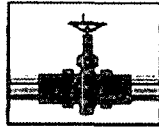


AP - 96

STAGE 1 & 2 REPORTS

DATE:

August 2010



PLAINS
PIPELINE, L.P.

RECEIVED OCD
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August 19, 2010

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

RE: Plains Pipeline, L.P. 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. Hansen:

Plains Pipeline, L.P. is pleased to submit the attached *Remediation Summary and Soil Closure Request*, dated August 2010, for the Lovington Gathering WTI site. This site is located in Section 6 of Township 17 South, and Range 37 East of Lea County, New Mexico. This document details the soil remediation activities performed at the site.

Should you have any questions or comments, please contact me at (575) 441-1099.

Sincerely,

Jason Henry
Remediation Coordinator
Plains Pipeline, L.P.

CC: Larry Johnson, NMOCD, Hobbs Office

Enclosure

Basin Environmental Consulting, LLC

2800 Plains Highway
P. O. Box 381
Lovington, New Mexico 88260
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Office: (575) 396-2378 Fax: (575) 396-1429



REMEDIATION SUMMARY AND SOIL CLOSURE REQUEST

**PLAINS PIPELINE, L.P. (231735)
Lovington Gathering WTI
Lea County, New Mexico
Plains SRS # 2006-142
UNIT LTR "H" (SE/NE), Section 6, Township 17 South, Range 37 East
Latitude 32° 51' 56.0" North, Longitude 103° 17' 07.2" West
NMOCD Reference # 1RP-838 / AP-96**

Prepared For:

Plains Pipeline, L.P.
333 Clay Street
Suite 1600
Houston, Texas 77002

Prepared By:
Basin Environmental Consulting, LLC
2800 Plains Highway
Lovington, New Mexico 88260

August 2010

Joel W. Lowry
Project Manager

Camille J. Bryant
Project Manager

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FIGURES

Figure 1 – Site Location Map

Figure 2 – Site and Sample Location Map

TABLES

Table 1 – Concentrations of Benzene, BTEX, TPH and Chlorides in Soil

APPENDICES

Appendix A – Soil Boring and Monitor Well Logs

Appendix B – Analytical Reports

Appendix C – Photographs

Appendix D – Release Notification and Corrective Action (Form C-141)

1.0 INTRODUCTION

Basin Environmental Consulting, LLC (Basin), on behalf of Plains Pipeline, L.P. (Plains), has prepared this Remediation Summary and Soil Closure Request for the release site known as Lovington Gathering WTI (SRS # 2006-142). The legal description of the site is SE¼, NE¼ Section 6, Township 17 South, Range 37 East in Lea County, New Mexico. The site latitude is 32° 51' 56.0" North and the site longitude is 103° 17' 07.2" West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site and Sample Location Map. The Release Notification and Corrective Action (Form C-141) is provided as Appendix D.

On April 21, 2006, Basin responded to the pipeline release on behalf of Plains. During initial response activities the crude oil release was clamped and contained under the direction of Plains personnel. The excavated soil was stockpiled on 6-mil plastic sheeting to mitigate hydrocarbon impact to the underlying soil. The Release Notification and Corrective Action (Form C-141) indicated approximately twelve (12) barrels of crude oil was released from the Plains pipeline and eight (8) barrels were recovered, resulting in a net loss of four (4) barrels of crude oil. The cause of the release was attributed to internal corrosion of the pipeline while purging the line. The excavated area was fenced 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. The release resulted in a surface stain measuring approximately thirty (30) feet in length by twenty-seven (27) feet in width. General photographs of the site are provided as Appendix C.

2.0 NMOCD SITE CLASSIFICATION

The depth to groundwater on-site is approximately seventy-five (75) feet bgs. On-site drilling activities indicate the soil is impacted to groundwater in the vicinity of the release point, the distance between groundwater and the deepest extent of impact results in 20 points being assigned to the Lovington Gathering WTI release site as a result of this criterion.

The water well database, maintained by the New Mexico Office of the State Engineer (NMOSE), was accessed to determine the location and type of nearby registered water wells in the area. The database indicated there is one (1) water well less than 1,000 feet from the release, resulting in 20 points being assigned to this site as a result of this criterion.

There are no surface water bodies located within 1,000 feet of the site. Based on the NMOCD ranking system no points will be assigned to the site as a result of the criterion. The Guidelines indicate the Lovington Gathering WTI release site has a ranking score of 40. Based on this score, the soil remediation levels for a site with a ranking score of >19 points are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 100 mg/Kg (ppm)

3.0 SUMMARY OF REMEDIATION ACTIVITIES

Following the initial excavation activities, field screening using a photo ionization detector (PID) indicated elevated concentrations of volatile organic compounds (VOC's) remained in the floor and sidewalls of the excavation. Approximately 200 cubic yards (cy) of impacted soil was excavated and stockpiled on a 6-mil poly-liner adjacent to the excavation, pending final disposition.

On April 24, 2006, eleven (11) soil samples were collected from the floor and sidewalls of the excavation ranging in depth from approximately one (1) to four (4) feet bgs. The soil samples were field screened using a PID, the results of the field screening suggested VOC's exceeded the NMOCD regulatory standard of 100 mg/Kg.

On April 28, 2006, five (5) delineation trenches were excavated at the release point, west cross gradient, east cross gradient and in down gradient positions with regard to the release point, to evaluate the extent of crude oil impact. Soil samples were collected at depths ranging from approximately five (5) to nineteen (19) feet bgs and field screened with a PID. The PID results suggested elevated concentrations of VOC's were present in the vicinity of the release point and east cross gradient delineation trenches.

On July 18-24, 2006, eleven (11) soil borings were advanced at the site utilizing an air rotary drill rig, operated by Straub Corporation, Stanton, Texas, to evaluate the vertical and horizontal extent of crude oil impact. The eleven (11) soil borings were advanced to depths ranging from approximately thirty (30) to seventy-five (75) feet bgs. Soil samples were collected at five (5) foot drilling intervals and field screened with a PID. No visual observations of phase separated hydrocarbons (PSH) were encountered during the advancement of the soil borings. Selected soil samples were analyzed for concentrations of benzene, toluene, ethylbenzene and xylene (BTEX) by Method EPA 8021B, total petroleum hydrocarbons (TPH) by Method SW8015M and SW8015M Extended. A summary of analytical results is provided in Table 1, Concentrations of Benzene, BTEX, TPH and Chlorides in Soil. Laboratory analytical reports are provided on a compact disk in Appendix B.

Soil Boring SB-1 was advanced in an up gradient position approximately six (6) feet north of the north sidewall of the initial excavation. The soil boring was advanced to a total depth of approximately thirty (30) feet bgs. Soil samples collected at five (5), ten (10), twenty (20) and thirty (30) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory (method detection limit) MDL of 10 mg/Kg and 100 mg/Kg, respectively, for each of the soil samples submitted. Details and descriptions of soil boring logs are provided in Appendix A, Soil Boring and Monitor Well Logs.

Soil Boring SB-2 was advanced in a west cross gradient position approximately six (6) feet from the west ramp of the initial excavation. The soil boring was advanced to a total depth of approximately thirty (30) feet bgs. Soil samples collected at five (5), ten (10), twenty (20) and thirty (30) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX concentrations were less than NMOCD regulatory standard for each of the soil samples

submitted. TPH concentrations were less than NMOCD regulatory standard for each of the submitted soil samples with the exception of soil sample SB-2 @ 5', which exhibited a concentration of 442 mg/Kg.

Soil Boring SB-3 was advanced at the release point approximately six (6) feet south of the initial excavation. The soil boring was advanced to a total depth of approximately seventy-five (75) feet bgs. Soil samples collected at five (5), ten (10), fifteen (15), twenty (20), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65) and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX concentrations were less than the NMOCD regulatory standard for each of the soil samples submitted. TPH concentrations ranged from 40.7 mg/Kg for soil sample SB-3 @ 75' to 2,429 mg/Kg for soil sample SB-3 @ 10'.

Soil Boring SB-4 was advanced in an east cross gradient position approximately six (6) feet from the initial excavation. The soil boring was advanced to a total depth of approximately seventy-five (75) feet bgs. Soil samples collected at five (5), ten (10), fifteen (15), twenty (20), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65) and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX concentrations were less than the NMOCD regulatory standard for each of the submitted soil samples. TPH concentrations ranged from 270.5 mg/Kg for soil sample SB-4 @ 5' to 1,721.5 mg/Kg for soil sample SB-4 @ 55'.

Soil Boring SB-5 was advanced in the east cross gradient position approximately thirty (30) feet from the initial excavation. The soil boring was advanced to a total depth of approximately seventy-five (75) feet bgs. Soil samples collected at five (5), ten (10), fifteen (15), twenty (20), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65) and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX concentrations were less than the NMOCD regulatory standard for each of the submitted soil samples. TPH concentrations ranged from 98.9 mg/Kg for soil sample SB-5 @ 75' to 3,027 mg/Kg for soil sample SB-5 @ 15'.

Soil Boring SB-6 was advanced in an east cross gradient position approximately sixty (60) feet from the initial excavation. The soil boring was advanced to a total depth of approximately seventy-five (75) feet bgs. Soil samples collected at five (5), ten (10), fifteen (15), twenty (20), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65) and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX concentrations were less than NMOCD regulatory standard for each of the submitted soil samples. TPH concentrations ranged from 15.5 mg/Kg for soil sample SB-6 @ 75' to 2,507 mg/Kg for soil sample SB-6 @ 10'.

Soil Boring SB-7 was advanced in an east cross gradient position approximately eighty-five (85) feet from the initial excavation. The soil boring was advanced to a total depth of approximately thirty (30) feet bgs. Soil samples collected at five (5), ten (10), twenty (20) and thirty (30) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples.

Soil Boring SB-8 was advanced in a south down gradient position approximately twenty-five (25) feet from the initial excavation. The soil boring was advanced to a total depth of approximately thirty (30) feet bgs. Soil samples collected at five (5), ten (10), twenty (20) and thirty (30) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples.

Soil Boring SB-9 was advanced in a northeast up gradient position approximately seventy-five (75) feet from the initial excavation. The soil boring was advanced to a total depth of approximately thirty (30) feet bgs. Soil samples collected at five (5), ten (10), twenty (20) and thirty (30) feet bgs were submitted for laboratory analysis. Laboratory results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples.

Soil Boring SB-10 was advanced in a southeast down gradient position approximately seventy (70) feet from the initial excavation. The soil boring was advanced to a total depth of approximately seventy-five (75) feet bgs. Soil samples collected at five (5), ten (10), fifteen (15), twenty (20), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65) and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX concentrations were less than NMOC regulatory standard for each of the submitted soil samples. TPH concentrations ranged from 170.4 mg/Kg for the soil sample SB-10 @ 75' to 4,267 mg/Kg for soil sample SB-10 @ 20'. Soil sample SB-10 @ 20' was submitted for analysis of chloride concentrations utilizing method E 300, the analytical results indicated a chloride concentration of 73.9 mg/Kg.

Soil Boring SB-11 was advanced in a southeast down gradient position approximately one hundred fifteen (115) feet from the initial excavation. The soil boring was advanced to a total depth of approximately thirty (30) feet bgs. Soil samples collected at five (5), ten (10), twenty (20) and thirty (30) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples.

On October 11, 2006, monitor well MW-1 was installed in an up gradient position approximately sixty (60) feet from the initial excavation to evaluate the potential impact to the groundwater. The monitor well was advanced to a total depth of approximately eighty-eight (88) feet bgs. Soil samples were collected at five (5) foot drilling intervals and field screened with a PID. The selected soil samples were analyzed for concentrations of BTEX and TPH. Soil samples collected at five (5), ten (10), fifteen (15), twenty (20), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65) and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples.

On October 11, 2006, monitor well MW-2 was installed in a down gradient position approximately sixty (60) feet from the initial excavation. The monitor well was advanced to a total depth of approximately eighty-eight (88) feet bgs. Soil samples collected at five (5), ten (10), fifteen (15), twenty (20), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65) and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory

analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL in each of the submitted soil samples.

On October 12, 2006, monitor well MW-3 was installed in a down gradient position approximately one hundred fifteen (115) feet from the initial excavation. The monitor well was advanced to a total depth of approximately eighty-eight (88) feet bgs. Soil samples collected at five (5), ten (10), fifteen (15), twenty (20), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65) and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX concentrations were less than NMOCD regulatory standards for each of the soil samples submitted. TPH concentrations were less than NMOCD regulatory standard for each of the submitted soil samples with the exception soil sample MW-3 @ 55' and MW-3 @ 75', which exhibited concentrations of 2,076 mg/Kg and 121 mg/Kg, respectively.

On November 22, 2006, monitor well MW-4 was installed in an up and cross gradient position approximately one hundred twenty (120) feet west of the release point. The monitor well was advanced to a total depth of approximately ninety (90) feet bgs. Soil samples collected at five (5), ten (10), fifteen (15), twenty (20), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65) and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples.

On November 27, 2006, monitor well MW-5 was installed in an up and cross gradient position approximately one hundred ninety (190) feet east of the release point. The monitor well was advanced to a total depth of approximately ninety (90) feet bgs. Soil samples collected at five (5), ten (10), fifteen (15), twenty (20), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65) and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples.

On November 27, 2006, monitor well MW-6 was installed in a down gradient position approximately one hundred ninety (190) feet southeast of the release point. The monitor well was advanced to a total depth of approximately ninety (90) feet bgs. Soil samples collected at five (5), ten (10), fifteen (15), twenty (20), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65) and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples.

On November 28, 2006, monitor well MW-7 was installed in a down gradient position approximately two hundred sixty (260) feet southeast of the release point. The monitor well was advanced to a total depth of approximately ninety (90) feet bgs. Soil samples collected at five (5), ten (10), fifteen (15), twenty (20), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65) and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples.

On February 7, 2006, monitor well MW-8 was installed in a down gradient position

approximately three hundred eighty (380) feet east-southeast of the release point. The monitor well was advanced to a total depth of approximately ninety-one (91) feet bgs. Soil samples collected at ten (10), twenty-five (25), fifty (50), and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX concentrations were less than the appropriate laboratory MDL in each of the soil samples submitted. Laboratory analytical results indicated TPH concentrations were less than NMOCD regulatory standard for each of the submitted soil samples with the exception of soil sample MW-8 @ 75', which exhibited a concentration of 101 mg/Kg.

On August 13, 2007, monitor well MW-9 was installed in a down gradient position approximately three hundred ninety (390) feet southeast of the release point. The monitor well was advanced to a total depth of approximately ninety (90) feet bgs. Soil samples collected at five (5), fifteen (15), twenty-five (25), forty-five (45), sixty-five (65), seventy (70), and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples.

On October 27, 2009, monitor well MW-10 was installed in a down gradient position approximately four hundred seventy (470) feet southeast of the release point. The monitor well was advanced to a total depth of approximately ninety-two (92) feet bgs. Soil samples collected at five (5), fifteen (15), twenty-five (25), forty-five (45), sixty-five (65), seventy (70), and seventy-five (75) feet bgs were submitted for laboratory analysis. Laboratory analytical indicated BTEX and TPH concentrations were less NMOCD regulatory standards for each of the submitted soil samples.

On February 9, 2010, Plains received NMOCD approval of the Stage 1 and Stage 2 Abatement Plan for the Lovington Gathering WTI release site submitted in August of 2008.

On March 9, 2010, remedial activities commenced at the location. The six (6) inch pipeline was hand spotted and an excavator was utilized to advance the initial excavation to a depth of fifteen (15) feet bgs. The excavation sidewalls were advanced to the north, south, east and west until field test suggested TPH concentrations were less than NMOCD regulatory standards. The final dimensions of the excavation were approximately one hundred twenty (120) feet in width by one hundred twenty (120) feet length and fifteen (15) feet in depth. Excavated material was screened and stockpiled on location in 500 cy cells.

On April 1, 2010, two (2) confirmation soil samples (East S/W 1 @ 14' and East S/W 2 @ 14') were collected from the excavation and submitted to the laboratory for analysis. TPH concentrations ranged from 19.6 mg/Kg for soil sample East S/W 1 @ 14' to 2,559 mg/Kg for soil sample East S/W 2 @ 14'. The excavation was advanced in the area represented by soil sample East S/W 2 @ 14'.

On April 7, 2010, four (4) confirmation soil samples (N. S/W @ 14.5', W. S/W @ 14', S. S/W @ 6.5' and S. SW @ 14') were collected from the excavation and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples.

On April 16, 2010, one (1) soil sample (East Trench Sample 1 @ 5') was collected from the excavation and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory MDL. Laboratory analytical results indicated the TPH concentration was 20 mg/Kg.

On April 20, 2010, three (3) confirmation soil samples (S. SW-1 @ 14.5', N. S/W-1 @ 14.5' and W S/W-1 @ 14') were collected from the excavation and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples.

On April 20, 2010, one (1) five-point composite stockpile soil sample (Stockpile) was collected and submitted to the laboratory for analysis of benzene, BTEX and TPH. Laboratory analytical results indicated benzene concentrations were less than the appropriate laboratory MDL for soil sample Stockpile. The BTEX concentration was 0.261 mg/Kg. The TPH concentration was 872.6 mg/Kg. Soil represented by soil sample Stockpile was deemed suitable for use as backfill material.

On April 28 and 29, 2010, four (4) confirmation soil samples (East S/W-3 @ 14.5', S.W. S/W @ 14.5', West S/W-2 @ 14.5' and E. S/W-2A @ 14') were collected from the excavation and submitted to the laboratory for analysis. Benzene and BTEX concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. Laboratory analytical results indicated TPH concentrations were less than NMOC regulatory standard for each of the submitted soil samples with exception of soil sample West S/W-2 @ 14.5', which exhibited a concentration of 218.3 mg/Kg. The excavation was advanced in the area represented by soil sample West S/W-2 @ 14.5'.

On May 5, 2010, one (1) confirmation soil sample (West S/W-2A @ 14.5') was collected from the excavation and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL.

On May 5, 2010, five (5) five-point composite stockpile soil samples (SP-1, SP-2, SP-3, SP-4 and SP-5) were collected and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene concentrations ranged from less than the appropriate laboratory MDL for soil samples SP-1, SP-2 and SP-5 to 0.0541 mg/Kg for soil sample SP-4. BTEX concentrations ranged from 0.9718 mg/Kg for soil sample SP-2 to 4.819 for soil sample SP-1. TPH concentrations were 1,626.0 mg/Kg for soil sample SP-1, 883.3 mg/Kg for soil sample SP-2, 1,332.4 mg/Kg for soil sample SP-3, 1,348.0 mg/Kg for soil sample SP-4 and 1,257.4 mg/Kg for soil sample SP-5. Stockpiled soil represented by soil samples SP-1, SP-3, SP-4 and SP-5 was blended on-site. Soil represented by soil sample SP-2 was deemed suitable for use as backfill material.

On May 10, 2010, three (3) five-point composite stockpile soil samples (SP-6, SP-7 and SP-8) were collected and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene concentrations were less than the appropriate laboratory MDL for each soil sample submitted. BTEX concentrations ranged from 0.1092 mg/Kg for soil sample SP-7 to 1.5989 mg/Kg for soil sample SP-6. TPH concentrations were 2,300 mg/Kg for soil sample SP-

7, 1,156.4 mg/Kg for soil sample SP-8, and 1,474 mg/Kg for soil sample SP-8. Stockpiled soil represented by soil samples SP-6, SP-7 and SP-8 was blended on-site.

On May 19, 2010, one (1) five-point composite stockpile soil sample (SP-1A) was collected and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated the concentration of TPH was 899 mg/Kg. Soil represented by soil sample SP-1A was deemed suitable for use as backfill material.

On May 24, 2010, six (6) five-point composite stockpile soil samples (SP-3, SP-4, SP-5, SP-6, SP-7 and SP-8) were collected and submitted to the laboratory for analysis of TPH concentrations. TPH concentrations were 1,077 mg/Kg for soil sample SP-3, 746 mg/Kg for soil sample SP-4, 1,052 mg/Kg for soil sample SP-5, 7,397 mg/Kg for soil sample SP-6, 1,388 mg/Kg for soil sample SP-7, and 1,265 mg/Kg for soil sample SP-8. Stockpiled soil represented by soil samples SP-3, SP-5, SP-6, SP-7 and SP-8 was screened and treated with water soluble fertilizer. Soil represented by soil sample SP-4 was deemed suitable for use as backfill material.

On May 27, 2010, a twenty (20) mil polyurethane liner was installed in the excavation. Prior to the liner installation, a six (6) inch layer of sand was placed in the excavation to protect the integrity of the liner during installation and backfilling activities. Following installation of the liner, the excavation was backfilled with screened material deemed suitable for use as backfill. Backfill was compacted in 12-inch lifts using water and heavy equipment.

On May 27, 2010, one (1) five-point composite stockpile soil sample (SP-8A) was collected and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated the concentration of TPH was 541 mg/Kg. Soil represented by soil sample SP-8A was deemed suitable for use as backfill material.

On May 28, 2010, two (2) five-point composite stockpile soil samples (SP-3A and SP-6A) were collected and submitted to the laboratory for analysis of TPH concentrations. TPH concentrations were 551 mg/Kg for soil sample SP-3A and 1,308 mg/Kg for soil sample SP-6A. Stockpiled soil represented by soil sample SP-6A was blended on-site. Soil represented by soil sample SP-3A was deemed suitable for use as backfill material.

On June 3, 2010, one (1) five-point composite stockpile soil sample (SP-5A) was collected and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated the concentration of TPH was 1,171 mg/Kg. Soil represented by soil sample SP-5A was reblended.

On June 7, 2010, two (2) five-point composite stockpile soil samples (SP-6B and SP-7A) were collected and submitted to the laboratory for analysis of TPH concentrations. TPH concentrations were 799 mg/Kg for soil sample SP-6B and 1,423 mg/Kg for soil sample SP-7A. Stockpiled soil represented by soil sample SP-7A was blended on-site. Soil represented by soil sample SP-6B was deemed suitable for use as backfill material.

On June 11, 2010, two (2) five-point composite stockpile soil samples (SP-5B and SP-7B) were collected and submitted to the laboratory for analysis of TPH concentrations. TPH concentrations were 717 mg/Kg for soil sample SP-5B and 1,154 mg/Kg for soil sample SP-7B.

Stockpiled soil represented by soil sample SP-7B was reblended. Soil represented by soil sample SP-5B was deemed suitable for use as backfill material.

On June 17, 2010, one (1) five-point composite stockpile soil sample (SP-7C) was collected and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated the concentration of TPH was 1,550 mg/Kg. Soil represented by soil sample SP-7C was reblended and treated with water soluble fertilizer.

On June 24, 2010, one (1) five-point composite stockpile soil sample (SP-7D) was collected and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated the concentration of TPH was 1,519 mg/Kg. Soil represented by soil sample SP-7D was reblended and treated with water soluble fertilizer.

On July 16, 2010, one (1) five-point composite stockpile soil sample (SP-7E) was collected and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated the concentration of TPH was 177 mg/Kg. Soil represented by soil sample SP-7E was deemed suitable for use as backfill material.

On July 26, 2010, Basin completed backfilling the excavation. Backfill was compacted in 12-Inch lifts and contoured to fit the surrounding topography. Upon completing backfilling activities the site was reseeded with seed mixture approved by the land owner.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil Samples were delivered to Xenco Laboratories, Inc., of Odessa, Texas for BTEX and/or TPH analyses using the methods described below. Soil samples were analyzed for BTEX and/or TPH concentrations within fourteen (14) days following the collection date.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO

4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

4.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody (COC) form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Based on the analytical results of confirmation soil samples, Basin recommends Plains provide the NMOCD a copy of this Remediation Summary and Soil Closure Request and request the NMOCD grant soil closure to the Lovington Gathering WTI release site. Groundwater monitoring and remediation activities will continue to be conducted in accordance with the *Amendment to Stage II Abatement Plan* submitted August 8, 2010.

6.0 LIMITATIONS

Basin Environmental Consulting, LLC has prepared this Remediation Summary and Soil Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

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

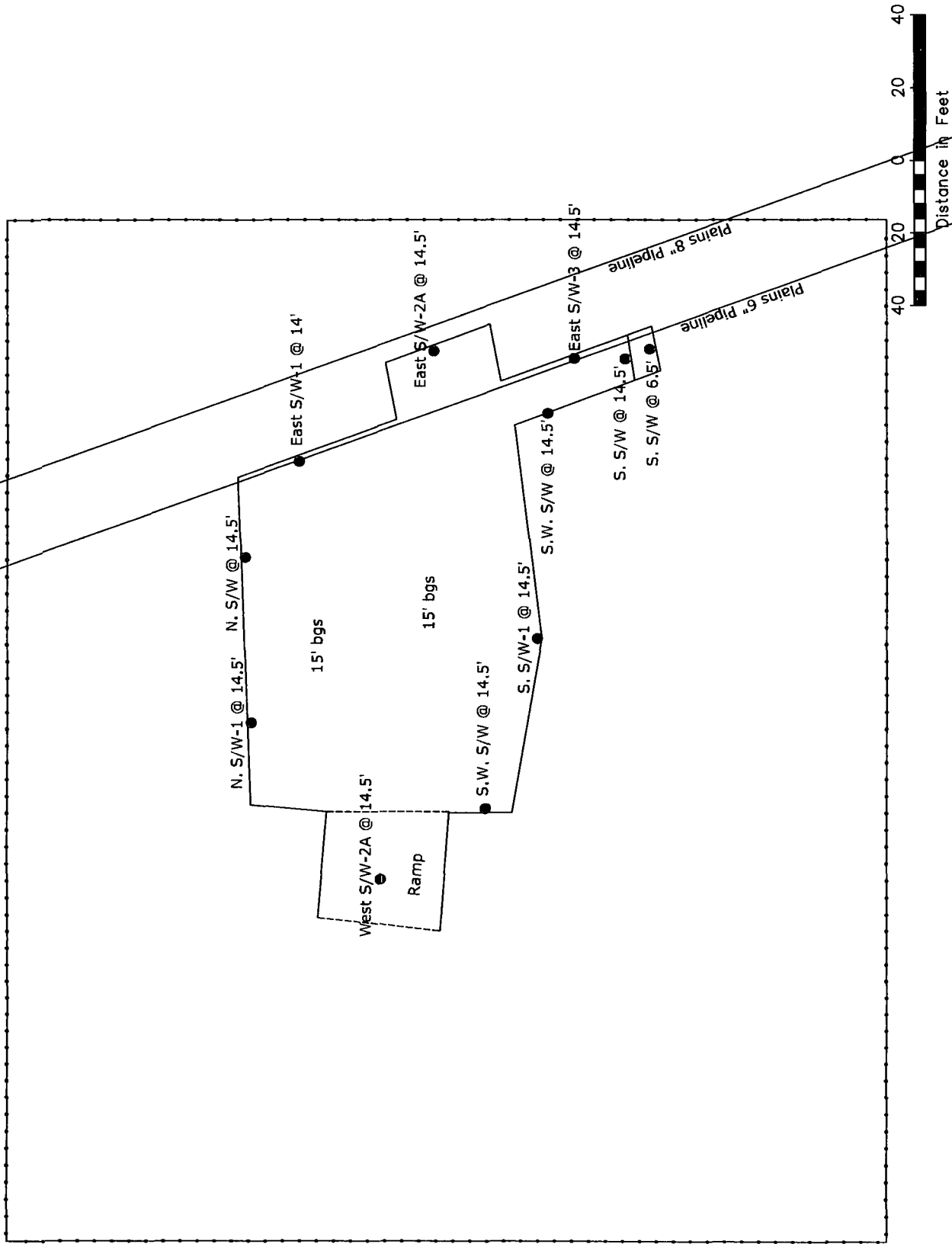
This report has been prepared for the benefit of Plains Pipeline, L.P. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Consulting, LLC and/or Plains Pipeline, L.P.

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Figures



Legend:

- Excavation Extents
- Pipeline
- Fence
- Sample Location

Figure 2
Site and Sample Location Map
Plains Pipeline, L.P.
Lovington Gathering WTI
Lea County, NM
1AP-96

Basin Environmental Consulting

Prep By: JWL
August 6, 2010
Checked By: CJB
Scale: 1"=40'

Tables

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDES IN SOIL

PLAINS MARKETING, L.P.
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE #AP-96

SAMPLE LOCATION	SAMPLE DEPTH (below ground surface)	SAMPLE DATE	METHOD: EPA 8021B						METHOD: SW8015M, Ext.			TOTAL TPH (mg/Kg)	E 300 CHLORIDES (mg/Kg)
			BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M,P- XYLENE (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	DRO Ext. (mg/Kg)		
SB-1 5'	5' bgs	07/18/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-1 10'	10' bgs	07/18/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-1 20'	20' bgs	07/18/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-1 30'	30' bgs	07/18/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-2 5'	5' bgs	07/18/06	<0.025	<0.025	<0.025	0.065	<0.025	<0.025	27.3	414.7	--	442	--
SB-2 10'	10' bgs	07/18/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-2 20'	20' bgs	07/18/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-2 30'	30' bgs	07/18/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-3 5'	5' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	43.6	1,021.0	--	1,064.6	--
SB-3 10'	10' bgs	07/19/06	<0.025	<0.025	0.174	0.232	0.052	0.458	225	2,204.0	--	2,429	--
SB-3 15'	15' bgs	07/19/06	<0.025	<0.025	0.044	0.093	0.030	0.167	152	1,969.0	--	2,121	--
SB-3 20'	20' bgs	07/19/06	<0.025	<0.025	0.036	0.063	<0.025	0.099	153	2,012.0	--	2,165	--
SB-3 25'	25' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	76.9	--	76.9	--
SB-3 35'	35' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	170.2	--	170.2	--
SB-3 45'	45' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	409.8	--	409.8	--
SB-3 55'	55' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	804.9	--	804.9	--
SB-3 65'	65' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	15	540.8	--	555.8	--
SB-3 75'	75' bgs	07/19/06	<0.025	<0.025	<0.025	0.036	<0.025	0.036	<10.0	40.7	--	40.7	--
SB-4 5'	5' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	270.5	--	270.5	--
SB-4 10'	10' bgs	07/19/06	<0.025	0.029	0.164	0.552	0.132	0.877	98.6	836.2	--	934.8	--
SB-4 15'	15' bgs	07/19/06	<0.025	<0.025	0.066	0.160	0.082	0.308	133	1,356.0	--	1,489	--
SB-4 20'	20' bgs	07/19/06	<0.025	0.068	0.112	0.257	0.069	0.506	101	1,024.0	--	1,125	--
SB-4 25'	25' bgs	07/19/06	<0.025	<0.025	<0.025	0.026	<0.025	0.026	65.9	1,492.0	--	1,557.9	--
SB-4 35'	35' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	46.4	1,043.1	--	1,089.5	--
SB-4 45'	45' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	29.5	980.9	--	1,010.4	--
SB-4 55'	55' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	80.5	1,641.0	--	1,721.5	--
SB-4 65'	65' bgs	07/19/06	<0.025	<0.025	<0.025	0.025	<0.025	0.025	56	1,199.0	--	1,255	--
SB-4 75'	75' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	281.3	--	281.3	--
SB-5 5'	5' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	18.3	664.0	--	682.3	--
SB-5 10'	10' bgs	07/19/06	<0.025	0.116	0.730	0.884	0.447	2.177	322	2,093.0	--	2,415	--
SB-5 15'	15' bgs	07/19/06	<0.025	0.186	0.744	2.12	1.01	4.06	450	2,577.0	--	3,027	--
SB-5 20'	20' bgs	07/19/06	<0.025	0.135	0.479	1.01	0.633	2.257	343	2,148.0	--	2,491	--
SB-5 25'	25' bgs	07/19/06	<0.025	0.097	0.263	0.519	0.326	1.205	266	1,666.0	--	1,932	--
SB-5 35'	35' bgs	07/19/06	<0.025	<0.025	<0.025	0.044	<0.025	0.044	60.8	1,196.0	--	1,256.8	--
SB-5 45'	45' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	71.4	1,470.0	--	1,541.4	--
SB-5 55'	55' bgs	07/19/06	<0.025	<0.025	<0.025	0.026	<0.025	0.026	135	1,951.0	--	2,086	--
SB-5 65'	65' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	29.9	697.3	--	727.2	--
SB-5 75'	75' bgs	07/19/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	10.4	88.5	--	98.9	--
SB-6 5'	5' bgs	07/20/06	<0.025	<0.025	<0.025	0.029	<0.025	0.029	78.8	1,461.0	--	1,539.8	--
SB-6 10'	10' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	158	2,349.0	--	2,507	--
SB-6 15'	15' bgs	07/20/06	<0.025	<0.025	<0.025	0.030	<0.025	0.03	81.5	1,361.0	--	1,442.5	--
SB-6 20'	20' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	23.1	926.0	--	949.1	--
SB-6 25'	25' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	713.9	--	713.9	--
SB-6 35'	35' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	193.7	--	193.7	--
SB-6 45'	45' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	649.2	--	649.2	--
SB-6 55'	55' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	24.8	1,291.0	--	1,315.8	--
SB-6 65'	65' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	12.4	798.1	--	810.5	--
SB-6 75'	75' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	15.5	--	15.5	--
SB-7 5'	5' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-7 10'	10' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-7 20'	20' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-7 30'	30' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-8 5'	5' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-8 10'	10' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-8 20'	20' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-8 30'	30' bgs	07/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-9 5'	5' bgs	07/24/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-9 10'	10' bgs	07/24/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-9 20'	20' bgs	07/24/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-9 30'	30' bgs	07/24/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
SB-10 5'	5' bgs	07/24/06	<0.025	0.047	0.134	0.190	0.076	0.447	66.1	817.0	--	883.1	--
SB-10 10'	10' bgs	07/24/06	0.251	1.62	10.4	10.2	2.42	24.891	777	2,913.0	--	3,690	--
SB-10 15'	15' bgs	07/24/06	0.142	2.04	5.13	7.77	3.96	19.042	746	3,474.0	--	4,220	--
SB-10 20'	20' bgs	07/24/06	0.152	3.46	6.54	10.4	5.82	26.372	812	3,455.0	--	4,267	73.9
SB-10 25'	25' bgs	07/24/06	0.063	1.47	3.44	6.18	3.16	14.313	740	3,102.0	--	3,842	--
SB-10 35'	35' bgs	07/24/06	<0.025	0.252	0.557	1.05	0.455	2.314	87	760.3	--	847.3	--
SB-10 45'	45' bgs	07/24/06	<0.025	0.029	0.067	0.114	0.059	0.269	44.3	663.6	--	707.9	--
SB-10 55'	55' bgs	07/24/06	<0.025	0.260	0.493	0.789	0.418	1.96	121	1,007.3	--	1,128.3	--
SB-10 65'	65' bgs	07/24/06	0.033	0.822	1.74	3.12	1.53	7.245	453	2,595.0	--	3,048	--
SB-10 75'	75' bgs	07/24/06	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	12.9	157.5	--	170.4	--

PLAINS MARKETING, L.P.
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE #AP-96

[illegible]

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDES IN SOIL

PLAINS MARKETING, L.P.
LOVINGTON GATHERING WTI
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE #AP-96

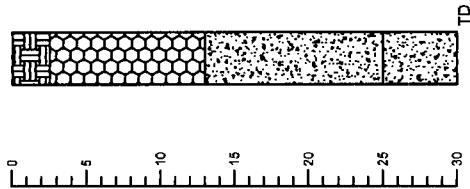
SAMPLE LOCATION	SAMPLE DEPTH (below ground surface)	SAMPLE DATE	METHOD: EPA 8021B						METHOD: SW8015M, Ext.			TOTAL TPH (mg/Kg)	E 300 CHLORIDES (mg/Kg)
			BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M,P- XYLENE (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	DRO Ext. (mg/Kg)		
MW-8 10'	10' bgs	02/07/07	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
MW-8 25'	25' bgs	02/07/07	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	--	<10.0	--
MW-8 50'	50' bgs	02/07/07	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	14.0	--	14.0	--
MW-8 75'	75' bgs	02/07/07	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	101.0	--	101	--
MW-9 5'	5' bgs	08/13/07	<0.002	<0.002	<0.002	<0.004	<0.002	<0.004	<10.0	<10.0	--	<10.0	--
MW-9 15'	15' bgs	08/13/07	<0.002	<0.002	<0.002	<0.004	<0.002	<0.004	<10.0	<10.0	--	<10.0	--
MW-9 25'	25' bgs	08/13/07	<0.002	<0.002	<0.002	<0.004	<0.002	<0.004	<10.0	<10.0	--	<10.0	--
MW-9 45'	45' bgs	08/13/07	<0.002	<0.002	<0.002	<0.004	<0.002	<0.004	<10.0	<10.0	--	<10.0	--
MW-9 65'	65' bgs	08/13/07	<0.002	<0.002	<0.002	<0.004	<0.002	<0.004	<10.0	<10.0	--	<10.0	--
MW-9 70'	70' bgs	08/13/07	<0.002	<0.002	<0.002	<0.004	<0.002	<0.004	<10.0	<10.0	--	<10.0	--
MW-9 75'	75' bgs	08/13/07	<0.002	<0.002	<0.002	<0.004	<0.002	<0.004	<10.0	<10.0	--	<10.0	--
MW-10 @ 5'	5' bgs	10/27/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.2	27.7	--	27.7	--
MW-10 @ 15'	15' bgs	10/27/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.1	23.1	--	23.1	--
MW-10 @ 25'	25' bgs	10/27/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.4	25.3	--	25.3	--
MW-10 @ 45'	45' bgs	10/27/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.3	23.4	--	23.4	--
MW-10 @ 65'	65' bgs	10/27/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.3	24.0	--	24.0	--
MW-10 @ 70'	70' bgs	10/27/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.2	19.7	--	19.7	--
MW-10 @ 75'	75' bgs	10/27/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.1	22.7	--	22.7	--
East S/W 1 @ 14'	14' bgs	04/01/10	--	--	--	--	--	--	<15.7	19.6	<15.7	19.6	--
East S/W 2 @ 14'	14' bgs	04/01/10	--	--	--	--	--	--	392	2,030.0	137.0	2,559	--
N. S/W @ 14.5'	14.5' bgs	04/07/10	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	--
W. S/W @ 14'	14' bgs	04/07/10	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	<16.7	<16.7	<16.7	--
S. S/W @ 6.5'	6.5' bgs	04/07/10	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0022	<16.0	<16.0	<16.0	<16.0	--
S. S/W @ 14'	14' bgs	04/07/10	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4	--
East Trech Sample 1 @ 5'	5' bgs	04/16/10	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.3	20.0	<16.3	20.0	--
S. S/W-1 @ 14.5'	14.5' bgs	04/20/10	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.2	<17.2	<17.2	<17.2	--
N. S/W-1 @ 14.5'	14.5' bgs	04/20/10	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.3	<16.3	<16.3	<16.3	--
W. S/W-1 @ 14'	14' bgs	04/20/10	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.0	<17.0	<17.0	<17.0	--
Stockpile	--	04/20/10	<0.0011	0.0105	0.0379	0.1371	0.0755	0.261	270	579.0	23.6	872.6	--
East S/W-3 @ 14.5'	14.5' bgs	04/28/10	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<15.4	18.7	<15.4	18.7	--
S. W. S/W @ 14.5'	14.5' bgs	04/28/10	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.3	<17.3	<17.3	<17.3	--
West S/W-2 @ 14.5'	14.5' bgs	04/28/10	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	24.8	175.0	18.5	218.3	--
E. S/W-2A @ 14'	14' bgs	04/29/10	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	20.0	<16.4	20.0	--
SP-1	--	05/05/10	<0.0108	0.2395	0.955	2.333	1.295	4.819	427	1,090.0	109.0	1,626	--
SP-2	--	05/05/10	<0.0055	0.0429	0.1513	0.4789	0.2987	0.9718	195	622.0	66.3	883.3	--
SP-3	--	05/05/10	0.0145	0.2174	0.9216	2.289	0.9399	4.382	307	933.0	92.4	1,332.4	--
SP-4	--	05/05/10	0.0541	<0.0108	0.1915	0.7956	0.7334	1.7746	288	963.0	97.3	1,348	--
SP-5	--	05/05/10	<0.0108	0.0968	0.3392	1.469	0.7184	2.623	293	873.0	91.4	1,257.4	--
West S/W-2A @ 14.5'	14.5' bgs	05/05/10	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<15.7	<15.7	<15.7	<15.7	--
SP-6	--	05/10/10	<0.0052	0.0239	0.1867	0.9324	0.4559	1.5989	433	1,710.0	157.0	2,300	--
SP-7	--	05/10/10	<0.0011	0.0053	0.0282	0.0454	0.0303	0.1092	159.0	907.0	90.4	1,156.4	--
SP-8	--	05/10/10	<0.0011	0.0082	0.021	0.0749	0.0444	0.1485	225	1,140.0	109.0	1,474	--
SP-1A	--	05/19/10	--	--	--	--	--	--	137.0	678.0	84.0	899	--
SP-3	--	05/24/10	--	--	--	--	--	--	105.0	892.0	80.2	1,077	--
SP-4	--	05/24/10	--	--	--	--	--	--	122.0	557.0	66.7	746	--
SP-5	--	05/24/10	--	--	--	--	--	--	183.0	781.0	88.3	1,052	--
SP-6	--	05/24/10	--	--	--	--	--	--	1,530.0	5,200.0	667.0	7,397	--
SP-7	--	05/24/10	--	--	--	--	--	--	309	934.0	145.0	1,388	--
SP-8	--	05/24/10	--	--	--	--	--	--	181	981.0	103.0	1,265	--
SP 8A	--	05/27/10	--	--	--	--	--	--	69.0	407.0	65.1	541	--
SP-6A	--	05/28/10	--	--	--	--	--	--	131	1,080.0	96.5	1,308	--
SP-3A	--	05/28/10	--	--	--	--	--	--	32.7	470.0	47.9	551	--
SP-5A	--	06/03/10	--	--	--	--	--	--	247	849.0	75.0	1,171	--
SP-6B	--	06/07/10	--	--	--	--	--	--	70.8	661.0	66.7	799	--
SP-7A	--	06/07/10	--	--	--	--	--	--	154	1,170.0	99.4	1,423	--
SP-5B	--	06/11/10	--	--	--	--	--	--	124	549.0	44.1	717	--
SP-7B	--	06/11/10	--	--	--	--	--	--	179	907.0	67.8	1,154	--
SP-7C	--	06/17/10	--	--	--	--	--	--	43.5	1,410.0	96.2	1,550	--
SP-7D	--	06/24/10	--	--	--	--	--	--	98.2	1,320.0	101.0	1,519	--
SP-7E	--	07/16/10	--	--	--	--	--	--	<17.0	137.0	40.0	177	--

Depth (feet)

Soil Columns	PID Reading	Petroleum Odor	Petroleum Stain
0 - 5	0.1		
5 - 10	0.1		
10 - 15	0.1	None	None
15 - 20	0.1	None	None
20 - 25	0.1	None	None
25 - 30	0.1	None	None

Soil Boring SB-1

Soil Description



2.5 - 13' - Caliche

13 - 25' - Sand, white to brown, very fine grained, well sorted, dry

25 - 30' - Sand, red to brown, very fine grained, well sorted, dry

Soil Boring Details

Date Drilled: July 18, 2006
Thickness of Bentonite Seal: 30 Ft
Depth of Exploratory Boring: 30 Ft
Depth to Groundwater: _____
Ground Water Elevation: _____

Indicates the PSH level measured on _____

Indicates the groundwater level measured on _____

Indicates samples selected for Laboratory Analysis.

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

Notes:

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from below ground surface. (bgs)


Boring Log Details
Soil Boring SB-1
Lovington Gathering WTI Lea County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services


Prep By: CDS

Checked By: CDS

Date: June 11, 2008



Appendices



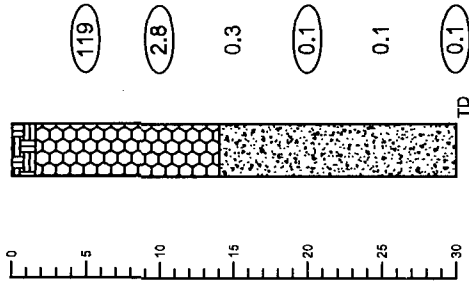
Appendix A

Soil Boring Logs

Soil Boring SB-2

Soil Description

Depth (feet) Soil Columns PID Reading Petroleum Odor Petroleum Stain



1.5 - 14' - Caliche

14 - 30' - Sand, red to brown, very fine grained, well sorted, dry

Soil Boring Details

Date Drilled July 18, 2006
 Thickness of Bentonite Seal 30 Ft
 Depth of Exploratory Boring 30 Ft
 Depth to Groundwater
 Ground Water Elevation

Indicates the PSH level measured on

Indicates the groundwater level measured on

Indicates samples selected for Laboratory Analysis.

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

Notes:

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from below ground surface, (bgs)

Boring Log Details
 Soil Boring SB-2
 Lovington Gathering WTI Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Services

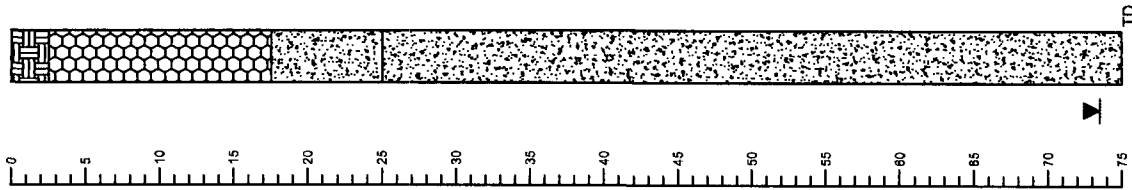
Prep By: CDS Checked By: CDS

Date: June 11, 2008

Depth (feet) Soil Columns PID Reading Petroleum Odor Petroleum Stain

Soil Boring SB-3

Soil Description



111	Moderate	Moderate	
1496	Moderate	Moderate	
1072	Moderate	Moderate	
878	Moderate	Moderate	
56.3	Slight	Slight	
148	Slight	Slight	
127	Slight	None	
135	Slight	None	
247	Slight	None	
274	Slight	None	
290	Slight	None	
375	Slight	None	
296	Slight	None	
14.6	Slight	None	
18.6	Slight	None	

Soil Boring Details

Date Drilled July 19, 2006
Thickness of Bentonite Seal 75 Ft
Depth of Exploratory Boring 75 Ft
Depth to Groundwater 73.5 Ft
Ground Water Elevation

- Indicates the PSH level measured on _____
Indicates the groundwater level measured on July 19, 2006
Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

Notes:

- The soil boring was advanced on date using air rotary drilling techniques.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from below ground surface. (bgs)

Boring Log Details
Soil Boring SB-3
Lovington Gathering WTI Lea County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS
Date: June 11, 2008
Checked By: CDS

Soil Boring SB-4

Soil Description

Soil Boring Details

Date Drilled July 19, 2006
 Thickness of Bentonite Seal 75 Ft
 Depth of Exploratory Boring 75 Ft
 Depth to Groundwater 74 Ft
 Ground Water Elevation _____

- ☒ Indicates the PSH level measured on _____
- ☒ Indicates the groundwater level measured on July 19, 2006
- ☐ Indicates samples selected for Laboratory Analysis.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

Notes:

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from below ground surface. (bgs)

Depth (feet)	Soil Columns	PID Reading	Petroleum Odor	Petroleum Stain
0		<u>31.1</u>		
5				
10		<u>731</u>	Heavy	Heavy
15		<u>748</u>	Heavy	None
20		<u>1,164</u>	Slight	None
25		<u>965</u>	Slight	None
30		796	Slight	None
35		<u>922</u>	Slight	None
40		602	Slight	None
45		<u>466</u>	Slight	None
50		489	Slight	None
55		<u>516</u>	Slight	None
60		691	Slight	None
65		<u>446</u>	Slight	None
70		83.6	Slight	None
75		<u>43.6</u>	Slight	None

Boring Log Details

Soil Boring SB-4

Lovington Gathering WTI Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS
 Date: June 11, 2008
 Checked By: CDS

Soil Description

Soil Boring Details

Date Drilled July 19, 2006
 Thickness of Bentonite Seal 75 Ft
 Depth of Exploratory Boring 75 Ft
 Depth to Groundwater 74 Ft
 Ground Water Elevation _____

Indicates the PSH level measured on

▼ Indicates the groundwater level measured on July 19, 2006

○ Indicates samples selected for Laboratory Analysis.

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

Notes:

- 1.) The soil boring was advanced on data using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from below ground surface. (bgs)

45 -75' - Sand, red to brown, very fine grained, well sorted, dry

Depth (feet)	Soil Columns	PID Reading	Petroleum Petroleum Odor	Stain
0	Asphalt	69.7		
10	Gravel	995	Heavy	Slight
15	Gravel	738	Moderate	None
20	Gravel	798	Moderate	None
25	Gravel	1,017	Moderate	None
30	Gravel	647	Moderate	None
35	Gravel	451	Moderate	None
40	Gravel	505	Moderate	None
45	Gravel	281	Slight	None
50	Gravel	259	Slight	None
55	Gravel	370	Slight	None
60	Gravel	395	Slight	None
65	Gravel	175	Slight	None
70	Gravel	42.4	Slight	None
75	Gravel	13.6	Slight	None

Boring Log Details
Soil Boring SB-5
Lovington Gathering WTI Lea County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS	Checked By: CDS
Date: June 11, 2008	

Soil Boring SB-6

Soil Description

Depth (feet)	Soil Columns	PID Reading	Petroleum Odor	Petroleum Stain
0				
5				
10				
15				
20				
25				
30				
35				
40				
45				
50				
55				
60				
65				
70				
75				

Soil Boring Details

Date Drilled July 20, 2006
 Thickness of Bentonite Seal 75 Ft
 Depth of Exploratory Boring 75 Ft
 Depth to Groundwater 74 Ft
 Ground Water Elevation _____

2 - 14' - Caliche

Indicates the PSH level measured on _____

Indicates the groundwater level measured on July 20, 2006

Indicates samples selected for Laboratory Analysis.

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

14 - 35' - Sand, white to brown, very fine grained, well sorted, dry

Notes:

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from below ground surface, (bgs)

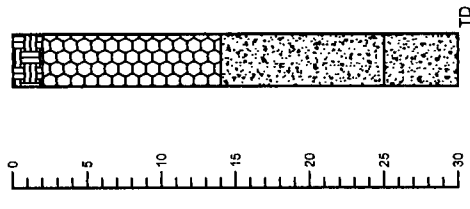
Boring Log Details
 Soil Boring SB-6
 Lovington Gathering WTI Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS
 Date: June 11, 2008
 Checked By: CDS

Soil Boring SB-7

Soil Description



Depth (feet)	Soil Columns	PID Reading	Petroleum Odor	Petroleum Stain
0 - 5		2.5	None	None
5 - 10		1.5	None	None
10 - 15		5.1	None	None
15 - 20		3.9	None	None
20 - 25		4.4	None	None
25 - 30		2.8	None	None

2 - 14' - Caliche

14 - 25' - Sand, white to brown, very fine grained, well sorted, dry

25 - 30' - Sand, red to brown, very fine grained, well sorted, dry

Soil Boring Details

Date Drilled: July 20, 2008
 Thickness of Bentonite Seal: 30 Ft
 Depth of Exploratory Boring: 30 Ft
 Depth to Groundwater: _____
 Ground Water Elevation: _____

- ☒ Indicates the PSH level measured on _____
- ☒ Indicates the groundwater level measured on _____
- ☐ Indicates samples selected for Laboratory Analysis.
- ☐ PID Head-space reading in ppm obtained with a photo-ionization detector.

Notes:

- The soil boring was advanced on date using air rotary drilling techniques.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from below ground surface, (bgs)

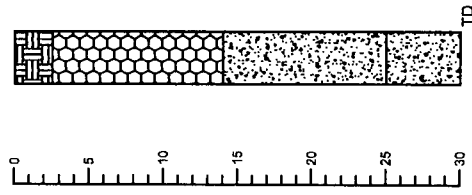
Boring Log Details
 Soil Boring SB-7
 Lovington Gathering WTI Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS
 Date: June 11, 2008
 Checked By: CDS

Soil Boring SB-8

Soil Description



Soil Boring Details

Date Drilled: July 20, 2006
 Thickness of Bentonite Seal: 30 Ft
 Depth of Exploratory Boring: 30 Ft
 Depth to Groundwater: _____
 Ground Water Elevation: _____

2.5 - 14' - Caliche

14 - 25' - Sand, white to brown, very fine grained, well sorted, dry

25 - 30' - Sand, red to brown, very fine grained, well sorted, dry

Indicates the PSH level measured on _____

Indicates the groundwater level measured on _____

Indicates samples selected for Laboratory Analysis.

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

Notes:

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from below ground surface. (bgs)

Boring Log Details

Soil Boring SB-8

Lovington Gathering WTI Lea County, New Mexico
 Plains Pipeline, L.P.

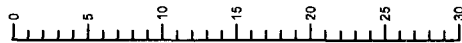
Basin Environmental Services

Prep By: CDS

Checked By: CDS

Date: June 11, 2008

Depth (feet)



Soil Columns



PID Reading

5.4
5.1
7.2
5.8
5.9
5.9

Petroleum Odor

None
None
None
None
None
None

Petroleum Stain

None
None
None
None
None
None

Soil Boring SB-9

Soil Description

2.5 - 9' - Caliche

9 - 30' - Sand, white to brown, very fine grained, well sorted, dry

Soil Boring Details

Date Drilled July 20, 2006
Thickness of Bentonite Seal 30 Ft
Depth of Exploratory Boring 30 Ft
Depth to Groundwater
Ground Water Elevation

Indicates the PSH level measured on

Indicates the groundwater level measured on

Indicates samples selected for Laboratory Analysis.

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

Notes:

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from below ground surface. (bgs)

Boring Log Details
Soil Boring SB-9
Lovington Gathering WTI Lea County, New Mexico
Plains Pipeline, L.P.

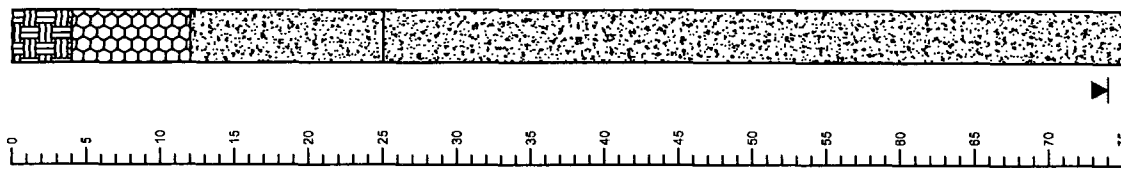
Basin Environmental Services

Prep By: CDS
Date: June 11, 2008
Checked By: CDS

Depth
(feet)Soil
ColumnsPID
ReadingPetroleum
OdorPetroleum
Stain

Soil Boring SB-10

Soil Description



Soil Boring Details

Date Drilled: July 24, 2006
Thickness of Bentonite Seal: 75 Ft
Depth of Exploratory Boring: 75 Ft
Depth to Groundwater: 74 Ft
Ground Water Elevation: _____

4 - 12' - Caliche

14 - 25' - Sand, white to brown, very fine
grained, well sorted, dry25 - 75' - Sand, red to brown, very fine grained,
well sorted, dry

Σ Indicates the PSH level measured on _____

Σ Indicates the groundwater level measured on July 24, 2006

○ Indicates samples selected for Laboratory Analysis.

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

Notes:

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from below ground surface. (bgs)

Boring Log Details

Soil Boring SB-10

Lovington Gathering WTI Lea County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS

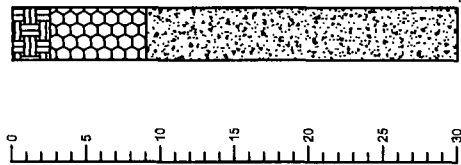
Checked By: CDS

Date: June 11, 2008

Soil Boring SB-11

Soil Description

Depth (feet) Soil Columns PID Reading Petroleum Odor Petroleum Stain



3.4	None	None	None
4.4	None	None	None
4.2	None	None	None
5.5	None	None	None
5.6	None	None	None
5.6	None	None	None

2.5 - 9' - Caliche

9 - 30' - Sand, white to brown, very fine grained, well sorted, dry

Soil Boring Details

Date Drilled July 24, 2006
 Thickness of Bentonite Seal 30 Ft
 Depth of Exploratory Boring 30 Ft
 Depth to Groundwater
 Ground Water Elevation

Indicates the PSH level measured on

Indicates the groundwater level measured on

Indicates samples selected for Laboratory Analysis.

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

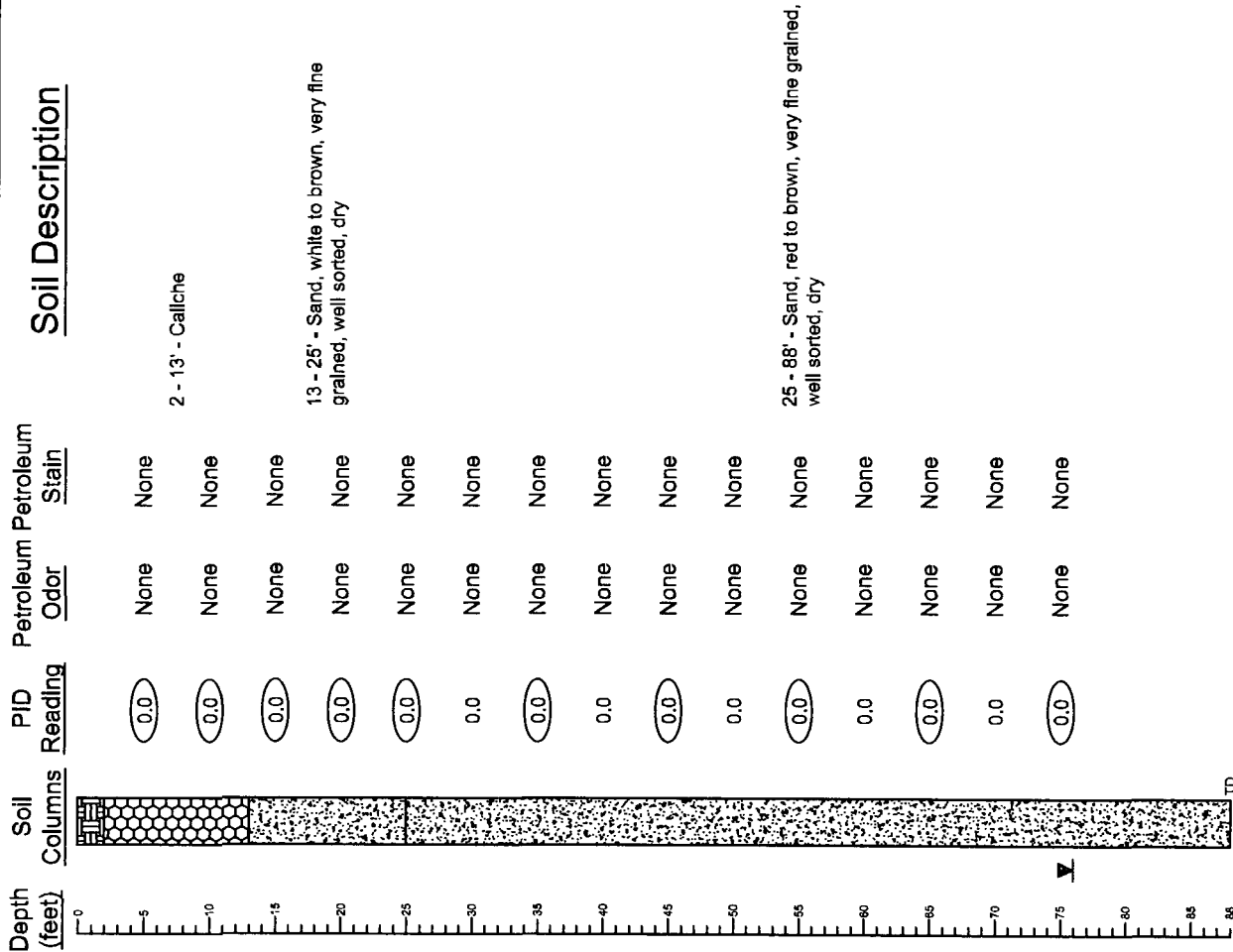
Notes:

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from below ground surface. (bgs)

Boring Log Details
 Soil Boring SB-11
 Lovington Gathering WTI Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Services

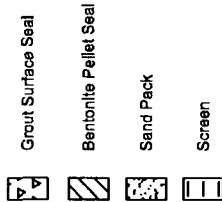
Prep By: CDS
 Date: June 11, 2008
 Checked By: CDS



Monitor Well MW-1

Monitor Well Details

Date Drilled September 11, 2006
Thickness of Bentonite Seal 58 Ft
Length of PVC Well Screen 25 Ft
Depth of PVC Well 88 Ft
Depth of Exploratory Well 88 Ft
Depth to Groundwater 76 Ft
Ground Water Elevation



- Indicates the PSH level measured on
Indicates the groundwater level measured on September 11, 2006
Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

- The monitor well was installed on date using air rotary drilling techniques.
- The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
- The well is protected with a locked stick up steel cover and a compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from below ground surface (bgs)

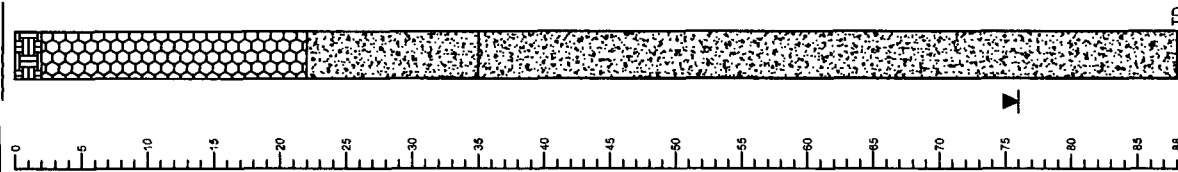
Monitor Well Details
Monitor Well MW-1
Lovington Gathering WTI Lea County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS
Date: June 11, 2008
Checked By: CDS

Depth
(feet)Soil
ColumnsPID
ReadingPetroleum
OdorPetroleum
Stain

Soil Description



2 - 22' - Caliche

22 - 35' - Sand, white to brown, very fine
grained, well sorted, dry35 - 88' - Sand, red to brown, very fine grained,
well sorted, dry

Monitor Well Details

Date Drilled September 11, 2008
Thickness of Bentonite Seal 58 Ft
Length of PVC Well Screen 25 Ft
Depth of PVC Well 88 Ft
Depth of Exploratory Well 88 Ft
Depth to Groundwater 76 Ft
Ground Water Elevation _____

Grout Surface Seal

Bentonite Pellet Seal

Sand Pack

Screen

▼ Indicates the PSH level measured on _____

▼ Indicates the groundwater level measured on September 11, 2008

○ Indicates samples selected for Laboratory Analysis.

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

Completion Notes

1. The monitor well was installed on date using air rotary drilling techniques.

2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.

3. The well is protected with a locked stick up steel cover and a compression cap.

4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

5. The depths indicated are referenced from below ground surface (bgs)

Monitor Well Details

Monitor Well MW-2

Lovington Gathering WTI Lea County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS





Checked By: CDS




Date: June 11, 2008

Monitor Well MW-3

Monitor Well Details

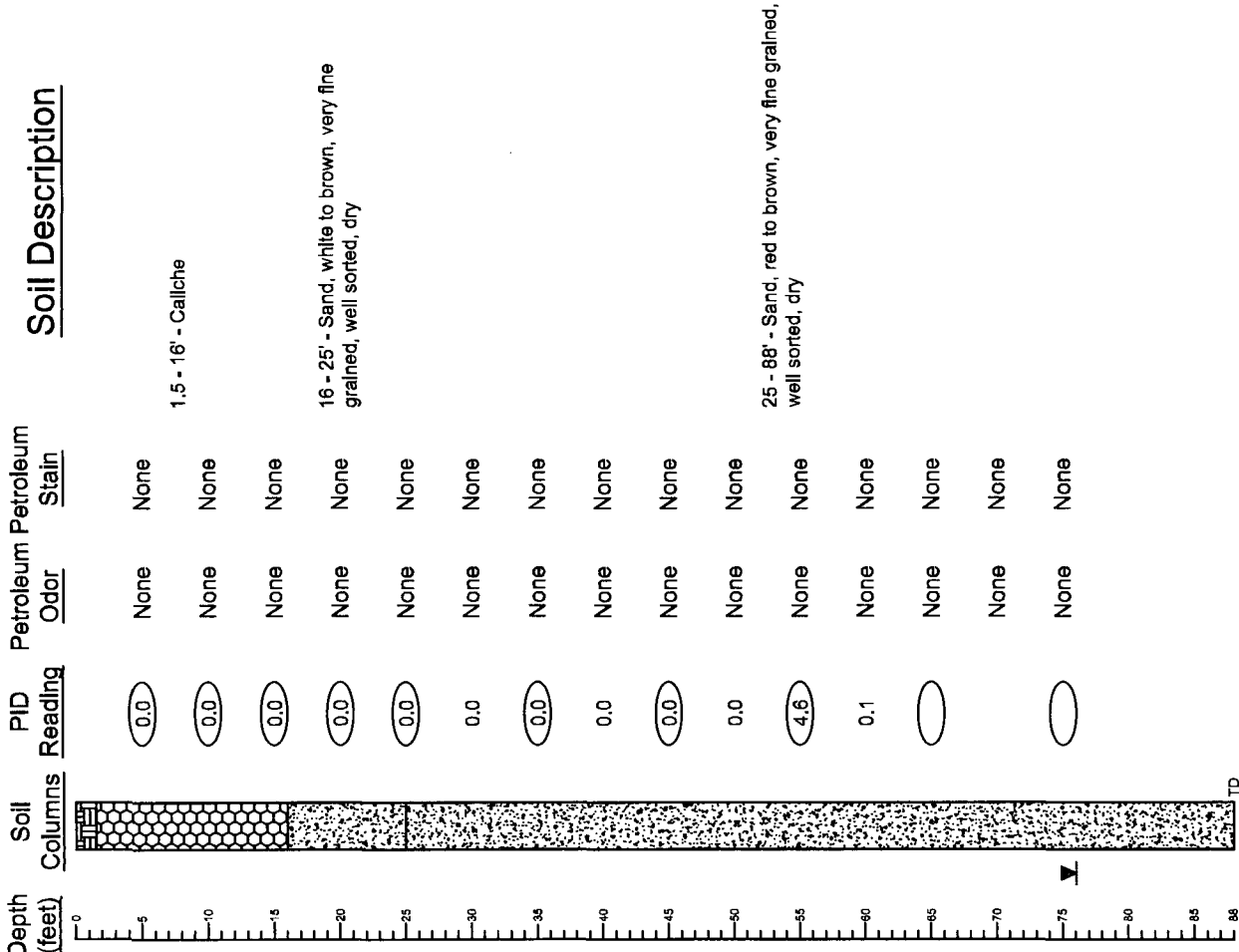
Date Drilled September 12, 2006
 Thickness of Bentonite Seal 58 Ft
 Length of PVC Well Screen 25 Ft
 Depth of PVC Well 88 Ft
 Depth of Exploratory Well 88 Ft
 Depth to Groundwater 76 Ft
 Ground Water Elevation

-  Grout Surface Seal
-  Bentonite Pellet Seal
-  Sand Pack
-  Screen

-  Indicates the PSH level measured on
-  Indicates the groundwater level measured on September 12, 2006
-  Indicates samples selected for Laboratory Analysis.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

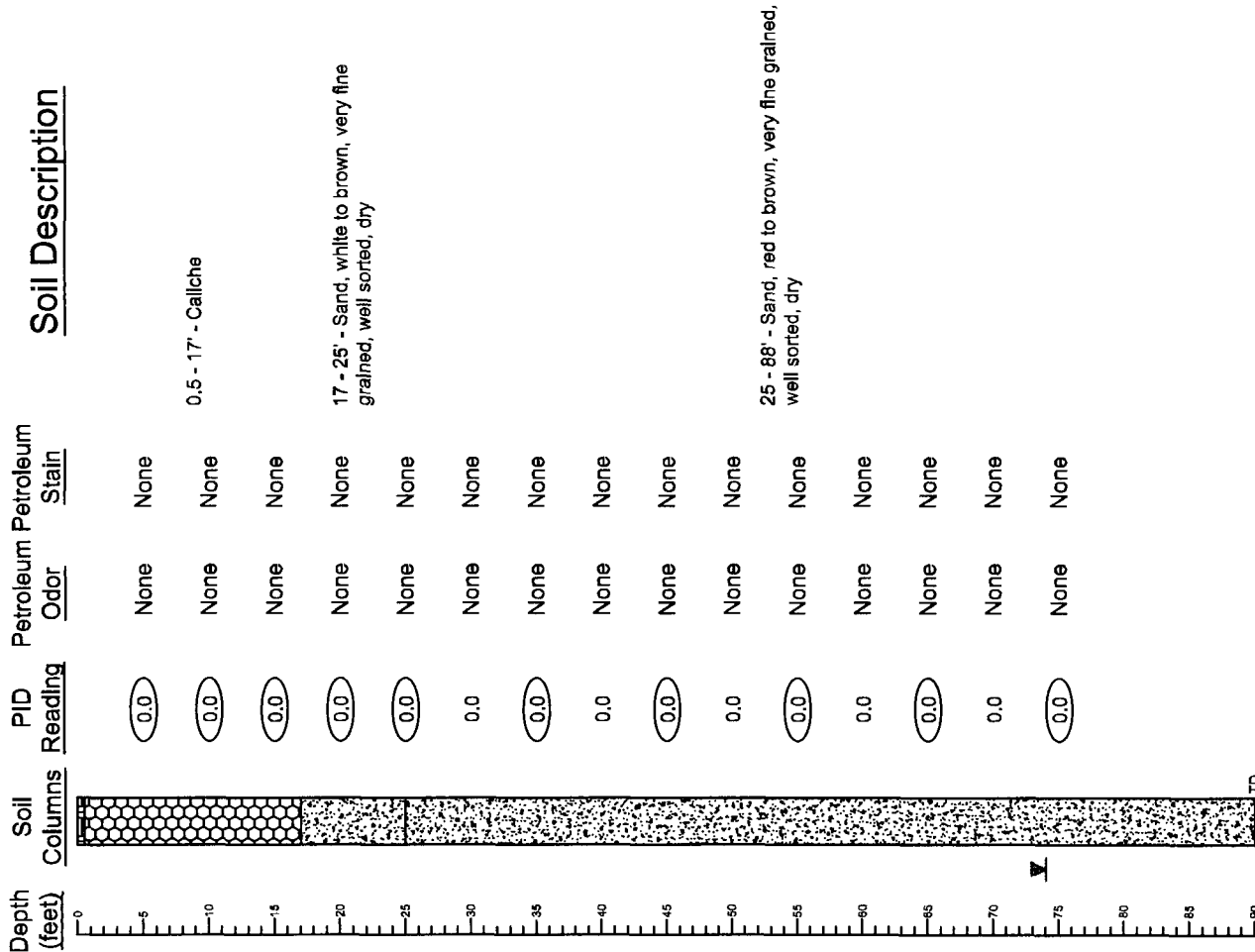
- The monitor well was installed on date using air rotary drilling techniques.
- The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
- The well is protected with a locked stick up steel cover and a compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from below ground surface, (bgs)



Monitor Well Details
 Monitor Well MW-3
 Lovington Gathering WTI Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Services

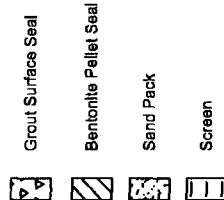
Prep By: CDS
 Date: June 11, 2008
 Checked By: CDS



Monitor Well MW-4

Monitor Well Details

Date Drilled November 22, 2008
 Thickness of Bentonite Seal 60 Ft
 Length of PVC Well Screen 25 Ft
 Depth of PVC Well 90 Ft
 Depth of Exploratory Well 90 Ft
 Depth to Groundwater 74 Ft
 Ground Water Elevation



- Indicates the PSH level measured on
- Indicates the groundwater level measured on November 22, 2008
- Indicates samples selected for Laboratory Analysis.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

- The monitor well was installed on date using air rotary drilling techniques.
- The well was constructed with 2" ID, 0.020 Inch factory slotted, threaded joint, schedule 40 PVC pipe.
- The well is protected with a locked stick up steel cover and a compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from below ground surface, (bgs)

Monitor Well Details
 Monitor Well MW-4
 Lovington Gathering WTI Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS
 Date: June 11, 2008
 Checked By: CDS

Depth
(feet)

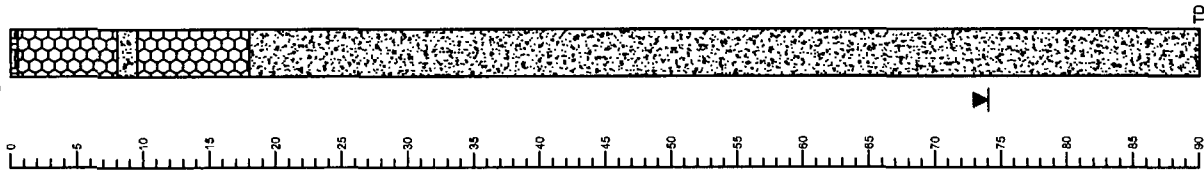
Soil
Columns

PID
Reading

Petroleum
Odor

Petroleum
Stain

Soil Description



0.5 - 8' - Caliche

8 - 9.5' - Sand, red to brown, very fine grained, well sorted, dry

9.5 - 18' - Caliche

8 - 90' - Sand, red to brown, very fine grained, well sorted, dry

Monitor Well MW-5

Monitor Well Details

Date Drilled November 27, 2006
 Thickness of Bentonite Seal 60 Ft
 Length of PVC Well Screen 25 Ft
 Depth of PVC Well 90 Ft
 Depth of Exploratory Well 90 Ft
 Depth to Groundwater 74 Ft
 Ground Water Elevation _____

Grout Surface Seal

Bentonite Pellet Seal

Sand Pack

Screen

Indicates the PSH level measured on _____

Indicates the groundwater level measured on November 27, 2006

Indicates samples selected for Laboratory Analysis.

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

Completion Notes

1. The monitor well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from below ground surface (bgs)

Monitor Well Details

Monitor Well MW-5

Lovington Gathering WTI Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS

Checked By: CDS

Date: June 11, 2008

Depth
(feet)Soil
ColumnsPID
ReadingPetroleum
OdorPetroleum
Stain

Soil Description

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90

TD



None

0.5 - 18' - Caliche

None

None

0.0

18 - 25' - Sand, white to brown, very fine
grained, well sorted, dry

None

None

0.0

None

None

0.0

None

None

0.0

None

None

0.0

None

None

0.0

None

None

0.0

None

None

0.0

25 - 90' - Sand, red to brown, very fine grained,
well sorted, dry

None

None

0.0

None

None

0.0

None

None

0.0

None

None

0.0

None

None

0.0

Monitor Well MW-6

Monitor Well Details

Date Drilled November 27, 2006
Thickness of Bentonite Seal 60 Ft
Length of PVC Well Screen 25 Ft
Depth of PVC Well 90 Ft
Depth of Exploratory Well 90 Ft
Depth to Groundwater 74 Ft
Ground Water Elevation



Grout Surface Seal



Bentonite Pellet Seal



Sand Pack



Screen

▼ Indicates the PSH level measured on

▼ Indicates the groundwater level measured on November 27, 2006

○ Indicates samples selected for Laboratory Analysis.

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

Completion Notes

1. The monitor well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from below ground surface (bgs).

Monitor Well Details

Monitor Well MW-6

Lovington Gathering WTI Lea County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS

Checked By: CDS

Date: June 11, 2008

Depth (feet) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90

Soil Columns
Petroleum Stain
PID Reading

Soil Description

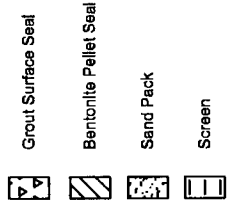


0.5 - 18' - Caliche

18 - 90' - Sand, red to brown, very fine grained, well sorted, dry

Monitor Well Details

Date Drilled: November 28, 2006
Thickness of Bentonite Seal: 60 Ft
Length of PVC Well Screen: 25 Ft
Depth of PVC Well: 90 Ft
Depth of Exploratory Well: 90 Ft
Depth to Groundwater: 73 Ft
Ground Water Elevation: _____



- Indicates the PSH level measured on _____
- Indicates the groundwater level measured on November 28, 2006
- Indicates samples selected for Laboratory Analysis.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

- The monitor well was installed on date using air rotary drilling techniques.
- The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
- The well is protected with a locked stick up steel cover and a compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from below ground surface (bgs)

Monitor Well Details
Monitor Well MW-7
Lovington Gathering WTI Lea County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CPS
Date: June 11, 2006
Checked By: CDS

Depth (feet) 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 91 TD

Soil Columns PID Petroleum Odor Stain

Soil Description

0 - 20' - Sand, white to brown, very fine grained, well sorted, dry	0.1	None	None	None
	0.4	None	None	None
	0.2	None	None	None
	0.2	None	None	None
20 - 30' - Sand, white to brown, very fine grained, well sorted, dry with imbedded caliche nodules	0.9	None	None	None
	0.1	None	None	None
	1.5	None	None	None
	1.6	None	None	None
	1.3	None	None	None
	1.0	None	None	None
30 - 91' - Sand, red to brown, very fine grained, well sorted, dry	1.1	None	None	None
	1.9	None	None	None
	1.9	None	None	None
	2.0	None	None	None
	2.3	None	None	None

Monitor Well MW-8

Monitor Well Details

Date Drilled February 7, 2007
Thickness of Bentonite Seal 56 Ft
Length of PVC Well Screen 30 Ft
Depth of PVC Well 91 Ft
Depth of Exploratory Well 91 Ft
Depth to Groundwater 76 Ft
Ground Water Elevation

- Grout Surface Seal
- Bentonite Pellet Seal
- Sand Pack
- Screen

- Indicates the PSH level measured on February 7, 2007
- Indicates the groundwater level measured on February 7, 2007
- Indicates samples selected for Laboratory Analysis.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

- The monitor well was installed on date using air rotary drilling techniques.
- The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
- The well is protected with a locked stick up steel cover and a compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from below ground surface. (bgs)

Monitor Well Details
Monitor Well MW-8
Lovington Gathering WTI Lea County, New Mexico
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS
Date: June 11, 2008
Checked By: CDS

Soil Description

Monitor Well Details

Date Drilled	August 13, 2007
Thickness of Bentonite Seal	55 Ft
Length of PVC Well Screen	30 Ft
Depth of PVC Well	90 Ft
Depth of Exploratory Well	90 Ft
Depth to Groundwater	74.5 Ft
Ground Water Elevation	

Grout Surface Seal

Bentonite Pallet Seal

Sand Pack

Screen

▼ Indicates the PSH level measured on

V Indicates the groundwater level measured on August 13, 2007

○ Indicates samples selected for Laboratory Analysis.

2D Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

1. The monitor well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from below ground surface. (bgs)

Monitor Well Details
Monitor Well MW-9
Lovington Gathering WTI Lea County
Plains Pipeline, L.P.

Basin Environmental Services

Prep By: CDS	Checked By: CDS
--------------	-----------------

Date: June 11, 2008

Depth (feet)

Soil Columns

PID

Reading

Oil

Stain

Soil Description

0 - 1' - Sand, brown to tan, clayey with some caliche nodules, moist

1 - 20' - Caliche, white to tan, soft, sandy, very fine grained

20 - 45' - Sand, tan to brown, very fine grained with sandstone layering

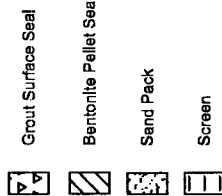
45 - 92' - Sand, tan to brown, very fine grained, very heavy sandstone layering 72-75' bgs, wet at 77' bgs

8.2	None	None
7.1	None	None
3.5	None	None
5.0	None	None
7.3	None	None
4.3	None	None
5.2	None	None
0.8	None	None
7.2	None	None
2.9	None	None
5.6	None	None
5.1	None	None
5.3	None	None
6.3	None	None
5.7	None	None

Monitor Well MW-10

Monitor Well Details

Date Drilled: October 27, 2009
 Thickness of Bentonite Seal: 57 Ft
 Length of PVC Well Screen: 30 Ft
 Depth of PVC Well: 92 Ft
 Depth of Exploratory Well: 92 Ft
 Depth to Groundwater: 77 Ft
 Ground Water Elevation: _____



- Indicates the PSH level measured on _____
- Indicates the groundwater level measured on _____
- Indicates samples selected for Laboratory Analysis.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

- The monitor well was installed on date using air rotary drilling techniques.
- The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
- The well is protected with a locked stick up steel cover and a compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from below ground surface (bgs).

Monitor Well Details
 Monitor Well MW-10
 Lovington Gathering WTI Lea County, New Mexico
 Plains Marketing, L.P.


Basin Environmental Consulting

Prep By: CDS
 November 2, 2009
 Checked By: CDS



Appendix B

Analytical Reports

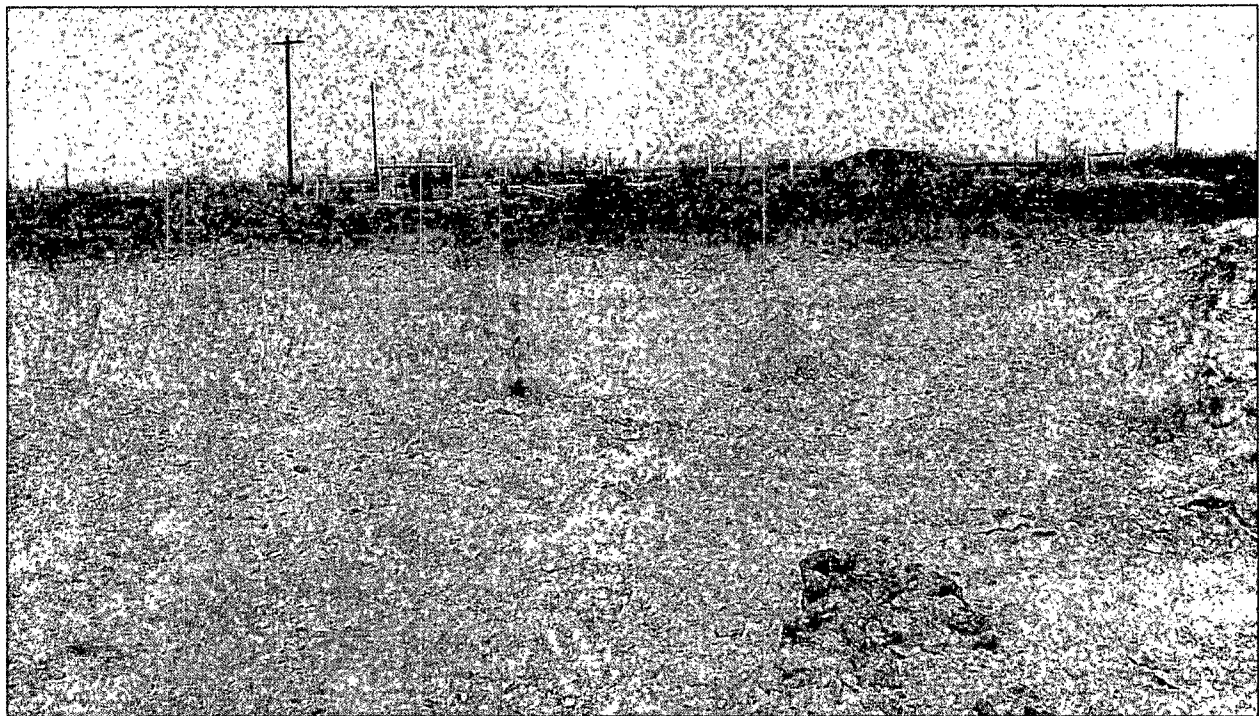


Appendix C

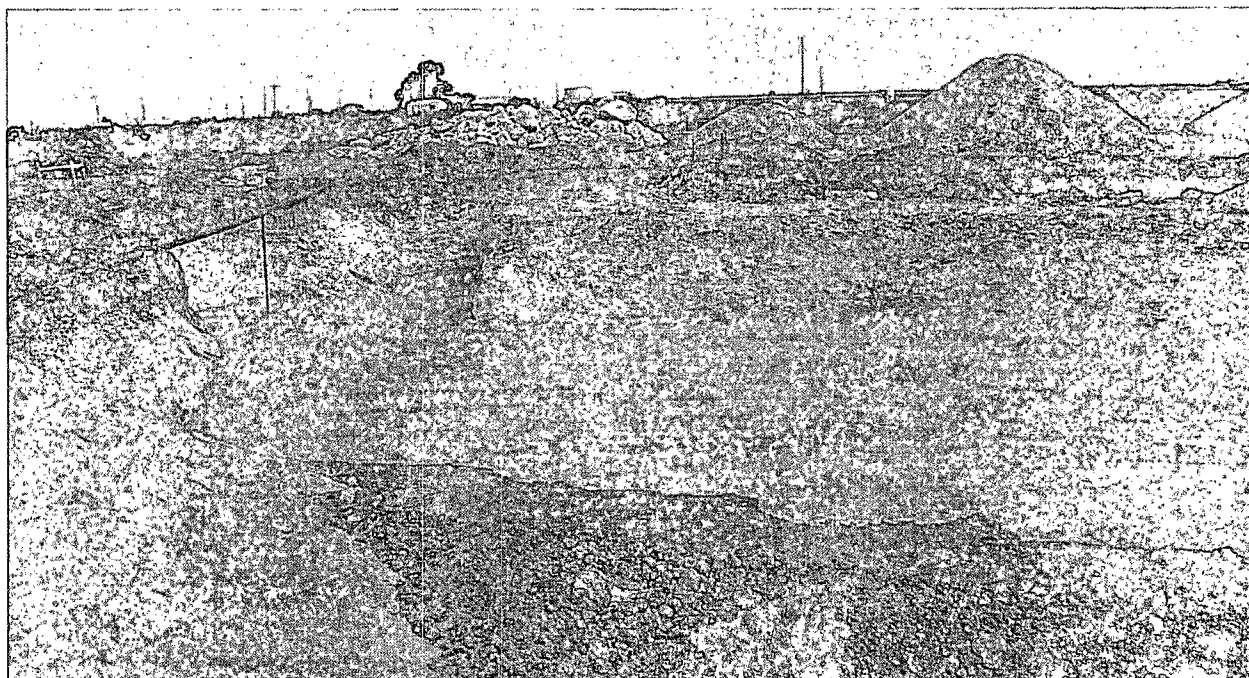
Photographs



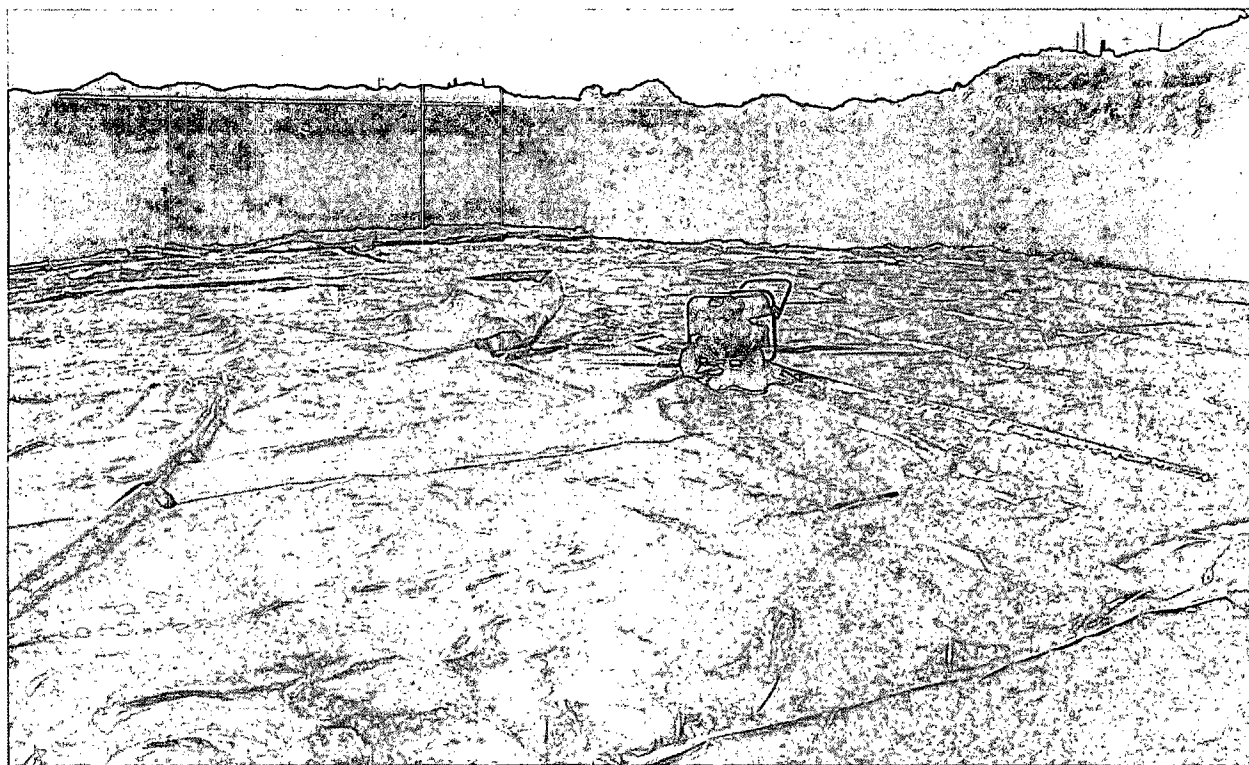
Photograph of excavation activities at the Lovington Gathering WTI release site.



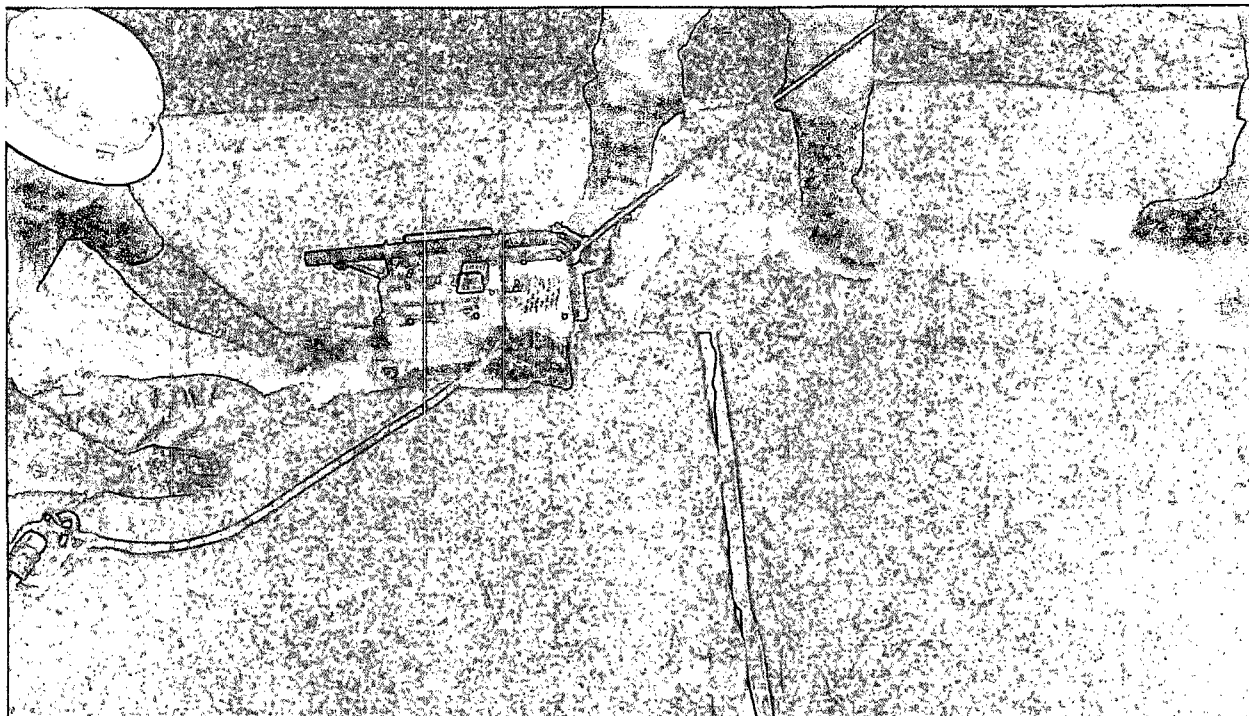
Photograph of excavation and sample locations at the Lovington Gathering WTI release site.



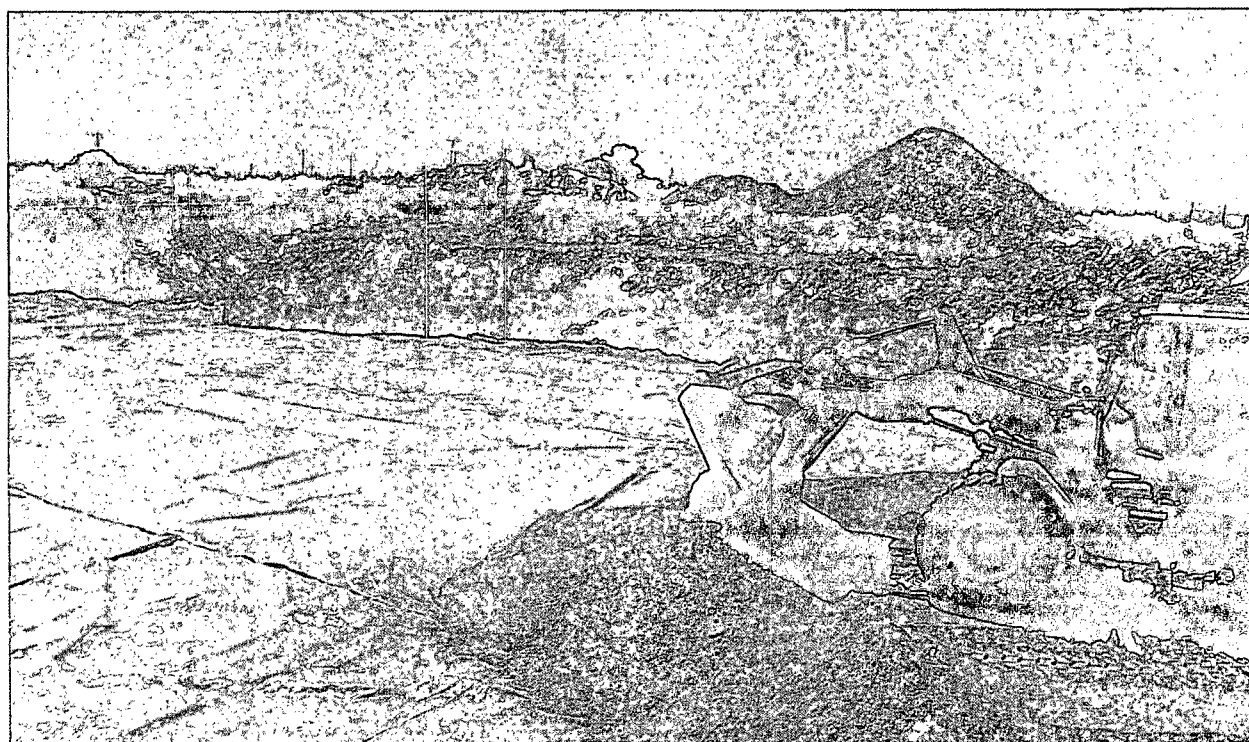
Photograph of the installation of pad sand beneath the liner at the Lovington Gathering WTI release site.



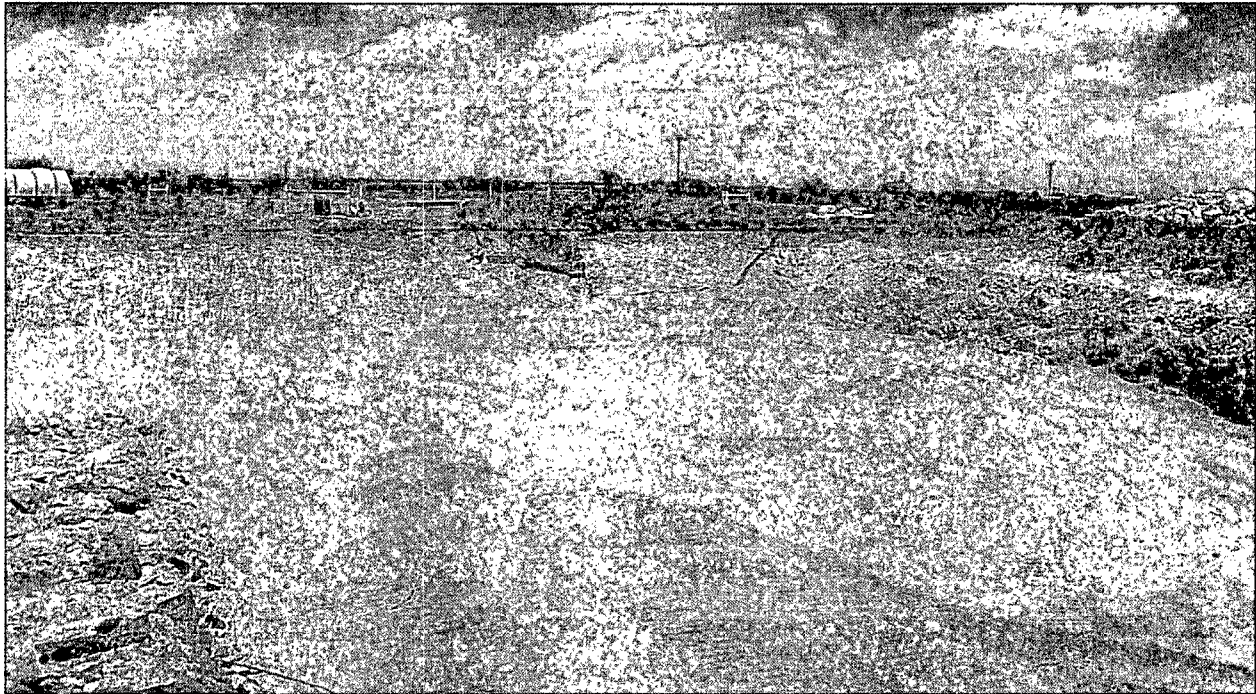
Photograph of the installation of the poly liner at the Lovington Gathering Release site.



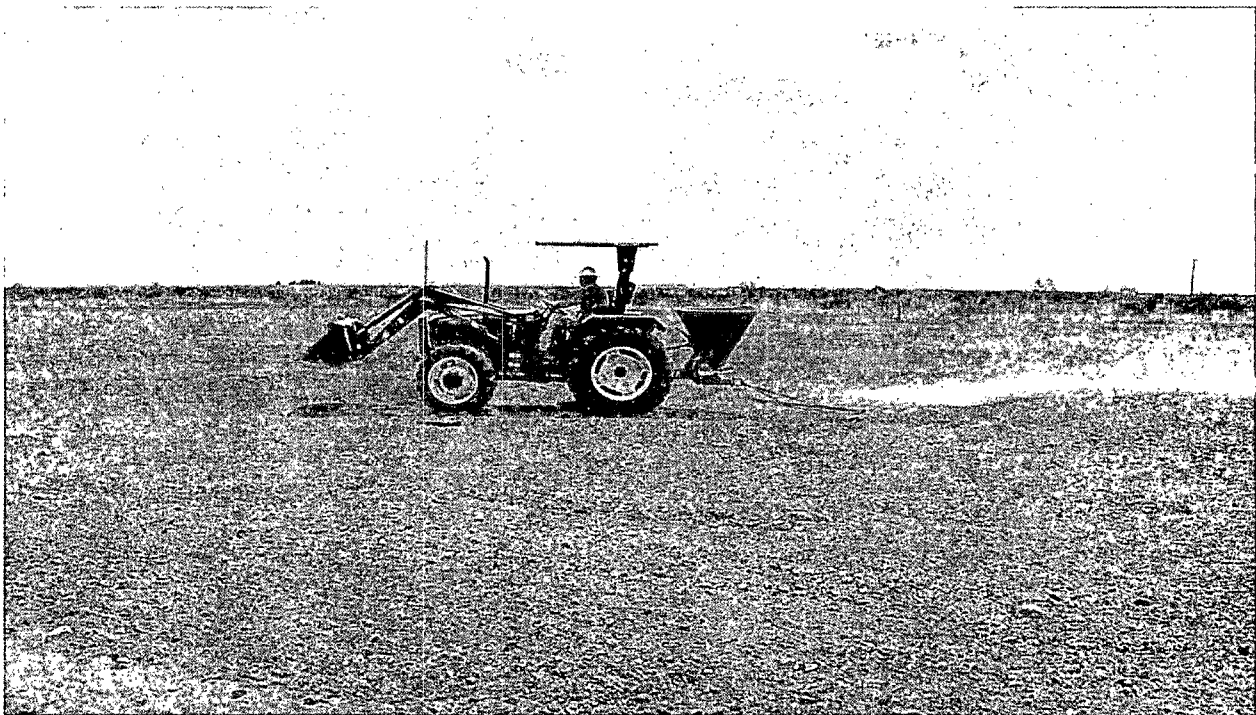
Photograph of the installation of the poly liner at the Lovington Gathering Release site.



Photograph of backfilling activities at the Lovington Gathering WTI site.



Photograph of backfilling activities at the Lovington Gathering WTI site.



Photograph of the reseeding of the Lovington Gathering WTI remedial site.



Photograph of completed remedial activities at the Lovington Gathering WTI release site.

Appendix D
Release Notification and Corrective Action
(Form C-141)

1225 N. French Dr., Hobbs, NM 88240
District II
1201 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 H	Section 6	Township 17S	Range 37E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
------------------	--------------	-----------------	--------------	---------------	------------------	---------------	----------------	---------------

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

NATURE OF RELEASE

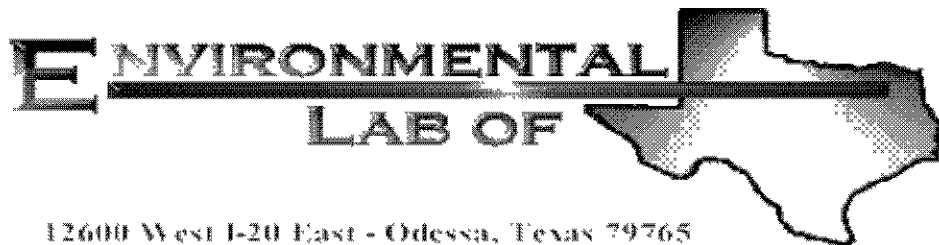
Type of Release Crude Oil	Volume of Release 12 barrels	Volume Recovered 8 barrels
Source of Release 6" Steel Pipeline	Date and Hour of Occurrence 4-21-2006 @ 13:00	Date and Hour of Discovery 4-21-2006 @ 13:15
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/>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

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 H₂S 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 ft².

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: <i>Camille Reynolds</i>	OIL CONSERVATION DIVISION	
Printed Name: Camille Reynolds	Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	Expiration Date:
Email Address: cjreynolds@paalp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 4/26/2006	Phone: 505-441-	



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Lovington Gathering WTI

Project Number: SRS: 2006-142

Location: Lea County, NM

Lab Order Number: 6G20010

Report Date: 07/28/06

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 5'	6G20010-01	Soil	2006-07-18 14:41	2006-07-20 15:20
SB-1 10'	6G20010-02	Soil	2006-07-18 14:46	2006-07-20 15:20
SB-1 20'	6G20010-03	Soil	2006-07-18 14:52	2006-07-20 15:20
SB-1 30'	6G20010-04	Soil	2006-07-18 14:59	2006-07-20 15:20
SB-2 5'	6G20010-05	Soil	2006-07-18 15:23	2006-07-20 15:20
SB-2 10'	6G20010-06	Soil	2006-07-18 15:26	2006-07-20 15:20
SB-2 20'	6G20010-07	Soil	2006-07-18 15:32	2006-07-20 15:20
SB-2 30'	6G20010-08	Soil	2006-07-18 15:42	2006-07-20 15:20

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 5' (6G20010-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62407	07/24/06	07/24/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.0 %	80-120		"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	mg/kg dry	1	EG62602	07/25/06	07/26/06	EPA 8015M	J
Carbon Ranges C6-C12	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		102 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		85.8 %	70-130		"	"	"	"	
SB-1 10' (6G20010-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62407	07/24/06	07/24/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		99.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.8 %	80-120		"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	mg/kg dry	1	EG62602	07/25/06	07/26/06	EPA 8015M	J
Carbon Ranges C6-C12	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		102 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		87.0 %	70-130		"	"	"	"	
SB-1 20' (6G20010-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62407	07/24/06	07/24/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		99.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.2 %	80-120		"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	mg/kg dry	1	EG62604	07/26/06	07/26/06	EPA 8015M	J

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 2 of 14

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 20' (6G20010-03) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62604	07/26/06	07/26/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		108 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		101 %	70-130		"	"	"	"	
SB-1 30' (6G20010-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62408	07/24/06	07/24/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		114 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.0 %	80-120		"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	mg/kg dry	1	EG62604	07/26/06	07/26/06	EPA 8015M	J
Carbon Ranges C6-C12	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		117 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		108 %	70-130		"	"	"	"	
SB-2 5' (6G20010-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62408	07/24/06	07/24/06	EPA 8021B	
Toluene	J [0.0179]	0.0250	"	"	"	"	"	"	J
Ethylbenzene	J [0.0171]	0.0250	"	"	"	"	"	"	J
Xylene (p/m)	0.0655	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		104 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.0 %	80-120		"	"	"	"	
Total Hydrocarbon nC6-nC35	442	10.0	mg/kg dry	1	EG62604	07/26/06	07/26/06	EPA 8015M	J
Carbon Ranges C6-C12	27.3	10.0	"	"	"	"	"	"	
Carbon Ranges C12-C28	375	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	39.7	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		117 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		115 %	70-130		"	"	"	"	

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Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2 10' (6G20010-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62408	07/24/06	07/24/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		80.0 %	80-120		"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	mg/kg dry	1	EG62604	07/26/06	07/26/06	EPA 8015M	J
Carbon Ranges C6-C12	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		118 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		112 %	70-130		"	"	"	"	
SB-2 20' (6G20010-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62408	07/24/06	07/24/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	J [0.0226]	0.0250	"	"	"	"	"	"	J
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		97.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		91.2 %	80-120		"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	mg/kg dry	1	EG62604	07/26/06	07/26/06	EPA 8015M	J
Carbon Ranges C6-C12	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		119 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		112 %	70-130		"	"	"	"	
SB-2 30' (6G20010-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62408	07/24/06	07/24/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.5 %	80-120		"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	mg/kg dry	1	EG62604	07/26/06	07/26/06	EPA 8015M	J

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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Project: Lovington Gathering WTI
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Project Manager: Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2 30' (6G20010-08) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62604	07/26/06	07/26/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>116 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>111 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

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General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 5' (6G20010-01) Soil									
% Moisture	5.3	0.1	%	1	EG62111	07/21/06	07/21/06	% calculation	
SB-1 10' (6G20010-02) Soil									
% Moisture	2.7	0.1	%	1	EG62111	07/21/06	07/21/06	% calculation	
SB-1 20' (6G20010-03) Soil									
% Moisture	5.6	0.1	%	1	EG62111	07/21/06	07/21/06	% calculation	
SB-1 30' (6G20010-04) Soil									
% Moisture	3.2	0.1	%	1	EG62111	07/21/06	07/21/06	% calculation	
SB-2 5' (6G20010-05) Soil									
% Moisture	2.1	0.1	%	1	EG62111	07/21/06	07/21/06	% calculation	
SB-2 10' (6G20010-06) Soil									
% Moisture	4.7	0.1	%	1	EG62111	07/21/06	07/21/06	% calculation	
SB-2 20' (6G20010-07) Soil									
% Moisture	6.8	0.1	%	1	EG62111	07/21/06	07/21/06	% calculation	
SB-2 30' (6G20010-08) Soil									
% Moisture	5.0	0.1	%	1	EG62111	07/21/06	07/21/06	% calculation	

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62407 - EPA 5030C (GC)

Blank (EG62407-BLK1)

Prepared & Analyzed: 07/24/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	41.3		ug/kg	40.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	35.2		"	40.0		88.0	80-120			

LCS (EG62407-BS1)

Prepared & Analyzed: 07/24/06

Benzene	1.33	0.0250	mg/kg wet	1.25		106	80-120			
Toluene	1.32	0.0250	"	1.25		106	80-120			
Ethylbenzene	1.20	0.0250	"	1.25		96.0	80-120			
Xylene (p/m)	2.85	0.0250	"	2.50		114	80-120			
Xylene (o)	1.37	0.0250	"	1.25		110	80-120			
Surrogate: a,a,a-Trifluorotoluene	41.3		ug/kg	40.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	38.8		"	40.0		97.0	80-120			

Calibration Check (EG62407-CCV1)

Prepared & Analyzed: 07/24/06

Benzene	49.4		ug/kg	50.0		98.8	80-120			
Toluene	53.1		"	50.0		106	80-120			
Ethylbenzene	50.8		"	50.0		102	80-120			
Xylene (p/m)	109		"	100		109	80-120			
Xylene (o)	53.6		"	50.0		107	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.8		"	40.0		99.5	80-120			
Surrogate: 4-Bromofluorobenzene	37.5		"	40.0		93.8	80-120			

Matrix Spike (EG62407-MS1)

Source: 6G20004-01

Prepared & Analyzed: 07/24/06

Benzene	1.66	0.0250	mg/kg dry	1.59	ND	104	80-120			
Toluene	1.73	0.0250	"	1.59	ND	109	80-120			
Ethylbenzene	1.62	0.0250	"	1.59	ND	102	80-120			
Xylene (p/m)	3.62	0.0250	"	3.18	ND	114	80-120			
Xylene (o)	1.77	0.0250	"	1.59	ND	111	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.1		ug/kg	40.0		97.8	80-120			
Surrogate: 4-Bromofluorobenzene	41.2		"	40.0		103	80-120			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62407 - EPA 5030C (GC)

Matrix Spike Dup (EG62407-MSD1)		Source: 6G20004-01			Prepared & Analyzed: 07/24/06					
Benzene	1.69	0.0250	mg/kg dry	1.59	ND	106	80-120	1.90	20	
Toluene	1.68	0.0250	"	1.59	ND	106	80-120	2.79	20	
Ethylbenzene	1.68	0.0250	"	1.59	ND	106	80-120	3.85	20	
Xylene (p/m)	3.66	0.0250	"	3.18	ND	115	80-120	0.873	20	
Xylene (o)	1.75	0.0250	"	1.59	ND	110	80-120	0.905	20	
Surrogate: a,a,a-Trifluorotoluene		37.6	ug/kg	40.0		94.0	80-120			
Surrogate: 4-Bromofluorobenzene		40.5	"	40.0		101	80-120			

Batch EG62408 - EPA 5030C (GC)

Blank (EG62408-BLK1)		Prepared & Analyzed: 07/24/06								
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene		38.9	ug/kg	40.0		97.2	80-120			
Surrogate: 4-Bromofluorobenzene		35.3	"	40.0		88.2	80-120			

LCS (EG62408-BS1)		Prepared & Analyzed: 07/24/06								
Benzene	1.31	0.0250	mg/kg wet	1.25		105	80-120			
Toluene	1.30	0.0250	"	1.25		104	80-120			
Ethylbenzene	1.24	0.0250	"	1.25		99.2	80-120			
Xylene (p/m)	2.78	0.0250	"	2.50		111	80-120			
Xylene (o)	1.36	0.0250	"	1.25		109	80-120			
Surrogate: a,a,a-Trifluorotoluene		37.7	ug/kg	40.0		94.2	80-120			
Surrogate: 4-Bromofluorobenzene		38.7	"	40.0		96.8	80-120			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62408 - EPA 5030C (GC)

Calibration Check (EG62408-CCV1)

Prepared: 07/24/06 Analyzed: 07/25/06

Benzene	52.5		ug/kg	50.0		105	80-120			
Toluene	51.2		"	50.0		102	80-120			
Ethylbenzene	48.9		"	50.0		97.8	80-120			
Xylene (p/m)	106		"	100		106	80-120			
Xylene (o)	52.8		"	50.0		106	80-120			
Surrogate: a,a,a-Trifluorotoluene	38.8		"	40.0		97.0	80-120			
Surrogate: 4-Bromofluorobenzene	38.5		"	40.0		96.2	80-120			

Matrix Spike (EG62408-MS1)

Source: 6G20013-01

Prepared: 07/24/06 Analyzed: 07/25/06

Benzene	1.46	0.0250	mg/kg dry	1.40	ND	104	80-120			
Toluene	1.45	0.0250	"	1.40	ND	104	80-120			
Ethylbenzene	1.42	0.0250	"	1.40	ND	101	80-120			
Xylene (p/m)	3.14	0.0250	"	2.80	ND	112	80-120			
Xylene (o)	1.51	0.0250	"	1.40	ND	108	80-120			
Surrogate: a,a,a-Trifluorotoluene	36.6		ug/kg	40.0		91.5	80-120			
Surrogate: 4-Bromofluorobenzene	38.0		"	40.0		95.0	80-120			

Matrix Spike Dup (EG62408-MSD1)

Source: 6G20013-01

Prepared: 07/24/06 Analyzed: 07/25/06

Benzene	1.53	0.0250	mg/kg dry	1.40	ND	109	80-120	4.69	20	
Toluene	1.53	0.0250	"	1.40	ND	109	80-120	4.69	20	
Ethylbenzene	1.48	0.0250	"	1.40	ND	106	80-120	4.83	20	
Xylene (p/m)	3.33	0.0250	"	2.80	ND	119	80-120	6.06	20	
Xylene (o)	1.62	0.0250	"	1.40	ND	116	80-120	7.14	20	
Surrogate: a,a,a-Trifluorotoluene	38.2		ug/kg	40.0		95.5	80-120			
Surrogate: 4-Bromofluorobenzene	40.4		"	40.0		101	80-120			

Batch EG62602 - Solvent Extraction (GC)

Blank (EG62602-BLK1)

Prepared: 07/25/06 Analyzed: 07/26/06

Total Hydrocarbon nC6-nC35	ND	10.0	mg/kg wet							J
Carbon Ranges C6-C12	ND	10.0	"							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	46.0		mg/kg	50.0		92.0	70-130			
Surrogate: 1-Chlorooctadecane	37.2		"	50.0		74.4	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62602 - Solvent Extraction (GC)

LCS (EG62602-BS1)		Prepared: 07/25/06 Analyzed: 07/26/06								
Total Hydrocarbon nC6-nC35	1020	10.0	mg/kg wet	1000		102	75-125			J
Carbon Ranges C6-C12	492	10.0	"	500		98.4	75-125			
Carbon Ranges C12-C28	529	10.0	"	500		106	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	57.4		mg/kg	50.0		115	70-130			
Surrogate: 1-Chlorooctadecane	41.2		"	50.0		82.4	70-130			

Calibration Check (EG62602-CCV1)		Prepared: 07/25/06 Analyzed: 07/26/06								
Total Hydrocarbon nC6-nC35	501		mg/kg wet	500		100	80-120			J
Carbon Ranges C6-C12	208		"	250		83.2	80-120			
Carbon Ranges C12-C28	293		"	250		117	80-120			
Surrogate: 1-Chlorooctane	59.7		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	56.1		"	50.0		112	70-130			

Matrix Spike (EG62602-MS1)		Source: 6G20009-01		Prepared: 07/25/06 Analyzed: 07/26/06						
Total Hydrocarbon nC6-nC35	996	10.0	mg/kg dry	1030	ND	96.7	75-125			J
Carbon Ranges C6-C12	476	10.0	"	515	ND	92.4	75-125			
Carbon Ranges C12-C28	520	10.0	"	515	ND	101	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	57.9		mg/kg	50.0		116	70-130			
Surrogate: 1-Chlorooctadecane	58.1		"	50.0		116	70-130			

Matrix Spike Dup (EG62602-MSD1)		Source: 6G20009-01		Prepared: 07/25/06 Analyzed: 07/26/06						
Total Hydrocarbon nC6-nC35	1010	10.0	mg/kg dry	1030	ND	98.1	75-125	1.40	20	J
Carbon Ranges C6-C12	481	10.0	"	515	ND	93.4	75-125	1.04	20	
Carbon Ranges C12-C28	528	10.0	"	515	ND	103	75-125	1.53	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	57.3		mg/kg	50.0		115	70-130			
Surrogate: 1-Chlorooctadecane	57.3		"	50.0		115	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62604 - Solvent Extraction (GC)

Blank (EG62604-BLK1)

Prepared & Analyzed: 07/26/06

Total Hydrocarbon nC6-nC35	ND	10.0	mg/kg wet							J
Carbon Ranges C6-C12	ND	10.0	"							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	51.6		mg/kg	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	45.2		"	50.0		90.4	70-130			

LCS (EG62604-BS1)

Prepared & Analyzed: 07/26/06

Total Hydrocarbon nC6-nC35	968	10.0	mg/kg wet	1000		96.8	75-125			J
Carbon Ranges C6-C12	512	10.0	"	500		102	75-125			
Carbon Ranges C12-C28	457	10.0	"	500		91.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	56.7		mg/kg	50.0		113	70-130			
Surrogate: 1-Chlorooctadecane	48.6		"	50.0		97.2	70-130			

Calibration Check (EG62604-CCV1)

Prepared & Analyzed: 07/26/06

Total Hydrocarbon nC6-nC35	469		mg/kg	500		93.8	80-120			J
Carbon Ranges C6-C12	248		"	250		99.2	80-120			
Carbon Ranges C12-C28	220		"	250		88.0	80-120			
Surrogate: 1-Chlorooctane	59.4		"	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	62.4		"	50.0		125	70-130			

Matrix Spike (EG62604-MS1)

Source: 6G20010-03

Prepared & Analyzed: 07/26/06

Total Hydrocarbon nC6-nC35	1050	10.0	mg/kg dry	1060	ND	99.1	75-125			J
Carbon Ranges C6-C12	569	10.0	"	530	ND	107	75-125			
Carbon Ranges C12-C28	482	10.0	"	530	ND	90.9	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	60.1		mg/kg	50.0		120	70-130			
Surrogate: 1-Chlorooctadecane	55.4		"	50.0		111	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62604 - Solvent Extraction (GC)

Matrix Spike Dup (EG62604-MSD1)		Source: 6G20010-03			Prepared & Analyzed: 07/26/06					
Total Hydrocarbon nC6-nC35	1060	10.0	mg/kg dry	1060	ND	100	75-125	0.948	20	J
Carbon Ranges C6-C12	565	10.0	"	530	ND	107	75-125	0.705	20	
Carbon Ranges C12-C28	495	10.0	"	530	ND	93.4	75-125	2.66	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	56.5		mg/kg	50.0		113	70-130			
Surrogate: 1-Chlorooctadecane	55.5		"	50.0		111	70-130			

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG62111 - General Preparation (Prep)										
Blank (EG62111-BLK1)				Prepared: 07/20/06 Analyzed: 07/21/06						
% Solids	100		%							
Duplicate (EG62111-DUP1)				Source: 6G20001-01 Prepared: 07/20/06 Analyzed: 07/21/06						
% Solids	95.9		%		95.9			0.00	20	
Duplicate (EG62111-DUP2)				Source: 6G20003-15 Prepared & Analyzed: 07/21/06						
% Solids	88.0		%		87.5			0.570	20	
Duplicate (EG62111-DUP3)				Source: 6G20014-09 Prepared & Analyzed: 07/21/06						
% Solids	86.7		%		86.7			0.00	20	
Duplicate (EG62111-DUP4)				Source: 6G20013-04 Prepared & Analyzed: 07/21/06						
% Solids	93.6		%		93.6			0.00	20	

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Notes and Definitions

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

7/28/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

NPDES

Special Instructions:				Laboratory Comments:			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Sample Containers intact?	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	VOCs Free of Headspace?	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody seals on container(s)	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody seals on cooler(s)	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Sample Hand Delivered	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	by Sampler/Client Rep.?	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	by Courier?	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	GPS	One Star
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	FedEx	One Star
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Temperature Upon Receipt	1.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains
 Date/ Time: 7/20/06 3:20
 Lab ID #: 662006
 Initials: OK

Sample Receipt Checklist

Client Initials

#1	Temperature of container/ cooler?	Yes	No	1.5 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	VOC samples have zero headspace?	Yes	No	Not Applicable	

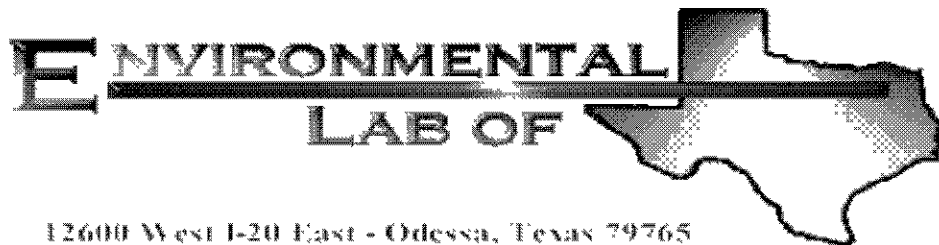
Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that Apply:
- ☐ See attached e-mail/ fax
 - ☐ Client understands and would like to proceed with analysis
 - ☐ Cooling process had begun shortly after sampling event



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Lovington Gathering WTI

Project Number: SRS: 2006-142

Location: Lea County, NM

Lab Order Number: 6G24009

Report Date: 08/01/06

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-3 5'	6G24009-01	Soil	2006-07-19 09:26	2006-07-24 13:35
SB-3 10'	6G24009-02	Soil	2006-07-19 09:30	2006-07-24 13:35
SB-3 15'	6G24009-03	Soil	2006-07-19 09:34	2006-07-24 13:35
SB-3 20'	6G24009-04	Soil	2006-07-19 09:39	2006-07-24 13:35
SB-3 25'	6G24009-05	Soil	2006-07-19 09:41	2006-07-24 13:35
SB-3 35'	6G24009-06	Soil	2006-07-19 10:06	2006-07-24 13:35
SB-3 45'	6G24009-07	Soil	2006-07-19 10:10	2006-07-24 13:35
SB-3 55'	6G24009-08	Soil	2006-07-19 10:22	2006-07-24 13:35
SB-3 65'	6G24009-09	Soil	2006-07-19 10:30	2006-07-24 13:35
SB-3 75'	6G24009-10	Soil	2006-07-19 10:42	2006-07-24 13:35
SB-4 5'	6G24009-11	Soil	2006-07-19 11:41	2006-07-24 13:35
SB-4 10'	6G24009-12	Soil	2006-07-19 11:44	2006-07-24 13:35
SB-4 15'	6G24009-13	Soil	2006-07-19 11:50	2006-07-24 13:35
SB-4 20'	6G24009-14	Soil	2006-07-19 11:52	2006-07-24 13:35
SB-4 25'	6G24009-15	Soil	2006-07-19 11:55	2006-07-24 13:35
SB-4 35'	6G24009-16	Soil	2006-07-19 13:35	2006-07-24 13:35
SB-4 45'	6G24009-17	Soil	2006-07-19 13:39	2006-07-24 13:35
SB-4 55'	6G24009-18	Soil	2006-07-19 14:20	2006-07-24 13:35
SB-4 65'	6G24009-19	Soil	2006-07-19 14:26	2006-07-24 13:35
SB-4 75'	6G24009-20	Soil	2006-07-19 14:33	2006-07-24 13:35
SB-5 5'	6G24009-21	Soil	2006-07-19 16:00	2006-07-24 13:35
SB-5 10'	6G24009-22	Soil	2006-07-19 16:02	2006-07-24 13:35
SB-5 15'	6G24009-23	Soil	2006-07-19 16:05	2006-07-24 13:35
SB-5 20'	6G24009-24	Soil	2006-07-19 16:08	2006-07-24 13:35
SB-5 25'	6G24009-25	Soil	2006-07-19 16:10	2006-07-24 13:35
SB-5 35'	6G24009-26	Soil	2006-07-19 16:16	2006-07-24 13:35
SB-5 45'	6G24009-27	Soil	2006-07-19 16:20	2006-07-24 13:35
SB-5 55'	6G24009-28	Soil	2006-07-19 16:24	2006-07-24 13:35
SB-5 65'	6G24009-29	Soil	2006-07-19 16:30	2006-07-24 13:35
SB-5 75'	6G24009-30	Soil	2006-07-19 16:38	2006-07-24 13:35
SB-6 5'	6G24009-31	Soil	2006-07-20 10:44	2006-07-24 13:35
SB-6 10'	6G24009-32	Soil	2006-07-20 10:48	2006-07-24 13:35
SB-6 15'	6G24009-33	Soil	2006-07-20 10:50	2006-07-24 13:35
SB-6 20'	6G24009-34	Soil	2006-07-20 10:54	2006-07-24 13:35

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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-6 25'	6G24009-35	Soil	2006-07-20 10:56	2006-07-24 13:35
SB-6 35'	6G24009-36	Soil	2006-07-20 11:10	2006-07-24 13:35
SB-6 45'	6G24009-37	Soil	2006-07-20 11:14	2006-07-24 13:35
SB-6 55'	6G24009-38	Soil	2006-07-20 11:57	2006-07-24 13:35
SB-6 65'	6G24009-39	Soil	2006-07-20 12:04	2006-07-24 13:35
SB-6 75'	6G24009-40	Soil	2006-07-20 12:12	2006-07-24 13:35
SB-7 5'	6G24009-41	Soil	2006-07-20 14:14	2006-07-24 13:35
SB-7 10'	6G24009-42	Soil	2006-07-20 14:18	2006-07-24 13:35
SB-7 20'	6G24009-43	Soil	2006-07-20 14:25	2006-07-24 13:35
SB-7 30'	6G24009-44	Soil	2006-07-20 14:30	2006-07-24 13:35
SB-8 5'	6G24009-45	Soil	2006-07-20 15:07	2006-07-24 13:35
SB-8 10'	6G24009-46	Soil	2006-07-20 15:15	2006-07-24 13:35
SB-8 20'	6G24009-47	Soil	2006-07-20 15:25	2006-07-24 13:35
SB-8 30'	6G24009-48	Soil	2006-07-20 15:35	2006-07-24 13:35

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3 5' (6G24009-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		85.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.0 %	80-120		"	"	"	"	
Total Hydrocarbon nC6-nC35	1060	10.0	mg/kg dry	1	EG62615	07/26/06	07/27/06	EPA 8015M	J
Carbon Ranges C6-C12	43.6	10.0	"	"	"	"	"	"	
Carbon Ranges C12-C28	853	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	168	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		97.0 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		136 %	70-130		"	"	"	"	S-04
SB-3 10' (6G24009-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	J [0.0233]	0.0250	"	"	"	"	"	"	J
Ethylbenzene	0.174	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.232	0.0250	"	"	"	"	"	"	
Xylene (o)	0.0523	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		85.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		109 %	80-120		"	"	"	"	
Total Hydrocarbon nC6-nC35	2430	10.0	mg/kg dry	1	EG62615	07/26/06	07/27/06	EPA 8015M	J
Carbon Ranges C6-C12	225	10.0	"	"	"	"	"	"	
Carbon Ranges C12-C28	1990	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	214	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		108 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		140 %	70-130		"	"	"	"	S-04
SB-3 15' (6G24009-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	J [0.0178]	0.0250	"	"	"	"	"	"	J
Ethylbenzene	0.0442	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.0931	0.0250	"	"	"	"	"	"	
Xylene (o)	0.0306	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		93.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	152	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	

Environmental Lab of Texas

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Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3 15' (6G24009-03) Soil									
Carbon Ranges C12-C28	1780	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	
Carbon Ranges C28-C35	179	10.0	"	"	"	"	"	"	
Total Hydrocarbons	2110	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		105 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		172 %	70-130		"	"	"	"	S-04
SB-3 20' (6G24009-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	J [0.0139]	0.0250	"	"	"	"	"	"	J
Ethylbenzene	0.0361	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.0639	0.0250	"	"	"	"	"	"	
Xylene (o)	J [0.0209]	0.0250	"	"	"	"	"	"	J
Surrogate: a,a,a-Trifluorotoluene		89.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	153	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	1830	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	182	10.0	"	"	"	"	"	"	
Total Hydrocarbons	2160	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		105 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		173 %	70-130		"	"	"	"	S-04
SB-3 25' (6G24009-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		91.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	76.9	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	J [2.49]	10.0	"	"	"	"	"	"	J
Total Hydrocarbons	76.9	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		101 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		128 %	70-130		"	"	"	"	

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Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

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Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3 35' (6G24009-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		85.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	J [6.25]	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	J
Carbon Ranges C12- C28	154	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	16.2	10.0	"	"	"	"	"	"	
Total Hydrocarbons	170	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		93.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		129 %	70-130		"	"	"	"	
SB-3 45' (6G24009-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		85.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	J [2.54]	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	J
Carbon Ranges C12- C28	371	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	38.8	10.0	"	"	"	"	"	"	
Total Hydrocarbons	410	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		99.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		103 %	70-130		"	"	"	"	
SB-3 55' (6G24009-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		91.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	J [9.73]	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	J

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Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3 55' (6G24009-08) Soil									
Carbon Ranges C12-C28	719	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C28-C35	85.9	10.0	"	"	"	"	"	"	
Total Hydrocarbons	805	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		96.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		109 %	70-130		"	"	"	"	
SB-3 65' (6G24009-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		90.8 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	15.0	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	492	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	48.8	10.0	"	"	"	"	"	"	
Total Hydrocarbons	556	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		94.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		99.0 %	70-130		"	"	"	"	
SB-3 75' (6G24009-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.0361	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		90.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	J [2.28]	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	J
Carbon Ranges C12-C28	40.7	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	40.7	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		93.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		89.8 %	70-130		"	"	"	"	

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Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-4 5' (6G24009-11) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		89.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	J [4.97]	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	J
Carbon Ranges C12- C28	239	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	31.5	10.0	"	"	"	"	"	"	
Total Hydrocarbons	270	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		92.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		89.4 %	70-130		"	"	"	"	
SB-4 10' (6G24009-12) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	0.0290	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.164	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.552	0.0250	"	"	"	"	"	"	
Xylene (o)	0.132	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		108 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	98.6	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12- C28	786	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	50.2	10.0	"	"	"	"	"	"	
Total Hydrocarbons	935	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		100 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		93.4 %	70-130		"	"	"	"	
SB-4 15' (6G24009-13) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	J [0.0204]	0.0250	"	"	"	"	"	"	J
Ethylbenzene	0.0668	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.160	0.0250	"	"	"	"	"	"	
Xylene (o)	0.0826	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		111 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	133	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	

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Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

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Organics by GC
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-4 15' (6G24009-13) Soil									
Carbon Ranges C12-C28	1220	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C28-C35	136	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1490	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		100 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		109 %	70-130		"	"	"	"	
SB-4 20' (6G24009-14) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	0.0689	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.112	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.257	0.0250	"	"	"	"	"	"	
Xylene (o)	0.0697	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		87.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	101	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	932	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	92.0	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1120	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		106 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		111 %	70-130		"	"	"	"	
SB-4 25' (6G24009-15) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.0265	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		85.8 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	65.9	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	1320	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	172	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1560	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		95.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		95.8 %	70-130		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-4 35' (6G24009-16) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	46.4	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12- C28	954	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	89.1	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1090	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		85.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		104 %	70-130		"	"	"	"	
SB-4 45' (6G24009-17) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62607	07/26/06	07/26/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	29.5	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12- C28	883	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	97.9	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1010	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		92.0 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		103 %	70-130		"	"	"	"	
SB-4 55' (6G24009-18) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62702	07/27/06	07/27/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		80.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		80.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	80.5	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-4 55' (6G24009-18) Soil									
Carbon Ranges C12-C28	1440	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C28-C35	201	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1720	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		94.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		98.8 %	70-130		"	"	"	"	
SB-4 65' (6G24009-19) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62702	07/27/06	07/27/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.0251	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		93.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	56.0	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	1070	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	129	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1260	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		98.0 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		118 %	70-130		"	"	"	"	
SB-4 75' (6G24009-20) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62702	07/27/06	07/27/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	J [7.69]	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	J
Carbon Ranges C12-C28	253	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	28.3	10.0	"	"	"	"	"	"	
Total Hydrocarbons	281	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		96.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		95.2 %	70-130		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-5 5' (6G24009-21) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62702	07/27/06	07/27/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		89.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		81.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	18.3	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12- C28	536	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	128	10.0	"	"	"	"	"	"	
Total Hydrocarbons	682	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		90.0 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		87.8 %	70-130		"	"	"	"	
SB-5 10' (6G24009-22) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62702	07/27/06	07/27/06	EPA 8021B	
Toluene	0.116	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.730	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.884	0.0250	"	"	"	"	"	"	
Xylene (o)	0.447	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		106 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		133 %	80-120		"	"	"	"	S-04
Carbon Ranges C6-C12	322	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12- C28	1880	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	213	10.0	"	"	"	"	"	"	
Total Hydrocarbons	2420	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		117 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		100 %	70-130		"	"	"	"	
SB-5 15' (6G24009-23) Soil									
Benzene	J [0.00904]	0.0250	mg/kg dry	25	EG62702	07/27/06	07/27/06	EPA 8021B	J
Toluene	0.186	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.744	0.0250	"	"	"	"	"	"	
Xylene (p/m)	2.12	0.0250	"	"	"	"	"	"	
Xylene (o)	1.01	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		117 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		120 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	450	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-5 15' (6G24009-23) Soil									
Carbon Ranges C12-C28	2300	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C28-C35	277	10.0	"	"	"	"	"	"	
Total Hydrocarbons	3030	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		108 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		106 %	70-130		"	"	"	"	
SB-5 20' (6G24009-24) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62702	07/27/06	07/27/06	EPA 8021B	
Toluene	0.135	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.479	0.0250	"	"	"	"	"	"	
Xylene (p/m)	1.01	0.0250	"	"	"	"	"	"	
Xylene (o)	0.633	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		107 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		124 %	80-120		"	"	"	"	S-04
Carbon Ranges C6-C12	343	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	1910	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	238	10.0	"	"	"	"	"	"	
Total Hydrocarbons	2490	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		101 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		96.4 %	70-130		"	"	"	"	
SB-5 25' (6G24009-25) Soil									
Benzene	J [0.00831]	0.0250	mg/kg dry	25	EG62702	07/27/06	07/27/06	EPA 8021B	J
Toluene	0.0979	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.263	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.519	0.0250	"	"	"	"	"	"	
Xylene (o)	0.326	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		103 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	266	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	1480	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	186	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1930	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		102 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		99.6 %	70-130		"	"	"	"	

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Project Number: SRS: 2006-142
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Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-5 35' (6G24009-26) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/27/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	J [0.0155]	0.0250	"	"	"	"	"	"	J
Xylene (p/m)	0.0449	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		91.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	60.8	10.0	mg/kg dry	1	EG62614	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12- C28	1050	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	146	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1260	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		98.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		115 %	70-130		"	"	"	"	
SB-5 45' (6G24009-27) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/27/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		91.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	71.4	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	
Carbon Ranges C12- C28	1320	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	150	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1540	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		121 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		195 %	70-130		"	"	"	"	S-04
SB-5 55' (6G24009-28) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/27/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.0263	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		81.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	135	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	

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Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-5 55' (6G24009-28) Soil									
Carbon Ranges C12-C28	1770	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	
Carbon Ranges C28-C35	181	10.0	"	"	"	"	"	"	
Total Hydrocarbons	2090	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		122 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		204 %	70-130		"	"	"	"	S-04
SB-5 65' (6G24009-29) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/27/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		82.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	29.9	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	625	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	72.3	10.0	"	"	"	"	"	"	
Total Hydrocarbons	727	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		112 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		167 %	70-130		"	"	"	"	S-04
SB-5 75' (6G24009-30) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/27/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		81.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	10.4	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	88.5	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	J [4.74]	10.0	"	"	"	"	"	"	J
Total Hydrocarbons	98.9	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		94.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		86.8 %	70-130		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-6 5' (6G24009-31) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.0291	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		85.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	78.8	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	
Carbon Ranges C12- C28	1270	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	191	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1540	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		122 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		169 %	70-130		"	"	"	"	S-04
SB-6 10' (6G24009-32) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	J [0.0211]	0.0250	"	"	"	"	"	"	J
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	158	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	
Carbon Ranges C12- C28	2130	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	219	10.0	"	"	"	"	"	"	
Total Hydrocarbons	2510	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		123 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		210 %	70-130		"	"	"	"	S-04
SB-6 15' (6G24009-33) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	J [0.0118]	0.0250	"	"	"	"	"	"	J
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.0306	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		82.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		84.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	81.5	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-6 15' (6G24009-33) Soil									
Carbon Ranges C12-C28	1210	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C28-C35	151	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1440	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		101 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		117 %	70-130		"	"	"	"	
SB-6 20' (6G24009-34) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		85.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	23.1	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	822	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	104	10.0	"	"	"	"	"	"	
Total Hydrocarbons	949	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		99.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		112 %	70-130		"	"	"	"	
SB-6 25 (6G24009-35) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		81.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		81.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	J [9.06]	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	J
Carbon Ranges C12-C28	640	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	73.9	10.0	"	"	"	"	"	"	
Total Hydrocarbons	714	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		100 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		110 %	70-130		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-6 35' (6G24009-36) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		84.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		84.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12- C28	174	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	19.7	10.0	"	"	"	"	"	"	
Total Hydrocarbons	194	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		98.0 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		97.4 %	70-130		"	"	"	"	
SB-6 45' (6G24009-37) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		87.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	J [2.62]	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	J
Carbon Ranges C12- C28	574	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	75.2	10.0	"	"	"	"	"	"	
Total Hydrocarbons	649	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		102 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		110 %	70-130		"	"	"	"	
SB-6 55' (6G24009-38) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		86.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	24.8	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-6 55' (6G24009-38) Soil									
Carbon Ranges C12-C28	1130	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C28-C35	161	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1320	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		104 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		127 %	70-130		"	"	"	"	
SB-6 65' (6G24009-39) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		95.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	12.4	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	719	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	79.1	10.0	"	"	"	"	"	"	
Total Hydrocarbons	810	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		98.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		111 %	70-130		"	"	"	"	
SB-6 75' (6G24009-40) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		96.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	J [1.68]	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	J
Carbon Ranges C12-C28	15.5	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	15.5	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		96.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		94.2 %	70-130		"	"	"	"	

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Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
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Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-7 5' (6G24009-41) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		85.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	J [1.71]	10.0	"	"	"	"	"	"	J
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		95.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		94.2 %	70-130		"	"	"	"	
SB-7 10' (6G24009-42) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		88.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		98.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		95.0 %	70-130		"	"	"	"	
SB-7 20' (6G24009-43) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	

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Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-7 20' (6G24009-43) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>98.4 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>95.2 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
SB-7 30' (6G24009-44) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>109 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>101 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>106 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>103 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
SB-8 5' (6G24009-45) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62805	07/27/06	07/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>112 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>93.0 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>101 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>98.6 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-8 10' (6G24009-46) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62806	07/28/06	07/31/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		108 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		105 %	70-130		"	"	"	"	
SB-8 20' (6G24009-47) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62806	07/28/06	07/31/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		96.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		93.2 %	70-130		"	"	"	"	
SB-8 30' (6G24009-48) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62806	07/28/06	07/31/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		81.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	

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Organics by GC
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-8 30' (6G24009-48) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>98.6 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>95.0 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

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General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3 5' (6G24009-01) Soil									
% Moisture	6.3	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-3 10' (6G24009-02) Soil									
% Moisture	4.2	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-3 15' (6G24009-03) Soil									
% Moisture	6.6	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-3 20' (6G24009-04) Soil									
% Moisture	7.3	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-3 25' (6G24009-05) Soil									
% Moisture	6.2	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-3 35' (6G24009-06) Soil									
% Moisture	5.4	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-3 45' (6G24009-07) Soil									
% Moisture	5.7	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-3 55' (6G24009-08) Soil									
% Moisture	3.9	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-3 65' (6G24009-09) Soil									
% Moisture	5.6	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-3 75' (6G24009-10) Soil									
% Moisture	5.1	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-4 5' (6G24009-11) Soil									
% Moisture	5.2	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-4 10' (6G24009-12) Soil									
% Moisture	8.9	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-4 15' (6G24009-13) Soil									
% Moisture	11.9	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-4 20' (6G24009-14) Soil									
% Moisture	9.2	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-4 25' (6G24009-15) Soil									
% Moisture	7.9	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-4 35' (6G24009-16) Soil									
% Moisture	4.8	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-4 45' (6G24009-17) Soil									
% Moisture	4.7	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-4 55' (6G24009-18) Soil									
% Moisture	4.3	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-4 65' (6G24009-19) Soil									
% Moisture	3.6	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-4 75' (6G24009-20) Soil									
% Moisture	3.8	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-5 5' (6G24009-21) Soil									
% Moisture	4.1	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-5 10' (6G24009-22) Soil									
% Moisture	7.0	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-5 15' (6G24009-23) Soil									
% Moisture	11.1	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-5 20' (6G24009-24) Soil									
% Moisture	6.7	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-5 25' (6G24009-25) Soil									
% Moisture	7.0	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-5 35' (6G24009-26) Soil									
% Moisture	4.2	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-5 45' (6G24009-27) Soil									
% Moisture	3.3	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-5 55' (6G24009-28) Soil									
% Moisture	3.5	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-5 65' (6G24009-29) Soil									
% Moisture	3.5	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-5 75' (6G24009-30) Soil									
% Moisture	6.6	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-6 5' (6G24009-31) Soil									
% Moisture	2.9	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-6 10' (6G24009-32) Soil									
% Moisture	5.2	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-6 15' (6G24009-33) Soil									
% Moisture	7.8	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-6 20' (6G24009-34) Soil									
% Moisture	7.3	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-6 25' (6G24009-35) Soil									
% Moisture	4.7	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-6 35' (6G24009-36) Soil									
% Moisture	4.2	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-6 45' (6G24009-37) Soil									
% Moisture	3.3	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-6 55' (6G24009-38) Soil									
% Moisture	4.3	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-6 65' (6G24009-39) Soil									
% Moisture	4.0	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-6 75' (6G24009-40) Soil									
% Moisture	6.9	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-7 5' (6G24009-41) Soil									
% Moisture	1.9	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-7 10' (6G24009-42) Soil									
% Moisture	6.8	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-7 20' (6G24009-43) Soil									
% Moisture	6.1	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-7 30' (6G24009-44) Soil									
% Moisture	2.7	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	

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Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-8 5' (6G24009-45) Soil									
% Moisture	2.7	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-8 10' (6G24009-46) Soil									
% Moisture	3.5	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-8 20' (6G24009-47) Soil									
% Moisture	4.9	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	
SB-8 30' (6G24009-48) Soil									
% Moisture	5.0	0.1	%	1	EG62509	07/24/06	07/25/06	% calculation	

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62607 - EPA 5030C (GC)

Blank (EG62607-BLK1)

Prepared & Analyzed: 07/26/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	37.8		ug/kg	40.0		94.5	80-120			
Surrogate: 4-Bromofluorobenzene	36.9		"	40.0		92.2	80-120			

LCS (EG62607-BS1)

Prepared & Analyzed: 07/26/06

Benzene	1.33	0.0250	mg/kg wet	1.25		106	80-120			
Toluene	1.35	0.0250	"	1.25		108	80-120			
Ethylbenzene	1.23	0.0250	"	1.25		98.4	80-120			
Xylene (p/m)	2.86	0.0250	"	2.50		114	80-120			
Xylene (o)	1.38	0.0250	"	1.25		110	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.9		ug/kg	40.0		99.8	80-120			
Surrogate: 4-Bromofluorobenzene	40.7		"	40.0		102	80-120			

Calibration Check (EG62607-CCV1)

Prepared: 07/26/06 Analyzed: 07/27/06

Benzene	54.0		ug/kg	50.0		108	80-120			
Toluene	53.0		"	50.0		106	80-120			
Ethylbenzene	50.7		"	50.0		101	80-120			
Xylene (p/m)	108		"	100		108	80-120			
Xylene (o)	54.6		"	50.0		109	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.7		"	40.0		99.2	80-120			
Surrogate: 4-Bromofluorobenzene	37.8		"	40.0		94.5	80-120			

Matrix Spike (EG62607-MS1)

Source: 6G24009-05

Prepared: 07/26/06 Analyzed: 07/27/06

Benzene	1.44	0.0250	mg/kg dry	1.33	ND	108	80-120			
Toluene	1.42	0.0250	"	1.33	ND	107	80-120			
Ethylbenzene	1.39	0.0250	"	1.33	ND	105	80-120			
Xylene (p/m)	3.02	0.0250	"	2.67	ND	113	80-120			
Xylene (o)	1.44	0.0250	"	1.33	ND	108	80-120			
Surrogate: a,a,a-Trifluorotoluene	35.1		ug/kg	40.0		87.8	80-120			
Surrogate: 4-Bromofluorobenzene	35.0		"	40.0		87.5	80-120			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62607 - EPA 5030C (GC)

Matrix Spike Dup (EG62607-MSD1)		Source: 6G24009-05		Prepared: 07/26/06		Analyzed: 07/27/06				
Benzene	1.21	0.0250	mg/kg dry	1.33	ND	91.0	80-120	17.1	20	
Toluene	1.25	0.0250	"	1.33	ND	94.0	80-120	12.9	20	
Ethylbenzene	1.45	0.0250	"	1.33	ND	109	80-120	3.74	20	
Xylene (p/m)	2.64	0.0250	"	2.67	ND	98.9	80-120	13.3	20	
Xylene (o)	1.24	0.0250	"	1.33	ND	93.2	80-120	14.7	20	
Surrogate: a,a,a-Trifluorotoluene		33.4	ug/kg	40.0		83.5	80-120			
Surrogate: 4-Bromofluorobenzene		33.8	"	40.0		84.5	80-120			

Batch EG62614 - Solvent Extraction (GC)

Blank (EG62614-BLK1)		Prepared: 07/26/06		Analyzed: 07/27/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane		52.6	mg/kg	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane		51.7	"	50.0		103	70-130			

LCS (EG62614-BS1)		Prepared: 07/26/06		Analyzed: 07/27/06						
Carbon Ranges C6-C12	526	10.0	mg/kg wet	500		105	75-125			
Carbon Ranges C12-C28	449	10.0	"	500		89.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	975	10.0	"	1000		97.5	75-125			
Surrogate: 1-Chlorooctane		58.3	mg/kg	50.0		117	70-130			
Surrogate: 1-Chlorooctadecane		53.1	"	50.0		106	70-130			

Calibration Check (EG62614-CCV1)		Prepared: 07/26/06		Analyzed: 07/27/06						
Carbon Ranges C6-C12	257		mg/kg	250		103	80-120			
Carbon Ranges C12-C28	237		"	250		94.8	80-120			
Total Hydrocarbons	494		"	500		98.8	80-120			
Surrogate: 1-Chlorooctane		62.7	"	50.0		125	70-130			
Surrogate: 1-Chlorooctadecane		62.7	"	50.0		125	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62614 - Solvent Extraction (GC)

Matrix Spike (EG62614-MS1)		Source: 6G24009-10			Prepared: 07/26/06		Analyzed: 07/27/06			
Carbon Ranges C6-C12	518	10.0	mg/kg dry	527	2.28	97.9	75-125			
Carbon Ranges C12-C28	481	10.0	"	527	40.7	83.5	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	999	10.0	"	1050	40.7	91.3	75-125			
Surrogate: 1-Chlorooctane	53.8		mg/kg	50.0		108	70-130			
Surrogate: 1-Chlorooctadecane	48.8		"	50.0		97.6	70-130			

Matrix Spike Dup (EG62614-MSD1)		Source: 6G24009-10			Prepared: 07/26/06		Analyzed: 07/27/06			
Carbon Ranges C6-C12	528	10.0	mg/kg dry	527	2.28	99.8	75-125	1.91	20	
Carbon Ranges C12-C28	483	10.0	"	527	40.7	83.9	75-125	0.415	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1010	10.0	"	1050	40.7	92.3	75-125	1.10	20	
Surrogate: 1-Chlorooctane	53.8		mg/kg	50.0		108	70-130			
Surrogate: 1-Chlorooctadecane	48.3		"	50.0		96.6	70-130			

Batch EG62615 - Solvent Extraction (GC)

Blank (EG62615-BLK1)					Prepared: 07/26/06		Analyzed: 07/27/06			
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	49.1		mg/kg	50.0		98.2	70-130			
Surrogate: 1-Chlorooctadecane	43.4		"	50.0		86.8	70-130			

LCS (EG62615-BS1)					Prepared: 07/26/06		Analyzed: 07/27/06			
Carbon Ranges C6-C12	522	10.0	mg/kg wet	500		104	75-125			
Carbon Ranges C12-C28	566	10.0	"	500		113	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1090	10.0	"	1000		109	75-125			
Surrogate: 1-Chlorooctane	61.6		mg/kg	50.0		123	70-130			
Surrogate: 1-Chlorooctadecane	47.8		"	50.0		95.6	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62615 - Solvent Extraction (GC)

Calibration Check (EG62615-CCV1)

Prepared: 07/26/06 Analyzed: 07/27/06

Carbon Ranges C6-C12	212		mg/kg	250		84.8	80-120			
Carbon Ranges C12-C28	257		"	250		103	80-120			
Total Hydrocarbons	470		"	500		94.0	80-120			
Surrogate: 1-Chlorooctane	60.4		"	50.0		121	70-130			
Surrogate: 1-Chlorooctadecane	56.4		"	50.0		113	70-130			

Matrix Spike (EG62615-MS1)

Source: 6G24006-03

Prepared: 07/26/06 Analyzed: 07/27/06

Carbon Ranges C6-C12	503	10.0	mg/kg dry	518	8.54	95.5	75-125			
Carbon Ranges C12-C28	604	10.0	"	518	80.0	101	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1110	10.0	"	1040	80.0	99.0	75-125			
Surrogate: 1-Chlorooctane	63.1		mg/kg	50.0		126	70-130			
Surrogate: 1-Chlorooctadecane	64.8		"	50.0		130	70-130			

Matrix Spike Dup (EG62615-MSD1)

Source: 6G24006-03

Prepared: 07/26/06 Analyzed: 07/27/06

Carbon Ranges C6-C12	499	10.0	mg/kg dry	518	8.54	94.7	75-125	0.798	20	
Carbon Ranges C12-C28	604	10.0	"	518	80.0	101	75-125	0.00	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1100	10.0	"	1040	80.0	98.1	75-125	0.905	20	
Surrogate: 1-Chlorooctane	61.5		mg/kg	50.0		123	70-130			
Surrogate: 1-Chlorooctadecane	64.3		"	50.0		129	70-130			

Batch EG62616 - Solvent Extraction (GC)

Blank (EG62616-BLK1)

Prepared: 07/26/06 Analyzed: 07/28/06

Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	56.8		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	56.0		"	50.0		112	70-130			

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Organics by GC - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62616 - Solvent Extraction (GC)

LCS (EG62616-BS1)

Prepared: 07/26/06 Analyzed: 07/27/06

Carbon Ranges C6-C12	532	10.0	mg/kg wet	500		106	75-125			
Carbon Ranges C12-C28	443	10.0	"	500		88.6	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	975	10.0	"	1000		97.5	75-125			
Surrogate: 1-Chlorooctane	59.5		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	53.7		"	50.0		107	70-130			

Calibration Check (EG62616-CCV1)

Prepared: 07/26/06 Analyzed: 07/28/06

Carbon Ranges C6-C12	282		mg/kg	250		113	80-120			
Carbon Ranges C12-C28	249		"	250		99.6	80-120			
Total Hydrocarbons	531		"	500		106	80-120			
Surrogate: 1-Chlorooctane	62.4		"	50.0		125	70-130			
Surrogate: 1-Chlorooctadecane	64.3		"	50.0		129	70-130			

Matrix Spike (EG62616-MS1)

Source: 6G24009-42

Prepared: 07/26/06 Analyzed: 07/27/06

Carbon Ranges C6-C12	554	10.0	mg/kg dry	536	ND	103	75-125			
Carbon Ranges C12-C28	524	10.0	"	536	ND	97.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1080	10.0	"	1070	ND	101	75-125			
Surrogate: 1-Chlorooctane	59.4		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	54.0		"	50.0		108	70-130			

Matrix Spike Dup (EG62616-MSD1)

Source: 6G24009-42

Prepared: 07/26/06 Analyzed: 07/28/06

Carbon Ranges C6-C12	555	10.0	mg/kg dry	536	ND	104	75-125	0.180	20	
Carbon Ranges C12-C28	512	10.0	"	536	ND	95.5	75-125	2.32	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1070	10.0	"	1070	ND	100	75-125	0.930	20	
Surrogate: 1-Chlorooctane	56.0		mg/kg	50.0		112	70-130			
Surrogate: 1-Chlorooctadecane	52.2		"	50.0		104	70-130			

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Organics by GC - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62702 - EPA 5030C (GC)

Blank (EG62702-BLK1)

Prepared & Analyzed: 07/27/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: <i>a,a,a</i> -Trifluorotoluene	40.6		ug/kg	40.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	37.7		"	40.0		94.2	80-120			

LCS (EG62702-BS1)

Prepared & Analyzed: 07/27/06

Benzene	1.20	0.0250	mg/kg wet	1.25		96.0	80-120			
Toluene	1.19	0.0250	"	1.25		95.2	80-120			
Ethylbenzene	1.05	0.0250	"	1.25		84.0	80-120			
Xylene (p/m)	2.52	0.0250	"	2.50		101	80-120			
Xylene (o)	1.26	0.0250	"	1.25		101	80-120			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	36.2		ug/kg	40.0		90.5	80-120			
Surrogate: 4-Bromofluorobenzene	37.5		"	40.0		93.8	80-120			

Calibration Check (EG62702-CCV1)

Prepared & Analyzed: 07/27/06

Benzene	53.2		ug/kg	50.0		106	80-120			
Toluene	51.5		"	50.0		103	80-120			
Ethylbenzene	52.9		"	50.0		106	80-120			
Xylene (p/m)	106		"	100		106	80-120			
Xylene (o)	52.8		"	50.0		106	80-120			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	37.6		"	40.0		94.0	80-120			
Surrogate: 4-Bromofluorobenzene	36.8		"	40.0		92.0	80-120			

Matrix Spike (EG62702-MS1)

Source: 6G27001-02

Prepared & Analyzed: 07/27/06

Benzene	1.44	0.0250	mg/kg dry	1.38	ND	104	80-120			
Toluene	1.43	0.0250	"	1.38	ND	104	80-120			
Ethylbenzene	1.34	0.0250	"	1.38	ND	97.1	80-120			
Xylene (p/m)	3.03	0.0250	"	2.75	ND	110	80-120			
Xylene (o)	1.47	0.0250	"	1.38	ND	107	80-120			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	42.0		ug/kg	40.0		105	80-120			
Surrogate: 4-Bromofluorobenzene	36.4		"	40.0		91.0	80-120			

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Organics by GC - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62702 - EPA 5030C (GC)

Matrix Spike Dup (EG62702-MSD1)		Source: 6G27001-02		Prepared & Analyzed: 07/27/06						
Benzene	1.39	0.0250	mg/kg dry	1.38	ND	101	80-120	2.93	20	
Toluene	1.38	0.0250	"	1.38	ND	100	80-120	3.92	20	
Ethylbenzene	1.36	0.0250	"	1.38	ND	98.6	80-120	1.53	20	
Xylene (p/m)	2.97	0.0250	"	2.75	ND	108	80-120	1.83	20	
Xylene (o)	1.47	0.0250	"	1.38	ND	107	80-120	0.00	20	
Surrogate: a,a,a-Trifluorotoluene	36.0		ug/kg	40.0		90.0	80-120			
Surrogate: 4-Bromofluorobenzene	38.6		"	40.0		96.5	80-120			

Batch EG62716 - Solvent Extraction (GC)

Blank (EG62716-BLK1)		Prepared & Analyzed: 07/27/06								
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	46.2		mg/kg	50.0		92.4	70-130			
Surrogate: 1-Chlorooctadecane	42.1		"	50.0		84.2	70-130			

LCS (EG62716-BS1)		Prepared & Analyzed: 07/27/06								
Carbon Ranges C6-C12	500	10.0	mg/kg wet	500		100	75-125			
Carbon Ranges C12-C28	555	10.0	"	500		111	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1050	10.0	"	1000		105	75-125			
Surrogate: 1-Chlorooctane	60.3		mg/kg	50.0		121	70-130			
Surrogate: 1-Chlorooctadecane	47.8		"	50.0		95.6	70-130			

Calibration Check (EG62716-CCV1)		Prepared: 07/27/06 Analyzed: 07/28/06								
Carbon Ranges C6-C12	206		mg/kg	250		82.4	80-120			
Carbon Ranges C12-C28	260		"	250		104	80-120			
Total Hydrocarbons	466		"	500		93.2	80-120			
Surrogate: 1-Chlorooctane	61.0		"	50.0		122	70-130			
Surrogate: 1-Chlorooctadecane	51.6		"	50.0		103	70-130			

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Organics by GC - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62716 - Solvent Extraction (GC)

Matrix Spike (EG62716-MS1)		Source: 6G26001-18		Prepared: 07/27/06		Analyzed: 07/28/06				
Carbon Ranges C6-C12	583	10.0	mg/kg dry	522	ND	112	75-125			
Carbon Ranges C12-C28	591	10.0	"	522	ND	113	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1170	10.0	"	1040	ND	112	75-125			
Surrogate: 1-Chlorooctane	59.7		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	52.7		"	50.0		105	70-130			

Matrix Spike Dup (EG62716-MSD1)		Source: 6G26001-18		Prepared: 07/27/06		Analyzed: 07/28/06				
Carbon Ranges C6-C12	556	10.0	mg/kg dry	522	ND	107	75-125	4.74	20	
Carbon Ranges C12-C28	548	10.0	"	522	ND	105	75-125	7.55	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1100	10.0	"	1040	ND	106	75-125	6.17	20	
Surrogate: 1-Chlorooctane	63.6		mg/kg	50.0		127	70-130			
Surrogate: 1-Chlorooctadecane	51.2		"	50.0		102	70-130			

Batch EG62805 - EPA 5030C (GC)

Blank (EG62805-BLK1)		Prepared & Analyzed: 07/27/06								
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	36.4		ug/kg	40.0		91.0	80-120			
Surrogate: 4-Bromofluorobenzene	32.6		"	40.0		81.5	80-120			

LCS (EG62805-BS1)		Prepared & Analyzed: 07/27/06								
Benzene	1.24	0.0250	mg/kg wet	1.25		99.2	80-120			
Toluene	1.25	0.0250	"	1.25		100	80-120			
Ethylbenzene	1.19	0.0250	"	1.25		95.2	80-120			
Xylene (p/m)	2.67	0.0250	"	2.50		107	80-120			
Xylene (o)	1.34	0.0250	"	1.25		107	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.3		ug/kg	40.0		98.2	80-120			
Surrogate: 4-Bromofluorobenzene	38.1		"	40.0		95.2	80-120			

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62805 - EPA 5030C (GC)

Calibration Check (EG62805-CCV1)

Prepared: 07/27/06 Analyzed: 07/28/06

Benzene	44.1		ug/kg	50.0		88.2	80-120			
Toluene	45.7		"	50.0		91.4	80-120			
Ethylbenzene	45.3		"	50.0		90.6	80-120			
Xylene (p/m)	93.5		"	100		93.5	80-120			
Xylene (o)	46.2		"	50.0		92.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	32.3		"	40.0		80.8	80-120			
Surrogate: 4-Bromofluorobenzene	32.5		"	40.0		81.2	80-120			

Matrix Spike (EG62805-MS1)

Source: 6G24009-45

Prepared: 07/27/06 Analyzed: 07/28/06

Benzene	1.24	0.0250	mg/kg dry	1.28	ND	96.9	80-120			
Toluene	1.40	0.0250	"	1.28	ND	109	80-120			
Ethylbenzene	1.26	0.0250	"	1.28	ND	98.4	80-120			
Xylene (p/m)	3.06	0.0250	"	2.57	ND	119	80-120			
Xylene (o)	1.38	0.0250	"	1.28	ND	108	80-120			
Surrogate: a,a,a-Trifluorotoluene	43.4		ug/kg	40.0		108	80-120			
Surrogate: 4-Bromofluorobenzene	42.1		"	40.0		105	80-120			

Matrix Spike Dup (EG62805-MSD1)

Source: 6G24009-45

Prepared: 07/27/06 Analyzed: 07/28/06

Benzene	1.07	0.0250	mg/kg dry	1.28	ND	83.6	80-120	14.7	20	
Toluene	1.15	0.0250	"	1.28	ND	89.8	80-120	19.3	20	
Ethylbenzene	1.10	0.0250	"	1.28	ND	85.9	80-120	13.6	20	
Xylene (p/m)	2.53	0.0250	"	2.57	ND	98.4	80-120	19.0	20	
Xylene (o)	1.21	0.0250	"	1.28	ND	94.5	80-120	13.3	20	
Surrogate: a,a,a-Trifluorotoluene	32.2		ug/kg	40.0		80.5	80-120			
Surrogate: 4-Bromofluorobenzene	33.4		"	40.0		83.5	80-120			

Batch EG62806 - EPA 5030C (GC)

Blank (EG62806-BLK1)

Prepared: 07/28/06 Analyzed: 07/31/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	36.8		ug/kg	40.0		92.0	80-120			
Surrogate: 4-Bromofluorobenzene	33.3		"	40.0		83.2	80-120			

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Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62806 - EPA 5030C (GC)

LCS (EG62806-BS1)

Prepared & Analyzed: 07/28/06

Benzene	1.03	0.0250	mg/kg wet	1.25		82.4	80-120			
Toluene	1.08	0.0250	"	1.25		86.4	80-120			
Ethylbenzene	1.03	0.0250	"	1.25		82.4	80-120			
Xylene (p/m)	2.36	0.0250	"	2.50		94.4	80-120			
Xylene (o)	1.15	0.0250	"	1.25		92.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	32.2		ug/kg	40.0		80.5	80-120			
Surrogate: 4-Bromofluorobenzene	34.7		"	40.0		86.8	80-120			

Calibration Check (EG62806-CCV1)

Prepared: 07/28/06 Analyzed: 07/31/06

Benzene	0.0513		mg/kg wet	0.0500		103	80-120			
Toluene	0.0498		"	0.0500		99.6	80-120			
Ethylbenzene	0.0520		"	0.0500		104	80-120			
Xylene (p/m)	0.103		"	0.100		103	80-120			
Xylene (o)	0.0508		"	0.0500		102	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.0		ug/kg	40.0		92.5	80-120			
Surrogate: 4-Bromofluorobenzene	35.2		"	40.0		88.0	80-120			

Matrix Spike (EG62806-MS1)

Source: 6G26001-01

Prepared: 07/28/06 Analyzed: 07/31/06

Benzene	1.33	0.0250	mg/kg dry	1.32	ND	101	80-120			
Toluene	1.33	0.0250	"	1.32	ND	101	80-120			
Ethylbenzene	1.32	0.0250	"	1.32	ND	100	80-120			
Xylene (p/m)	2.89	0.0250	"	2.63	ND	110	80-120			
Xylene (o)	1.43	0.0250	"	1.32	ND	108	80-120			
Surrogate: a,a,a-Trifluorotoluene	34.4		ug/kg	40.0		86.0	80-120			
Surrogate: 4-Bromofluorobenzene	38.2		"	40.0		95.5	80-120			

Matrix Spike Dup (EG62806-MSD1)

Source: 6G26001-01

Prepared: 07/28/06 Analyzed: 07/31/06

Benzene	1.26	0.0250	mg/kg dry	1.32	ND	95.5	80-120	5.60	20	
Toluene	1.26	0.0250	"	1.32	ND	95.5	80-120	5.60	20	
Ethylbenzene	1.29	0.0250	"	1.32	ND	97.7	80-120	2.33	20	
Xylene (p/m)	2.79	0.0250	"	2.63	ND	106	80-120	3.70	20	
Xylene (o)	1.39	0.0250	"	1.32	ND	105	80-120	2.82	20	
Surrogate: a,a,a-Trifluorotoluene	35.5		ug/kg	40.0		88.8	80-120			
Surrogate: 4-Bromofluorobenzene	40.7		"	40.0		102	80-120			

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG62509 - General Preparation (Prep)										
Blank (EG62509-BLK1)										
Prepared: 07/24/06 Analyzed: 07/25/06										
% Solids	100		%							
Duplicate (EG62509-DUP1)										
Source: 6G21012-01 Prepared: 07/24/06 Analyzed: 07/25/06										
% Solids	95.4		%		95.7			0.314	20	
Duplicate (EG62509-DUP2)										
Source: 6G24005-01 Prepared: 07/24/06 Analyzed: 07/25/06										
% Solids	97.6		%		97.3			0.308	20	
Duplicate (EG62509-DUP3)										
Source: 6G24009-17 Prepared: 07/24/06 Analyzed: 07/25/06										
% Solids	95.1		%		95.3			0.210	20	
Duplicate (EG62509-DUP4)										
Source: 6G24009-37 Prepared: 07/24/06 Analyzed: 07/25/06										
% Solids	96.5		%		86.7			10.7	20	

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

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Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

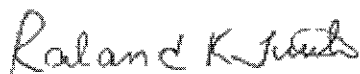
RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

8/1/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-4713

Project Manager: Ken Dutton

Project Name: Lovington Gathering WTI

Company Name: Basin Environmental Service Technologies, LLC

Project #: SRS: 2006-142

Company Address: P. O. Box 301

Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260

PO #: PAA/C. Reynolds

Telephone No: (505) 441-2124

Fax No: (505) 398-1429

Sampler Signature: *Ken Dutton*

e-mail: kdutton@basinenv.com

Report Format:

☒ Standard ☐ TRRP ☐ NPDES

(lab use only)

ORDER #: 6624007

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # of Containers	Matrix
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LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # of Containers	Matrix	TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021 B/5030 by BTEX 8280	NO R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	SB-3 5'	0'	5'	19-Jul-06	926	1	None	SOIL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02	SB-3 10'	5'	10'	19-Jul-06	930	1	None	SOIL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03	SB-3 15'	10'	15'	19-Jul-06	934	1	None	SOIL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04	SB-3 20'	15'	20'	19-Jul-06	939	1	None	SOIL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05	SB-3 25'	20'	25'	19-Jul-06	941	1	None	SOIL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06	SB-3 35'	30'	35'	19-Jul-06	1006	1	None	SOIL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07	SB-3 45'	40'	45'	19-Jul-06	1010	1	None	SOIL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08	SB-3 55'	50'	55'	19-Jul-06	1022	1	None	SOIL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09	SB-3 65'	60'	65'	19-Jul-06	1030	1	None	SOIL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	SB-3 75'	70'	75'	19-Jul-06	1042	1	None	SOIL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Instructions:

Laboratory Comments:

Sample Containers Intact? ☒ N
VOCs Free of Headspace? ☒ N
Custody seals on container(s) ☒ N
Sample Hand Delivered ☒ N
by Sample Client Rep. ? ☒ N
by Courier? ☒ DHL ☒ FedEx ☒ Lone Star

Relinquished by:	Date	Time	Received by:	Date	Time
<i>Ken Dutton</i>	24 July 06	09:54	<i>Antia Blackwood</i>	July 24, 06	9:54
Relinquished by:	Date	Time	Received by:	Date	Time
<i>Antia Blackwood</i>	July 24, 06	13:55	<i>Ken Dutton</i>	July 24, 06	13:55

Temperature Upon Receipt: 3.5 °C

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Ken Dutton

Project Name: Lovington Gathering WTI

Company Name: Basin Environmental Service Technologies, LLC

Project #: SRS: 2006-142

Company Address: P. O. Box 301

Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260

PO #: PAA/C. Reynolds

Telephone No: (505) 441-2124

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: Ken Dutton

e-mail: kdutton@basinenv.com

Fax No: (505) 396-1429

(lab use only)

ORDER #:	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # of Containers	Matrix	Analyze For:
34	SB-6 5'	0'	5'	20-Jul-06	1044	1	NO ₃	SOIL	TCP: <input checked="" type="checkbox"/> TOTAL: <input checked="" type="checkbox"/> Volatiles: <input checked="" type="checkbox"/> Metals: As Ag Ba Cd Cr Pb Hg Se Semivolatiles: <input checked="" type="checkbox"/> BTEX 9260 RUSH TAT (Pre-Schedule) 24, 48, 72 hrs
35	SB-6 10'	5'	10'	20-Jul-06	1048	1	H ₂ SO ₄	SOIL	
36	SB-6 15'	10'	15'	20-Jul-06	1050	1	HCl	SOIL	
37	SB-6 20'	15'	20'	20-Jul-06	1054	1	NaOH	SOIL	
38	SB-6 25'	20'	25'	20-Jul-06	1056	1	Na ₂ S ₂ O ₃	SOIL	
39	SB-6 35'	30'	35'	20-Jul-06	1110	1	None	SOIL	
40	SB-6 45'	40'	45'	20-Jul-06	1114	1	Other (Specify)	SOIL	
41	SB-6 55'	50'	55'	20-Jul-06	1157	1	DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Portable Specify Other	SOIL	
42	SB-6 65'	60'	65'	20-Jul-06	1204	1		SOIL	
43	SB-6 75'	70'	75'	20-Jul-06	1212	1		SOIL	

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Ken Dutton	20-Jul-06	0954	Jinda Blackwood	July 20, 2006	954
Relinquished by:	Date <th>Time</th> <th>Received by:</th> <th>Date</th> <th>Time</th>	Time	Received by:	Date	Time
Jinda Blackwood	July 20, 2006	1335	Ken Dutton	7/24/06	1335

Laboratory Comments:

Sample Containers Intact? ☒
 VOCs Free of Headspace? ☒
 Custody seals on container(s) ☒
 Custody seals on cooler(s) ☒
 Sample Hand Delivered ☒
 by Courier? ☒ UPS ☐ DHL ☐ FedEx ☐ Lone Star

Temperature Upon Receipt: 3.5 °C

Environmental Lab of Texas
Variance/ Corrective Action Report- Sample Log-In

Client: Plains
Date/ Time: 7/24/06 1:35
Lab ID #: 6024009
Initials: ck

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	Yes	No	<u>3.5</u> °C
#2	Shipping container in good condition?	<u>Yes</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	<u>Yes</u>	No	Not Present
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by ELOT?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

Variance Documentation

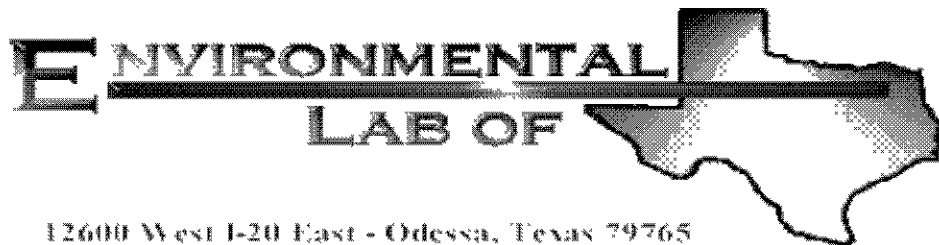
Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
☐ Client understands and would like to proceed with analysis
☐ Cooling process had begun shortly after sampling event



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Lovington Gathering WTI

Project Number: SRS: 2006-142

Location: Lea County, NM

Lab Order Number: 6G26001

Report Date: 08/02/06

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-9 5'	6G26001-01	Soil	2006-07-24 10:43	2006-07-26 07:40
SB-9 10'	6G26001-02	Soil	2006-07-24 10:45	2006-07-26 07:40
SB-9 20'	6G26001-03	Soil	2006-07-24 10:52	2006-07-26 07:40
SB-9 30'	6G26001-04	Soil	2006-07-24 11:00	2006-07-26 07:40
SB-10 5'	6G26001-05	Soil	2006-07-24 11:26	2006-07-26 07:40
SB-10 10'	6G26001-06	Soil	2006-07-24 11:30	2006-07-26 07:40
SB-10 15'	6G26001-07	Soil	2006-07-24 11:33	2006-07-26 07:40
SB-10 20'	6G26001-08	Soil	2006-07-24 11:38	2006-07-26 07:40
SB-10 25'	6G26001-09	Soil	2006-07-24 11:39	2006-07-26 07:40
SB-10 35'	6G26001-10	Soil	2006-07-24 12:03	2006-07-26 07:40
SB-10 45'	6G26001-11	Soil	2006-07-24 12:07	2006-07-26 07:40
SB-10 55'	6G26001-12	Soil	2006-07-24 12:24	2006-07-26 07:40
SB-10 65'	6G26001-13	Soil	2006-07-24 12:30	2006-07-26 07:40
SB-10 75'	6G26001-14	Soil	2006-07-24 12:33	2006-07-26 07:40
SB-11 5'	6G26001-15	Soil	2006-07-24 15:18	2006-07-26 07:40
SB-11 10'	6G26001-16	Soil	2006-07-24 15:24	2006-07-26 07:40
SB-11 20'	6G26001-17	Soil	2006-07-24 15:29	2006-07-26 07:40
SB-11 30'	6G26001-18	Soil	2006-07-24 15:35	2006-07-26 07:40

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-9 5' (6G26001-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62806	07/28/06	07/31/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62616	07/26/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		98.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		96.0 %	70-130		"	"	"	"	
SB-9 10' (6G26001-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62806	07/28/06	07/31/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		85.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62716	07/27/06	07/27/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		94.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		128 %	70-130		"	"	"	"	
SB-9 20' (6G26001-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62806	07/28/06	07/31/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		81.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62716	07/27/06	07/28/06	EPA 8015M	

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Organics by GC

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-9 20' (6G26001-03) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EG62716	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		93.0 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		88.2 %	70-130		"	"	"	"	
SB-9 30' (6G26001-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62806	07/28/06	07/31/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		84.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		93.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62716	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		90.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		84.0 %	70-130		"	"	"	"	
SB-10 5' (6G26001-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG62806	07/28/06	07/31/06	EPA 8021B	
Toluene	0.0470	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.134	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.190	0.0250	"	"	"	"	"	"	
Xylene (o)	0.0760	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		84.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	66.1	10.0	mg/kg dry	1	EG62716	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C12-C28	704	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	113	10.0	"	"	"	"	"	"	
Total Hydrocarbons	883	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		92.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		89.0 %	70-130		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-10 10' (6G26001-06) Soil									
Benzene	0.251	0.0250	mg/kg dry	25	EG62806	07/28/06	07/31/06	EPA 8021B	
Toluene	1.62	0.0250	"	"	"	"	"	"	
Ethylbenzene	10.4	0.0250	"	"	"	"	"	"	
Xylene (p/m)	10.2	0.0250	"	"	"	"	"	"	
Xylene (o)	2.42	0.0250	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		725 %	80-120		"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		177 %	80-120		"	"	"	"	S-04
Carbon Ranges C6-C12	777	10.0	mg/kg dry	1	EG62716	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C12-C28	2680	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	233	10.0	"	"	"	"	"	"	
Total Hydrocarbons	3690	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		119 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		121 %	70-130		"	"	"	"	
SB-10 15' (6G26001-07) Soil									
Benzene	0.142	0.0250	mg/kg dry	25	EG62806	07/28/06	07/31/06	EPA 8021B	
Toluene	2.04	0.0250	"	"	"	"	"	"	
Ethylbenzene	5.13	0.0250	"	"	"	"	"	"	
Xylene (p/m)	7.77	0.0250	"	"	"	"	"	"	
Xylene (o)	3.96	0.0250	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		155 %	80-120		"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		167 %	80-120		"	"	"	"	S-04
Carbon Ranges C6-C12	746	10.0	mg/kg dry	1	EG62716	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C12-C28	3220	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	254	10.0	"	"	"	"	"	"	
Total Hydrocarbons	4220	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		131 %	70-130		"	"	"	"	S-04
Surrogate: 1-Chlorooctadecane		144 %	70-130		"	"	"	"	S-04
SB-10 20' (6G26001-08) Soil									
Benzene	0.152	0.0250	mg/kg dry	25	EG62806	07/28/06	07/31/06	EPA 8021B	
Toluene	3.46	0.0250	"	"	"	"	"	"	
Ethylbenzene	6.54	0.0250	"	"	"	"	"	"	
Xylene (p/m)	10.4	0.0250	"	"	"	"	"	"	
Xylene (o)	5.82	0.0250	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		160 %	80-120		"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		167 %	80-120		"	"	"	"	S-04
Carbon Ranges C6-C12	812	10.0	mg/kg dry	1	EG62717	07/27/06	07/28/06	EPA 8015M	

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Organics by GC

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-10 20' (6G26001-08) Soil									
Carbon Ranges C12-C28	3160	10.0	mg/kg dry	1	EG62717	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C28-C35	295	10.0	"	"	"	"	"	"	
Total Hydrocarbons	4270	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		162 %	70-130		"	"	"	"	S-04
Surrogate: 1-Chlorooctadecane		244 %	70-130		"	"	"	"	S-04
SB-10 25' (6G26001-09) Soil									
Benzene	0.0634	0.0250	mg/kg dry	25	EG63119	07/31/06	07/31/06	EPA 8021B	
Toluene	1.47	0.0250	"	"	"	"	"	"	
Ethylbenzene	3.44	0.0250	"	"	"	"	"	"	
Xylene (p/m)	6.18	0.0250	"	"	"	"	"	"	
Xylene (o)	3.16	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		125 %	80-120		"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		117 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	740	10.0	mg/kg dry	1	EG62717	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C12-C28	2850	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	252	10.0	"	"	"	"	"	"	
Total Hydrocarbons	3840	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		163 %	70-130		"	"	"	"	S-04
Surrogate: 1-Chlorooctadecane		238 %	70-130		"	"	"	"	S-04
SB-10 35' (6G26001-10) Soil									
Benzene	J [0.0116]	0.0250	mg/kg dry	25	EG63119	07/31/06	07/31/06	EPA 8021B	J
Toluene	0.252	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.557	0.0250	"	"	"	"	"	"	
Xylene (p/m)	1.05	0.0250	"	"	"	"	"	"	
Xylene (o)	0.455	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		97.8 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	87.0	10.0	mg/kg dry	1	EG62717	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C12-C28	676	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	84.3	10.0	"	"	"	"	"	"	
Total Hydrocarbons	847	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		104 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		99.2 %	70-130		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-10 45' (6G26001-11) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG63119	07/31/06	07/31/06	EPA 8021B	
Toluene	0.0298	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.0677	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.114	0.0250	"	"	"	"	"	"	
Xylene (o)	0.0591	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		93.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	44.3	10.0	mg/kg dry	1	EG62717	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C12- C28	601	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	62.6	10.0	"	"	"	"	"	"	
Total Hydrocarbons	708	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		109 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		106 %	70-130		"	"	"	"	
SB-10 55' (6G26001-12) Soil									
Benzene	J [0.0151]	0.0250	mg/kg dry	25	EG63119	07/31/06	07/31/06	EPA 8021B	J
Toluene	0.260	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.493	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.789	0.0250	"	"	"	"	"	"	
Xylene (o)	0.418	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	121	10.0	mg/kg dry	1	EG62717	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C12- C28	908	10.0	"	"	"	"	"	"	
Carbon Ranges C28- C35	99.3	10.0	"	"	"	"	"	"	
Total Hydrocarbons	1130	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		102 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		98.4 %	70-130		"	"	"	"	
SB-10 65' (6G26001-13) Soil									
Benzene	0.0335	0.0250	mg/kg dry	25	EG63119	07/31/06	07/31/06	EPA 8021B	
Toluene	0.822	0.0250	"	"	"	"	"	"	
Ethylbenzene	1.74	0.0250	"	"	"	"	"	"	
Xylene (p/m)	3.12	0.0250	"	"	"	"	"	"	
Xylene (o)	1.53	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		106 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	453	10.0	mg/kg dry	1	EG62717	07/27/06	07/28/06	EPA 8015M	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-10 65' (6G26001-13) Soil									
Carbon Ranges C12-C28	2380	10.0	mg/kg dry	1	EG62717	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C28-C35	215	10.0	"	"	"	"	"	"	
Total Hydrocarbons	3050	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		115 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		122 %	70-130		"	"	"	"	
SB-10 75' (6G26001-14) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG63119	07/31/06	07/31/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		87.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	12.9	10.0	mg/kg dry	1	EG62717	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C12-C28	146	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	11.5	10.0	"	"	"	"	"	"	
Total Hydrocarbons	170	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		94.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		87.4 %	70-130		"	"	"	"	
SB-11 5' (6G26001-15) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG63119	07/31/06	07/31/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62717	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		96.0 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		87.8 %	70-130		"	"	"	"	

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Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-11 10' (6G26001-16) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG63119	07/31/06	08/01/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		84.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		89.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62717	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		94.0 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		85.4 %	70-130		"	"	"	"	
SB-11 20' (6G26001-17) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG63119	07/31/06	08/01/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		89.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		80.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62717	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		91.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		83.8 %	70-130		"	"	"	"	
SB-11 30' (6G26001-18) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EG63119	07/31/06	08/01/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		82.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EG62716	07/27/06	07/28/06	EPA 8015M	

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The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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Project Manager: Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-11 30' (6G26001-18) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EG62716	07/27/06	07/28/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>90.8 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>86.2 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

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General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-9 5' (6G26001-01) Soil									
% Moisture	5.0	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-9 10' (6G26001-02) Soil									
% Moisture	10.2	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-9 20' (6G26001-03) Soil									
% Moisture	8.2	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-9 30' (6G26001-04) Soil									
% Moisture	21.9	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-10 5' (6G26001-05) Soil									
% Moisture	2.3	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-10 10' (6G26001-06) Soil									
% Moisture	7.1	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-10 15' (6G26001-07) Soil									
% Moisture	5.5	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-10 20' (6G26001-08) Soil									
Chloride	73.9	5.00	mg/kg	10	EH60105	07/31/06	07/31/06	EPA 300.0	
% Moisture	9.3	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-10 25' (6G26001-09) Soil									
% Moisture	4.7	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-10 35' (6G26001-10) Soil									
% Moisture	29.3	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	

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General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-10 45' (6G26001-11) Soil									
% Moisture	26.0	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-10 55' (6G26001-12) Soil									
% Moisture	28.5	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-10 65' (6G26001-13) Soil									
% Moisture	7.2	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-10 75' (6G26001-14) Soil									
% Moisture	6.4	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-11 5' (6G26001-15) Soil									
% Moisture	3.1	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-11 10' (6G26001-16) Soil									
% Moisture	5.0	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-11 20' (6G26001-17) Soil									
% Moisture	8.1	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	
SB-11 30' (6G26001-18) Soil									
% Moisture	4.2	0.1	%	1	EG62701	07/26/06	07/27/06	% calculation	

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62616 - Solvent Extraction (GC)

Blank (EG62616-BLK1)

Prepared: 07/26/06 Analyzed: 07/28/06

Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	56.8		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	56.0		"	50.0		112	70-130			

LCS (EG62616-BS1)

Prepared: 07/26/06 Analyzed: 07/27/06

Carbon Ranges C6-C12	532	10.0	mg/kg wet	500		106	75-125			
Carbon Ranges C12-C28	443	10.0	"	500		88.6	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	975	10.0	"	1000		97.5	75-125			
Surrogate: 1-Chlorooctane	59.5		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	53.7		"	50.0		107	70-130			

Calibration Check (EG62616-CCV1)

Prepared: 07/26/06 Analyzed: 07/28/06

Carbon Ranges C6-C12	282		mg/kg	250		113	80-120			
Carbon Ranges C12-C28	249		"	250		99.6	80-120			
Total Hydrocarbons	531		"	500		106	80-120			
Surrogate: 1-Chlorooctane	62.4		"	50.0		125	70-130			
Surrogate: 1-Chlorooctadecane	64.3		"	50.0		129	70-130			

Matrix Spike (EG62616-MS1)

Source: 6G24009-42

Prepared: 07/26/06 Analyzed: 07/27/06

Carbon Ranges C6-C12	554	10.0	mg/kg dry	536	ND	103	75-125			
Carbon Ranges C12-C28	524	10.0	"	536	ND	97.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1080	10.0	"	1070	ND	101	75-125			
Surrogate: 1-Chlorooctane	59.4		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	54.0		"	50.0		108	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62616 - Solvent Extraction (GC)

Matrix Spike Dup (EG62616-MSD1)		Source: 6G24009-42			Prepared: 07/26/06		Analyzed: 07/28/06			
Carbon Ranges C6-C12	555	10.0	mg/kg dry	536	ND	104	75-125	0.180	20	
Carbon Ranges C12-C28	512	10.0	"	536	ND	95.5	75-125	2.32	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1070	10.0	"	1070	ND	100	75-125	0.930	20	
Surrogate: 1-Chlorooctane	56.0		mg/kg	50.0		112	70-130			
Surrogate: 1-Chlorooctadecane	52.2		"	50.0		104	70-130			

Batch EG62716 - Solvent Extraction (GC)

Blank (EG62716-BLK1)		Prepared & Analyzed: 07/27/06								
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	46.2		mg/kg	50.0		92.4	70-130			
Surrogate: 1-Chlorooctadecane	42.1		"	50.0		84.2	70-130			

LCS (EG62716-BS1)		Prepared & Analyzed: 07/27/06								
Carbon Ranges C6-C12	500	10.0	mg/kg wet	500		100	75-125			
Carbon Ranges C12-C28	555	10.0	"	500		111	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1050	10.0	"	1000		105	75-125			
Surrogate: 1-Chlorooctane	60.3		mg/kg	50.0		121	70-130			
Surrogate: 1-Chlorooctadecane	47.8		"	50.0		95.6	70-130			

Calibration Check (EG62716-CCV1)		Prepared: 07/27/06 Analyzed: 07/28/06								
Carbon Ranges C6-C12	206		mg/kg	250		82.4	80-120			
Carbon Ranges C12-C28	260		"	250		104	80-120			
Total Hydrocarbons	466		"	500		93.2	80-120			
Surrogate: 1-Chlorooctane	61.0		"	50.0		122	70-130			
Surrogate: 1-Chlorooctadecane	51.6		"	50.0		103	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62716 - Solvent Extraction (GC)

Matrix Spike (EG62716-MS1)		Source: 6G26001-18		Prepared: 07/27/06		Analyzed: 07/28/06				
Carbon Ranges C6-C12	583	10.0	mg/kg dry	522	ND	112	75-125			
Carbon Ranges C12-C28	591	10.0	"	522	ND	113	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1170	10.0	"	1040	ND	112	75-125			
Surrogate: 1-Chlorooctane	59.7		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	52.7		"	50.0		105	70-130			

Matrix Spike Dup (EG62716-MSD1)		Source: 6G26001-18		Prepared: 07/27/06		Analyzed: 07/28/06				
Carbon Ranges C6-C12	556	10.0	mg/kg dry	522	ND	107	75-125	4.74	20	
Carbon Ranges C12-C28	548	10.0	"	522	ND	105	75-125	7.55	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1100	10.0	"	1040	ND	106	75-125	6.17	20	
Surrogate: 1-Chlorooctane	63.6		mg/kg	50.0		127	70-130			
Surrogate: 1-Chlorooctadecane	51.2		"	50.0		102	70-130			

Batch EG62717 - Solvent Extraction (GC)

Blank (EG62717-BLK1)				Prepared: 07/27/06		Analyzed: 07/28/06				
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	47.7		mg/kg	50.0		95.4	70-130			
Surrogate: 1-Chlorooctadecane	44.4		"	50.0		88.8	70-130			

LCS (EG62717-BS1)				Prepared: 07/27/06		Analyzed: 07/28/06				
Carbon Ranges C6-C12	507	10.0	mg/kg wet	500		101	75-125			
Carbon Ranges C12-C28	570	10.0	"	500		114	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1080	10.0	"	1000		108	75-125			
Surrogate: 1-Chlorooctane	61.3		mg/kg	50.0		123	70-130			
Surrogate: 1-Chlorooctadecane	51.7		"	50.0		103	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62717 - Solvent Extraction (GC)

Calibration Check (EG62717-CCV1)

Prepared: 07/27/06 Analyzed: 07/28/06

Carbon Ranges C6-C12	207		mg/kg	250		82.8	80-120			
Carbon Ranges C12-C28	291		"	250		116	80-120			
Total Hydrocarbons	498		"	500		99.6	80-120			
Surrogate: 1-Chlorooctane	64.5		"	50.0		129	70-130			
Surrogate: 1-Chlorooctadecane	64.6		"	50.0		129	70-130			

Matrix Spike (EG62717-MS1)

Source: 6G26001-17

Prepared: 07/27/06 Analyzed: 07/28/06

Carbon Ranges C6-C12	497	10.0	mg/kg dry	544	ND	91.4	75-125			
Carbon Ranges C12-C28	510	10.0	"	544	ND	93.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1010	10.0	"	1090	ND	92.7	75-125			
Surrogate: 1-Chlorooctane	52.3		mg/kg	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane	40.8		"	50.0		81.6	70-130			

Matrix Spike Dup (EG62717-MSD1)

Source: 6G26001-17

Prepared: 07/27/06 Analyzed: 07/28/06

Carbon Ranges C6-C12	517	10.0	mg/kg dry	544	ND	95.0	75-125	3.94	20	
Carbon Ranges C12-C28	545	10.0	"	544	ND	100	75-125	6.64	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1060	10.0	"	1090	ND	97.2	75-125	4.83	20	
Surrogate: 1-Chlorooctane	60.0		mg/kg	50.0		120	70-130			
Surrogate: 1-Chlorooctadecane	47.4		"	50.0		94.8	70-130			

Batch EG62806 - EPA 5030C (GC)

Blank (EG62806-BLK1)

Prepared: 07/28/06 Analyzed: 07/31/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	36.8		ug/kg	40.0		92.0	80-120			
Surrogate: 4-Bromofluorobenzene	33.3		"	40.0		83.2	80-120			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG62806 - EPA 5030C (GC)

LCS (EG62806-BS1)

Prepared & Analyzed: 07/28/06

Benzene	1.03	0.0250	mg/kg wet	1.25		82.4	80-120			
Toluene	1.08	0.0250	"	1.25		86.4	80-120			
Ethylbenzene	1.03	0.0250	"	1.25		82.4	80-120			
Xylene (p/m)	2.36	0.0250	"	2.50		94.4	80-120			
Xylene (o)	1.15	0.0250	"	1.25		92.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	32.2		ug/kg	40.0		80.5	80-120			
Surrogate: 4-Bromofluorobenzene	34.7		"	40.0		86.8	80-120			

Calibration Check (EG62806-CCV1)

Prepared: 07/28/06 Analyzed: 07/31/06

Benzene	0.0513		mg/kg wet	0.0500		103	80-120			
Toluene	0.0498		"	0.0500		99.6	80-120			
Ethylbenzene	0.0520		"	0.0500		104	80-120			
Xylene (p/m)	0.103		"	0.100		103	80-120			
Xylene (o)	0.0508		"	0.0500		102	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.0		ug/kg	40.0		92.5	80-120			
Surrogate: 4-Bromofluorobenzene	35.2		"	40.0		88.0	80-120			

Matrix Spike (EG62806-MS1)

Source: 6G26001-01

Prepared: 07/28/06 Analyzed: 07/31/06

Benzene	1.33	0.0250	mg/kg dry	1.32	ND	101	80-120			
Toluene	1.33	0.0250	"	1.32	ND	101	80-120			
Ethylbenzene	1.32	0.0250	"	1.32	ND	100	80-120			
Xylene (p/m)	2.89	0.0250	"	2.63	ND	110	80-120			
Xylene (o)	1.43	0.0250	"	1.32	ND	108	80-120			
Surrogate: a,a,a-Trifluorotoluene	34.4		ug/kg	40.0		86.0	80-120			
Surrogate: 4-Bromofluorobenzene	38.2		"	40.0		95.5	80-120			

Matrix Spike Dup (EG62806-MSD1)

Source: 6G26001-01

Prepared: 07/28/06 Analyzed: 07/31/06

Benzene	1.26	0.0250	mg/kg dry	1.32	ND	95.5	80-120	5.60	20	
Toluene	1.26	0.0250	"	1.32	ND	95.5	80-120	5.60	20	
Ethylbenzene	1.29	0.0250	"	1.32	ND	97.7	80-120	2.33	20	
Xylene (p/m)	2.79	0.0250	"	2.63	ND	106	80-120	3.70	20	
Xylene (o)	1.39	0.0250	"	1.32	ND	105	80-120	2.82	20	
Surrogate: a,a,a-Trifluorotoluene	35.5		ug/kg	40.0		88.8	80-120			
Surrogate: 4-Bromofluorobenzene	40.7		"	40.0		102	80-120			

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG63119 - EPA 5030C (GC)

Blank (EG63119-BLK1)

Prepared & Analyzed: 07/31/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	37.5		ug/kg	40.0		93.8	80-120			
Surrogate: 4-Bromofluorobenzene	33.3		"	40.0		83.2	80-120			

LCS (EG63119-BS1)

Prepared & Analyzed: 07/31/06

Benzene	1.27	0.0250	mg/kg wet	1.25		102	80-120			
Toluene	1.26	0.0250	"	1.25		101	80-120			
Ethylbenzene	1.23	0.0250	"	1.25		98.4	80-120			
Xylene (p/m)	2.74	0.0250	"	2.50		110	80-120			
Xylene (o)	1.37	0.0250	"	1.25		110	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.5		ug/kg	40.0		98.8	80-120			
Surrogate: 4-Bromofluorobenzene	38.1		"	40.0		95.2	80-120			

Calibration Check (EG63119-CCV1)

Prepared: 07/31/06 Analyzed: 08/01/06

Benzene	51.5		ug/kg	50.0		103	80-120			
Toluene	49.9		"	50.0		99.8	80-120			
Ethylbenzene	51.7		"	50.0		103	80-120			
Xylene (p/m)	103		"	100		103	80-120			
Xylene (o)	50.8		"	50.0		102	80-120			
Surrogate: a,a,a-Trifluorotoluene	35.7		"	40.0		89.2	80-120			
Surrogate: 4-Bromofluorobenzene	33.7		"	40.0		84.2	80-120			

Matrix Spike (EG63119-MS1)

Source: 6G28008-01

Prepared: 07/31/06 Analyzed: 08/01/06

Benzene	1.51	0.0250	mg/kg dry	1.40	ND	108	80-120			
Toluene	1.52	0.0250	"	1.40	ND	109	80-120			
Ethylbenzene	1.47	0.0250	"	1.40	ND	105	80-120			
Xylene (p/m)	3.25	0.0250	"	2.81	ND	116	80-120			
Xylene (o)	1.58	0.0250	"	1.40	ND	113	80-120			
Surrogate: a,a,a-Trifluorotoluene	38.5		ug/kg	40.0		96.2	80-120			
Surrogate: 4-Bromofluorobenzene	40.9		"	40.0		102	80-120			

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Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EG63119 - EPA 5030C (GC)

Matrix Spike Dup (EG63119-MSD1)	Source: 6G28008-01			Prepared: 07/31/06		Analyzed: 08/01/06				
Benzene	1.43	0.0250	mg/kg dry	1.40	ND	102	80-120	5.71	20	
Toluene	1.41	0.0250	"	1.40	ND	101	80-120	7.62	20	
Ethylbenzene	1.35	0.0250	"	1.40	ND	96.4	80-120	8.54	20	
Xylene (p/m)	3.00	0.0250	"	2.81	ND	107	80-120	8.07	20	
Xylene (o)	1.49	0.0250	"	1.40	ND	106	80-120	6.39	20	
Surrogate: a,a,a-Trifluorotoluene	40.4		ug/kg	40.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	39.2		"	40.0		98.0	80-120			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG62701 - General Preparation (Prep)										
Blank (EG62701-BLK1)				Prepared: 07/26/06 Analyzed: 07/27/06						
% Solids	100		%							
Duplicate (EG62701-DUP1)				Source: 6G26001-01 Prepared: 07/26/06 Analyzed: 07/27/06						
% Solids	95.0		%		95.0			0.00	20	
Duplicate (EG62701-DUP2)				Source: 6G26004-02 Prepared: 07/26/06 Analyzed: 07/27/06						
% Solids	95.4		%		96.2			0.835	20	
Batch EH60105 - Water Extraction										
Blank (EH60105-BLK1)				Prepared & Analyzed: 07/31/06						
Chloride	ND	0.500	mg/kg							
LCS (EH60105-BS1)				Prepared & Analyzed: 07/31/06						
Chloride	9.92	0.500	mg/kg	10.0		99.2	80-120			
Calibration Check (EH60105-CCV1)				Prepared & Analyzed: 07/31/06						
Chloride	11.9		mg/kg	10.0		119	80-120			
Duplicate (EH60105-DUP1)				Source: 6G28007-01 Prepared & Analyzed: 07/31/06						
Chloride	103	10.0	mg/kg		91.9			11.4	20	
Duplicate (EH60105-DUP2)				Source: 6G31003-01 Prepared & Analyzed: 07/31/06						
Chloride	356	25.0	mg/kg		387			8.34	20	
Matrix Spike (EH60105-MS1)				Source: 6G28007-01 Prepared & Analyzed: 07/31/06						
Chloride	300	10.0	mg/kg	200	91.9	104	80-120			

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Project Manager: Camille Reynolds

Fax: (432) 687-4914

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EH60105 - Water Extraction

Matrix Spike (EH60105-MS2)

Source: 6G31003-01

Prepared & Analyzed: 07/31/06

Chloride	907	25.0	mg/kg	500	387	104	80-120			
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Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

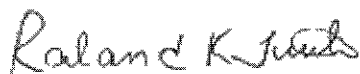
RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By: _____



Date: 8/2/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

12800 West I-20 East
Odessa, Texas 79765

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

Project Manager: Ken Dutton
Company Name: Basin Environmental Service Technologies, LLC
Company Address: P. O. Box 301
City/State/Zip: Lovington, NM 88260
Telephone No: (505) 441-2124
Fax No: (505) 398-1429
e-mail: kldutton@basinenv.com

Project Name: Lovington Gathering WTI
Project #: SRS: 2006-142
Project Loc: Lea County, NM
PO #: PAAJC, Reynolds

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Added 7/28/06

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # of Containers										Matrix	Analyze For:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
							HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ SO ₄	None	Other (Specify)	DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Petroleum Specify Other	TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)		Anions (Cl, SO ₄ , CO ₃ , HCO ₃)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/503d or BTEX 8260	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
01	SB-9 5'	0'	5'	24-Jul-06	1043	1	X								SOIL			X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

Special Instructions:

Relinquished By: Ken Dutton Date: 25-Jul-06 Time: 12:40
Relinquished By: Ken Dutton Date: 25-Jul-06 Time: 12:40

Relinquished By: Ken Dutton Date: 7/28/06 Time: 12:40
Relinquished By: Ken Dutton Date: 7/28/06 Time: 12:40

Laboratory Comments:
Sample Containers Intact? ☒ ☒ ☒ ☒ ☒ ☒
VOCs Free of Headspace? ☒ ☒ ☒ ☒ ☒ ☒
Custody seals on container(s) ☒ ☒ ☒ ☒ ☒ ☒
Custody seals on cooler(s) ☒ ☒ ☒ ☒ ☒ ☒
Sample Hand Delivered by Sampler/Client Rep? ☒ ☒ ☒ ☒ ☒ ☒
by Courier? ☒ ☒ ☒ ☒ ☒ ☒
UPS DHL FedEx Lone Star

Temperature Upon Receipt: -1.0 °C

7-16-62 2012

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

[illegible]

Special Instructions:				Laboratory Comments:			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Sample Containers Intact?	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	VOCs Free of Headspace?	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody seals on container(s)	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody seals on cooler(s)	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Sample Hand Delivered	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	by Sampler/Client Rep.?	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	by Courier?	N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	UPS	FedEx
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	DHL	Lone Star
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Temperature Upon Receipt	-1.0 °C

Environmental Lab of Texas
Variance/ Corrective Action Report- Sample Log-In

Client: Plains P/L
 Date/ Time: 07-26-06 @ 0740
 Lab ID #: 6A26001
 Initials: JMM

Sample Receipt Checklist

Client Initials

#1	Temperature of container/ cooler?	<u>Yes</u>	No	-1.0 °C	
#2	Shipping container in good condition?	<u>Yes</u>	No		
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	<u>Yes</u>	No	Not Present	
#5	Chain of Custody present?	<u>Yes</u>	No		
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No		
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No		
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No		
#11	Containers supplied by EL0T?	<u>Yes</u>	No		
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below	
#13	Samples properly preserved?	<u>Yes</u>	No	See Below	
#14	Sample bottles intact?	<u>Yes</u>	No		
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No		
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No		
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below	
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below	
#19	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

☐ See attached e-mail/ fax

☐ Client understands and would like to proceed with analysis

☐ Cooling process had begun shortly after sampling event

Jeanne McMurrey

From: "Ken Dutton" <kdutton@basinenv.com>
To: "Jeanne" <jeanne@elabtexas.com>
Sent: Friday, July 28, 2006 9:18 AM
Subject: Lovington Gathering WTI Soil Samples

Jeanne,

Please run a chloride analysis (EPA 300.0) on the SB-10 20' soil sample.

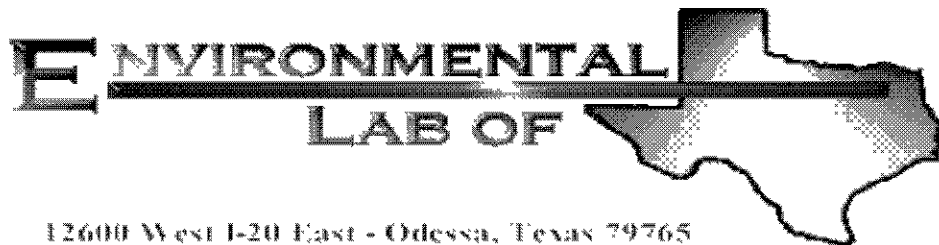
thxs

Ken

--

This message has been scanned for viruses and dangerous content by Basin Broadband, and is believed to be clean.

7/28/2006



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Lovington Gathering WTI

Project Number: SRS: 2006-142

Location: Lea County, NM

Lab Order Number: 6I15017

Report Date: 09/21/06

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1 5'	6I15017-01	Soil	09/11/06 09:59	09-15-2006 13:35
MW-1 10'	6I15017-02	Soil	09/11/06 10:03	09-15-2006 13:35
MW-1 15'	6I15017-03	Soil	09/11/06 10:08	09-15-2006 13:35
MW-1 20'	6I15017-04	Soil	09/11/06 10:13	09-15-2006 13:35
MW-1 25'	6I15017-05	Soil	09/11/06 10:14	09-15-2006 13:35
MW-1 35'	6I15017-06	Soil	09/11/06 10:24	09-15-2006 13:35
MW-1 45'	6I15017-07	Soil	09/11/06 10:29	09-15-2006 13:35
MW-1 55'	6I15017-08	Soil	09/11/06 10:34	09-15-2006 13:35
MW-1 65'	6I15017-09	Soil	09/11/06 10:41	09-15-2006 13:35
MW-1 75'	6I15017-10	Soil	09/11/06 10:45	09-15-2006 13:35
MW-2 5'	6I15017-11	Soil	09/11/06 14:30	09-15-2006 13:35
MW-2 10'	6I15017-12	Soil	09/11/06 14:42	09-15-2006 13:35
MW-2 15'	6I15017-13	Soil	09/11/06 14:53	09-15-2006 13:35
MW-2 20'	6I15017-14	Soil	09/11/06 14:54	09-15-2006 13:35
MW-2 25'	6I15017-15	Soil	09/11/06 14:56	09-15-2006 13:35
MW-2 35'	6I15017-16	Soil	09/11/06 15:01	09-15-2006 13:35
MW-2 45'	6I15017-17	Soil	09/11/06 15:05	09-15-2006 13:35
MW-2 55'	6I15017-18	Soil	09/11/06 15:12	09-15-2006 13:35
MW-2 65'	6I15017-19	Soil	09/11/06 15:19	09-15-2006 13:35
MW-2 75'	6I15017-20	Soil	09/12/06 10:15	09-15-2006 13:35
MW-3 5'	6I15017-21	Soil	09/12/06 13:17	09-15-2006 13:35
MW-3 10'	6I15017-22	Soil	09/12/06 13:22	09-15-2006 13:35
MW-3 15'	6I15017-23	Soil	09/12/06 13:24	09-15-2006 13:35
MW-3 20'	6I15017-24	Soil	09/12/06 13:29	09-15-2006 13:35
MW-3 25'	6I15017-25	Soil	09/12/06 13:31	09-15-2006 13:35
MW-3 35'	6I15017-26	Soil	09/12/06 13:38	09-15-2006 13:35
MW-3 45'	6I15017-27	Soil	09/12/06 13:42	09-15-2006 13:35
MW-3 55'	6I15017-28	Soil	09/12/06 13:49	09-15-2006 13:35
MW-3 65'	6I15017-29	Soil	09/12/06 13:55	09-15-2006 13:35
MW-3 75'	6I15017-30	Soil	09/12/06 13:58	09-15-2006 13:35

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 5' (6I15017-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61509	09/15/06	09/15/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		87.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/19/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		73.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		94.6 %	70-130		"	"	"	"	
MW-1 10' (6I15017-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61509	09/15/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		101 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/19/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		73.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		93.8 %	70-130		"	"	"	"	
MW-1 15' (6I15017-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61509	09/15/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		84.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/18/06	EPA 8015M	

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Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 15' (6I15017-03) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/18/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		85.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		103 %	70-130		"	"	"	"	
MW-1 20' (6I15017-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61509	09/15/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/16/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		112 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		118 %	70-130		"	"	"	"	
MW-1 25' (6I15017-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61509	09/15/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		84.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/19/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		76.0 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		97.0 %	70-130		"	"	"	"	

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Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 35' (6I15017-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61509	09/15/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		97.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		81.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/19/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		76.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		97.0 %	70-130		"	"	"	"	
MW-1 45' (6I15017-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61509	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		89.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		81.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/19/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		75.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		95.8 %	70-130		"	"	"	"	
MW-1 55' (6I15017-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61509	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/16/06	EPA 8015M	

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Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 55' (6I15017-08) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/16/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		110 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		113 %	70-130		"	"	"	"	
MW-1 65' (6I15017-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		80.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/16/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		101 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		109 %	70-130		"	"	"	"	
MW-1 75' (6I15017-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		82.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/19/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		73.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		97.0 %	70-130		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 5' (6I15017-11) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		84.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61508	09/15/06	09/16/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		106 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		107 %	70-130		"	"	"	"	
MW-2 10' (6I15017-12) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		99.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		84.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/16/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		107 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		114 %	70-130		"	"	"	"	
MW-2 15' (6I15017-13) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/16/06	EPA 8015M	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 15' (6I15017-13) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/16/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		111 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		112 %	70-130		"	"	"	"	
MW-2 20' (6I15017-14) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		89.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/16/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		109 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		108 %	70-130		"	"	"	"	
MW-2 25' (6I15017-15) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/19/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		105 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		87.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/16/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		107 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		105 %	70-130		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 35' (6I15017-16) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/16/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		108 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		108 %	70-130		"	"	"	"	
MW-2 45' (6I15017-17) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		89.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		89.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		108 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		109 %	70-130		"	"	"	"	
MW-2 55' (6I15017-18) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	

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1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 55' (6I15017-18) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		110 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		110 %	70-130		"	"	"	"	
MW-2 65' (6I15017-19) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		97.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		112 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		113 %	70-130		"	"	"	"	
MW-2 75' (6I15017-20) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		89.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		108 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		108 %	70-130		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 5' (6I15017-21) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		81.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		110 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		109 %	70-130		"	"	"	"	
MW-3 10' (6I15017-22) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		87.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		114 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		109 %	70-130		"	"	"	"	
MW-3 15' (6I15017-23) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/19/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	

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Project Manager: Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 15' (6I15017-23) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		103 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		99.4 %	70-130		"	"	"	"	
MW-3 20' (6I15017-24) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/18/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		105 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		107 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		103 %	70-130		"	"	"	"	
MW-3 25' (6I15017-25) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/19/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		109 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		104 %	70-130		"	"	"	"	

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Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 35' (6I15017-26) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/19/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		107 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		103 %	70-130		"	"	"	"	
MW-3 45' (6I15017-27) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61812	09/18/06	09/19/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		114 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		107 %	70-130		"	"	"	"	
MW-3 55' (6I15017-28) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61904	09/19/06	09/19/06	EPA 8021B	
Toluene	0.0327	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.0395	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.641	0.0250	"	"	"	"	"	"	
Xylene (o)	0.310	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		81.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	249	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 55' (6I15017-28) Soil									
Carbon Ranges C12-C28	1730	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	
Carbon Ranges C28-C35	97.1	10.0	"	"	"	"	"	"	
Total Hydrocarbons	2080	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		130 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		169 %	70-130		"	"	"	"	S-04
MW-3 65' (6I15017-29) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61904	09/19/06	09/19/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		120 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	J [9.01]	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	J
Carbon Ranges C12-C28	61.3	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	J [4.59]	10.0	"	"	"	"	"	"	J
Total Hydrocarbons	61.3	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		109 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		110 %	70-130		"	"	"	"	
MW-3 75' (6I15017-30) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI61904	09/19/06	09/19/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		86.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		82.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	J [7.28]	10.0	mg/kg dry	1	EI61807	09/15/06	09/17/06	EPA 8015M	J
Carbon Ranges C12-C28	111	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	10.3	10.0	"	"	"	"	"	"	
Total Hydrocarbons	121	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		114 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		119 %	70-130		"	"	"	"	

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General Chemistry Parameters by EPA / Standard Methods
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 5' (6I15017-01) Soil									
% Moisture	3.3	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-1 10' (6I15017-02) Soil									
% Moisture	2.2	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-1 15' (6I15017-03) Soil									
% Moisture	2.8	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-1 20' (6I15017-04) Soil									
% Moisture	6.6	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-1 25' (6I15017-05) Soil									
% Moisture	3.6	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-1 35' (6I15017-06) Soil									
% Moisture	3.1	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-1 45' (6I15017-07) Soil									
% Moisture	2.6	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-1 55' (6I15017-08) Soil									
% Moisture	3.0	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-1 65' (6I15017-09) Soil									
% Moisture	3.7	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-1 75' (6I15017-10) Soil									
% Moisture	3.8	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-2 5' (6I15017-11) Soil									
% Moisture	2.5	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 10' (6I15017-12) Soil									
% Moisture	2.5	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-2 15' (6I15017-13) Soil									
% Moisture	3.7	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-2 20' (6I15017-14) Soil									
% Moisture	2.5	0.1	%	1	EI61809	09/15/06	09/18/06	% calculation	
MW-2 25' (6I15017-15) Soil									
% Moisture	1.8	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-2 35' (6I15017-16) Soil									
% Moisture	2.2	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-2 45' (6I15017-17) Soil									
% Moisture	3.2	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-2 55' (6I15017-18) Soil									
% Moisture	2.2	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-2 65' (6I15017-19) Soil									
% Moisture	3.9	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-2 75' (6I15017-20) Soil									
% Moisture	5.3	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-3 5' (6I15017-21) Soil									
% Moisture	5.4	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-3 10' (6I15017-22) Soil									
% Moisture	7.9	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 15' (6I15017-23) Soil									
% Moisture	7.4	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-3 20' (6I15017-24) Soil									
% Moisture	6.4	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-3 25' (6I15017-25) Soil									
% Moisture	2.0	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-3 35' (6I15017-26) Soil									
% Moisture	3.4	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-3 45' (6I15017-27) Soil									
% Moisture	3.3	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-3 55' (6I15017-28) Soil									
% Moisture	4.0	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-3 65' (6I15017-29) Soil									
% Moisture	4.8	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	
MW-3 75' (6I15017-30) Soil									
% Moisture	4.6	0.1	%	1	EI61810	09/15/06	09/18/06	% calculation	

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI61508 - Solvent Extraction (GC)

Blank (EI61508-BLK1)

Prepared: 09/15/06 Analyzed: 09/16/06

Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	48.2		mg/kg	50.0		96.4	70-130			
Surrogate: 1-Chlorooctadecane	47.0		"	50.0		94.0	70-130			

LCS (EI61508-BS1)

Prepared: 09/15/06 Analyzed: 09/16/06

Carbon Ranges C6-C12	491	10.0	mg/kg wet	500		98.2	75-125			
Carbon Ranges C12-C28	434	10.0	"	500		86.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	925	10.0	"	1000		92.5	75-125			
Surrogate: 1-Chlorooctane	56.8		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	46.3		"	50.0		92.6	70-130			

Calibration Check (EI61508-CCV1)

Prepared: 09/15/06 Analyzed: 09/16/06

Carbon Ranges C6-C12	225		mg/kg	250		90.0	80-120			
Carbon Ranges C12-C28	279		"	250		112	80-120			
Total Hydrocarbons	504		"	500		101	80-120			
Surrogate: 1-Chlorooctane	61.1		"	50.0		122	70-130			
Surrogate: 1-Chlorooctadecane	55.7		"	50.0		111	70-130			

Matrix Spike (EI61508-MS1)

Source: 6115017-03

Prepared: 09/15/06 Analyzed: 09/18/06

Carbon Ranges C6-C12	542	10.0	mg/kg dry	514	ND	105	75-125			
Carbon Ranges C12-C28	614	10.0	"	514	ND	119	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1160	10.0	"	1030	ND	113	75-125			
Surrogate: 1-Chlorooctane	48.6		mg/kg	50.0		97.2	70-130			
Surrogate: 1-Chlorooctadecane	38.8		"	50.0		77.6	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI61508 - Solvent Extraction (GC)

Matrix Spike Dup (EI61508-MSD1)		Source: 6I15017-03			Prepared: 09/15/06		Analyzed: 09/18/06			
Carbon Ranges C6-C12	559	10.0	mg/kg dry	514	ND	109	75-125	3.09	20	
Carbon Ranges C12-C28	572	10.0	"	514	ND	111	75-125	7.08	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1130	10.0	"	1030	ND	110	75-125	2.62	20	
Surrogate: 1-Chlorooctane	47.0		mg/kg	50.0		94.0	70-130			
Surrogate: 1-Chlorooctadecane	50.6		"	50.0		101	70-130			

Batch EI61509 - EPA 5030C (GC)

Blank (EI61509-BLK1)		Prepared & Analyzed: 09/15/06								
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	36.8		ug/kg	40.0		92.0	80-120			
Surrogate: 4-Bromofluorobenzene	32.7		"	40.0		81.8	80-120			

LCS (EI61509-BS1)		Prepared & Analyzed: 09/15/06								
Benzene	1.36	0.0250	mg/kg wet	1.25		109	80-120			
Toluene	1.15	0.0250	"	1.25		92.0	80-120			
Ethylbenzene	1.21	0.0250	"	1.25		96.8	80-120			
Xylene (p/m)	2.48	0.0250	"	2.50		99.2	80-120			
Xylene (o)	1.20	0.0250	"	1.25		96.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	34.8		ug/kg	40.0		87.0	80-120			
Surrogate: 4-Bromofluorobenzene	37.0		"	40.0		92.5	80-120			

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Organics by GC - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI61509 - EPA 5030C (GC)

Calibration Check (EI61509-CCV1)				Prepared: 09/15/06		Analyzed: 09/18/06				
Benzene	52.3		ug/kg	50.0		105	80-120			
Toluene	46.8		"	50.0		93.6	80-120			
Ethylbenzene	45.0		"	50.0		90.0	80-120			
Xylene (p/m)	93.1		"	100		93.1	80-120			
Xylene (o)	45.8		"	50.0		91.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	41.5		"	40.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	33.8		"	40.0		84.5	80-120			

Matrix Spike (EI61509-MS1)				Source: 6I15001-01		Prepared: 09/15/06		Analyzed: 09/18/06		
Benzene	1.43	0.0250	mg/kg dry	1.32	ND	108	80-120			
Toluene	1.22	0.0250	"	1.32	ND	92.4	80-120			
Ethylbenzene	1.26	0.0250	"	1.32	ND	95.5	80-120			
Xylene (p/m)	2.58	0.0250	"	2.64	ND	97.7	80-120			
Xylene (o)	1.22	0.0250	"	1.32	ND	92.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	38.7		ug/kg	40.0		96.8	80-120			
Surrogate: 4-Bromofluorobenzene	36.4		"	40.0		91.0	80-120			

Matrix Spike Dup (EI61509-MSD1)				Source: 6I15001-01		Prepared: 09/15/06		Analyzed: 09/18/06		
Benzene	1.46	0.0250	mg/kg dry	1.32	ND	111	80-120	2.74	20	
Toluene	1.24	0.0250	"	1.32	ND	93.9	80-120	1.61	20	
Ethylbenzene	1.27	0.0250	"	1.32	ND	96.2	80-120	0.730	20	
Xylene (p/m)	2.64	0.0250	"	2.64	ND	100	80-120	2.33	20	
Xylene (o)	1.25	0.0250	"	1.32	ND	94.7	80-120	2.46	20	
Surrogate: a,a,a-Trifluorotoluene	39.8		ug/kg	40.0		99.5	80-120			
Surrogate: 4-Bromofluorobenzene	38.3		"	40.0		95.8	80-120			

Batch EI61807 - Solvent Extraction (GC)

Blank (EI61807-BLK1)				Prepared: 09/15/06		Analyzed: 09/16/06				
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	51.0		mg/kg	50.0		102	70-130			
Surrogate: 1-Chlorooctadecane	51.1		"	50.0		102	70-130			

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Organics by GC - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI61807 - Solvent Extraction (GC)

LCS (EI61807-BS1)		Prepared: 09/15/06 Analyzed: 09/16/06								
Carbon Ranges C6-C12	524	10.0	mg/kg wet	500		105	75-125			
Carbon Ranges C12-C28	454	10.0	"	500		90.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	978	10.0	"	1000		97.8	75-125			
Surrogate: 1-Chlorooctane	61.2		mg/kg	50.0		122	70-130			
Surrogate: 1-Chlorooctadecane	50.9		"	50.0		102	70-130			

Calibration Check (EI61807-CCV1)		Prepared: 09/15/06 Analyzed: 09/17/06								
Carbon Ranges C6-C12	240		mg/kg	250		96.0	80-120			
Carbon Ranges C12-C28	276		"	250		110	80-120			
Total Hydrocarbons	516		"	500		103	80-120			
Surrogate: 1-Chlorooctane	62.3		"	50.0		125	70-130			
Surrogate: 1-Chlorooctadecane	54.0		"	50.0		108	70-130			

Matrix Spike (EI61807-MS1)		Source: 6I15017-14		Prepared: 09/15/06 Analyzed: 09/16/06						
Carbon Ranges C6-C12	525	10.0	mg/kg dry	513	ND	102	75-125			
Carbon Ranges C12-C28	469	10.0	"	513	ND	91.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	994	10.0	"	1030	ND	96.5	75-125			
Surrogate: 1-Chlorooctane	62.1		mg/kg	50.0		124	70-130			
Surrogate: 1-Chlorooctadecane	60.9		"	50.0		122	70-130			

Matrix Spike Dup (EI61807-MSD1)		Source: 6I15017-14		Prepared: 09/15/06 Analyzed: 09/16/06						
Carbon Ranges C6-C12	518	10.0	mg/kg dry	513	ND	101	75-125	1.34	20	
Carbon Ranges C12-C28	458	10.0	"	513	ND	89.3	75-125	2.37	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	976	10.0	"	1030	ND	94.8	75-125	1.83	20	
Surrogate: 1-Chlorooctane	60.8		mg/kg	50.0		122	70-130			
Surrogate: 1-Chlorooctadecane	60.0		"	50.0		120	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI61812 - EPA 5030C (GC)

Blank (EI61812-BLK1)

Prepared & Analyzed: 09/18/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	35.9		ug/kg	40.0		89.8	80-120			
Surrogate: 4-Bromofluorobenzene	32.7		"	40.0		81.8	80-120			

LCS (EI61812-BS1)

Prepared & Analyzed: 09/18/06

Benzene	1.34	0.0250	mg/kg wet	1.25		107	80-120			
Toluene	1.18	0.0250	"	1.25		94.4	80-120			
Ethylbenzene	1.01	0.0250	"	1.25		80.8	80-120			
Xylene (p/m)	2.39	0.0250	"	2.50		95.6	80-120			
Xylene (o)	1.07	0.0250	"	1.25		85.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	33.9		ug/kg	40.0		84.8	80-120			
Surrogate: 4-Bromofluorobenzene	34.1		"	40.0		85.2	80-120			

Calibration Check (EI61812-CCV1)

Prepared: 09/18/06 Analyzed: 09/19/06

Benzene	0.0544		mg/kg wet	0.0500		109	80-120			
Toluene	0.0481		"	0.0500		96.2	80-120			
Ethylbenzene	0.0460		"	0.0500		92.0	80-120			
Xylene (p/m)	0.0919		"	0.100		91.9	80-120			
Xylene (o)	0.0462		"	0.0500		92.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	33.8		ug/kg	40.0		97.0	80-120			
Surrogate: 4-Bromofluorobenzene	32.8		"	40.0		82.0	80-120			

Matrix Spike (EI61812-MS1)

Source: 6115017-09

Prepared: 09/18/06 Analyzed: 09/19/06

Benzene	1.45	0.0250	mg/kg dry	1.30	ND	112	80-120			
Toluene	1.30	0.0250	"	1.30	ND	100	80-120			
Ethylbenzene	1.18	0.0250	"	1.30	ND	90.8	80-120			
Xylene (p/m)	2.69	0.0250	"	2.60	ND	103	80-120			
Xylene (o)	1.23	0.0250	"	1.30	ND	94.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	36.5		ug/kg	40.0		91.2	80-120			
Surrogate: 4-Bromofluorobenzene	38.0		"	40.0		95.0	80-120			

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Organics by GC - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI61812 - EPA 5030C (GC)

Matrix Spike Dup (EI61812-MSD1)		Source: 6I15017-09			Prepared: 09/18/06		Analyzed: 09/19/06			
Benzene	1.34	0.0250	mg/kg dry	1.30	ND	103	80-120	8.37	20	
Toluene	1.22	0.0250	"	1.30	ND	93.8	80-120	6.40	20	
Ethylbenzene	1.16	0.0250	"	1.30	ND	89.2	80-120	1.78	20	
Xylene (p/m)	2.52	0.0250	"	2.60	ND	96.9	80-120	6.10	20	
Xylene (o)	1.16	0.0250	"	1.30	ND	89.2	80-120	5.88	20	
Surrogate: a,a,a-Trifluorotoluene		37.1	ug/kg	40.0		92.8	80-120			
Surrogate: 4-Bromofluorobenzene		35.6	"	40.0		89.0	80-120			

Batch EI61904 - EPA 5030C (GC)

Blank (EI61904-BLK1)		Prepared & Analyzed: 09/19/06								
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene		38.7	ug/kg	40.0		96.8	80-120			
Surrogate: 4-Bromofluorobenzene		32.4	"	40.0		81.0	80-120			

LCS (EI61904-BS1)		Prepared & Analyzed: 09/19/06								
Benzene	1.42	0.0250	mg/kg wet	1.25		114	80-120			
Toluene	1.29	0.0250	"	1.25		103	80-120			
Ethylbenzene	1.19	0.0250	"	1.25		95.2	80-120			
Xylene (p/m)	2.65	0.0250	"	2.50		106	80-120			
Xylene (o)	1.22	0.0250	"	1.25		97.6	80-120			
Surrogate: a,a,a-Trifluorotoluene		42.4	ug/kg	40.0		106	80-120			
Surrogate: 4-Bromofluorobenzene		38.7	"	40.0		96.8	80-120			

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Organics by GC - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI61904 - EPA 5030C (GC)

Calibration Check (EI61904-CCV1)

Prepared & Analyzed: 09/19/06

Benzene	0.0512		mg/kg wet	0.0500		102	80-120			
Toluene	0.0454		"	0.0500		90.8	80-120			
Ethylbenzene	0.0450		"	0.0500		90.0	80-120			
Xylene (p/m)	0.0887		"	0.100		88.7	80-120			
Xylene (o)	0.0440		"	0.0500		88.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.4		ug/kg	40.0		98.5	80-120			
Surrogate: 4-Bromofluorobenzene	32.8		"	40.0		82.0	80-120			

Matrix Spike (EI61904-MS1)

Source: 6I15017-30

Prepared & Analyzed: 09/19/06

Benzene	1.47	0.0250	mg/kg dry	1.31	ND	112	80-120			
Toluene	1.33	0.0250	"	1.31	ND	102	80-120			
Ethylbenzene	1.21	0.0250	"	1.31	ND	92.4	80-120			
Xylene (p/m)	2.81	0.0250	"	2.62	ND	107	80-120			
Xylene (o)	1.32	0.0250	"	1.31	ND	101	80-120			
Surrogate: a,a,a-Trifluorotoluene	40.2		ug/kg	40.0		100	80-120			
Surrogate: 4-Bromofluorobenzene	39.3		"	40.0		98.2	80-120			

Matrix Spike Dup (EI61904-MSD1)

Source: 6I15017-30

Prepared & Analyzed: 09/19/06

Benzene	1.55	0.0250	mg/kg dry	1.31	ND	118	80-120	5.22	20	
Toluene	1.32	0.0250	"	1.31	ND	101	80-120	0.985	20	
Ethylbenzene	1.32	0.0250	"	1.31	ND	101	80-120	8.89	20	
Xylene (p/m)	2.75	0.0250	"	2.62	ND	105	80-120	1.89	20	
Xylene (o)	1.36	0.0250	"	1.31	ND	104	80-120	2.93	20	
Surrogate: a,a,a-Trifluorotoluene	39.9		ug/kg	40.0		99.8	80-120			
Surrogate: 4-Bromofluorobenzene	44.5		"	40.0		111	80-120			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI61809 - General Preparation (Prep)

Blank (EI61809-BLK1)

Prepared: 09/15/06 Analyzed: 09/18/06

% Solids	99.8		%							
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Duplicate (EI61809-DUP1)

Source: 6I15010-01

Prepared: 09/15/06 Analyzed: 09/18/06

% Solids	93.0		%		93.5			0.536	20	
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Batch EI61810 - General Preparation (Prep)

Blank (EI61810-BLK1)

Prepared & Analyzed: 09/18/06

% Solids	99.8		%							
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Duplicate (EI61810-DUP1)

Source: 6I15017-15

Prepared & Analyzed: 09/18/06

% Solids	97.9		%		98.2			0.306	20	
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Fax: (432) 687-4914

Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

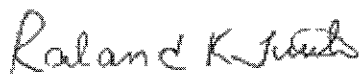
RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By: _____



Date: 9/21/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

2 of 3

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Ken Dutton

Company Name: Basin Environmental Service Technologies, LLC

Company Address: P. O. Box 301

City/State/Zip: Lovington, NM 88260

Telephone No: (505) 441-2124

Sampler Signature: *Ken Dutton*

Fax No: (505) 396-1429

e-mail: kdutton@basinenvironment.com

Project Name: Lovington Gathering WTI

Project #: SRS-2006-142

Project Loc: Lea County, NM

PO #: PAA/C. Reynolds

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)

ORDER #: 07-1501

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	Overdrinking Water SL-Sedg	GW = Groundwater S-Soil/Solid	NP=Non-Potable Specify Other	TPH: 418 1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , CO ₃ , HCO ₃)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	M.O.R.M.	Chlorides (EPA 300.0)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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Special Instructions:

Laboratory Comments:

Sample Containers intact? ☒ N
VOCs Free of Headspace? ☒ N
Custody seals on container(s) ☒ N
Custody seals on cooler(s) ☒ N
Sample Hand Delivered by Sampler/Client Rep.? ☒ N
by Courier? ☐ UPS ☐ DHL ☐ FedEx ☐ Lone Star

Relinquished by: <i>Ken Dutton</i>	Date: 11-Sep-06	Time: 1430	Received by: <i>Ken Dutton</i>	Date: 11-Sep-06	Time: 1430
Relinquished by: <i>Ken Dutton</i>	Date: 11-Sep-06	Time: 1430	Received by: <i>Ken Dutton</i>	Date: 11-Sep-06	Time: 1430
Relinquished by: <i>Ken Dutton</i>	Date: 11-Sep-06	Time: 1430	Received by: <i>Ken Dutton</i>	Date: 11-Sep-06	Time: 1430

Temperature Upon Receipt: 4.0 °C

303

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

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Special Instructions:				Laboratory Comments:			
Relinquished by:	Date	Time	Received by:	Date	Time		
<i>Don Dutton</i>	15 Sept 86	1:00 PM	<i>Inda Blackwood</i>	Sept 15/86	10:07	Sample Containers Intact?	<input checked="" type="checkbox"/> N
Relinquished by:			Received by:			VOCs Free of Headspace?	<input checked="" type="checkbox"/> N
						Custody seats on container(s)	<input checked="" type="checkbox"/> N
						Custody seats on cooler(s)	<input checked="" type="checkbox"/> N
						Sample Hand Delivered	<input checked="" type="checkbox"/> N
						by Sampler/Client Rep.?	<input checked="" type="checkbox"/> N
						by Courier?	<input checked="" type="checkbox"/> N
						UPS	<input checked="" type="checkbox"/> DHL
						FedEx	<input checked="" type="checkbox"/> Lone Star
Relinquished by:	Date	Time	Received by ELDT:	Date	Time	Temperature Upon Receipt	
<i>Inda Blackwood</i>	9-15-86	1:35	<i>Inda Blackwood</i>	9/15/86	1:35	4.0 °C	

Special Instructions:

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains
 Date/ Time: 9/15/06 1:35
 Lab ID #: 6E1509
 Initials: OK

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	Yes	No	4.0 °C
#2	Shipping container in good condition?	<u>Yes</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	<u>Yes</u>	No	Not Present
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by ELOT?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

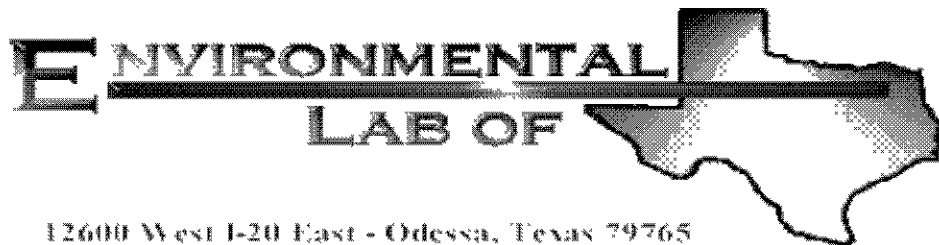
Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that Apply:
- ☐ See attached e-mail/ fax
 - ☐ Client understands and would like to proceed with analysis
 - ☐ Cooling process had begun shortly after sampling event



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Lovington Gathering WTI

Project Number: SRS: 2006-142

Location: Lea County, NM

Lab Order Number: 6L01016

Report Date: 12/07/06

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-4 5'	6L01016-01	Soil	11/22/06 08:48	12-01-2006 16:00
MW-4 10'	6L01016-02	Soil	11/22/06 08:55	12-01-2006 16:00
MW-4 15'	6L01016-03	Soil	11/22/06 09:01	12-01-2006 16:00
MW-4 20'	6L01016-04	Soil	11/22/06 09:22	12-01-2006 16:00
MW-4 25'	6L01016-05	Soil	11/22/06 09:26	12-01-2006 16:00
MW-4 35'	6L01016-06	Soil	11/22/06 09:37	12-01-2006 16:00
MW-4 45'	6L01016-07	Soil	11/22/06 09:43	12-01-2006 16:00
MW-4 55'	6L01016-08	Soil	11/22/06 09:53	12-01-2006 16:00
MW-4 65'	6L01016-09	Soil	11/22/06 10:12	12-01-2006 16:00
MW-4 75'	6L01016-10	Soil	11/22/06 10:22	12-01-2006 16:00

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 5' (6L01016-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60512	12/05/06	12/05/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		112 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		111 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60412	12/04/06	12/04/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		88.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		112 %	70-130		"	"	"	"	
MW-4 10' (6L01016-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60512	12/05/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		81.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60412	12/04/06	12/04/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		88.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		104 %	70-130		"	"	"	"	
MW-4 15' (6L01016-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60512	12/05/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		113 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60412	12/04/06	12/04/06	EPA 8015M	

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 15' (6L01016-03) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60412	12/04/06	12/04/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		112 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		128 %	70-130		"	"	"	"	
MW-4 20' (6L01016-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60512	12/05/06	12/05/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		118 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		116 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60412	12/04/06	12/04/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		91.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		103 %	70-130		"	"	"	"	
MW-4 25' (6L01016-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60512	12/05/06	12/05/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		81.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		115 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60412	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		91.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		103 %	70-130		"	"	"	"	

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 35' (6L01016-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60512	12/05/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>81.2 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>111 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60412	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>88.4 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>98.2 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
MW-4 45' (6L01016-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60512	12/05/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>81.5 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>104 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60412	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>92.6 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>103 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
MW-4 55' (6L01016-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60512	12/05/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>82.5 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>110 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60412	12/04/06	12/05/06	EPA 8015M	

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 55' (6L01016-08) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60412	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		101 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		111 %	70-130		"	"	"	"	
MW-4 65' (6L01016-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60512	12/05/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		80.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		106 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60412	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		92.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		99.8 %	70-130		"	"	"	"	
MW-4 75' (6L01016-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60512	12/05/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		80.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		91.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		101 %	70-130		"	"	"	"	

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General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 5' (6L01016-01) Soil									
% Moisture	1.0	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-4 10' (6L01016-02) Soil									
% Moisture	0.9	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-4 15' (6L01016-03) Soil									
% Moisture	2.6	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-4 20' (6L01016-04) Soil									
% Moisture	3.5	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-4 25' (6L01016-05) Soil									
% Moisture	3.2	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-4 35' (6L01016-06) Soil									
% Moisture	2.7	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-4 45' (6L01016-07) Soil									
% Moisture	2.5	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-4 55' (6L01016-08) Soil									
% Moisture	2.3	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-4 65' (6L01016-09) Soil									
% Moisture	3.8	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-4 75' (6L01016-10) Soil									
% Moisture	6.3	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL60412 - Solvent Extraction (GC)

Blank (EL60412-BLK1)

Prepared & Analyzed: 12/04/06

Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	46.0		mg/kg	50.0		92.0	70-130			
Surrogate: 1-Chlorooctadecane	53.3		"	50.0		107	70-130			

LCS (EL60412-BS1)

Prepared & Analyzed: 12/04/06

Carbon Ranges C6-C12	440	10.0	mg/kg wet	500		88.0	75-125			
Carbon Ranges C12-C28	424	10.0	"	500		84.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	864	10.0	"	1000		86.4	75-125			
Surrogate: 1-Chlorooctane	56.9		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	55.7		"	50.0		111	70-130			

Calibration Check (EL60412-CCV1)

Prepared: 12/04/06 Analyzed: 12/05/06

Carbon Ranges C6-C12	216		mg/kg	250		86.4	80-120			
Carbon Ranges C12-C28	246		"	250		98.4	80-120			
Total Hydrocarbons	462		"	500		92.4	80-120			
Surrogate: 1-Chlorooctane	51.7		"	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	54.9		"	50.0		110	70-130			

Matrix Spike (EL60412-MS1)

Source: 6L01011-01

Prepared: 12/04/06 Analyzed: 12/05/06

Carbon Ranges C6-C12	473	10.0	mg/kg dry	531	ND	89.1	75-125			
Carbon Ranges C12-C28	406	10.0	"	531	ND	76.5	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	985	10.0	"	1060	ND	92.9	75-125			
Surrogate: 1-Chlorooctane	57.5		mg/kg	50.0		115	70-130			
Surrogate: 1-Chlorooctadecane	52.9		"	50.0		106	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL60412 - Solvent Extraction (GC)

Matrix Spike Dup (EL60412-MSD1)		Source: 6L01011-01			Prepared: 12/04/06		Analyzed: 12/05/06			
Carbon Ranges C6-C12	481	10.0	mg/kg dry	531	ND	90.6	75-125	1.68	20	
Carbon Ranges C12-C28	415	10.0	"	531	ND	78.2	75-125	2.19	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	896	10.0	"	1060	ND	84.5	75-125	9.46	20	
Surrogate: 1-Chlorooctane	59.2		mg/kg	50.0		118	70-130			
Surrogate: 1-Chlorooctadecane	53.9		"	50.0		108	70-130			

Batch EL60413 - Solvent Extraction (GC)

Blank (EL60413-BLK1)					Prepared: 12/04/06		Analyzed: 12/05/06			
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	49.0		mg/kg	50.0		98.0	70-130			
Surrogate: 1-Chlorooctadecane	52.9		"	50.0		106	70-130			

LCS (EL60413-BS1)					Prepared: 12/04/06		Analyzed: 12/05/06			
Carbon Ranges C6-C12	453	10.0	mg/kg wet	500		90.6	75-125			
Carbon Ranges C12-C28	416	10.0	"	500		83.2	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	869	10.0	"	1000		86.9	75-125			
Surrogate: 1-Chlorooctane	58.7		mg/kg	50.0		117	70-130			
Surrogate: 1-Chlorooctadecane	54.2		"	50.0		108	70-130			

Calibration Check (EL60413-CCV1)					Prepared: 12/04/06		Analyzed: 12/05/06			
Carbon Ranges C6-C12	209		mg/kg	250		83.6	80-120			
Carbon Ranges C12-C28	249		"	250		99.6	80-120			
Total Hydrocarbons	458		"	500		91.6	80-120			
Surrogate: 1-Chlorooctane	51.6		"	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	51.4		"	50.0		103	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL60413 - Solvent Extraction (GC)

Matrix Spike (EL60413-MS1)		Source: 6L01016-10			Prepared: 12/04/06		Analyzed: 12/05/06			
Carbon Ranges C6-C12	705	10.0	mg/kg dry	640	ND	110	75-125			
Carbon Ranges C12-C28	636	10.0	"	640	ND	99.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1340	10.0	"	1280	ND	105	75-125			
Surrogate: 1-Chlorooctane	74.3		mg/kg	100		74.3	70-130			
Surrogate: 1-Chlorooctadecane	78.1		"	100		78.1	70-130			
Matrix Spike Dup (EL60413-MSD1)		Source: 6L01016-10			Prepared: 12/04/06		Analyzed: 12/06/06			
Carbon Ranges C6-C12	656	10.0	mg/kg dry	640	ND	102	75-125	7.20	20	
Carbon Ranges C12-C28	593	10.0	"	640	ND	92.7	75-125	7.00	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1250	10.0	"	1280	ND	97.7	75-125	6.95	20	
Surrogate: 1-Chlorooctane	70.8		mg/kg	100		70.8	70-130			
Surrogate: 1-Chlorooctadecane	71.2		"	100		71.2	70-130			

Batch EL60512 - EPA 5030C (GC)

Blank (EL60512-BLK1)		Prepared & Analyzed: 12/05/06								
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	47.2		ug/kg	40.0		118	80-120			
Surrogate: 4-Bromofluorobenzene	44.9		"	40.0		112	80-120			
LCS (EL60512-BS1)		Prepared & Analyzed: 12/05/06								
Benzene	1.16	0.0250	mg/kg wet	1.25		92.8	80-120			
Toluene	1.20	0.0250	"	1.25		96.0	80-120			
Ethylbenzene	1.45	0.0250	"	1.25		116	80-120			
Xylene (p/m)	2.51	0.0250	"	2.50		100	80-120			
Xylene (o)	1.14	0.0250	"	1.25		91.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.6		ug/kg	40.0		99.0	80-120			
Surrogate: 4-Bromofluorobenzene	43.4		"	40.0		108	80-120			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL60512 - EPA 5030C (GC)

Calibration Check (EL60512-CCV1)

Prepared & Analyzed: 12/05/06

Benzene	44.9		ug/kg	50.0		89.8	80-120			
Toluene	43.7		"	50.0		87.4	80-120			
Ethylbenzene	44.2		"	50.0		88.4	80-120			
Xylene (p/m)	85.4		"	100		85.4	80-120			
Xylene (o)	43.4		"	50.0		86.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	41.7		"	40.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	34.0		"	40.0		85.0	80-120			

Matrix Spike (EL60512-MS1)

Source: 6L01016-01

Prepared: 12/05/06 Analyzed: 12/06/06

Benzene	1.15	0.0250	mg/kg dry	1.26	ND	91.3	80-120			
Toluene	1.10	0.0250	"	1.26	ND	87.3	80-120			
Ethylbenzene	1.33	0.0250	"	1.26	ND	106	80-120			
Xylene (p/m)	2.11	0.0250	"	2.53	ND	83.4	80-120			
Xylene (o)	1.02	0.0250	"	1.26	ND	81.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	33.4		ug/kg	40.0		83.5	80-120			
Surrogate: 4-Bromofluorobenzene	35.2		"	40.0		88.0	80-120			

Matrix Spike Dup (EL60512-MSD1)

Source: 6L01016-01

Prepared: 12/05/06 Analyzed: 12/06/06

Benzene	1.30	0.0250	mg/kg dry	1.26	ND	103	80-120	12.0	20	
Toluene	1.29	0.0250	"	1.26	ND	102	80-120	15.5	20	
Ethylbenzene	1.36	0.0250	"	1.26	ND	108	80-120	1.87	20	
Xylene (p/m)	2.46	0.0250	"	2.53	ND	97.2	80-120	15.3	20	
Xylene (o)	1.23	0.0250	"	1.26	ND	97.6	80-120	18.6	20	
Surrogate: a,a,a-Trifluorotoluene	37.6		ug/kg	40.0		94.0	80-120			
Surrogate: 4-Bromofluorobenzene	36.9		"	40.0		92.2	80-120			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL60505 - General Preparation (Prep)										
Blank (EL60505-BLK1)										
					Prepared: 12/04/06 Analyzed: 12/05/06					
% Solids	99.8		%							
Duplicate (EL60505-DUP1)										
					Source: 6L04005-01 Prepared: 12/04/06 Analyzed: 12/05/06					
% Solids	95.7		%		96.5			0.832	20	
Duplicate (EL60505-DUP2)										
					Source: 6L01019-01 Prepared: 12/04/06 Analyzed: 12/05/06					
% Solids	94.4		%		95.0			0.634	20	
Duplicate (EL60505-DUP3)										
					Source: 6L01019-21 Prepared: 12/04/06 Analyzed: 12/05/06					
% Solids	95.2		%		95.3			0.105	20	
Duplicate (EL60505-DUP4)										
					Source: 6L04012-11 Prepared: 12/04/06 Analyzed: 12/05/06					
% Solids	99.7		%		99.7			0.00	20	

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Midland TX, 79706-4476

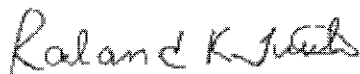
Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By:



Date:

12/7/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas
Variance/ Corrective Action Report- Sample Log-In

Client: Plains
Date/ Time: 12/1/06 4:00
Lab ID #: 6L01016
Initials: CK

Sample Receipt Checklist

Client Initials

#1	Temperature of container/ cooler?	Yes	No	3.0 °C	
#2	Shipping container in good condition?	<u>Yes</u>	No		
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	<u>Yes</u>	No	Not Present	
#5	Chain of Custody present?	<u>Yes</u>	No		
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No		
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No		
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No		
#11	Containers supplied by EL0T?	<u>Yes</u>	No		
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below	
#13	Samples properly preserved?	<u>Yes</u>	No	See Below	
#14	Sample bottles intact?	<u>Yes</u>	No		
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No		
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No		
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below	
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	<u>Not Applicable</u>	
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable	

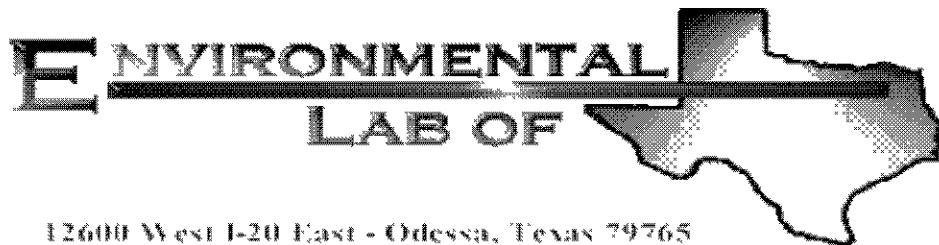
Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that Apply:
- ☐ See attached e-mail/ fax
 - ☐ Client understands and would like to proceed with analysis
 - ☐ Cooling process had begun shortly after sampling event



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Lovington Gathering WTI

Project Number: SRS: 2006-142

Location: Lea County, NM

Lab Order Number: 6L01019

Report Date: 12/08/06

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-5 5'	6L01019-01	Soil	11/27/06 10:07	12-01-2006 16:00
MW-5 10'	6L01019-02	Soil	11/27/06 10:15	12-01-2006 16:00
MW-5 15'	6L01019-03	Soil	11/27/06 10:21	12-01-2006 16:00
MW-5 20'	6L01019-04	Soil	11/27/06 10:30	12-01-2006 16:00
MW-5 25'	6L01019-05	Soil	11/27/06 10:35	12-01-2006 16:00
MW-5 35'	6L01019-06	Soil	11/27/06 10:42	12-01-2006 16:00
MW-5 45'	6L01019-07	Soil	11/27/06 10:52	12-01-2006 16:00
MW-5 55'	6L01019-08	Soil	11/27/06 10:55	12-01-2006 16:00
MW-5 65'	6L01019-09	Soil	11/27/06 11:04	12-01-2006 16:00
MW-5 75'	6L01019-10	Soil	11/27/06 11:11	12-01-2006 16:00
MW-6 5'	6L01019-11	Soil	11/27/06 14:21	12-01-2006 16:00
MW-6 10'	6L01019-12	Soil	11/27/06 14:26	12-01-2006 16:00
MW-6 15'	6L01019-13	Soil	11/27/06 14:30	12-01-2006 16:00
MW-6 20'	6L01019-14	Soil	11/27/06 14:36	12-01-2006 16:00
MW-6 25'	6L01019-15	Soil	11/27/06 14:40	12-01-2006 16:00
MW-6 35'	6L01019-16	Soil	11/27/06 14:48	12-01-2006 16:00
MW-6 45'	6L01019-17	Soil	11/27/06 14:52	12-01-2006 16:00
MW-6 55'	6L01019-18	Soil	11/27/06 14:59	12-01-2006 16:00
MW-6 65'	6L01019-19	Soil	11/27/06 15:20	12-01-2006 16:00
MW-6 75'	6L01019-20	Soil	11/28/06 09:00	12-01-2006 16:00
MW-7 5'	6L01019-21	Soil	11/28/06 13:50	12-01-2006 16:00
MW-7 10'	6L01019-22	Soil	11/28/06 13:55	12-01-2006 16:00
MW-7 15'	6L01019-23	Soil	11/28/06 14:00	12-01-2006 16:00
MW-7 20'	6L01019-24	Soil	11/28/06 14:04	12-01-2006 16:00
MW-7 25'	6L01019-25	Soil	11/28/06 14:07	12-01-2006 16:00
MW-7 35'	6L01019-26	Soil	11/28/06 14:15	12-01-2006 16:00
MW-7 45'	6L01019-27	Soil	11/28/06 14:23	12-01-2006 16:00
MW-7 55'	6L01019-28	Soil	11/28/06 14:30	12-01-2006 16:00
MW-7 65'	6L01019-29	Soil	11/28/06 14:39	12-01-2006 16:00
MW-7 75'	6L01019-30	Soil	11/28/06 14:45	12-01-2006 16:00

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Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 5' (6L01019-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		104 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		96.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		102 %	70-130		"	"	"	"	
MW-5 10' (6L01019-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		80.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		80.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		91.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		97.0 %	70-130		"	"	"	"	
MW-5 15' (6L01019-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	

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Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 15' (6L01019-03) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>86.0 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>92.4 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
MW-5 20' (6L01019-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>86.5 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>87.8 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>80.2 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>84.2 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
MW-5 25' (6L01019-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>107 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>80.5 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>86.2 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>89.6 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 35' (6L01019-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		86.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		91.0 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		93.4 %	70-130		"	"	"	"	
MW-5 45' (6L01019-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/06/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		108 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		106 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		86.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		89.0 %	70-130		"	"	"	"	
MW-5 55' (6L01019-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		103 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		101 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 55' (6L01019-08) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		88.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		90.6 %	70-130		"	"	"	"	
MW-5 65' (6L01019-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		103 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		105 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		91.0 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		93.2 %	70-130		"	"	"	"	
MW-5 75' (6L01019-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		104 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60413	12/04/06	12/05/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		89.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		90.0 %	70-130		"	"	"	"	

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Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 5' (6L01019-11) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>81.5 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>81.8 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>98.4 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>99.0 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
MW-6 10' (6L01019-12) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>102 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>93.8 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		<i>91.4 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 1-Chlorooctadecane</i>		<i>90.0 %</i>	<i>70-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
MW-6 15' (6L01019-13) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>91.5 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>81.2 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	

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Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 15' (6L01019-13) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		88.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		85.0 %	70-130		"	"	"	"	
MW-6 20' (6L01019-14) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		90.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		88.4 %	70-130		"	"	"	"	
MW-6 25' (6L01019-15) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		92.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		91.2 %	70-130		"	"	"	"	

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Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 35' (6L01019-16) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		84.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		93.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		90.8 %	70-130		"	"	"	"	
MW-6 45' (6L01019-17) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		108 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		93.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		90.0 %	70-130		"	"	"	"	
MW-6 55' (6L01019-18) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/06/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		100 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	

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Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 55' (6L01019-18) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		120 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		121 %	70-130		"	"	"	"	
MW-6 65' (6L01019-19) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		101 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		99.4 %	70-130		"	"	"	"	
MW-6 75' (6L01019-20) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		86.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		89.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		88.4 %	70-130		"	"	"	"	

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Organics by GC
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 5' (6L01019-21) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		82.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		95.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		91.4 %	70-130		"	"	"	"	
MW-7 10' (6L01019-22) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		92.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		88.6 %	70-130		"	"	"	"	
MW-7 15' (6L01019-23) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		80.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 15' (6L01019-23) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		93.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		88.6 %	70-130		"	"	"	"	
MW-7 20' (6L01019-24) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		82.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		84.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		93.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		87.8 %	70-130		"	"	"	"	
MW-7 25' (6L01019-25) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		88.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		85.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		92.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		87.6 %	70-130		"	"	"	"	

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Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 35' (6L01019-26) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		84.0 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		91.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		86.2 %	70-130		"	"	"	"	
MW-7 45' (6L01019-27) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		81.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		91.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		85.2 %	70-130		"	"	"	"	
MW-7 55' (6L01019-28) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	

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Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 55' (6L01019-28) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		92.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		85.8 %	70-130		"	"	"	"	
MW-7 65' (6L01019-29) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/08/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.5 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		86.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		93.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		87.0 %	70-130		"	"	"	"	
MW-7 75' (6L01019-30) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/08/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		88.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60414	12/04/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		80.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		73.8 %	70-130		"	"	"	"	

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General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 5' (6L01019-01) Soil									
% Moisture	5.0	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-5 10' (6L01019-02) Soil									
% Moisture	1.5	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-5 15' (6L01019-03) Soil									
% Moisture	1.5	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-5 20' (6L01019-04) Soil									
% Moisture	1.6	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-5 25' (6L01019-05) Soil									
% Moisture	3.1	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-5 35' (6L01019-06) Soil									
% Moisture	3.6	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-5 45' (6L01019-07) Soil									
% Moisture	4.1	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-5 55' (6L01019-08) Soil									
% Moisture	3.8	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-5 65' (6L01019-09) Soil									
% Moisture	3.9	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-5 75' (6L01019-10) Soil									
% Moisture	5.3	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-6 5' (6L01019-11) Soil									
% Moisture	3.6	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	

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General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 10' (6L01019-12) Soil									
% Moisture	4.6	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-6 15' (6L01019-13) Soil									
% Moisture	3.4	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-6 20' (6L01019-14) Soil									
% Moisture	3.3	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-6 25' (6L01019-15) Soil									
% Moisture	3.7	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-6 35' (6L01019-16) Soil									
% Moisture	3.2	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-6 45' (6L01019-17) Soil									
% Moisture	3.6	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-6 55' (6L01019-18) Soil									
% Moisture	3.9	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-6 65' (6L01019-19) Soil									
% Moisture	3.9	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-6 75' (6L01019-20) Soil									
% Moisture	9.1	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-7 5' (6L01019-21) Soil									
% Moisture	4.7	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-7 10' (6L01019-22) Soil									
% Moisture	4.5	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	

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General Chemistry Parameters by EPA / Standard Methods
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 15' (6L01019-23) Soil									
% Moisture	7.2	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-7 20' (6L01019-24) Soil									
% Moisture	8.2	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-7 25' (6L01019-25) Soil									
% Moisture	4.7	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-7 35' (6L01019-26) Soil									
% Moisture	4.4	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-7 45' (6L01019-27) Soil									
% Moisture	3.8	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-7 55' (6L01019-28) Soil									
% Moisture	4.5	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-7 65' (6L01019-29) Soil									
% Moisture	4.7	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	
MW-7 75' (6L01019-30) Soil									
% Moisture	5.5	0.1	%	1	EL60505	12/04/06	12/05/06	% calculation	

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL60413 - Solvent Extraction (GC)

Blank (EL60413-BLK1)

Prepared: 12/04/06 Analyzed: 12/05/06

Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	49.0		mg/kg	50.0		98.0	70-130			
Surrogate: 1-Chlorooctadecane	52.9		"	50.0		106	70-130			

LCS (EL60413-BS1)

Prepared: 12/04/06 Analyzed: 12/05/06

Carbon Ranges C6-C12	453	10.0	mg/kg wet	500		90.6	75-125			
Carbon Ranges C12-C28	416	10.0	"	500		83.2	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	869	10.0	"	1000		86.9	75-125			
Surrogate: 1-Chlorooctane	58.7		mg/kg	50.0		117	70-130			
Surrogate: 1-Chlorooctadecane	54.2		"	50.0		108	70-130			

Calibration Check (EL60413-CCV1)

Prepared: 12/04/06 Analyzed: 12/05/06

Carbon Ranges C6-C12	209		mg/kg	250		83.6	80-120			
Carbon Ranges C12-C28	249		"	250		99.6	80-120			
Total Hydrocarbons	458		"	500		91.6	80-120			
Surrogate: 1-Chlorooctane	51.6		"	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	51.4		"	50.0		103	70-130			

Matrix Spike (EL60413-MS1)

Source: 6L01016-10

Prepared: 12/04/06 Analyzed: 12/05/06

Carbon Ranges C6-C12	705	10.0	mg/kg dry	640	ND	110	75-125			
Carbon Ranges C12-C28	636	10.0	"	640	ND	99.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1340	10.0	"	1280	ND	105	75-125			
Surrogate: 1-Chlorooctane	74.3		mg/kg	100		74.3	70-130			
Surrogate: 1-Chlorooctadecane	78.1		"	100		78.1	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL60413 - Solvent Extraction (GC)

Matrix Spike Dup (EL60413-MSD1)		Source: 6L01016-10			Prepared: 12/04/06		Analyzed: 12/06/06			
Carbon Ranges C6-C12	656	10.0	mg/kg dry	640	ND	102	75-125	7.20	20	
Carbon Ranges C12-C28	593	10.0	"	640	ND	92.7	75-125	7.00	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1250	10.0	"	1280	ND	97.7	75-125	6.95	20	
Surrogate: 1-Chlorooctane	70.8		mg/kg	100		70.8	70-130			
Surrogate: 1-Chlorooctadecane	71.2		"	100		71.2	70-130			

Batch EL60414 - Solvent Extraction (GC)

Blank (EL60414-BLK1)					Prepared: 12/04/06		Analyzed: 12/06/06			
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	48.1		mg/kg	50.0		96.2	70-130			
Surrogate: 1-Chlorooctadecane	47.4		"	50.0		94.8	70-130			

LCS (EL60414-BS1)					Prepared: 12/04/06		Analyzed: 12/06/06			
Carbon Ranges C6-C12	452	10.0	mg/kg wet	500		90.4	75-125			
Carbon Ranges C12-C28	415	10.0	"	500		83.0	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	867	10.0	"	1000		86.7	75-125			
Surrogate: 1-Chlorooctane	58.3		mg/kg	50.0		117	70-130			
Surrogate: 1-Chlorooctadecane	51.0		"	50.0		102	70-130			

Calibration Check (EL60414-CCV1)					Prepared: 12/04/06		Analyzed: 12/06/06			
Carbon Ranges C6-C12	226		mg/kg	250		90.4	80-120			
Carbon Ranges C12-C28	265		"	250		106	80-120			
Total Hydrocarbons	491		"	500		98.2	80-120			
Surrogate: 1-Chlorooctane	52.5		"	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane	47.5		"	50.0		95.0	70-130			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL60414 - Solvent Extraction (GC)

Matrix Spike (EL60414-MS1)		Source: 6L01019-11			Prepared: 12/04/06		Analyzed: 12/06/06			
Carbon Ranges C6-C12	436	10.0	mg/kg dry	519	ND	84.0	75-125			
Carbon Ranges C12-C28	401	10.0	"	519	ND	77.3	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	837	10.0	"	1040	ND	80.5	75-125			
Surrogate: 1-Chlorooctane	47.6		mg/kg	50.0		95.2	70-130			
Surrogate: 1-Chlorooctadecane	42.3		"	50.0		84.6	70-130			

Matrix Spike Dup (EL60414-MSD1)		Source: 6L01019-11			Prepared: 12/04/06		Analyzed: 12/06/06			
Carbon Ranges C6-C12	437	10.0	mg/kg dry	519	ND	84.2	75-125	0.229	20	
Carbon Ranges C12-C28	404	10.0	"	519	ND	77.8	75-125	0.745	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	841	10.0	"	1040	ND	80.9	75-125	0.477	20	
Surrogate: 1-Chlorooctane	54.9		mg/kg	50.0		110	70-130			
Surrogate: 1-Chlorooctadecane	44.2		"	50.0		88.4	70-130			

Batch EL60618 - EPA 5030C (GC)

Blank (EL60618-BLK1)		Prepared & Analyzed: 12/06/06								
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	38.7		ug/kg	40.0		96.8	80-120			
Surrogate: 4-Bromofluorobenzene	35.5		"	40.0		88.8	80-120			

LCS (EL60618-BS1)		Prepared & Analyzed: 12/06/06								
Benzene	1.13	0.0250	mg/kg wet	1.25		90.4	80-120			
Toluene	1.14	0.0250	"	1.25		91.2	80-120			
Ethylbenzene	1.23	0.0250	"	1.25		98.4	80-120			
Xylene (p/m)	2.22	0.0250	"	2.50		88.8	80-120			
Xylene (o)	1.12	0.0250	"	1.25		89.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	32.3		ug/kg	40.0		80.8	80-120			
Surrogate: 4-Bromofluorobenzene	36.2		"	40.0		90.5	80-120			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL60618 - EPA 5030C (GC)

Calibration Check (EL60618-CCV1)

Prepared & Analyzed: 12/06/06

Benzene	54.8		ug/kg	50.0		110	80-120			
Toluene	53.1		"	50.0		106	80-120			
Ethylbenzene	56.0		"	50.0		112	80-120			
Xylene (p/m)	98.5		"	100		98.5	80-120			
Xylene (o)	51.6		"	50.0		103	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.7		"	40.0		94.2	80-120			
Surrogate: 4-Bromofluorobenzene	36.8		"	40.0		92.0	80-120			

Matrix Spike (EL60618-MS1)

Source: 6L01018-03

Prepared: 12/06/06 Analyzed: 12/07/06

Benzene	1.49	0.0250	mg/kg dry	1.42	ND	105	80-120			
Toluene	1.55	0.0250	"	1.42	ND	109	80-120			
Ethylbenzene	1.65	0.0250	"	1.42	ND	116	80-120			
Xylene (p/m)	2.99	0.0250	"	2.85	ND	105	80-120			
Xylene (o)	1.56	0.0250	"	1.42	ND	110	80-120			
Surrogate: a,a,a-Trifluorotoluene	34.1		ug/kg	40.0		85.2	80-120			
Surrogate: 4-Bromofluorobenzene	47.1		"	40.0		118	80-120			

Matrix Spike Dup (EL60618-MSD1)

Source: 6L01018-03

Prepared: 12/06/06 Analyzed: 12/07/06

Benzene	1.53	0.0250	mg/kg dry	1.42	ND	108	80-120	2.82	20	
Toluene	1.57	0.0250	"	1.42	ND	111	80-120	1.82	20	
Ethylbenzene	1.68	0.0250	"	1.42	ND	118	80-120	1.71	20	
Xylene (p/m)	3.07	0.0250	"	2.85	ND	108	80-120	2.82	20	
Xylene (o)	1.58	0.0250	"	1.42	ND	111	80-120	0.905	20	
Surrogate: a,a,a-Trifluorotoluene	37.1		ug/kg	40.0		92.8	80-120			
Surrogate: 4-Bromofluorobenzene	47.1		"	40.0		118	80-120			

Batch EL60701 - EPA 5030C (GC)

Blank (EL60701-BLK1)

Prepared & Analyzed: 12/07/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	33.0		ug/kg	40.0		82.5	80-120			
Surrogate: 4-Bromofluorobenzene	34.0		"	40.0		85.0	80-120			

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL60701 - EPA 5030C (GC)

LCS (EL60701-BS1)

Prepared & Analyzed: 12/07/06

Benzene	1.26	0.0250	mg/kg wet	1.25		101	80-120			
Toluene	1.26	0.0250	"	1.25		101	80-120			
Ethylbenzene	1.31	0.0250	"	1.25		105	80-120			
Xylene (p/m)	2.43	0.0250	"	2.50		97.2	80-120			
Xylene (o)	1.24	0.0250	"	1.25		99.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	40.3		ug/kg	40.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	41.2		"	40.0		103	80-120			

Calibration Check (EL60701-CCV1)

Prepared: 12/07/06 Analyzed: 12/08/06

Benzene	46.0		ug/kg	50.0		92.0	80-120			
Toluene	46.9		"	50.0		93.8	80-120			
Ethylbenzene	50.4		"	50.0		101	80-120			
Xylene (p/m)	91.7		"	100		91.7	80-120			
Xylene (o)	45.3		"	50.0		90.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.2		"	40.0		93.0	80-120			
Surrogate: 4-Bromofluorobenzene	35.8		"	40.0		89.5	80-120			

Matrix Spike (EL60701-MS1)

Source: 6L01019-19

Prepared & Analyzed: 12/07/06

Benzene	1.29	0.0250	mg/kg dry	1.30	ND	99.2	80-120			
Toluene	1.30	0.0250	"	1.30	ND	100	80-120			
Ethylbenzene	1.37	0.0250	"	1.30	ND	105	80-120			
Xylene (p/m)	2.49	0.0250	"	2.60	ND	95.8	80-120			
Xylene (o)	1.26	0.0250	"	1.30	ND	96.9	80-120			
Surrogate: a,a,a-Trifluorotoluene	35.7		ug/kg	40.0		89.2	80-120			
Surrogate: 4-Bromofluorobenzene	43.5		"	40.0		109	80-120			

Matrix Spike Dup (EL60701-MSD1)

Source: 6L01019-19

Prepared: 12/07/06 Analyzed: 12/08/06

Benzene	1.21	0.0250	mg/kg dry	1.30	ND	93.1	80-120	6.34	20	
Toluene	1.26	0.0250	"	1.30	ND	96.9	80-120	3.15	20	
Ethylbenzene	1.37	0.0250	"	1.30	ND	105	80-120	0.00	20	
Xylene (p/m)	2.46	0.0250	"	2.60	ND	94.6	80-120	1.26	20	
Xylene (o)	1.23	0.0250	"	1.30	ND	94.6	80-120	2.40	20	
Surrogate: a,a,a-Trifluorotoluene	38.1		ug/kg	40.0		95.2	80-120			
Surrogate: 4-Bromofluorobenzene	36.4		"	40.0		91.0	80-120			

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL60505 - General Preparation (Prep)										
Blank (EL60505-BLK1)										
					Prepared: 12/04/06 Analyzed: 12/05/06					
% Solids	99.8		%							
Duplicate (EL60505-DUP1)										
					Source: 6L04005-01 Prepared: 12/04/06 Analyzed: 12/05/06					
% Solids	95.7		%		96.5			0.832	20	
Duplicate (EL60505-DUP2)										
					Source: 6L01019-01 Prepared: 12/04/06 Analyzed: 12/05/06					
% Solids	94.4		%		95.0			0.634	20	
Duplicate (EL60505-DUP3)										
					Source: 6L01019-21 Prepared: 12/04/06 Analyzed: 12/05/06					
% Solids	95.2		%		95.3			0.105	20	
Duplicate (EL60505-DUP4)										
					Source: 6L04012-11 Prepared: 12/04/06 Analyzed: 12/05/06					
% Solids	99.7		%		99.7			0.00	20	

Plains All American EH & S
1301 S. County Road 1150
Midland TX, 79706-4476

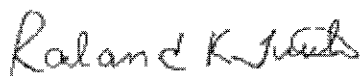
Project: Lovington Gathering WTI
Project Number: SRS: 2006-142
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By:



Date:

12/8/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79766

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

Project Manager: Ken Dutton PAGE 02 OF 03

Company Name: Basin Environmental Service Technologies, LLC

Company Address: P. O. Box 301

City/State/Zip: Lovington, NM 88260

Telephone No: (505) 441-24124

Sampler Signature: Ken Dutton

Fax No: (505) 396-1429

e-mail: kad@basinenrv.com

Project Name: Lovington Gathering WTI

Project #: 2006-142

Project Loc: Lea County, NM

PO #: PAA - C. J. Reynolds

Report Format: ☒ Standard

☐ TRRP

☐ NPDES

(lab use only)

ORDER #: 6601019

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers										Matrix	Analyze For:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
								Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ SO ₄	None	Other (Specify)	DW=Drinking Water SL=Sludge	GW=Groundwater SS=Soil/Solid		NP=Non-Portable	Specify Other	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semi-volatiles	ROCI	N.O.R.M.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
11	MW-6 5'	0	5'	27-Nov-06	1421		1	X								SOIL				X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</

Special Instructions:

Laboratory Comments:

Relinquished by: <u>Ken Dutton</u>	Date: <u>30 Nov 06</u>	Time: <u>1630</u>	Received by: <u>Linda Blackwood</u>	Date: <u>Nov 30, 06</u>	Time: <u>14:30</u>
Relinquished by: <u>Linda Blackwood</u>	Date: <u>Dec 1, 06</u>	Time: <u>4:00</u>	Received by: <u>Ken Dutton</u>	Date: <u>Nov 30, 06</u>	Time: <u>14:30</u>
Relinquished by: <u>Linda Blackwood</u>	Date: <u>Dec 1, 06</u>	Time: <u>4:00</u>	Received by: <u>Ken Dutton</u>	Date: <u>Nov 30, 06</u>	Time: <u>14:30</u>

Sample Containers Intact? ☒ N
VOCs Free of Headspaces? ☒ N
Labels on container(s) ☒ N
Custody seals on container(s) ☒ N
Custody seals on cooler(s) ☒ N
Sample Hand Delivered ☒ N
by Sample Client Rep.? ☒ N
by Carrier? ☒ N
UPS ☒ DHL ☒ FedEx ☒ Lone Star ☒ N
Temperature Upon Receipt: 31.0 °C

Environmental Lab of Texas
Variance/ Corrective Action Report- Sample Log-In

Client: Plains
 Date/ Time: 12/1/06 4:00
 Lab ID #: 6L01019
 Initials: OK

Sample Receipt Checklist

				Client Initials	
#1	Temperature of container/ cooler?	Yes	No	3.0 °C	
#2	Shipping container in good condition?	<u>Yes</u>	No		
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	<u>Yes</u>	No	Not Present	
#5	Chain of Custody present?	<u>Yes</u>	No		
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No		
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No		
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No		
#11	Containers supplied by ELOT?	<u>Yes</u>	No		
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below	
#13	Samples properly preserved?	<u>Yes</u>	No	See Below	
#14	Sample bottles intact?	<u>Yes</u>	No		
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No		
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No		
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below	
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	<u>Not Applicable</u>	
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken:

Check all that Apply

- ☐ See attached e-mail/ fax
☐ Client understands and would like to proceed with analysis
☐ Cooling process had begun shortly after sampling event

Analytical Report 288112

for

PLAINS ALL AMERICAN EH&S

Project Manager: Camille Reynolds

Lovington Gathering WTI

2006-142

23-AUG-07



12600 West I-20 East Odessa, Texas 79765

A Xenco Laboratories Company

NELAC certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America



23-AUG-07

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

Reference: XENCO Report No: **288112**
Lovington Gathering WTI
Project Address: Lea County, NM

Camille Reynolds:

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 288112. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 288112 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,

Brent Barron

Odessa Laboratory Director

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Sample Cross Reference 288112



PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-9 5'	S	Aug-13-07 10:56	0 - 5 ft	288112-001
MW-9 15'	S	Aug-13-07 11:02	10 - 15 ft	288112-002
MW-9 25'	S	Aug-13-07 11:11	20 - 25 ft	288112-003
MW-9 45'	S	Aug-13-07 11:22	40 - 45 ft	288112-004
MW-9 65'	S	Aug-13-07 11:35	60 - 65 ft	288112-005
MW-9 70'	S	Aug-13-07 11:43	65 - 70 ft	288112-006
MW-9 75'	S	Aug-13-07 12:05	70 - 75 ft	288112-007

Project Id: 2006-142
Contact: Camille Reynolds
Project Location: Lea County, NM

Project Name: Lovington Gathering WTI

Date Received in Lab: Fri Aug-17-07 12:35 pm

Report Date: 23-AUG-07

Project Manager: Brent Barron, II

<i>Analysis Requested</i>		<i>Lab Id:</i>	<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	<i>Sampled:</i>	288112-001	288112-002	288112-003	288112-004	288112-005	288112-006
			MW-9 5'	0-5 ft	SOIL	Aug-13-07 10:56	Aug-13-07 10:56	Aug-13-07 11:02	Aug-13-07 11:11	Aug-13-07 11:22	Aug-13-07 11:35	Aug-13-07 11:43
BTEX by EPA 8021B		<i>Extracted:</i>	Aug-21-07 12:12	Aug-21-07 12:12	Aug-21-07 12:12	Aug-21-07 12:12	Aug-21-07 12:12	Aug-21-07 12:12	Aug-21-07 12:12	Aug-21-07 12:12	Aug-21-07 12:12	Aug-21-07 12:12
		<i>Analyzed:</i>	Aug-21-07 19:27	Aug-21-07 19:48	Aug-21-07 19:48	Aug-21-07 19:48	Aug-21-07 20:09	Aug-21-07 20:30	Aug-21-07 20:50	Aug-21-07 21:11	Aug-21-07 21:11	Aug-21-07 21:11
		<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene			ND 0.0020	ND 0.0020	ND 0.0022	ND 0.0022	ND 0.0020	ND 0.0020	ND 0.0020	ND 0.0020	ND 0.0021	ND 0.0021
Toluene			ND 0.0020	ND 0.0020	ND 0.0022	ND 0.0022	ND 0.0020	ND 0.0020	ND 0.0020	ND 0.0020	ND 0.0021	ND 0.0021
Ethylbenzene			ND 0.0020	ND 0.0020	ND 0.0022	ND 0.0022	ND 0.0020	ND 0.0020	ND 0.0020	ND 0.0020	ND 0.0021	ND 0.0021
m,p-Xylene			ND 0.0041	ND 0.0041	ND 0.0043	ND 0.0043	ND 0.0041	ND 0.0041	ND 0.0041	ND 0.0041	ND 0.0042	ND 0.0041
o-Xylene			ND 0.0020	ND 0.0020	ND 0.0022	ND 0.0022	ND 0.0020	ND 0.0020	ND 0.0020	ND 0.0020	ND 0.0021	ND 0.0021
Total Xylenes			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total BTEX			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Percent Moisture		<i>Extracted:</i>										
		<i>Analyzed:</i>	Aug-20-07 10:25	Aug-20-07 10:30	Aug-20-07 10:30	Aug-20-07 10:30	Aug-20-07 10:35	Aug-20-07 10:40	Aug-20-07 10:45	Aug-20-07 10:45	Aug-20-07 10:50	Aug-20-07 10:50
		<i>Units/RL:</i>	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture			1.54	1.00	7.45	1.00	1.88	1.00	2.31	1.00	4.18	1.00
TPH by SW8015 Mod		<i>Extracted:</i>	Aug-20-07 09:41	Aug-20-07 09:41	Aug-20-07 09:41	Aug-20-07 09:41	Aug-20-07 09:41	Aug-20-07 09:41	Aug-20-07 09:41	Aug-20-07 09:41	Aug-20-07 09:41	Aug-20-07 09:41
		<i>Analyzed:</i>	Aug-20-07 18:19	Aug-20-07 18:45	Aug-20-07 18:45	Aug-20-07 19:11	Aug-20-07 19:11	Aug-20-07 19:36	Aug-20-07 20:02	Aug-20-07 20:02	Aug-20-07 20:27	Aug-20-07 20:27
		<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons			ND 10.2	ND 10.8	ND 10.8	ND 10.2	ND 10.2	ND 10.2	ND 10.2	ND 10.4	ND 10.4	ND 10.3
C12-C28 Diesel Range Hydrocarbons			ND 10.2	ND 10.8	ND 10.8	ND 10.2	ND 10.2	ND 10.2	ND 10.2	ND 10.4	ND 10.4	ND 10.3
C28-C35 Oil Range Hydrocarbons			ND 10.2	ND 10.8	ND 10.8	ND 10.2	ND 10.2	ND 10.2	ND 10.2	ND 10.4	ND 10.4	ND 10.3
Total TPH			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron
Odessa Laboratory Director



Certificate of Analysis Summary 288112

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2006-142
Contact: Camille Reynolds
Project Location: Lea County, NM

Project Name: Lovington Gathering WTI

Date Received in Lab: Fri Aug-17-07 12:35 pm

Report Date: 23-AUG-07

Project Manager: Brent Barron, II

<i>Analysis Requested</i>		<i>Lab Id:</i>	288112-007				
	<i>Field Id:</i>	MW-9 75'					
	<i>Depth:</i>	70-75 ft					
	<i>Matrix:</i>	SOIL					
	<i>Sampled:</i>	Aug-13-07 12:05					
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-21-07 12:12					
	<i>Analyzed:</i>	Aug-21-07 21:32					
	<i>Units/RL:</i>	mg/kg RL					
	Benzene	ND 0.0021					
	Toluene	ND 0.0021					
	Ethylbenzene	ND 0.0021					
	m,p-Xylene	ND 0.0042					
	o-Xylene	ND 0.0021					
	Total Xylenes	ND					
	Total BTEX	ND					
Percent Moisture		<i>Extracted:</i>					
	<i>Analyzed:</i>	Aug-20-07 10:55					
	<i>Units/RL:</i>	% RL					
Percent Moisture		3.99 1.00					
TPH by SW8015 Mod		<i>Extracted:</i>	Aug-20-07 09:41				
	<i>Analyzed:</i>	Aug-20-07 20:53					
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 10.4					
C12-C28 Diesel Range Hydrocarbons		ND 10.4					
C28-C35 Oil Range Hydrocarbons		ND 10.4					
Total TPH		ND					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron
Odessa Laboratory Director



Flagging Criteria

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

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11381 Meadowglen Lane Suite L Houston, Tx 77082-2647
9701 Harry Hines Blvd , Dallas, TX 75220
5332 Blackberry Drive, Suite 104, San Antonio, TX 78238
2505 N. Falkenburg Rd., Tampa, FL 33619
5757 NW 158th St, Miami Lakes, FL 33014

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(281) 589-0692	(281) 589-0695
(214) 902 0300	(214) 351-9139
(210) 509-3334	(201) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555

Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Order #: 288112

Project ID: 2006-142

Lab Batch #: 702922

Sample: 288102-001 S / MS

Batch: 1 **Matrix:** Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
4-Bromofluorobenzene	0.0794	0.1000	79	80-120	*

Lab Batch #: 702922

Sample: 288102-001 SD / MSD

Batch: 1 **Matrix:** Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
4-Bromofluorobenzene	0.0869	0.1000	87	80-120	

Lab Batch #: 702922

Sample: 288112-001 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
4-Bromofluorobenzene	0.0859	0.1000	86	80-120	

Lab Batch #: 702922

Sample: 288112-002 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
4-Bromofluorobenzene	0.0709	0.1000	71	80-120	**

Lab Batch #: 702922

Sample: 288112-003 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
4-Bromofluorobenzene	0.0837	0.1000	84	80-120	

** 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 Order #: 288112

Project ID: 2006-142

Lab Batch #: 702922

Sample: 288112-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
4-Bromofluorobenzene	0.0933	0.1000	93	80-120	

Lab Batch #: 702922

Sample: 288112-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
4-Bromofluorobenzene	0.0741	0.1000	74	80-120	**

Lab Batch #: 702922

Sample: 288112-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
4-Bromofluorobenzene	0.0772	0.1000	77	80-120	**

Lab Batch #: 702922

Sample: 288112-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
4-Bromofluorobenzene	0.1093	0.1000	109	80-120	

Lab Batch #: 702922

Sample: 498484-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
4-Bromofluorobenzene	0.0543	0.0500	109	80-120	

** 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 Order #: 288112

Project ID: 2006-142

Lab Batch #: 702922

Sample: 498484-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
4-Bromofluorobenzene	0.0496	0.0500	99	80-120	

Lab Batch #: 702698

Sample: 288112-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
1-Chlorooctadecane	37.3	50.0	75	70-135	
1-Chlorooctane	35.1	50.0	70	70-135	

Lab Batch #: 702698

Sample: 288112-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
1-Chlorooctadecane	39.4	50.0	79	70-135	
1-Chlorooctane	44.6	50.0	89	70-135	

Lab Batch #: 702698

Sample: 288112-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
1-Chlorooctadecane	39.4	50.0	79	70-135	
1-Chlorooctane	43.8	50.0	88	70-135	

Lab Batch #: 702698

Sample: 288112-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
1-Chlorooctadecane	38.3	50.0	77	70-135	
1-Chlorooctane	37.1	50.0	74	70-135	

** 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.

Project Name: Lovington Gathering WTI

Work Order #: 288112

Project ID: 2006-142

Lab Batch #: 702698

Sample: 288112-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
1-Chlorooctadecane	40.2	50.0	80	70-135	
1-Chlorooctane	39.1	50.0	78	70-135	

Lab Batch #: 702698

Sample: 288112-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
1-Chlorooctadecane	38.5	50.0	77	70-135	
1-Chlorooctane	37.6	50.0	75	70-135	

Lab Batch #: 702698

Sample: 288112-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
1-Chlorooctadecane	38.7	50.0	77	70-135	
1-Chlorooctane	38.0	50.0	76	70-135	

Lab Batch #: 702698

Sample: 288112-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
1-Chlorooctadecane	39.4	50.0	79	70-135	
1-Chlorooctane	38.5	50.0	77	70-135	

Lab Batch #: 702698

Sample: 288112-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
Analytes					
1-Chlorooctadecane	40.3	50.0	81	70-135	
1-Chlorooctane	39.3	50.0	79	70-135	

** 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 Order #: 288112

Project ID: 2006-142

Lab Batch #: 702698

Sample: 498423-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
1-Chlorooctadecane	39.6	50.0	79	70-135	
1-Chlorooctane	46.3	50.0	93	70-135	

Lab Batch #: 702698

Sample: 498423-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery % R [D]	Control Limits % R	Flags
1-Chlorooctadecane	39.6	50.0	79	70-135	
1-Chlorooctane	38.9	50.0	78	70-135	
o-Terphenyl	ND	ND		70-135	*U

** 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.

Project Name: Lovington Gathering WTI

Work Order #: 288112

Project ID:

2006-142

Lab Batch #: 702922

Sample: 498484-1-BKS

Matrix: Solid

Date Analyzed: 08/21/2007

Date Prepared: 08/21/2007

Analyst: SHE

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

BTEX by EPA 8021B	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike % R [D]	Control Limits % R	Flags
Analytes						
Benzene	ND	0.0500	0.0351	70	70-130	
Toluene	ND	0.0500	0.0355	71	70-130	
Ethylbenzene	ND	0.0500	0.0388	78	71-129	
m,p-Xylene	ND	0.1000	0.0767	77	70-135	
o-Xylene	ND	0.0500	0.0364	73	71-133	

Lab Batch #: 702698

Sample: 498423-1-BKS

Matrix: Solid

Date Analyzed: 08/21/2007

Date Prepared: 08/20/2007

Analyst: SHE

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

TPH by SW8015 Mod	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike % R [D]	Control Limits % R	Flags
Analytes						
C6-C12 Gasoline Range Hydrocarbons	ND	500	581	116	70-135	
C12-C28 Diesel Range Hydrocarbons	ND	500	484	97	70-135	

Blank Spike Recovery [D] – 100*[C]/[B]

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



Form 3 - MS / MSD Recoveries

Project Name: Lovington Gathering WTI



Work Order # 288112

Lab Batch ID: 702922

Date Analyzed: 08/23/2007

Reporting Units: mg/kg

Project ID: 2006-142

QC- Sample ID: 288102-001 S Batch #: 1 Matrix: Soil

Date Prepared: 08/21/2007 Analyst: SHE

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Reporting Units: mg/kg	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	ND	0.1027	0.0739	72	0.1027	0.0724	70	3	70-130	35	
	Toluene	ND	0.1027	0.0740	72	0.1027	0.0724	70	3	70-130	35	
	Ethylbenzene	ND	0.1027	0.0725	71	0.1027	0.0725	71	0	71-129	35	
	m,p-Xylene	ND	0.2054	0.1552	76	0.2054	0.1669	81	6	70-135	35	
	o-Xylene	ND	0.1027	0.0745	73	0.1027	0.0734	71	3	71-133	35	

Lab Batch ID: 702698

Date Analyzed: 08/21/2007

Reporting Units: mg/kg

QC- Sample ID: 288112-001 S Batch #: 1 Matrix: Soil

Date Prepared: 08/20/2007 Analyst: SHE

Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
	TPH by SW8015 Mod	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
	Analytes											
	C6-C12 Gasoline Range Hydrocarbons	ND	540	572	106	540	571	106	0	70-135	35	
	C12-C28 Diesel Range Hydrocarbons	ND	540	506	94	540	498	92	2	70-135	35	

Matrix Spike Percent Recovery [D] 100%(C-A)/B
Relative Percent Difference RPD 200%(D-G)/(D+G)

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, See Narrative, EQL Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Lovington Gathering WTI

Work Order #: 288112

Lab Batch #: 702664

Project ID: 2006-142

Date Analyzed: 08/20/2007

Date Prepared: 08/20/2007

Analyst: JLG

QC- Sample ID: 288112-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	1.54	1.95	23	20	F

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

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

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client Basin Env. / Plains
 Date/ Time 8-17-07 12:35
 Lab ID # 288112
 Initials CL

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<input checked="" type="checkbox"/> Yes	No	<u>20</u> °C
#2	Shipping container in good condition?	<input checked="" type="checkbox"/> Yes	No	
#3	Custody Seals intact on shipping container/ cooler?	<input checked="" type="checkbox"/> Yes	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	<input checked="" type="checkbox"/> Yes	No	Not Present
#5	Chain of Custody present?	<input checked="" type="checkbox"/> Yes	No	
#6	Sample instructions complete of Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#7	Chain of Custody signed when relinquished/ received?	<input checked="" type="checkbox"/> Yes	No	
#8	Chain of Custody agrees with sample label(s)?	<input checked="" type="checkbox"/> Yes	No	ID written on Cont / Lid
#9	Container label(s) legible and intact?	<input checked="" type="checkbox"/> Yes	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#11	Containers supplied by ELDT?	<input checked="" type="checkbox"/> Yes	No	
#12	Samples in proper container/ bottle?	<input checked="" type="checkbox"/> Yes	No	See Below
#13	Samples properly preserved?	<input checked="" type="checkbox"/> Yes	No	See Below
#14	Sample bottles intact?	<input checked="" type="checkbox"/> Yes	No	
#15	Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#16	Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#17	Sufficient sample amount for indicated test(s)?	<input checked="" type="checkbox"/> Yes	No	See Below
#18	All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	No	See Below
#19	Subcontract of sample(s)?	<input checked="" type="checkbox"/> Yes	No	Not Applicable
#20	VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	No	Not Applicable

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax
☐ Client understands and would like to proceed with analysis
☐ Cooling process had begun shortly after sampling event

Analytical Report 349959

for

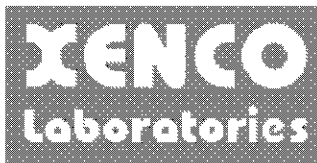
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

29-OCT-09



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)

Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),

South Carolina(96031001), Louisiana(04154), Georgia(917)



29-OCT-09

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

Reference: XENCO Report No: **349959**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 349959. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 349959 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,

Brent Barron, II

Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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Sample Cross Reference 349959



PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-10 @ 5'	S	Oct-27-09 09:10		349959-001
MW-10 @ 15'	S	Oct-27-09 09:35		349959-002
MW-10 @ 25'	S	Oct-27-09 10:05		349959-003
MW-10 @ 45'	S	Oct-27-09 10:30		349959-004
MW-10 @ 65'	S	Oct-27-09 11:10		349959-005
MW-10 @ 70'	S	Oct-27-09 11:25		349959-006
MW-10 @ 75'	S	Oct-27-09 11:45		349959-007



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI

Project ID: 2006-142

Work Order Number: 349959

Report Date: 29-OCT-09

Date Received: 10/27/2009

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-779308 Percent Moisture

None

Batch: LBA-779343 BTEX by EPA 8021

SW8021BM

Batch 779343, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 349959-006, -007, -001, -005, -002, -003, -004.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Batch: LBA-779359 TPH by SW8015 Mod

None



Certificate of Analysis Summary 349959

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Tue Oct-27-09 04:50 pm

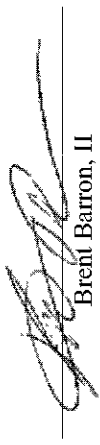
Report Date: 29-OCT-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	349959-001	349959-002	349959-003	349959-004	349959-005	349959-006
	Field Id:	MW-10 @ 5'	MW-10 @ 15'	MW-10 @ 25'	MW-10 @ 45'	MW-10 @ 65'	MW-10 @ 70'
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Oct-27-09 09:10	Oct-27-09 09:35	Oct-27-09 10:05	Oct-27-09 10:30	Oct-27-09 11:10	Oct-27-09 11:25
BTEx by EPA 8021	Extracted:	Oct-28-09 17:00	Oct-28-09 17:00	Oct-28-09 17:00	Oct-28-09 17:00	Oct-28-09 17:00	Oct-28-09 17:00
	Analyzed:	Oct-29-09 01:23	Oct-29-09 01:45	Oct-29-09 02:06	Oct-29-09 02:27	Oct-29-09 02:49	Oct-29-09 03:10
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010
Benzene		BRL 0.0020	BRL 0.0020	BRL 0.0020	BRL 0.0020	BRL 0.0020	BRL 0.0020
Toluene		BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010
Ethylbenzene		BRL 0.0020	BRL 0.0020	BRL 0.0020	BRL 0.0020	BRL 0.0020	BRL 0.0020
m,p-Xylenes		BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010
o-Xylene		BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010
Xylenes, Total		BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010
Total BTEx		BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010	BRL 0.0010
Percent Moisture	Extracted:						
	Analyzed:	Oct-28-09 17:00	Oct-28-09 17:00	Oct-28-09 17:00	Oct-28-09 17:00	Oct-28-09 17:00	Oct-28-09 17:00
	Units/RL:	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		1.17 1.00	BRL 1.00	2.43 1.00	1.72 1.00	2.16 1.00	1.41 1.00
TPH by SW8015 Mod	Extracted:	Oct-28-09 10:45	Oct-28-09 10:45	Oct-28-09 10:45	Oct-28-09 10:45	Oct-28-09 10:45	Oct-28-09 10:45
	Analyzed:	Oct-28-09 19:27	Oct-28-09 19:52	Oct-28-09 20:17	Oct-28-09 20:42	Oct-28-09 21:07	Oct-28-09 21:34
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		BRL 15.2	BRL 15.1	BRL 15.4	BRL 15.3	BRL 15.3	BRL 15.2
C6-C12 Gasoline Range Hydrocarbons		27.7 15.2	23.1 15.1	25.3 15.4	23.4 15.3	24.0 15.3	19.7 15.2
C12-C28 Diesel Range Hydrocarbons		BRL 15.2	BRL 15.1	BRL 15.4	BRL 15.3	BRL 15.3	BRL 15.2
C28-C35 Oil Range Hydrocarbons		27.7 15.2	23.1 15.1	25.3 15.4	23.4 15.3	24.0 15.3	19.7 15.2
Total TPH							

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretation and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi


Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 349959

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM



Date Received in Lab: Tue Oct-27-09 04:50 pm
Report Date: 29-OCT-09
Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	349959-007				
	Field Id:	MW-10 @ 75'				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Oct-27-09 11:45				
BTEX by EPA 8021	Extracted:	Oct-28-09 17:00				
	Analyzed:	Oct-29-09 03:31				
	Units/RL:	mg/kg RL				
		BRL 0.0010				
		BRL 0.0020				
Percent Moisture		BRL 0.0010				
		BRL 0.0020				
		BRL 0.0010				
		BRL 0.0020				
		BRL 0.0010				
TPH by SW8015 Mod		BRL 0.0010				
		BRL 0.0020				
		BRL 0.0010				
		BRL 0.0020				
		BRL 0.0010				
Percent Moisture	Extracted:	Oct-28-09 17:00				
	Analyzed:	% RL				
	Units/RL:	1.24 1.00				
	Extracted:	Oct-28-09 10:45				
	Analyzed:	Oct-28-09 22:00				
C6-C12 Gasoline Range Hydrocarbons	Units/RL:	mg/kg RL				
		BRL 15.1				
		22.7 15.1				
		BRL 15.1				
		22.7 15.1				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretation and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron, II
Odessa Laboratory Manager

- 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 349959,

Project ID: 2006-142

Lab Batch #: 779343

Sample: 541813-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/28/09 23:59

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 779343

Sample: 541813-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/29/09 00:21

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

Lab Batch #: 779343

Sample: 541813-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/29/09 01:03

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 779343

Sample: 349959-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/09 01:23

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 779343

Sample: 349959-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/09 01:45

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0267	0.0300	89	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.



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 349959,

Project ID: 2006-142

Lab Batch #: 779343

Sample: 349959-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/09 02:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 779343

Sample: 349959-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/09 02:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 779343

Sample: 349959-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/09 02:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0321	0.0300	107	80-120	

Lab Batch #: 779343

Sample: 349959-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/09 03:10

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	0.0320	0.0300	107	80-120	

Lab Batch #: 779343

Sample: 349959-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/09 03:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0313	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 : 349959,

Project ID: 2006-142

Lab Batch #: 779343

Sample: 349959-007 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/09 05:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0321	0.0300	107	80-120	

Lab Batch #: 779343

Sample: 349959-007 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/09 06:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0324	0.0300	108	80-120	

Lab Batch #: 779359

Sample: 541825-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/28/09 18:14

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	97.1	105	70-135	
o-Terphenyl	43.6	48.5	90	70-135	

Lab Batch #: 779359

Sample: 541825-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/28/09 18:38

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	45.6	50.0	91	70-135	

Lab Batch #: 779359

Sample: 541825-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/28/09 19:03

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.6	99.8	91	70-135	
o-Terphenyl	47.9	49.9	96	70-135	

* 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 : 349959,

Project ID: 2006-142

Lab Batch #: 779359

Sample: 349959-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/28/09 19:27

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.2	100	89	70-135	
o-Terphenyl	45.7	50.0	91	70-135	

Lab Batch #: 779359

Sample: 349959-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/28/09 19:52

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.2	100	90	70-135	
o-Terphenyl	46.2	50.0	92	70-135	

Lab Batch #: 779359

Sample: 349959-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/28/09 20:17

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.4	100	87	70-135	
o-Terphenyl	45.9	50.0	92	70-135	

Lab Batch #: 779359

Sample: 349959-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/28/09 20:42

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.6	100	91	70-135	
o-Terphenyl	47.4	50.0	95	70-135	

Lab Batch #: 779359

Sample: 349959-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/28/09 21:07

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.5	100	84	70-135	
o-Terphenyl	43.6	50.0	87	70-135	

* 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 : 349959,

Project ID: 2006-142

Lab Batch #: 779359

Sample: 349959-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/28/09 21:34

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.9	99.9	81	70-135	
o-Terphenyl	41.8	50.0	84	70-135	

Lab Batch #: 779359

Sample: 349959-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/28/09 22:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.6	99.5	90	70-135	
o-Terphenyl	46.3	49.8	93	70-135	

Lab Batch #: 779359

Sample: 349959-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/09 03:34

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.2	99.6	100	70-135	
o-Terphenyl	42.9	49.8	86	70-135	

Lab Batch #: 779359

Sample: 349959-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/29/09 03:58

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	42.7	50.0	85	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 349959

Analyst: ASA

Lab Batch ID: 779343

Date Prepared: 10/28/2009

Sample: 541813-1-BKS

Batch #: 1

Project ID: 2006-142

Date Analyzed: 10/28/2009

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
	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
Analytes											
BTEX by EPA 8021											
Benzene	<0.0010	0.1000	0.0922	92	0.1	0.0926	93	0	70-130	35	
Toluene	<0.0020	0.1000	0.0898	90	0.1	0.0902	90	0	70-130	35	
Ethylbenzene	<0.0010	0.1000	0.0901	90	0.1	0.0904	90	0	71-129	35	
m,p-Xylenes	<0.0020	0.2000	0.1938	97	0.2	0.1956	98	1	70-135	35	
o-Xylene	<0.0010	0.1000	0.0965	97	0.1	0.0957	96	1	71-133	35	

Analyst: BEV

Lab Batch ID: 779359

Date Prepared: 10/28/2009

Sample: 541825-1-BKS

Batch #: 1

Date Analyzed: 10/28/2009

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Units: mg/kg											
Analytes	TPH by SW8015 Mod										
	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
C6-C12 Gasoline Range Hydrocarbons	<15.0	971	998	103	1000	1030	103	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	971	977	101	1000	1010	101	3	70-135	35	

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

Work Order #: 349959

Lab Batch ID: 779343

Date Analyzed: 10/29/2009

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 349959-007 S

Date Prepared: 10/28/2009

Batch #: 1

Matrix: Soil

Analyst: ASA

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Reporting Units: mg/kg	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	<0.0010	0.1013	0.0566	56	0.1013	0.0623	62	10	70-130	35	X
	Toluene	<0.0020	0.1013	0.0573	57	0.1013	0.0618	61	8	70-130	35	X
	Ethylbenzene	<0.0010	0.1013	0.0571	56	0.1013	0.0605	60	6	71-129	35	X
	m,p-Xylenes	<0.0020	0.2025	0.1238	61	0.2025	0.1307	65	5	70-135	35	X
	o-Xylene	<0.0010	0.1013	0.0616	61	0.1013	0.0636	63	3	71-133	35	X

Lab Batch ID: 779359

Date Analyzed: 10/29/2009

Reporting Units: mg/kg

QC-Sample ID: 349959-001 S

Date Prepared: 10/28/2009

Batch #: 1

Matrix: Soil

Analyst: BEV

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Reporting Units: mg/kg											
	TPH by SW8015 Mod										
	Analytes										
C6-C12 Gasoline Range Hydrocarbons	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
	<15.2	1010	905	90	1010	953	94	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	27.7	1010	894	86	1010	954	92	6	70-135	35	

Matrix Spike Percent Recovery [D] 100*(C-A)/B
 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
 ApplicableN See Narrative, EQL Estimated Quantitation Limit

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



Sample Duplicate Recovery



Project Name: Lovington Gathering WTI

Work Order #: 349959

Lab Batch #: 779308

Project ID: 2006-142

Date Analyzed: 10/28/2009

Date Prepared: 10/28/2009

Analyst: WRU

QC- Sample ID: 349959-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	1.17	<1.00	NC	20	

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Name: Lovington Gathering WTI

Project #: 2008-142

Project Loc: Lea County, NM

PO #: PAA - J. Henry

Fax No: (575) 398-1429

cdstanley@basin-consulting.com

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Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Basin Env. / Plains
 Date/ Time: 10.27.09 16:50
 Lab ID #: 349959
 Initials: AL

Sample Receipt Checklist

Client Initials

#1	Temperature of container/ cooler?	(Yes)	No	3.0 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken:

- Check all that Apply:
- ☐ See attached e-mail/ fax
 - ☐ Client understands and would like to proceed with analysis
 - ☐ Cooling process had begun shortly after sampling event

Analytical Report 367808

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

05-APR-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



05-APR-10

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

Reference: XENCO Report No: **367808**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 367808. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 367808 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 367808



PLAINS ALL AMERICAN EH&S, Midland, TX
Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
East S/W 1 @ 14'	S	Apr-01-10 10:30		367808-001
East S/W 2 @ 14'	S	Apr-01-10 10:40		367808-002



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI

Project ID: 2006-142

Work Order Number: 367808

Report Date: 05-APR-10

Date Received: 04/02/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-800959 TPH by SW8015 Mod

None

Batch: LBA-800990 Percent Moisture

None



Certificate of Analysis Summary 367808

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI


Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Fri Apr-02-10 09:40 am
Report Date: 05-APR-10
Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	367808-001	367808-002		
	Field Id:	East SW 1 @ 14'	East SW 2 @ 14'		
	Depth:				
	Matrix:	SOIL	SOIL		
	Sampled:	Apr-01-10 10:30	Apr-01-10 10:40		
Percent Moisture	Extracted:				
	Analyzed:	Apr-02-10 17:00	Apr-02-10 17:00		
	Units/RL:	% RL	% RL		
		4.12 1.00	7.46 1.00		
TPH by SW8015 Mod	Extracted:	Apr-02-10 11:00	Apr-02-10 11:00		
	Analyzed:	Apr-02-10 20:24	Apr-02-10 20:51		
	Units/RL:	mg/kg RL	mg/kg RL		
		ND 15.7	392 16.2		
		19.6 15.7	2030 16.2		
C6-C12 Gasoline Range Hydrocarbons					
C12-C28 Diesel Range Hydrocarbons					
C28-C35 Oil Range Hydrocarbons					
Total TPH					
		19.6 15.7	2559 16.2		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretation and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi


Brent Barron, II
Odessa Laboratory 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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	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
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 367808,

Project ID: 2006-142

Lab Batch #: 800959

Sample: 559784-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 04/02/10 13:15		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		127	100	127	70-135
o-Terphenyl		59.8	50.2	119	70-135

Lab Batch #: 800959

Sample: 559784-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 04/02/10 13:42		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		123	100	123	70-135
o-Terphenyl		57.8	50.2	115	70-135

Lab Batch #: 800959

Sample: 559784-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 04/02/10 14:09		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		129	100	129	70-135
o-Terphenyl		63.6	50.1	127	70-135

Lab Batch #: 800959

Sample: 367808-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 04/02/10 20:24		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		129	101	128	70-135
o-Terphenyl		65.9	50.3	131	70-135

Lab Batch #: 800959

Sample: 367808-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 04/02/10 20:51		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		128	100	128	70-135
o-Terphenyl		64.9	50.1	130	70-135

* 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 : 367808,

Project ID: 2006-142

Lab Batch #: 800959

Sample: 367701-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/02/10 21:19

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	101	121	70-135	
o-Terphenyl	57.7	50.3	115	70-135	

Lab Batch #: 800959

Sample: 367701-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/02/10 21:46

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	99.5	122	70-135	
o-Terphenyl	57.9	49.8	116	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 367808

Analyst: BEV

Lab Batch ID: 800959

Sample: 559784-1-BKS

Date Prepared: 04/02/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 04/02/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	1000	1210	121	1000	1160	116	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	1000	1170	117	1000	911	91	25	70-135	35	

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 # : 367808

Lab Batch ID: 800959

Date Analyzed: 04/02/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 367701-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 04/02/2010 Analyst: BEV

TPH by SW8015 Mod

Analytes

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

	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
C6-C12 Gasoline Range Hydrocarbons	ND	1170	1370	117	1160	1310	113	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1170	1270	109	1160	991	85	25	70-135	35	

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

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

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

ApplicableN See Narrative, EQL Estimated Quantitation Limit



Sample Duplicate Recovery

Project Name: Lovington Gathering WTI

Work Order #: 367808

Lab Batch #: 800990

Project ID: 2006-142

Date Analyzed: 04/02/2010

Date Prepared: 04/02/2010

Analyst: JLG

QC- Sample ID: 367808-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	4.12	5.04	20	20	

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

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Basin Env. / Plains
 Date/ Time: 4.2.10 9:40
 Lab ID #: 367808
 Initials: AL

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<u>(Yes)</u>	No	<u>2.6</u> °C
#2	Shipping container in good condition?	<u>(Yes)</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	<u>(Not Present)</u>
#4	Custody Seals intact on sample bottles/ container?	<u>(Yes)</u>	No	<u>Not Present</u>
#5	Chain of Custody present?	<u>(Yes)</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>(Yes)</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>(Yes)</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>(Yes)</u>	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<u>(Yes)</u>	No	<u>Not Applicable</u>
#10	Sample matrix/ properties agree with Chain of Custody?	<u>(Yes)</u>	No	
#11	Containers supplied by ELOT?	<u>(Yes)</u>	No	
#12	Samples in proper container/ bottle?	<u>(Yes)</u>	No	<u>See Below</u>
#13	Samples properly preserved?	<u>(Yes)</u>	No	<u>See Below</u>
#14	Sample bottles intact?	<u>(Yes)</u>	No	
#15	Preservations documented on Chain of Custody?	<u>(Yes)</u>	No	
#16	Containers documented on Chain of Custody?	<u>(Yes)</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>(Yes)</u>	No	<u>See Below</u>
#18	All samples received within sufficient hold time?	<u>(Yes)</u>	No	<u>See Below</u>
#19	Subcontract of sample(s)?	<u>Yes</u>	No	<u>(Not Applicable)</u>
#20	VOC samples have zero headspace?	<u>(Yes)</u>	No	<u>Not Applicable</u>

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax
☐ Client understands and would like to proceed with analysis
☐ Cooling process had begun shortly after sampling event

Analytical Report 368400

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

SRS# 2006-142

13-APR-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
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Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



13-APR-10

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

Reference: XENCO Report No: **368400**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 368400. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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.

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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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 368400



PLAINS ALL AMERICAN EH&S, Midland, TX
Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
N. S/W @ 14.5'	S	Apr-07-10 10:00		368400-001
W. S/W @ 14'	S	Apr-07-10 10:15		368400-002
S. S/W @ 6.5'	S	Apr-07-10 10:30		368400-003
S. S/W @ 14'	S	Apr-07-10 10:45		368400-004

* TRRP Tier I Comm/Indus Soils PCL's



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI

Project ID: SRS# 2006-142

Work Order Number: 368400

Report Date: 13-APR-10

Date Received: 04/07/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-801607 Percent Moisture

None

Batch: LBA-801626 TPH by SW8015 Mod

None

Batch: LBA-802226 BTEX by EPA 8021

None



Certificate of Analysis Summary 368400

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: SRS# 2006-142

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Wed Apr-07-10 05:37 pm

Report Date: 13-APR-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:		368400-001	368400-002	368400-003	368400-004	
	Field Id:	Depth:	N. S/W @ 14.5'	W. S/W @ 14'	S. S/W @ 6.5'	S. S/W @ 14'	
	Matrix:		SOIL	SOIL	SOIL	SOIL	
	Sampled:		Apr-07-10 10:00	Apr-07-10 10:15	Apr-07-10 10:30	Apr-07-10 10:45	
BTEx by EPA 8021	Extracted:		Apr-12-10 16:20	Apr-12-10 16:20	Apr-12-10 16:20	Apr-12-10 16:20	
	Analyzed:		Apr-13-10 06:49	Apr-13-10 07:12	Apr-13-10 07:34	Apr-13-10 07:57	
	Units/RL:		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
			ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	
Benzene			ND 0.0022	ND 0.0022	ND 0.0021	ND 0.0022	
Toluene			ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	
Ethylbenzene			ND 0.0022	ND 0.0022	ND 0.0021	ND 0.0022	
m,p-Xylenes			ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	
o-Xylene			ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	
Xylenes, Total			ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	
Total BTEx			ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	
Percent Moisture	Extracted:						
	Analyzed:		Apr-08-10 08:55	Apr-08-10 08:55	Apr-08-10 08:55	Apr-08-10 08:55	
	Units/RL:		% RL	% RL	% RL	% RL	
			8.50 1.00	10.0 1.00	6.19 1.00	8.71 1.00	
TPH by SW8015 Mod	Extracted:		Apr-08-10 08:35	Apr-08-10 08:35	Apr-08-10 08:35	Apr-08-10 08:35	
	Analyzed:		Apr-08-10 13:14	Apr-08-10 13:41	Apr-08-10 14:07	Apr-08-10 14:34	
	Units/RL:		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
C6-C12 Gasoline Range Hydrocarbons			ND 16.4	ND 16.7	ND 16.0	ND 16.4	
C12-C28 Diesel Range Hydrocarbons			ND 16.4	ND 16.7	ND 16.0	ND 16.4	
C28-C35 Oil Range Hydrocarbons			ND 16.4	ND 16.7	ND 16.0	ND 16.4	
Total TPH			ND 16.4	ND 16.7	ND 16.0	ND 16.4	

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Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi


Brent Barron, II
Odessa Laboratory 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 368400,

Project ID: SRS# 2006-142

Lab Batch #: 802226

Sample: 560560-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/13/10 04:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0316	0.0300	105	80-120	

Lab Batch #: 802226

Sample: 560560-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/13/10 05:21

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	0.0313	0.0300	104	80-120	

Lab Batch #: 802226

Sample: 560560-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/13/10 06:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 802226

Sample: 368400-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/13/10 06:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 802226

Sample: 368400-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/13/10 07:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0319	0.0300	106	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 : 368400,

Project ID: SRS# 2006-142

Lab Batch #: 802226

Sample: 368400-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/13/10 07:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	80-120	

Lab Batch #: 802226

Sample: 368400-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/13/10 07:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 802226

Sample: 368400-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/13/10 09:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 802226

Sample: 368400-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/13/10 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	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0310	0.0300	103	80-120	

Lab Batch #: 801626

Sample: 560195-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/08/10 10:34

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	41.1	50.1	82	70-135	

* 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 : 368400,

Project ID: SRS# 2006-142

Lab Batch #: 801626

Sample: 560195-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/08/10 11:01

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	41.4	50.2	82	70-135	

Lab Batch #: 801626

Sample: 560195-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/08/10 11:28

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.9	100	94	70-135	
o-Terphenyl	45.2	50.0	90	70-135	

Lab Batch #: 801626

Sample: 368400-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/08/10 13:14

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.8	99.9	94	70-135	
o-Terphenyl	45.6	50.0	91	70-135	

Lab Batch #: 801626

Sample: 368400-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/08/10 13:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.6	100	91	70-135	
o-Terphenyl	43.4	50.0	87	70-135	

Lab Batch #: 801626

Sample: 368400-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/08/10 14:07

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.4	100	95	70-135	
o-Terphenyl	45.6	50.0	91	70-135	

* 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 : 368400,

Project ID: SRS# 2006-142

Lab Batch #: 801626

Sample: 368400-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/08/10 14:34

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.1	99.6	94	70-135	
o-Terphenyl	45.4	49.8	91	70-135	

Lab Batch #: 801626

Sample: 368400-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/08/10 15:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	42.7	50.2	85	70-135	

Lab Batch #: 801626

Sample: 368400-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/08/10 15:27

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	101	107	70-135	
o-Terphenyl	40.5	50.3	81	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 368400

Analyst: ASA

Lab Batch ID: 802226

Sample: 560560-1-BKS

Date Prepared: 04/12/2010

Batch #: 1

Project ID: SRS# 2006-142

Date Analyzed: 04/13/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
	BTEX by EPA 8021										
	Benzene	ND	0.1000	0.1020	102	0.1	0.0995	100	2	70-130	35
	Toluene	ND	0.1000	0.0998	100	0.1	0.0974	97	2	70-130	35
	Ethylbenzene	ND	0.1000	0.1017	102	0.1	0.0989	99	3	71-129	35
	m,p-Xylenes	ND	0.2000	0.2003	100	0.2	0.1946	97	3	70-135	35
	o-Xylene	ND	0.1000	0.1015	102	0.1	0.0988	99	3	71-133	35

Analyst: BEV

Lab Batch ID: 801626

Sample: 560195-1-BKS

Date Prepared: 04/08/2010

Batch #: 1

Date Analyzed: 04/08/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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
Analytes											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1130	113	1000	1150	115	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	731	73	1000	802	80	9	70-135	35	

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

Work Order #: 368400

Lab Batch ID: 802226

Date Analyzed: 04/13/2010

Reporting Units: mg/kg

Project ID: SRS# 2006-142

QC-Sample ID: 368400-001 S

Date Prepared: 04/12/2010

Batch #: 1

Analyst: ASA

Matrix: Soil

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
	ND	0.1093	0.0826	76	0.1093	0.0887	81	7	70-130	35	
	ND	0.1093	0.0820	75	0.1093	0.0874	80	6	70-130	35	
	ND	0.1093	0.0829	76	0.1093	0.0886	81	7	71-129	35	
	ND	0.2186	0.1641	75	0.2186	0.1746	80	6	70-135	35	
	ND	0.1093	0.0823	75	0.1093	0.0881	81	7	71-133	35	

Lab Batch ID: 801626

Date Analyzed: 04/08/2010

Reporting Units: mg/kg

QC-Sample ID: 368400-001 S

Date Prepared: 04/08/2010

Batch #: 1

Analyst: BEV

Matrix: Soil

Reporting Units: mg/kg											
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1100	1200	109	1100	1170	106	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1100	909	83	1100	879	80	3	70-135	35	

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

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

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

ApplicableN See Narrative, EQL Estimated Quantification Limit



Sample Duplicate Recovery

Project Name: Lovington Gathering WTI

Work Order #: 368400

Lab Batch #: 801607

Project ID: SRS# 2006-142

Date Analyzed: 04/08/2010

Date Prepared: 04/08/2010

Analyst: ASA

QC- Sample ID: 368398-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	2.69	2.55	5	20	

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Name: Lovington Gathering WTI

Project #: SRS# 2006-142

Project Loc: Lea County, NM

PO #: PAA-J. Henry

Fax No: (505) 396-1429

TRRP

cibryant@basin-consulting.com

e-mail:

368400

Final Ver. 1.000

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Basin / Plains
 Date/ Time: 4.7.10 17:37
 Lab ID #: 368400
 Initials: BB / AL

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<u>Yes</u>	No	5.1 °C
#2	Shipping container in good condition?	<u>Yes</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	<u>Not Present</u>
#4	Custody Seals intact on sample bottles/ container?	<u>Yes</u>	No	Not Present
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by ELOT?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	Subcontract of sample(s)?	<u>Yes</u>	No	<u>Not Applicable</u>
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that Apply:
- ☐ See attached e-mail/ fax
 - ☐ Client understands and would like to proceed with analysis
 - ☐ Cooling process had begun shortly after sampling event

Analytical Report 369717

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

04-MAY-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



04-MAY-10

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

Reference: XENCO Report No: **369717**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 369717. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 369717 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,

Brent Barron, II

Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



Sample Cross Reference 369717



PLAINS ALL AMERICAN EH&S, Midland, TX
Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
East Trench Sample 1 @ 5'	S	Apr-16-10 11:00		369717-001



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI

Project ID: 2006-142

Work Order Number: 369717

Report Date: 04-MAY-10

Date Received: 04/19/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-803187 Percent Moisture

None

Batch: LBA-803331 TPH by SW8015 Mod

None

Batch: LBA-805059 BTEX by EPA 8021

None



Certificate of Analysis Summary 369717

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Mon Apr-19-10 08:03 am
Report Date: 04-MAY-10
Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	369717-001				
	Field Id:	East Trench Sample 1 @ 5'				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Apr-16-10 11:00				
BTEX by EPA 8021	Extracted:	Apr-29-10 16:45				
	Analyzed:	Apr-30-10 00:55				
	Units/RL:	mg/kg RL				
	Benzene	ND 0.0011				
	Toluene	ND 0.0022				
Ethylbenzene		ND 0.0011				
m,p-Xylenes		ND 0.0022				
o-Xylene		ND 0.0011				
Xylenes, Total		ND 0.0011				
Total BTEX		ND 0.0011				
Percent Moisture	Extracted:					
	Analyzed:	Apr-20-10 09:10				
	Units/RL:	% RL				
Percent Moisture		8.53 1.00				
TPH by SW8015 Mod	Extracted:	Apr-20-10 13:00				
	Analyzed:	Apr-20-10 16:47				
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 16.3				
C12-C28 Diesel Range Hydrocarbons		20.0 16.3				
C28-C35 Oil Range Hydrocarbons		ND 16.3				
Total TPH		20.0 16.3				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretation and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi


Brent Barron, II
Odessa Laboratory 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 369717,

Project ID: 2006-142

Lab Batch #: 805059

Sample: 562314-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/29/10 23:13

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	0.0268	0.0300	89	80-120	

Lab Batch #: 805059

Sample: 562314-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/29/10 23:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	80-120	

Lab Batch #: 805059

Sample: 562314-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/30/10 00:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 805059

Sample: 369717-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/30/10 00:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 805059

Sample: 369717-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/30/10 01:16

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	0.0325	0.0300	108	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] – $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 369717,

Project ID: 2006-142

Lab Batch #: 805059

Sample: 369717-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/30/10 01:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 803331

Sample: 561277-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/20/10 15:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	113	101	112	70-135	
o-Terphenyl	43.2	50.3	86	70-135	

Lab Batch #: 803331

Sample: 561277-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/20/10 15:26

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	42.3	50.2	84	70-135	

Lab Batch #: 803331

Sample: 561277-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/20/10 15:53

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	96.1	100	96	70-135	
o-Terphenyl	45.7	50.1	91	70-135	

Lab Batch #: 803331

Sample: 369717-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/10 16:47

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	98.1	99.7	98	70-135	
o-Terphenyl	45.8	49.9	92	70-135	

* 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 : 369717,

Project ID: 2006-142

Lab Batch #: 803331

Sample: 369717-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/10 17:40

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	99.7	120	70-135	
o-Terphenyl	43.6	49.9	87	70-135	

Lab Batch #: 803331

Sample: 369717-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/10 18:07

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	42.0	50.2	84	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 369717

Analyst: ASA

Lab Batch ID: 805059

Sample: 562314-1-BKS

Date Prepared: 04/29/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 04/29/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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	ND	0.1000	0.1235	124	0.1	0.0873	87	34	70-130	35
	Toluene	ND	0.1000	0.1267	127	0.1	0.0918	92	32	70-130	35
	Ethylbenzene	ND	0.1000	0.1233	123	0.1	0.0898	90	31	71-129	35
	m,p-Xylenes	ND	0.2000	0.2660	133	0.2	0.1996	100	29	70-135	35
	o-Xylene	ND	0.1000	0.1303	130	0.1	0.0970	97	29	71-133	35

Analyst: BEV

Lab Batch ID: 803331

Sample: 561277-1-BKS

Date Prepared: 04/20/2010

Batch #: 1

Date Analyzed: 04/20/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Units: mg/kg											
Analytes	TPH by SW8015 Mod										
	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
C6-C12 Gasoline Range Hydrocarbons	ND	1010	1120	111	1000	1120	112	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1010	926	92	1000	994	99	7	70-135	35	

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 #: 369717

Lab Batch ID: 805059

Date Analyzed: 04/30/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 369717-001 S

Date Prepared: 04/29/2010

Batch #: 1

Analyst: ASA

Matrix: Soil

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	ND	0.1093	0.0769	70	0.1093	0.0777	71	1	70-130	35
	Toluene	ND	0.1093	0.0823	75	0.1093	0.0814	74	1	70-130	35
	Ethylbenzene	ND	0.1093	0.0791	72	0.1093	0.0782	72	1	71-129	35
	m,p-Xylenes	ND	0.2187	0.1804	82	0.2187	0.1753	80	3	70-135	35
	o-Xylene	ND	0.1093	0.0898	82	0.1093	0.0878	80	2	71-133	35

Lab Batch ID: 803331

Date Analyzed: 04/20/2010

Reporting Units: mg/kg

QC-Sample ID: 369717-001 S

Date Prepared: 04/20/2010

Batch #: 1

Analyst: BEV

Matrix: Soil

Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
	TPH by SW8015 Mod 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
	C6-C12 Gasoline Range Hydrocarbons	ND	1090	1310	120	1100	1260	115	4	70-135	35	
	C12-C28 Diesel Range Hydrocarbons	20.0	1090	1070	96	1100	1020	91	5	70-135	35	

Matrix Spike Percent Recovery [D] 100%(C-A)/B
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
ApplicableN See Narrative, EQL Estimated Quantification Limit

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



Sample Duplicate Recovery

Project Name: Lovington Gathering WTI

Work Order #: 369717

Lab Batch #: 803187

Project ID: 2006-142

Date Analyzed: 04/20/2010

Date Prepared: 04/20/2010

Analyst: WRU

QC- Sample ID: 369717-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	8.53	8.99	5	20	

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Name: Lovington Gathering WTI

Project #: 2006-142

Project Loc: Lea County, NM

PO #: PAA - J. Henry

Fax No: (505) 396-1429

e-mail: cstanley@basinenv.com

cstanley@basinenv.com

ORDER # 335

Analyze For:

526204

Final Ver. 1.000

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains / Basin
 Date/ Time: 04-19-10 @ 0803
 Lab ID #: 369717
 Initials: JMF

Sample Receipt Checklist

Client Initials

#1	Temperature of container/ cooler?	<u>Yes</u>	No	3.6 °C	
#2	Shipping container in good condition?	<u>Yes</u>	No		
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	<u>Not Present</u>	
#4	Custody Seals intact on sample bottles/ container? <i>as label</i>	<u>Yes</u>	No	Not Present	
#5	Chain of Custody present?	<u>Yes</u>	No		
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No		
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No		
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No		
#11	Containers supplied by ELOT?	<u>Yes</u>	No		
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below	
#13	Samples properly preserved?	<u>Yes</u>	No	See Below	
#14	Sample bottles intact?	<u>Yes</u>	No		
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No		
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No		
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below	
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below	
#19	Subcontract of sample(s)?	<u>Yes</u>	No	<u>Not Applicable</u>	
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax
☐ Client understands and would like to proceed with analysis
☐ Cooling process had begun shortly after sampling event

Andrea Lam

From: "Gail D. Stanley" <GDS1@cybercom.net>
 To: "Andrea Lam" <andrea.lam@cybercom.net>
 Sent: Thursday, April 29, 2010 3:55 PM
 Subject: Fw: Lexington Gathering

> Original Message:

From: "Gail D. Stanley" <GDS1@cybercom.net>
 To: "Ben Barak" <benbarak@cybercom.net>
 Sent: Thursday, April 29, 2010 2:51 PM
 Subject: Re: Lexington Gathering

> Ben,

> I told you please run REX (80216) on my laptop. How time expires
 > for now?

> Thanks

> Gail

> Original Message:

> From: "Ben Barak" <benbarak@cybercom.net>
 > To: "Gail Stanley" <GDS1@cybercom.net>
 > Cc: "Ben Barak" <benbarak@cybercom.net>
 > Sent: Wednesday, April 28, 2010 10:19 AM
 > Subject: Lexington Gathering

>> Ben,

>> Ben Barak

>> Corporal, Technical Director (GDS1) at Defense
 >> Xerox Corporation - 16 Parkview Road, Suite 100
 >> 17600 West 17th Ave
 >> Golden, CO 80601
 >> P: 303-762-1800
 >> F: 303-762-1413
 >> Cell: 407-447-2000

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4/29/2010

Analytical Report 369877

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

28-APR-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



28-APR-10

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

Reference: XENCO Report No: **369877**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 369877. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 369877 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,

Brent Barron, II

Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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Sample Cross Reference 369877



PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S. SW-1 @14.5'	S	Apr-20-10 09:00		369877-001
N. SW-1 @14.5'	S	Apr-20-10 09:10		369877-002
W. SW-1 @14'	S	Apr-20-10 09:20		369877-003
Stockpile	S	Apr-20-10 09:30		369877-004



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 369877

Report Date: 28-APR-10

Date Received: 04/21/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-803557 Percent Moisture

None

Batch: LBA-803561 TPH by SW8015 Mod

None

Batch: LBA-803951 BTEX by EPA 8021

SW8021BM

Batch 803951, Benzene recovered below QC limits in the Matrix Spike. Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 369877-002, -001, -003.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Batch: LBA-804394 BTEX by EPA 8021

SW8021BM

Batch 804394, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 369877-004.

4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 369877-004.

SW8021BM

Batch 804394, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike.

Samples affected are: 369877-004.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Certificate of Analysis Summary 369877

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Wed Apr-21-10 07:50 am


Report Date: 28-APR-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:		369877-001	369877-002	369877-003	369877-004	
	Field Id:	Depth:	S. SW-1 @ 14.5'	N. SW-1 @ 14.5'	W. SW-1 @ 14'	Stockpile	
	Matrix:		SOIL	SOIL	SOIL	SOIL	
	Sampled:		Apr-20-10 09:00	Apr-20-10 09:10	Apr-20-10 09:20	Apr-20-10 09:30	
BTEX by EPA 8021	Extracted:		Apr-23-10 09:30	Apr-23-10 09:30	Apr-23-10 09:30	Apr-27-10 15:45	
	Analyzed:		Apr-23-10 14:09	Apr-23-10 14:32	Apr-23-10 14:55	Apr-28-10 11:12	
	Units/RL:		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
			ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011	
Benzene			ND 0.0023	ND 0.0022	ND 0.0023	0.0105 0.0023	
Toluene			ND 0.0012	ND 0.0011	ND 0.0011	0.0379 0.0011	
Ethylbenzene			ND 0.0023	ND 0.0022	ND 0.0023	0.1371 0.0023	
m,p-Xylenes			ND 0.0012	ND 0.0011	ND 0.0011	0.0755 0.0011	
o-Xylene			ND 0.0012	ND 0.0011	ND 0.0011	0.2126 0.0011	
Xylenes, Total			ND 0.0012	ND 0.0011	ND 0.0011	0.2610 0.0011	
Total BTEX							
Percent Moisture	Extracted:						
	Analyzed:		Apr-21-10 17:00	Apr-21-10 17:00	Apr-21-10 17:00	Apr-21-10 17:00	
	Units/RL:		% RL	% RL	% RL	% RL	
			12.8 1.00	8.47 1.00	12.0 1.00	12.7 1.00	
TPH by SW8015 Mod	Extracted:		Apr-21-10 13:45	Apr-21-10 13:45	Apr-21-10 13:45	Apr-21-10 13:45	
	Analyzed:		Apr-21-10 17:13	Apr-21-10 17:40	Apr-21-10 18:06	Apr-21-10 18:33	
	Units/RL:		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
C6-C12 Gasoline Range Hydrocarbons			ND 17.2	ND 16.3	ND 17.0	270 17.3	
C12-C28 Diesel Range Hydrocarbons			ND 17.2	ND 16.3	ND 17.0	579 17.3	
C28-C35 Oil Range Hydrocarbons			ND 17.2	ND 16.3	ND 17.0	23.6 17.3	
Total TPH			ND 17.2	ND 16.3	ND 17.0	873 17.3	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretation and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi


 Brent Barron, II
 Odessa Laboratory Manager

- 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 369877,

Project ID: 2006-142

Lab Batch #: 803951

Sample: 561660-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/23/10 11:55

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	0.0310	0.0300	103	80-120	

Lab Batch #: 803951

Sample: 561660-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/23/10 12:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 803951

Sample: 561660-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/23/10 13:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

Lab Batch #: 803951

Sample: 369877-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/23/10 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	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 803951

Sample: 369877-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/23/10 14:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0245	0.0300	82	80-120	
4-Bromofluorobenzene	0.0313	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 : 369877,

Project ID: 2006-142

Lab Batch #: 803951

Sample: 369877-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/23/10 14:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0338	0.0300	113	80-120	

Lab Batch #: 803951

Sample: 369877-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/24/10 12:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 803951

Sample: 369877-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/24/10 12:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 804394

Sample: 561926-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/27/10 20:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 804394

Sample: 561926-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/28/10 08:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0300	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 : 369877,

Project ID: 2006-142

Lab Batch #: 804394

Sample: 561926-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/28/10 09:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 804394

Sample: 369877-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/28/10 11:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0150	0.0300	50	80-120	**
4-Bromofluorobenzene	0.0858	0.0300	286	80-120	**

Lab Batch #: 804394

Sample: 370443-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/28/10 14:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 804394

Sample: 370443-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/28/10 15:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 803561

Sample: 561391-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/10 15:52

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	99.5	123	70-135	
o-Terphenyl	45.4	49.8	91	70-135	

* 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 : 369877,

Project ID: 2006-142

Lab Batch #: 803561

Sample: 561391-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/10 16:19

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.8	113	70-135	
o-Terphenyl	42.2	49.9	85	70-135	

Lab Batch #: 803561

Sample: 561391-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/10 16:46

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.7	101	97	70-135	
o-Terphenyl	47.0	50.3	93	70-135	

Lab Batch #: 803561

Sample: 369877-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/10 17:13

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.8	101	70-135	
o-Terphenyl	47.8	49.9	96	70-135	

Lab Batch #: 803561

Sample: 369877-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/10 17:40

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.9	99.5	96	70-135	
o-Terphenyl	44.8	49.8	90	70-135	

Lab Batch #: 803561

Sample: 369877-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/10 18:06

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.4	99.6	97	70-135	
o-Terphenyl	45.1	49.8	91	70-135	

* 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 : 369877,

Project ID: 2006-142

Lab Batch #: 803561

Sample: 369877-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/10 18:33

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	47.8	50.2	95	70-135	

Lab Batch #: 803561

Sample: 369877-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/10 19:53

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	43.2	50.0	86	70-135	

Lab Batch #: 803561

Sample: 369877-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/10 20:20

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	43.4	50.2	86	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 369877

Analyst: ASA

Lab Batch ID: 803951

Sample: 561660-1-BKS

Date Prepared: 04/23/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 04/23/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
Units: mg/kg												
BTEX by EPA 8021		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
Analytes												
Benzene		ND	0.1000	0.1023	102	0.1	0.1022	102	0	70-130	35	
Toluene		ND	0.1000	0.1012	101	0.1	0.1016	102	0	70-130	35	
Ethylbenzene		ND	0.1000	0.1022	102	0.1	0.1033	103	1	71-129	35	
m,p-Xylenes		ND	0.2000	0.2028	101	0.2	0.2048	102	1	70-135	35	
o-Xylene		ND	0.1000	0.1021	102	0.1	0.1032	103	1	71-133	35	

Analyst: ASA

Lab Batch ID: 804394

Sample: 561926-1-BKS

Date Prepared: 04/27/2010

Batch #: 1

Date Analyzed: 04/27/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
Units: mg/kg												
BTEX by EPA 8021		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
Analytes												
Benzene		ND	0.1000	0.1008	101	0.1	0.0985	99	2	70-130	35	
Toluene		ND	0.1000	0.0987	99	0.1	0.0955	96	3	70-130	35	
Ethylbenzene		ND	0.1000	0.0990	99	0.1	0.0949	95	4	71-129	35	
m,p-Xylenes		ND	0.2000	0.1970	99	0.2	0.1875	94	5	70-135	35	
o-Xylene		ND	0.1000	0.0985	99	0.1	0.0952	95	3	71-133	35	

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

Project Name: Lovington Gathering WTI

Work Order #: 369877

Analyst: BEV

Lab Batch ID: 803561

Sample: 561391-1-BKS

Date Prepared: 04/21/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 04/21/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	99.5	1180	119	998	1100	110	7	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	99.5	978	98	998	832	83	16	70-135	35	

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

Work Order #: 369877

Lab Batch ID: 803951

Date Analyzed: 04/24/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 369877-001 S

Date Prepared: 04/23/2010

Batch #: 1

Analyst: ASA

Matrix: Soil

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Reporting Units: mg/kg	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	ND	0.1145	0.0768	67	0.1145	0.0828	72	8	70-130	35	X
	Toluene	ND	0.1145	0.0712	62	0.1145	0.0764	67	7	70-130	35	X
	Ethylbenzene	ND	0.1145	0.0712	62	0.1145	0.0751	66	5	71-129	35	X
	m,p-Xylenes	ND	0.2289	0.1242	54	0.2289	0.1383	60	11	70-135	35	X
	o-Xylene	ND	0.1145	0.0727	63	0.1145	0.0788	69	8	71-133	35	X

Lab Batch ID: 804394

Date Analyzed: 04/28/2010

Reporting Units: mg/kg

QC-Sample ID: 370443-003 S

Date Prepared: 04/27/2010

Matrix: Soil

Batch #: 1

Analyst: ASA

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Reporting Units: mg/kg	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	ND	0.1088	0.0729	67	0.1088	0.0806	74	10	70-130	35	X
	Toluene	ND	0.1088	0.0733	67	0.1088	0.0795	73	8	70-130	35	X
	Ethylbenzene	ND	0.1088	0.0747	69	0.1088	0.0786	72	5	71-129	35	X
	m,p-Xylenes	ND	0.2175	0.1495	69	0.2175	0.1567	72	5	70-135	35	X
	o-Xylene	ND	0.1088	0.0764	70	0.1088	0.0802	74	5	71-133	35	X

Matrix Spike Percent Recovery [D] 100*(C-A)/B
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, EQ Estimated Quantification Limit

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



Form 3 - MS / MSD Recoveries

Project Name: Lovington Gathering WTI



Work Order # : 369877

Lab Batch ID: 803561

Date Analyzed: 04/21/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 369877-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 04/21/2010

Analyst: BEV

Reporting Units: mg/kg											
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod 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	Control Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1150	1290	112	1150	1310	114	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1150	1050	91	1150	976	85	7	70-135	35	

Matrix Spike Percent Recovery [D] 100%(C-A)/B
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
ApplicableN See Narrative, EQL Estimated Quantitation Limit

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



Sample Duplicate Recovery



Project Name: Lovington Gathering WTI

Work Order #: 369877

Lab Batch #: 803557

Project ID: 2006-142

Date Analyzed: 04/21/2010

Date Prepared: 04/21/2010

Analyst: WRU

QC- Sample ID: 369877-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	12.8	13.8	8	20	

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Name: Lovington Gathering WTI

Project #: 2006-142

Project Loc: Lea County, NM

PO #: PAA - J. Henry

Fax No: (575) 396-1429

cibryant@basin-consulting.com

Final Ver. 1.000

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Bosin Env. / Plains
 Date/ Time: 4.21.10 7:50
 Lab ID #: 369877
 Initials: BB / AL

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<u>Yes</u>	No	.1 °C
#2	Shipping container in good condition?	<u>Yes</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	<u>Not Present</u>
#4	Custody Seals intact on sample bottles/ container?	<u>Yes</u>	No	Not Present
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by EL0T?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	Subcontract of sample(s)?	<u>Yes</u>	No	<u>Not Applicable</u>
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that Apply:
- ☐ See attached e-mail/ fax
 - ☐ Client understands and would like to proceed with analysis
 - ☐ Cooling process had begun shortly after sampling event

Analytical Report 370963

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

04-MAY-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



04-MAY-10

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

Reference: XENCO Report No: **370963**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 370963. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 370963 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 370963



PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
East S/W-3 @ 14.5'	S	Apr-28-10 07:30		370963-001
S.W. S/W @ 14.5'	S	Apr-28-10 07:45		370963-002
West S/W-2 @ 14.5'	S	Apr-28-10 08:00		370963-003
ESW-2A @ 14'	S	Apr-29-10 15:00		370963-004



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 370963

Report Date: 04-MAY-10

Date Received: 04/30/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-804835 TPH by SW8015 Mod

SW8015MOD_NM

Batch 804835, C28-C35 Oil Range Hydrocarbons RPD was outside laboratory control limits.

Samples affected are: 370963-004, -002, -003, -001

Batch: LBA-804863 Percent Moisture

None

Batch: LBA-805042 BTEX by EPA 8021

SW8021BM

Batch 805042, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 371075-003 SD.

SW8021BM

Batch 805042, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 370963-003, -001.

The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Benzene RPD was outside control limits on Matrix Spike/ Matrix Spike Dup. The Laboratory Control Sample RPD for Benzene is within laboratory control limits.



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 370963

Report Date: 04-MAY-10

Date Received: 04/30/2010

*Batch: LBA-805068 BTEX by EPA 8021
SW8021BM*

Batch 805068, Benzene, Ethylbenzene, Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate.

Samples affected are: 370963-004, -002.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

SW8021BM

Batch 805068, 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 370963-002 S, 370963-002 SD.



Certificate of Analysis Summary 370963

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: 2006-142

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Fri Apr-30-10 06:50 am


Report Date: 04-MAY-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	370963-001	370963-002	370963-003	370963-004	
	Field Id: Depth: Matrix: Sampled:	East SW-3 @ 14.5' Apr-28-10 07:30 SOIL	S.W. SW @ 14.5' Apr-28-10 07:45 SOIL	West SW-2 @ 14.5' Apr-28-10 08:00 SOIL	ESW-2A @ 14' Apr-29-10 15:00 SOIL	
BTEx by EPA 8021	Extracted:	May-03-10 11:00	Apr-30-10 11:00	May-03-10 11:00	Apr-30-10 11:00	
	Analyzed:	May-03-10 21:33	May-02-10 00:53	May-03-10 22:36	May-02-10 01:14	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
		ND 0.0010	ND 0.0012	ND 0.0010	ND 0.0011	
		ND 0.0021	ND 0.0023	ND 0.0021	ND 0.0022	
Percent Moisture	Extracted:	Apr-30-10 17:00	Apr-30-10 17:00	Apr-30-10 17:00	Apr-30-10 17:00	
	Analyzed:					
	Units/RL:	% RL	% RL	% RL	% RL	
		2.86 1.00	13.2 1.00	4.13 1.00	8.88 1.00	
TPH by SW8015 Mod	Extracted:	May-01-10 10:30	May-01-10 10:30	May-01-10 10:30	May-01-10 10:30	
	Analyzed:	May-01-10 16:16	May-01-10 16:47	May-01-10 17:17	May-01-10 17:46	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
		ND 15.4	ND 17.3	24.8 15.6	ND 16.4	
		18.7 15.4	ND 17.3	175 15.6	20.0 16.4	
Total TPH		ND 15.4	ND 17.3	18.5 15.6	ND 16.4	
		18.7 15.4	ND 17.3	218 15.6	20.0 16.4	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretation and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi


Brent Barron, II
Odessa Laboratory Manager

- 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 370963,

Project ID: 2006-142

Lab Batch #: 805042

Sample: 562306-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/03/10 16:00

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0259	0.0300	86	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

Lab Batch #: 805042

Sample: 562306-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/03/10 16:20

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0326	0.0300	109	80-120	

Lab Batch #: 805042

Sample: 562306-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/03/10 17:23

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

Lab Batch #: 805042

Sample: 370963-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/03/10 21:33

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

Lab Batch #: 805042

Sample: 370963-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/03/10 22:36

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0272	0.0300	91	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.



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 370963,

Project ID: 2006-142

Lab Batch #: 805042

Sample: 371075-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/04/10 00:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0332	0.0300	111	80-120	
4-Bromofluorobenzene	0.0339	0.0300	113	80-120	

Lab Batch #: 805042

Sample: 371075-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/04/10 01:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0357	0.0300	119	80-120	
4-Bromofluorobenzene	0.0384	0.0300	128	80-120	*

Lab Batch #: 805068

Sample: 562332-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/01/10 23:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 805068

Sample: 562332-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/01/10 23:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

Lab Batch #: 805068

Sample: 562332-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/02/10 00:33

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	0.0301	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 : 370963,

Project ID: 2006-142

Lab Batch #: 805068

Sample: 370963-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/02/10 00:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 805068

Sample: 370963-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/02/10 01:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 805068

Sample: 370963-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/02/10 02:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0475	0.0300	158	80-120	*

Lab Batch #: 805068

Sample: 370963-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/02/10 03:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0395	0.0300	132	80-120	*

Lab Batch #: 804835

Sample: 562189-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/01/10 13:15

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	50.3	50.0	101	70-135	

* 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 : 370963,

Project ID: 2006-142

Lab Batch #: 804835

Sample: 562189-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 05/01/10 13:46		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		103	100	103	70-135
o-Terphenyl		49.1	50.0	98	70-135

Lab Batch #: 804835

Sample: 562189-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 05/01/10 14:17		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		89.7	100	90	70-135
o-Terphenyl		49.0	50.1	98	70-135

Lab Batch #: 804835

Sample: 370963-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 05/01/10 16:16		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		119	99.8	119	70-135
o-Terphenyl		64.9	49.9	130	70-135

Lab Batch #: 804835

Sample: 370963-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 05/01/10 16:47		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		97.3	100	97	70-135
o-Terphenyl		54.5	50.0	109	70-135

Lab Batch #: 804835

Sample: 370963-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 05/01/10 17:17		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		114	99.8	114	70-135
o-Terphenyl		63.6	49.9	127	70-135

* 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 : 370963,

Project ID: 2006-142

Lab Batch #: 804835

Sample: 370963-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/01/10 17:46

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.8	99.7	100	70-135	
o-Terphenyl	55.8	49.9	112	70-135	

Lab Batch #: 804835

Sample: 371078-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/01/10 21:17

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.1	99.8	94	70-135	
o-Terphenyl	44.4	49.9	89	70-135	

Lab Batch #: 804835

Sample: 371078-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/01/10 21:49

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 370963

Analyst: ASA

Lab Batch ID: 805042

Date Prepared: 05/03/2010

Sample: 562306-1-BKS

Batch #: 1

Project ID: 2006-142

Date Analyzed: 05/03/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Units: mg/kg										
	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
	BTEX by EPA 8021										
	Benzene	ND	0.1000	0.0911	91	0.1	0.0913	91	0	70-130	35
	Toluene	ND	0.1000	0.0932	93	0.1	0.0936	94	0	70-130	35
	Ethylbenzene	ND	0.1000	0.0914	91	0.1	0.0916	92	0	71-129	35
	m,p-Xylenes	ND	0.2000	0.2008	100	0.2	0.2026	101	1	70-135	35
o-Xylene	ND	0.1000	0.0976	98	0.1	0.1003	100	3	71-133	35	

Analyst: ASA

Lab Batch ID: 805068

Date Prepared: 04/30/2010

Sample: 562332-1-BKS

Batch #: 1

Date Analyzed: 05/01/2010

Matrix: Solid

Units: mg/kg

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	ND	0.1000	0.0715	72	0.1	0.0780	78	9	70-130	35
	Toluene	ND	0.1000	0.0751	75	0.1	0.0818	82	9	70-130	35
	Ethylbenzene	ND	0.1000	0.0730	73	0.1	0.0796	80	9	71-129	35
	m,p-Xylenes	ND	0.2000	0.1626	81	0.2	0.1774	89	9	70-135	35
	o-Xylene	ND	0.1000	0.0816	82	0.1	0.0905	91	10	71-133	35

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

Project Name: Lovington Gathering WTI

Work Order #: 370963

Analyst: BEV

Lab Batch ID: 804835

Sample: 562189-1-BKS

Date Prepared: 05/01/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 05/01/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	999	1040	104	1000	993	99	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	999	791	79	1000	728	73	8	70-135	35	

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

Work Order #: 370963

Lab Batch ID: 805042

Date Analyzed: 05/04/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 371075-003 S

Date Prepared: 05/03/2010

Batch #: 1

Analyst: ASA

Matrix: Soil

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY									
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Sample Result [F]	Spiked Dup. %R [G]	RPD %	Flag
BTEX by EPA 8021									
Benzene	ND	0.1053	0.0006	1	0.1053	ND	0	NC	XF
Toluene	ND	0.1053	ND	0	0.1053	ND	0	NC	X
Ethylbenzene	ND	0.1053	ND	0	0.1053	ND	0	NC	X
m,p-Xylenes	ND	0.2105	0.0265	13	0.2105	0.0280	13	6	X
o-Xylene	ND	0.1053	0.0031	3	0.1053	0.0028	3	10	X

Lab Batch ID: 805068

Date Analyzed: 05/02/2010

Reporting Units: mg/kg

QC-Sample ID: 370963-002 S

Date Prepared: 04/30/2010

Batch #: 1

Analyst: ASA

Matrix: Soil

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY									
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Sample Result [F]	Spiked Dup. %R [G]	RPD %	Flag
BTEX by EPA 8021									
Benzene	ND	0.1152	0.0745	65	0.1152	0.0683	59	9	X
Toluene	ND	0.1152	0.0778	68	0.1152	0.0715	62	8	X
Ethylbenzene	ND	0.1152	0.0748	65	0.1152	0.0662	57	12	X
m,p-Xylenes	ND	0.2304	0.1680	73	0.2304	0.1418	62	17	X
o-Xylene	ND	0.1152	0.0935	81	0.1152	0.0801	70	15	X

Matrix Spike Percent Recovery [D] 100*(C-A)/B
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, EQ Estimated Quantification Limit

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



Form 3 - MS / MSD Recoveries

Project Name: Lovington Gathering WTI



Work Order #: 370963

Lab Batch ID: 804835

Date Analyzed: 05/01/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 371078-003 S

Batch #: 1 Matrix: Soil

Date Prepared: 05/01/2010 Analyst: BEV

Reporting Units: mg/kg											
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod 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
C6-C12 Gasoline Range Hydrocarbons	ND	1200	1060	88	1200	1130	94	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1200	1040	87	1200	944	79	10	70-135	35	

Matrix Spike Percent Recovery [D] 100%(C-A)/B
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
ApplicableN See Narrative, EQL Estimated Quantitation Limit

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



Sample Duplicate Recovery



Project Name: Lovington Gathering WTI

Work Order #: 370963

Lab Batch #: 804863

Project ID: 2006-142

Date Analyzed: 04/30/2010

Date Prepared: 04/30/2010

Analyst: JLG

QC- Sample ID: 370918-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	18.8	18.8	1	20	

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**12600 West I-20 East
Odessa, Texas 79765**

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

Project Name: Lovington Gathering WTI

Project Manager: Camille Bryant

Project #: 2006-142

Company Name	Basin Environmental Consulting
---------------------	---------------------------------------

Project Loc: Lea County, NM

Company Address: P O Box 381

PO #: PAA - J. Henry

City/State/Zip: Lovington, NM 88260

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Fax No:

Telephone No: 575-605-7210

cstanley@basinenv.com

e-mail:

Sampler Signature:

[illegible]

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains / Basin
 Date/ Time: 04-30-10 @ 0650
 Lab ID #: 370963
 Initials: JMF

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<u>Yes</u>	No	1.6 °C
#2	Shipping container in good condition?	<u>Yes</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	<u>Not Present</u>
#4	Custody Seals intact on sample bottles/ container? <i>as labels</i>	<u>Yes</u>	No	Not Present
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by ELOT?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	Subcontract of sample(s)?	Yes	<u>No</u>	Not Applicable
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken:

- Check all that Apply:
- ☐ See attached e-mail/ fax
 - ☐ Client understands and would like to proceed with analysis
 - ☐ Cooling process had begun shortly after sampling event

Analytical Report 371631

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

10-MAY-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



10-MAY-10

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

Reference: XENCO Report No: **371631**
Lovington Gathering WTI
Project Address: Lea Co., NM

Jason Henry:

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 371631. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 371631 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,

Brent Barron, II

Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



Sample Cross Reference 371631



PLAINS ALL AMERICAN EH&S, Midland, TX
Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1	S	May-05-10 14:00		371631-001
SP-2	S	May-05-10 14:10		371631-002
SP-3	S	May-05-10 14:20		371631-003
SP-4	S	May-05-10 14:30		371631-004
SP-5	S	May-05-10 14:40		371631-005
West S/W-2A @ 14.5'	S	May-05-10 14:50		371631-006



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 371631

Report Date: 10-MAY-10

Date Received: 05/06/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-805521 TPH by SW8015 Mod

None

Batch: LBA-805530 TPH by SW8015 Mod

None

Batch: LBA-805538 BTEX by EPA 8021

SW8021BM

Batch 805538, 1,4-Difluorobenzene recovered below QC limits Data not confirmed by re-analysis. Samples affected are: 562632-1-BLK, 371631-006.

1,4-Difluorobenzene recovered below QC limits Data confirmed by re-analysis. Samples affected are: 371631-003.

4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 371631-003.

SW8021BM

Batch 805538, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike.

Samples affected are: 371631-006, -003.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Batch: LBA-805545 Percent Moisture

None



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 371631

Report Date: 10-MAY-10

Date Received: 05/06/2010

*Batch: LBA-805774 BTEX by EPA 8021
SW8021BM*

Batch 805774, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 371454-001 D,371631-002,371631-005,371631-001,371631-004.

4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 371631-001,371631-002,371631-004,371631-005.

Certificate of Analysis Summary 371631

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea Co., NM

Date Received in Lab: Thu May-06-10 08:25 am

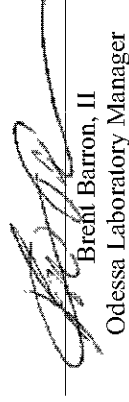
Report Date: 10-MAY-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:		371631-001	371631-002	371631-003	371631-004	371631-005	371631-006
	Field Id:	Depth:	SP-1	SP-2	SP-3	SP-4	SP-5	West SW-2A @ 14.5'
	Matrix:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	May-05-10 14:00	May-05-10 14:10	May-05-10 14:20	May-05-10 14:30	May-05-10 14:40	May-05-10 14:50	May-05-10 14:50
BTEX by EPA 8021	Extracted:	May-07-10 16:00	May-07-10 16:00	May-07-10 16:00	May-07-10 16:00	May-07-10 16:00	May-07-10 16:00	May-06-10 09:30
	Analyzed:	May-07-10 22:12	May-07-10 22:57	May-06-10 13:39	May-07-10 23:20	May-07-10 23:42	May-07-10 23:42	May-06-10 15:07
	Units/RL:	ND 0.0108	ND 0.0055	0.0145 0.0108	ND 0.0108	ND 0.0108	ND 0.0108	mg/kg RL
		0.2359 0.0217	0.0429 0.0109	0.2174 0.0217	0.0541 0.0217	0.0968 0.0217	0.0968 0.0217	ND 0.0010
Percent Moisture		0.9550 0.0108	0.1513 0.0055	0.9216 0.0108	0.1915 0.0108	0.3392 0.0108	0.3392 0.0108	ND 0.0010
		2.333 0.0217	0.4789 0.0109	2.289 0.0217	0.7956 0.0217	1.469 0.0217	1.469 0.0217	ND 0.0021
		1.295 0.0108	0.2987 0.0055	0.9399 0.0108	0.7334 0.0108	0.7184 0.0108	0.7184 0.0108	ND 0.0010
		3.628 0.0108	0.7776 0.0055	3.229 0.0108	1.5290 0.0108	2.187 0.0108	2.187 0.0108	ND 0.0010
TPH by SW8015 Mod		4.819 0.0108	0.9718 0.0055	4.382 0.0108	1.7746 0.0108	2.623 0.0108	2.623 0.0108	ND 0.0010
	Extracted:							
	Analyzed:	May-06-10 17:00	May-06-10 17:00	May-06-10 17:00	May-06-10 17:00	May-06-10 17:00	May-06-10 17:00	May-06-10 17:00
	Units/RL:	7.70 1.00	8.25 1.00	7.77 1.00	7.62 1.00	7.74 1.00	7.74 1.00	% RL
C6-C12 Gasoline Range Hydrocarbons								
		427 16.2	195 16.4	307 16.2	288 16.2	293 16.2	293 16.2	ND 15.7
		1090 16.2	622 16.4	933 16.2	963 16.2	873 16.2	873 16.2	ND 15.7
		109 16.2	66.3 16.4	92.4 16.2	97.3 16.2	91.4 16.2	91.4 16.2	ND 15.7
C12-C28 Diesel Range Hydrocarbons								
		1626 16.2	883 16.4	1332 16.2	1348 16.2	1257 16.2	1257 16.2	ND 15.7
C28-C35 Oil Range Hydrocarbons								
Total TPH								

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretation and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi


 Brent Barron, II
 Odessa Laboratory Manager

- 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 371631,

Project ID: 2006-142

Lab Batch #: 805538

Sample: 562632-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/06/10 09:48

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	

Lab Batch #: 805538

Sample: 562632-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/06/10 10:10

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	0.0277	0.0300	92	80-120	

Lab Batch #: 805538

Sample: 562632-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/06/10 11:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

Lab Batch #: 805538

Sample: 371631-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/06/10 13:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0178	0.0300	59	80-120	**
4-Bromofluorobenzene	0.0739	0.0300	246	80-120	**

Lab Batch #: 805538

Sample: 371631-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/06/10 15:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0231	0.0300	77	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 : 371631,

Project ID: 2006-142

Lab Batch #: 805538

Sample: 371628-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/06/10 21:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 805774

Sample: 562804-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/07/10 20:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 805774

Sample: 562804-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/07/10 20:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 805774

Sample: 562804-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/07/10 21:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0245	0.0300	82	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 805774

Sample: 371631-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 22:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0168	0.0300	56	80-120	**
4-Bromofluorobenzene	0.0944	0.0300	315	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 : 371631,

Project ID: 2006-142

Lab Batch #: 805774

Sample: 371631-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 22:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0194	0.0300	65	80-120	**
4-Bromofluorobenzene	0.0846	0.0300	282	80-120	**

Lab Batch #: 805774

Sample: 371631-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 23:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0170	0.0300	57	80-120	**
4-Bromofluorobenzene	0.0674	0.0300	225	80-120	**

Lab Batch #: 805774

Sample: 371631-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 23:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0161	0.0300	54	80-120	**
4-Bromofluorobenzene	0.0647	0.0300	216	80-120	**

Lab Batch #: 805774

Sample: 371454-001 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/10 04:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0161	0.0300	54	80-120	**
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 805521

Sample: 562616-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/06/10 15:16

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	42.4	50.1	85	70-135	

* 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 : 371631,

Project ID: 2006-142

Lab Batch #: 805521

Sample: 562616-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/06/10 15:43

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	42.4	50.1	85	70-135	

Lab Batch #: 805521

Sample: 562616-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/06/10 16:10

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.7	99.6	90	70-135	
o-Terphenyl	43.6	49.8	88	70-135	

Lab Batch #: 805521

Sample: 371631-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 00:16

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.7	99.7	97	70-135	
o-Terphenyl	45.2	49.9	91	70-135	

Lab Batch #: 805521

Sample: 371631-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 00:42

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.1	99.5	97	70-135	
o-Terphenyl	44.1	49.8	89	70-135	

Lab Batch #: 805521

Sample: 371631-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 01:09

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.4	101	91	70-135	
o-Terphenyl	45.5	50.3	90	70-135	

* 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 : 371631,

Project ID: 2006-142

Lab Batch #: 805521

Sample: 371631-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 01:36

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.7	99.7	94	70-135	
o-Terphenyl	45.3	49.9	91	70-135	

Lab Batch #: 805521

Sample: 371628-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 02:03

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	99.5	105	70-135	
o-Terphenyl	40.3	49.8	81	70-135	

Lab Batch #: 805521

Sample: 371628-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 02:30

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.9	103	70-135	
o-Terphenyl	39.7	50.0	79	70-135	

Lab Batch #: 805530

Sample: 562626-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/07/10 05:12

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	42.0	50.1	84	70-135	

Lab Batch #: 805530

Sample: 562626-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/07/10 05:39

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	40.9	50.1	82	70-135	

* 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 : 371631,

Project ID: 2006-142

Lab Batch #: 805530

Sample: 562626-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/07/10 06:06

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.7	99.6	88	70-135	
o-Terphenyl	44.3	49.8	89	70-135	

Lab Batch #: 805530

Sample: 371631-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 06:33

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.2	99.5	93	70-135	
o-Terphenyl	43.4	49.8	87	70-135	

Lab Batch #: 805530

Sample: 371631-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 07:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.9	99.7	80	70-135	
o-Terphenyl	40.6	49.9	81	70-135	

Lab Batch #: 805530

Sample: 371631-006 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 07:54

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	41.4	50.0	83	70-135	

Lab Batch #: 805530

Sample: 371631-006 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/07/10 08:20

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	99.7	104	70-135	
o-Terphenyl	40.6	49.9	81	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 371631

Analyst: ASA

Lab Batch ID: 805538

Sample: 562632-1-BKS

Date Prepared: 05/06/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 05/06/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
	BTEX by EPA 8021										
	Benzene	ND	0.1000	0.0921	92	0.1	0.0919	92	0	70-130	35
	Toluene	ND	0.1000	0.0924	92	0.1	0.0923	92	0	70-130	35
	Ethylbenzene	ND	0.1000	0.0948	95	0.1	0.0940	94	1	71-129	35
	m,p-Xylenes	ND	0.2000	0.1893	95	0.2	0.1876	94	1	70-135	35
	o-Xylene	ND	0.1000	0.0941	94	0.1	0.0930	93	1	71-133	35

Analyst: ASA

Lab Batch ID: 805774

Sample: 562804-1-BKS

Date Prepared: 05/07/2010

Batch #: 1

Date Analyzed: 05/07/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Units: mg/kg										
	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
	BTEX by EPA 8021										
	Benzene	ND	0.1000	0.0975	98	0.1	0.1022	102	5	70-130	35
	Toluene	ND	0.1000	0.0973	97	0.1	0.1015	102	4	70-130	35
	Ethylbenzene	ND	0.1000	0.0986	99	0.1	0.1025	103	4	71-129	35
	m,p-Xylenes	ND	0.2000	0.1963	98	0.2	0.2039	102	4	70-135	35
o-Xylene	ND	0.1000	0.0964	96	0.1	0.1009	101	5	71-133	35	

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

Project Name: Lovington Gathering WTI

Work Order #: 371631

Analyst: BEV

Lab Batch ID: 805521

Sample: 562616-1-BKS

Units: mg/kg

Project ID: 2006-142

Date Analyzed: 05/06/2010

Date Prepared: 05/06/2010

Batch #: 1

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY													
Units: mg/kg													
Analytes	TPH by SW8015 Mod		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
	C6-C12 Gasoline Range Hydrocarbons		ND	1000	1090	109	1000	1100	110	1	70-135	35	
	C12-C28 Diesel Range Hydrocarbons		ND	1000	919	92	1000	851	85	8	70-135	35	

Analyst: BEV

Lab Batch ID: 805530

Sample: 562626-1-BKS

Units: mg/kg

Date Prepared: 05/06/2010

Batch #: 1

Date Analyzed: 05/07/2010

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	1000	1070	107	1000	1070	107	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	1000	914	91	1000	861	86	6	70-135	35	

Relative Percent Difference $RPD = 200 * [(C-F)/(C+F)]$

Blank Spike Recovery $[D] = 100 * (C)/[B]$

Blank Spike Duplicate Recovery $[G] = 100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lovington Gathering WTI

Work Order #: 371631

Lab Batch #: 805538

Project ID: 2006-142

Date Analyzed: 05/06/2010

Date Prepared: 05/06/2010

Analyst: ASA

QC- Sample ID: 371628-002 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Benzene	ND	0.1253	0.0657	52	70-130	X
Toluene	ND	0.1253	0.0745	59	70-130	X
Ethylbenzene	ND	0.1253	0.0778	62	71-129	X
m,p-Xylenes	ND	0.2506	0.1665	66	70-135	X
o-Xylene	ND	0.1253	0.0809	65	71-133	X

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

Relative Percent Difference [E] = $200 \times (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: Lovington Gathering WTI

Work Order #: 371631

Lab Batch ID: 805521

Date Analyzed: 05/07/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 371628-001 S

Date Prepared: 05/06/2010

Batch #: 1

Analyst: BEV

Matrix: Soil

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Reporting Units: mg/kg												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		15.1	1000	1060	104	1010	1040	101	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons		17.9	1000	780	76	1010	891	86	13	70-135	35	

Lab Batch ID: 805530

Date Analyzed: 05/07/2010

Reporting Units: mg/kg

QC-Sample ID: 371631-006 S

Date Prepared: 05/06/2010

Batch #: 1

Analyst: BEV

Matrix: Soil

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Reporting Units: mg/kg												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	1050	1090	104	1040	1080	104	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	1050	749	71	1040	990	95	28	70-135	35	

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

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

Project Name: Lovington Gathering WTI

Work Order #: 371631

Lab Batch #: 805774

Project ID: 2006-142

Date Analyzed: 05/08/2010

Date Prepared: 05/07/2010

Analyst: ASA

QC- Sample ID: 371454-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

BTEX by EPA 8021	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Benzene	7.330	7.657	4	35	
Toluene	183.5	227.9	22	35	
Ethylbenzene	33.57	40.51	19	35	
m,p-Xylenes	360.6	443.8	21	35	
o-Xylene	88.61	109.8	21	35	

Lab Batch #: 805545

Date Analyzed: 05/06/2010

Date Prepared: 05/06/2010

Analyst: JLG

QC- Sample ID: 371628-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	ND	ND	NC	20	

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

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains / Basin

Date/ Time: 05-06-10 @ 0825

Lab ID #: 371031

Initials: JMF

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<u>Yes</u>	No	2.6 °C
#2	Shipping container in good condition?	<u>Yes</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	<u>Not Present</u>
#4	Custody Seals intact on sample bottles/ container? <i>as labels</i>	<u>Yes</u>	No	Not Present
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by ELOT?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	Subcontract of sample(s)?	<u>Yes</u>	<u>No</u>	Not Applicable
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that Apply:
- ☐ See attached e-mail/ fax
 - ☐ Client understands and would like to proceed with analysis
 - ☐ Cooling process had begun shortly after sampling event

Analytical Report 372182

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

13-MAY-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



13-MAY-10

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

Reference: XENCO Report No: **372182**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 372182. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 372182 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 372182



PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-6	S	May-10-10 09:30		372182-001
SP-7	S	May-10-10 10:00		372182-002
SP-8	S	May-10-10 10:15		372182-003



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 372182

Report Date: 13-MAY-10

Date Received: 05/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-805910 Percent Moisture

None

Batch: LBA-806108 TPH by SW8015 Mod

None

Batch: LBA-806144 BTEX by EPA 8021

SW8021BM

Batch 806144, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 372182-002.

SW8021BM

Batch 806144, Benzene recovered below QC limits in the Matrix Spike. Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 372182-002.

The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 372182

Report Date: 13-MAY-10

Date Received: 05/10/2010

*Batch: LBA-806237 BTEX by EPA 8021
SW8021BM*

*Batch 806237, Benzene, o-Xylene recovered below QC limits in the Matrix Spike Duplicate.
Samples affected are: 372182-003, -001.*

The Laboratory Control Sample for Benzene, o-Xylene is within laboratory Control Limits

SW8021BM

*Batch 806237, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is
suspected; data confirmed by re-analysis*

Samples affected are: 372182-001,372182-003.

*4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data
confirmed by re-analysis*

Samples affected are: 372182-003,372182-001.



Certificate of Analysis Summary 372182

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Mon May-10-10 03:45 pm

Report Date: 13-MAY-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	372182-001	372182-002	372182-003	
	Field Id: Depth: Matrix: Sampled:	SP-6 SOIL May-10-10 09:30	SP-7 SOIL May-10-10 10:00	SP-8 SOIL May-10-10 10:15	
BTEX by EPA 8021	Extracted:	May-12-10 09:00	May-11-10 15:50	May-12-10 09:00	
	Analyzed:	May-12-10 20:49	May-11-10 18:58	May-12-10 21:12	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	
		ND 0.0052	ND 0.0011	ND 0.0011	
		0.0239 0.0105	0.0053 0.0022	0.0082 0.0021	
Percent Moisture		0.1867 0.0052	0.0282 0.0011	0.0210 0.0011	
		0.9324 0.0105	0.0454 0.0022	0.0749 0.0021	
		0.4559 0.0052	0.0303 0.0011	0.0444 0.0011	
		1.3883 0.0052	0.0757 0.0011	0.1193 0.0011	
		1.5989 0.0052	0.1092 0.0011	0.1485 0.0011	
TPH by SW8015 Mod	Extracted:	May-10-10 17:00	May-10-10 17:00	May-10-10 17:00	
	Analyzed:	May-11-10 08:45	May-11-10 08:45	May-11-10 08:45	
	Units/RL:	% RL	% RL	% RL	
		4.70 1.00	8.16 1.00	6.17 1.00	
		mg/kg RL	mg/kg RL	mg/kg RL	
Total TPH		433 15.7	159 16.3	225 16.0	
		1710 15.7	907 16.3	1140 16.0	
		157 15.7	90.4 16.3	109 16.0	
		2300 15.7	1156 16.3	1474 16.0	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretation and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi


Brent Barron, II
Odessa Laboratory Manager

- 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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 2505 North Falkenburg Rd, Tampa, FL 33619
 5757 NW 158th St, Miami Lakes, FL 33014
 12600 West I-20 East, Odessa, TX 79765
 842 Cantwell Lane, Corpus Christi, TX 78408

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(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116

Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 372182,

Project ID: 2006-142

Lab Batch #: 806144

Sample: 563020-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/11/10 16:43

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 806144

Sample: 563020-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/11/10 17:05

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

Lab Batch #: 806144

Sample: 563020-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/11/10 18:12

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0244	0.0300	81	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 806144

Sample: 372182-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/11/10 18:58

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0170	0.0300	57	80-120	*
4-Bromofluorobenzene	0.0346	0.0300	115	80-120	

Lab Batch #: 806144

Sample: 372175-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/12/10 00:13

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0277	0.0300	92	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.

Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 372182,

Project ID: 2006-142

Lab Batch #: 806144

Sample: 372175-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/12/10 00:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 806237

Sample: 563081-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/12/10 12:38

SURROGATE RECOVERY STUDY

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

Lab Batch #: 806237

Sample: 563081-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/12/10 13:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 806237

Sample: 372182-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/12/10 20:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0195	0.0300	65	80-120	**
4-Bromofluorobenzene	0.0782	0.0300	261	80-120	**

Lab Batch #: 806237

Sample: 372182-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/12/10 21:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0236	0.0300	79	80-120	**
4-Bromofluorobenzene	0.0557	0.0300	186	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 : 372182,

Project ID: 2006-142

Lab Batch #: 806237

Sample: 372311-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/12/10 22:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

Lab Batch #: 806237

Sample: 372311-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/12/10 22:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 806108

Sample: 562994-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/11/10 11:21

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	45.5	50.0	91	70-135	

Lab Batch #: 806108

Sample: 562994-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/11/10 11:48

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	45.1	50.2	90	70-135	

Lab Batch #: 806108

Sample: 562994-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/11/10 12:16

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.7	100	100	70-135	
o-Terphenyl	49.3	50.1	98	70-135	

* 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 : 372182,

Project ID: 2006-142

Lab Batch #: 806108

Sample: 372182-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/11/10 14:05

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	109	99.7	109	70-135	
o-Terphenyl	46.9	49.9	94	70-135	

Lab Batch #: 806108

Sample: 372182-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/11/10 14:33

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	105	99.9	105	70-135	
o-Terphenyl	48.9	50.0	98	70-135	

Lab Batch #: 806108

Sample: 372182-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/11/10 15:00

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	46.5	50.0	93	70-135	

Lab Batch #: 806108

Sample: 372175-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/11/10 18:38

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	45.5	50.1	91	70-135	

Lab Batch #: 806108

Sample: 372175-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/11/10 19:05

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	45.3	50.0	91	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 372182

Project ID:

2006-142

Lab Batch #: 806237

Sample: 563081-1-BKS

Matrix: Solid

Date Analyzed: 05/12/2010

Date Prepared: 05/12/2010

Analyst: ASA

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene	ND	0.1000	0.1016	102	70-130	
Toluene	ND	0.1000	0.1021	102	70-130	
Ethylbenzene	ND	0.1000	0.1031	103	71-129	
m,p-Xylenes	ND	0.2000	0.2046	102	70-135	
o-Xylene	ND	0.1000	0.1038	104	71-133	

Blank Spike Recovery [D] – 100*[C]/[B]

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

BRL - Below Reporting Limit

Project Name: Lovington Gathering WTI

Work Order #: 372182

Analyt: ASA

Lab Batch ID: 806144

Sample: 563020-1-BKS

Date Prepared: 05/11/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 05/11/2010

Matrix: Solid

Units: mg/kg

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	ND	0.1000	0.1005	101	0.1	0.0999	100	1	70-130	35
	Toluene	ND	0.1000	0.1016	102	0.1	0.0997	100	2	70-130	35
	Ethylbenzene	ND	0.1000	0.1056	106	0.1	0.1017	102	4	71-129	35
	m,p-Xylenes	ND	0.2000	0.2121	106	0.2	0.2037	102	4	70-135	35
	o-Xylene	ND	0.1000	0.1054	105	0.1	0.1008	101	4	71-133	35

Analyt: BEV

Lab Batch ID: 806108

Sample: 562994-1-BKS

Date Prepared: 05/11/2010

Batch #: 1

Date Analyzed: 05/11/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Units: mg/kg											
Analytes	TPH by SW8015 Mod										
	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
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1100	110	1000	1100	110	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	846	85	1000	933	93	10	70-135	35	

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 #: 372182

Lab Batch ID: 806144

Date Analyzed: 05/12/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 372175-001 S

Date Prepared: 05/11/2010

Batch #: 1

Analyst: ASA

Matrix: Soil

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Reporting Units: mg/kg	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	ND	0.1044	0.0655	63	0.1044	0.0729	70	11	70-130	35	X
	Toluene	ND	0.1044	0.0609	58	0.1044	0.0666	64	9	70-130	35	X
	Ethylbenzene	ND	0.1044	0.0526	50	0.1044	0.0584	56	10	71-129	35	X
	m,p-Xylenes	ND	0.2089	0.1019	49	0.2089	0.1054	50	3	70-135	35	X
	o-Xylene	ND	0.1044	0.0577	55	0.1044	0.0652	62	12	71-133	35	X

Lab Batch ID: 806237

Date Analyzed: 05/12/2010

Reporting Units: mg/kg

QC-Sample ID: 372311-001 S

Date Prepared: 05/12/2010

Matrix: Soil

Batch #: 1

Analyst: ASA

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY													
Reporting Units: mg/kg	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	ND	0.1163	0.0867	75	0.1160	0.0792	68	9	70-130	35	X
		Toluene	ND	0.1163	0.0884	76	0.1160	0.0809	70	9	70-130	35	
		Ethylbenzene	ND	0.1163	0.0918	79	0.1160	0.0844	73	8	71-129	35	
		m,p-Xylenes	ND	0.2326	0.1832	79	0.2321	0.1693	73	8	70-135	35	
		o-Xylene	ND	0.1163	0.0873	75	0.1160	0.0806	69	8	71-133	35	X

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

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



Form 3 - MS / MSD Recoveries

Project Name: Lovington Gathering WTI



Work Order #: 372182

Lab Batch ID: 806108

Date Analyzed: 05/11/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 372175-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 05/11/2010 Analyst: BEV

Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	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
TPH by SW8015 Mod											
Analytes											
C6-C12 Gasoline Range Hydrocarbons	ND	1050	1180	112	1040	1170	113	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1050	991	94	1040	1050	101	6	70-135	35	

Matrix Spike Percent Recovery [D] 100%(C-A)/B
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
ApplicableN See Narrative, EQL Estimated Quantitation Limit

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



Sample Duplicate Recovery



Project Name: Lovington Gathering WTI

Work Order #: 372182

Lab Batch #: 805910

Project ID: 2006-142

Date Analyzed: 05/10/2010

Date Prepared: 05/10/2010

Analyst: JLG

QC- Sample ID: 372135-002 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	8.70	10.1	15	20	

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

cibryant@basin-consulting.com

Special Instructions:		Laboratory Comments:	
Relinquished by:	Date	Time	Received by:
5/10/10	3:45		
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client:

Basin Env. / Perkins

Date/ Time:

5.10.10 15:45

Lab ID #:

372182

Initials:

AL

Sample Receipt Checklist

Client Initials

#1	Temperature of container/ cooler?	(Yes)	No	4.6 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact:

Contacted by:

Date/ Time:

Regarding:

Corrective Action Taken:

Check all that Apply:

☐
☐
☐

See attached e-mail/ fax

Client understands and would like to proceed with analysis

Cooling process had begun shortly after sampling event

Analytical Report 373715

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

21-MAY-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

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Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



21-MAY-10

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

Reference: XENCO Report No: **373715**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 373715. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 373715 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 373715



PLAINS ALL AMERICAN EH&S, Midland, TX
Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1A	S	May-19-10 11:30		373715-001



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 373715

Report Date: 21-MAY-10

Date Received: 05/20/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-807506 Percent Moisture

None

Batch: LBA-807526 TPH by SW8015 Mod

None



Certificate of Analysis Summary 373715

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI


Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Thu May-20-10 09:12 am
Report Date: 21-MAY-10
Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	373715-001				
	Field Id:	SP-1A				
	Depth:					
	Matrix:	SOIL				
Percent Moisture	Sampled:	May-19-10 11:30				
	Extracted:					
	Analyzed:	May-20-10 17:00				
	Units/RL:	% RL				
TPH by SW8015 Mod		7.92 1.00				
	Extracted:	May-20-10 13:00				
	Analyzed:	May-21-10 06:52				
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		137 16.4				
	C12-C28 Diesel Range Hydrocarbons	678 16.4				
	C28-C35 Oil Range Hydrocarbons	84.0 16.4				
Total TPH		899 16.4				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretation and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi


Brent Barron, II
Odessa Laboratory Manager

- 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 373715,

Project ID: 2006-142

Lab Batch #: 807526

Sample: 563822-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/20/10 21:54

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	101	119	70-135	
o-Terphenyl	47.2	50.3	94	70-135	

Lab Batch #: 807526

Sample: 563822-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/20/10 22:20

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	48.3	50.1	96	70-135	

Lab Batch #: 807526

Sample: 563822-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/20/10 22:47

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.9	103	70-135	
o-Terphenyl	52.0	50.0	104	70-135	

Lab Batch #: 807526

Sample: 373715-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/21/10 06:52

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	49.3	50.2	98	70-135	

Lab Batch #: 807526

Sample: 373714-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/21/10 08:39

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	45.7	50.2	91	70-135	

* 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 : 373715,

Project ID: 2006-142

Lab Batch #: 807526

Sample: 373714-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/21/10 09:06

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.8	114	70-135	
o-Terphenyl	45.5	49.9	91	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 373715

Analyst: BEV

Lab Batch ID: 807526

Sample: 563822-1-BKS

Date Prepared: 05/20/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 05/20/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	1010	1210	120	1000	1220	122	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	1010	1010	100	1000	875	88	14	70-135	35	

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 #: 373715

Lab Batch ID: 807526

Date Analyzed: 05/21/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 373714-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 05/20/2010

Analyst: BEV

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Reporting Units: mg/kg											
TPH by SW8015 Mod 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
C6-C12 Gasoline Range Hydrocarbons	ND	1180	1340	114	1180	1340	114	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	18.7	1180	933	77	1180	946	79	1	70-135	35	

Matrix Spike Percent Recovery [D] 100%(C-A)/B
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
ApplicableN See Narrative, EQL Estimated Quantitation Limit

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



Sample Duplicate Recovery



Project Name: Lovington Gathering WTI

Work Order #: 373715

Lab Batch #: 807506

Project ID: 2006-142

Date Analyzed: 05/20/2010

Date Prepared: 05/20/2010

Analyst: JLG

QC- Sample ID: 373709-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	8.46	6.91	20	20	

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



XENCO Laboratories
Atlanta, Corpus Christi, Dallas,
Houston, Miami, Midland, Philadelphia,
San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS - SRC
Revision/Date: No.00, 05/18/10
Effective Date: 05/20/10
Page No.: 1 of 1

Prelogin / Nonconformance Report – Sample Log-In

Client: Plains / Basin
Date/Time: 05-20-10 @ 0912
Lab ID #: 373715
Initials: JMF

Sample Receipt Checklist

1. Sample on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	Yes	No	N/A	<u>as labels</u>
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample lable(s)?	<u>Yes</u>	No		
9. Container labels legible legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. Voc sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>3.6</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis

Analytical Report 374197

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

26-MAY-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



26-MAY-10

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

Reference: XENCO Report No: **374197**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 374197. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 374197 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 374197



PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile-3	S	May-24-10 11:00		374197-001
Stockpile-4	S	May-24-10 11:05		374197-002
Stockpile-5	S	May-24-10 11:10		374197-003
Stockpile-6	S	May-24-10 11:15		374197-004
Stockpile-7	S	May-24-10 11:20		374197-005
Stockpile-8	S	May-24-10 11:25		374197-006



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 374197

Report Date: 26-MAY-10

Date Received: 05/24/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-808093 Percent Moisture

None

Batch: LBA-808164 TPH by SW8015 Mod

None

Certificate of Analysis Summary 374197

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Mon May-24-10 05:07 pm


Report Date: 26-MAY-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	374197-001	374197-002	374197-003	374197-004	374197-005	374197-006
	Field Id:	Stockpile-3	Stockpile-4	Stockpile-5	Stockpile-6	Stockpile-7	Stockpile-8
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	May-24-10 11:00	May-24-10 11:05	May-24-10 11:10	May-24-10 11:15	May-24-10 11:20	May-24-10 11:25
Percent Moisture	Extracted:						
	Analyzed:	May-25-10 17:00	May-25-10 17:00	May-25-10 17:00	May-25-10 17:00	May-25-10 17:00	May-25-10 17:00
	Units/RL:	%	%	%	%	%	%
		5.05	5.85	5.83	7.54	5.68	5.75
		1.00	1.00	1.00	1.00	1.00	1.00
TPH by SW8015 Mod	Extracted:						
	Analyzed:	May-25-10 11:45	May-25-10 11:45	May-25-10 11:45	May-25-10 11:45	May-25-10 11:45	May-25-10 11:45
	Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		105	122	183	1530	309	181
		15.7	16.0	16.0	162	16.0	16.0
C6-C12 Gasoline Range Hydrocarbons		892	557	781	5200	934	981
C12-C28 Diesel Range Hydrocarbons		80.2	66.7	88.3	667	145	103
C28-C35 Oil Range Hydrocarbons		1077	746	1052	7397	1388	1265
Total TPH		15.7	16.0	16.0	162	16.0	16.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi


 Brent Barron, II
 Odessa Laboratory Manager

- 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116

Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 374197,

Project ID: 2006-142

Lab Batch #: 808164

Sample: 564216-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/25/10 11:37

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	120	99.8	120	70-135	
o-Terphenyl	48.0	49.9	96	70-135	

Lab Batch #: 808164

Sample: 564216-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/25/10 12:03

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	122	100	122	70-135	
o-Terphenyl	49.3	50.1	98	70-135	

Lab Batch #: 808164

Sample: 564216-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/25/10 12:30

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	53.3	50.2	106	70-135	

Lab Batch #: 808164

Sample: 374197-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/10 14:17

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	54.1	49.8	109	70-135	

Lab Batch #: 808164

Sample: 374197-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/10 14:44

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	54.5	50.2	109	70-135	

* 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 : 374197,

Project ID: 2006-142

Lab Batch #: 808164

Sample: 374197-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/10 15:11

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	101	111	70-135	
o-Terphenyl	54.4	50.3	108	70-135	

Lab Batch #: 808164

Sample: 374197-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/10 15:38

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	1110	996	111	70-135	
o-Terphenyl	553	498	111	70-135	

Lab Batch #: 808164

Sample: 374197-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/10 16:05

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	101	112	70-135	
o-Terphenyl	53.3	50.3	106	70-135	

Lab Batch #: 808164

Sample: 374197-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/25/10 16:32

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	54.5	50.2	109	70-135	

Lab Batch #: 808164

Sample: 374196-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/26/10 12:19

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	100	120	70-135	
o-Terphenyl	47.7	50.1	95	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 374197

Analyst: BEV

Lab Batch ID: 808164

Sample: 564216-1-BKS

Date Prepared: 05/25/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 05/25/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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
Analytes											
C6-C12 Gasoline Range Hydrocarbons	ND	998	1110	111	1000	1100	110	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	866	87	1000	857	86	1	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lovington Gathering WTI

Work Order #: 374197

Lab Batch #: 808164

Date Analyzed: 05/26/2010

Date Prepared: 05/25/2010

Project ID: 2006-142

Analyst: BEV

QC- Sample ID: 374196-002 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1090	1200	110	70-135	
C12-C28 Diesel Range Hydrocarbons	63.2	1090	958	82	70-135	

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

Relative Percent Difference [E] = $200 \times (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Project Name: Lovington Gathering WTI

Work Order #: 374197

Lab Batch #: 808093

Project ID: 2006-142

Date Analyzed: 05/25/2010

Date Prepared: 05/25/2010

Analyst: JLG

QC- Sample ID: 374197-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	5.05	4.79	5	20	

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**12600 West I-20 East
Odessa, Texas 79765**

phone: 432-563-1800
Fax: 432-563-1713

PAGE 01 OF 01

Project Name: Lovington Gathering WTI

Basin Environmental Consulting

Project #: 2006-142

P O Box 381

Project Loc: Lea County, NM

Lovington, NM 88260

PO #: PAA - J. Henry

575-605-7210

Fax No: (505) 396-1429

Report Format: ☒ Standard

Sampler Signature: Bob Cowart

e-mail: cstanley@basinenv.com

Final Ver. 1.000



XENCO Laboratories
Atlanta, Corpus Christi, Dallas,
Houston, Miami, Midland, Philadelphia,
San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS - SRC
Revision/Date : No.00 , 05/18/10
Effective Date: 05/20/10
Page No.: 1 of 1

Prelogin / Nonconformance Report – Sample Log-In

Client: Basin Env. / Plains
Date/Time: 5-24-10 17:07
Lab ID #: 374197
Initials: AL

Sample Receipt Checklist

1. Sample on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample lable(s)?	<u>Yes</u>	No		
9. Container labels legible legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. Voc sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.6</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis

Analytical Report 374884

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

02-JUN-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



02-JUN-10

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

Reference: XENCO Report No: **374884**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 374884. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 374884 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 374884



PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile-8 A	S	May-27-10 16:23		374884-001



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 374884

Report Date: 02-JUN-10

Date Received: 05/28/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-808866 Percent Moisture

None

Batch: LBA-808976 TPH by SW8015 Mod

None



Certificate of Analysis Summary 374884

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM



Date Received in Lab: Fri May-28-10 03:20 pm


Report Date: 02-JUN-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	374884-001				
	Field Id:	Stockpile-8 A				
	Depth:					
	Matrix:	SOIL				
	Sampled:	May-27-10 16:23				
Percent Moisture	Extracted:					
	Analyzed:	Jun-02-10 08:20				
	Units/RL:	% RL				
TPH by SW8015 Mod		6.75 1.00				
	Extracted:	Jun-01-10 13:45				
	Analyzed:	Jun-01-10 17:15				
	Units/RL:	mg/kg RL				
	C6-C12 Gasoline Range Hydrocarbons	69.0 16.1				
C12-C28 Diesel Range Hydrocarbons		407 16.1				
	C28-C35 Oil Range Hydrocarbons	65.1 16.1				
Total TPH		541 16.1				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretation and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work, order unless otherwise agreed to in writing.

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Brent Barron, II
Odessa Laboratory Manager

- 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 374884,

Project ID: 2006-142

Lab Batch #: 808976

Sample: 564699-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/01/10 15:53

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	46.6	50.0	93	70-135	

Lab Batch #: 808976

Sample: 564699-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/01/10 16:20

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	47.5	50.0	95	70-135	

Lab Batch #: 808976

Sample: 564699-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/01/10 16:48

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	52.5	50.0	105	70-135	

Lab Batch #: 808976

Sample: 374884-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/01/10 17:15

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.0	100	99	70-135	
o-Terphenyl	49.6	50.0	99	70-135	

Lab Batch #: 808976

Sample: 374886-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/02/10 11:44

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	51.1	50.0	102	70-135	

* 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 : 374884,

Project ID: 2006-142

Lab Batch #: 808976

Sample: 374886-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/02/10 12:11

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	50.3	50.0	101	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 374884

Analyst: BEV

Lab Batch ID: 808976

Sample: 564699-1-BKS

Date Prepared: 06/01/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 06/01/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	1000	1070	107	1000	1130	113	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	1000	863	86	1000	829	83	4	70-135	35	

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 # : 374884

Lab Batch ID: 808976

Date Analyzed: 06/02/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 374886-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 06/01/2010

Analyst: BEV

Reporting Units: mg/kg											
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod 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
C6-C12 Gasoline Range Hydrocarbons	ND	1070	1260	118	1070	1280	120	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	26.7	1070	794	72	1070	797	72	0	70-135	35	

Matrix Spike Percent Recovery [D] 100%(C-A)/B
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
ApplicableN See Narrative, EQL Estimated Quantitation Limit

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



Sample Duplicate Recovery



Project Name: Lovington Gathering WTI

Work Order #: 374884

Lab Batch #: 808866

Project ID: 2006-142

Date Analyzed: 06/02/2010

Date Prepared: 06/02/2010

Analyst: JLG

QC- Sample ID: 374884-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	6.75	6.34	6	20	

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



XENCO Laboratories
Atlanta, Corpus Christi, Dallas,
Houston, Miami, Midland, Philadelphia,
San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS - SRC
Revision/Date : No.00 , 05/18/10
Effective Date: 05/20/10
Page No.: 1 of 1

Prelogin / Nonconformance Report – Sample Log-In

Client: Plains / Basin
Date/Time: 05-28-10 @ 1520
Lab ID #: 374884
Initials: JMF

Sample Receipt Checklist

1. Sample on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	<i>as labels</i>
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample lable(s)?	<u>Yes</u>	No		
9. Container labels legible legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. Voc sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>3.6</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis

Analytical Report 375046

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

02-JUN-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



02-JUN-10

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

Reference: XENCO Report No: **375046**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 375046. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 375046 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 375046



PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile-6a	S	May-28-10 17:00		375046-001
Stockpile-3a	S	May-28-10 17:15		375046-002



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142
Work Order Number: 375046

Report Date: 02-JUN-10
Date Received: 06/01/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-808866 Percent Moisture

None

Batch: LBA-808976 TPH by SW8015 Mod

None



Certificate of Analysis Summary 375046

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Tue Jun-01-10 02:40 pm

Report Date: 02-JUN-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	375046-001	375046-002		
	Field Id:	Stockpile-6a	Stockpile-3a		
	Depth:				
	Matrix:	SOIL	SOIL		
Percent Moisture	Sampled:	May-28-10 17:00	May-28-10 17:15		
	Extracted:				
	Analyzed:	Jun-02-10 08:20	Jun-02-10 08:20		
	Units/RL:	% RL 7.01 1.00	% RL 6.24 1.00		
TPH by SW8015 Mod	Extracted:	Jun-01-10 16:00	Jun-01-10 16:00		
	Analyzed:	Jun-02-10 10:22	Jun-02-10 10:49		
	Units/RL:	mg/kg RL 131 16.1	mg/kg RL 32.7 16.0		
	C6-C12 Gasoline Range Hydrocarbons	1080 16.1	470 16.0		
Total TPH	C12-C28 Diesel Range Hydrocarbons	96.5 16.1	47.9 16.0		
	C28-C35 Oil Range Hydrocarbons	1308 16.1	551 16.0		

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Brent Barron, II
Odessa Laboratory Manager

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- 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

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(305) 823-8500	(305) 823-8555
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(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 375046,

Project ID: 2006-142

Lab Batch #: 808976

Sample: 564699-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/01/10 15:53

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	46.6	50.0	93	70-135	

Lab Batch #: 808976

Sample: 564699-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/01/10 16:20

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	47.5	50.0	95	70-135	

Lab Batch #: 808976

Sample: 564699-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/01/10 16:48

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	52.5	50.0	105	70-135	

Lab Batch #: 808976

Sample: 375046-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/02/10 10:22

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	51.3	50.0	103	70-135	

Lab Batch #: 808976

Sample: 375046-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/02/10 10:49

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	49.7	50.0	99	70-135	

* 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 : 375046,

Project ID: 2006-142

Lab Batch #: 808976

Sample: 374886-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/02/10 11:44

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	51.1	50.0	102	70-135	

Lab Batch #: 808976

Sample: 374886-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/02/10 12:11

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	50.3	50.0	101	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 375046

Analyst: BEV

Lab Batch ID: 808976

Sample: 564699-1-BKS

Date Prepared: 06/01/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 06/01/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	1000	1070	107	1000	1130	113	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	1000	863	86	1000	829	83	4	70-135	35	

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 # : 375046

Lab Batch ID: 808976

Date Analyzed: 06/02/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 374886-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 06/01/2010 Analyst: BEV

Reporting Units: mg/kg											
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod 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
	C6-C12 Gasoline Range Hydrocarbons	ND	1070	1260	118	1070	1280	120	2	70-135	35
	C12-C28 Diesel Range Hydrocarbons	26.7	1070	794	72	1070	797	72	0	70-135	35

Matrix Spike Percent Recovery [D] 100%(C-A)/B
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
ApplicableN See Narrative, EQL Estimated Quantitation Limit

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



Sample Duplicate Recovery



Project Name: Lovington Gathering WTI

Work Order #: 375046

Lab Batch #: 808866

Project ID: 2006-142

Date Analyzed: 06/02/2010

Date Prepared: 06/02/2010

Analyst: JLG

QC- Sample ID: 374884-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	6.75	6.34	6	20	

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



XENCO Laboratories
Atlanta, Corpus Christi, Dallas,
Houston, Miami, Midland, Philadelphia,
San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS - SRC
Revision/Date : No.00 , 05/18/10
Effective Date: 05/20/10
Page No.: 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Environmental
Date/Time: 6/1/10 14:40
Lab ID #: 375046
Initials: AS

Sample Receipt Checklist

1. Sample on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. Voc sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>3.6</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - ☐ Initial and Backup Temperature confirm out of temperature conditions
 - ☐ Client understands and would like to proceed with analysis

Analytical Report 375473

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

08-JUN-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



08-JUN-10

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

Reference: XENCO Report No: **375473**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 375473. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 375473 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 375473



PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-5 A	S	Jun-03-10 13:00		375473-001



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI

Project ID: 2006-142

Work Order Number: 375473

Report Date: 08-JUN-10

Date Received: 06/03/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-809384 Percent Moisture

None

Batch: LBA-809616 TPH by SW8015 Mod

None



Certificate of Analysis Summary 375473

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI


Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-03-10 04:48 pm
Report Date: 08-JUN-10
Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	375473-001				
	Field Id:	SP-5 A				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Jun-03-10 13:00				
Percent Moisture	Extracted:					
	Analyzed:	Jun-05-10 09:23				
	Units/RL:	% RL				
Percent Moisture		7.54	1.00			
TPH by SW8015 Mod	Extracted:	Jun-07-10 10:30				
	Analyzed:	Jun-07-10 14:31				
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		247	16.3			
C12-C28 Diesel Range Hydrocarbons		849	16.3			
C28-C35 Oil Range Hydrocarbons		75.1	16.3			
Total TPH		1171	16.3			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi


Brent Barron, II
Odessa Laboratory 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 375473,

Project ID: 2006-142

Lab Batch #: 809616

Sample: 565120-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/07/10 13:06

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	46.9	50.2	93	70-135	

Lab Batch #: 809616

Sample: 565120-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/07/10 13:34

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	116	99.6	116	70-135	
o-Terphenyl	46.7	49.8	94	70-135	

Lab Batch #: 809616

Sample: 565120-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/07/10 14:02

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	105	101	104	70-135	
o-Terphenyl	52.2	50.3	104	70-135	

Lab Batch #: 809616

Sample: 375473-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/07/10 14:31

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	48.1	50.2	96	70-135	

Lab Batch #: 809616

Sample: 375648-004 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/07/10 22:48

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	128	100	128	70-135	
o-Terphenyl	49.3	50.2	98	70-135	

* 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 : 375473,

Project ID: 2006-142

Lab Batch #: 809616

Sample: 375648-004 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/07/10 23:15

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	99.5	123	70-135	
o-Terphenyl	47.3	49.8	95	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 375473

Analyst: BEV

Lab Batch ID: 809616

Sample: 565120-1-BKS

Date Prepared: 06/07/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 06/07/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	1000	1060	106	996	1050	105	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	1000	840	84	996	974	98	15	70-135	35	

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 # : 375473

Lab Batch ID: 809616

Date Analyzed: 06/07/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 375648-004 S

Date Prepared: 06/07/2010

Batch #: 1 Matrix: Soil

Analyst: BEV

Reporting Units: mg/kg											
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod 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	Control Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1030	1190	116	1020	1140	112	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1030	964	94	1020	991	97	3	70-135	35	

Matrix Spike Percent Recovery [D] 100%(C-A)/B
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
ApplicableN See Narrative, EQL Estimated Quantitation Limit

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



Sample Duplicate Recovery

Project Name: Lovington Gathering WTI

Work Order #: 375473

Lab Batch #: 809384

Project ID: 2006-142

Date Analyzed: 06/05/2010

Date Prepared: 06/05/2010

Analyst: JLG

QC- Sample ID: 375473-001 D

Batch #: 1

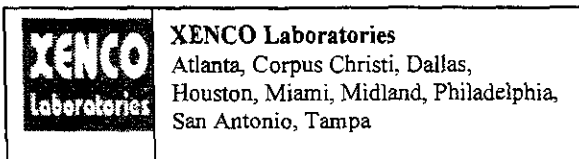
Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	7.54	7.44	1	20	

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



Document Title: Sample Receipt Checklist
 Document No.: SYS - SRC
 Revision/Date: No.00, 05/18/10
 Effective Date: 05/20/10
 Page No.: 1 of 1

Prelogin / Nonconformance Report – Sample Log-In

Client: Basin Env. / Plains
 Date/Time: 6.3.10 10:48
 Lab ID #: 375473
 Initials: AL

Sample Receipt Checklist

1. Sample on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample lable(s)?	<u>Yes</u>	No		
9. Container labels legible legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. Voc sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>4.1</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - ☐ Initial and Backup Temperature confirm out of temperature conditions
 - ☐ Client understands and would like to proceed with analysis

Analytical Report 375791

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

08-JUN-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



08-JUN-10

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

Reference: XENCO Report No: **375791**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 375791. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 375791 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 375791



PLAINS ALL AMERICAN EH&S, Midland, TX
Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-6 B	S	Jun-07-10 08:00		375791-001
SP-7 A	S	Jun-07-10 08:20		375791-002



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI

Project ID: 2006-142

Work Order Number: 375791

Report Date: 08-JUN-10

Date Received: 06/07/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-809631 Percent Moisture

None

Batch: LBA-809722 TPH by SW8015 Mod

None



Certificate of Analysis Summary 375791

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: 2006-142

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Mon Jun-07-10 12:25 pm

Report Date: 08-JUN-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	375791-001	375791-002		
	Field Id:	SP-6 B	SP-7 A		
	Depth:				
	Matrix:	SOIL	SOIL		
	Sampled:	Jun-07-10 08:00	Jun-07-10 08:20		
Percent Moisture	Extracted:				
	Analyzed:	Jun-07-10 17:00	Jun-07-10 17:00		
	Units/RL:	% RL 3.78 1.00	% RL 3.58 1.00		
TPH by SW8015 Mod	Extracted:	Jun-08-10 09:00	Jun-08-10 09:00		
	Analyzed:	Jun-08-10 12:21	Jun-08-10 12:49		
	Units/RL:	mg/kg RL 70.8 15.6	mg/kg RL 154 15.5		
C6-C12 Gasoline Range Hydrocarbons		661 15.6	1170 15.5		
		66.7 15.6	99.4 15.5		
		799 15.6	1423 15.5		
C12-C28 Diesel Range Hydrocarbons					
C28-C35 Oil Range Hydrocarbons					
Total TPH					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron, II
Odessa Laboratory 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 375791,

Project ID: 2006-142

Lab Batch #: 809722

Sample: 565181-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/08/10 10:59		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	126	100	126	70-135	
o-Terphenyl	49.9	50.2	99	70-135	

Lab Batch #: 809722

Sample: 565181-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/08/10 11:26		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	120	99.6	120	70-135	
o-Terphenyl	47.9	49.8	96	70-135	

Lab Batch #: 809722

Sample: 565181-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg Date Analyzed: 06/08/10 11:54		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	108	101	107	70-135	
o-Terphenyl	53.9	50.3	107	70-135	

Lab Batch #: 809722

Sample: 375791-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/08/10 12:21		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	51.0	50.0	102	70-135	

Lab Batch #: 809722

Sample: 375791-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg Date Analyzed: 06/08/10 12:49		SURROGATE RECOVERY STUDY			
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	98.9	99.8	99	70-135	
o-Terphenyl	46.1	49.9	92	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 375791

Analyst: BEV

Lab Batch ID: 809722

Sample: 565181-1-BKS

Date Prepared: 06/08/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 06/08/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	1000	1130	113	996	1080	108	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	1000	1070	107	996	944	95	13	70-135	35	

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



Sample Duplicate Recovery

Project Name: Lovington Gathering WTI

Work Order #: 375791

Lab Batch #: 809631

Project ID: 2006-142

Date Analyzed: 06/07/2010

Date Prepared: 06/07/2010

Analyst: JLG

QC- Sample ID: 375647-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	11.6	11.6	0	20	

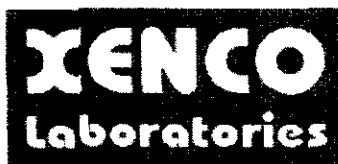
Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Sampler Signature: 
 e-mail: cibryant@basin-consulting.com

Final Ver. 1.000

**XENCO Laboratories**

Atlanta, Boca Raton, Corpus Christi, Dallas

Houston, Miami, Odessa, Philadelphia

Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Plains / Basin Env.
Date/Time: 6-7-10 12:25
Lab ID #: 375791
Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>4.6</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis

Analytical Report 376850

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

15-JUN-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



15-JUN-10

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

Reference: XENCO Report No: **376850**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 376850. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 376850 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376850



PLAINS ALL AMERICAN EH&S, Midland, TX
Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-5 B	S	Jun-11-10 08:00		376850-001
SP-7 B	S	Jun-11-10 08:15		376850-002



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 376850

Report Date: 15-JUN-10

Date Received: 06/11/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810369 Percent Moisture

None

Batch: LBA-810581 TPH by SW8015 Mod

None



Certificate of Analysis Summary 376850

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI


Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Fri Jun-11-10 03:00 pm
Report Date: 15-JUN-10
Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	376850-001	376850-002		
	<i>Field Id:</i>	SP-5 B	SP-7 B		
	<i>Depth:</i>				
	<i>Matrix:</i>	SOIL	SOIL		
	<i>Sampled:</i>	Jun-11-10 08:00	Jun-11-10 08:15		
Percent Moisture	<i>Extracted:</i>				
	<i>Analyzed:</i>	Jun-12-10 09:20	Jun-12-10 09:20		
	<i>Units/RL:</i>	% RL	% RL		
TPH by SW8015 Mod		5.23 1.00	5.53 1.00		
	<i>Extracted:</i>	Jun-14-10 08:45	Jun-14-10 08:45		
	<i>Analyzed:</i>	Jun-14-10 09:40	Jun-14-10 10:07		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL		
		124 15.8	179 15.8		
C6-C12 Gasoline Range Hydrocarbons		549 15.8	907 15.8		
C12-C28 Diesel Range Hydrocarbons		44.1 15.8	67.8 15.8		
C28-C35 Oil Range Hydrocarbons		717 15.8	1154 15.8		
Total TPH					

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Brent Barron, II
Odessa Laboratory 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

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5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
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842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 376850,

Project ID: 2006-142

Lab Batch #: 810581

Sample: 376850-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 09:40

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	99.8	123	70-135	
o-Terphenyl	58.3	49.9	117	70-135	

Lab Batch #: 810581

Sample: 376850-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 10:07

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.8	110	70-135	
o-Terphenyl	50.6	49.9	101	70-135	

Lab Batch #: 810581

Sample: 565634-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 15:44

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	48.9	50.1	98	70-135	

Lab Batch #: 810581

Sample: 565634-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 16:14

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.8	103	70-135	
o-Terphenyl	49.1	49.9	98	70-135	

Lab Batch #: 810581

Sample: 565634-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 16:44

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.9	100	90	70-135	
o-Terphenyl	51.5	50.2	103	70-135	

* 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 : 376850,

Project ID: 2006-142

Lab Batch #: 810581

Sample: 376795-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 22:28

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.5	112	70-135	
o-Terphenyl	53.7	49.8	108	70-135	

Lab Batch #: 810581

Sample: 376795-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 22:58

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.3	99.5	100	70-135	
o-Terphenyl	47.4	49.8	95	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 376850

Analyst: BEV

Lab Batch ID: 810581

Sample: 565634-1-BKS

Date Prepared: 06/14/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	1000	945	95	998	950	95	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	1000	821	82	998	833	83	1	70-135	35	

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 #: 376850

Lab Batch ID: 810581

Date Analyzed: 06/14/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 376795-001 S

Date Prepared: 06/14/2010

Batch #: 1

Analyst: BEV

Matrix: Soil

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod 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
	ND	1170	1230	105	1170	1110	95	10	70-135	35	
	ND	1170	884	76	1170	1040	89	16	70-135	35	
C6-C12 Gasoline Range Hydrocarbons											
C12-C28 Diesel Range Hydrocarbons											

Matrix Spike Percent Recovery [D] 100%(C-A)/B
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
ApplicableN See Narrative, EQL Estimated Quantitation Limit

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



Sample Duplicate Recovery



Project Name: Lovington Gathering WTI

Work Order #: 376850

Lab Batch #: 810369

Project ID: 2006-142

Date Analyzed: 06/12/2010

Date Prepared: 06/12/2010

Analyst: JLG

QC- Sample ID: 376795-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	15.5	15.3	1	20	

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

**XENCO Laboratories**

Atlanta, Boca Raton, Corpus Christi, Dallas

Houston, Miami, Odessa, Philadelphia

Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / Plains
Date/Time: 6-11-10 15:00
Lab ID #: 376850
Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>3.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.☐ Initial and Backup Temperature confirm out of temperature conditions☐ Client understands and would like to proceed with analysis

Analytical Report 377654

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

18-JUN-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)



18-JUN-10

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

Reference: XENCO Report No: **377654**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 377654. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 377654 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 377654



PLAINS ALL AMERICAN EH&S, Midland, TX
Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-7C	S	Jun-17-10 08:00		377654-001



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 377654

Report Date: 18-JUN-10

Date Received: 06/17/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-811088 TPH by SW8015 Mod

SW8015MOD_NM

Batch 811088, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 377654-001.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits

Batch: LBA-811178 Percent Moisture

None



Certificate of Analysis Summary 377654

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI


Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-17-10 11:20 am
Report Date: 18-JUN-10
Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	377654-001				
	Field Id:	SP-7C				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Jun-17-10 08:00				
Percent Moisture	Extracted:					
	Analyzed:	Jun-18-10 08:30				
	Units/RL:	% RL				
Percent Moisture		1.51 1.00				
TPH by SW8015 Mod	Extracted:	Jun-17-10 15:00				
	Analyzed:	Jun-17-10 21:42				
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		43.5 15.2				
C12-C28 Diesel Range Hydrocarbons		1410 15.2				
C28-C35 Oil Range Hydrocarbons		96.2 15.2				
Total TPH		1550 15.2				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi


Brent Barron, II
Odessa Laboratory 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

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9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116

Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 377654,

Project ID: 2006-142

Lab Batch #: 811088

Sample: 566007-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/17/10 12:35

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.7	107	70-135	
o-Terphenyl	51.3	49.9	103	70-135	

Lab Batch #: 811088

Sample: 566007-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/17/10 13:09

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.8	110	70-135	
o-Terphenyl	51.6	49.9	103	70-135	

Lab Batch #: 811088

Sample: 566007-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/17/10 13:42

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.7	99.8	100	70-135	
o-Terphenyl	57.0	49.9	114	70-135	

Lab Batch #: 811088

Sample: 377654-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/17/10 21:42

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.3	99.7	77	70-135	
o-Terphenyl	44.4	49.9	89	70-135	

Lab Batch #: 811088

Sample: 377227-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/17/10 22:13

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	49.7	50.1	99	70-135	

* 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 : 377654,

Project ID: 2006-142

Lab Batch #: 811088

Sample: 377227-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/17/10 22:44

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	101	103	70-135	
o-Terphenyl	51.0	50.3	101	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 377654

Analyst: BEV

Lab Batch ID: 811088

Sample: 566007-1-BKS

Date Prepared: 06/17/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 06/17/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	997	990	99	998	991	99	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	997	819	82	998	815	82	0	70-135	35	

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

Work Order # : 377654

Lab Batch ID: 811088

Date Analyzed: 06/17/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 377227-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 06/17/2010

Analyst: BEV

TPH by SW8015 Mod

Analytes

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Reporting Units: mg/kg											
	TPH by SW8015 Mod										
	Analytes										
C6-C12 Gasoline Range Hydrocarbons	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
C12-C28 Diesel Range Hydrocarbons	ND	1170	1110	95	1170	1110	95	0	70-135	35	
	29.5	1170	792	65	1170	798	66	1	70-135	35	X

C6-C12 Gasoline Range Hydrocarbons

C12-C28 Diesel Range Hydrocarbons

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

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

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

ApplicableN See Narrative, EQL Estimated Quantitation Limit

Project Name: Lovington Gathering WTI

Work Order #: 377654

Lab Batch #: 811178

Project ID: 2006-142

Date Analyzed: 06/18/2010

Date Prepared: 06/18/2010

Analyst: JLG

QC- Sample ID: 377654-001 D

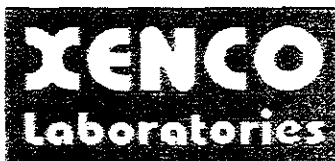
Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	1.51	1.45	4	20	

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

**XENCO Laboratories**

Atlanta, Boca Raton, Corpus Christi, Dallas

Houston, Miami, Odessa, Philadelphia

Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-InClient: Basin Env. / PlainsDate/Time: 6-17-10 11:20Lab ID #: 377654Initials: AL**Sample Receipt Checklist**

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>3.00</u>	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis

Analytical Report 378731

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

25-JUN-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)



25-JUN-10

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

Reference: XENCO Report No: **378731**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 378731. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 378731 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 378731



PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-7D	S	Jun-24-10 11:00		378731-001



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142
Work Order Number: 378731

Report Date: 25-JUN-10
Date Received: 06/24/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-812155 Percent Moisture

None

Batch: LBA-812209 TPH by SW8015 Mod

None



Certificate of Analysis Summary 378731

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI


Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-24-10 03:00 pm
Report Date: 25-JUN-10
Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	378731-001				
	Field Id:	SP-7D				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Jun-24-10 11:00				
Percent Moisture	Extracted:					
	Analyzed:	Jun-25-10 08:28				
	Units/RL:	% RL				
Percent Moisture		4.27	1.00			
TPH by SW8015 Mod	Extracted:	Jun-24-10 15:00				
	Analyzed:	Jun-25-10 09:00				
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		98.2	15.7			
C12-C28 Diesel Range Hydrocarbons		1320	15.7			
C28-C35 Oil Range Hydrocarbons		101	15.7			
Total TPH		1519	15.7			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron, II
Odessa Laboratory 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.
- 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.
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- 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.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

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5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 378731,

Project ID: 2006-142

Lab Batch #: 812209

Sample: 566654-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/24/10 16:03

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	114	99.9	114	70-135	
o-Terphenyl	52.6	50.0	105	70-135	

Lab Batch #: 812209

Sample: 566654-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/24/10 16:30

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	109	99.7	109	70-135	
o-Terphenyl	50.8	49.9	102	70-135	

Lab Batch #: 812209

Sample: 566654-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/24/10 16:57

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	116	99.9	116	70-135	
o-Terphenyl	55.4	50.0	111	70-135	

Lab Batch #: 812209

Sample: 378731-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/25/10 09:00

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	60.0	50.1	120	70-135	

Lab Batch #: 812209

Sample: 378697-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/25/10 10:01

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	50.6	50.0	101	70-135	

* 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 : 378731,

Project ID: 2006-142

Lab Batch #: 812209

Sample: 378697-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/25/10 10:28

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.9	118	70-135	
o-Terphenyl	52.1	50.0	104	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 378731

Analyst: BEV

Lab Batch ID: 812209

Sample: 566654-1-BKS

Date Prepared: 06/24/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 06/24/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	999	1200	120	997	1150	115	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	999	1040	104	997	818	82	24	70-135	35	

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 # : 378731

Lab Batch ID: 812209

Date Analyzed: 06/25/2010

Reporting Units: mg/kg

Project ID: 2006-142

QC-Sample ID: 378697-002 S

Batch #: 1 Matrix: Soil

Date Prepared: 06/24/2010

Analyst: BEV

Reporting Units: mg/kg											
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod 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	Control Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1010	1200	119	1010	1250	124	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1010	1020	101	1010	1010	100	1	70-135	35	

Matrix Spike Percent Recovery [D] 100%(C-A)/B
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
ApplicableN See Narrative, EQL Estimated Quantitation Limit

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



Sample Duplicate Recovery



Project Name: Lovington Gathering WTI

Work Order #: 378731

Lab Batch #: 812155

Project ID: 2006-142

Date Analyzed: 06/25/2010

Date Prepared: 06/25/2010

Analyst: JLG

QC- Sample ID: 378692-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	6.25	6.22	0	20	

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

cstanley@basinenv.com

Final 1.000

**XENCO Laboratories**

Atlanta, Boca Raton, Corpus Christi, Dallas

Houston, Miami, Odessa, Philadelphia

Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-InClient: Basin Env. / PlainsDate/Time: 6-24-10 15:00Lab ID #: 378731

Initials: _____

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>3.6</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis

Analytical Report 381863

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lovington Gathering WTI

2006-142

19-JUL-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)



19-JUL-10

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

Reference: XENCO Report No: **381863**
Lovington Gathering WTI
Project Address: Lea County, NM

Jason Henry:

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 381863. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 381863 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,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 381863



PLAINS ALL AMERICAN EH&S, Midland, TX

Lovington Gathering WTI

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-7E	S	Jul-16-10 08:00		381863-001



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lovington Gathering WTI



Project ID: 2006-142

Work Order Number: 381863

Report Date: 19-JUL-10

Date Received: 07/16/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-814938 TPH by SW8015 Mod

None

Batch: LBA-814974 Percent Moisture

None

Certificate of Analysis Summary 381863

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lovington Gathering WTI

Project Id: 2006-142
Contact: Jason Henry
Project Location: Lea County, NM

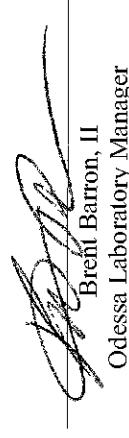
Date Received in Lab: Fri Jul-16-10 11:50 am
Report Date: 19-JUL-10
Project Manager: Brent Barron, II



Analysis Requested	Lab Id:	381863-001			
	Field Id:	SP-7E			
	Depth:				
	Matrix:	SOIL			
Percent Moisture	Sampled:	Jul-16-10 08:00			
	Extracted:				
	Analyzed:	Jul-17-10 11:50			
	Units/RL:	% RL			
Percent Moisture		11.6	1.00		
TPH by SW8015 Mod	Extracted:	Jul-16-10 14:00			
	Analyzed:	Jul-16-10 14:29			
	Units/RL:	mg/kg RL			
		ND	17.0		
C6-C12 Gasoline Range Hydrocarbons					
C12-C28 Diesel Range Hydrocarbons			137	17.0	
C28-C35 Oil Range Hydrocarbons			40.0	17.0	
Total TPH			177	17.0	

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 Brent Barron, II
 Odessa Laboratory Manager

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- 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.
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- J** The target analyte was positively identified below the MQL and above the SQL.
- 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.
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- 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.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

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5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
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842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116

Form 2 - Surrogate Recoveries

Project Name: Lovington Gathering WTI

Work Orders : 381863,

Project ID: 2006-142

Lab Batch #: 814938

Sample: 568281-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/16/10 11:56

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	51.0	50.0	102	70-135	

Lab Batch #: 814938

Sample: 568281-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/16/10 12:27

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	101	121	70-135	
o-Terphenyl	56.5	50.3	112	70-135	

Lab Batch #: 814938

Sample: 568281-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/16/10 12:58

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	54.0	50.2	108	70-135	

Lab Batch #: 814938

Sample: 381863-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/16/10 14:29

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	54.1	50.0	108	70-135	

* 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.

Project Name: Lovington Gathering WTI

Work Order #: 381863

Analyst: BEV

Lab Batch ID: 814938

Sample: 568281-1-BKS

Date Prepared: 07/16/2010

Batch #: 1

Project ID: 2006-142

Date Analyzed: 07/16/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod		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
Analytes												
C6-C12 Gasoline Range Hydrocarbons		ND	999	1020	102	1010	1120	111	9	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	999	846	85	1010	930	92	9	70-135	35	

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

Project Name: Lovington Gathering WTI

Work Order #: 381863

Lab Batch #: 814974

Project ID: 2006-142

Date Analyzed: 07/17/2010

Date Prepared: 07/17/2010

Analyst: JLG

QC- Sample ID: 381746-001 D


Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	6.86	6.16	11	20	

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

Project Manager:	Camille Bryant	PAGE	01	OF	01	Project Name:	Lovington Gathering WTI
Company Name	Basin Environmental Consulting	Project #:	2006-142				
Company Address:	P O Box 381	Project Loc:	Lea County, NM				
City/State/Zip:	Lovington, NM 88260	PO #:	PAA - J. Henry				
Telephone No:	575-605-7210	Fax No:	(505) 396-1429				
Sampler Signature:		Report Format:	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> TRRP <input type="checkbox"/> NPDES				
		e-mail:	cstanley@basinenv.com				

[illegible]

**XENCO Laboratories**

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Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

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Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / Plains
Date/Time: 7-16-10 11:50
Lab ID #: 381863
Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>5.6</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis