	0.0999	100	0.100	0.100	100	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: Lovington Gathering WTI

Work Order # : 480162 **Project ID:** SRS#2006-142

Lab Batch ID: 935334 **QC- Sample ID:** 480162-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 02/28/2014 **Date Prepared:** 02/28/2014 **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	0.0904	90	0.100	0.0936	94	3	70-125	25	
Toluene	<0.00200	0.100	0.0892	89	0.100	0.0924	92	4	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0936	94	0.100	0.0977	98	4	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.193	97	0.200	0.201	101	4	70-131	25	
o-Xylene	<0.00100	0.100	0.0981	98	0.100	0.102	102	4	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: 02/27/2014 12:55:00 PM

Work Order #: 480162

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)?	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?	**No**
#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?	**Yes**

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

Analyst:	PH Device/Lot#:

Checklist completed by: Ruriko Konuma Date: 02/27/2014

Checklist reviewed by: Kelsey Brooks Date: 02/27/2014

CHAIN OF CUSTODY RECORD

XENCO Laboratories
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#: 480162

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:	cjbryant@paalp.com, baarguijo@basinenv.com
Project ID:	Lovington Gathering WTI SRS #2006-142	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

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

Sampler Signature: Miguel Barrera

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	# Cont	Example Volatiles by 8260	BTEX									Hold Sample (CALL) Run PAH on Highest TPH Only if
								Cont Type * VC		VP									
								Pres Type** E, I		E,I									
1	Goff Dairy Well	2/26/14	9:00	GW		1	3			X									
2	MW-1	2/26/14	10:00	GW			3			X									
3	MW-4	2/26/14	10:30	GW		2	3			X									
4	MW-8	2/26/14	11:15	GW		1	3			X									
5	Sumple blank	2/26/14	06:45	GW			3			X									
6																			
7																			
8																			
9																			
10																			

* Container Type Codes

VA Vial Amber, VC Vial Clear, VP Vial Pre-preserved, GA Glass Amber, GC Glass Clear, PA Plastic Amber, PC Plastic Clear, ES Encore Sampler, TS TerraCore Sampler, AC Air Canister, TB Tedlar Bag, ZB Zip Lock Bag, 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, WW Waste Water, DW Drinking Water, SW Surface Water, OW Ocean/Sea Water, PL Product-Liquid, PS Product-Solid, SL Sludge, Other, S Soil/Sediment/Solid, W Wipe, A Air, O Oil, T Tissue, U Urine, B Blood

REMARKS

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 °C 2 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	Miguel Barrera	Basin Env	2-26-14	12:55	Valerie Castillo	MS	2/26/14	12:55
2								
3								
4					Bill Rhea	Xenco	2-27-14	12:45

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: 02/27/2014 12:55:00 PM

Work Order #: 480162

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)?	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?	**No**
#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?	**Yes**

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

Analyst:	PH Device/Lot#:

Checklist completed by: Ruriko Konuma Date: 02/27/2014

Checklist reviewed by: Kelsey Brooks Date: 02/27/2014

Analytical Report 485276

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

Lovington Gathering WTI

SRS #2006-142

21-MAY-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

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-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)

21-MAY-14

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

Reference: XENCO Report No(s): **485276**
Lovington Gathering WTI
Project Address: 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) 485276. 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. 485276 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 485276

PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-3	W	05-09-14 08:00		485276-001
MW-6	W	05-09-14 08:30		485276-002
MW-7	W	05-09-14 09:00		485276-003
MW-9	W	05-09-14 09:30		485276-004
MW-10	W	05-09-14 10:00		485276-005
Goff Dairy Well	W	05-09-14 11:00		485276-006
JW Well	W	05-09-14 11:30		485276-007

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 485276

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS #2006-142
Contact: Ben Arguijo
Project Location: NM

Date Received in Lab: Mon May-12-14 09:20 am
Report Date: 21-MAY-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	485276-001		485276-002		485276-003		485276-004		485276-005		485276-006	
	Field Id:	MW-3		MW-6		MW-7		MW-9		MW-10		Goff Dairy Well	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	May-09-14 08:00		May-09-14 08:30		May-09-14 09:00		May-09-14 09:30		May-09-14 10:00		May-09-14 11:00	
BTEX by EPA 8021B	***Extracted:***	May-16-14 17:00		May-16-14 17:00		May-16-14 17:00		May-16-14 17:00		May-16-14 17:00		May-16-14 17:00	
	Analyzed:	May-16-14 22:51		May-16-14 23:08		May-16-14 23:25		May-16-14 23:41		May-16-14 23:58		May-17-14 00:14	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		0.00892	0.00100	ND	0.00100	0.139	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
m,p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Total Xylenes		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Total BTEX		0.00892	0.00100	ND	0.00100	0.139	0.00100	ND	0.00100	ND	0.00100	ND	0.00100

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 485276

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS #2006-142
Contact: Ben Arguijo
Project Location: NM

Date Received in Lab: Mon May-12-14 09:20 am
Report Date: 21-MAY-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	485276-007					
	Field Id:	JW Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	May-09-14 11:30					
BTEX by EPA 8021B	***Extracted:***	May-16-14 17:00					
	Analyzed:	May-17-14 00:30					
	Units/RL:	mg/L RL					
Benzene		ND 0.00100					
Toluene		ND 0.00200					
Ethylbenzene		ND 0.00100					
m,p-Xylenes		ND 0.00200					
o-Xylene		ND 0.00100					
Total Xylenes		ND 0.00100					
Total BTEX		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: Lovington Gathering WTI

Work Orders : 485276, **Project ID:** SRS #2006-142

Lab Batch #: 941273 **Sample:** 485276-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/16/14 22:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0254	0.0300	85	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 941273 **Sample:** 485276-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/16/14 23:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 941273 **Sample:** 485276-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/16/14 23:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 941273 **Sample:** 485276-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/16/14 23:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0258	0.0300	86	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 941273 **Sample:** 485276-005 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/16/14 23:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0251	0.0300	84	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 485276, **Project ID:** SRS #2006-142

Lab Batch #: 941273 **Sample:** 485276-006 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/17/14 00:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0263	0.0300	88	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 941273 **Sample:** 485276-007 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/17/14 00:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 941273 **Sample:** 655671-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/16/14 21:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 941273 **Sample:** 655671-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/16/14 21:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0254	0.0300	85	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 941273 **Sample:** 655671-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/16/14 21:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0259	0.0300	86	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: Lovington Gathering WTI

Work Orders : 485276, **Project ID:** SRS #2006-142

Lab Batch #: 941273 **Sample:** 485304-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/16/14 22:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 941273 **Sample:** 485304-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/16/14 22:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	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: Lovington Gathering WTI

Work Order #: 485276 **Project ID:** SRS #2006-142

Analyst: ARM **Date Prepared:** 05/16/2014 **Date Analyzed:** 05/16/2014

Lab Batch ID: 941273 **Sample:** 655671-1-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	0.0939	94	0.100	0.0966	97	3	70-125	25	
Toluene	<0.00200	0.100	0.0948	95	0.100	0.0977	98	3	70-125	25	
Ethylbenzene	<0.00100	0.100	0.100	100	0.100	0.103	103	3	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.207	104	0.200	0.212	106	2	70-131	25	
o-Xylene	<0.00100	0.100	0.103	103	0.100	0.106	106	3	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: Lovington Gathering WTI

Work Order # : 485276 **Project ID:** SRS #2006-142

Lab Batch ID: 941273 **QC- Sample ID:** 485304-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 05/16/2014 **Date Prepared:** 05/16/2014 **Analyst:** ARM

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	0.0964	96	0.100	0.0991	99	3	70-125	25	
Toluene	<0.00200	0.100	0.0972	97	0.100	0.0995	100	2	70-125	25	
Ethylbenzene	<0.00100	0.100	0.104	104	0.100	0.106	106	2	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.213	107	0.200	0.217	109	2	70-131	25	
o-Xylene	<0.00100	0.100	0.107	107	0.100	0.108	108	1	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 Advance 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 #: 485276

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:	cjbryant@paalp.com, bjarguijo@basinenv.com
Project ID:	Lovington Gathering WTI SRS #2006-142	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

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

Sampler Signature:

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Pres Type** E, I	Example Volatiles by 8260	BTEX	Hold Sample (CALL___) on Highest TPH___ Run PAH Only if
								# Cont		VP	E,I	
1	~~MW-2~~			~~GW~~			~~3~~			~~X~~		
2	MW-3	5/9/14	0800	GW			3			X		
3	MW-6	5/9/14	0830	GW			3			X		
4	MW-7	5/9/14	0900	GW			3			X		
5	MW-9	5/9/14	0930	GW			3			X		
6	MW-10	5/9/14	1000	GW			3			X		
7												
8												
9												
10												

* Container Type Codes

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

** Preservative Type Codes

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

^ Matrix Type Codes

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

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 6.4 2 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1								
2		Basin Env.	5/12/14	0830		Basin	5/9/14	1700
3		Basin	5/12/14	9:20		Basin	5/12/14	17:00
4						MS	5/12/14	9:20
					Miranda Xenco	Xenco	5/13/14	1146

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

C.O.C. Serial #

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

Revision Date: Nov 12, 2009

CHAIN OF CUSTODY RECORD

XENCO Laboratories

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#: 485276

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:	cjbryant@paalp.com, bjarguijo@basinenv.com
Project ID:	Lovington Gathering WTI SRS #2006-142	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

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

Sampler Signature:

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Pres Type** E, I	Example Volatiles by 8260	BTEX	Hold Sample (CALL) Run PAH on Highest TPH Only if	
								# Cont			VP		
											E,I		
1	Goff Dairy Well	5/9/14	1100	GW			3				X		
2	JW Well	5/9/14	1130	GW			3				X		
3	~~Goff Dairy - Ctr. Pivot Well~~	~~5/9/14~~		~~GW~~			~~3~~				~~X~~		
4	~~Goff Dairy - Ctr. Pivot Beg.~~	~~5/9/14~~		~~GW~~			~~3~~				~~X~~		
5	~~Goff Dairy - Ctr. Pivot End~~	~~5/9/14~~		~~GW~~			~~3~~				~~X~~		
6													
7													
8													
9													
0													

BTEX

* 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, ES Encore Sampler, TS TerraCore Sampler, AC Air Canister, TB Tedlar Bag, ZB Zip Lock Bag, 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, WW Waste Water, DW Drinking Water, SW Surface Water, OW Ocean/Sea Water, PL Product-Liquid, PS Product-Solid, SL Sludge, Other
S Soil/Sediment/Solid, W Wipe, A Air, O Oil, T Tissue, U Urine, B Blood

REMARKS

Reg. Program / Clean-up Std: CTLs TRRP DW NPDES LPST DryCln Other:

STATE for Certs & Regs: FL TX GA NC SC NJ PA OK LA AL NM Other:

QA/QC Level & Certification: 1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:

EDDs: ADaPT SEDO ERPIMS XLS Other:

COC & Labels: Match Incomplete Absent Unclear

Coolers Temp °C: 1 6.6 2 3 -2

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1								
2		Basin Env.	5/12/14	0830		Basin Env.	5/9/14	1700
3		Basin	5/12/14	9:20		Basin	5/12/14	12:10
4						MS	5/12/14	9:20
						Mineral Xenco	5/13/14	1146

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: 05/12/2014 09:20:00 AM

Work Order #: 485276

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)?	0
#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?	**No**

*** 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: 05/13/2014

Checklist reviewed by: Kelsey Brooks Date: 05/13/2014

Analytical Report 488401

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

Lovington Gathering WTI

SRS# 2006-142

01-JUL-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

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-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)

01-JUL-14

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

Reference: XENCO Report No(s): **488401**
Lovington Gathering WTI
Project Address:

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) 488401. 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. 488401 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 488401

PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-7	W	06-24-14 00:00		488401-001

CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI

Project ID: *SRS# 2006-142*
Work Order Number(s): *488401*

Report Date: *01-JUL-14*
Date Received: *06/30/2014*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-944681 BTEX by EPA 8021B

No extra samples for MS/MSD. BKS and BSD withing QC limits

Certificate of Analysis Summary 488401

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS# 2006-142
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Mon Jun-30-14 09:37 am
Report Date: 01-JUL-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	488401-001					
	Field Id:	MW-7					
	Depth:						
	Matrix:	WATER					
	Sampled:	Jun-24-14 00:00					
BTEX by EPA 8021B	***Extracted:***	Jun-30-14 16:00					
	Analyzed:	Jun-30-14 19:19					
	Units/RL:	mg/L RL					
Benzene		ND 0.00100					
Toluene		ND 0.00200					
Ethylbenzene		ND 0.00100					
m,p-Xylenes		ND 0.00200					
o-Xylene		ND 0.00100					
Total Xylenes		ND 0.00100					
Total BTEX		ND 0.00100					

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: Lovington Gathering WTI

Work Orders : 488401, **Project ID:** SRS# 2006-142

Lab Batch #: 944681 **Sample:** 488401-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/30/14 19:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	80-120	

Lab Batch #: 944681 **Sample:** 657765-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/30/14 17:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 944681 **Sample:** 657765-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/30/14 18:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0348	0.0300	116	80-120	

Lab Batch #: 944681 **Sample:** 657765-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/30/14 18:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0354	0.0300	118	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: Lovington Gathering WTI

Work Order #: 488401 **Project ID:** SRS# 2006-142

Analyst: ARM **Date Prepared:** 06/30/2014 **Date Analyzed:** 06/30/2014

Lab Batch ID: 944681 **Sample:** 657765-1-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	0.0996	100	0.100	0.104	104	4	70-125	25	
Toluene	<0.00200	0.100	0.0991	99	0.100	0.104	104	5	70-125	25	
Ethylbenzene	<0.00100	0.100	0.107	107	0.100	0.112	112	5	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.219	110	0.200	0.228	114	4	70-131	25	
o-Xylene	<0.00100	0.100	0.110	110	0.100	0.115	115	4	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

Version: 1.%

CHAIN OF CUSTODY RECORD

XENCO Laboratories
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#: 488401

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:	cjbryant@paalp.com, bjarguijo@basinenv.com
Project ID:	Lovington Gathering WTI SRS #2006-142	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

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

Sampler Name: Robert Sawyer

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Pres Type** E, I	Example Volatiles by 8260	BTEX									Hold Sample (CALL___) on Highest TPH___ Only if Run PAH
								# Cont		VP	E,I									
1	MW-7	6/24/14		GW			3			X										
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

* Container Type Codes

VA Vial Amber, VC Vial Clear, VP Vial Pre-preserved, GA Glass Amber, GC Glass Clear, PA Plastic Amber, PC Plastic Clear, ES Encore Sampler, TS TerraCore Sampler, AC Air Canister, TB Tedlar Bag, ZB Zip Lock Bag, 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, WW Waste Water, DW Drinking Water, SW Surface Water, OW Ocean/Sea Water, PL Product-Liquid, PS Product-Solid, SL Sludge, Other, S Soil/Sediment/Solid, W Wipe, A Air, O Oil, T Tissue, U Urine, B Blood

REMARKS

Resample - no charge per Kelsey, 6/19/14.

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 10.5

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		Basin Enviro.	6/27/14	7:17			6/27/14	0717
2		Basin Env.	6/27/14	10:45		MS	6-27-14	10:45
3					MRIOS	Xenco	6/30/14	0937
4								

Lab Use Only

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

C.O.C. Serial #

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

 Revision Date: Nov 12, 2009

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 06/30/2014 09:37:00 AM

Work Order #: 488401

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)?	6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6 *Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**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?	**No**

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

Analyst: PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 06/30/2014

Checklist reviewed by: Kelsey Brooks Date: 06/30/2014

Analytical Report 491495

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

Lovington Gathering WTI

SRS# 2006-142

20-AUG-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

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)

20-AUG-14

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

Reference: XENCO Report No(s): **491495**
Lovington Gathering WTI
Project Address:

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) 491495. 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. 491495 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 491495

PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-1	W	08-07-14 13:00		491495-001
MW-3	W	08-07-14 15:00		491495-002
MW-7	W	08-07-14 13:10		491495-003
MW-8	W	08-07-14 15:20		491495-004
MW-9	W	08-07-14 16:15		491495-005
Goff Dairy Well	W	08-07-14 11:45		491495-006
JW Well	W	08-07-14 11:00		491495-007
Goffy Dairy- Ctr. Pivot Well	W	08-07-14 12:00		491495-008
Goffy Dairy- Ctr. Pivot Beg.	W	08-07-14 12:15		491495-009
Goffy Dairy- Ctr. Pivot End	W	08-07-14 11:00		491495-010

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 491495

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS# 2006-142
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Thu Aug-14-14 02:31 pm
Report Date: 20-AUG-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	491495-001		491495-002		491495-003		491495-004		491495-005		491495-006	
	Field Id:	MW-1		MW-3		MW-7		MW-8		MW-9		Goff Dairy Well	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Aug-07-14 13:00		Aug-07-14 15:00		Aug-07-14 13:10		Aug-07-14 15:20		Aug-07-14 16:15		Aug-07-14 11:45	
BTEX by EPA 8021B	***Extracted:***	Aug-16-14 18:00		Aug-16-14 18:00		Aug-16-14 18:00		Aug-16-14 18:00		Aug-16-14 18:00		Aug-16-14 18:00	
	Analyzed:	Aug-16-14 22:49		Aug-16-14 23:21		Aug-16-14 23:38		Aug-16-14 23:54		Aug-17-14 00:11		Aug-17-14 00:27	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		0.0255	0.00100	0.00709	0.00100	0.201	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Toluene		ND	0.00200	0.00344	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
m,p-Xylenes		ND	0.00200	0.00461	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
o-Xylene		ND	0.00100	0.00241	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Total Xylenes		ND	0.00100	0.00702	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Total BTEX		0.0255	0.00100	0.0176	0.00100	0.201	0.00100	ND	0.00100	ND	0.00100	ND	0.00100

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 491495

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS# 2006-142
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Thu Aug-14-14 02:31 pm
Report Date: 20-AUG-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	491495-007		491495-008		491495-009		491495-010					
	Field Id:	JW Well		Goffy Dairy- Ctr. Pivot Well		Goffy Dairy- Ctr. Pivot Beg.		Goffy Dairy- Ctr. Pivot End					
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER					
	Sampled:	Aug-07-14 11:00		Aug-07-14 12:00		Aug-07-14 12:15		Aug-07-14 11:00					
BTEX by EPA 8021B	***Extracted:***	Aug-16-14 18:00		Aug-16-14 18:00		Aug-16-14 18:00		Aug-16-14 18:00					
	Analyzed:	Aug-17-14 00:43		Aug-17-14 01:00		Aug-17-14 01:16		Aug-17-14 02:06					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Benzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
m,p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Total Xylenes		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Total BTEX		ND	0.00100	ND	0.00100	ND	0.00100	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: Lovington Gathering WTI

Work Orders : 491495, 491495 **Project ID:** SRS# 2006-142

Lab Batch #: 948391 **Sample:** 491495-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/16/14 22:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 948391 **Sample:** 491495-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/16/14 23:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 948391 **Sample:** 491495-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/16/14 23:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0314	0.0300	105	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

Lab Batch #: 948391 **Sample:** 491495-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/16/14 23:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0254	0.0300	85	80-120	

Lab Batch #: 948391 **Sample:** 491495-005 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/17/14 00:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	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: Lovington Gathering WTI

Work Orders : 491495, 491495 **Project ID:** SRS# 2006-142

Lab Batch #: 948391 **Sample:** 491495-006 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/17/14 00:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

Lab Batch #: 948391 **Sample:** 491495-007 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/17/14 00:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 948391 **Sample:** 491495-008 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/17/14 01:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 948391 **Sample:** 491495-009 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/17/14 01:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 948391 **Sample:** 491495-010 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/17/14 02:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0260	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.

Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 491495, 491495 **Project ID:** SRS# 2006-142

Lab Batch #: 948391 **Sample:** 660140-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/16/14 21:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

Lab Batch #: 948391 **Sample:** 660140-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/16/14 21:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 948391 **Sample:** 660140-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/16/14 21:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 948391 **Sample:** 491495-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/16/14 21:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 948391 **Sample:** 491495-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/16/14 22:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	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: Lovington Gathering WTI

Work Order #: 491495, 491495 **Project ID:** SRS# 2006-142

Analyst: ARM **Date Prepared:** 08/16/2014 **Date Analyzed:** 08/16/2014

Lab Batch ID: 948391 **Sample:** 660140-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.107	107	0.100	0.106	106	1	70-125	25	
Toluene	<0.00200	0.100	0.105	105	0.100	0.105	105	0	70-125	25	
Ethylbenzene	<0.00100	0.100	0.112	112	0.100	0.111	111	1	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.220	110	0.200	0.218	109	1	70-131	25	
o-Xylene	<0.00100	0.100	0.105	105	0.100	0.104	104	1	71-133	25	

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

Form 3 - MS / MSD Recoveries

Project Name: Lovington Gathering WTI

Work Order # : 491495 **Project ID:** SRS# 2006-142

Lab Batch ID: 948391 **QC- Sample ID:** 491495-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 08/16/2014 **Date Prepared:** 08/16/2014 **Analyst:** ARM

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	0.0255	0.100	0.117	92	0.100	0.123	98	5	70-125	25	
Toluene	<0.00200	0.100	0.102	102	0.100	0.105	105	3	70-125	25	
Ethylbenzene	<0.00100	0.100	0.109	109	0.100	0.112	112	3	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.214	107	0.200	0.219	110	2	70-131	25	
o-Xylene	<0.00100	0.100	0.101	101	0.100	0.104	104	3	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#: 491495

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:	cjbryant@paalp.com, bjarguijo@basinenv.com
Project ID:	Lovington Gathering WTI SRS #2006-142	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

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

Sampler Name: Daley Saxton

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Pres Type** E, I	# Cont	Example Volatiles by 8260	BTEX									Hold Sample (CALL___) Run PAH on Highest TPH___ Only if
											VP	E,I									
1	MW-1	8/7/14	1300	GW			3				X										
2	MW-3	8/7/14	1500	GW			3				X										
3	MW-7	8/7/14	1310	GW			3				X										
4	MW-8	8/7/14	1520	GW			3				X										
5	MW-9	8/7/14	1615	GW			3				X										
6	Goff Dairy Well	8/7/14	1145	GW			3				X										
7	JW Well	8/7/14	1100	GW			3				X										
8	Goff Dairy - Ctr. Pivot Well	8/7/14	1200	GW			3				X										
9	Goff Dairy - Ctr. Pivot Beg.	8/7/14	1215	GW			3				X										
0	Goff Dairy - Ctr. Pivot End	8/7/14	1100	GW			3				X										

* 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, ES Encore Sampler, TS TerraCore Sampler, AC Air Canister, TB Tedlar Bag, ZB Zip Lock Bag, 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, B. HNO_3, H_2SO_4, D. NaOH, E. HCL, F. MeOH, G. $Na_2S_2O_3$, H. $NaHSO_4$, I. Ice, J. MCAA, K. ZnAc&NaOH, L. Asbc Acid&NaOH, C. 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, S Soil/Sediment/Solid, W Wipe, A Air, O Oil, T Tissue, U Urine, B Blood, Other

REMARKS

Reg. Program / Clean-up Std: CTLs TRRP DW NPDES LPST DryCln Other:

STATE for Certs & Regs: FL TX GA NC SC NJ PA OK LA AL NM Other:

QA/QC Level & Certification: 1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:

EDDs: ADaPT SEDD ERPIMS XLS Other:

COC & Labels: Match Incomplete Absent Unclear

Coolers Temp °C: 1 6.1 2 3.5 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	Daley Saxton	Basin Environ.	8-13-14	8:32 AM	[illegible]	MS	8/13/14	8:35 AM
2					VARIOS	XENCO	8/14/14	1431
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 #

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: 08/14/2014 02:31:00 PM

Work Order #: 491495

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)?	6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#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?	**No**

*** 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: 08/14/2014

Checklist reviewed by: Kelsey Brooks Date: 08/14/2014

Analytical Report 493633

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

Lovington Gathering WTI

SRS#2006-142

22-SEP-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

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

22-SEP-14

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

Reference: XENCO Report No(s): **493633**
Lovington Gathering WTI
Project Address: 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) 493633. 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. 493633 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 493633

PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-3	W	09-16-14 08:20		493633-001

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 493633

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS#2006-142
Contact: Ben Arguijo
Project Location: NM

Date Received in Lab: Fri Sep-19-14 11:08 am
Report Date: 22-SEP-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	493633-001					
	Field Id:	MW-3					
	Depth:						
	Matrix:	WATER					
	Sampled:	Sep-16-14 08:20					
BTEX by EPA 8021	***Extracted:***	Sep-19-14 16:30					
	Analyzed:	Sep-20-14 01:04					
	Units/RL:	mg/L RL					
Benzene		0.0164 0.00100					
Toluene		ND 0.00200					
Ethylbenzene		ND 0.00100					
m_p-Xylenes		ND 0.00200					
o-Xylene		ND 0.00100					
Xylenes, Total		ND 0.00100					
Total BTEX		0.0164 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: Lovington Gathering WTI

Work Orders : 493633,

Project ID: SRS#2006-142

Lab Batch #: 951128 **Sample:** 493633-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/20/14 01:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 951128 **Sample:** 661840-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/19/14 19:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0280	0.0300	93	80-120	

Lab Batch #: 951128 **Sample:** 661840-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/19/14 18:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0310	0.0300	103	80-120	

Lab Batch #: 951128 **Sample:** 661840-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/19/14 18:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 951128 **Sample:** 493546-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/19/14 22:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	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: Lovington Gathering WTI

Work Orders : 493633, **Project ID:** SRS#2006-142

Lab Batch #: 951128 **Sample:** 493546-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/19/14 22:18

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	0.0293	0.0300	98	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: Lovington Gathering WTI

Work Order #: 493633 **Project ID:** SRS#2006-142

Analyst: KEB **Date Prepared:** 09/19/2014 **Date Analyzed:** 09/19/2014

Lab Batch ID: 951128 **Sample:** 661840-1-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	0.0950	95	0.100	0.0947	95	0	70-125	25	
Toluene	<0.00200	0.100	0.102	102	0.100	0.101	101	1	70-125	25	
Ethylbenzene	<0.00100	0.100	0.109	109	0.100	0.105	105	4	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.221	111	0.200	0.214	107	3	70-131	25	
o-Xylene	<0.00100	0.100	0.105	105	0.100	0.102	102	3	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: Lovington Gathering WTI

Work Order # : 493633 **Project ID:** SRS#2006-142

Lab Batch ID: 951128 **QC- Sample ID:** 493546-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 09/19/2014 **Date Prepared:** 09/19/2014 **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	0.0833	83	0.100	0.0828	83	1	70-125	25	
Toluene	<0.00200	0.100	0.0868	87	0.100	0.0870	87	0	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0896	90	0.100	0.0896	90	0	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.182	91	0.200	0.182	91	0	70-131	25	
o-Xylene	<0.00100	0.100	0.0866	87	0.100	0.0871	87	1	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: 09/19/2014 11:08:00 AM

Work Order #: 493633

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)?	3.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#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?	**No**

*** 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: 09/19/2014

Checklist reviewed by: Kelsey Brooks Date: 09/19/2014

CHAIN OF CUSTODY RECORD

XENCO Laboratories
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#: 493633

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:	cjbryant@paalp.com, bjarguijo@basinenv.com
Project ID:	Lovington Gathering WTI SRS #2006-142	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

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

Sampler Name: Daley Saxton

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Pres Type** E, I	Example Volatiles by 8260	VP	E,I	BTEX	Hold Sample (CALL) Run PAH on Highest TPH Only if
								# Cont						
1	MW-3	9/16/14	0820	GW			3						X	
2														
3														
4														
5														
6														
7														
8														
9														
0														

* 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, ES Encore Sampler, TS TerraCore Sampler, AC Air Canister, TB Tedlar Bag, ZB Zip Lock Bag, 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, B. HNO_3, H_2SO_4, D. NaOH, E. HCL, F. MeOH, G. $Na_2S_2O_3$, H. $NaHSO_4$, I. Ice, J. MCAA, K. ZnAc&NaOH, L. Asbc Acid&NaOH, C. O. _____

^ Matrix Type Codes

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

REMARKS

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 3.5 2 3 9.4

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	Daley Saxton	Basin	9-17-14	5:05 PM		Basin Env	9/17/14	17:05
2		Basin Env.	9/18/14	0910		Basin Env	9-18-14	9:10
3						Xenco	9/19/14	11:08
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: 09/19/2014 11:08:00 AM

Work Order #: 493633

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)?	3.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#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?	**No**

*** 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: 09/19/2014

Checklist reviewed by: Kelsey Brooks Date: 09/19/2014

Analytical Report 492483

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

Lovington Gathering WTI

SRS#2006-142

08-SEP-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

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)

08-SEP-14

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

Reference: XENCO Report No(s): **492483**
Lovington Gathering WTI
Project Address: 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) 492483. 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. 492483 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 492483

PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-7	W	08-27-14 09:35		492483-001

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 492483

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS#2006-142
Contact: Ben Arguijo
Project Location: NM

Date Received in Lab: Sat Aug-30-14 12:00 pm
Report Date: 08-SEP-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	492483-001					
	Field Id:	MW-7					
	Depth:						
	Matrix:	WATER					
	Sampled:	Aug-27-14 09:35					
BTEX by EPA 8021	***Extracted:***	Sep-03-14 13:00					
	Analyzed:	Sep-03-14 17:06					
	Units/RL:	mg/L RL					
Benzene		0.0480 0.00100					
Toluene		ND 0.00200					
Ethylbenzene		ND 0.00100					
m_p-Xylenes		ND 0.00200					
o-Xylene		ND 0.00100					
Xylenes, Total		ND 0.00100					
Total BTEX		0.0480 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: Lovington Gathering WTI

Work Orders : 492483,

Project ID: SRS#2006-142

Lab Batch #: 949819 **Sample:** 492483-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/03/14 17:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

Lab Batch #: 949819 **Sample:** 661026-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/03/14 14:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0.0300	111	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 949819 **Sample:** 661026-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/03/14 15:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 949819 **Sample:** 661026-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/03/14 15:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 949819 **Sample:** 492423-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/03/14 15:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	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: Lovington Gathering WTI

Work Orders : 492483, **Project ID:** SRS#2006-142

Lab Batch #: 949819 **Sample:** 492423-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/03/14 15:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0317	0.0300	106	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: Lovington Gathering WTI

Work Order #: 492483 **Project ID:** SRS#2006-142

Analyst: ARM **Date Prepared:** 09/03/2014 **Date Analyzed:** 09/03/2014

Lab Batch ID: 949819 **Sample:** 661026-1-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	0.104	104	1	70-125	25	
Toluene	<0.00200	0.100	0.0999	100	0.100	0.102	102	2	70-125	25	
Ethylbenzene	<0.00100	0.100	0.104	104	0.100	0.106	106	2	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.203	102	0.200	0.207	104	2	70-131	25	
o-Xylene	<0.00100	0.100	0.0991	99	0.100	0.102	102	3	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: Lovington Gathering WTI

Work Order # : 492483 **Project ID:** SRS#2006-142

Lab Batch ID: 949819 **QC- Sample ID:** 492423-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 09/03/2014 **Date Prepared:** 09/03/2014 **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	0.110	110	0.100	0.107	107	3	70-125	25	
Toluene	<0.00200	0.100	0.107	107	0.100	0.103	103	4	70-125	25	
Ethylbenzene	<0.00100	0.100	0.112	112	0.100	0.108	108	4	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.218	109	0.200	0.210	105	4	70-131	25	
o-Xylene	<0.00100	0.100	0.106	106	0.100	0.102	102	4	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: 08/30/2014 12:00:00 PM

Work Order #: 492483

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?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#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)?	**No**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**No**

*** 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: 09/02/2014

Checklist reviewed by: Julian Martinez Date: 09/02/2014

CHAIN OF CUSTODY RECORD

XENCO Laboratories
Environmental Advice Radiochemistry

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

Page 1 of 1

LAB W.O#: 492483

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:	cjbryant@paalp.com, bjarguijo@basinenv.com
Project ID:	Lovington Gathering WTI SRS #2006-142	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

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

Sampler Name: Daley Saxton

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Pres Type** E, I	Example Volatiles by 8260	BTEX									Hold Sample (CALL___) Run PAH on Highest TPH___ Only #
								# Cont		VP	E,I									
1	MW-7	8/27/14	0935	GW			3			X										
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

* Container Type Codes

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

** Preservative Type Codes

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

^ Matrix Type Codes

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

REMARKS

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 1.4 5 2 5.0 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	Daley Saxton	Basin	8-29-14	0800		BasinEnv.	8/29/14	0800
2		BasinEnv.	8/29/14	1415		Basin	8/29/14	2:15
3		Basin	8/29/14	2:15	Daley Saxton	Basin	8/29/14	2:25
4	Daley Saxton	Basin	8/29/14	1534		basinEnv.	8-29-14	1534

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?			

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

C.O.C. Serial #

Julian Martinez Xenco 8-30-14 12:00

Revision Date: Nov 12, 2009

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 08/30/2014 12:00:00 PM

Work Order #: 492483

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?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#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)?	**No**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**No**

*** 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: 09/02/2014

Checklist reviewed by: Date:

Analytical Report 497634

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

Lovington Gathering WTI

SRS#2006-142

01-DEC-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-18), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

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)

01-DEC-14

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

Reference: XENCO Report No(s): **497634**
Lovington Gathering WTI
Project Address: 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) 497634. 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. 497634 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 497634

PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-3	W	11-17-14 11:05		497634-001
MW-6	W	11-17-14 11:35		497634-002
MW-7	W	11-17-14 12:25		497634-003
MW-9	W	11-17-14 13:20		497634-004
MW-10	W	11-17-14 14:00		497634-005
Goff Dairy Well	W	11-17-14 15:35		497634-006
JW Well	W	11-17-14 15:15		497634-007

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Hits Summary 497634

PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id : **MW-3**
Lab Sample Id : 497634-001

Matrix : Water
Date Collected : 11.17.14 11.05
Date Received : 11.21.14 13.57

% Moisture :

Analytical Method : BTEX by EPA 8021
Seq Number 956072

Prep Method: SW5030B
Date Prep: 11.24.14 11.00

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.119	mg/L	11.24.14 16.19		1
Toluene	108-88-3	0.00692	mg/L	11.24.14 16.19		1
m_p-Xylenes	179601-23-1	0.0367	mg/L	11.24.14 16.19		1
o-Xylene	95-47-6	0.00711	mg/L	11.24.14 16.19		1
Xylenes, Total	1330-20-7	0.0438	mg/L	11.24.14 16.19		1
Total BTEX		0.170	mg/L	11.24.14 16.19		1

Hits Summary 497634

PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id : **MW-7**
Lab Sample Id : 497634-003

Matrix : Water
Date Collected : 11.17.14 12.25
Date Received : 11.21.14 13.57

% Moisture :

Analytical Method : BTEX by EPA 8021
Seq Number 956072

Prep Method: SW5030B
Date Prep: 11.24.14 11.00

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.177	mg/L	11.24.14 16.52		1
Total BTEX		0.177	mg/L	11.24.14 16.52		1

Certificate of Analysis Summary 497634

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS#2006-142
Contact: Ben Arguijo
Project Location: NM

Date Received in Lab: Fri Nov-21-14 01:57 pm
Report Date: 01-DEC-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	497634-001		497634-002		497634-003		497634-004		497634-005		497634-006	
	Field Id:	MW-3		MW-6		MW-7		MW-9		MW-10		Goff Dairy Well	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Nov-17-14 11:05		Nov-17-14 11:35		Nov-17-14 12:25		Nov-17-14 13:20		Nov-17-14 14:00		Nov-17-14 15:35	
BTEX by EPA 8021	***Extracted:***	Nov-24-14 11:00		Nov-24-14 11:00		Nov-24-14 11:00		Nov-24-14 11:00		Nov-24-14 11:00		Nov-24-14 11:00	
	Analyzed:	Nov-24-14 16:19		Nov-24-14 16:36		Nov-24-14 16:52		Nov-24-14 17:08		Nov-24-14 17:24		Nov-24-14 17:40	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		0.119	0.00100	ND	0.00100	0.177	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Toluene		0.00692	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
m_p-Xylenes		0.0367	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
o-Xylene		0.00711	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Xylenes, Total		0.0438	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Total BTEX		0.170	0.00100	ND	0.00100	0.177	0.00100	ND	0.00100	ND	0.00100	ND	0.00100

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 497634

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS#2006-142
Contact: Ben Arguijo
Project Location: NM

Date Received in Lab: Fri Nov-21-14 01:57 pm
Report Date: 01-DEC-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	497634-007					
	Field Id:	JW Well					
	Depth:						
	Matrix:	WATER					
	Sampled:	Nov-17-14 15:15					
BTEX by EPA 8021	***Extracted:***	Nov-24-14 11:00					
	Analyzed:	Nov-24-14 17:56					
	Units/RL:	mg/L RL					
Benzene		ND 0.00100					
Toluene		ND 0.00200					
Ethylbenzene		ND 0.00100					
m_p-Xylenes		ND 0.00200					
o-Xylene		ND 0.00100					
Xylenes, Total		ND 0.00100					
Total BTEX		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: Lovington Gathering WTI

Work Orders : 497634, 497634 **Project ID:** SRS#2006-142

Lab Batch #: 956072 **Sample:** 497634-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/24/14 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	0.0317	0.0300	106	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 956072 **Sample:** 497634-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/24/14 16:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 956072 **Sample:** 497634-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/24/14 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	0.0282	0.0300	94	80-120	

Lab Batch #: 956072 **Sample:** 497634-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/24/14 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	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 956072 **Sample:** 497634-005 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/24/14 17:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 497634, 497634 **Project ID:** SRS#2006-142

Lab Batch #: 956072 **Sample:** 497634-006 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/24/14 17:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

Lab Batch #: 956072 **Sample:** 497634-007 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/24/14 17:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 956072 **Sample:** 664874-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/24/14 13:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 956072 **Sample:** 664874-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/24/14 14:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 956072 **Sample:** 664874-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/24/14 14:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0310	0.0300	103	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: Lovington Gathering WTI

Work Orders : 497634, 497634 **Project ID:** SRS#2006-142

Lab Batch #: 956072 **Sample:** 497630-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/24/14 14:41

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	0.0321	0.0300	107	80-120	

Lab Batch #: 956072 **Sample:** 497630-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 11/24/14 14:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	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: Lovington Gathering WTI

Work Order #: 497634, 497634 **Project ID:** SRS#2006-142

Analyst: ARM **Date Prepared:** 11/24/2014 **Date Analyzed:** 11/24/2014

Lab Batch ID: 956072 **Sample:** 664874-1-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	0.0882	88	0.100	0.0885	89	0	70-125	25	
Toluene	<0.00200	0.100	0.0949	95	0.100	0.0950	95	0	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0999	100	0.100	0.100	100	0	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.205	103	0.200	0.206	103	0	70-131	25	
o-Xylene	<0.00100	0.100	0.0956	96	0.100	0.0964	96	1	71-133	25	

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

Form 3 - MS / MSD Recoveries

Project Name: Lovington Gathering WTI

Work Order # : 497634 **Project ID:** SRS#2006-142

Lab Batch ID: 956072 **QC- Sample ID:** 497630-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 11/24/2014 **Date Prepared:** 11/24/2014 **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	0.0902	90	0.100	0.0866	87	4	70-125	25	
Toluene	<0.00200	0.100	0.0980	98	0.100	0.0931	93	5	70-125	25	
Ethylbenzene	<0.00100	0.100	0.106	106	0.100	0.0992	99	7	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.217	109	0.200	0.204	102	6	70-131	25	
o-Xylene	<0.00100	0.100	0.100	100	0.100	0.0952	95	5	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: 11/21/2014 01:57:00 PM

Work Order #: 497634

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?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#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? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**No**

*** 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: 11/21/2014

Checklist reviewed by: Kelsey Brooks Date: 11/24/2014

CHAIN OF CUSTODY RECORD

XENCO Laboratories

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 #: 497634

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:	cjbryant@paalp.com, bjarguijo@basinenv.com
Project ID:	Lovington Gathering WTI SRS #2006-142	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

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

Sampler Name: Daley Saxton

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Pres Type** E, I	Example Volatiles by 8260	BTEX	VP	E,I	Hold Sample (CALL___) Run PAH on Highest TPH___ Only if
								# Cont						
1	MW-3	11/17/14	11:05	GW			3				X			
2	MW-6	11/17/14	11:35	GW			3				X			
3	MW-7	11/17/14	12:25	GW			3				X			
4	MW-9	11/17/14	13:20	GW			3				X			
5	MW-10	11/17/14	14:00	GW			3				X			
6	Goff Dairy Well	11/17/14	15:35	GW			3				X			
7	JW Well	11/17/14	15:15	GW			3				X			
8														
9														
10														

* Container Type Codes

VA Vial Amber, VC Vial Clear, VP Vial Pre-preserved, GA Glass Amber, GC Glass Clear, PA Plastic Amber, PC Plastic Clear, ES Encore Sampler, TS TerraCore Sampler, AC Air Canister, TB Tedlar Bag, ZB Zip Lock Bag, 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, WW Waste Water, DW Drinking Water, SW Surface Water, OW Ocean/Sea Water, PL Product-Liquid, PS Product-Solid, SL Sludge, Other
S Soil/Sediment/Solid, W Wipe, A Air, O Oil, T Tissue, U Urine, B Blood

REMARKS

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 3°2 1°3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	Daley Saxton	Basin Env.	11-19-14	7:25		Basin Env.	11/19/14	0725
2		Basin Env.	11/20/14	1415		Basin	11/20/14	14:15
3		Basin	11/20/14	4:16	F. Castillo	MS	11/20/14	4.20
4						Xenco	11/21/14	1357

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: 11/21/2014 01:57:00 PM

Work Order #: 497634

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?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#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? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**No**

*** 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: 11/21/2014

Checklist reviewed by: Kelsey Brooks Date: 11/24/2014

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

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

State of New Mexico
Energy Minerals and Natural Resources

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

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

x Initial Report ☐ Final Report

Name of Company Plains Pipeline	Contact Camille Reynolds
Address 3112 W. US Hwy 82, Lovington, NM 88260	Telephone No. 505-441-0965
Facility Name Lovington Gathering WTI	Facility Type 6"Steel Pipeline

Surface Owner Robert Rice	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	6	17S	37E					Lea

Latitude 32° 51' 56.0" **Longitude** 103° 17' 07.2"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 12 barrels	Volume Recovered 8 barrels
Source of Release 6" Steel Pipeline	Date and Hour of Occurrence 4-21-2006 @ 13:00	Date and Hour of Discovery 4-21-2006 @ 13:15
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Pat Caperton	
By Whom? Camille Reynolds	Date and Hour 4-21-2006 @ 15:35	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken Internal corrosion while purging the line resulted in release of sweet crude oil. The line has been purged. The line is an idle 6-inch steel gathering line. The pressure on the line was approximately 50 psi and the gravity of the sweet crude oil was 34. The sweet crude has an H_2S content of <10 ppm. The line was approximately 1.5 feet bgs at the release point.

Describe Area Affected and Cleanup Action Taken.* The impacted soil was excavated and stockpiled on plastic. Aerial extent of surface impact was approximately 1,500 ft^2.

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: Camille Reynolds	OIL CONSERVATION DIVISION
Printed Name: Camille Reynolds	Approved by District Supervisor:
Title: Remediation Coordinator	Approval Date: / Expiration Date:
E-mail Address: cjreynolds@paalp.com	Conditions of Approval: / Attached ☐
Date: 4/26/2006 Phone:505-441-0965	