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Effective Solutions

REMEDIATION SUMMARY &

RISK-BASED SITE CLOSURE PROPOSAL

PLAINS MARKETING, LP
FORMER MALJAMAR STATION
Eddy County, New Mexico
Unit Letter "E" (SW/NW), Section 25, Township 18 South, Range 31 East
Latitude 32.719323° North, Longitude 103.828191° West
NMOCD Reference #: 2RP-2504
PLAINS SRS: HD0-95-61 FORMER MALJAMAR STATION

Prepared For:

Plains All American Pipeline, LP
333 Clay Street, Suite 1600
Houston, Texas 77002

Prepared By:
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3100 Plains Highway
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January 2015

Ben J. Arguijo
Project Manager

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APPENDICES

1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin Environmental), on behalf of Plains Marketing, LP (Plains), has prepared this *Remediation Summary & Risk-Based Site Closure Proposal* for the site known as Former Maljamar Station. The legal description of the site is Unit Letter "E" (SW/NW), Section 25, Township 18 South, Range 31 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.719323° North latitude and 103.828191° West longitude. The property affected by the release is owned by The United States Department of the Interior - Bureau of Land Management (BLM). Please reference Figure 1 for a "Site Location Map".

In March of 2013, Plains' Maljamar Station crude oil pumping station was decommissioned and dismantled. During the removal of the on-site storage tanks, it was discovered that a release (or series of releases) had occurred at some point in the past. The nature, cause, and extent of the release(s) remains undetermined. Visibly stained, heavily impacted soil from underneath the storage tanks and from within the surrounding earthen containment berm was scraped up and stockpiled on-site in anticipation of additional remediation activities to be conducted at a later date.

On August 27, 2014, a representative of the United States Department of the Interior - Bureau of Land Management's (BLM) Carlsbad Field Office visited the Former Maljamar Station site and observed that soil remediation activities had yet to be conducted. The BLM representative notified Plains via email that additional soil remediation and subsequent revegetation of the site is required.

At the request of Plains, Basin Environmental Service Technologies, LLC (Basin Environmental), assumed remediation duties for the Former Maljamar Station site.

Remediation of contaminated soil to the north, east, and northwest of the Former Maljamar Station site was conducted by Basin Environmental in conjunction with the remediation of a pipeline release which occurred on February 8, 2006. Details of soil remediation activities were summarized in the document entitled "Closure Request, Caprock to Maljamar 4-Inch (231735)", dated February 27, 2007, and on-file with the NMOCD Artesia District Office and BLM Carlsbad Field Office.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 25, Township 18 South, Range 31 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately three hundred fifteen feet (315') to three hundred twenty feet (320') below ground surface (bgs). A drilling event conducted on December 22, 2014, confirmed the depth to water at the site is greater than one hundred fifty feet (>150') bgs. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

A search of the NMWRRS database indicated there are no water wells within one thousand feet (1,000') of the remediation site. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

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

NMOCD guidelines indicate the Former Maljamar Station remediation site has an initial ranking score of zero (0) points. Soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- Benzene, ethylbenzene, toluene, and xylenes (BTEX) – 50 mg/Kg (ppm)
- Total petroleum hydrocarbons (TPH) – 5,000 mg/Kg (ppm)

The New Mexico Administrative Code (NMAC) does not currently specify a remediation level for chloride concentrations in soil. Chloride remediation levels are set by the NMOCD on a site-specific basis.

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On September 9, 2014, representatives of Basin Environmental, Plains, and the BLM met on-site to determine a path forward for the remediation site. Following the meeting, a "Delineation Work Plan" was developed, outlining a strategy to investigate the horizontal and vertical extent of contaminated soil. The Delineation Work Plan was submitted to the NMOCD and BLM for review on September 22, 2014, and subsequently approved by both agencies, with the proviso that additional delineation beyond the proposed fifteen-foot (15') trenching depth and/or hard caliche layer may be required.

On September 30, 2014, Basin Environmental commenced delineation activities at the site. Pursuant to the Delineation Work Plan, a series of eleven (11) delineation trenches (TT-1 through TT-11) were advanced to investigate the horizontal and vertical extent of contaminated soil. The trenches were advanced at two-foot (2') intervals, and soil samples collected from the floors of the trenches were field-screened with a photo-ionization detector (PID) and/or chloride test kit. Trenches TT-1 through TT-9 were advanced inside the fenced-in area surrounding the Former Maljamar Station. Trenches TT-10 and TT-11 were advanced in low-lying areas in pastureland adjacent to the former pumping station, which were characterized by the presence of asphaltenes. Locations of the delineation trenches are depicted in Figure 2, "Site & Sample Location Map".

Representative soil samples collected from the delineation trenches were submitted to Xenco Laboratories in Odessa, Texas, for confirmatory analyses of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and total petroleum hydrocarbons (TPH) using Environmental Protection Agency (EPA) Methods SW 846-8021b and SW 846-8015M, respectively. Laboratory analytical results are summarized in Table 1, "Concentrations of Benzene, BTEX, TPH & Chloride in Soil", and analytical reports are provided in Appendix B.

Laboratory analytical results indicated additional vertical delineation was required in the areas represented by delineation trenches TT-2, TT-3, TT-5, TT-6, and TT-8. Vertical delineation in the adjacent pastureland (represented by delineation trenches TT-10 and TT-11) was achieved.
Following the initial delineation event, a "Drilling Work Plan" was developed, outlining a strategy to further investigate the vertical extent of contaminated soil in the areas represented by delineation trenches TT-2, TT-3, TT-5, TT-6, and TT-8. The Drilling Work Plan was submitted to the NMOCD and BLM for review on October 14, 2014, and the locations of the four (4) proposed soil borings (SB-1 through SB-4) were approved by both agencies.

From October 16 through October 17, 2014, four (4) soil borings (SB-1 through SB-4) were advanced at the site to further investigate the vertical extent of impacted soil. Soil samples were collected at five-

foot (5') drilling intervals and field-screened with a PID. Representative soil samples were submitted to the laboratory for confirmatory analyses of TPH and/or BTEX concentrations. Select soil samples were also analyzed for chloride concentrations using EPA Method 300.1. Locations of the soil borings are depicted in Figure 2. Laboratory analytical results are summarized in Table 1, and analytical reports are provided in Appendix B.

Soil boring (SB-1) was advanced in an area representative of delineation trenches TT-2, TT-3, and TT-5. The soil boring was advanced to a total depth of approximately eighty feet (80') bgs. Soil samples collected at drilling depths of five (5), ten (10), twenty (20), thirty (30), fifty (50), seventy (70), and eighty feet (80') bgs were submitted to the laboratory for analysis of TPH and/or BTEX concentrations. Soil samples SB-1 @ 10', SB-1 @ 50', and SB-1 @ 80' were also analyzed for chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory MDL in soil sample SB-1 @ 70' to 4,770 mg/kg in soil sample SB-1 @ 5'. Benzene concentrations ranged from less than the laboratory MDL in soil samples SB-1 @ 20', SB-1 @ 30', SB-1 @ 50', and SB-1 @ 80' to 0.0018 mg/kg in soil sample SB-1 @ 10'. Total BTEX concentrations ranged from less than the laboratory MDL in soil samples SB-1 @ 20', SB-1 @ 30', SB-1 @ 50', and SB-1 @ 80' to 0.346 mg/kg in soil sample SB-1 @ 10'. Chloride concentrations ranged from 75.7 mg/kg in soil sample SB-1 @ 10' to 222 mg/kg in soil sample SB-1 @ 50'.

Soil boring (SB-2) was advanced in the footprint of the historic tank battery, approximately ninety feet (90') to the southeast of soil boring SB-1. The soil boring was advanced to a total depth of approximately one hundred feet (100') bgs. Soil samples collected at drilling depths of five (5), ten (10), twenty-five (25), forty-five (45), sixty-five (65), eighty (80), and one hundred feet (100') bgs were submitted to the laboratory for analysis of TPH and/or BTEX concentrations. Soil samples SB-2 @ 10', SB-2 @ 45', and SB-2 @ 100' were also analyzed for chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory MDL in soil samples SB-2 @ 25' and SB-2 @ 65' to 4,590 mg/kg in soil sample SB-2 @ 5'. Benzene concentrations ranged from less than the laboratory MDL in soil samples SB-2 @ 45', SB-2 @ 80', and SB-2 @ 100' to 0.0062 mg/kg in soil sample SB-2 @ 10'. Total BTEX concentrations ranged from less than the laboratory MDL in soil samples SB-2 @ 45', SB-2 @ 80', and SB-2 @ 100' to 0.267 mg/kg in soil sample SB-2 @ 10'. Chloride concentrations ranged from 6.72 mg/kg in soil sample SB-2 @ 45' to 32.0 mg/kg in soil sample SB-2 @ 100'.

Soil boring (SB-3) was advanced in the area represented by delineation trench TT-8. The soil boring was advanced to a total depth of approximately one hundred feet (100') bgs. Soil samples collected at drilling depths of five (5), ten (10), twenty (20), thirty (30), fifty (50), seventy (70), eighty-five (85), and one hundred feet (100') bgs were submitted to the laboratory for analysis of TPH and/or BTEX concentrations. Soil samples SB-3 @ 5', SB-3 @ 50', and SB-3 @ 100' were also analyzed for chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory MDL in soil sample SB-3 @ 100' to 9,330 mg/kg in soil sample SB-3 @ 5'. Benzene concentrations ranged from less than the laboratory MDL in soil samples SB-3 @ 20', SB-3 @ 50', SB-3 @ 85', and SB-3 @ 100' to 0.0017 mg/kg in soil sample SB-3 @ 5'. Total BTEX concentrations ranged from less than the laboratory MDL in soil samples SB-3 @ 50', SB-3 @ 85', and SB-3 @ 100' to 0.096 mg/kg in soil sample SB-3 @ 5'. Chloride concentrations ranged from 4.54 mg/kg in soil sample SB-3 @ 50' to 22.9 mg/kg in soil sample SB-3 @ 5'.

Soil boring (SB-4) was advanced in the area represented by delineation trench TT-6. The soil boring was advanced to a total depth of approximately one hundred forty feet (140') bgs. Soil samples collected at drilling depths of five (5), ten (10), twenty (20), thirty (30), fifty (50), seventy (70), ninety (90), one hundred five (105), one hundred twenty (120), and one hundred forty feet (140') bgs were

submitted to the laboratory for analysis of TPH and/or BTEX concentrations. Soil samples SB-4 @ 10' and SB-4 @ 70' were also analyzed for chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from 29.2 mg/kg in soil sample SB-4 @ 105' to 23,800 mg/kg in soil sample SB-4 @ 5'. Benzene concentrations ranged from less than the laboratory MDL in soil samples SB-4 @ 30', SB-4 @ 70', and SB-4 @ 140' to 0.237 mg/kg in soil sample SB-4 @ 10'. Total BTEX concentrations ranged from less than the laboratory MDL in soil samples SB-4 @ 70' and SB-4 @ 140' to 36.3 mg/kg in soil sample SB-4 @ 10'. Chloride concentrations ranged from 10.2 mg/kg in soil sample SB-4 @ 70' to 26.5 mg/kg in soil sample SB-4 @ 10'.

Per NMOCD request, on December 22, 2014, one (1) soil boring (SB-5) was advanced at the site to definitively determine the depth to groundwater in the area. Soil boring SB-5 was located outside of the estimated zone of impacted soil, approximately one hundred seventy-five feet (175') to the west-northwest (cross-gradient) of soil boring SB-1. The soil boring was advanced to a total depth of approximately one hundred fifty feet (150') bgs. Soil samples were collected at five-foot (5') drilling intervals and field-screened with a PID. Soil samples collected at drilling depths of five (5), ten (10), fifty (50), seventy-five (75), one hundred (100), one hundred forty-five (145), and one hundred fifty feet (150') were submitted to the laboratory for confirmatory analyses of TPH, BTEX, and/or chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory MDL in soil samples SB-5 @ 5' and SB-5 @ 10' to 55.5 mg/kg in soil sample SB-5 @ 75'. BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 4.51 mg/kg in soil sample SB-5 @ 150' to 64.5 mg/kg in soil sample SB-5 @ 5'.

Groundwater was not encountered during the advancement of soil boring SB-5.

4.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) PROCEDURES

4.1 Soil Sampling

Soil samples were delivered to Xenco Laboratories, Inc., in Odessa, Texas, for BTEX, TPH, and/or chloride analyses using the methods described below:

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Method 4500 Cl-B

4.2 Decontamination of Equipment

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

4.3 Laboratory Protocol

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

5.0 PROPOSED ACTIVITIES

Plains proposes to conduct the following activities to progress the Former Maljamar Station release site to an NMOCD- and BLM-approved, risk-based closure:

- The horizontal limits of the excavation will be determined by field-screening using a PID and/or visual/olfactory senses. Confirmation soil samples will be collected at approximately fifty-foot (50') horizontal intervals and submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Horizontal excavation will continue until laboratory analytical results indicate contaminant concentrations are below the recommended remediation action levels (RRALs) established for the site by the NMOCD.

- Excavated soil will be stockpiled on-site, pending final disposition. Heavily impacted soil will be transported to a nearby NMOCD-approved facility for disposal. Lesser impacted soil (as determined by visual/olfactory senses, laboratory analytical results, and/or PID readings) will be bioremediated on-site. Impacted material will be screened, treated with a water/fertilizer mix, and aerated to facilitate attenuation and off-gassing of contaminants. One (1) stockpile soil sample will be collected for each five hundred cubic yards (500 yd^3) of treated soil and submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. When laboratory analytical results indicate contaminant concentrations are below the RRALs established for the site by the NMOCD, the treated soil will be used as backfill material.

- The northwest portion of the excavation will be advanced to approximately four feet (4') bgs in the area represented by delineation trench TT-1 to approximately eight feet (8') bgs in the area represented by delineation trench TT-3.

- The area represented by soil boring SB-2 will be excavated to approximately five feet (5') bgs.

- The areas represented by delineation trenches TT-5, TT-6, TT-8, TT-10, and TT-11 and soil borings SB-3 and SB-4 will be excavated until laboratory analytical results indicate contaminants of concern are below the RRALs established for the site by the NMOCD, or to a maximum depth of ten feet (10') bgs. Due to safety, environmental, and financial concerns, the horizontal extent of the excavation will be limited by the presence of an oilfield access road adjacent to the Former Maljamar Station, which represents the only thoroughfare to several active production and storage facilities to the east of the site. In areas exhibiting contaminant concentrations above RRALs at ten feet (10') bgs, the floor of the excavation will be fitted with a twenty-millimeter (20mm), impermeable, polyethylene plastic liner. A cushion of sand will be installed approximately six inches (6") both above and below the liner to protect it during installation and backfilling activities. This engineered control will serve to inhibit vertical migration of contaminants to groundwater, as well as inhibit migration of contaminants from below the liner to the surface, protecting the vegetative zone.

- Following the proposed remediation activities, the Former Maljamar Station and disturbed areas in the adjacent pastureland will be seeded with a BLM-approved seed mix.

6.0 REPORTING

On review and approval of this proposal by the NMOCD and BLM, Plains is prepared to perform the corrective actions summarized in this *Remediation Summary & Risk-Based Site Closure Proposal*. Upon completion of the corrective actions, Plains will submit a *Remediation Summary & Risk-Based Site Closure Request* to the NMOCD and BLM, documenting remediation activities and results of confirmation soil samples.

7.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Risk-Based Site Closure Proposal* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin Environmental has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin Environmental has not conducted an independent examination of the facts contained in referenced materials and statements. Basin Environmental has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin Environmental has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

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

8.0 DISTRIBUTION:

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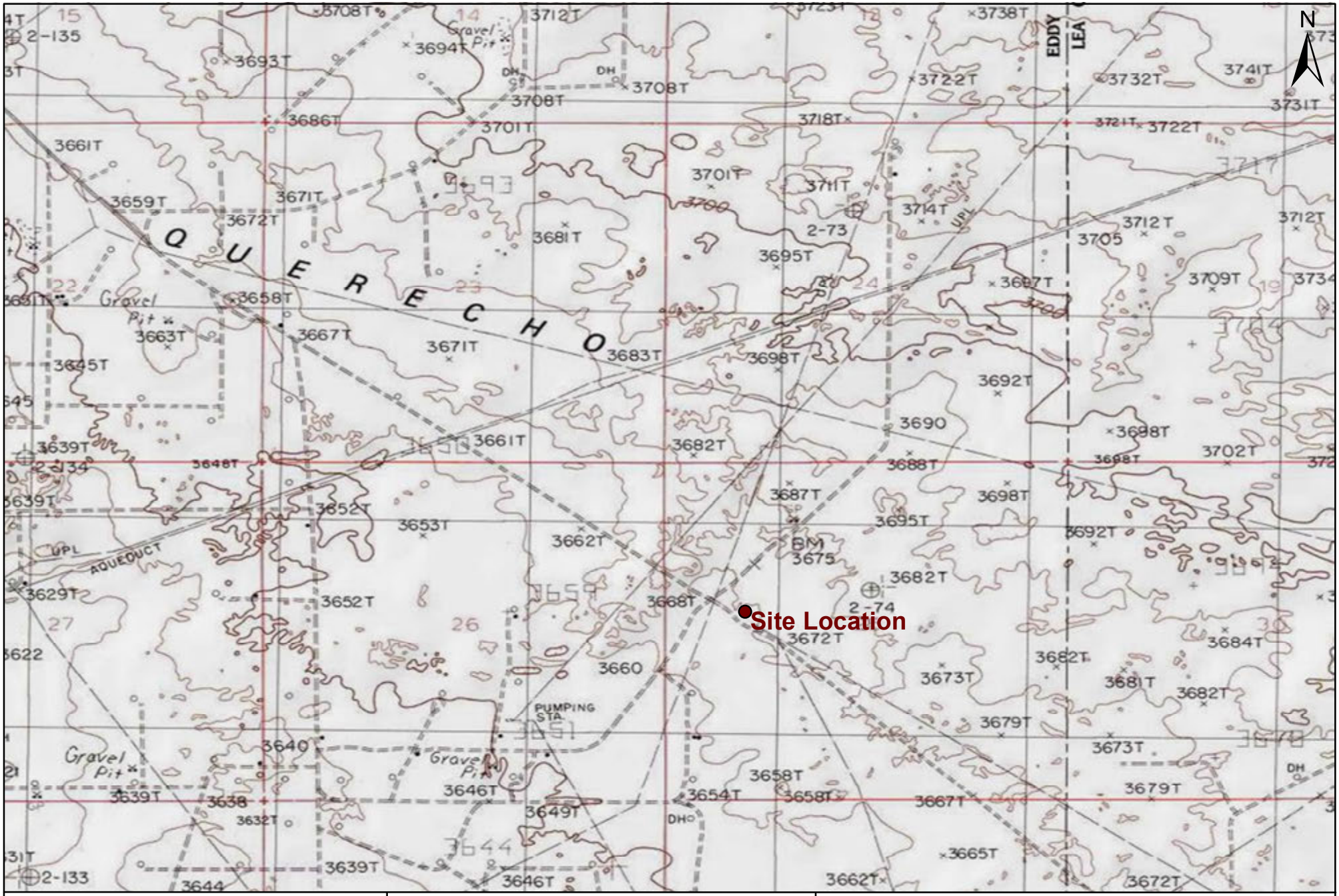
Figures



1,000 500 0 1,000 2,000

Distance in Feet

Figure #1
Site Location Map
Plains Marketing, LP
Former Maljamar Station
Eddy County, New Mexico
Plains SRS: HD0-95-61 Former Maljamar Station

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

Drawn By: BJA	Checked By: BRB
November 18, 2014	Scale: 1" = 2,000'

Figure #2
Site & Sample Location Map
Plains Marketing, LP
Former Maljamar Station
Eddy County, New Mexico
Plains SRS: HD0-95-61 Former Maljamar Station

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

Drawn By: BJA	Checked By: BRB
January 6, 2015	Scale: 1" = 80'

Tables

TABLE #1
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

PLAINS MARKETING, LP
FORMER MALJAMAR STATION
EDDY COUNTY, NEW MEXICO
PLAINS SRS: HD0-95-61 FORMER MALJAMAR STATION
NMOCD REFERENCE #: 2RP-2504

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030							METHOD: 8015M			TPH C_6-C_{35} (mg/Kg)	300.1
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M.P. - XYLENES (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL XYLENES (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)		CHLORIDE (mg/Kg)
TT-1 @ 4'	4'	9/30/2014	In-Situ	-	-	-	-	-	-	-	353	4,660	737	**5,750**	-
TT-1 @ 8'	8'	9/30/2014	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<0.0023	<16.9	48.3	<16.9	48.3	-
TT-2 @ 2'	2'	9/30/2014	In-Situ	-	-	-	-	-	-	-	1,870	29,200	6,070	**37,100**	-
TT-2 @ 4'	4'	9/30/2014	In-Situ	-	-	-	-	-	-	-	579	5,330	743	**6,650**	-
TT-2 @ 6'	6'	9/30/2014	In-Situ	<0.0012	0.0033	0.0737	0.103	0.0431	0.146	0.223	714	4,380	503	**5,600**	-
TT-3 @ 4'	4'	9/30/2014	In-Situ	-	-	-	-	-	-	-	2,910	14,700	1,880	**19,500**	-
TT-3 @ 8'	8'	9/30/2014	In-Situ	-	-	-	-	-	-	-	1,500	8,120	963	**10,600**	-
TT-4 @ 2'	2'	9/30/2014	In-Situ	-	-	-	-	-	-	-	19.5	526	127	673	-
TT-4 @ 6'	6'	9/30/2014	In-Situ	<0.0012	<0.0024	0.0036	0.0045	<0.0012	0.0045	0.0080	48.2	880	134	1,060	-
TT-5 @ 4'	4'	9/30/2014	In-Situ	-	-	-	-	-	-	-	949	7,060	900	**8,910**	-
TT-5 @ 8'	8'	9/30/2014	In-Situ	-	-	-	-	-	-	-	910	4,810	497	**6,220**	-
TT-5 @ 14'	14'	9/30/2014	In-Situ	-	-	-	-	-	-	-	1,660	8,080	896	**10,600**	-
TT-6 @ 4'	4'	9/30/2014	In-Situ	-	-	-	-	-	-	-	4,090	20,400	2,500	**27,000**	-
TT-6 @ 7'	7'	9/30/2014	In-Situ	-	-	-	-	-	-	-	4,590	18,200	2,250	**25,000**	-
TT-7 @ 2'	2'	9/30/2014	In-Situ	-	-	-	-	-	-	-	47.4	626	88.7	762	-
TT-7 @ 6'	6'	9/30/2014	In-Situ	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<0.0024	<17.9	30.4	<17.9	30.4	-
TT-8 @ 4'	4'	9/30/2014	In-Situ	-	-	-	-	-	-	-	1,460	8,340	1,190	**11,000**	-
TT-8 @ 9.5'	9.5'	9/30/2014	In-Situ	-	-	-	-	-	-	-	2,030	9,240	1,180	**12,500**	-
TT-9 @ 2'	2'	9/30/2014	In-Situ	-	-	-	-	-	-	-	<16.0	<16.0	<16.0	<16.0	-
TT-9 @ 4'	4'	9/30/2014	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<0.0022	<16.6	<16.6	<16.6	<16.6	-
TT-10 @ 4'	4'	9/30/2014	In-Situ	-	-	-	-	-	-	-	4,070	17,300	2,440	**23,800**	-
TT-10 @ 8'	8'	9/30/2014	In-Situ	<0.0012	<0.0024	0.0044	0.012	<0.0012	0.012	0.0164	159	3,350	708	4,220	-
TT-11 @ 2'	2'	9/30/2014	In-Situ	-	-	-	-	-	-	-	<18.3	119.0	47.9	167	-
TT-11 @ 4'	4'	9/30/2014	In-Situ	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<0.0024	<18.0	547	142	689	-
SB-1 @ 5'	5'	10/16/2014	In-Situ	-	-	-	-	-	-	-	632	3,460	675	4,770	-
SB-1 @ 10'	10'	10/16/2014	In-Situ	0.0018	0.0173	0.114	0.139	0.0734	0.212	0.346	557	2,550	355	3,460	75.7
SB-1 @ 20'	20'	10/16/2014	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<0.0023	20.1	65.0	<17.0	85.1	-
SB-1 @ 30'	30'	10/16/2014	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<0.0023	<17.0	142	33	175	-
SB-1 @ 50'	50'	10/16/2014	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<0.0023	18.7	<17.0	<17.0	18.7	222
SB-1 @ 70'	70'	10/16/2014	In-Situ	-	-	-	-	-	-	-	<16.7	<16.7	<16.7	<16.7	-
SB-1 @ 80'	80'	10/16/2014	In-Situ	<0.0013	<0.0027	<0.0013	<0.0027	<0.0013	<0.0027	<0.0027	21.4	35.5	<19.9	56.9	81.0

TABLE #1
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

PLAINS MARKETING, LP
FORMER MALJAMAR STATION
EDDY COUNTY, NEW MEXICO
PLAINS SRS: HD0-95-61 FORMER MALJAMAR STATION
NMOCD REFERENCE #: 2RP-2504

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030							METHOD: 8015M			TPH C_6-C_{35} (mg/Kg)	300.1
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M.P. - XYLENES (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL XYLENES (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)		CHLORIDE (mg/Kg)
SB-2 @ 5'	5'	10/16/2014	In-Situ	-	-	-	-	-	-	-	243	3,900	449	4,590	-
SB-2 @ 10'	10'	10/16/2014	In-Situ	0.0062	0.0041	0.208	0.0425	0.0067	0.0492	0.267	320	1,480	101	1,900	15.9
SB-2 @ 25'	25'	10/16/2014	In-Situ	-	-	-	-	-	-	-	<19.0	<19.0	<19.0	<19.0	-
SB-2 @ 45'	45'	10/16/2014	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<0.0021	38.1	333	35.3	406	6.72
SB-2 @ 65'	65'	10/16/2014	In-Situ	-	-	-	-	-	-	-	<18.2	<18.2	<18.2	<18.2	-
SB-2 @ 80'	80'	10/16/2014	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<0.0021	<15.5	99.0	<15.5	99.0	-
SB-2 @ 100'	100'	10/16/2014	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<0.0021	-	-	-	-	32.0
SB-3 @ 5'	5'	10/17/2014	In-Situ	0.0017	0.0043	0.0292	0.0307	0.0301	0.0608	0.096	927	7,770	636	**9,330**	22.9
SB-3 @ 10'	10'	10/17/2014	In-Situ	-	-	-	-	-	-	-	89.5	462	51.7	603	-
SB-3 @ 20'	20'	10/17/2014	In-Situ	<0.0012	<0.0024	0.0115	0.0115	0.0067	0.0182	0.0297	135	832	60.1	1,030	-
SB-3 @ 30'	30'	10/17/2014	In-Situ	-	-	-	-	-	-	-	18.4	442	46.5	507	-
SB-3 @ 50'	50'	10/17/2014	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<0.0023	<17.2	41.8	<17.2	41.8	4.54
SB-3 @ 70'	70'	10/17/2014	In-Situ	-	-	-	-	-	-	-	<16.2	36.9	<16.2	36.9	-
SB-3 @ 85'	85'	10/17/2014	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<0.0022	<16.3	34.9	<16.3	34.9	-
SB-3 @ 100'	100'	10/17/2014	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<0.0023	<16.9	<16.9	<16.9	<16.9	6.79
SB-4 @ 5'	5'	10/17/2014	In-Situ	-	-	-	-	-	-	-	2,210	20,100	1,440	**23,800**	-
SB-4 @ 10'	10'	10/17/2014	In-Situ	0.237	<0.232	10.4	21.3	4.37	25.7	36.3	2,630	11,200	1,450	**15,300**	26.5
SB-4 @ 20'	20'	10/17/2014	In-Situ	-	-	-	-	-	-	-	503	3,560	709	4,770	-
SB-4 @ 30'	30'	10/17/2014	In-Situ	<0.0011	<0.0023	0.0182	0.0312	0.0060	0.0372	0.0554	318	2,340	82.4	2,740	-
SB-4 @ 50'	50'	10/17/2014	In-Situ	-	-	-	-	-	-	-	<21.1	49.1	<21.1	49.1	-
SB-4 @ 70'	70'	10/17/2014	In-Situ	<0.0014	<0.0028	<0.0014	<0.0028	<0.0014	<0.0028	<0.0028	64.8	191	62.1	318	10.2
SB-4 @ 90'	90'	10/17/2014	In-Situ	-	-	-	-	-	-	-	<16.1	41.0	<16.1	41.0	-
SB-4 @ 105'	105'	10/17/2014	In-Situ	-	-	-	-	-	-	-	<16.2	29.2	<16.2	29.2	-
SB-4 @ 120'	120'	10/17/2014	In-Situ	-	-	-	-	-	-	-	<15.7	154	24.3	178	-
SB-4 @ 140'	140'	10/17/2014	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	21.6	103	24.0	149	-
SB-5 @ 5'	5'	12/22/2014	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<0.0022	<16.7	<16.7	<16.7	<16.7	64.5
SB-5 @ 10	10'	12/22/2014	In-Situ	-	-	-	-	-	-	-	<16.7	<16.7	<16.7	<16.7	-
SB-5 @ 50'	50'	12/22/2014	In-Situ	-	-	-	-	-	-	-	<16.9	37.9	<16.9	37.9	-
SB-5 @ 75'	75'	12/22/2014	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<0.0021	<15.5	55.5	<15.5	55.5	20.2
SB-5 @ 100'	100'	12/22/2014	In-Situ	-	-	-	-	-	-	-	<16.3	22.5	<16.3	22.5	-
SB-5 @ 145'	145'	12/22/2014	In-Situ	-	-	-	-	-	-	-	<15.8	19.5	<15.8	19.5	-
SB-5 @ 150'	150'	12/22/2014	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<0.0021	<15.8	21.2	<15.8	21.2	4.51
NMOCD Recommended Remediation Action Level				**10**						**50**				**5,000**	**1,000**

- = Not analyzed.

Appendices

Appendix A
Photographs

Former Maljamar Station (looking northwest)

Former Maljamar Station (looking north)

Former Maljamar Station (looking north-northeast)

Former Maljamar Station (looking east)

Former Maljamar Station
(looking north-northwest; asphaltines in adjacent pastureland visible in foreground)

Former Maljamar Station
(looking east; asphaltines in adjacent pastureland visible in foreground & background)

Former Maljamar Station (looking northeast)

Former Maljamar Station – Advancement of Delineation Trench TT-10 (looking southwest)

Former Maljamar Station – Advancement of Soil Boring SB-2 (looking south-southeast)

Former Maljamar Station – Advancement of Soil Boring SB-5 (looking northwest)

Appendix B
Laboratory Analytical Reports

Analytical Report 494567

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

Formar Maljamar Station

SRS HD0-95-61

09-OCT-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

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

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

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

09-OCT-14

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

Reference: XENCO Report No(s): **494567**
Formar Maljamar Station
Project Address: NM

Ben Arguijo:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 494567. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 494567 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 494567

PLAINS ALL AMERICAN EH&S, Midland, TX

Formar Maljamar Station

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TT-1 @ 4'	S	09-30-14 10:05	- 4 In	494567-001
TT-1 @ 8'	S	09-30-14 10:10	- 8 In	494567-002
TT-2 @ 2'	S	09-30-14 10:30	- 2 In	494567-003
TT-2 @ 4'	S	09-30-14 10:35	- 4 In	494567-004
TT-2 @ 6'	S	09-30-14 10:40	- 6 In	494567-005
TT-3 @ 4'	S	09-30-14 11:00	- 4 In	494567-006
TT-3 @ 8'	S	09-30-14 11:10	- 8 In	494567-007
TT-4 @ 2'	S	09-30-14 11:30	- 2 In	494567-008
TT-4 @ 6'	S	09-30-14 11:40	- 6 In	494567-009
TT-5 @ 4'	S	09-30-14 12:30	- 4 In	494567-010
TT-5 @ 8'	S	09-30-14 12:40	- 8 In	494567-011
TT-5 @ 14'	S	09-30-14 12:55	- 14 In	494567-012
TT-6 @ 4'	S	09-30-14 13:15	- 4 In	494567-013
TT-6 @ 7'	S	09-30-14 13:25	- 7 In	494567-014
TT-7 @ 2'	S	09-30-14 13:50	- 2 In	494567-015
TT-7 @ 6'	S	09-30-14 14:00	- 6 In	494567-016
TT-8 @ 4'	S	09-30-14 14:30	- 4 In	494567-017
TT-8 @ 9.5'	S	09-30-14 14:45	- 9.5 In	494567-018
TT-9 @ 2'	S	09-30-14 15:05	- 2 In	494567-019
TT-9 @ 4'	S	09-30-14 15:10	- 4 In	494567-020
TT-10 @ 4'	S	09-30-14 15:25	- 4 In	494567-021
TT-10 @ 8'	S	09-30-14 15:40	- 8 In	494567-022
TT-11 @ 2'	S	09-30-14 16:05	- 2 In	494567-023
TT-11 @ 4'	S	09-30-14 16:10	- 4 In	494567-024

CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Formar Maljamar Station

Project ID: *SRS HD0-95-61*
Work Order Number(s): *494567*

Report Date: *09-OCT-14*
Date Received: *10/03/2014*

Sample receipt non conformances and comments:

TT-3 @8' and TT-5 @14' rush for TPH

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 494567

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Formar Maljamar Station

Project Id: SRS HD0-95-61
Contact: Ben Arguijo
Project Location: NM

Draft

Date Received in Lab: Fri Oct-03-14 12:30 pm
Report Date: 09-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	494567-001		494567-002		494567-003		494567-004		494567-005		494567-006	
	Field Id:	TT-1 @ 4'		TT-1 @ 8'		TT-2 @ 2'		TT-2 @ 4'		TT-2 @ 6'		TT-3 @ 4'	
	Depth:	4 In		8 In		2 In		4 In		6 In		4 In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-30-14 10:05		Sep-30-14 10:10		Sep-30-14 10:30		Sep-30-14 10:35		Sep-30-14 10:40		Sep-30-14 11:00	
BTEX by EPA 8021B	*Extracted:*			Oct-07-14 09:00						Oct-07-14 09:00			
	Analyzed:			Oct-07-14 21:03						Oct-07-14 21:19			
	Units/RL:			mg/kg	RL					mg/kg	RL		
Benzene				ND	0.00113					ND	0.00116		
Toluene				ND	0.00225					0.00333	0.00231		
Ethylbenzene				ND	0.00113					0.0737	0.00116		
m_p-Xylenes				ND	0.00225					0.103	0.00231		
o-Xylene				ND	0.00113					0.0431	0.00116		
Total Xylenes				ND	0.00113					0.146	0.00116		
Total BTEX				ND	0.00113					0.223	0.00116		
Percent Moisture	*Extracted:*												
	Analyzed:	Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		7.17	1.00	11.6	1.00	15.4	1.00	11.8	1.00	13.7	1.00	6.79	1.00
TPH By SW8015 Mod	*Extracted:*	Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00	
	Analyzed:	Oct-03-14 18:51		Oct-03-14 19:18		Oct-03-14 20:35		Oct-03-14 20:59		Oct-03-14 21:23		Oct-03-14 21:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		353	80.5	ND	16.9	1870	354	579	84.8	714	17.4	2910	161
C12-C28 Diesel Range Hydrocarbons		4660	80.5	48.3	16.9	29200	354	5330	84.8	4380	17.4	14700	161
C28-C35 Oil Range Hydrocarbons		737	80.5	ND	16.9	6070	354	743	84.8	503	17.4	1880	161
Total TPH		5750	80.5	48.3	16.9	37100	354	6650	84.8	5600	17.4	19500	161

Certificate of Analysis Summary 494567

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Formar Maljamar Station

Project Id: SRS HD0-95-61
Contact: Ben Arguijo
Project Location: NM

Draft

Date Received in Lab: Fri Oct-03-14 12:30 pm
Report Date: 09-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	494567-007		494567-008		494567-009		494567-010		494567-011		494567-012	
	Field Id:	TT-3 @ 8'		TT-4 @ 2'		TT-4 @ 6'		TT-5 @ 4'		TT-5 @ 8'		TT-5 @ 14'	
	Depth:	8 In		2 In		6 In		4 In		8 In		14 In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-30-14 11:10		Sep-30-14 11:30		Sep-30-14 11:40		Sep-30-14 12:30		Sep-30-14 12:40		Sep-30-14 12:55	
BTEX by EPA 8021B	**Extracted:**					Oct-07-14 09:00							
	Analyzed:					Oct-07-14 21:36							
	Units/RL:					mg/kg	RL						
Benzene						ND	0.00120						
Toluene						ND	0.00239						
Ethylbenzene						0.00357	0.00120						
m_p-Xylenes						0.00445	0.00239						
o-Xylene						ND	0.00120						
Total Xylenes						0.00445	0.00120						
Total BTEX						0.00802	0.00120						
Percent Moisture	**Extracted:**												
	Analyzed:	Oct-03-14 13:30		Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00		Oct-03-14 13:30	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		14.3	1.00	11.8	1.00	16.6	1.00	6.34	1.00	24.5	1.00	16.4	1.00
TPH By SW8015 Mod	**Extracted:**	Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00	
	Analyzed:	Oct-03-14 22:13		Oct-03-14 22:41		Oct-03-14 23:08		Oct-03-14 23:35		Oct-04-14 00:59		Oct-04-14 01:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		1500	175	19.5	17.0	48.2	17.9	949	79.9	910	19.8	1660	179
C12-C28 Diesel Range Hydrocarbons		8120	175	526	17.0	880	17.9	7060	79.9	4810	19.8	8080	179
C28-C35 Oil Range Hydrocarbons		963	175	127	17.0	134	17.9	900	79.9	497	19.8	896	179
Total TPH		10600	175	673	17.0	1060	17.9	8910	79.9	6220	19.8	10600	179

Certificate of Analysis Summary 494567

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Formar Maljamar Station

Project Id: SRS HD0-95-61
Contact: Ben Arguijo
Project Location: NM

Draft

Date Received in Lab: Fri Oct-03-14 12:30 pm
Report Date: 09-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	494567-013		494567-014		494567-015		494567-016		494567-017		494567-018	
	Field Id:	TT-6 @ 4'		TT-6 @ 7'		TT-7 @ 2'		TT-7 @ 6'		TT-8 @ 4'		TT-8 @ 9.5'	
	Depth:	4 In		7 In		2 In		6 In		4 In		9.5 In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-30-14 13:15		Sep-30-14 13:25		Sep-30-14 13:50		Sep-30-14 14:00		Sep-30-14 14:30		Sep-30-14 14:45	
BTEX by EPA 8021B	***Extracted:***							Oct-07-14 09:00					
	Analyzed:							Oct-07-14 21:52					
	Units/RL:							mg/kg	RL				
Benzene								ND	0.00119				
Toluene								ND	0.00237				
Ethylbenzene								ND	0.00119				
m_p-Xylenes								ND	0.00237				
o-Xylene								ND	0.00119				
Total Xylenes								ND	0.00119				
Total BTEX								ND	0.00119				
Percent Moisture	***Extracted:***												
	Analyzed:	Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		24.9	1.00	8.55	1.00	8.44	1.00	16.2	1.00	13.3	1.00	23.6	1.00
TPH By SW8015 Mod	***Extracted:***	Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00	
	Analyzed:	Oct-04-14 01:51		Oct-04-14 02:20		Oct-04-14 02:48		Oct-06-14 10:07		Oct-04-14 03:43		Oct-04-14 04:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		4090	398	4590	327	47.4	16.4	ND	17.9	1460	173	2030	196
C12-C28 Diesel Range Hydrocarbons		20400	398	18200	327	626	16.4	30.4	17.9	8340	173	9240	196
C28-C35 Oil Range Hydrocarbons		2500	398	2250	327	88.7	16.4	ND	17.9	1190	173	1180	196
Total TPH		27000	398	25000	327	762	16.4	30.4	17.9	11000	173	12500	196

Certificate of Analysis Summary 494567

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Formar Maljamar Station

Project Id: SRS HD0-95-61
Contact: Ben Arguijo
Project Location: NM

Draft

Date Received in Lab: Fri Oct-03-14 12:30 pm
Report Date: 09-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	494567-019		494567-020		494567-021		494567-022		494567-023		494567-024	
	Field Id:	TT-9 @ 2'		TT-9 @ 4'		TT-10 @ 4'		TT-10 @ 8'		TT-11 @ 2'		TT-11 @ 4'	
	Depth:	2 In		4 In		4 In		8 In		2 In		4 In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-30-14 15:05		Sep-30-14 15:10		Sep-30-14 15:25		Sep-30-14 15:40		Sep-30-14 16:05		Sep-30-14 16:10	
BTEX by EPA 8021B	*Extracted:*			Oct-07-14 09:00				Oct-07-14 09:00				Oct-07-14 09:00	
	Analyzed:			Oct-07-14 22:09				Oct-07-14 22:25				Oct-07-14 22:41	
	Units/RL:			mg/kg	RL			mg/kg	RL			mg/kg	RL
Benzene				ND	0.00111			ND	0.00120			ND	0.00120
Toluene				ND	0.00222			ND	0.00241			ND	0.00240
Ethylbenzene				ND	0.00111			0.00436	0.00120			ND	0.00120
m_p-Xylenes				ND	0.00222			0.0120	0.00241			ND	0.00240
o-Xylene				ND	0.00111			ND	0.00120			ND	0.00120
Total Xylenes				ND	0.00111			0.0120	0.00120			ND	0.00120
Total BTEX				ND	0.00111			0.0164	0.00120			ND	0.00120
Percent Moisture	*Extracted:*												
	Analyzed:	Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00		Oct-06-14 16:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		6.37	1.00	9.99	1.00	14.8	1.00	17.0	1.00	18.0	1.00	16.8	1.00
TPH By SW8015 Mod	*Extracted:*	Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00		Oct-03-14 15:00	
	Analyzed:	Oct-04-14 04:40		Oct-04-14 05:07		Oct-04-14 14:13		Oct-04-14 14:38		Oct-04-14 15:03		Oct-04-14 15:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.0	ND	16.6	4070	175	159	90.1	ND	18.3	ND	18.0
C12-C28 Diesel Range Hydrocarbons		ND	16.0	ND	16.6	17300	175	3350	90.1	119	18.3	547	18.0
C28-C35 Oil Range Hydrocarbons		ND	16.0	ND	16.6	2440	175	708	90.1	47.9	18.3	142	18.0
Total TPH		ND	16.0	ND	16.6	23800	175	4220	90.1	167	18.3	689	18.0

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: Formar Maljamar Station

Work Orders : 494567,

Project ID: SRS HD0-95-61

Lab Batch #: 952189 **Sample:** 494567-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/14 18:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.6	129	70-135	
o-Terphenyl	61.8	49.8	124	70-135	

Lab Batch #: 952189 **Sample:** 494567-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/14 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	112	99.7	112	70-135	
o-Terphenyl	58.8	49.9	118	70-135	

Lab Batch #: 952189 **Sample:** 494567-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/14 20:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.8	112	70-135	
o-Terphenyl	55.9	49.9	112	70-135	

Lab Batch #: 952189 **Sample:** 494567-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/14 20:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	99.7	123	70-135	
o-Terphenyl	63.0	49.9	126	70-135	

Lab Batch #: 952189 **Sample:** 494567-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/14 21:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	100	130	70-135	
o-Terphenyl	64.7	50.0	129	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: Formar Maljamar Station

Work Orders : 494567,

Project ID: SRS HD0-95-61

Lab Batch #: 952189 **Sample:** 494567-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/14 21:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	99.9	123	70-135	
o-Terphenyl	58.2	50.0	116	70-135	

Lab Batch #: 952189 **Sample:** 494567-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/14 22:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.9	114	70-135	
o-Terphenyl	45.5	50.0	91	70-135	

Lab Batch #: 952189 **Sample:** 494567-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/14 22:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.7	112	70-135	
o-Terphenyl	60.3	49.9	121	70-135	

Lab Batch #: 952189 **Sample:** 494567-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/14 23:08

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	64.2	49.9	129	70-135	

Lab Batch #: 952189 **Sample:** 494567-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/14 23:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	99.8	123	70-135	
o-Terphenyl	63.4	49.9	127	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Formar Maljamar Station

Work Orders : 494567,

Project ID: SRS HD0-95-61

Lab Batch #: 952189 **Sample:** 494567-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 00:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	99.8	129	70-135	
o-Terphenyl	64.6	49.9	129	70-135	

Lab Batch #: 952189 **Sample:** 494567-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 01:27

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	64.5	50.0	129	70-135	

Lab Batch #: 952189 **Sample:** 494567-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 01:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.6	118	70-135	
o-Terphenyl	39.2	49.8	79	70-135	

Lab Batch #: 952189 **Sample:** 494567-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 02:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	99.6	126	70-135	
o-Terphenyl	62.0	49.8	124	70-135	

Lab Batch #: 952189 **Sample:** 494567-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 02:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	99.8	126	70-135	
o-Terphenyl	64.1	49.9	128	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: Formar Maljamar Station

Work Orders : 494567,

Project ID: SRS HD0-95-61

Lab Batch #: 952189 **Sample:** 494567-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 03:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	99.8	120	70-135	
o-Terphenyl	63.0	49.9	126	70-135	

Lab Batch #: 952189 **Sample:** 494567-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 04:12

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	99.7	125	70-135	
o-Terphenyl	63.7	49.9	128	70-135	

Lab Batch #: 952189 **Sample:** 494567-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 04:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.9	114	70-135	
o-Terphenyl	59.7	50.0	119	70-135	

Lab Batch #: 952189 **Sample:** 494567-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 05:07

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	57.3	50.0	115	70-135	

Lab Batch #: 952196 **Sample:** 494567-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 14:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	99.7	129	70-135	
o-Terphenyl	64.7	49.9	130	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Formar Maljamar Station

Work Orders : 494567,

Project ID: SRS HD0-95-61

Lab Batch #: 952196 **Sample:** 494567-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 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	129	99.7	129	70-135	
o-Terphenyl	59.7	49.9	120	70-135	

Lab Batch #: 952196 **Sample:** 494567-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 15:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	63.8	50.0	128	70-135	

Lab Batch #: 952196 **Sample:** 494567-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 15:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.9	118	70-135	
o-Terphenyl	63.8	50.0	128	70-135	

Lab Batch #: 952189 **Sample:** 494567-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/06/14 10:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.9	109	70-135	
o-Terphenyl	56.8	50.0	114	70-135	

Lab Batch #: 952300 **Sample:** 494567-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/07/14 21:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0320	0.0300	107	80-120	
4-Bromofluorobenzene	0.0309	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: Formar Maljamar Station

Work Orders : 494567,

Project ID: SRS HD0-95-61

Lab Batch #: 952300 **Sample:** 494567-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/07/14 21:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0319	0.0300	106	80-120	

Lab Batch #: 952300 **Sample:** 494567-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/07/14 21:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

Lab Batch #: 952300 **Sample:** 494567-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/07/14 21:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0317	0.0300	106	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	80-120	

Lab Batch #: 952300 **Sample:** 494567-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/07/14 22:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 952300 **Sample:** 494567-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/07/14 22:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Formar Maljamar Station

Work Orders : 494567,

Project ID: SRS HD0-95-61

Lab Batch #: 952300 **Sample:** 494567-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/07/14 22:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 952189 **Sample:** 662476-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/03/14 17:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	60.3	50.0	121	70-135	

Lab Batch #: 952196 **Sample:** 662478-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/04/14 06:31

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	61.8	50.0	124	70-135	

Lab Batch #: 952300 **Sample:** 662535-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/07/14 10:47

SURROGATE RECOVERY STUDY

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

Lab Batch #: 952189 **Sample:** 662476-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/03/14 18:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	63.5	50.0	127	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Formar Maljamar Station

Work Orders : 494567,

Project ID: SRS HD0-95-61

Lab Batch #: 952196 **Sample:** 662478-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/04/14 06:59

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	59.9	50.0	120	70-135	

Lab Batch #: 952300 **Sample:** 662535-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/07/14 11:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 952189 **Sample:** 662476-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/03/14 18:26

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	63.9	50.0	128	70-135	

Lab Batch #: 952196 **Sample:** 662478-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/04/14 07:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	64.2	50.0	128	70-135	

Lab Batch #: 952300 **Sample:** 662535-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/07/14 11:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Formar Maljamar Station

Work Orders : 494567,

Project ID: SRS HD0-95-61

Lab Batch #: 952189 **Sample:** 494567-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/14 20:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	99.6	121	70-135	
o-Terphenyl	57.4	49.8	115	70-135	

Lab Batch #: 952196 **Sample:** 494551-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 08:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	99.7	116	70-135	
o-Terphenyl	60.0	49.9	120	70-135	

Lab Batch #: 952300 **Sample:** 494551-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/07/14 11:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0351	0.0300	117	80-120	
4-Bromofluorobenzene	0.0346	0.0300	115	80-120	

Lab Batch #: 952196 **Sample:** 494551-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/14 08:46

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	99.7	127	70-135	
o-Terphenyl	64.3	49.9	129	70-135	

Lab Batch #: 952300 **Sample:** 494551-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/07/14 11:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0335	0.0300	112	80-120	
4-Bromofluorobenzene	0.0335	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.

BS / BSD Recoveries

Project Name: Formar Maljamar Station

Work Order #: 494567 **Project ID:** SRS HD0-95-61

Analyst: ARM **Date Prepared:** 10/07/2014 **Date Analyzed:** 10/07/2014

Lab Batch ID: 952300 **Sample:** 662535-1-BKS **Batch #:** 1 **Matrix:** Solid

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	<0.00100	0.100	0.0912	91	0.100	0.0897	90	2	70-130	35	
Toluene	<0.00200	0.100	0.0963	96	0.100	0.0947	95	2	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0999	100	0.100	0.0978	98	2	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.205	103	0.200	0.200	100	2	70-135	35	
o-Xylene	<0.00100	0.100	0.0956	96	0.100	0.0933	93	2	71-133	35	

Analyst: ARM **Date Prepared:** 10/03/2014 **Date Analyzed:** 10/03/2014

Lab Batch ID: 952189 **Sample:** 662476-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	967	97	1000	978	98	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1130	113	1000	1180	118	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

Version: 1.%

BS / BSD Recoveries

Project Name: Formar Maljamar Station

Work Order #: 494567 **Project ID:** SRS HD0-95-61

Analyst: ARM **Date Prepared:** 10/03/2014 **Date Analyzed:** 10/04/2014

Lab Batch ID: 952196 **Sample:** 662478-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	921	92	1000	998	100	8	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1200	120	1000	1160	116	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

Version: 1.%

Form 3 - MS Recoveries

Project Name: Formar Maljamar Station

Work Order #: 494567

Lab Batch #: 952189 **Project ID:** SRS HD0-95-61

Date Analyzed: 10/03/2014 **Date Prepared:** 10/03/2014 **Analyst:** ARM

QC- Sample ID: 494567-002 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

TPH by SW8015 Mod Analytes	MATRIX / MATRIX SPIKE RECOVERY STUDY					
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
C6-C12 Gasoline Range Hydrocarbons	<16.9	1130	1050	93	70-135	
C12-C28 Diesel Range Hydrocarbons	48.3	1130	1340	114	70-135	

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

BRL - Below Reporting Limit

Version: 1.%

Form 3 - MS / MSD Recoveries

Project Name: Formar Maljamar Station

Work Order # : 494567 **Project ID:** SRS HD0-95-61

Lab Batch ID: 952300 **QC- Sample ID:** 494551-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/07/2014 **Date Prepared:** 10/07/2014 **Analyst:** ARM

Reporting Units: mg/kg

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	<0.00107	0.107	0.0932	87	0.108	0.0840	78	10	70-130	35	
Toluene	<0.00215	0.107	0.0902	84	0.108	0.0840	78	7	70-130	35	
Ethylbenzene	<0.00107	0.107	0.0830	78	0.108	0.0794	74	4	71-129	35	
m_p-Xylenes	<0.00215	0.215	0.169	79	0.215	0.162	75	4	70-135	35	
o-Xylene	<0.00107	0.107	0.0804	75	0.108	0.0770	71	4	71-133	35	

Lab Batch ID: 952196 **QC- Sample ID:** 494551-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/04/2014 **Date Prepared:** 10/03/2014 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<16.1	1070	1040	97	1070	1260	118	19	70-135	35	
C12-C28 Diesel Range Hydrocarbons	622	1070	1820	112	1070	1910	120	5	70-135	35	

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

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

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

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

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

Sample Duplicate Recovery

Project Name: Formar Maljamar Station

Work Order #: 494567

Lab Batch #: 952117 **Project ID:** SRS HD0-95-61
Date Analyzed: 10/03/2014 13:30 **Date Prepared:** 10/03/2014 **Analyst:** WRU
QC- Sample ID: 494529-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	15.9	12.2	26	20	F

Lab Batch #: 952117
Date Analyzed: 10/03/2014 13:30 **Date Prepared:** 10/03/2014 **Analyst:** WRU
QC- Sample ID: 494543-004 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.14	18.7	142	20	F

Lab Batch #: 952276
Date Analyzed: 10/06/2014 16:00 **Date Prepared:** 10/06/2014 **Analyst:** WRU
QC- Sample ID: 494567-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	7.17	7.66	7	20	

Lab Batch #: 952276
Date Analyzed: 10/06/2014 16:00 **Date Prepared:** 10/06/2014 **Analyst:** WRU
QC- Sample ID: 494567-013 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	24.9	13.0	63	20	F

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

Version: 1.%

Sample Duplicate Recovery

Project Name: Formar Maljamar Station

Work Order #: 494567

Lab Batch #: 952278 **Project ID:** SRS HD0-95-61

Date Analyzed: 10/06/2014 16:00 **Date Prepared:** 10/06/2014 **Analyst:** WRU

QC- Sample ID: 494567-021 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	14.8	14.7	1	20	

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

BRL - Below Reporting Limit

Version: 1.%

XENCO Laboratories

CHAIN OF CUSTODY RECORD

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800

Page 1 of 3

LAB W.O #: 494567

Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington State: NM	Zip:	88260
PM/Attn:	Ben Arguijo	Email:	bjarguijo@basinenv.com
Project ID:	Former Maljamar Station SRS HD0-95-61	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

Sampler Name: Ben J. Arguijo

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

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

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

ANALYSES REQUESTED

Cont Type *: VC — GC, GC
Pres Type**: I, I
Example: Volatiles by 8260 — TPH, Chloride
Hold Sample (CALL___) Run PAH on Highest TPH___ Only if

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	TPH	Chloride	REMARKS
1	TT-1 @ 4'	9/30/2014	1005	S			1	X	X	Hold for BTEX
2	TT-1 @ 8'	9/30/2014	1010	S			1	X	X	
3	TT-2 @ 2'	9/30/2014	1030	S			1	X	X	
4	TT-2 @ 4'	9/30/2014	1035	S			1	X	X	
5	TT-2 @ 6'	9/30/2014	1040	S			1	X	X	
6	TT-3 @ 4'	9/30/2014	1100	S			1	X	X	
7	TT-3 @ 8'	9/30/2014	1110	S			1	X	X	Rush TPH 1/1B
8	TT-4 @ 2'	9/30/2014	1130	S			1	X	X	
9	TT-4 @ 6'	9/30/2014	1140	S			1	X	X	
0	TT-5 @ 4'	9/30/2014	1230	S			1	X	X	

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

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

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

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

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

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

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

EDDs: ADaPT SEDD ERPIMS XLS Other:

COC & Labels: Match Incomplete Absent Unclear

Coolers Temp °C: 1 ___ 2 ___ 3 0.7

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[signature]	Basin Env.	10/2/14	0955	Perla Rosendo	SMS	10-2-14	9:55
2								
3								
4					Bill Ahman	Xenco	10-3-14	12:30

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

C.O.C. Serial #

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

CHAIN OF CUSTODY RECORD

XENCO Laboratories
Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800
;roool-c

Page 2 of 3

LAB W.O #: 494567

Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington	State: NM	Zip: 88260
PM/Attn:	Ben Arguijo	Email:	bjarguijo@basinenv.com
Project ID:	Former Maljamar Station SRS HD0-95-61	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

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

Sampler Name: Ben J. Arguijo

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Example Volatiles by 8260	TPH	Chloride									Hold Sample (CALL ___) Run PAH on Highest TPH ___ Only if
								Pres Type**		I	I									
								# Cont	Lab Only:											
1	TT-5 @ 8'	9/30/2014	1240	S			1			X	X									
2	TT-5 @ 14'	9/30/2014	1255	S			1			X	X									
3	TT-6 @ 4'	9/30/2014	1315	S			1			X	X									
4	TT-6 @ 7'	9/30/2014	1325	S			1			X	X									
5	TT-7 @ 2'	9/30/2014	1350	S			1			X	X									
6	TT-7 @ 6'	9/30/2014	1400	S			1			X	X									
7	TT-8 @ 4'	9/30/2014	1430	S			1			X	X									
8	TT-8 @ 9.5'	9/30/2014	1445	S			1			X	X									
9	TT-9 @ 2'	9/30/2014	1505	S			1			X	X									
0	TT-9 @ 4'	9/30/2014	1510	S			1			X	X									

* Container Type Codes

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

Other _____

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

** Preservative Type Codes

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

^ Matrix Type Codes

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

REMARKS

Hold for BTEX
Rush TPH 7/15

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1 2 3 0.7

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		Basin Env.	10/2/14	0955		MS	10-2-14	9:55
2								
3								
4						Xenco	10-3-14	12:30

Lab Use Only

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

C.O.C. Serial #

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

Revision Date: Nov 12, 2009

CHAIN OF CUSTODY RECORD

XENCO Laboratories — Environmental Advertus BioBiochemistry

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800

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LAB W.O#: 494567

Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington	State: NM	Zip: 88260
PM/Attn:	Ben Arguijo	Email:	bjarguijo@basinenv.com
Project ID:	Former Maljamar Station SRS HD0-95-61	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

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

Sampler Name: Ben J. Arguijo

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	# Cont	Example Volatiles by 8260	TPH	Chloride								Hold Sample (CALL ___) Run PAH on Highest TPH ___ Only if
								Cont Type * VC	GC	GC									
								Pres Type**	I	I									
								Lab Only:											
1	TT-10 @ 4'	9/30/2014	1525	S			1		X	X									
2	TT-10 @ 8'	9/30/2014	1540	S			1		X	X									
3	TT-11 @ 2'	9/30/2014	1605	S			1		X	X									
4	TT-11 @ 4'	9/30/2014	1610	S			1		X	X									
5																			
6																			
7																			
8																			
9																			
0																			

* Container Type Codes

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

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

** Preservative Type Codes

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

^ Matrix Type Codes

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

REMARKS

Hold for BTEX

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1 2 3 0.7

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		Basin Env.	10/2/14	0955	Portia Rosen	MS	10-2-14	9:55
2								
3								
4					Bill Rubman	Xenco	10-3-14	12:30

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

C.O.C. Serial #

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330

FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

Revision Date: Nov 12, 2009

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 10/03/2014 12:30:00 PM

Work Order #: 494567

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

Temperature Measuring device used :

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

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

Analyst:

PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 10/03/2014

Checklist reviewed by: Kelsey Brooks Date: 10/03/2014

Analytical Report 495800

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

Former Maljimar Station

SRS HD0-95-61

28-OCT-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

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

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

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

28-OCT-14

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

Reference: XENCO Report No(s): **495800**
Former Maljimar Station
Project Address:

Ben Arguijo:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 495800. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 495800 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 495800

PLAINS ALL AMERICAN EH&S, Midland, TX

Former Maljimar Station

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1 @5'	S	10-16-14 11:05	- 5 ft	495800-001
SB-1 @10'	S	10-16-14 11:10	- 10 ft	495800-002
SB-1 @20'	S	10-16-14 11:20	- 20 ft	495800-003
SB-1 @30'	S	10-16-14 11:30	- 30 ft	495800-004
SB-1 @50'	S	10-16-14 11:50	- 50 ft	495800-005
SB-1 @70'	S	10-16-14 12:50	- 70 ft	495800-006
SB-1 @80'	S	10-16-14 13:00	- 80 ft	495800-007
SB-2 @5'	S	10-16-14 13:50	- 5 ft	495800-008
SB-2 @10'	S	10-16-14 13:55	- 10 ft	495800-009
SB-2 @25'	S	10-16-14 14:10	- 25 ft	495800-010
SB-2 @45'	S	10-16-14 14:30	- 45 ft	495800-011
SB-2 @65'	S	10-16-14 14:50	- 65 ft	495800-012
SB-2 @80'	S	10-16-14 15:05	- 80 ft	495800-013
SB-2 @100'	S	10-16-14 15:25	- 100 ft	495800-014
SB-3@5'	S	10-17-14 09:20	- 5 ft	495800-015
SB-3@10'	S	10-17-14 09:25	- 10 ft	495800-016
SB-3@20'	S	10-17-14 09:35	- 20 ft	495800-017
SB-3@30'	S	10-17-14 09:45	- 30 ft	495800-018
SB-3@50'	S	10-17-14 10:05	- 50 ft	495800-019
SB-3@70'	S	10-17-14 10:25	- 70 ft	495800-020
SB-3@85'	S	10-17-14 10:40	- 85 ft	495800-021
SB-3@100'	S	10-17-14 10:55	- 100 ft	495800-022
SB-4@ 5'	S	10-17-14 11:35	- 5 ft	495800-023
SB-4@ 10'	S	10-17-14 11:40	- 10 ft	495800-024
SB-4@ 20'	S	10-17-14 11:50	- 20 ft	495800-025
SB-4@ 30'	S	10-17-14 12:00	- 30 ft	495800-026
SB-4@ 50'	S	10-17-14 12:20	- 50 ft	495800-027
SB-4@ 70'	S	10-17-14 12:40	- 70 ft	495800-028
SB-4@ 90'	S	10-17-14 13:00	- 90 ft	495800-029
SB-4 @ 105'	S	10-17-14 13:15	- 105 ft	495800-030
SB-4 @ 120'	S	10-17-14 13:30	- 120 ft	495800-031
SB-4 @ 140'	S	10-17-14 13:50	- 140 ft	495800-032

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 495800

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Former Maljimar Station

Project Id: SRS HD0-95-61
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Thu Oct-23-14 02:08 pm
Report Date: 28-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	495800-001		495800-002		495800-003		495800-004		495800-005		495800-006	
	Field Id:	SB-1 @5'		SB-1 @10'		SB-1 @20'		SB-1 @30'		SB-1 @50'		SB-1 @70'	
	Depth:	5 ft		10 ft		20 ft		30 ft		50 ft		70 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-16-14 11:05		Oct-16-14 11:10		Oct-16-14 11:20		Oct-16-14 11:30		Oct-16-14 11:50		Oct-16-14 12:50	
BTEX by EPA 8021B	*Extracted:*			Oct-24-14 16:00		Oct-24-14 16:00		Oct-24-14 16:00		Oct-24-14 16:00			
	Analyzed:			Oct-25-14 01:11		Oct-24-14 21:07		Oct-24-14 23:34		Oct-24-14 21:24			
	Units/RL:			mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene				0.00184	0.00111	ND	0.00113	ND	0.00113	ND	0.00113		
Toluene				0.0173	0.00222	ND	0.00226	ND	0.00225	ND	0.00225		
Ethylbenzene				0.114	0.00111	ND	0.00113	ND	0.00113	ND	0.00113		
m,p-Xylenes				0.139	0.00222	ND	0.00226	ND	0.00225	ND	0.00225		
o-Xylene				0.0734	0.00111	ND	0.00113	ND	0.00113	ND	0.00113		
Total Xylenes				0.212	0.00111	ND	0.00113	ND	0.00113	ND	0.00113		
Total BTEX				0.346	0.00111	ND	0.00113	ND	0.00113	ND	0.00113		
Inorganic Anions by EPA 300/300.1	*Extracted:*			Oct-27-14 12:00						Oct-27-14 12:00			
	Analyzed:			Oct-27-14 19:22						Oct-27-14 19:44			
	Units/RL:			mg/kg	RL					mg/kg	RL		
Chloride				75.7	11.2					222	11.3		
Percent Moisture	*Extracted:*												
	Analyzed:	Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		11.7	1.00	10.5	1.00	11.7	1.00	12.0	1.00	11.7	1.00	10.7	1.00
TPH By SW8015 Mod	*Extracted:*	Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00	
	Analyzed:	Oct-25-14 03:54		Oct-25-14 04:26		Oct-25-14 04:58		Oct-25-14 06:37		Oct-25-14 07:09		Oct-25-14 07:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		632	84.6	557	16.7	20.1	17.0	ND	17.0	18.7	17.0	ND	16.7
C12-C28 Diesel Range Hydrocarbons		3460	84.6	2550	16.7	65.0	17.0	142	17.0	ND	17.0	ND	16.7
C28-C35 Oil Range Hydrocarbons		675	84.6	355	16.7	ND	17.0	32.6	17.0	ND	17.0	ND	16.7
Total TPH		4770	84.6	3460	16.7	85.1	17.0	175	17.0	18.7	17.0	ND	16.7

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 495800

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Former Maljimar Station

Project Id: SRS HD0-95-61
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Thu Oct-23-14 02:08 pm
Report Date: 28-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	495800-007		495800-008		495800-009		495800-010		495800-011		495800-012	
	Field Id:	SB-1 @80'		SB-2 @5'		SB-2 @10'		SB-2 @25'		SB-2 @45'		SB-2 @65'	
	Depth:	80 ft		5 ft		10 ft		25 ft		45 ft		65 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-16-14 13:00		Oct-16-14 13:50		Oct-16-14 13:55		Oct-16-14 14:10		Oct-16-14 14:30		Oct-16-14 14:50	
BTEX by EPA 8021B	*Extracted:*	Oct-24-14 16:00				Oct-24-14 16:00				Oct-24-14 16:00			
	Analyzed:	Oct-24-14 21:40				Oct-25-14 01:27				Oct-25-14 00:22			
	Units/RL:	mg/kg	RL			mg/kg	RL			mg/kg	RL		
Benzene		ND	0.00133			0.00615	0.00121			ND	0.00107		
Toluene		ND	0.00266			0.00408	0.00243			ND	0.00214		
Ethylbenzene		ND	0.00133			0.208	0.00121			ND	0.00107		
m,p-Xylenes		ND	0.00266			0.0425	0.00243			ND	0.00214		
o-Xylene		ND	0.00133			0.00674	0.00121			ND	0.00107		
Total Xylenes		ND	0.00133			0.0492	0.00121			ND	0.00107		
Total BTEX		ND	0.00133			0.267	0.00121			ND	0.00107		
Inorganic Anions by EPA 300/300.1	*Extracted:*	Oct-27-14 12:00				Oct-27-14 12:00				Oct-27-14 12:00			
	Analyzed:	Oct-27-14 20:07				Oct-27-14 20:29				Oct-27-14 20:52			
	Units/RL:	mg/kg	RL			mg/kg	RL			mg/kg	RL		
Chloride		81.0	2.67			15.9	2.44			6.72	2.15		
Percent Moisture	*Extracted:*												
	Analyzed:	Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		25.0	1.00	10.3	1.00	18.0	1.00	21.1	1.00	7.08	1.00	17.9	1.00
TPH By SW8015 Mod	*Extracted:*	Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00	
	Analyzed:	Oct-25-14 08:14		Oct-25-14 08:50		Oct-25-14 09:32		Oct-27-14 10:14		Oct-25-14 16:11		Oct-25-14 16:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		21.4	19.9	243	83.4	320	18.3	ND	19.0	38.1	16.1	ND	18.2
C12-C28 Diesel Range Hydrocarbons		35.5	19.9	3900	83.4	1480	18.3	ND	19.0	333	16.1	ND	18.2
C28-C35 Oil Range Hydrocarbons		ND	19.9	449	83.4	101	18.3	ND	19.0	35.3	16.1	ND	18.2
Total TPH		56.9	19.9	4590	83.4	1900	18.3	ND	19.0	406	16.1	ND	18.2

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 495800

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Former Maljimar Station

Project Id: SRS HD0-95-61
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Thu Oct-23-14 02:08 pm
Report Date: 28-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	495800-013		495800-014		495800-015		495800-016		495800-017		495800-018	
	Field Id:	SB-2 @80'		SB-2 @100'		SB-3@5'		SB-3@10'		SB-3@20'		SB-3@30'	
	Depth:	80 ft		100 ft		5 ft		10 ft		20 ft		30 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-16-14 15:05		Oct-16-14 15:25		Oct-17-14 09:20		Oct-17-14 09:25		Oct-17-14 09:35		Oct-17-14 09:45	
BTEX by EPA 8021B	*Extracted:*	Oct-24-14 16:00		Oct-24-14 16:00		Oct-24-14 16:00				Oct-24-14 16:00			
	Analyzed:	Oct-24-14 21:56		Oct-24-14 22:12		Oct-25-14 01:58				Oct-25-14 00:39			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			mg/kg	RL		
Benzene		ND	0.00103	ND	0.00106	0.00168	0.00111			ND	0.00119		
Toluene		ND	0.00206	ND	0.00213	0.00434	0.00222			ND	0.00238		
Ethylbenzene		ND	0.00103	ND	0.00106	0.0292	0.00111			0.0115	0.00119		
m,p-Xylenes		ND	0.00206	ND	0.00213	0.0307	0.00222			0.0115	0.00238		
o-Xylene		ND	0.00103	ND	0.00106	0.0301	0.00111			0.00672	0.00119		
Total Xylenes		ND	0.00103	ND	0.00106	0.0608	0.00111			0.0182	0.00119		
Total BTEX		ND	0.00103	ND	0.00106	0.0960	0.00111			0.0297	0.00119		
Inorganic Anions by EPA 300/300.1	*Extracted:*			Oct-27-14 12:00		Oct-27-14 12:00							
	Analyzed:			Oct-27-14 21:37		Oct-27-14 22:00							
	Units/RL:			mg/kg	RL	mg/kg	RL						
Chloride				32.0	2.13	22.9	11.2						
Percent Moisture	*Extracted:*												
	Analyzed:	Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		3.25	1.00	5.91	1.00	10.8	1.00	10.2	1.00	16.3	1.00	12.1	1.00
TPH By SW8015 Mod	*Extracted:*	Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00	
	Analyzed:	Oct-25-14 17:00		Oct-27-14 10:38		Oct-25-14 17:47		Oct-25-14 18:10		Oct-25-14 18:33		Oct-25-14 18:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.5	ND	15.9	927	83.7	89.5	16.7	135	17.9	18.4	17.1
C12-C28 Diesel Range Hydrocarbons		99.0	15.5	ND	15.9	7770	83.7	462	16.7	832	17.9	442	17.1
C28-C35 Oil Range Hydrocarbons		ND	15.5	ND	15.9	636	83.7	51.7	16.7	60.1	17.9	46.5	17.1
Total TPH		99.0	15.5	ND	15.9	9330	83.7	603	16.7	1030	17.9	507	17.1

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 495800

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Former Maljimar Station

Project Id: SRS HD0-95-61
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Thu Oct-23-14 02:08 pm
Report Date: 28-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	495800-019		495800-020		495800-021		495800-022		495800-023		495800-024	
	Field Id:	SB-3@50'		SB-3@70'		SB-3@85'		SB-3@100'		SB-4@ 5'		SB-4@ 10'	
	Depth:	50 ft		70 ft		85 ft		100 ft		5 ft		10 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-17-14 10:05		Oct-17-14 10:25		Oct-17-14 10:40		Oct-17-14 10:55		Oct-17-14 11:35		Oct-17-14 11:40	
BTEX by EPA 8021B	*Extracted:*	Oct-24-14 16:00				Oct-24-14 16:00		Oct-24-14 16:00				Oct-27-14 14:00	
	Analyzed:	Oct-24-14 22:29				Oct-24-14 22:45		Oct-24-14 23:01				Oct-28-14 08:53	
	Units/RL:	mg/kg	RL			mg/kg	RL	mg/kg	RL			mg/kg	RL
Benzene		ND	0.00115			ND	0.00109	ND	0.00113			0.237	0.116
Toluene		ND	0.00230			ND	0.00218	ND	0.00225			ND	0.232
Ethylbenzene		ND	0.00115			ND	0.00109	ND	0.00113			10.4	0.116
m,p-Xylenes		ND	0.00230			ND	0.00218	ND	0.00225			21.3	0.232
o-Xylene		ND	0.00115			ND	0.00109	ND	0.00113			4.37	0.116
Total Xylenes		ND	0.00115			ND	0.00109	ND	0.00113			25.7	0.116
Total BTEX		ND	0.00115			ND	0.00109	ND	0.00113			36.3	0.116
Inorganic Anions by EPA 300/300.1	*Extracted:*	Oct-27-14 12:00						Oct-27-14 12:00				Oct-27-14 12:00	
	Analyzed:	Oct-27-14 22:23						Oct-27-14 22:45				Oct-27-14 23:53	
	Units/RL:	mg/kg	RL					mg/kg	RL			mg/kg	RL
Chloride		4.54	2.30					6.79	2.25			26.5	11.6
Percent Moisture	*Extracted:*												
	Analyzed:	Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		13.2	1.00	7.53	1.00	8.31	1.00	11.3	1.00	12.8	1.00	14.0	1.00
TPH By SW8015 Mod	*Extracted:*	Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00	
	Analyzed:	Oct-25-14 19:20		Oct-25-14 19:44		Oct-25-14 22:05		Oct-25-14 23:15		Oct-25-14 23:40		Oct-26-14 00:04	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	17.2	ND	16.2	ND	16.3	ND	16.9	2210	343	2630	174
C12-C28 Diesel Range Hydrocarbons		41.8	17.2	36.9	16.2	34.9	16.3	ND	16.9	20100	343	11200	174
C28-C35 Oil Range Hydrocarbons		ND	17.2	ND	16.2	ND	16.3	ND	16.9	1440	343	1450	174
Total TPH		41.8	17.2	36.9	16.2	34.9	16.3	ND	16.9	23800	343	15300	174

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 495800

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Former Maljimar Station

Project Id: SRS HD0-95-61
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Thu Oct-23-14 02:08 pm
Report Date: 28-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	495800-025		495800-026		495800-027		495800-028		495800-029		495800-030	
	Field Id:	SB-4@ 20'		SB-4@ 30'		SB-4@ 50'		SB-4@ 70'		SB-4@ 90'		SB-4 @ 105'	
	Depth:	20 ft		30 ft		50 ft		70 ft		90 ft		105 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-17-14 11:50		Oct-17-14 12:00		Oct-17-14 12:20		Oct-17-14 12:40		Oct-17-14 13:00		Oct-17-14 13:15	
BTEX by EPA 8021B	*Extracted:*			Oct-24-14 16:00				Oct-27-14 14:00					
	Analyzed:			Oct-25-14 01:43				Oct-28-14 03:31					
	Units/RL:			mg/kg	RL			mg/kg	RL				
Benzene				ND	0.00114			ND	0.00139				
Toluene				ND	0.00229			ND	0.00278				
Ethylbenzene				0.0182	0.00114			ND	0.00139				
m,p-Xylenes				0.0312	0.00229			ND	0.00278				
o-Xylene				0.00602	0.00114			ND	0.00139				
Total Xylenes				0.0372	0.00114			ND	0.00139				
Total BTEX				0.0554	0.00114			ND	0.00139				
Inorganic Anions by EPA 300/300.1	*Extracted:*							Oct-27-14 12:00					
	Analyzed:							Oct-28-14 00:16					
	Units/RL:							mg/kg	RL				
Chloride								10.2	2.80				
Percent Moisture	*Extracted:*												
	Analyzed:	Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40		Oct-27-14 16:40	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		8.60	1.00	13.1	1.00	29.0	1.00	28.5	1.00	7.30	1.00	7.88	1.00
TPH By SW8015 Mod	*Extracted:*	Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00		Oct-24-14 17:00	
	Analyzed:	Oct-26-14 00:27		Oct-26-14 00:50		Oct-26-14 01:14		Oct-26-14 01:39		Oct-26-14 02:02		Oct-26-14 02:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		503	81.7	318	17.2	ND	21.1	64.8	20.9	ND	16.1	ND	16.2
C12-C28 Diesel Range Hydrocarbons		3560	81.7	2340	17.2	49.1	21.1	191	20.9	41.0	16.1	29.2	16.2
C28-C35 Oil Range Hydrocarbons		709	81.7	82.4	17.2	ND	21.1	62.1	20.9	ND	16.1	ND	16.2
Total TPH		4770	81.7	2740	17.2	49.1	21.1	318	20.9	41.0	16.1	29.2	16.2

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 495800

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Former Maljimar Station

Project Id: SRS HD0-95-61
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Thu Oct-23-14 02:08 pm
Report Date: 28-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	495800-031	495800-032				
	Field Id:	SB-4 @ 120'	SB-4 @ 140'				
	Depth:	120 ft	140 ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Oct-17-14 13:30	Oct-17-14 13:50				
BTEX by EPA 8021B	***Extracted:***		Oct-24-14 16:00				
	Analyzed:		Oct-24-14 23:17				
	Units/RL:		mg/kg RL				
Benzene			ND 0.00102				
Toluene			ND 0.00204				
Ethylbenzene			ND 0.00102				
m,p-Xylenes			ND 0.00204				
o-Xylene			ND 0.00102				
Total Xylenes			ND 0.00102				
Total BTEX			ND 0.00102				
Inorganic Anions by EPA 300/300.1	***Extracted:***		Oct-27-14 12:00				
	Analyzed:		Oct-28-14 00:39				
	Units/RL:		mg/kg RL				
Chloride			14.2 2.05				
Percent Moisture	***Extracted:***						
	Analyzed:	Oct-27-14 16:40	Oct-27-14 16:40				
	Units/RL:	% RL	% RL				
Percent Moisture		4.59 1.00	2.63 1.00				
TPH By SW8015 Mod	***Extracted:***	Oct-24-14 17:00	Oct-24-14 17:00				
	Analyzed:	Oct-26-14 03:40	Oct-26-14 04:04				
	Units/RL:	mg/kg RL	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.7	21.6 15.4				
C12-C28 Diesel Range Hydrocarbons		154 15.7	103 15.4				
C28-C35 Oil Range Hydrocarbons		24.3 15.7	24.0 15.4				
Total TPH		178 15.7	149 15.4				

Kelsey Brooks
Project Manager

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953877 **Sample:** 495800-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 21:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 953877 **Sample:** 495800-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 21:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0330	0.0300	110	80-120	
4-Bromofluorobenzene	0.0319	0.0300	106	80-120	

Lab Batch #: 953877 **Sample:** 495800-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 21:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

Lab Batch #: 953877 **Sample:** 495800-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 21:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0330	0.0300	110	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 953877 **Sample:** 495800-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 22:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953877 **Sample:** 495800-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 22:29

SURROGATE RECOVERY STUDY

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

Lab Batch #: 953877 **Sample:** 495800-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 22:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0310	0.0300	103	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 953877 **Sample:** 495800-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 23:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 953877 **Sample:** 495800-032 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 23:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 953877 **Sample:** 495800-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 23:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953877 **Sample:** 495800-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 00:22

SURROGATE RECOVERY STUDY

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

Lab Batch #: 953877 **Sample:** 495800-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 00:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 953877 **Sample:** 495800-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 01:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

Lab Batch #: 953877 **Sample:** 495800-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 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	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 953877 **Sample:** 495800-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 01:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953877 **Sample:** 495800-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 01:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 953900 **Sample:** 495800-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 03:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	99.7	115	70-135	
o-Terphenyl	39.1	49.9	78	70-135	

Lab Batch #: 953900 **Sample:** 495800-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 04:26

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.9	128	70-135	
o-Terphenyl	63.8	50.0	128	70-135	

Lab Batch #: 953900 **Sample:** 495800-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 04:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.9	103	70-135	
o-Terphenyl	52.8	50.0	106	70-135	

Lab Batch #: 953900 **Sample:** 495800-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 06:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.8	100	97	70-135	
o-Terphenyl	49.6	50.0	99	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953900 **Sample:** 495800-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 07:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.9	105	70-135	
o-Terphenyl	53.3	50.0	107	70-135	

Lab Batch #: 953900 **Sample:** 495800-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 07:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.0	99.6	99	70-135	
o-Terphenyl	49.6	49.8	100	70-135	

Lab Batch #: 953900 **Sample:** 495800-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 08:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.4	99.6	100	70-135	
o-Terphenyl	51.3	49.8	103	70-135	

Lab Batch #: 953900 **Sample:** 495800-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 08:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.8	128	70-135	
o-Terphenyl	63.8	49.9	128	70-135	

Lab Batch #: 953900 **Sample:** 495800-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 09:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.2	99.8	97	70-135	
o-Terphenyl	49.3	49.9	99	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953900 **Sample:** 495800-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 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	129	99.7	129	70-135	
o-Terphenyl	64.6	49.9	129	70-135	

Lab Batch #: 953900 **Sample:** 495800-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 16:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	99.7	124	70-135	
o-Terphenyl	62.9	49.9	126	70-135	

Lab Batch #: 953900 **Sample:** 495800-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 17:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.7	128	70-135	
o-Terphenyl	64.0	49.9	128	70-135	

Lab Batch #: 953900 **Sample:** 495800-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 17:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.6	111	70-135	
o-Terphenyl	54.1	49.8	109	70-135	

Lab Batch #: 953900 **Sample:** 495800-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 18:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	99.8	115	70-135	
o-Terphenyl	58.0	49.9	116	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953900 **Sample:** 495800-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 18:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.9	109	70-135	
o-Terphenyl	55.5	50.0	111	70-135	

Lab Batch #: 953900 **Sample:** 495800-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 18:57

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	63.4	50.0	127	70-135	

Lab Batch #: 953900 **Sample:** 495800-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 19:20

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	52.9	49.9	106	70-135	

Lab Batch #: 953900 **Sample:** 495800-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 19:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.7	117	70-135	
o-Terphenyl	56.9	49.9	114	70-135	

Lab Batch #: 953902 **Sample:** 495800-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 22:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.7	119	70-135	
o-Terphenyl	60.3	49.9	121	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: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953902 **Sample:** 495800-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 23:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	52.8	50.0	106	70-135	

Lab Batch #: 953902 **Sample:** 495800-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 23:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	99.8	125	70-135	
o-Terphenyl	62.1	49.9	124	70-135	

Lab Batch #: 953902 **Sample:** 495800-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/26/14 00:04

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	52.1	50.0	104	70-135	

Lab Batch #: 953902 **Sample:** 495800-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/26/14 00:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	99.6	116	70-135	
o-Terphenyl	39.9	49.8	80	70-135	

Lab Batch #: 953902 **Sample:** 495800-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/26/14 00:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.8	110	70-135	
o-Terphenyl	52.3	49.9	105	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: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953902 **Sample:** 495800-027 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/26/14 01:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.8	105	70-135	
o-Terphenyl	52.1	49.9	104	70-135	

Lab Batch #: 953902 **Sample:** 495800-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/26/14 01:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.8	103	70-135	
o-Terphenyl	53.6	49.9	107	70-135	

Lab Batch #: 953902 **Sample:** 495800-029 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/26/14 02:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.7	112	70-135	
o-Terphenyl	56.5	49.9	113	70-135	

Lab Batch #: 953902 **Sample:** 495800-030 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/26/14 02:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	99.7	127	70-135	
o-Terphenyl	64.2	49.9	129	70-135	

Lab Batch #: 953902 **Sample:** 495800-031 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/26/14 03:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.6	119	70-135	
o-Terphenyl	59.3	49.8	119	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: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953902 **Sample:** 495800-032 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/26/14 04:04

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	99.9	124	70-135	
o-Terphenyl	61.1	50.0	122	70-135	

Lab Batch #: 953900 **Sample:** 495800-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/27/14 10:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.9	111	70-135	
o-Terphenyl	51.2	50.0	102	70-135	

Lab Batch #: 953900 **Sample:** 495800-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/27/14 10:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.8	111	70-135	
o-Terphenyl	54.6	49.9	109	70-135	

Lab Batch #: 953973 **Sample:** 495800-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/28/14 03:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 953973 **Sample:** 495800-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/28/14 08:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953877 **Sample:** 663502-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/24/14 19:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 953900 **Sample:** 663514-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/25/14 02:16

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.5	100	100	70-135	
o-Terphenyl	52.5	50.0	105	70-135	

Lab Batch #: 953902 **Sample:** 663515-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/25/14 20:55

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	59.9	50.0	120	70-135	

Lab Batch #: 953973 **Sample:** 663562-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/28/14 00:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 953877 **Sample:** 663502-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/24/14 19:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953900 **Sample:** 663514-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/25/14 02:48

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	37.0	50.0	74	70-135	

Lab Batch #: 953902 **Sample:** 663515-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/25/14 21:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	39.2	50.0	78	70-135	

Lab Batch #: 953973 **Sample:** 663562-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/28/14 00:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0319	0.0300	106	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

Lab Batch #: 953877 **Sample:** 663502-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/24/14 20:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

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

Lab Batch #: 953900 **Sample:** 663514-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/25/14 03:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	36.4	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: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953902 **Sample:** 663515-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/25/14 21:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	100	128	70-135	
o-Terphenyl	38.4	50.0	77	70-135	

Lab Batch #: 953973 **Sample:** 663562-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/28/14 01:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0320	0.0300	107	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 953877 **Sample:** 495800-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 20:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0331	0.0300	110	80-120	
4-Bromofluorobenzene	0.0328	0.0300	109	80-120	

Lab Batch #: 953900 **Sample:** 495800-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 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	122	99.7	122	70-135	
o-Terphenyl	38.7	49.9	78	70-135	

Lab Batch #: 953902 **Sample:** 495800-021 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 22:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	99.6	121	70-135	
o-Terphenyl	39.8	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.

Form 2 - Surrogate Recoveries

Project Name: Former Maljimar Station

Work Orders : 495800,

Project ID: SRS HD0-95-61

Lab Batch #: 953973 **Sample:** 495929-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/28/14 01:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 953877 **Sample:** 495800-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 20:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0341	0.0300	114	80-120	

Lab Batch #: 953900 **Sample:** 495800-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/25/14 06:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.7	119	70-135	
o-Terphenyl	35.4	49.9	71	70-135	

Lab Batch #: 953973 **Sample:** 495929-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/28/14 01:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: Former Maljimar Station

Work Order #: 495800 **Project ID:** SRS HD0-95-61

Analyst: ARM **Date Prepared:** 10/24/2014 **Date Analyzed:** 10/24/2014

Lab Batch ID: 953877 **Sample:** 663502-1-BKS **Batch #:** 1 **Matrix:** Solid

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	<0.00100	0.100	0.0934	93	0.100	0.0903	90	3	70-130	35	
Toluene	<0.00200	0.100	0.100	100	0.100	0.0960	96	4	70-130	35	
Ethylbenzene	<0.00100	0.100	0.105	105	0.100	0.100	100	5	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.215	108	0.200	0.205	103	5	70-135	35	
o-Xylene	<0.00100	0.100	0.0995	100	0.100	0.0956	96	4	71-133	35	

Analyst: ARM **Date Prepared:** 10/27/2014 **Date Analyzed:** 10/28/2014

Lab Batch ID: 953973 **Sample:** 663562-1-BKS **Batch #:** 1 **Matrix:** Solid

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	<0.00100	0.100	0.0830	83	0.100	0.0858	86	3	70-130	35	
Toluene	<0.00200	0.100	0.0871	87	0.100	0.0902	90	3	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0887	89	0.100	0.0919	92	4	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.182	91	0.200	0.189	95	4	70-135	35	
o-Xylene	<0.00100	0.100	0.0883	88	0.100	0.0908	91	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: Former Maljimar Station

Work Order #: 495800 **Project ID:** SRS HD0-95-61

Analyst: JUM **Date Prepared:** 10/27/2014 **Date Analyzed:** 10/27/2014

Lab Batch ID: 953968 **Sample:** 663541-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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
Chloride	<2.00	50.0	46.1	92	50.0	47.1	94	2	80-120	20	

Analyst: ARM **Date Prepared:** 10/24/2014 **Date Analyzed:** 10/25/2014

Lab Batch ID: 953900 **Sample:** 663514-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	930	93	1000	942	94	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1200	120	1000	1170	117	3	70-135	35	

Analyst: ARM **Date Prepared:** 10/24/2014 **Date Analyzed:** 10/25/2014

Lab Batch ID: 953902 **Sample:** 663515-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1060	106	1000	959	96	10	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1250	125	1000	1270	127	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 Recoveries

Project Name: Former Maljimar Station

Work Order #: 495800

Lab Batch #: 953968 **Project ID:** SRS HD0-95-61

Date Analyzed: 10/27/2014 **Date Prepared:** 10/27/2014 **Analyst:** JUM

QC- Sample ID: 495800-011 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300 Analytes	MATRIX / MATRIX SPIKE RECOVERY STUDY					
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	6.72	53.8	58.6	96	80-120	

Lab Batch #: 953968

Date Analyzed: 10/27/2014 **Date Prepared:** 10/27/2014 **Analyst:** JUM

QC- Sample ID: 495894-001 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300 Analytes	MATRIX / MATRIX SPIKE RECOVERY STUDY					
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	682	4000	4470	95	80-120	

Lab Batch #: 953902

Date Analyzed: 10/25/2014 **Date Prepared:** 10/24/2014 **Analyst:** ARM

QC- Sample ID: 495800-021 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

TPH by SW8015 Mod Analytes	MATRIX / MATRIX SPIKE RECOVERY STUDY					
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
C6-C12 Gasoline Range Hydrocarbons	<16.3	1090	1110	102	70-135	
C12-C28 Diesel Range Hydrocarbons	34.9	1090	1370	122	70-135	

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

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: Former Maljimar Station

Work Order # : 495800 **Project ID:** SRS HD0-95-61

Lab Batch ID: 953877 **QC- Sample ID:** 495800-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/24/2014 **Date Prepared:** 10/24/2014 **Analyst:** ARM

Reporting Units: mg/kg

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	<0.00113	0.113	0.0917	81	0.113	0.0908	80	1	70-130	35	
Toluene	<0.00225	0.113	0.0980	87	0.113	0.0961	85	2	70-130	35	
Ethylbenzene	<0.00113	0.113	0.101	89	0.113	0.0977	86	3	71-129	35	
m,p-Xylenes	<0.00225	0.225	0.206	92	0.225	0.201	89	2	70-135	35	
o-Xylene	<0.00113	0.113	0.0971	86	0.113	0.0952	84	2	71-133	35	

Lab Batch ID: 953973 **QC- Sample ID:** 495929-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/28/2014 **Date Prepared:** 10/27/2014 **Analyst:** ARM

Reporting Units: mg/kg

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	<0.00101	0.101	0.0656	65	0.101	0.0595	59	10	70-130	35	X
Toluene	<0.00202	0.101	0.0660	65	0.101	0.0593	59	11	70-130	35	X
Ethylbenzene	<0.00101	0.101	0.0620	61	0.101	0.0540	53	14	71-129	35	X
m,p-Xylenes	<0.00202	0.202	0.124	61	0.202	0.109	54	13	70-135	35	X
o-Xylene	<0.00101	0.101	0.0587	58	0.101	0.0513	51	13	71-133	35	X

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

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

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

Form 3 - MS / MSD Recoveries

Project Name: Former Maljimar Station

Work Order # : 495800 **Project ID:** SRS HD0-95-61

Lab Batch ID: 953900 **QC- Sample ID:** 495800-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/25/2014 **Date Prepared:** 10/24/2014 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	20.1	1130	1130	98	1130	1020	88	10	70-135	35	
C12-C28 Diesel Range Hydrocarbons	65.0	1130	1480	125	1130	1310	110	12	70-135	35	

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

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

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

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

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

Sample Duplicate Recovery

Project Name: Former Maljimar Station

Work Order #: 495800

Lab Batch #: 953965 **Project ID:** SRS HD0-95-61
Date Analyzed: 10/27/2014 16:40 **Date Prepared:** 10/27/2014 **Analyst:** WRU
QC- Sample ID: 495912-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	19.2	19.1	1	20	

Lab Batch #: 953965
Date Analyzed: 10/27/2014 16:40 **Date Prepared:** 10/27/2014 **Analyst:** WRU
QC- Sample ID: 495931-002 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	13.0	12.7	2	20	

Lab Batch #: 953969
Date Analyzed: 10/27/2014 16:40 **Date Prepared:** 10/27/2014 **Analyst:** WRU
QC- Sample ID: 495800-008 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	10.3	11.1	7	20	

Lab Batch #: 953969
Date Analyzed: 10/27/2014 16:40 **Date Prepared:** 10/27/2014 **Analyst:** WRU
QC- Sample ID: 495800-018 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	12.1	13.0	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

Sample Duplicate Recovery

Project Name: Former Maljimar Station

Work Order #: 495800

Lab Batch #: 953972 **Project ID:** SRS HD0-95-61

Date Analyzed: 10/27/2014 16:40 **Date Prepared:** 10/27/2014 **Analyst:** WRU

QC- Sample ID: 495800-028 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	28.5	29.9	5	20	

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

BRL - Below Reporting Limit

CHAIN OF CUSTODY RECORD

XENCO Laboratories
Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800
;roool-c

Page 1 of 4

LAB W.O#: 415800

Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington	State: NM	Zip: 88260
PM/Attn:	Ben Arguijo	Email:	bjarguijo@basinenv.com
Project ID:	Former Maljamar Station SRS HD0-95-61	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

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

Sampler Name: Ben J. Arguijo

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Example Volatiles by 8260	TPH	BTEX	Chloride							Hold Sample (CALL___) Run PAH on Highest TPH___ Only if
								Pres Type**		I	I	I							
								# Cont	Lab Only:										
1	SB-1 @ 5'	10/16/2014	1105	S			1			X									
2	SB-1 @ 10'	10/16/2014	1110	S			1			X	X	X							
3	SB-1 @ 20'	10/16/2014	1120	S			1			X	X								
4	SB-1 @ 30'	10/16/2014	1130	S			1			X	X								
5	SB-1 @ 50'	10/16/2014	1150	S			1			X	X	X							
6	SB-1 @ 70'	10/16/2014	1250	S			1			X									
7	SB-1 @ 80'	10/16/2014	1300	S			1			X	X	X							
8	SB-2 @ 5'	10/16/2014	1350	S			1			X									
9	SB-2 @ 10'	10/16/2014	1355	S			1			X	X	X							
0	SB-2 @ 25'	10/16/2014	1410	S			1			X									

* Container Type Codes

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

** Preservative Type Codes

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

^ Matrix Type Codes

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

REMARKS

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1-3.8 2 1.5 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		Basin Env.	10/22/14	1230		Basin	10-22	1630
2		Basin	10-22	1710		MS	10-22	1730
3						XENCO	10/23/14	1408
4								

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

C.O.C. Serial #

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

 Revision Date: Nov 12, 2009

CHAIN OF CUSTODY RECORD

XENCO Laboratories

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800

:roocl-c

LAB W.O#: 495800

Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington	State: NM	Zip: 88260
PM/Attn:	Ben Arguijo	Email:	bjarguijo@basinenv.com
Project ID:	Former Maljamar Station SRS HD0-95-61	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	
Sampler Name:	Ben J. Arguijo	Circle One Event:	Daily Weekly Monthly Quartely Semi-Annual Annual N/A

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

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Example Volatiles by 8260	TPH	BTEX	Chloride								Hold Sample (CALL__) Run PAH on Highest TPH__ Only if
								Pres Type**		I	I	I								
								# Cont	Lab Only:											
1	SB-2 @ 45'	10/16/2014	1430	S			1			X	X	X								
2	SB-2 @ 65'	10/16/2014	1450	S			1			X										
3	SB-2 @ 80'	10/16/2014	1505	S			1			X	X									
4	SB-2 @ 100'	10/16/2014	1525	S			1			X	X	X								
5	SB-3 @ 5'	10/17/2014	0920	S			1			X	X	X								
6	SB-3 @ 10'	10/17/2014	0925	S			1			X										
7	SB-3 @ 20'	10/17/2014	0935	S			1			X	X									
8	SB-3 @ 30'	10/17/2014	0945	S			1			X										
9	SB-3 @ 50'	10/17/2014	1005	S			1			X	X	X								
0	SB-3 @ 70'	10/17/2014	1025	S			1			X										

* Container Type Codes

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

Other _____

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

** Preservative Type Codes

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

^ Matrix Type Codes

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

Other _____

REMARKS

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1-3.8 2-1.5 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		Basin Env.	10/22/14	1630		Basin	10-22	11:30
2		Basin	10-22	1:10		XENCO	10-23	1:10
3						XENCO	10/23/14	1408
4								

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

C.O.C. Serial #

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330

FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

 Revision Date: Nov 12, 2009

CHAIN OF CUSTODY RECORD

XENCO Laboratories
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;roocl-c

LAB W.O # : 495800

Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington	State: NM	Zip: 88260
PM/Attn:	Ben Arguijo	Email:	bjarguijo@basinenv.com
Project ID:	Former Maljamar Station SRS HD0-95-61	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	
Sampler Name:	Ben J. Arguijo	Circle One Event:	Daily Weekly Monthly Quartely Semi-Annual Annual N/A

TAT Work Days = D Need results by: 10/24 Time: 8AM

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Example Volatiles by 8260	TPH	BTEX	Chloride							Hold Sample (CALL) Run PAH on Highest TPH Only if
								Pres Type**		I	I	I							
								# Cont	Lab Only:										
1	SB-3 @ 85'	10/17/2014	1040	S			1			X	X								
2	SB-3 @ 100'	10/17/2014	1055	S			1			X	X	X							
3	SB-4 @ 5'	10/17/2014	1135	S			1			X									
4	SB-4 @ 10'	10/17/2014	1140	S			1			X	X	X							
5	SB-4 @ 20'	10/17/2014	1150	S			1			X									
6	SB-4 @ 30'	10/17/2014	1200	S			1			X	X								
7	SB-4 @ 50'	10/17/2014	1220	S			1			X									
8	SB-4 @ 70'	10/17/2014	1240	S			1			X	X	X							
9	SB-4 @ 90'	10/17/2014	1300	S			1			X									
0	SB-4 @ 105'	10/17/2014	1315	S			1			X									

* Container Type Codes

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

** Preservative Type Codes

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

^ Matrix Type Codes

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

REMARKS

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1 3.8 2 1.5 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		Basin Env.	10/20/14	1230		Basin	10-22	1:30
2		Basin	10-22	1:10		MS	10-22	1:10
3						Xenco	10/23/14	1404
4								

Lab Use Only

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

C.O.C. Serial #

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

 Revision Date: Nov 12, 2009

CHAIN OF CUSTODY RECORD

XENCO Laboratories
Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800
;roool-c

LAB W.O#: 495800

Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington	State: NM	Zip: 88260
PM/Attn:	Ben Arguijo	Email:	bjarguijo@basinenv.com
Project ID:	Former Maljamar Station SRS HD0-95-61	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	
Sampler Name:	Ben J. Arguijo	Circle One Event:	Daily Weekly Monthly Quartely Semi-Annual Annual N/A

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

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Example Volatiles by 8260	TPH	BTEX	Chloride							Hold Sample (CALL) Run PAH on Highest TPH Only If
								Pres Type**		I	I	I							
								# Cont	Lab Only:										
1	SB-4 @ 120'	10/17/2014	1330	S			1			X									
2	SB-4 @ 140'	10/17/2014	1350	S			1			X	X	X							
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

* Container Type Codes

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

Other _____

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

** Preservative Type Codes

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

^ Matrix Type Codes

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

Other _____

REMARKS

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1 3.8 2 1.5 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		Basin Env.	10/22/14	0830		Basin	10-22	11:30
2		Basin	10-22	1:10			10-22	1:10
3							10/23/14	1408
4								

Lab Use Only

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

C.O.C. Serial #

 Revision Date: Nov 12, 2009

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 10/23/2014 02:08:00 PM

Work Order #: 495800

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

Temperature Measuring device used :

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

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

Analyst:

PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 10/23/2014

Checklist reviewed by: Kelsey Brooks Date: 10/23/2014

Analytical Report 499717

for

PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

Former Maljimar Station

SRS HD0-95-61

06-JAN-15

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

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

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

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

06-JAN-15

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

Reference: XENCO Report No(s): **499717**
Former Maljimar Station
Project Address:

Ben Arguijo:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 499717. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 499717 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 499717

PLAINS ALL AMERICAN EH&S, Midland, TX

Former Maljimar Station

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-5 @5'	S	12-22-14 10:45	- 5 ft	499717-001
SB-5 @10'	S	12-22-14 10:50	- 10 ft	499717-002
SB-5 @50'	S	12-22-14 11:30	- 50 ft	499717-003
SB-5 @75'	S	12-22-14 11:55	- 75 ft	499717-004
SB-5 @100'	S	12-22-14 12:20	- 100 ft	499717-005
SB-5 @145'	S	12-22-14 13:10	- 145 ft	499717-006
SB-5 @150'	S	12-22-14 13:15	- 150 ft	499717-007

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 499717

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Former Maljimar Station

Project Id: SRS HD0-95-61
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Tue Dec-30-14 02:17 pm
Report Date: 06-JAN-15
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	499717-001		499717-002		499717-003		499717-004		499717-005		499717-006	
	Field Id:	SB-5 @5'		SB-5 @10'		SB-5 @50'		SB-5 @75'		SB-5 @100'		SB-5 @145'	
	Depth:	5 ft		10 ft		50 ft		75 ft		100 ft		145 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-22-14 10:45		Dec-22-14 10:50		Dec-22-14 11:30		Dec-22-14 11:55		Dec-22-14 12:20		Dec-22-14 13:10	
BTEX by EPA 8021B	*Extracted:*	Jan-05-15 08:00						Jan-05-15 08:00					
	Analyzed:	Jan-05-15 19:21						Jan-05-15 19:38					
	Units/RL:	mg/kg	RL					mg/kg	RL				
Benzene		ND	0.00111					ND	0.00103				
Toluene		ND	0.00222					ND	0.00207				
Ethylbenzene		ND	0.00111					ND	0.00103				
m,p-Xylenes		ND	0.00222					ND	0.00207				
o-Xylene		ND	0.00111					ND	0.00103				
Total Xylenes		ND	0.00111					ND	0.00103				
Total BTEX		ND	0.00111					ND	0.00103				
Inorganic Anions by EPA 300/300.1	*Extracted:*	Jan-05-15 14:00						Jan-05-15 14:00					
	Analyzed:	Jan-05-15 17:17						Jan-05-15 18:02					
	Units/RL:	mg/kg	RL					mg/kg	RL				
Chloride		64.5	44.5					20.2	10.3				
Percent Moisture	*Extracted:*												
	Analyzed:	Dec-30-14 15:35		Dec-30-14 15:35		Dec-30-14 15:35		Dec-31-14 13:18		Dec-31-14 13:18		Dec-31-14 13:18	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		10.0	1.00	9.93	1.00	11.3	1.00	3.18	1.00	7.74	1.00	4.79	1.00
TPH By SW8015 Mod	*Extracted:*	Jan-05-15 09:00		Jan-05-15 09:00		Jan-05-15 09:00		Jan-05-15 09:00		Jan-05-15 09:00		Jan-05-15 09:00	
	Analyzed:	Jan-05-15 16:44		Jan-05-15 17:58		Jan-05-15 18:21		Jan-05-15 18:44		Jan-05-15 19:06		Jan-06-15 12:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.7	ND	16.7	ND	16.9	ND	15.5	ND	16.3	ND	15.8
C12-C28 Diesel Range Hydrocarbons		ND	16.7	ND	16.7	37.9	16.9	55.5	15.5	22.5	16.3	19.5	15.8
C28-C35 Oil Range Hydrocarbons		ND	16.7	ND	16.7	ND	16.9	ND	15.5	ND	16.3	ND	15.8
Total TPH		ND	16.7	ND	16.7	37.9	16.9	55.5	15.5	22.5	16.3	19.5	15.8

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 499717

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Former Maljimar Station

Project Id: SRS HD0-95-61
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Tue Dec-30-14 02:17 pm
Report Date: 06-JAN-15
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	499717-007					
	Field Id:	SB-5 @150'					
	Depth:	150 ft					
	Matrix:	SOIL					
	Sampled:	Dec-22-14 13:15					
BTEX by EPA 8021B	***Extracted:***	Jan-05-15 08:00					
	Analyzed:	Jan-05-15 19:54					
	Units/RL:	mg/kg RL					
Benzene		ND 0.00106					
Toluene		ND 0.00211					
Ethylbenzene		ND 0.00106					
m,p-Xylenes		ND 0.00211					
o-Xylene		ND 0.00106					
Total Xylenes		ND 0.00106					
Total BTEX		ND 0.00106					
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-05-15 14:00					
	Analyzed:	Jan-05-15 18:25					
	Units/RL:	mg/kg RL					
Chloride		4.51 2.11					
Percent Moisture	***Extracted:***						
	Analyzed:	Dec-31-14 13:18					
	Units/RL:	% RL					
Percent Moisture		5.23 1.00					
TPH By SW8015 Mod	***Extracted:***	Jan-05-15 09:00					
	Analyzed:	Jan-06-15 13:22					
	Units/RL:	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		ND 15.8					
C12-C28 Diesel Range Hydrocarbons		21.2 15.8					
C28-C35 Oil Range Hydrocarbons		ND 15.8					
Total TPH		21.2 15.8					

Kelsey Brooks
Project Manager

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: Former Maljimar Station

Work Orders : 499717,

Project ID: SRS HD0-95-61

Lab Batch #: 958949 **Sample:** 499717-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/05/15 16:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.7	100	74	70-135	
o-Terphenyl	41.3	50.0	83	70-135	

Lab Batch #: 958949 **Sample:** 499717-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/05/15 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	83.6	100	84	70-135	
o-Terphenyl	46.4	50.0	93	70-135	

Lab Batch #: 958949 **Sample:** 499717-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/05/15 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	82.1	100	82	70-135	
o-Terphenyl	45.3	50.0	91	70-135	

Lab Batch #: 958949 **Sample:** 499717-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/05/15 18:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.6	100	83	70-135	
o-Terphenyl	43.9	50.0	88	70-135	

Lab Batch #: 958949 **Sample:** 499717-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/05/15 19:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.0	100	89	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: Former Maljimar Station

Work Orders : 499717,

Project ID: SRS HD0-95-61

Lab Batch #: 958917 **Sample:** 499717-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/05/15 19:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 958917 **Sample:** 499717-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/05/15 19:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 958917 **Sample:** 499717-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/05/15 19:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 958949 **Sample:** 499717-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/06/15 12:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.3	100	77	70-135	
o-Terphenyl	40.9	50.0	82	70-135	

Lab Batch #: 958949 **Sample:** 499717-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/06/15 13:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.1	100	73	70-135	
o-Terphenyl	39.6	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: Former Maljimar Station

Work Orders : 499717,

Project ID: SRS HD0-95-61

Lab Batch #: 958949 **Sample:** 666685-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01/05/15 15:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.1	100	96	70-135	
o-Terphenyl	55.5	50.0	111	70-135	

Lab Batch #: 958917 **Sample:** 666668-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01/05/15 19:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 958949 **Sample:** 666685-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01/05/15 15:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	62.8	50.0	126	70-135	

Lab Batch #: 958917 **Sample:** 666668-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01/05/15 17:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0242	0.0300	81	80-120	

Lab Batch #: 958949 **Sample:** 666685-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01/05/15 16:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	64.0	50.0	128	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: Former Maljimar Station

Work Orders : 499717,

Project ID: SRS HD0-95-61

Lab Batch #: 958917 **Sample:** 666668-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01/05/15 18:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0330	0.0300	110	80-120	
4-Bromofluorobenzene	0.0240	0.0300	80	80-120	

Lab Batch #: 958949 **Sample:** 499717-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/05/15 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	103	100	103	70-135	
o-Terphenyl	50.3	50.0	101	70-135	

Lab Batch #: 958917 **Sample:** 499717-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/05/15 18:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	80-120	
4-Bromofluorobenzene	0.0249	0.0300	83	80-120	

Lab Batch #: 958949 **Sample:** 499717-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/05/15 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	102	100	102	70-135	
o-Terphenyl	49.2	50.0	98	70-135	

Lab Batch #: 958917 **Sample:** 499717-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01/05/15 18:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0251	0.0300	84	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: Former Maljimar Station

Work Order #: 499717 **Project ID:** SRS HD0-95-61

Analyst: JUM **Date Prepared:** 01/05/2015 **Date Analyzed:** 01/05/2015

Lab Batch ID: 958917 **Sample:** 666668-1-BKS **Batch #:** 1 **Matrix:** Solid

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	<0.00100	0.100	0.0917	92	0.100	0.0928	93	1	70-130	35	
Toluene	<0.00200	0.100	0.109	109	0.100	0.110	110	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.120	120	0.100	0.119	119	1	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.232	116	0.200	0.236	118	2	70-135	35	
o-Xylene	<0.00100	0.100	0.106	106	0.100	0.108	108	2	71-133	35	

Analyst: JUM **Date Prepared:** 01/05/2015 **Date Analyzed:** 01/05/2015

Lab Batch ID: 958914 **Sample:** 666641-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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
Chloride	<2.00	50.0	45.9	92	50.0	45.2	90	2	90-110	20	

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

BS / BSD Recoveries

Project Name: Former Maljimar Station

Work Order #: 499717 **Project ID:** SRS HD0-95-61

Analyst: JUM **Date Prepared:** 01/05/2015 **Date Analyzed:** 01/05/2015

Lab Batch ID: 958949 **Sample:** 666685-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

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
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	907	91	1000	955	96	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1150	115	1000	1230	123	7	70-135	35	

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

Form 3 - MS Recoveries

Project Name: Former Maljimar Station

Work Order #: 499717

Lab Batch #: 958914 **Project ID:** SRS HD0-95-61

Date Analyzed: 01/05/2015 **Date Prepared:** 01/05/2015 **Analyst:** JUM

QC- Sample ID: 499717-001 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	64.5	1110	1060	90	80-120	

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

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: Former Maljimar Station

Work Order # : 499717 **Project ID:** SRS HD0-95-61

Lab Batch ID: 958917 **QC- Sample ID:** 499717-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 01/05/2015 **Date Prepared:** 01/05/2015 **Analyst:** JUM

Reporting Units: mg/kg

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	<0.00111	0.111	0.101	91	0.111	0.105	95	4	70-130	35	
Toluene	<0.00222	0.111	0.117	105	0.111	0.123	111	5	70-130	35	
Ethylbenzene	<0.00111	0.111	0.123	111	0.111	0.132	119	7	71-129	35	
m,p-Xylenes	<0.00222	0.222	0.237	107	0.222	0.254	114	7	70-135	35	
o-Xylene	<0.00111	0.111	0.110	99	0.111	0.118	106	7	71-133	35	

Lab Batch ID: 958949 **QC- Sample ID:** 499717-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 01/05/2015 **Date Prepared:** 01/05/2015 **Analyst:** JUM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<16.7	1110	1040	94	1110	1040	94	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<16.7	1110	1110	100	1110	1130	102	2	70-135	35	

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

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

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

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

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

Sample Duplicate Recovery

Project Name: Former Maljimar Station

Work Order #: 499717

Lab Batch #: 958708 **Project ID:** SRS HD0-95-61
Date Analyzed: 12/30/2014 15:35 **Date Prepared:** 12/30/2014 **Analyst:** WRU
QC- Sample ID: 499691-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	22.5	22.9	2	20	

Lab Batch #: 958708
Date Analyzed: 12/30/2014 15:35 **Date Prepared:** 12/30/2014 **Analyst:** WRU
QC- Sample ID: 499711-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	5.64	5.28	7	20	

Lab Batch #: 958711
Date Analyzed: 12/31/2014 13:18 **Date Prepared:** 12/31/2014 **Analyst:** WRU
QC- Sample ID: 499717-004 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.18	3.40	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

XENCO Laboratories — Environmental Asbestos Radiochemistry

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800

;roool-c

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LAB W.O #: 499717

Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington	State: NM	Zip: 88260
PM/Attn:	Ben Arguijo	Email:	bjarguijo@basinenv.com
Project ID:	Former Maljamar Station SRS HD0-95-61	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	

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

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

Sampler Name: Ben J. Arguijo

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

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Example Volatiles by 8260	TPH	BTEX	Chloride								Hold Sample (CALL ___) Run PAH on Highest TPH ___ Only if
								Pres Type**		I	I	I								
								# Cont	Lab Only:											
1	SB-5 @ 5'	12/22/2014	1045	S			1			X	X	X								
2	SB-5 @ 10'	12/22/2014	1050	S			1			X										
3	SB-5 @ 50'	12/22/2014	1130	S			1			X										
4	SB-5 @ 75'	12/22/2014	1155	S			1			X	X	X								
5	SB-5 @ 100'	12/22/2014	1220	S			1			X										
6	SB-5 @ 145'	12/22/2014	1310	S			1			X										
7	SB-5 @ 150'	12/22/2014	1315	S			1			X	X	X								
8																				
9																				
10																				

* Container Type Codes

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

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

** Preservative Type Codes

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

^ Matrix Type Codes

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

REMARKS

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	5.8 2 1.5 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		Basin Env	12/29/14	1455	V. Castillo	MS	12/29/14	2:55
2						Xenco	12.30.14	1417
3								
4								

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

C.O.C. Serial #

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330

FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

Revision Date: Nov 12, 2009

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 12/30/2014 02:17:00 PM

Work Order #: 499717

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

Temperature Measuring device used :

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

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

Analyst:

PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 12/30/2014

Checklist reviewed by: Kelsey Brooks Date: 12/30/2014