

1R - 2166

REPORTS

DATE:

May 2010

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REMEDIATION SUMMARY AND SOIL CLOSURE REQUEST

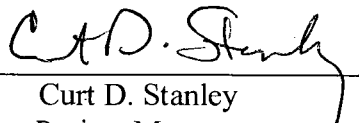
**PLAINS PIPELINE, L.P. (231735)
DCP Plant to Lea Station 6-Inch Sec. 31
Lea County, New Mexico
Plains SRS # 2009-084
UNIT LTR "K" (NE ¼ /SW ¼), Section 31, Township 20 South, Range 37 East
Latitude 32.52733° North, Longitude 103.2906° West
NMOCD Reference # 1RP-2166**

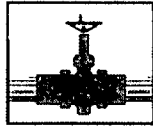
Prepared For:

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May 2010


Curt D. Stanley
Project Manager



PLAINS
PIPELINE, L.P.

May 4, 2010

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

RECEIVED OGD
2010 MAY -5 A 11:18

RE: Plains Pipeline, L.P. DCP Plant to Lea Station 6-inch Sec. 31 Site
NMOCD Reference # 1R-2166
Unit Letter K of Section 31, Township 20 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 May 2010, for the DCP Plant to Lea Station 6-inch Sec. 31 site. This site is located in Section 31 of Township 20 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: Brian Henington, NMSLO, Santa Fe Office
Larry Johnson, NMOCD, Hobbs Office

Enclosure

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INTRODUCTION AND BACKGROUND INFORMATION

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 DCP Plant to Lea Station 6-Inch Sec. 31 (SRS # 2009-084). The legal description of the release site is Unit Letter "K" (NE ¼ SW ¼), Section 31, Township 20 South, Range 37 East, in Lea County, New Mexico. The property affected by the release is owned by The State of New Mexico (ROE permit #1794) and is administered by the New Mexico State Land Office (NMSLO). The release site GPS coordinates are 32.52733° North and 103.2906° 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 2, 2009, Plains discovered a crude oil release from a six (6)-inch steel pipeline. During initial response activities, Plains installed a temporary pipeline clamp on the pipeline to mitigate the release. The crude oil release resulted in a surface stain measuring approximately six (6) feet in width and eight (8) feet in length. The initial site assessment indicated approximately two (2) to three (3) barrels of crude oil was released from the pipeline and Plains initially classified the release as a "non-reportable" release. On April 7, 2009, following initial response activities, a soil investigation trench was excavated to a depth of approximately fourteen (14) feet below ground surface (bgs), parallel to the six (6) inch Plains pipeline. Based on visual and olfactory observations of the investigation trench, a soil boring was advanced on April 15, 2009 to further assess the vertical extent of impact at the site. On April 29, 2009, following the review of the existing data, Plains representatives reclassified the release as a "reportable" release. Plains notified the New Mexico Oil Conservation Division (NMOCD) - Hobbs District Office and Santa Fe Office of the release and a Release Notification and Corrective Action (Form C-141) was submitted. The Form C-141 indicated approximately twenty (20) barrels of crude oil was released from the pipeline, with no recovery. The cause of the release was attributed to external corrosion of the pipeline. General photographs of the site are provided as Appendix C.

The northern extent of the release site contains a pipeline corridor containing a twenty-four (24) and sixteen (16) inch diameter gas poly pipeline operated by DCP Midstream Partners, L.P. (DCP). In addition, an eight (8) inch fiberglass water pipeline operated by XTO Energy (XTO) is located to the north of the DCP poly pipelines and an abandoned ten (10) inch steel pipeline bisects the DCP Plant to Lea Station 6-Inch Sec. 31 excavation.

Plains maintained the large diameter and line spacing of the DCP poly pipelines constituted a health and safety hazard to Plains personnel and contractors working in close proximity to the pipelines. Plains requested NMOCD approval, to leave in-situ, impacted soil beneath and adjacent to the DCP poly pipelines.

NMOCD SITE CLASSIFICATION

According to data obtained from the New Mexico Office of the State Engineer (NMOSE), no water wells have been registered in Section 31. Soil boring (SB-1) advanced by Plains, indicated groundwater was encountered at a depth of approximately seventy-seven (77) feet bgs. The analytical results of the soil samples collected during the advancement of the soil boring, indicated hydrocarbon impact exceeding the NMOCD regulatory standard, was present at approximately sixty (60) feet bgs. The depth of hydrocarbon impact versus the depth of

groundwater results in a score of twenty (20) being assigned to the site based on the NMOCD depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1,000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

There are no surface water bodies located within 1,000 feet of the site. Based on the NMOCD ranking system zero (0) points will be assigned to the site as a result of the criteria.

The NMOCD guidelines indicate the DCP Plant to Lea Station 6-Inch Sec 31 release site has an ranking score of twenty (20). Based on this score, the soil remediation levels for a site with a ranking score of twenty (20) points are as follows:

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

SUMMARY OF SOIL REMEDIATION ACTIVITIES

On April 7, 2009, following initial response activities, a soil investigation trench was excavated to a depth of approximately fourteen (14) feet bgs, parallel to the six (6) inch Plains pipeline. Based on visual and olfactory observations of the investigation trench, additional soil investigation was warranted.

On April 15, 2009, one (1) soil boring (SB-1) was advanced approximately ten (10) feet west of the release point to evaluate the vertical extent of soil impact. A soil boring log is provided as Appendix A. Soil samples were collected at five (5) foot drilling intervals and field screened using a Photo-Ionization Detector (PID). Selected soil samples were submitted to the laboratory for determination of concentrations of benzene, toluene, ethyl-benzene and xylene (BTEX) and total petroleum hydrocarbon (TPH) using EPA SW-846 8021b and SW-846 8015M, respectively.

Soil boring SB-1 was located approximately ten (10) feet west of the release point. The soil boring was advanced to a total depth of approximately eighty-five (85) feet bgs. Soil samples were collected at ten (10), twenty (20), thirty (30), forty (40), fifty (50), sixty (60), seventy (70) and seventy-five (75) feet bgs and submitted to the laboratory. The laboratory analytical results indicated benzene concentrations were less than the laboratory method detection limit (MDL) in all of the submitted soil samples, with the exception of the soil sample (SB-1 @ 10') collected at ten (10) feet bgs, which exhibited a benzene concentration of 0.0017 mg/Kg. All of the submitted soil samples exhibited benzene concentrations less than the NMOCD regulatory standard of 10 mg/Kg. The laboratory analytical results indicated BTEX constituent concentrations ranged from less than the laboratory MDL in soil samples SB-1 @ 60', SB-1 @ 70' and SB-1 @ 75' to 1.931 mg/Kg in the soil sample SB-1 @ 50'. The laboratory analytical results indicated TPH concentrations ranged from 40.6 mg/Kg in the soil sample SB-1 @ 70' to 1,479.2 mg/Kg in the soil sample SB-1 @ 40'. Table 1 summarizes the Concentrations of Benzene, BTEX and TPH in

Soil. Soil boring and monitor well logs are provided as Appendix A and analytical reports are provided as Appendix B.

During the advancement of the soil boring, groundwater was encountered at approximately seventy-seven (77) feet bgs. A temporary casing was installed in the soil boring to allow a groundwater sample to be collected for analysis. On April 16, 2009, a groundwater sample (SB-1) was collected from the temporary casing and submitted to the laboratory for analysis. Following the collection of the groundwater sample, the temporary casing was removed from the soil boring and the soil boring was plugged with cement and bentonite, as required by the NMOSE. Based on the analytical results of the submitted groundwater sample, Plains notified NMOCD representatives at the Hobbs District Office and the Santa Fe Office of the laboratory confirmed impact to groundwater at the release site.

On June 2, 2009, following the advancement of the soil boring, excavation of the impacted soil commenced. Excavated soil was stockpiled on-site on plastic to mitigate the potential leaching of contaminants into the vadose zone.

On June 10, 2009, a soil sample (RP @ 15') was collected from the excavation floor at approximately fifteen (15) feet bgs. The analytical results indicated the benzene concentration was less than the laboratory MDL of 1.086 mg/Kg, the BTEX concentration was 15.568 mg/Kg and the TPH concentration was 1,418 mg/Kg.

On June 10, 2009, two (2) excavation sidewall soil samples (NSW @ 14.5' and SSW @ 14.5') were collected and submitted to the laboratory for analysis. The analytical results indicated benzene concentrations were less than the laboratory MDL of 0.0011 mg/Kg and 0.0019 mg/Kg for soil samples SSW @ 14.5' and NSW @ 14.5', respectively. BTEX concentrations were less than the laboratory MDL of 0.0022 mg/Kg and 0.0165 mg/Kg for soil samples SSW @ 14.5' and NSW @ 14.5', respectively. TPH concentrations were less than the laboratory MDL of 16.7 mg/Kg and 26.1 mg/Kg for soil samples SSW @ 14.5' and NSW @ 14.5', respectively. A baseline stockpile soil sample (Stockpile) was collected from the excavated soil to evaluate the soil and determine its potential use as backfill material. The analytical results indicated the benzene concentration was less than the laboratory MDL of 1.071 mg/Kg, the BTEX concentration was 13.027 mg/Kg and the TPH concentration was 1,344 mg/Kg.

On June 10, 2009, five (5) delineation trenches (West Trench, North Trench #1, North Trench #2, North Trench #2, East Trench #1 and East Trench #2) were excavated to delineate the northern extent of soil impact. A trench (West Trench) was excavated on the northwest corner of the existing excavation to further delineate the release. The West Trench was excavated to a total depth of approximately six (6) feet bgs. A soil sample was collected at six (6) feet bgs and submitted to the laboratory for determination of BTEX and TPH concentrations. The analytical results indicated benzene, BTEX and TPH concentrations were less than the laboratory MDL of 0.0011 mg/Kg, 0.0023 mg/Kg and 16.9 mg/Kg, respectively. The analytical results indicated the West Trench was not impacted by the release.

A delineation trench (North Trench #1) was excavated north of the sixteen (16) and twenty-four (24) inch DCP poly gas lines. North Trench #1 was excavated to a total depth of approximately fourteen (14) feet bgs. Soil samples were collected and submitted to the laboratory at four (4) feet, eight (8) feet, twelve (12) feet and fourteen (14) feet bgs. The analytical results indicated

benzene concentrations were less than the laboratory MDL in each of the soil samples, ranging from less than 0.0012 mg/Kg in soil sample North Trench #1 @ 4' to less than 1.120 mg/Kg in soil sample North Trench #1 @ 14'. BTEX concentrations ranged from less than the laboratory MDL of 0.0023 mg/Kg in soil sample North Trench #1 @ 4' to 29.417 mg/Kg in soil sample North Trench #1 @ 14' and TPH concentrations ranged from less than the laboratory MDL of 17.5 mg/Kg in soil sample North Trench #1 @ 4' to 7,163 mg/Kg in soil sample North Trench #1 @ 14'. Based on the analytical results of soil samples collected from the North Trench #1, delineation was unsuccessful and additional trenches (East Trench #1, East Trench #2 and North Trench #2) were excavated at the north and northeast sides of the release site.

A delineation trench (North Trench #2) was excavated north of the eight (8) inch XTO fiberglass water line. North Trench #2 was excavated to a total depth of approximately eight (8) feet bgs. Soil samples were collected and submitted to the laboratory at four (4) feet and eight (8) feet bgs. The analytical results indicated benzene and BTEX concentrations were less than the laboratory MDL of 0.0011 and 0.0022 mg/Kg in each of the soil samples, respectively. TPH concentrations were less than the laboratory MDL of 15.9 mg/Kg and 16.5 mg/Kg in soil samples North Trench #2 @ 4' and North Trench #2 @ 8', respectively. Based on the analytical results of soil samples collected from the North Trench #2, delineation was successful on the north side of the release site.

A delineation trench (East Trench #1) was excavated east of the North Trench #1 and north of the sixteen (16) and twenty-four (24) inch DCP poly gas lines. East Trench #1 was excavated to a total depth of approximately fourteen (14) feet bgs. Soil samples were collected and submitted to the laboratory at four (4) feet and fourteen (14) feet bgs. The analytical results indicated benzene concentrations were less than the laboratory MDL of 0.0011 mg/Kg and 0.0107 mg/Kg in soil samples East Trench #1 @ 4' and East Trench #1 @ 14', respectively. BTEX concentrations were 0.00 mg/Kg in soil sample East Trench #1 @ 4' and 3.7949 mg/Kg in soil sample East Trench #1 @ 14'. TPH concentrations were less than the laboratory MDL of 16.1 mg/Kg in soil sample East Trench #1 @ 4' and 3,224 mg/Kg in soil sample East Trench #1 @ 14', respectively. Based on the analytical results of soil samples collected from the North Trench #2, delineation was unsuccessful on the northeast side of the release site.

A delineation trench (East Trench #2) was excavated east of East Trench #1 and north of the sixteen (16) and twenty-four (24) inch DCP poly gas lines. East Trench #2 was excavated to a total depth of approximately fourteen (14) feet bgs. Soil samples were collected and submitted to the laboratory at four (4) feet and fourteen (14) feet bgs. The analytical results indicated benzene concentrations were less than the laboratory MDL of 0.0010 mg/Kg and 0.0011 mg/Kg in soil samples East Trench #2 @ 4' and East Trench #2 @ 14', respectively. BTEX concentrations were less than the laboratory MDL of 0.0021 mg/Kg and 0.0022 mg/Kg in soil samples East Trench #1 @ 4' and East Trench #1 @ 14', respectively. TPH concentrations were less than the laboratory MDL of 15.6 mg/Kg and 17.0 mg/Kg in soil samples East Trench #1 @ 4' and East Trench #1 @ 14', respectively. Based on the analytical results of soil samples collected from the East Trench #2, delineation was successful on the northeast side of the release site.

On June 10, 2009, a baseline stockpile soil sample (Stockpile) was collected and submitted to the laboratory. The analytical results indicated the benzene concentration was less than the laboratory MDL of 1.071 mg/Kg. The BTEX concentration was 13.047 mg/Kg and the TPH concentration was 1,344 mg/Kg.

On June 12, 2009, two (2) excavation sidewall soil samples (WSW @ 14.5' and ESW @ 14.5') were collected and submitted to the laboratory for analysis. The analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. TPH concentrations were less than the laboratory MDL of 16.7 mg/Kg and 16.9 mg/Kg for soil samples WSW @ 14.5' and ESW @ 14.5', respectively.

The excavation of impacted soil was completed on June 12, 2009. Approximately 1,400 cubic yards (cy) of soil was stockpiled on-site during excavation activities, pending final disposition. The final dimensions of the excavation were approximately seventy (77) feet in width, approximately eighty (80) feet in length and fifteen (15) feet in depth.

The analytical results indicated the excavation sidewalls had been remediated to concentrations less than the NMOCD regulatory standard of 10 mg/Kg benzene, 50 mg/Kg BTEX and 100 mg/Kg TPH.

In July 2009, Plains submitted a *Remediation Summary and Proposed Remediation Strategy* to the NMOCD Santa Fe Office.

On September 21 through September 23, 2010, four (4) monitor wells (MW-1 through MW-4) were installed to evaluate the status of the groundwater at the DCP Plant to Lea Station 6-Inch Sec. 31 release site. Soil samples were collected at five (5) foot drilling intervals and field screened using a PID. Selected soil samples were submitted to the laboratory for determination of concentrations of benzene, BTEX and TPH.

Monitor Well MW-1 is located approximately thirteen (13) feet northeast of the release point, in a side gradient position. The monitor well was installed to a total depth of approximately eighty-six (86) feet bgs. Soil samples were collected at twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65), and seventy-five (75) feet bgs and submitted to the laboratory. The analytical results indicated benzene concentrations were less than the appropriate laboratory MDL. The analytical results further indicated BTEX concentrations ranged from 0.0359 mg/Kg in soil sample MW-1 @ 10' to 13.444 mg/Kg for soil sample MW-1 @ 40'. TPH concentrations ranged from 286 mg/Kg in soil sample MW-1 @ 10' to 1,538 mg/Kg in soil sample MW-1 @ 40'.

Monitor Well MW-2 is located approximately one hundred forty (140) feet north-northwest of the release point, in an up gradient position. The monitor well was installed to a total depth of approximately ninety (90) feet bgs. Soil samples were collected at fifteen (15), thirty (30), forty-five (45), sixty (60), and seventy-five (75) feet bgs and submitted to the laboratory. The analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL.

Monitor Well MW-3 is located approximately eighty-eight (88) feet south southwest of the release point, in a down and side gradient position. The monitor well was installed to a total depth of approximately ninety (90) feet bgs. Soil samples were collected at fifteen (15), thirty (30), forty-five (45), and sixty (60) feet bgs and submitted to the laboratory. The analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate

laboratory MDL, with the exception of soil sample MW-3 @ 60', which exhibited a benzene concentration of 0.0025 mg/Kg, a BTEX concentration of 0.0052 mg/Kg.

Monitor Well MW-4 is located approximately one hundred thirty seven (137) feet south-southeast of the release point, in a down gradient position. The monitor well was installed to a total depth of approximately ninety (90) feet bgs. Soil samples were collected at fifteen (15), thirty (30), forty-five (45), sixty (60), and seventy-five (75) feet bgs and submitted to the laboratory. The analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL.

On October 8, 2009, three (3) stockpile soil samples (SP-1, SP-2 and SP-3) were collected and submitted to the laboratory. The three (3) soil samples represented approximately 1,400 cubic yards (cy) of excavated soil. The laboratory analytical results indicated benzene concentrations were less than the laboratory MDL for each of the three (3) soil samples. BTEX concentrations ranged from less than the laboratory MDL for soil sample SP-3 to 0.0343 mg/Kg for soil sample SP-1. TPH concentrations ranged from less than the laboratory MDL for soil sample SP-3 to 572.6 mg/Kg for soil sample SP-1.

On January 25, 2010, Plains received partial approval of the *Remediation Summary and Proposed Remediation Strategy* from the NMOCD. The NMOCD approval was conditional and required the submission of an Additional Soil Remediation Strategy for the North Trench #1 and East Trench #1 areas, as well as details of the proposed excavation liner.

On February 24, 2010, Plains submitted the NMOCD requested *Additional Soil Remediation Strategy* to the NMOCD Santa Fe Office. On March 4, 2010, the NMOCD Santa Fe Office approved the *Additional Soil Remediation Strategy*.

On March 9, 2010, remediation activities approved by the NMOCD and set forth in the *Remediation Summary and Proposed Remediation Strategy* and *Additional Soil Remediation Strategy* commenced.

On March 10, 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 liner from sharp objects. Following the liner installation, a six (6) inch layer of sand was placed on top of the liner for further protection. This engineering control will inhibit vertical migration of the contaminants below the liner, by shedding moisture to the edge of the liner and beyond the horizontal extent of the underlying impacted soil.

On March 10 through March 16, 2010, the excavation was backfilled in twelve (12) inch lifts with stockpiled soil, as approved by the NMOCD. Moisture was added to the backfilled soil when required.

On March 16, 2010, approximately one thousand (1,000) gallons of fresh water, containing approximately one hundred (100) pounds of a water soluble fertilizer (Miller 20-20-20) was placed in the North Trench #1 and East Trench #1. Following the infusion of the water/fertilizer solution, a twenty (20) mil liner was placed in the excavation and backfilled.

On completion of the backfill activities the surface was contoured to fit the surrounding topography. Reseeding of the site with vegetation acceptable to the New Mexico State Land Office will take place when conditions are optimal.

SOIL CLOSURE REQUEST

Based on the analytical results of confirmation soil samples, Basin recommends Plains provide the NMOCD and the NMSLO Santa Fe offices, a copy of the Remediation Summary and Soil Closure Request and request the NMOCD grant soil closure status to the DCP Plant to Lea Station 6-inch Sec. 31 release site.

PSH recovery and groundwater monitoring and will continue at the DCP Plant to Lea Station 6-Inch Sec. 31 release site until the NMOCD Santa Fe Office approves cessation of these activities. A Groundwater Monitoring Report will be submitted before April 1st of each year.

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.

DISTRIBUTION:

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Figures

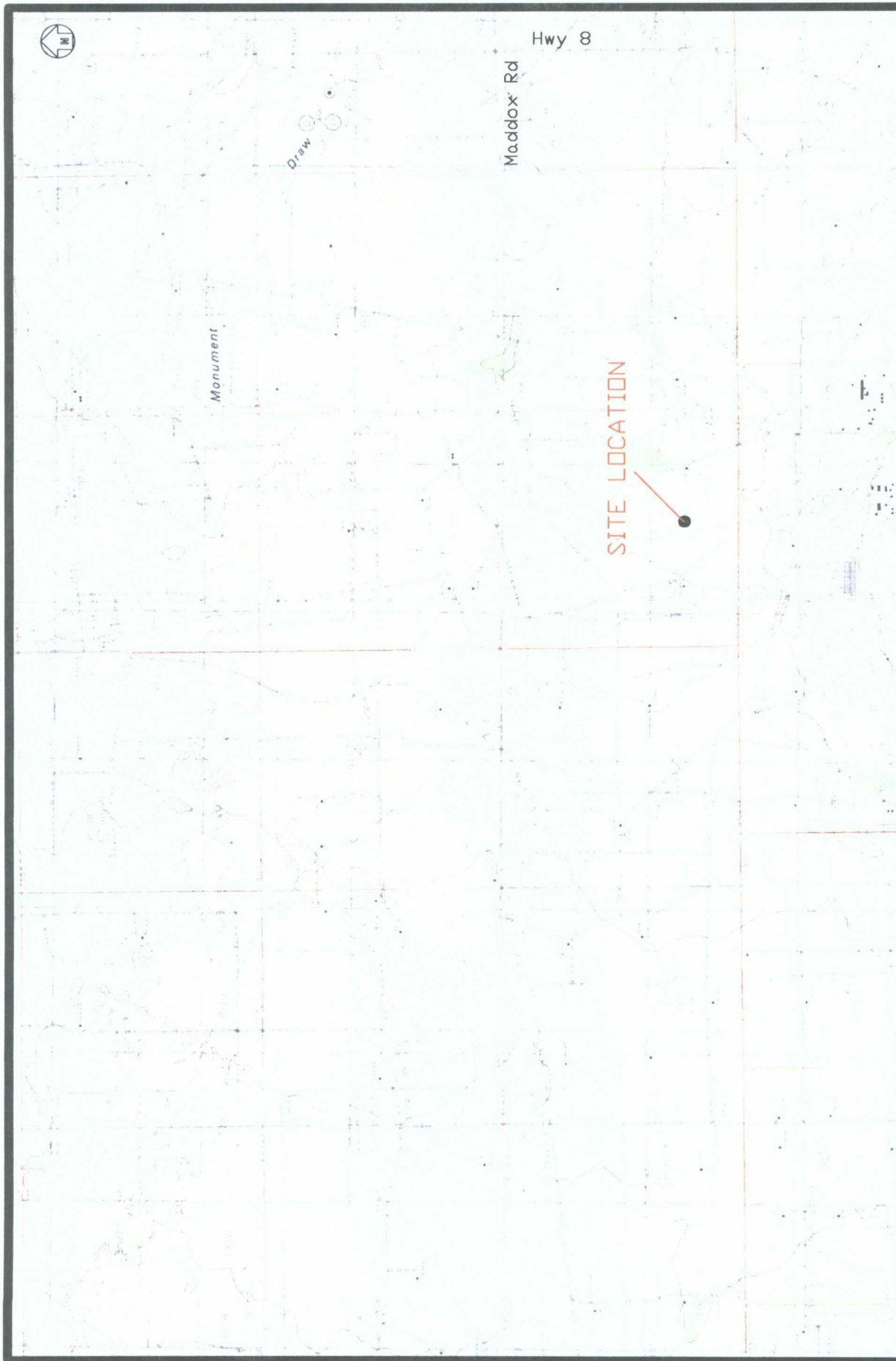


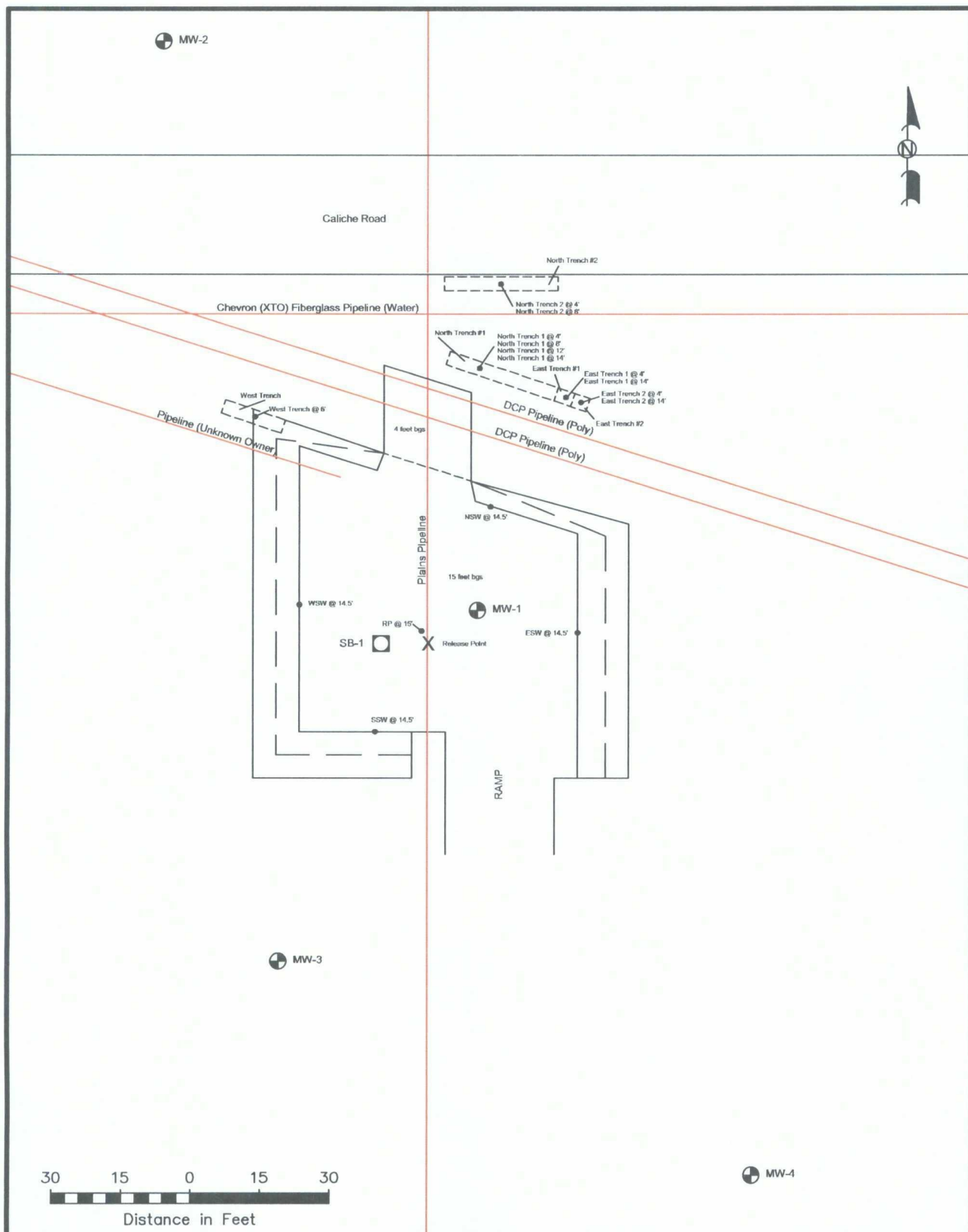
Figure 1

Site Location Map
Plains Pipeline, L.P.
DCP Plant to Lea Station 6-Inch Sec 31
Lea County, New Mexico
SRS 2009-084
1RP-2166



Basin Environmental Consulting

Prep By: CDS	Checked By: CDS
July 20, 2009	Scale 1"=3000'



LEGEND:

- Excavation Extent
- Sample Location
- Pipeline
- Soil Boring

Figure 2
Site and Sample Location Map
Plains Pipeline, L.P.
DCP Plant to Lea Station 6-Inch - Sec 31
SRS # 2009-084
Lea County, NM
1RP - 2166

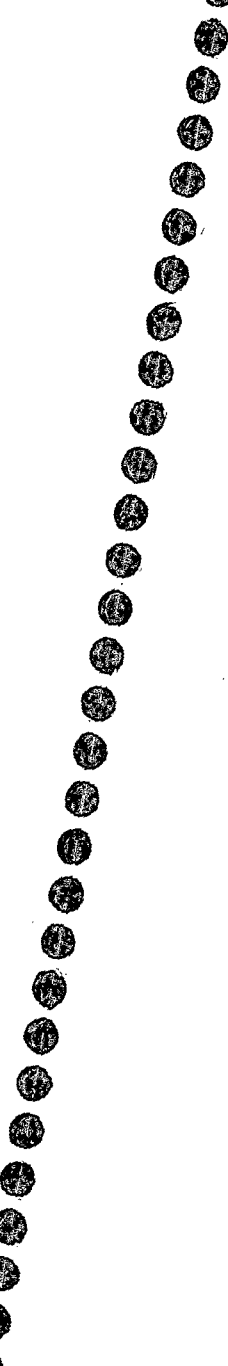
Basin Environmental Consulting

Scale: 1" = 30'

Drawn By: CDS

Prepared By: CDS

June 11, 2009



Tables

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX AND TPH IN SOIL

PLAINS PIPELINE, L.P.
DCP PLANT TO LEA STATION 6-INCH SECTION 31
LEA COUNTY, NEW MEXICO

SRS: 2009-084

NMOC REFERENCE NO: 1RP-2166

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	DATE ANALYZED	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M				TOTAL TPH C ₉ -C ₃₅ (mg/Kg)
					BENZENE (mg/Kg)	TOLUENE mg/Kg	ETHYL-BENZENE (mg/Kg)	M.P. - XYLENES (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₃ -C ₂₈ (mg/Kg)	ORO C ₂₉ -C ₃₅ (mg/Kg)	
SB-1 @ 10'	10 Feet	04/15/09	04/21/09	In-Situ	0.0017	0.022	0.0368	0.1399	0.0554	0.2556	150	311	33	494
SB-1 @ 20'	20 Feet	04/15/09	04/21/09	In-Situ	<0.0011	0.0061	0.0301	0.1368	0.0623	0.2353	375	473	58	906
SB-1 @ 30'	30 Feet	04/15/09	04/21/09	In-Situ	<0.0011	<0.0021	0.0018	0.0084	0.0041	0.0143	205	249	27	481
SB-1 @ 40'	40 Feet	04/15/09	04/21/09	In-Situ	<0.0507	<0.1013	0.226	1.079	0.4634	1.7683	699	687	93.2	1,479.2
SB-1 @ 50'	50 Feet	04/15/09	04/21/09	In-Situ	<0.0498	<0.0997	0.2736	1.183	0.4744	1.931	465	481	59.1	1,005.1
SB-1 @ 60'	60 Feet	04/15/09	04/21/09	In-Situ	<0.0049	<0.0098	<0.0049	<0.0098	<0.0049	<0.0098	20.5	102	<15	122.5
SB-1 @ 70'	70 Feet	04/15/09	04/21/09	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.1	40.6	<15.1	40.6
SB-1 @ 75'	75 Feet	04/15/09	04/21/09	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.1	43.3	<15.1	43.3
RP @ 15'	15 Feet	06/10/09	06/16/09	In-Situ	<1.086	<2.172	<1.086	13.06	2.508	15.568	809	422	187	1,418
NSW @ 14.5'	14.5 Feet	06/10/09	06/16/09	In-Situ	0.0019	0.0051	0.0012	0.0083	<0.0011	0.0165	<16.4	26.1	<16.4	26.1
SSW @ 14.5'	14.5 Feet	06/10/09	06/16/09	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	<16.7	<16.7	<16.7
West Trench @ 6'	6 Feet	06/10/09	06/16/09	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<16.9	<16.9	<16.9	<16.9
North Trench #1 @ 4'	4 Feet	06/10/09	06/16/09	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.5	<17.5	<17.5	<17.5
North Trench #1 @ 8'	8 Feet	06/10/09	06/16/09	In-Situ	<0.0555	0.1930	1.0090	3.9	3.179	8.281	309	3,780	915	5,004
North Trench #1 @ 12'	12 Feet	06/10/09	06/16/09	In-Situ	<1.065	4.508	3.918	12.62	5.021	26.067	900	5,920	1,610	8,430
North Trench #1 @ 14'	14 Feet	06/10/09	06/16/09	In-Situ	<1.120	5.384	4.516	14.36	5.157	29.417	823	4,910	1,430	7,163
East Trench #1 @ 4'	4 Feet	06/10/09	06/16/09	In-Situ	<0.0011	<0.0021	<0.0011	0.0024	<0.0011	0.0024	<16.1	<16.1	<16.1	<16.1
East Trench #1 @ 14'	14 Feet	06/10/09	06/16/09	In-Situ	<0.0107	0.054	0.2889	2.033	1.419	3.7949	194	2,430	600	3,224
North Trench #2 @ 4'	4 Feet	06/10/09	06/16/09	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0022	<15.9	<15.9	<15.9	<15.9
North Trench #2 @ 8'	8 Feet	06/10/09	06/16/09	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.5	<16.5	<16.5	<16.5
East Trench # 2 @ 4'	4 Feet	06/10/09	06/16/09	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<15.6	<15.6	<15.6	<15.6
East Trench # 2 @ 14'	14 Feet	06/10/09	06/16/09	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<17.0	<17.0	<17.0	<17.0
Stockpile	N/A	06/10/09	06/16/09	N/A	<1.071	<2.141	<1.071	10.5	2.527	13.027	485	653	206	1,344
ESW @ 14.5'	14.5 Feet	06/12/09	06/16/09	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.5	16.9	<15.5	16.9
WSW @ 14.5	14.5 Feet	06/12/09	06/16/09	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	<16.7	<16.7	<16.7
MW-1 @ 10'	25 Feet	09/23/09	09/29/09	In-Situ	<0.0038	<0.0116	<0.0038	0.0248	0.0111	0.0359	137	149	<87.1	286
MW-1 @ 20'	35 Feet	09/23/09	09/29/09	In-Situ	<0.0052	0.0113	0.3744	1.794	0.6959	2.876	344	440	<77.6	784
MW-1 @ 30'	45 Feet	09/23/09	09/29/09	In-Situ	<0.0505	0.1577	1.5160	6.373	2.244	10.291	674	616	<75.8	1,290
MW-1 @ 40'	55 Feet	09/23/09	09/29/09	In-Situ	<0.0499	0.1298	1.9840	8.349	2.981	13.444	988	550	<75.7	1,538
MW-1 @ 50'	65 Feet	09/23/09	09/29/09	In-Situ	<0.0503	<0.1006	1.1270	4.364	1.652	7.143	700	529	<75.4	1,229
MW-1 @ 60'	75 Feet	09/23/09	09/29/09	In-Situ	<0.0501	<0.1002	0.5080	2.155	0.8998	3.563	476	448	<75.3	924
MW-2 @ 15'	15 Feet	09/21/09	09/26/09	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.1	<16.1	<16.1	<16.1

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX AND TPH IN SOIL

PLAINS PIPELINE, L.P.

DCP PLANT TO LEA STATION 6-INCH SECTION 31
LEA COUNTY, NEW MEXICO

SRS: 2009-084

NMOCD REFERENCE NO: 1RP-2166

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	DATE ANALYZED	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M				TOTAL TPH C ₆ -C ₃₅ (mg/Kg)
					BENZENE (mg/Kg)	TOLUENE mg/Kg	ETHYL-BENZENE (mg/Kg)	M.P. - XYLENES (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
MW-2 @ 30'	30 Feet	09/21/09	09/26/09	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.1	<16.1	<16.1	<16.1	
MW-2 @ 45'	45 Feet	09/21/09	09/26/09	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.1	<15.1	<15.1	<15.1	
MW-2 @ 60'	60 Feet	09/21/09	09/26/09	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.1	<16.1	<16.1	<16.1	
MW-2 @ 75'	75 Feet	09/21/09	09/26/09	In-Situ	<0.0013	<0.0026	<0.0013	<0.0026	<0.0013	<0.0026	<19.2	<19.2	<19.2	<19.2	
MW-3 @ 15'	15 Feet	09/22/09	09/26/09	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.3	<16.3	<16.3	<16.3	
MW-3 @ 30'	30 Feet	09/22/09	09/26/09	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.0	<16.0	<16.0	<16.0	
MW-3 @ 45'	45 Feet	09/22/09	09/26/09	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.0	<15.0	<15.0	<15.0	
MW-3 @ 60'	60 Feet	09/22/09	09/26/09	In-Situ	0.0025	0.0027	<0.0011	<0.0021	<0.0011	0.0052	<16.0	<16.0	<16.0	<16.0	
MW-4 @ 15'	15 Feet	09/22/09	09/26/09	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.4	<15.4	<15.4	<15.4	
MW-4 @ 30'	30 Feet	09/22/09	09/26/09	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<15.7	<15.7	<15.7	<15.7	
MW-4 @ 45'	45 Feet	09/22/09	09/26/09	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<15.6	<15.6	<15.6	<15.6	
MW-4 @ 60'	60 Feet	09/22/09	09/26/09	In-Situ	<0.0012	<0.0025	<0.0012	<0.0025	<0.0012	<0.0025	<18.6	<18.6	<18.6	<18.6	
SP-1	N/A	10/08/09	10/09/09	N/A	<0.0010	0.0022	0.0055	0.0343	0.0217	0.0637	55.1	489.0	28.5	572.6	
SP-2	N/A	10/08/09	10/09/09	N/A	<0.0010	<0.0021	0.0019	0.0042	0.0038	0.0099	22.4	189.0	<15.8	211.4	
SP-3	N/A	10/08/09	10/09/09	N/A	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<15.8	<15.8	<15.8	<15.8	



Appendices



Appendix A

Soil Boring and Monitor Well Logs

Monitor Well MW-1

Depth
below
ground
surface

Drilling
Depth

Soil
Columns

PID
Reading

Petroleum
Odor

Petroleum
Stain

Soil Description



PID Reading	Petroleum Odor	Petroleum Stain
1836	Heavy	Slight
(747)	Very Heavy	Slight
779	Heavy	None
(848)	Heavy	None
1449	Heavy	None
(1463)	Heavy	None
1078	Heavy	None
(936)	Heavy	None
1522	Heavy	None
(1438)	Heavy	None
1851	Heavy	None
(1550)	Very Heavy	None
863	Very Heavy	None

0 - 5' - Sand, brown with caliche nodules

5 - 18' - Caliche, grey, hard, dry, sandy

18 - 25' - Sand, brown, very fine grained, dry with caliche nodules

25 - 71' - Sand, brown, very fine grained, moist to wet at approximately 70 feet. Monitor well was completed using water

Monitor Well MW-1

Date Drilled: September 24, 2009
 Thickness of Bentonite Seal: 57 Ft
 Depth of Exploratory Boring: 86 Ft bgs
 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.

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

Completion Notes

- The monitor well was advanced on date using air / water rotary drilling techniques.
- The well was constructed with 4" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
- The well is protected with a locked stick up steel cover and 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 ground surface.

Monitor Well MW-1
 DCP Plant to Lea Station 6-Inch Sec 31
 Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Consulting

Prep By: CDS

Checked By: CDS

October 7, 2009

Monitor Well MW-2

Drilling Depth Columns PID Reading Petroleum Odor Petroleum Stain

0				
5		0.3	None	None
10		0.2	None	None
15		20.5	None	None
20		16.8	None	None
25		39.7	None	None
30		37.1	None	None
35		46.6	None	None
40		46.9	None	None
45		48.1	None	None
50		35.4	None	None
55		47.9	None	None
60		48.9	None	None
65		46.2	None	None
70		45.4	None	None
75		43.4	None	None
80		44.3	None	None
85				
90				

Soil Description

0 - 3' bgs - Sand, light brown, clayey with caliche nodules

2 - 14' bgs - Caliche, white, soft, dry, sandy

14 - 90' bgs - Sand, brown, very fine grained, dry, hard 18 - 23 feet. Lost circulation at 80 feet bgs and completed drilling with water

Monitor Well MW-2

Date Drilled: September 21, 2009
 Thickness of Bentonite Seal: 61 ft
 Depth of Exploratory Boring: 90 ft bgs
 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.

GROUT Surface Seal
 Bentonite Pellet Seal
 Sand Pack
 Screen

Completion Notes

- 1.) The monitor well was advanced on date using air / water 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 slick up steel cover and compression cap.
- 4.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from ground surface.

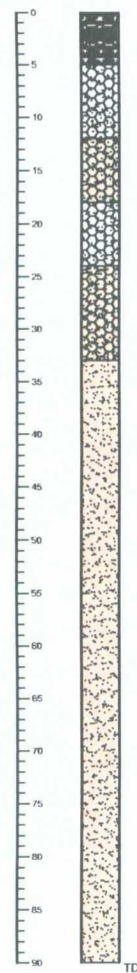
Monitor Well MW-2
 DCP Plant to Lea Station 6-Inch Sec 31
 Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Consulting

Prep By: CDS
 Checked By: CDS
 October 7, 2009

Monitor Well MW-3

Drilling Depth Columns PID Reading Petroleum Odor Petroleum Stain



PID Reading	Petroleum Odor	Petroleum Stain
2.5	None	None
9.4	None	None
10.5	None	None
11.1	None	None
15.1	None	None
8.0	None	None
8.2	None	None
4.9	None	None
9.1	None	None
13.9	None	None
8.6	None	None
8.4	None	None

Soil Description

0 - 5' bgs - Clay, light brown, sandy with caliche nodules, some organics

5 - 12' bgs - Caliche, white, soft, dry, sandy

12 - 18' bgs - Sand, light brown, very fine grained with some caliche nodules

18 - 24' bgs - Caliche, white, soft, dry, sandy

24 - 33' bgs - Sand, light brown and Caliche, white, soft, dry

33 - 90' bgs - Sand, reddish brown, very fine grained, dry. Lost circulation at 60 feet bgs and completed drilling with water

Monitor Well MW-3

Date Drilled September 22, 2009
 Thickness of Bentonite Seal 61 ft
 Depth of Exploratory Boring 90 ft bgs
 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.

Grout Surface Seal
 Bentonite Pellet Seal
 Sand Pack
 Screen

Completion Notes

- 1.) The monitor well was advanced on date using air / water 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 slick up steel cover and compression cap.
- 4.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 3.) The depths indicated are referenced from ground surface.

Monitor Well MW-3
 DCP Plant to Lea Station 6-Inch Sec 31
 Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Consulting

Prep By: CDS
 October 7, 2009
 Checked By: CDS

Monitor Well MW-4

Monitor Well MW-4

Drilling Depth Columns PID Reading Petroleum Odor Petroleum Stain

Soil Description

0					0 - 5' bgs - Sand, light brown, clayey with caliche nodules, some organics
5		18.5	None	None	
10		27.2	None	None	5 - 10' bgs - Caliche, white, soft, dry, sandy
15		(29.8)	None	None	10 - 15' bgs - Sand, light brown, very fine grained, dry
20		5.7	None	None	15 - 20' bgs - Sand, light brown, very fine grained, dry with some caliche nodules
25		25.0	None	None	20 - 28' bgs - Caliche, white, hard, dry, sandy
30		(26.2)	None	None	28 - 33' bgs - Sand, light brown, very fine grained, dry with caliche nodules
35		41.1	None	None	33 - 35' bgs - Sand, reddish brown, very fine grained, dry with caliche nodules
40		31.4	None	None	
45		(27.9)	None	None	
50		30.4	None	None	
55		25.4	None	None	
60		(33.9)	None	None	33 - 89' bgs - Sand, reddish brown, very fine grained, dry. Lost circulation at 60 feet bgs and completed drilling with water
65					
70					
75					
80					
85					
89					

Date Drilled September 22, 2009
 Thickness of Bentonite Seal 60 ft
 Depth of Exploratory Boring 89 ft bgs
 Depth to Groundwater
 Ground Water Elevation

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

Grout Surface Seal
 Bentonite Pellet Seal
 Sand Pack
 Screen

Completion Notes

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

Monitor Well MW-4
 DCP Plant to Lea Station 6-Inch Sec 31
 Lea County, New Mexico
 Plains Pipeline, L.P.

Basin Environmental Consulting

Prep By: CDS

Checked By: CDS

October 7, 2009



Appendix B

Analytical Reports

Analytical Report 330358

for

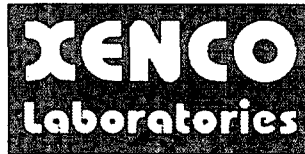
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

DCP Plant to Lea Station 6" - Sec 31

2009-0234

22-APR-09



12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:

Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers:

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

Miramar, FL E86349

Norcross(Atlanta), GA E87429

South Carolina certification numbers:

Norcross(Atlanta), GA 98015

North Carolina certification numbers:

Norcross(Atlanta), GA 483

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

Midland - Corpus Christi - Atlanta



22-APR-09

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

Reference: XENCO Report No: **330358**
DCP Plant to Lea Station 6" - Sec 31
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 330358. 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. 330358 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 330358



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6" - Sec 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1 @ 10'	S	Apr-15-09 13:50		330358-001
SB-1 @ 20'	S	Apr-15-09 14:00		330358-002
SB-1 @ 30'	S	Apr-15-09 14:20		330358-003
SB-1 @ 40'	S	Apr-15-09 14:30		330358-004
SB-1 @ 50'	S	Apr-15-09 14:50		330358-005
SB-1 @ 60'	S	Apr-15-09 15:20		330358-006
SB-1 @ 70'	S	Apr-15-09 15:50		330358-007
SB-1 @ 75'	S	Apr-15-09 16:20		330358-008



Certificate of Analysis Summary 330358

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2009-0234

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Fri Apr-17-09 08:07 am

Report Date: 22-APR-09

Project Manager: Brent Barron, IL

Analysis Requested		Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	330358-001	330358-002	330358-003	330358-004	330358-005	330358-006
							SB-1 @ 10'	SB-1 @ 20'	SB-1 @ 30'	SB-1 @ 40'	SB-1 @ 50'	SB-1 @ 60'
							SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
							Apr-15-09 13:50	Apr-15-09 14:00	Apr-15-09 14:20	Apr-15-09 14:30	Apr-15-09 14:50	Apr-15-09 15:20
BTEX by EPA 8021B												
	Extracted:						Apr-20-09 00:00	Apr-20-09 00:00	Apr-20-09 00:00	Apr-20-09 00:00	Apr-20-09 00:00	Apr-21-09 10:00
	Analyzed:						Apr-21-09 05:17	Apr-21-09 05:37	Apr-21-09 05:58	Apr-21-09 09:22	Apr-21-09 09:43	Apr-22-09 10:37
	Units/RL:						mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
							0.0017 0.0010	ND 0.0011	ND 0.0011	ND 0.0507	ND 0.0498	ND 0.0049
							0.0218 0.0021	0.0061 0.0022	ND 0.0021	ND 0.1013	ND 0.0997	ND 0.0098
	Extracted:						0.0368 0.0010	0.0301 0.0011	0.0018 0.0011	0.2259 0.0507	0.2736 0.0498	ND 0.0049
	Analyzed:						0.1399 0.0021	0.1368 0.0022	0.0084 0.0021	1.079 0.1013	1.183 0.0997	ND 0.0098
	Units/RL:						0.0554 0.0010	0.0623 0.0011	0.0041 0.0011	0.4634 0.0507	0.4744 0.0498	ND 0.0049
							0.1953 0.0010	0.1991 0.0011	0.0125 0.0011	1.5424 0.0507	1.6574 0.0498	ND 0.0049
							0.2556 0.0010	0.2353 0.0011	0.0143 0.0011	1.7683 0.0507	1.931 0.0498	ND 0.0049
Percent Moisture												
TPH By SW8015 Mod	Extracted:						Apr-17-09 17:00	Apr-17-09 17:00	Apr-17-09 17:00	Apr-17-09 17:00	Apr-17-09 17:00	Apr-17-09 17:00
	Analyzed:						Apr-19-09 14:00	Apr-19-09 14:00	Apr-19-09 14:00	Apr-19-09 14:00	Apr-19-09 15:00	Apr-19-09 15:00
	Units/RL:						mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
							150 15.7	375 16.2	205 15.8	699 15.2	465 15.1	20.5 15.0
							311 15.7	473 16.2	249 15.8	687 15.2	481 15.1	102 15.0
Total TPH							32.7 15.7	58.0 16.2	27.0 15.8	93.2 15.2	59.1 15.1	ND 15.0
							493.7 15.7	906 16.2	481 15.8	1479.2 15.2	1005.1 15.1	122.5 15.0

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.

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Brent Barron
Odessa Laboratory Director



Certificate of Analysis Summary 330358

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2009-0234

Contact: Jason Henry

Project Location: Lea County, NM

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

Date Received in Lab: Fri Apr-17-09 08:07 am

Report Date: 22-APR-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	330358-007	330358-008	
	Field Id:	SB-1 @ 70'	SB-1 @ 75'	
	Depth:	SOIL	SOIL	
	Matrix:			
	Sampled:	Apr-15-09 15:50	Apr-15-09 16:20	
BTEx by EPA 8021B	Extracted:	Apr-20-09 00:00	Apr-20-09 00:00	
	Analyzed:	Apr-21-09 06:18	Apr-21-09 06:39	
	Units/RL:	mg/kg RL	mg/kg RL	
	Benzene	ND 0.0010	ND 0.0010	
	Toluene	ND 0.0020	ND 0.0020	
	Ethylbenzene	ND 0.0010	ND 0.0010	
	m,p-Xylenes	ND 0.0020	ND 0.0020	
	o-Xylene	ND 0.0010	ND 0.0010	
	Total Xylenes	ND 0.0010	ND 0.0010	
	Total BTEx	ND 0.0010	ND 0.0010	
Percent Moisture	Extracted:			
	Analyzed:	Apr-17-09 17:00	Apr-17-09 17:00	
	Units/RL:	% RL	% RL	
TPH By SW8015 Mod	Extracted:	ND 1.00	ND 1.00	
	Analyzed:	Apr-19-09 15:00	Apr-19-09 15:00	
	Units/RL:	mg/kg RL	mg/kg RL	
	C6-C12 Gasoline Range Hydrocarbons	ND 15.1	ND 15.1	
	C12-C28 Diesel Range Hydrocarbons	40.6 15.1	43.3 15.1	
	C28-C35 Oil Range Hydrocarbons	ND 15.1	ND 15.1	
	Total TPH	40.6 15.1	43.3 15.1	

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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.
- 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.

* Outside XENCO's scope of NELAC Accreditation.

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Form 2 - Surrogate Recoveries

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

Work Orders : 330358,

Project ID: 2009-0234

Lab Batch #: 756442

Sample: 528575-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/09 02:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 756442

Sample: 528575-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/09 02:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 756442

Sample: 528575-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/09 03:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0245	0.0300	82	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 756442

Sample: 330358-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/09 05:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0214	0.0300	71	80-120	*
4-Bromofluorobenzene	0.0563	0.0300	188	80-120	*

Lab Batch #: 756442

Sample: 330358-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/09 05:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0206	0.0300	69	80-120	*
4-Bromofluorobenzene	0.0663	0.0300	221	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: DCP Plant to Lea Station 6" - Sec 31

Work Orders : 330358,

Project ID: 2009-0234

Lab Batch #: 756442

Sample: 330358-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/09 05:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0196	0.0300	65	80-120	*
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 756442

Sample: 330358-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/09 06:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0316	0.0300	105	80-120	

Lab Batch #: 756442

Sample: 330358-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/09 06:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0230	0.0300	77	80-120	*
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 756442

Sample: 330358-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/09 09:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0227	0.0300	76	80-120	*
4-Bromofluorobenzene	0.0404	0.0300	135	80-120	*

Lab Batch #: 756442

Sample: 330358-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/09 09:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0211	0.0300	70	80-120	*
4-Bromofluorobenzene	0.0380	0.0300	127	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: DCP Plant to Lea Station 6" - Sec 31

Work Orders : 330358,

Project ID: 2009-0234

Lab Batch #: 756442

Sample: 330355-027 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/09 10:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 756442

Sample: 330355-027 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/21/09 10:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0252	0.0300	84	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 756632

Sample: 528674-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/09 11:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 756632

Sample: 528674-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/09 12:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

Lab Batch #: 756632

Sample: 528674-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/09 12:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0235	0.0300	78	80-120	**
4-Bromofluorobenzene	0.0308	0.0300	103	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: DCP Plant to Lea Station 6" - Sec 31

Work Orders : 330358,

Project ID: 2009-0234

Lab Batch #: 756632

Sample: 330358-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/09 10:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0206	0.0300	69	80-120	**
4-Bromofluorobenzene	0.0445	0.0300	148	80-120	**

Lab Batch #: 756632

Sample: 330466-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/09 11:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0503	0.0300	168	80-120	*

Lab Batch #: 756632

Sample: 330466-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/09 11:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0236	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0499	0.0300	166	80-120	*

Lab Batch #: 756285

Sample: 8406396-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/19/09 15:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	50.3	50.0	101	70-135	

Lab Batch #: 756285

Sample: 8406396-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/19/09 16:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	52.0	50.0	104	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: DCP Plant to Lea Station 6" - Sec 31

Work Orders : 330358,

Project ID: 2009-0234

Lab Batch #: 756285

Sample: 8406396-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/19/09 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	96.7	100	97	70-135	
o-Terphenyl	56.5	50.0	113	70-135	

Lab Batch #: 756285

Sample: 330358-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/09 00:03

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	57.8	50.0	116	70-135	

Lab Batch #: 756285

Sample: 330358-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/09 00:28

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	55.2	50.0	110	70-135	

Lab Batch #: 756285

Sample: 330358-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/09 00:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.6	100	99	70-135	
o-Terphenyl	55.9	50.0	112	70-135	

Lab Batch #: 756285

Sample: 330358-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/09 01:18

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	52.9	50.0	106	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: DCP Plant to Lea Station 6" - Sec 31

Work Orders : 330358,

Project ID: 2009-0234

Lab Batch #: 756285

Sample: 330355-030 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/09 01:43

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	52.3	50.0	105	70-135	

Lab Batch #: 756285

Sample: 330355-030 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/09 02:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	54.6	50.0	109	70-135	

Lab Batch #: 756385

Sample: 8406400-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/20/09 04:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

Lab Batch #: 756385

Sample: 8406400-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/20/09 05:06

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	51.2	50.0	102	70-135	

Lab Batch #: 756385

Sample: 8406400-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/20/09 05:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.5	100	96	70-135	
o-Terphenyl	55.3	50.0	111	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: DCP Plant to Lea Station 6" - Sec 31

Work Orders : 330358,

Project ID: 2009-0234

Lab Batch #: 756385

Sample: 330358-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/09 05:57

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	52.6	50.0	105	70-135	

Lab Batch #: 756385

Sample: 330358-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/09 06:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	100	98	70-135	
o-Terphenyl	53.7	50.0	107	70-135	

Lab Batch #: 756385

Sample: 330358-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/09 06:47

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	55.3	50.0	111	70-135	

Lab Batch #: 756385

Sample: 330358-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/09 07:12

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.1	100	97	70-135	
o-Terphenyl	53.9	50.0	108	70-135	

Lab Batch #: 756385

Sample: 330358-008 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/09 13:27

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	50.6	50.0	101	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: DCP Plant to Lea Station 6" - Sec 31

Work Orders : 330358,

Project ID: 2009-0234

Lab Batch #: 756385

Sample: 330358-008 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/09 13:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	51.5	50.0	103	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: DCP Plant to Lea Station 6" - Sec 31

Work Order #: 330358

Analyst: ASA

Lab Batch ID: 756442

Sample: 528575-1-BKS

Date Prepared: 04/20/2009

Batch #: 1

Project ID: 2009-0234

Date Analyzed: 04/21/2009

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	BTEX by EPA 8021B										Control Limits %RPD	Flag
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blank Spike Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD		
Benzene	ND	0.1000	0.0811	81	0.1	0.0811	81	0	70-130	35		
Toluene	ND	0.1000	0.0769	77	0.1	0.0767	77	0	70-130	35		
Ethylbenzene	ND	0.1000	0.0804	80	0.1	0.0805	81	0	71-129	35		
m,p-Xylenes	ND	0.2000	0.1661	83	0.2	0.1661	83	0	70-135	35		
o-Xylene	ND	0.1000	0.0795	80	0.1	0.0796	80	0	71-133	35		

Analyst: ASA

Date Prepared: 04/21/2009

Date Analyzed: 04/21/2009

Lab Batch ID: 756632

Sample: 528674-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

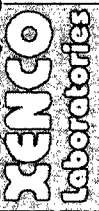
Analytes	BTEX by EPA 8021B										Control Limits %RPD	Flag
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blank Spike Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD		
Benzene	ND	0.1000	0.0846	85	0.1	0.0873	87	3	70-130	35		
Toluene	ND	0.1000	0.0801	80	0.1	0.0833	83	4	70-130	35		
Ethylbenzene	ND	0.1000	0.0845	85	0.1	0.0878	88	4	71-129	35		
m,p-Xylenes	ND	0.2000	0.1755	88	0.2	0.1818	91	4	70-135	35		
o-Xylene	ND	0.1000	0.0835	84	0.1	0.0858	86	3	71-133	35		

Relative Percent Difference RPD = $200 \times |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 \times (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 \times (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



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

Work Order #: 330358

Analyst: BHW

Lab Batch ID: 756285

Sample: 8406396-1-BKS

Units: mg/kg

Project ID: 2009-0234

Date Analyzed: 04/19/2009

Matrix: Solid

Date Prepared: 04/19/2009

Batch #: 1

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	1040	104	1000	1070	107	3	70-135	35
	C12-C28 Diesel Range Hydrocarbons	ND	1000	1020	102	1000	1050	105	3	70-135	35

Analyst: BHW

Lab Batch ID: 756385

Sample: 8406400-1-BKS

Units: mg/kg

Date Analyzed: 04/20/2009

Matrix: Solid

Date Prepared: 04/19/2009

Batch #: 1

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY														
Units: mg/kg	TPH By SW8015 Mod	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	
			ND	1000	1060	106	1000	1070	107	1	70-135	35		
			ND	1000	1010	101	1000	1040	104	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



Form 3 - MS / MSD Recoveries



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

Work Order #: 330358

Lab Batch ID: 756442

Date Analyzed: 04/21/2009

Reporting Units: mg/kg

Project ID: 2009-0234

QC- Sample ID: 330355-027 S

Date Prepared: 04/20/2009

Batch #: 1 Matrix: Soil

Analyst: ASA

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
	Benzene	ND	0.1293	0.0819	63	0.1293	0.0867	67	6	70-130	35	X
	Toluene	ND	0.1293	0.0752	58	0.1293	0.0790	61	5	70-130	35	X
	Ethylbenzene	ND	0.1293	0.0778	60	0.1293	0.0835	65	7	71-129	35	X
	m,p-Xylenes	ND	0.2587	0.1172	45	0.2587	0.1201	46	2	70-135	35	X
	o-Xylene	ND	0.1293	0.0767	59	0.1293	0.0814	63	6	71-133	35	X

Lab Batch ID: 756632

Date Analyzed: 04/22/2009

Reporting Units: mg/kg

QC- Sample ID: 330466-001 S

Date Prepared: 04/21/2009

Batch #: 1 Matrix: Soil

Analyst: ASA

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	0.1126	0.0617	55	0.1126	0.0627	56	2	70-130	35	X
		Toluene	ND	0.1126	0.0598	53	0.1126	0.0612	54	2	70-130	35	X
		Ethylbenzene	ND	0.1126	0.0652	58	0.1126	0.0662	59	2	71-129	35	X
		m,p-Xylenes	ND	0.2252	0.1341	60	0.2252	0.1364	61	2	70-135	35	X
		o-Xylene	ND	0.1126	0.0587	52	0.1126	0.0604	54	3	71-133	35	X

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

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

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



Form 3 - MS / MSD Recoveries



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

Work Order #: 330358

Lab Batch ID: 756285

Date Analyzed: 04/20/2009

Reporting Units: mg/kg

Project ID: 2009-0234

QC- Sample ID: 330355-030 S

Batch #: 1 Matrix: Soil

Date Prepared: 04/19/2009

Analyst: BHW

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	1180	1360	115	1180	1410	119	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1180	1330	113	1180	1380	117	4	70-135	35	

Lab Batch ID: 756385

Date Analyzed: 04/20/2009

Reporting Units: mg/kg

QC- Sample ID: 330358-008 S

Batch #: 1 Matrix: Soil

Date Prepared: 04/19/2009

Analyst: BHW

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	1010	1140	113	1010	1130	112	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	43.3	1010	1170	112	1010	1170	112	0	70-135	35	

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

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 $[G] = 100 \cdot (F-A)/E$



Sample Duplicate Recovery



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

Work Order #: 330358

Lab Batch #: 756187

Project ID: 2009-0234

Date Analyzed: 04/17/2009

Date Prepared: 04/17/2009

Analyst: BEV

QC- Sample ID: 330355-021 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	7.90	7.38	7	20	

Lab Batch #: 756188

Date Analyzed: 04/17/2009

Date Prepared: 04/17/2009

Analyst: BEV

QC- Sample ID: 330358-004 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	1.28	1.10	15	20	

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: Plains / Basin
Date/ Time: 04-17-09 0807
Lab ID #: 330358
Initials: JMF

Sample Receipt Checklist

				Client Initials	
#1	Temperature of container/ cooler?	Yes	No	2.5	° 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? / label	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 335116

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

DCP Plant to Lea Station 6-Inch-Sec 31

2009-084

17-JUN-09



12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:

Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX
Corpus Christi, TX T104704370-08-TX - Dallas, TX T104704295-08-TX

Florida certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Miramar, FL E86349
Norcross(Atlanta), GA E87429

South Carolina certification numbers:

Norcross(Atlanta), GA 98015

North Carolina certification numbers:

Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta



17-JUN-09

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

Reference: XENCO Report No: **335116**
DCP Plant to Lea Station 6-Inch-Sec 31
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 335116. 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. 335116 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 335116



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6-Inch-Sec 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
RP @ 15'	S	Jun-10-09 11:30		335116-001
NSW @ 14.5'	S	Jun-10-09 11:50		335116-002
SSW @ 14.5'	S	Jun-10-09 12:10		335116-003
West Trench @ 6'	S	Jun-10-09 12:20		335116-004
North Trench # 1 @ 4'	S	Jun-10-09 12:30		335116-005
North Trench # 1 @ 8'	S	Jun-10-09 12:40		335116-006
North Trench # 1 @ 12'	S	Jun-10-09 12:50		335116-007
North Trench # 1 @ 14'	S	Jun-10-09 13:00		335116-008
East Trench # 1 @ 4'	S	Jun-10-09 13:10		335116-009
East Trench # 1 @ 14'	S	Jun-10-09 13:20		335116-010
North Trench # 2 @ 4'	S	Jun-10-09 13:30		335116-011
North Trench # 2 @ 8'	S	Jun-10-09 13:40		335116-012
East Trench # 2 @ 4'	S	Jun-10-09 13:50		335116-013
East Trench # 2 @ 14'	S	Jun-10-09 14:00		335116-014
Stockpile	S	Jun-10-09 14:10		335116-015



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: DCP Plant to Lea Station 6-Inch-Sec 31

Project ID: 2009-084

Work Order Number: 335116

Report Date: 17-JUN-09

Date Received: 06/11/2009

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-762045 Percent Moisture

None

Batch: LBA-762047 Percent Moisture

None

Batch: LBA-762052 TPH by SW8015 Mod

None

Batch: LBA-762264 BTEX-MTBE EPA 8021B
SW8021BM

Batch 762264, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike.

Samples affected are: 335116-005, -004, -011, -009, -013, -014, -012, -003.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

SW8021BM

Batch 762264, 4-Bromofluorobenzene recovered below QC limits: Data not confirmed by re-analysis. Samples affected are: 531836-1-BLK, 335116-004, 335116-014, 335116-012, 335116-013, 335116-003, 335116-005. Matrix Interference is suspected in sample surrogate failures.

Batch 762264, 4-Bromofluorobenzene recovered above QC limits: Data confirmed by re-analysis. Samples affected are: 335116-006, 335116-010

Batch: LBA-762423 BTEX-MTBE EPA 8021B
None



Certificate of Analysis Summary 335116

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-11-09 08:35 am

Report Date: 17-JUN-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	335116-001	335116-002	335116-003	335116-004	335116-005	335116-006
	Units/RL:	Units/RL:	Units/RL:	Units/RL:	Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BTEX by EPA 8021B	Benzene	ND	1.086	ND	1.086	ND	0.0019	ND	0.0011	ND	0.0555
	Toluene	ND	2.172	ND	2.172	ND	0.0051	ND	0.0023	ND	0.1930
	Ethylbenzene	ND	1.086	ND	1.086	ND	0.0012	ND	0.0011	ND	0.0555
	m,p-Xylenes	13.06	2.172	0.0083	0.0022	ND	0.0083	ND	0.0023	ND	0.1109
	o-Xylene	2.508	1.086	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0555
	Total Xylenes	15.568	1.086	0.0083	0.0011	ND	0.0083	ND	0.0011	ND	0.0555
Total BTEX		15.568	1.086	0.0165	0.0011	ND	0.0165	ND	0.0011	ND	0.0555
Percent Moisture	Extracted:										
	Analyzed:	Jun-12-09 08:45									
TPH By SW8015 Mod	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL
	Extracted:	Jun-11-09 11:32	7.91	1.00	8.98	1.00	10.16	1.00	11.84	1.00	10.73
	Analyzed:	Jun-11-09 14:15									
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
	C6-C12 Gasoline Range Hydrocarbons	809	81.4	ND	16.4	ND	16.4	ND	16.9	ND	309
	C12-C28 Diesel Range Hydrocarbons	422	81.4	26.1	16.4	ND	16.7	ND	16.9	ND	3780
C28-C35 Oil Range Hydrocarbons		187	81.4	ND	16.4	ND	16.7	ND	16.9	ND	915
Total TPH		1418	81.4	26.1	16.4	ND	16.7	ND	16.9	ND	5004

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 335116

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-11-09 08:35 am

Report Date: 17-JUN-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	335116-007	335116-008	335116-009	335116-010	335116-011	335116-012
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
BTEX by EPA 8021B	Benzene	ND	1.065	ND	1.120	ND	1.120	ND	0.0107	ND	0.0011
	Toluene	4.508	2.130	5.384	2.239	ND	0.0021	0.0540	0.0215	ND	0.0022
	Ethylbenzene	3.918	1.065	4.516	1.120	ND	0.0011	0.2889	0.0107	ND	0.0011
	m,p-Xylenes	12.62	2.130	14.36	2.239	0.0024	0.0021	2.033	0.0215	ND	0.0022
	o-Xylene	5.021	1.065	5.157	1.120	ND	0.0011	1.419	0.0107	ND	0.0011
Percent Moisture	Total Xylenes	17.641	1.065	19.517	1.120	0.0024	0.0011	3.452	0.0107	ND	0.0011
	Total BTEX	26.067	1.065	29.417	1.120	0.0024	0.0011	3.7949	0.0107	ND	0.0011
TPH By SW8015 Mod	Extracted:	Jun-12-09 08:45		Jun-12-09 08:45		Jun-12-09 08:45		Jun-12-09 08:45		Jun-12-09 08:45	
	Analyzed:	Jun-11-09 11:32		Jun-11-09 11:32		Jun-11-09 11:32		Jun-11-09 11:32		Jun-11-09 11:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
	C6-C12 Gasoline Range Hydrocarbons	900	80.4	823	84.5	ND	16.1	194	80.5	ND	15.9
	C12-C28 Diesel Range Hydrocarbons	5920	80.4	4910	84.5	ND	16.1	2430	80.5	ND	15.9
Total TPH	C28-C35 Oil Range Hydrocarbons	1610	80.4	1430	84.5	ND	16.1	600	80.5	ND	15.9
		8430	80.4	7163	84.5	ND	16.1	3224	80.5	ND	15.9

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 335116

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6-Inch-sec 31

Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-11-09 08:35 am

Report Date: 17-JUN-09

Project Manager: Brent Barron, II



Analysis Requested		Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	335116-013	335116-014	335116-015
							East Trench # 2 @ 4'	East Trench # 2 @ 14'	Stockpile
							SOIL	SOIL	SOIL
							Jun-10-09 13:50	Jun-10-09 14:00	Jun-10-09 14:10
BTEx by EPA 8021B							Jun-12-09 13:00	Jun-12-09 13:00	Jun-15-09 11:00
							Jun-13-09 03:14	Jun-13-09 03:35	Jun-16-09 09:54
							mg/kg RL	mg/kg RL	mg/kg RL
Benzene							ND 0.0010	ND 0.0011	ND 1.071
Toluene							ND 0.0021	ND 0.0022	ND 2.141
Ethylbenzene							ND 0.0010	ND 0.0011	ND 1.071
m,p-Xylenes							ND 0.0021	ND 0.0022	10.50 2.141
o-Xylene							ND 0.0010	ND 0.0011	2.527 1.071
Total Xylenes							ND 0.0010	ND 0.0011	13.027 1.071
Total BTEx							ND 0.0010	ND 0.0011	13.027 1.071
Percent Moisture									
							Jun-12-09 08:45	Jun-12-09 08:45	Jun-12-09 08:52
							% RL	% RL	% RL
							4.00 1.00	11.86 1.00	6.78 1.00
TPH By SW8015 Mod									
							Jun-11-09 11:32	Jun-11-09 11:32	Jun-11-09 11:32
							Jun-11-09 19:15	Jun-11-09 19:38	Jun-11-09 20:01
							mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons							ND 15.6	ND 17.0	485 80.5
C12-C28 Diesel Range Hydrocarbons							ND 15.6	ND 17.0	653 80.5
C28-C35 Oil Range Hydrocarbons							ND 15.6	ND 17.0	206 80.5
Total TPH							ND 15.6	ND 17.0	1344 80.5

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 the 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.
- 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: DCP Plant to Lea Station 6-Inch-Sec 31

Work Orders : 335116,

Project ID: 2009-084

Lab Batch #: 762264

Sample: 531836-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/12/09 20:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 762264

Sample: 531836-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/12/09 21:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0319	0.0300	106	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 762264

Sample: 531836-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/12/09 21:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0166	0.0300	55	80-120	*

Lab Batch #: 762264

Sample: 335116-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/09 22:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 762264

Sample: 335116-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/09 22:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0265	0.0300	88	80-120	
4-Bromofluorobenzene	0.0229	0.0300	76	80-120	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch-Sec 31

Work Orders : 335116,

Project ID: 2009-084

Lab Batch #: 762264

Sample: 335116-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/09 23:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0208	0.0300	69	80-120	*

Lab Batch #: 762264

Sample: 335116-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/09 23:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0183	0.0300	61	80-120	*

Lab Batch #: 762264

Sample: 335116-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/09 00:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0262	0.0300	87	80-120	
4-Bromofluorobenzene	0.0261	0.0300	87	80-120	

Lab Batch #: 762264

Sample: 335116-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/09 01:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0247	0.0300	82	80-120	

Lab Batch #: 762264

Sample: 335116-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/09 02:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0196	0.0300	65	80-120	*

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch-Sec 31

Work Orders : 335116,

Project ID: 2009-084

Lab Batch #: 762264

Sample: 335116-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/09 03:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0197	0.0300	66	80-120	*

Lab Batch #: 762264

Sample: 335116-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/09 03:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0189	0.0300	63	80-120	*

Lab Batch #: 762264

Sample: 335116-005 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/09 06:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

Lab Batch #: 762423

Sample: 531911-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/09 08:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0328	0.0300	109	80-120	
4-Bromofluorobenzene	0.0251	0.0300	84	80-120	

Lab Batch #: 762423

Sample: 531911-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/09 09:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	80-120	
4-Bromofluorobenzene	0.0242	0.0300	81	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch-Sec 31

Work Orders : 335116,

Project ID: 2009-084

Lab Batch #: 762423

Sample: 531911-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/09 10:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0146	0.0300	49	80-120	**

Lab Batch #: 762423

Sample: 335116-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/16/09 08:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0637	0.0300	212	80-120	**

Lab Batch #: 762423

Sample: 335116-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/16/09 08:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.1400	0.0300	467	80-120	**

Lab Batch #: 762423

Sample: 335116-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/16/09 08:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	80-120	
4-Bromofluorobenzene	0.0244	0.0300	81	80-120	

Lab Batch #: 762423

Sample: 335116-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/16/09 09:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch-Sec 31

Work Orders : 335116,

Project ID: 2009-084

Lab Batch #: 762423

Sample: 335116-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/16/09 09:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0245	0.0300	82	80-120	
4-Bromofluorobenzene	0.0241	0.0300	80	80-120	

Lab Batch #: 762423

Sample: 335116-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/16/09 09:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0243	0.0300	81	80-120	

Lab Batch #: 762423

Sample: 335446-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/16/09 10:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0328	0.0300	109	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 762423

Sample: 335446-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/16/09 10:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0327	0.0300	109	80-120	
4-Bromofluorobenzene	0.0253	0.0300	84	80-120	

Lab Batch #: 762052

Sample: 531713-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/11/09 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	77.2	99.9	77	70-135	
o-Terphenyl	35.3	50.0	71	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: DCP Plant to Lea Station 6-Inch-Sec 31

Work Orders : 335116,

Project ID: 2009-084

Lab Batch #: 762052

Sample: 531713-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/11/09 12:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.3	100	81	70-135	
o-Terphenyl	35.6	50.0	71	70-135	

Lab Batch #: 762052

Sample: 531713-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/11/09 13:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.4	100	81	70-135	
o-Terphenyl	41.4	50.0	83	70-135	

Lab Batch #: 762052

Sample: 335116-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/09 14:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	99.9	91	70-135	
o-Terphenyl	42.4	50.0	85	70-135	

Lab Batch #: 762052

Sample: 335116-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/09 14:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.8	99.5	86	70-135	
o-Terphenyl	40.9	49.8	82	70-135	

Lab Batch #: 762052

Sample: 335116-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/09 15:02

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	100	90	70-135	
o-Terphenyl	44.8	50.0	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: DCP Plant to Lea Station 6-Inch-Sec 31

Work Orders : 335116,

Project ID: 2009-084

Lab Batch #: 762052

Sample: 335116-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/09 15:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.2	99.6	86	70-135	
o-Terphenyl	41.9	49.8	84	70-135	

Lab Batch #: 762052

Sample: 335116-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/09 15:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	0.871	0.996	87	70-135	
o-Terphenyl	0.431	0.498	87	70-135	

Lab Batch #: 762052

Sample: 335116-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/09 16:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.9	99.5	98	70-135	
o-Terphenyl	42.7	49.8	86	70-135	

Lab Batch #: 762052

Sample: 335116-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/09 16:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.8	118	70-135	
o-Terphenyl	46.5	49.9	93	70-135	

Lab Batch #: 762052

Sample: 335116-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/09 16:57

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	45.0	50.0	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: DCP Plant to Lea Station 6-Inch-Sec 31

Work Orders : 335116,

Project ID: 2009-084

Lab Batch #: 762052

Sample: 335116-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/11/09 17:43	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		81.3	99.5	82	70-135
o-Terphenyl		41.8	49.8	84	70-135

Lab Batch #: 762052

Sample: 335116-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/11/09 18:06	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		95.8	100	96	70-135
o-Terphenyl		44.4	50.0	89	70-135

Lab Batch #: 762052

Sample: 335116-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/11/09 18:29	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		90.5	99.8	91	70-135
o-Terphenyl		45.9	49.9	92	70-135

Lab Batch #: 762052

Sample: 335116-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/11/09 18:52	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		85.7	99.6	86	70-135
o-Terphenyl		41.9	49.8	84	70-135

Lab Batch #: 762052

Sample: 335116-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/11/09 19:15	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					Flags
1-Chlorooctane		84.9	99.8	85	70-135
o-Terphenyl		41.0	49.9	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: DCP Plant to Lea Station 6-Inch-Sec 31

Work Orders : 335116,

Project ID: 2009-084

Lab Batch #: 762052

Sample: 335116-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/09 19:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.5	99.9	87	70-135	
o-Terphenyl	41.6	50.0	83	70-135	

Lab Batch #: 762052

Sample: 335116-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/09 20:01

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.6	100	88	70-135	
o-Terphenyl	41.6	50.0	83	70-135	

Lab Batch #: 762052

Sample: 335099-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/09 21:31

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	41.1	50.0	82	70-135	

Lab Batch #: 762052

Sample: 335099-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/09 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	95.1	100	95	70-135	
o-Terphenyl	41.6	50.0	83	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: DCP Plant to Lea Station 6-Inch-Sec 31

Work Order #: 335116

Analyst: ASA

Lab Batch ID: 762264

Sample: 531836-1-BKS

Date Prepared: 06/12/2009

Batch #: 1

Project ID: 2009-084

Date Analyzed: 06/12/2009

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	0.0919	92	0.1	0.0932	93	1	70-130	35
	Toluene	ND	0.1000	0.0894	89	0.1	0.0907	91	1	70-130	35
	Ethylbenzene	ND	0.1000	0.0935	94	0.1	0.0943	94	1	71-129	35
	m,p-Xylenes	ND	0.2000	0.1889	94	0.2	0.1900	95	1	70-135	35
	o-Xylene	ND	0.1000	0.0903	90	0.1	0.0901	90	0	71-133	35

Analyst: ASA

Lab Batch ID: 762423

Sample: 531911-1-BKS

Date Prepared: 06/15/2009

Batch #: 1

Date Analyzed: 06/15/2009

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Analytes	BTEX by EPA 8021B										
	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	0.1144	114	0.1	0.1077	108	6	70-130	35
	Toluene	ND	0.1000	0.1103	110	0.1	0.1039	104	6	70-130	35
	Ethylbenzene	ND	0.1000	0.1125	113	0.1	0.1065	107	5	71-129	35
	m,p-Xylenes	ND	0.2000	0.2279	114	0.2	0.2154	108	6	70-135	35
	o-Xylene	ND	0.1000	0.1068	107	0.1	0.1007	101	6	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



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station 6-Inch-Sec 31

Work Order #: 335116

Analyst: BHW

Lab Batch ID: 762052

Sample: 531713-1-BKS

Units: mg/kg

Project ID: 2009-084

Date Analyzed: 06/11/2009

Date Prepared: 06/11/2009

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	999	704	70	1000	710	71	1	70-135	35	
	C12-C28 Diesel Range Hydrocarbons	ND	999	811	81	1000	820	82	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: DCP Plant to Lea Station 6-Inch-Sec 31

Work Order #: 335116

Lab Batch #: 762264

Date Analyzed: 06/13/2009

Date Prepared: 06/12/2009

Project ID: 2009-084

Analyst: ASA

QC- Sample ID: 335116-005 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

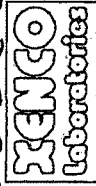
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Benzene	ND	0.1168	0.0688	59	70-130	X
Toluene	ND	0.1168	0.0278	24	70-130	X
Ethylbenzene	ND	0.1168	0.0396	34	71-129	X
m,p-Xylenes	ND	0.2335	0.0220	9	70-135	X
o-Xylene	ND	0.1168	0.0684	59	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

RL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: DCP Plant to Lea Station 6-Inch-Sec 31

Work Order #: 335116

Lab Batch ID: 762423

Date Analyzed: 06/16/2009

Reporting Units: mg/kg

Project ID: 2009-084

QC- Sample ID: 335446-002 S

Batch #: 1 Matrix: Soil

Date Prepared: 06/15/2009 Analyst: ASA

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										Flag
	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	
BTEX by EPA 8021B											
Benzene	ND	0.1061	0.0913	86	0.1061	0.0927	87	2	70-130	35	
Toluene	ND	0.1061	0.0821	77	0.1061	0.0807	76	2	70-130	35	
Ethylbenzene	ND	0.1061	0.0787	74	0.1061	0.0737	69	7	71-129	35	X
m,p-Xylenes	ND	0.2122	0.1538	72	0.2122	0.1441	68	7	70-135	35	X
o-Xylene	ND	0.1061	0.0733	69	0.1061	0.0711	67	3	71-133	35	X

Lab Batch ID: 762052

Date Analyzed: 06/11/2009

Reporting Units: mg/kg

QC- Sample ID: 335099-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 06/11/2009 Analyst: BHW

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										Flag
	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	
TPH By SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	1140	927	81	1140	909	80	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1140	1160	102	1140	1160	102	0	70-135	35	

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

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 $[G] = 100 \times (F-A)/E$



Sample Duplicate Recovery



Project Name: DCP Plant to Lea Station 6-Inch-Sec 31

Work Order #: 335116

Lab Batch #: 762045

Project ID: 2009-084

Date Analyzed: 06/12/2009

Date Prepared: 06/12/2009

Analyst: BEV

QC- Sample ID: 335099-001 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	12.5	12.7	1	20	

Lab Batch #: 762047

Date Analyzed: 06/12/2009

Date Prepared: 06/12/2009

Analyst: BEV

QC- Sample ID: 335116-015 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	6.78	7.42	9	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 Manager: Camille Bryant PAGE 01 OF 02

Company Name	Basin Environmental Service Technologies, LLC
--------------	---

Company Address: 2800 Plains Hwy

City/State/Zip: Lovington, NM 88280

Telephone No. (578) 805-7210 Fax No.

11

[illegible]

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST
12600 West 1-20 East
Odessa, Texas 79765
Phone: 432-663-1800
Fax: 432-663-1713

Project Manager: Camilla Bryant
Company Name: Basin Environmental Service Technologies, LLC
Company Address: 2800 Plains Hwy
City/State/Zip: Lovington, NM 88260
Telephone No: (575) 605-7210
Fax No: (505) 396-1420
Project Name: DCP Plant to Lea Station 6-inch - Sec 31
Project #: 2009-084
Project Loc: Lea County, NM
PO # PAA - J. Henry

Report Format: ☒ Standards ☐ TRRP ☐ NPDES
Sampler Signature: *[Signature]* e-mail: cbrayn@basin-consulting.com

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Type Sampled	Matrix	Preservation & # of Containers	Analysis For:
11	North Trench #2 @ 4'			6/10/2009	1330	Soil	1 X	As Ag Ba Ca Cr Pb Hg Se Meth: As Ag Ba Ca Cr Pb Hg Se Metals: As Ag Ba Ca Cr Pb Hg Se PAH EPA Pesticide Panel Chlordane E 500 RUSH TAT (Pre-scheduled 24, 48, 72 hrs) Standard TAT
12	North Trench #2 @ 8'			6/10/2009	1340	Soil	1 X	
13	East Trench #2 @ 4'			6/10/2009	1350	Soil	1 X	
14	East Trench #2 @ 14'			6/10/2009	1400	Soil	1 X	
15	Stockpile			6/10/2009	1410	Soil	1 X	

Special Instructions:

Received by: *[Signature]* Date: 6/11/09 Time: 08:35
Received by: *[Signature]* Date: 6/11/09 Time: 08:35
Requested by: *[Signature]* Date: 6/11/09 Time: 08:35

Temperature Upon Receipt: 2.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Bavin / Plains
 Date/ Time: 06/11/09 8:35
 Lab ID #: 335116
 Initials: gms

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?	<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 ELDT?	<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 335449

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

DCP Plant to Lea Station-Sec 31

2009-084

17-JUN-09



12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:

Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX
Corpus Christi, TX T104704370-08-TX - Dallas, TX T104704295-08-TX

Florida certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Miramar, FL E86349
Norcross(Atlanta), GA E87429

South Carolina certification numbers:

Norcross(Atlanta), GA 98015

North Carolina certification numbers:

Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta



17-JUN-09

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

Reference: XENCO Report No: **335449**
DCP Plant to Lea Station-Sec 31
Project Address: E of Eunice, 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 335449. 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. 335449 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 335449



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station-Sec 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
ESW @ 14.5'	S	Jun-12-09 11:05	14.5 ft	335449-001
WSW @ 14.5'	S	Jun-12-09 11:10	14.5 ft	335449-002



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: DCP Plant to Lea Station-Sec 31

Project ID: 2009-084

Work Order Number: 335449

Report Date: 17-JUN-09

Date Received: 06/12/2009

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-762328 Percent Moisture

None

Batch: LBA-762422 TX1005

None

Batch: LBA-762511 BTEX-MTBE EPA 8021B

SW8021BM

Batch 762511, 4-Bromofluorobenzene recovered below QC limits; Data not confirmed by re-analysis. Samples affected are: 531972-1-BLK, 335449-002, 335449-001. Sample surrogate failures due to Matrix interference.



Certificate of Analysis Summary 335449
PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station-Sec 31

Project Id: 2009-084

Contact: Jason Henry

Project Location: E of Eunice, NM

Date Received in Lab: Fri Jun-12-09 04:15 pm

Report Date: 17-JUN-09

Project Manager: Brent Barron, IL



Analysis Requested		Lab Id:	335449-001	335449-002		
		Field Id:	ESW @ 14.5'	WSW @ 14.5'		
		Depth:	14.5- ft	14.5- ft		
		Matrix:	SOIL	SOIL		
		Sampled:	Jun-12-09 11:05	Jun-12-09 11:10		
BTEX by EPA 8021B		Extracted:	Jun-15-09 17:00	Jun-15-09 17:00		
		Analyzed:	Jun-16-09 13:50	Jun-16-09 14:11		
		Units/RL:	mg/kg RL	mg/kg RL		
Benzene			ND 0.0010	ND 0.0011		
Toluene			ND 0.0020	ND 0.0022		
Ethylbenzene			ND 0.0010	ND 0.0011		
m,p-Xylenes			ND 0.0020	ND 0.0022		
o-Xylene			ND 0.0010	ND 0.0011		
Total Xylenes			ND 0.0010	ND 0.0011		
Total BTEX			ND 0.0010	ND 0.0011		
Percent Moisture		Extracted:				
		Analyzed:	Jun-16-09 08:47	Jun-16-09 08:47		
		Units/RL:	% RL	% RL		
Percent Moisture			3.03 1.00	10.19 1.00		
TPH By SW8015 Mod		Extracted:	Jun-15-09 13:01	Jun-15-09 13:01		
		Analyzed:	Jun-15-09 21:08	Jun-15-09 21:33		
		Units/RL:	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons			ND 15.5	ND 16.7		
C12-C28 Diesel Range Hydrocarbons			16.9 15.5	ND 16.7		
C28-C35 Oil Range Hydrocarbons			ND 15.5	ND 16.7		
Total TPH			16.9 15.5	ND 16.7		

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
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.
- 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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12600 West I-20 East, Odessa, TX 79765
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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: DCP Plant to Lea Station-Sec 31

Work Orders : 335449,

Project ID: 2009-084

Lab Batch #: 762511

Sample: 531972-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/16/09 11:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0328	0.0300	109	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

Lab Batch #: 762511

Sample: 531972-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/16/09 12:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	80-120	
4-Bromofluorobenzene	0.0251	0.0300	84	80-120	

Lab Batch #: 762511

Sample: 531972-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/16/09 12:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0146	0.0300	49	80-120	*

Lab Batch #: 762511

Sample: 335449-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/16/09 13:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0175	0.0300	58	80-120	*

Lab Batch #: 762511

Sample: 335449-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/16/09 14:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0159	0.0300	53	80-120	*

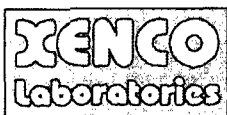
* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station-Sec 31

Work Orders : 335449,

Project ID: 2009-084

Lab Batch #: 762511

Sample: 335322-007 S / MS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/16/09 21:59.

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0328	0.0300	109	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 762511

Sample: 335322-007 SD / MSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/16/09 22:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0329	0.0300	110	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 762422

Sample: 531914-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/09 16:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	98.2	100	98	70-135	
o-Terphenyl	39.8	50.0	80	70-135	

Lab Batch #: 762422

Sample: 531914-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/09 17:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	97.3	100	97	70-135	
o-Terphenyl	39.3	50.0	79	70-135	

Lab Batch #: 762422

Sample: 531914-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/09 17:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	87.1	100	87	70-135	
o-Terphenyl	44.3	50.0	89	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: DCP Plant to Lea Station-Sec 31

Work Orders : 335449,

Project ID: 2009-084

Lab Batch #: 762422

Sample: 335449-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/09 21:08

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.5	100	93	70-135	
o-Terphenyl	46.5	50.0	93	70-135	

Lab Batch #: 762422

Sample: 335449-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/09 21:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.6	100	98	70-135	
o-Terphenyl	49.5	50.0	99	70-135	

Lab Batch #: 762422

Sample: 335446-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/09 22:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.7	105	70-135	
o-Terphenyl	41.9	49.9	84	70-135	

Lab Batch #: 762422

Sample: 335446-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/09 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	109	99.8	109	70-135	
o-Terphenyl	45.7	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.



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station-Sec 31

Work Order #: 335449

Analyst: ASA

Lab Batch ID: 762511

Sample: 531972-1-BKS

Date Prepared: 06/15/2009

Batch #: 1

Project ID: 2009-084

Date Analyzed: 06/16/2009

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
Units: mg/kg												
BTEX by EPA 8021B		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	0.1102	110	0.1	0.1069	107	3	70-130	35	
Toluene		ND	0.1000	0.1068	107	0.1	0.1032	103	3	70-130	35	
Ethylbenzene		ND	0.1000	0.1114	111	0.1	0.1077	108	3	71-129	35	
m,p-Xylenes		ND	0.2000	0.2247	112	0.2	0.2169	108	4	70-135	35	
o-Xylene		ND	0.1000	0.1067	107	0.1	0.1029	103	4	71-133	35	

Analyst: BHW

Date Prepared: 06/15/2009

Date Analyzed: 06/15/2009

Lab Batch ID: 762422

Sample: 531914-1-BKS

Batch #: 1

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
TPH By SW8015 Mod											
Analytes											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	867	87	1000	862	86	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	1050	105	1000	1030	103	2	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: DCP Plant to Lea Station-Sec 31

Work Order # : 335449

Lab Batch ID: 762511

Date Analyzed: 06/16/2009

Reporting Units: mg/kg

Project ID: 2009-084

QC- Sample ID: 335322-007 S Batch #: 1 Matrix: Solid

Date Prepared: 06/15/2009 Analyst: ASA

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1208	0.1118	93	0.1208	0.1119	93	0	70-130	35	
Toluene	ND	0.1208	0.1090	90	0.1208	0.1087	90	0	70-130	35	
Ethylbenzene	ND	0.1208	0.1151	95	0.1208	0.1140	94	1	71-129	35	
m,p-Xylenes	ND	0.2416	0.2315	96	0.2416	0.2299	95	1	70-135	35	
o-Xylene	ND	0.1208	0.1081	89	0.1208	0.1078	89	0	71-133	35	

Lab Batch ID: 762422

Date Analyzed: 06/15/2009

Reporting Units: mg/kg

QC- Sample ID: 335446-003 S Batch #: 1 Matrix: Soil

Date Prepared: 06/15/2009 Analyst: BHW

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	1020	953	93	1030	979	95	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1020	1220	120	1030	1190	116	2	70-135	35	

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

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 $[G] = 100 \cdot (F-A)/E$



Sample Duplicate Recovery



Project Name: DCP Plant to Lea Station-Sec 31

Work Order #: 335449

Lab Batch #: 762328

Project ID: 2009-084

Date Analyzed: 06/16/2009

Date Prepared: 06/16/2009

Analyst: BEV

QC- Sample ID: 335446-001 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	19.0	19.3	2	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 / Plains
Date/ Time: 6-12-09 16:15
Lab ID #: 335449
Initials: AL

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	1.1 °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 345778
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry
DCP Plant to Lea Station 6-Inch Sec 31
2009-084

30-SEP-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 (AAL11), 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)



30-SEP-09

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

Reference: XENCO Report No: **345778**
DCP Plant to Lea Station 6-Inch Sec 31
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 345778. 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. 345778 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 345778



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6-Inch Sec 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2 @ 15'	S	Sep-21-09 10:00		345778-001
MW-2 @ 30'	S	Sep-21-09 10:30		345778-002
MW-2 @ 45'	S	Sep-21-09 11:10		345778-003
MW-2 @ 60'	S	Sep-21-09 11:50		345778-004
MW-2 @ 75'	S	Sep-21-09 12:40		345778-005
MW-3 @ 15'	S	Sep-22-09 11:00		345778-006
MW-3 @ 30'	S	Sep-22-09 11:40		345778-007
MW-3 @ 45'	S	Sep-22-09 12:20		345778-008
MW-3 @ 60'	S	Sep-22-09 13:40		345778-009
MW-4 @ 15'	S	Sep-22-09 15:00		345778-010
MW-4 @ 30'	S	Sep-22-09 15:50		345778-011
MW-4 @ 45'	S	Sep-22-09 16:30		345778-012
MW-4 @ 60'	S	Sep-22-09 17:20		345778-013
MW-1 @ 10'	S	Sep-23-09 08:30		345778-014
MW-1 @ 20'	S	Sep-23-09 08:55		345778-015
MW-1 @ 30'	S	Sep-23-09 09:15		345778-016
MW-1 @ 40'	S	Sep-23-09 09:50		345778-017
MW-1 @ 50'	S	Sep-23-09 10:40		345778-018
MW-1 @ 60'	S	Sep-23-09 11:35		345778-019



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Project ID: 2009-084

Work Order Number: 345778

Report Date: 30-SEP-09

Date Received: 09/23/2009

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-774064 Percent Moisture

None

Batch: LBA-774382 TPH by SW8015 Mod

None

Batch: LBA-774486 BTEX-MTBE EPA 8021B

None

Batch: LBA-774737 BTEX-MTBE EPA 8021B

SW8021BM

Batch 774737, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 345778-016, -017, -019, -014, -015, -008, -018.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

SW8021BM

Batch 774737, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 345778-014.

4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 345778-016, 345778-017, 345778-015, 345778-019, 345778-018.



Certificate of Analysis Summary 345778
PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Date Received in Lab: Wed Sep-23-09 05:10 pm

Report Date: 30-SEP-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	345778-001	345778-002	345778-003	345778-004	345778-005	345778-006
	Extracted:	Analyzed:	Units/RL:								
BTEX by EPA 8021B				SOIL	Sep-21-09 10:00	MW-2 @ 15'	SOIL	MW-2 @ 45'	SOIL	MW-2 @ 75'	SOIL
Benzene											
Toluene											
Ethylbenzene											
m,p-Xylenes											
o-Xylene											
Total Xylenes											
Total BTEX											
Percent Moisture	Extracted:										
	Analyzed:										
	Units/RL:										
TPH By SW8015 Mod	Extracted:										
	Analyzed:										
	Units/RL:										
C6-C12 Gasoline Range Hydrocarbons											
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.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 345778

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Wed Sep-23-09 05:10 pm

Report Date: 30-SEP-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	345778-007	345778-008	345778-009	345778-010	345778-011	345778-012
						MW-3 @ 30'	MW-3 @ 45'	MW-3 @ 60'	MW-4 @ 15'	MW-4 @ 30'	MW-4 @ 45'
BTEX by EPA 8021B						SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
						Sep-22-09 11:40	Sep-22-09 12:20	Sep-22-09 13:40	Sep-22-09 15:00	Sep-22-09 15:50	Sep-22-09 16:30
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
						RL	RL	RL	RL	RL	RL
Percent Moisture						ND 0.0011	ND 0.0010	0.0025 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0021	ND 0.0020	0.0027 0.0021	ND 0.0020	ND 0.0021	ND 0.0021
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0021	ND 0.0020	ND 0.0021	ND 0.0020	ND 0.0021	ND 0.0021
TPH By SW8015 Mod						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	0.0052 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
C6-C12 Gasoline Range Hydrocarbons						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
C12-C28 Diesel Range Hydrocarbons						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
C28-C35 Oil Range Hydrocarbons						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
Total TPH						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010
						ND 0.0011	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0010

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



Certificate of Analysis Summary 345778
PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Wed Sep-23-09 05:10 pm

Report Date: 30-SEP-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	345778-013	345778-014	345778-015	345778-016	345778-017	345778-018
						MW-4 @ 60'	MW-1 @ 10'	MW-1 @ 20'	MW-1 @ 30'	MW-1 @ 40'	MW-1 @ 50'
BTEX by EPA 8021B	Extracted:					Sep-25-09 15:30	Sep-29-09 12:00	Sep-29-09 12:00	Sep-29-09 12:00	Sep-29-09 12:00	Sep-29-09 12:00
	Analyzed:					Sep-26-09 12:17	Sep-29-09 14:44	Sep-29-09 15:04	Sep-29-09 13:23	Sep-29-09 13:43	Sep-29-09 14:03
	Units/RL:					mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
						ND 0.0012	ND 0.0058	ND 0.0052	ND 0.0505	ND 0.0499	ND 0.0503
						ND 0.0025	ND 0.0116	0.0113 0.0104	0.1577 0.1011	0.1298 0.0999	ND 0.1006
						ND 0.0012	ND 0.0058	0.3744 0.0052	1.516 0.0505	1.984 0.0499	1.127 0.0503
Percent Moisture	Extracted:										
	Analyzed:					Sep-25-09 08:59	Sep-25-09 08:59	Sep-25-09 08:59	Sep-25-09 08:59	Sep-25-09 08:59	Sep-25-09 08:59
	Units/RL:					% RL	% RL	% RL	% RL	% RL	% RL
						19.5 1.00	13.9 1.00	3.58 1.00	1.07 1.00	ND 1.00	1.00 1.00
						Sep-26-09 12:11	Sep-26-09 12:11	Sep-26-09 12:11	Sep-26-09 12:11	Sep-26-09 12:11	Sep-26-09 12:11
						Sep-27-09 20:03	Sep-27-09 20:28	Sep-27-09 20:54	Sep-27-09 21:19	Sep-27-09 21:43	Sep-27-09 22:07
TPH By SW8015 Mod	Extracted:										
	Analyzed:					Sep-26-09 12:11	Sep-26-09 12:11	Sep-26-09 12:11	Sep-26-09 12:11	Sep-26-09 12:11	Sep-26-09 12:11
	Units/RL:					mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
						ND 18.6	137 87.1	344 77.6	674 75.8	988 75.7	700 75.4
C6-C12 Gasoline Range Hydrocarbons						ND 18.6	149 87.1	440 77.6	616 75.8	550 75.7	529 75.4
						ND 18.6	ND 87.1	ND 77.6	ND 75.8	ND 75.7	ND 75.4
						ND 18.6	286 87.1	784 77.6	1290 75.8	1538 75.7	1229 75.4
Total TPH											

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 345778

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2009-084

Contact: Jason Henry

Project Location: Lea County, NM

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Date Received in Lab: Wed Sep-23-09 05:10 pm

Report Date: 30-SEP-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	345778-019				
	Field Id:	MW-1 @ 60'				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Sep-23-09 11:35				
	Extracted:	Sep-29-09 12:00				
BTEX by EPA 8021B	Analyzed:	Sep-29-09 14:23				
	Units/RL:	mg/kg RL				
Benzene		ND 0.0501				
Toluene		ND 0.1002				
Ethylbenzene		0.5080 0.0501				
m,p-Xylenes		2.155 0.1002				
o-Xylene		0.8998 0.0501				
Total Xylenes		3.055 0.0501				
Total BTEX		3.563 0.0501				
Percent Moisture	Extracted:					
	Analyzed:	Sep-25-09 08:59				
	Units/RL:	% RL				
	Percent Moisture	ND 1.00				
TPH By SW8015 Mod	Extracted:	Sep-26-09 12:11				
	Analyzed:	Sep-27-09 22:32				
	Units/RL:	mg/kg RL				
	C6-C12 Gasoline Range Hydrocarbons	476 75.3				
C12-C28 Diesel Range Hydrocarbons		448 75.3				
C28-C35 Oil Range Hydrocarbons		ND 75.3				
Total TPH		924 75.3				

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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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Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 345778,

Project ID: 2009-084

Lab Batch #: 774486

Sample: 538951-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/26/09 06:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0310	0.0300	103	80-120	

Lab Batch #: 774486

Sample: 538951-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/26/09 06:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 774486

Sample: 538951-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/26/09 07:04

SURROGATE RECOVERY STUDY

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

Lab Batch #: 774486

Sample: 345778-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 07:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0316	0.0300	105	80-120	

Lab Batch #: 774486

Sample: 345778-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 07:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0318	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: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 345778,

Project ID: 2009-084

Lab Batch #: 774486

Sample: 345778-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 08:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

Lab Batch #: 774486

Sample: 345778-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 08:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0263	0.0300	88	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

Lab Batch #: 774486

Sample: 345778-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 08:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0264	0.0300	88	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 774486

Sample: 345778-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 09:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

Lab Batch #: 774486

Sample: 345778-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 09:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 345778,

Project ID: 2009-084

Lab Batch #: 774486

Sample: 345778-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 10:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0258	0.0300	86	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 774486

Sample: 345778-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 10:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 774486

Sample: 345778-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 11:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 774486

Sample: 345778-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 11:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0264	0.0300	88	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 774486

Sample: 345778-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 12:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0255	0.0300	85	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 345778,

Project ID: 2009-084

Lab Batch #: 774486

Sample: 345778-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 14:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0316	0.0300	105	80-120	

Lab Batch #: 774486

Sample: 345778-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/26/09 15:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	80-120	

Lab Batch #: 774737

Sample: 539121-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/29/09 09:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 774737

Sample: 539121-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/29/09 10:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 774737

Sample: 539121-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/29/09 10:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 345778,

Project ID: 2009-084

Lab Batch #: 774737

Sample: 345778-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/29/09 12:22

SURROGATE RECOVERY STUDY

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

Lab Batch #: 774737

Sample: 345778-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/29/09 13:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	80-120	
4-Bromofluorobenzene	0.0456	0.0300	152	80-120	**

Lab Batch #: 774737

Sample: 345778-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/29/09 13:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0514	0.0300	171	80-120	**

Lab Batch #: 774737

Sample: 345778-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/29/09 14:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	80-120	
4-Bromofluorobenzene	0.0415	0.0300	138	80-120	**

Lab Batch #: 774737

Sample: 345778-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/29/09 14:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0414	0.0300	138	80-120	**

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 345778,

Project ID: 2009-084

Lab Batch #: 774737

Sample: 345778-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/29/09 14:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	**
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 774737

Sample: 345778-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/29/09 15:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0245	0.0300	82	80-120	
4-Bromofluorobenzene	0.0773	0.0300	258	80-120	**

Lab Batch #: 774737

Sample: 346027-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/29/09 20:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0324	0.0300	108	80-120	

Lab Batch #: 774737

Sample: 346027-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/29/09 21:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 774382

Sample: 538882-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/27/09 13:01

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.5	100	93	70-135	
o-Terphenyl	36.3	50.0	73	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: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 345778,

Project ID: 2009-084

Lab Batch #: 774382

Sample: 538882-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/27/09 13:26

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	100	96	70-135	
o-Terphenyl	37.1	50.0	74	70-135	

Lab Batch #: 774382

Sample: 538882-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/27/09 13:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.6	100	84	70-135	
o-Terphenyl	39.6	50.0	79	70-135	

Lab Batch #: 774382

Sample: 345778-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 14:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.3	99.8	74	70-135	
o-Terphenyl	36.3	49.9	73	70-135	

Lab Batch #: 774382

Sample: 345778-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 15:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.4	99.8	90	70-135	
o-Terphenyl	41.5	49.9	83	70-135	

Lab Batch #: 774382

Sample: 345778-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 15:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.4	99.9	74	70-135	
o-Terphenyl	37.0	50.0	74	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: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 345778,

Project ID: 2009-084

Lab Batch #: 774382

Sample: 345778-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 15:55

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.0	99.9	73	70-135	
o-Terphenyl	36.5	50.0	73	70-135	

Lab Batch #: 774382

Sample: 345778-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 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	79.9	100	80	70-135	
o-Terphenyl	37.3	50.0	75	70-135	

Lab Batch #: 774382

Sample: 345778-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 16:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.8	100	72	70-135	
o-Terphenyl	35.6	50.0	71	70-135	

Lab Batch #: 774382

Sample: 345778-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 17:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.4	99.7	74	70-135	
o-Terphenyl	35.9	49.9	72	70-135	

Lab Batch #: 774382

Sample: 345778-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 17:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.7	99.5	72	70-135	
o-Terphenyl	35.4	49.8	71	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: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 345778,

Project ID: 2009-084

Lab Batch #: 774382

Sample: 345778-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 17:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.8	100	77	70-135	
o-Terphenyl	35.6	50.0	71	70-135	

Lab Batch #: 774382

Sample: 345778-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 18:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.2	99.6	74	70-135	
o-Terphenyl	35.4	49.8	71	70-135	

Lab Batch #: 774382

Sample: 345778-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 19:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.2	99.8	71	70-135	
o-Terphenyl	36.3	49.9	73	70-135	

Lab Batch #: 774382

Sample: 345778-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 19:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.4	99.8	76	70-135	
o-Terphenyl	36.0	49.9	72	70-135	

Lab Batch #: 774382

Sample: 345778-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 20:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.4	100	84	70-135	
o-Terphenyl	39.3	50.0	79	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: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 345778,

Project ID: 2009-084

Lab Batch #: 774382

Sample: 345778-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 20:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.6	100	72	70-135	
o-Terphenyl	35.7	50.0	71	70-135	

Lab Batch #: 774382

Sample: 345778-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 20:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.5	99.8	77	70-135	
o-Terphenyl	36.7	49.9	74	70-135	

Lab Batch #: 774382

Sample: 345778-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 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	81.3	100	81	70-135	
o-Terphenyl	35.9	50.0	72	70-135	

Lab Batch #: 774382

Sample: 345778-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 21:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.2	100	81	70-135	
o-Terphenyl	35.9	50.0	72	70-135	

Lab Batch #: 774382

Sample: 345778-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 22:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.8	99.5	82	70-135	
o-Terphenyl	35.3	49.8	71	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: DCP Plant to Lea Station 6-Inch Sec 31

Work Orders : 345778,

Project ID: 2009-084

Lab Batch #: 774382

Sample: 345778-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 22:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.7	99.6	82	70-135	
o-Terphenyl	36.9	49.8	74	70-135	

Lab Batch #: 774382

Sample: 345778-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 22:56

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.6	100	93	70-135	
o-Terphenyl	36.2	50.0	72	70-135	

Lab Batch #: 774382

Sample: 345778-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/09 23:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.9	108	70-135	
o-Terphenyl	39.4	50.0	79	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: DCP Plant to Lea Station 6-Inch Sec 31

Work Order #: 345778

Analyst: ASA

Lab Batch ID: 774486

Sample: 538951-1-BKS

Date Prepared: 09/25/2009

Batch #: 1

Project ID: 2009-084

Date Analyzed: 09/26/2009

Matrix: Solid

Units: mg/kg

Units: mg/kg											
BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Analytes	BTEX by EPA 8021B										
	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	0.0845	85	0.1	0.0852	85	1	70-130	35
	Toluene	ND	0.1000	0.0832	83	0.1	0.0839	84	1	70-130	35
	Ethylbenzene	ND	0.1000	0.0842	84	0.1	0.0854	85	1	71-129	35
	m,p-Xylenes	ND	0.2000	0.1852	93	0.2	0.1874	94	1	70-135	35
	o-Xylene	ND	0.1000	0.0904	90	0.1	0.0915	92	1	71-133	35

Analyst: ASA

Date Prepared: 09/29/2009

Date Analyzed: 09/29/2009

Lab Batch ID: 774737

Sample: 539121-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

Units: mg/kg											
BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	ND	0.1000	0.0977	98	0.1	0.0959	96	2	70-130	35
	Toluene	ND	0.1000	0.0961	96	0.1	0.0944	94	2	70-130	35
	Ethylbenzene	ND	0.1000	0.0980	98	0.1	0.0958	96	2	71-129	35
	m,p-Xylenes	ND	0.2000	0.2147	107	0.2	0.2099	105	2	70-135	35
	o-Xylene	ND	0.1000	0.1027	103	0.1	0.0994	99	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



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Order #: 345778

Analyst: BHW

Lab Batch ID: 774382

Sample: 538882-1-BKS

Units: mg/kg

Project ID: 2009-084

Date Analyzed: 09/27/2009

Matrix: Solid

Date Prepared: 09/26/2009

Batch #: 1

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	897	90	1000	918	92	2	70-135	35	
	C12-C28 Diesel Range Hydrocarbons	ND	1000	1020	102	1000	1060	106	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: DCP Plant to Lea Station 6-Inch Sec 31

Work Order # : 345778

Lab Batch ID: 774486

Date Analyzed: 09/26/2009

Reporting Units: mg/kg

Project ID: 2009-084

QC- Sample ID: 345778-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 09/25/2009 Analyst: ASA

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	ND	0.1076	0.0763	71	0.1076	0.0783	73	3	70-130	35
	Toluene	ND	0.1076	0.0810	75	0.1076	0.0800	74	1	70-130	35
	Ethylbenzene	ND	0.1076	0.0813	76	0.1076	0.0804	75	1	71-129	35
	m,p-Xylenes	ND	0.2152	0.1836	85	0.2152	0.1796	83	2	70-135	35
	o-Xylene	ND	0.1076	0.0891	83	0.1076	0.0873	81	2	71-133	35

Lab Batch ID: 774737

Date Analyzed: 09/29/2009

Reporting Units: mg/kg

QC- Sample ID: 346027-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 09/29/2009 Analyst: ASA

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
	Benzene	0.0020	0.1066	0.0584	53	0.1066	0.0580	53	1	70-130	35	X
	Toluene	0.0157	0.1066	0.0598	41	0.1066	0.0593	41	1	70-130	35	X
	Ethylbenzene	0.0077	0.1066	0.0594	48	0.1066	0.0594	48	0	71-129	35	X
	m,p-Xylenes	0.0112	0.2132	0.1292	55	0.2132	0.1291	55	0	70-135	35	X
	o-Xylene	0.0047	0.1066	0.0592	51	0.1066	0.0587	51	1	71-133	35	X

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

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

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



Form 3 - MS / MSD Recoveries



Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Order # : 345778

Lab Batch ID: 774382

Date Analyzed: 09/27/2009

Reporting Units: mg/kg

Project ID: 2009-084

QC- Sample ID: 345778-001 S

Batch #: 1 Matrix: Soil

Date Prepared: 09/26/2009

Analyst: BHW

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	1080	968	90	1080	1140	106	16	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	1080	1140	106	1080	1300	120	13	70-135	35	

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

Relative Percent Difference $RPD = 200 \cdot (C-F)/(C+F)$

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 $[G] = 100 \cdot (F-A)/E$



Sample Duplicate Recovery



Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Work Order #: 345778

Lab Batch #: 774064

Project ID: 2009-084

Date Analyzed: 09/25/2009

Date Prepared: 09/25/2009

Analyst: BEV

QC- Sample ID: 345778-001 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	7.07	7.41	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

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Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST
 12800 West I-20 East
 Odessa, Texas 79765
 Phone: 432-563-1900
 Fax: 432-563-1713

Project Manager: Curt Stanley

PAGE 02 OF 02

Project Name: DCP Plant to Lea Station 6-Inch Sec 31

Company Name: Basin Environmental Service Technologies, LLC

Project #: 2009-084

Company Address: 2800 Plains Hwy

Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260

PO #: PMA - J. Henry

Telephone No: (575) 441-2244

Fax No: (575) 365-4259

Report Format: ☒ Standard ☐ TRRP ☐ NPOES

Sampler Signature: *C. Stanley*

e-mail: cstanley@basinenv.com

ORDER #: 345773

LAB USE ONLY	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field # of Containers	Matrix	Preparation & # of Containers	Analysis For
11	MW-4 @ 30"			9/22/2009	1550	1	Soil	1	ICLP TOTAL: ☒ X
12	MW-4 @ 45"			9/22/2009	1630	1	Soil	1	ICLP TOTAL: ☒ X
13	MW-4 @ 60"			9/22/2009	1720	1	Soil	1	ICLP TOTAL: ☒ X
14	MW-1 @ 10"			9/23/2009	0830	1	Soil	1	ICLP TOTAL: ☒ X
15	MW-1 @ 20"			9/23/2009	0855	1	Soil	1	ICLP TOTAL: ☒ X
16	MW-1 @ 30"			9/23/2009	0915	1	Soil	1	ICLP TOTAL: ☒ X
17	MW-1 @ 40"			9/23/2009	0950	1	Soil	1	ICLP TOTAL: ☒ X
18	MW-1 @ 50"			9/23/2009	1040	1	Soil	1	ICLP TOTAL: ☒ X
19	MW-1 @ 60"			9/23/2009	1135	1	Soil	1	ICLP TOTAL: ☒ X

Special Instructions:

Retrieved by: <i>C. Stanley</i>	Date: 9/23/09	Time: 1710
Retrieved by:	Date:	Time:
Retrieved by:	Date:	Time:

Received by: *Victoria Fern* Date: 9/23/09 Time: 1710

Received by: *Victoria Fern* Date: 9/23/09 Time: 1710

Received by: *Victoria Fern* Date: 9/23/09 Time: 1710

Laboratory Comments:
 Sample Containers: 15
 VOCs Free of Headspace?
 Labels on containers?
 Custody seals on containers?
 Custody seals on cooler?
 Sample Hand Delivered
 by Counter? ☒ UPS ☐ DHL ☐ FedEx
 Temperature Upon Receipt: 4.1 °C

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

Client: Basin Env. / Plains
Date/ Time: 9-23-09 17:10
Lab ID #: 345778
Initials: AL

Sample Receipt Checklist

	Yes	No	Client Initials
#1 Temperature of container/ cooler?	<u>Yes</u>	No	<u>4.1</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 347770

for

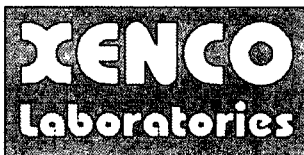
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

DCP Plant to Lea Station 6 Inch Sec 31

2009-084

13-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 (AAL11), 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)



13-OCT-09

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

Reference: XENCO Report No: **347770**
DCP Plant to Lea Station 6 Inch Sec 31
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 347770. 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. 347770 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 347770



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6 Inch Sec 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1	S	Oct-08-09 13:30		347770-001
SP-2	S	Oct-08-09 13:40		347770-002
SP-3	S	Oct-08-09 13:50		347770-003



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: DCP Plant to Lea Station 6 Inch Sec 31

Project ID: 2009-084

Work Order Number: 347770

Report Date: 13-OCT-09

Date Received: 10/09/2009

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-776505 TX1005

None

Batch: LBA-776553 BTEX-MTBE EPA 8021B
SW8021BM

Batch 776553, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 347770-001.

SW8021BM

Batch 776553, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 347770-001, -002, -003.

The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Batch: LBA-776634 Percent Moisture

None

Batch: LBA-776812 TX1005

None



Certificate of Analysis Summary 347770
PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2009-084
Contact: Jason Henry
Project Location: Lea County, NM

Project Name: DCP Plant to Lea Station 6 Inch Sec 31
Date Received in Lab: Fri Oct-09-09 08:17 am
Report Date: 13-OCT-09
Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	347770-001	347770-002	347770-003	
	Extracted:	Analyzed:	Units/RL:	mg/kg	RL	mg/kg	mg/kg	mg/kg	
BTEX by EPA 8021B	Benzene			ND	0.0010	ND	0.0010	ND	0.0010
	Toluene			0.0022	0.0021	ND	0.0021	ND	0.0021
	Ethylbenzene			0.0055	0.0010	0.0019	0.0010	ND	0.0010
	m,p-Xylenes			0.0343	0.0021	0.0042	0.0021	ND	0.0021
	o-Xylene			0.0217	0.0010	0.0038	0.0010	ND	0.0010
	Total Xylenes			0.0560	0.0010	0.0080	0.0010	ND	0.0010
Total BTEX				0.0637	0.0010	0.0099	0.0010	ND	0.0010
Percent Moisture	Extracted:								
	Analyzed:								
TPH By SW8015 Mod	Units/RL:								
	Percent Moisture			3.65	1.00	5.15	1.00	5.20	1.00
	Extracted:								
	Analyzed:								
	Units/RL:								
	TPH By SW8015 Mod								
C6-C12 Gasoline Range Hydrocarbons	Extracted:								
	Analyzed:								
	Units/RL:								
	mg/kg			55.1	15.6	22.4	15.8	ND	15.8
C12-C28 Diesel Range Hydrocarbons	Extracted:								
	Analyzed:								
C28-C35 Oil Range Hydrocarbons	Extracted:								
	Analyzed:								
Total TPH	Extracted:								
	Analyzed:								
Total TPH	Units/RL:								
	mg/kg			489	15.6	189	15.8	ND	15.8
Total TPH	Extracted:								
	Analyzed:								
Total TPH	Units/RL:								
	mg/kg			28.5	15.6	ND	15.8	ND	15.8
Total TPH	Extracted:								
	Analyzed:								
Total TPH	Units/RL:								
	mg/kg			573	15.6	211	15.8	ND	15.8

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
5757 NW 158th St, Miami Lakes, FL 33014
12600 West I-20 East, Odessa, TX 79765
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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: DCP Plant to Lea Station 6 Inch Sec 31

Work Orders : 347770,

Project ID: 2009-084

Lab Batch #: 776553

Sample: 540222-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/09/09 12:01

SURROGATE RECOVERY STUDY

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

Lab Batch #: 776553

Sample: 540222-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/09/09 12:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	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	0.0299	0.0300	100	80-120	

Lab Batch #: 776553

Sample: 540222-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/09/09 13:05

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	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	0.0300	0.0300	100	80-120	

Lab Batch #: 776553

Sample: 347770-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/09/09 16:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0257	0.0300	86	80-120	
4-Bromofluorobenzene	0.0399	0.0300	133	80-120	*

Lab Batch #: 776553

Sample: 347770-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/09/09 17:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	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	0.0322	0.0300	107	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6 Inch Sec 31

Work Orders : 347770,

Project ID: 2009-084

Lab Batch #: 776553

Sample: 347770-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/09/09 17:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	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	0.0304	0.0300	101	80-120	

Lab Batch #: 776553

Sample: 347823-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/09/09 22:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	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	0.0334	0.0300	111	80-120	

Lab Batch #: 776553

Sample: 347823-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/09/09 23:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0324	0.0300	108	80-120	

Lab Batch #: 776505

Sample: 540186-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/11/09 08:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	44.8	50.0	90	70-135	

Lab Batch #: 776505

Sample: 540186-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/11/09 08:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	48.3	50.0	97	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: DCP Plant to Lea Station 6 Inch Sec 31

Work Orders : 347770,

Project ID: 2009-084

Lab Batch #: 776505

Sample: 540186-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/11/09 09:01

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	48.9	50.0	98	70-135	

Lab Batch #: 776505

Sample: 347770-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/11/09 17:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.9	100	97	70-135	
o-Terphenyl	47.1	50.0	94	70-135	

Lab Batch #: 776505

Sample: 347770-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/11/09 17:56

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.4	100	98	70-135	
o-Terphenyl	48.2	50.0	96	70-135	

Lab Batch #: 776505

Sample: 347445-001 S / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/11/09 18:21

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	41.5	50.0	83	70-135	

Lab Batch #: 776505

Sample: 347445-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/11/09 18:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	100	107	70-135	
o-Terphenyl	41.3	50.0	83	70-135	

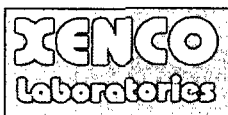
* Surrogate outside of Laboratory QC limits

** 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: DCP Plant to Lea Station 6 Inch Sec 31

Work Orders : 347770,

Project ID: 2009-084

Lab Batch #: 776812

Sample: 540368-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/12/09 15:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	44.0	50.0	88	70-135	

Lab Batch #: 776812

Sample: 540368-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/12/09 16:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.8	109	70-135	
o-Terphenyl	44.1	49.9	88	70-135	

Lab Batch #: 776812

Sample: 540368-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/12/09 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	98.2	99.5	99	70-135	
o-Terphenyl	48.9	49.8	98	70-135	

Lab Batch #: 776812

Sample: 347770-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/12/09 19:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.5	99.6	82	70-135	
o-Terphenyl	39.9	49.8	80	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: DCP Plant to Lea Station 6 Inch Sec 31

Work Order #: 347770

Analyst: ASA

Lab Batch ID: 776553

Sample: 540222-1-BKS

Batch #: 1

Date Prepared: 10/09/2009

Project ID: 2009-084

Date Analyzed: 10/09/2009

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
BTEX by EPA 8021B		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	0.0984	98	0.1	0.0973	97	1	70-130	35	
Toluene		ND	0.1000	0.0967	97	0.1	0.0956	96	1	70-130	35	
Ethylbenzene		ND	0.1000	0.0986	99	0.1	0.0970	97	2	71-129	35	
m,p-Xylenes		ND	0.2000	0.2154	108	0.2	0.2121	106	2	70-135	35	
o-Xylene		ND	0.1000	0.1038	104	0.1	0.1023	102	1	71-133	35	

Analyst: BHW

Date Prepared: 10/09/2009

Date Analyzed: 10/11/2009

Lab Batch ID: 776505

Sample: 540186-1-BKS

Batch #: 1

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	884	88	1000	921	92	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	1000	855	86	1000	899	90	5	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



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station 6 Inch Sec 31

Work Order #: 347770

Analyst: BEV

Lab Batch ID: 776812

Sample: 540368-1-BKS

Date Prepared: 10/09/2009

Batch #: 1

Project ID: 2009-084

Date Analyzed: 10/12/2009

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
Units: mg/kg												
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	935	94	998	944	95	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	999	891	89	998	889	89	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



Form 3 - MS / MSD Recoveries



Project Name: DCP Plant to Lea Station 6 Inch Sec 31

Work Order #: 347770

Lab Batch ID: 776553

Date Analyzed: 10/09/2009

Reporting Units: mg/kg

Project ID: 2009-084

QC- Sample ID: 347823-001 S

Date Prepared: 10/09/2009

Batch #: 1

Matrix: Soil

Analyst: ASA

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 Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0371	37	0.0998	0.0361	36	3	70-130	35	X
Toluene	ND	0.1000	0.0388	39	0.0998	0.0376	38	3	70-130	35	X
Ethylbenzene	0.0011	0.1000	0.0389	38	0.0998	0.0386	38	1	71-129	35	X
m,p-Xylenes	0.0068	0.2000	0.0879	41	0.1996	0.0864	40	2	70-135	35	X
o-Xylene	0.0027	0.1000	0.0453	43	0.0998	0.0450	42	1	71-133	35	X

Lab Batch ID: 776505

Date Analyzed: 10/11/2009

Reporting Units: mg/kg

QC- Sample ID: 347445-001 S

Date Prepared: 10/09/2009

Batch #: 1

Matrix: Soil

Analyst: BHW

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 Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1010	919	91	1010	937	93	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	127	1010	901	77	1010	919	78	2	70-135	35	

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

ND = Not Detected, I = 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



Sample Duplicate Recovery



Project Name: DCP Plant to Lea Station 6 Inch Sec 31

Work Order #: 347770

Lab Batch #: 776634

Project ID: 2009-084

Date Analyzed: 10/12/2009

Date Prepared: 10/12/2009

Analyst: BEV

QC- Sample ID: 346934-001 D

Batch #: 1

Matrix: Solid

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	3.17	3.39	7	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

Social Instructions:

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains / Basin
 Date/ Time: 10/09/09 8:17
 Lab ID #: 347770
 Initials: gust

Sample Receipt Checklist

Client Initials

#1 Temperature of container/ cooler?	(Yes)	No	3.6 °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



Appendix C

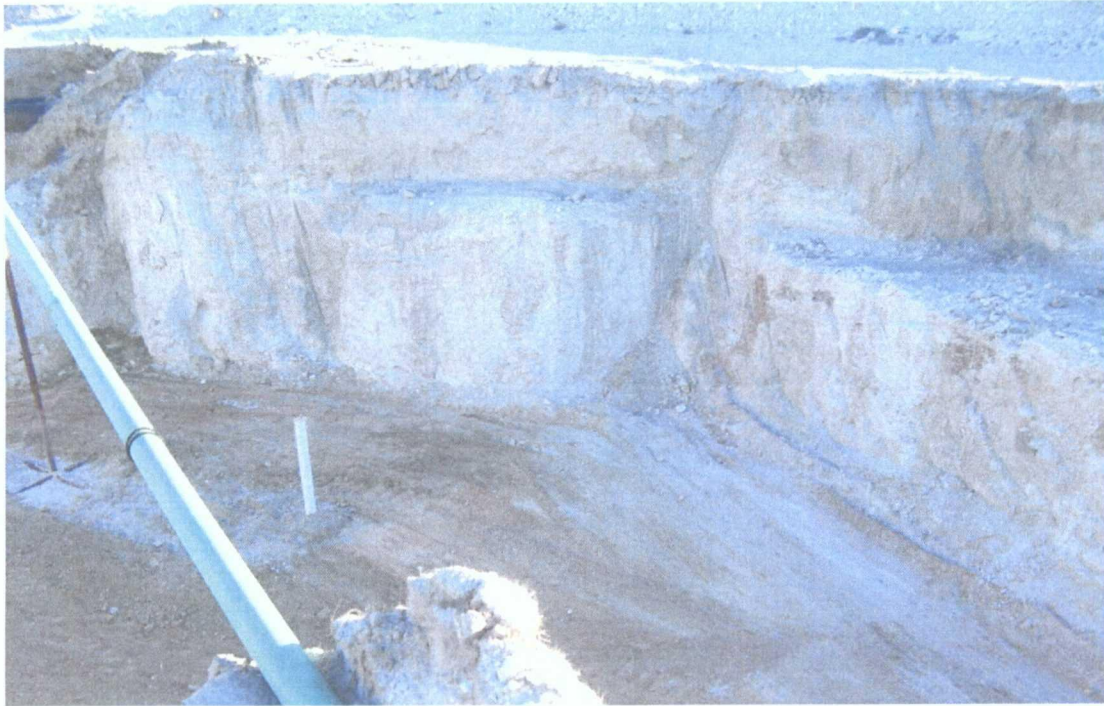
Photographs



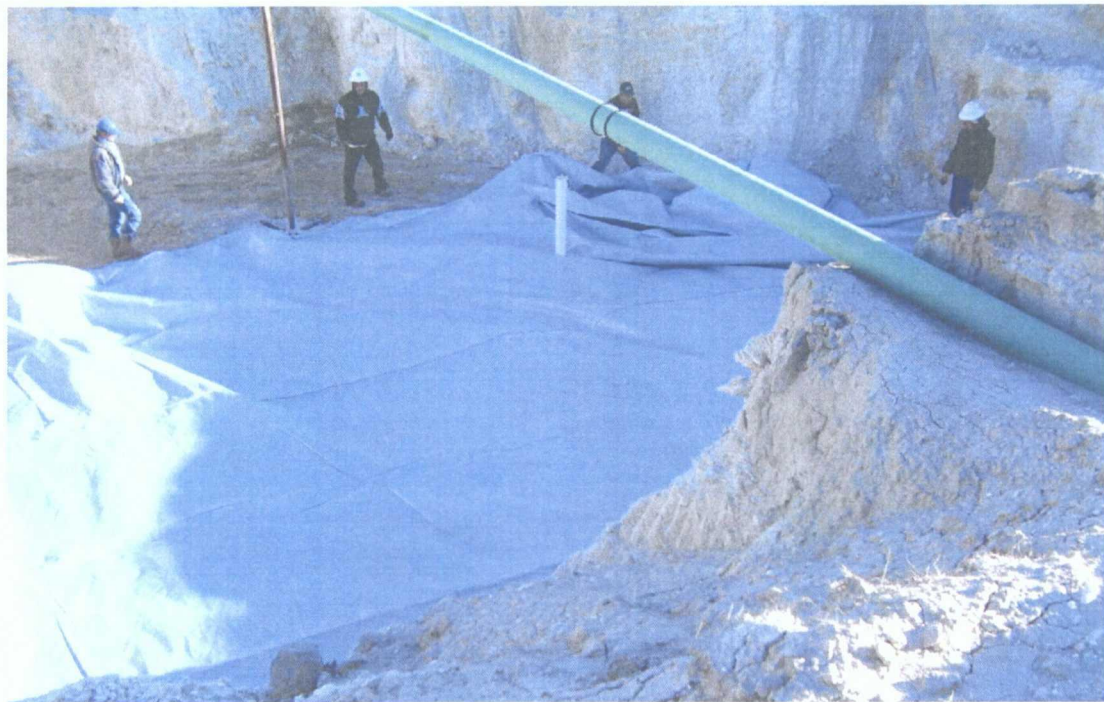
DCP Plant to Lea Station 6-Inch Sec 31 excavation, looking southeast



DCP Plant to Lea Station 6-Inch Sec 31 excavation, looking east



DCP Plant to Lea Station 6-Inch Sec 31 excavation, looking north prior to liner installation



DCP Plant to Lea Station 6-Inch Sec 31 excavation, looking north, liner installation in progress



DCP Plant to Lea Station 6-Inch Sec 31 excavation, water packing backfill material



DCP Plant to Lea Station 6-Inch Sec 31, North Trench #1 and East Trench #1 Soil Amendments being placed in Trenches

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1050 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

RECEIVED

APR 29 2009

HOBBSOC

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

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

Surface Owner	NM SLO	Mineral Owner		Lease No.	
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LOCATION OF RELEASE

NEARBY WELL API # 30025.06300-0050

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

Latitude N 32.52733° Longitude W 103.2906°

NATURE OF RELEASE

Type of Release	Crude Oil	Volume of Release	20 bbls	Volume Recovered	0 bbls
Source of Release	6" Steel Pipeline	Date and Hour of Occurrence	Unknown	Date and Hour of Discovery	04/02/2009 15:00
Was Immediate Notice Given?	☐ Yes ☐ No ☒ Not Required	If YES, To Whom? on 04/29/2009	Larry Johnson (initial estimate = 2-3 bbls based on small surface stain)		
By Whom?	Jason Henry	Date and Hour	04/29/2009 @ 09:00 (revised to reportable on 04/29/2009)		
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

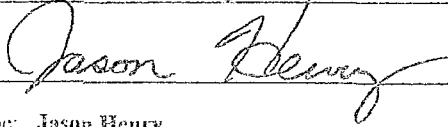
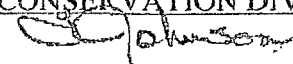
Describe Cause of Problem and Remedial Action Taken.*

External corrosion of 6" inch pipeline caused a release of crude oil. A clamp was installed on the pipeline to mitigate the release. Throughput for the subject line is 660 bbls/day and the operating pressure of the pipeline is 45 psi. The depth of the pipeline at the release point is approximately 2' bgs. The H2S concentration in the crude is less than 10 ppm and the gravity of the crude is 65.

Describe Area Affected and Cleanup Action Taken.*

The released crude resulted in a surface stain that measured approximately 6' x 8'. The impacted area will be remediated per applicable guidelines.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Jason Henry	Approved by District Supervisor  ENVIRONMENTAL ENGINEER	
Title: Remediation Coordinator	Approval Date: 4.29.09	Expiration Date: 6.29.09
E-mail Address: jhenry@paalp.com	Conditions of Approval:	Attached ☐
Date: 04/29/2009 Phone: (575) 441-1099		IRP# 09.4.2166

* Attach Additional Sheets If Necessary

FGIRLO9V2057827