1R – 411

REPORT

DATE:
JULY 2007

1R-411
Report
July 2007

PLAINS
PIPELINE, L.P.

August 13, 2007

Mr. Wayne Price
State of New Mexico
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Plains Pipeline, L.P.
Document Submittal – Nine Soil Closure Reports
Clay Osborn - Rocky Top Ranch
Jal, Lea County, New Mexico

Dear Mr. Price:

Plains Pipeline, L.P. (Plains) is pleased to submit the attached Soil Closure Reports for the nine soil remediation project sites located on the Osborn's Rocky Top Ranch in Jal, Lea County, New Mexico. The soil remediation activities were conducted in accordance with the General Remediation Work Plan (dated April 2006) and the Site-Specific Remediation Work Plan (dated July 2006) prepared for each site and approved by the New Mexico Oil Conservation Division (NMOCD).

Based on the analytical laboratory results of confirmation soil samples and completion of the site-specific soil remediation and restoration activities as described in each Work Plan, remediation activities are complete and Plains requests that the NMOCD issue Plains a "no further action letter" and close these nine sites listed below.

Clay Osborn Jalmat #1	1R-0412
Clay Osborn Jalmat #2	1R-0466
Clay Osborn Jalmat #3	1R-0467
Clay Osborn Jalmat #22A	1R-0411
Clay Osborn Jalmat #22B	1R-0468
Clay Osborn East Shell North	1R-0083
Clay Osborn SH-0193-2	1R-0471
Clay Osborn SH-0184-1	1R-0472
Clay Osborn DT-27	1R-0470

Please note that site "Clay Osborn TM-245-2 (1R-0469)" was combined into site "Jalmat #22B" since the sites were immediately adjacent to each other. A separate report was not prepared for TM-245-2.

Should you have any questions or comments, please contact me at (713) 646-4657.

Sincerely,

Jeffrey P. Dann, P.G.
Sr. Environmental Specialist
Plains All American

Attachment: Nine Soil Closure Reports

File: n/jeff-files/Osborn-RockyTopRanch/DocumentClosureReptCovrLtr.doc

Report Entered

Site Closure Report

Clay Osborn Rocky Top Ranch
Jalmat #22A Release Site

SE¼ NE¼, Section 13
T25S, R36E
Lea County, New Mexico

SRS No. 2000-10614
NMOCD No. 1R-0411

Prepared For

PLAINS
PIPELINE, L.P.

333 Clay Street, Suite 1600
Houston, Texas 77002

Prepared By

SDG ENVIRONMENTAL SERVICES

July 2007

Table of Contents

1.0 Introduction

SDG Environmental Services was retained by Plains Pipeline, L.P. (Plains) to provide oversight of remediation activities and prepare a closure report for the Clay Osborn Jalmat #22A release site located on the Clay Osborn Rocky Top Ranch. Plains Pipeline is the owner/operator of several pipelines present on the Clay Osborn Rocky Top Ranch in Lea County, New Mexico. Plains retained Basin Environmental Services to conduct the soil excavation/remediation activities.

The site is located in the SE ¼ of the NE ¼ of Section 13, Township 25 South, Range 36 East, approximately 1 mile northwest of Jal at Latitude 32°07′58″ North, and Longitude 103°12′38″ West. The site is characterized by a right-of-way for the pipeline in a pasture. The pipeline is currently not in operation. A site location map is provided as Figure 1.

The hydrocarbon impacted area was the result of a historical release. The date of the release as well as the volume of crude released and recovered is not known. The impacted area was estimated to be approximately 23,500 ft^2.

Plains prepared and submitted a General Remediation Work Plan dated April 2006 to address the release sites located at the Rocky Top Ranch. The objective of the General Remediation Work Plan was to provide a framework for remediation of crude oil impacted sites consistent with the remediation/abatement goals and objectives provided in the New Mexico Oil Conservation Division (NMOCD) "NMOCD Guidelines for Remediation of Leaks, Spills, and Releases." The general Remediation Work Plan was conditionally approved by the NMOCD in a letter to Plains dated May 30, 2006.

Soil analytical data and information obtained from the EPI December 2001 Jalmat #22A Investigation Report was used to develop a Site Investigation Report and Site-Specific Remediation Work Plan. The Site Investigation Report and Site-Specific Remediation Work Plan dated July 2006 provided for closure of the site under three closure scenarios. The closure scenario selected to be dependent on the conditions observed in the field. These selected closure scenarios are as follows.

Work Plan Scenario 1 (Surface Restoration)

This scenario was developed for areas where investigation data indicates that the surface area has restored itself naturally, the surface expression of the release is difficult to identify, the impacts are limited to the surface and/or shallow soils, and there is no threat to groundwater.

- Scrape the surface asphaltines where apparent and remove;
- Blend the underlying 1 to 2 feet of soil with native soil and contour;
- Do not disturb areas that have already re-vegetated.

The west area of the site was remediated under this scenario.

Work Plan Scenario 2 (Total Excavation)

Areas where impacts greater than 1000 mg/kg TPH were limited in vertical extent (i.e. 5 to 10 feet in depth) were recommended to be remediated under the Work Plan Scenario 2 involving the following procedures as outlined in the approved Work Plan including NMOCD conditions presented in the May 2006 NMOCD approval letter.

- Excavation of impacted soil to between 5 to 10 feet bgs or until site remediation standards are met;
- Collect and analyze soil sample from the walls and floor of the excavation to confirm that the remediation has met site guidelines;
- Relocation of excavated soil to the centralized soil treatment area for blending and aeration;
- Collect and analyze treated soil to confirm that the soil treatment activities have met site guidelines;
- Backfill the excavation with treated soil to 1000 mg/kg and restore the area to as close as possible to pre-spill conditions.

The eastern area of the release site was remediated under Work Plan Scenario 2. The area was excavated to up to 6 feet bgs. Confirmation soil samples were collected from the floor of the excavation and at sidewalls identified by the highest PID reading and observed staining.

Work Plan Scenario 3 (Limited Excavation and Risk-based Closure)

At areas of the site where data indicated that soil impacts extended to below 10 feet bgs and excavation of all the impacted soil to below NMOCD guidelines is not practical, Work Plan Scenario 3 was implemented.

Scenario 3 included the permanent installation of an oversized 20-mil polyethylene liner at a minimum depth of 12 feet to inhibit vertical migration of contaminants in soil left in place below the cap. A 3-foot wide clean area buffer was established around the impacted soil in the floor of the excavation.

A 20-foot by 40-foot area in the central area of the release site was remediated under Scenario 3.

Clean overburden and impacted soils were blended and utilized as backfill. Soil samples were collected to verify constituent concentrations were below NMOCD site-specific guidelines. Once the excavation was confirmed to meet NMOCD standards and the installation of the liner was completed, backfilling of the excavation was initiated. The backfilled excavation was contoured to the original grade surrounding the site and restored by seeding with approved grass seed.

2.0 Regulatory Framework

In New Mexico, the MNOCD oversees and regulates oil, gas and geothermal activities, including compliance with environmental regulations. The Jalmat #22A Site was evaluated and remediated consistent with the characterization and remediation/abatement goals and objectives of the NMOCD approved Remediation Work Plan and the NMOCD guidelines defined in the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases* (August 13, 1993). Primary contaminants, or constituents of concern (COCs), associated with crude oil releases include total petroleum hydrocarbons (TPH), benzene, toluene, ethyl benzene, and total xylenes (BTEX). Acceptable levels for these COCs are determined based on a site ranking system. The ranking system estimates the likelihood of exposures to the COCs. The more likely that human exposure will occur, the more stringent the cleanup levels. The site ranking system is set up on the three following parameters:

- Depth to groundwater
- Wellhead protection area
- Distance to surface water body

3.0 Regional and Site Characteristics

3.1 Geological Description

The site is located east of the caprock escarpment which defines the western margin of the high plains or Llano Estacado of southeastern New Mexico. The surface is comprised of rolling hills with sand dunes of Quaternary age deposits, eroded Ogallala Formation and windblown deposits.

3.2 Land Use

Land usage in the area is primarily livestock range land and oil field activities. Several gas driven electric power stations are located in the vicinity of the site and several major oil and gas transmission lines bisect the region. The area in the immediate vicinity of the site is sparsely populated.

3.3 Ground Water

The depth to groundwater at the site is greater than 75 feet below ground surface (bgs) based on soil borings installed at an adjacent site. The depth to groundwater is consistent with the information provided in the USGS Groundwater Report 6. The New Mexico Office of the State Engineer database does not list any water wells in Range 36 East of Township 25.

4.0 NMOCD Site Ranking

The depth to water at the site is greater than 75 feet bgs. Based on the analytical results of soil samples, the hydrocarbon impacted soil extends from the surface to 15 feet bgs, therefore, less than 100 feet of non-impacted soil remains between the last known impacted soil depth and groundwater. The resulting Depth to Groundwater Ranking Score is 10.

The site is greater than 1000 feet from any public water supply source and greater than 200 feet from any private domestic water supply well. The resulting Wellhead Protection Ranking Score is 0.

During remediation activities associated with the Texas-New Mexico Pipeline conducted in the 1990's, a retention basin was constructed to contain runoff from the land farm located east of the site. The retention basin is located approximately 890 feet southwest of the site. There are no water bodies not constructed as part of remediation within 1000 feet of the site. The resulting Distance to Surface Water Body Ranking Score is 0.

Based on the individual ranking scores identified above, the site has an NMOCD Total Ranking Score between 10 and 19, which establish the remediation levels as shown in the following table demonstrating the site ranking matrix:

Table 1 – Site Ranking Matrix

Depth to Groundwater	**Wellhead Protection Area**	**Distance to Surface Water**
<50 feet = 20	<1000 feet from a water source, or <200 feet from a domestic water source	<200 feet = 20
50 to 99 feet = 10	Yes = 20	200 to 1000 feet = 10
>100 feet = 0	No = 0	>1000 feet = 0
Groundwater Score = 10	Well Protection Score = 0	Surface Water Score = 0
Total Site Ranking Score = 10		
Parameter	**Score of >19 Maximum Concentrations**	
Benzene	10 ppm	
BTX	50 ppm	
TPH	1000 ppm	

Based on this ranking system the site has a total score of 10 resulting in remediation goals of 10 ppm benzene, 50 ppm BTEX and 1000 ppm TPH.

5.0 Site Assessment

On 27 July through 3 August 2000, initial subsurface horizontal and vertical delineation was conducted by EPI with the installation of 26 soil borings installed at the site. The 26 soil borings were installed to a depth of 15 feet bgs and soil samples were collected at

depths of 2, 5, 10, and 15 feet bgs, field screened with a PID, and analyzed for BTEX and TPH-GRO/DRO. Laboratory results indicated that constituent concentrations of BTEX were either below NMOCD regulatory standards or not detected above laboratory method detection limits on the 104 soil samples. Laboratory results indicated that TPH-GRO/DRO concentrations exceeded 1000 mg/kg TPH in 15 of the soil samples and the remaining 89 soil samples were either below NMOCD regulatory standards or were not detected above the laboratory method detection limits.

On 25 May 2006, one soil boring was installed at the location of the historical boring location indicating the location of maximum depth of impacted soils. The soil boring was installed to 25 feet bgs and samples collected at 2, 5, 10, 15, 20, and 25 feet bgs. Analytical results indicated that constituent concentrations of BTEX were not detected above laboratory method detection limits in any of the soil samples. Laboratory results indicated that TPH concentrations exceeded 1000 mg/kg TPH in the soil samples from 2 and 5 feet bgs.

5.1 Distribution of Hydrocarbons in the Unsaturated Zone

The area of soils remediated was approximately 25,000 square feet. Based on the previous data, impacted soils above the NMOCD guidelines were expected to be shallower than 10 feet bgs. However, during site remediation, the vertical extent of soils impacted above the site-specific NMOCD cleanup guidelines was determined to extend to below 15 feet bgs in one area. No free phase hydrocarbons were observed during the excavation.

5.2 Distribution of Hydrocarbons in the Saturated Zone

No saturated conditions were reported in any of the borings or observed during later site remediation activities. Soil borings installed to 75 feet bgs at a nearby site did not encounter groundwater. Therefore, there is no indication that hydrocarbons from the historical release have impacted the saturated zone.

6.0 Site Remediation

The final surface area remediated was approximately 25,000 square feet. The volume of excavated and blended soils totaled 2230 cubic yards. The remediated area is shown in Figure 2.

The eastern area of the release site was remediated under Work Plan Scenario 2. The area was excavated up to 6 feet bgs. Confirmation soil samples were collected from the floor of the excavation and at sidewalls identified by the highest PID reading and observed staining.

A 20-foot by 40-foot area in the north-central area of the release site was remediated under Scenario 3. In this area, excavation continued to 12 feet bgs at which point the excavation was terminated. One soil sample from the excavation floor and a followup sample from 15 feet bgs indicated the soils to be above the site-specific guidelines for Closure Scenario 2. Therefore, this area of the site was managed under Closure Scenario 3 of the approved Site-Specific Work Plan and a 20-mil liner was installed at 12 feet bgs.

Prior to liner installation, a 3-foot wide clean area buffer was established around the impacted soil in the floor of the excavation. The buffer extent was determined using a calibrated PID and confirmed by laboratory analysis of grab samples collected around the perimeter of the excavation. The liner was cushioned with sandy soils to protect it from puncture and tearing during the backfilling process. Installation of the 20-mil polyethylene liner at a depth of 12 feet bgs will protect the barrier from erosion and human intrusion for a term sufficient to allow natural biodegrading of contaminates in the soil.

Soil samples of blended soils were collected to verify constituent concentrations of BTEX are below NMOCD guidelines and TPHGRO/DRO below 1000 mg/kg for direct backfill and for backfill over liners. Once the excavation was confirmed to meet NMOCD standards and the installation of the 20-mil poly liner was completed, backfilling of the excavation was initiated with the blended soil.

After determining that the confirmation samples did not exceed the site-specific remediation standards, the excavated area was backfilled with blended soils meeting the cleanup guidelines for the closure scenario, contoured to the original grade surrounding the site, and reseeded with approved grass seed.

7.0 Confirmation Sampling and Comparison to Remediation Guideline Standards

Confirmation samples were collected from the walls and the bottom of the excavation and submitted to Environmental Lab of Texas for laboratory analyses of total petroleum hydrocarbons (TPH) by EPA Method 8015M (DRO, GRO), and for benzene, toluene, ethyl benzene, and total xylenes (BTEX) by EPA Method 8021B, a copy of the laboratory report is presented in Appendix C. A site detail map identifying soil sample locations is presented as Figure 2. Table 2 provides a summary of the analytical results.

Soil samples were collected from soils from the excavation floor and walls. At one location, results indicated soils at 15 feet bgs were above the NMOCD cleanup guidelines. Therefore, this area of the site was closed under Closure Scenario 3 and a 20-foot by 40-foot, 20-mil polyethylene liner was installed at 12 feet bgs. Final confirmation samples indicated concentrations of TPH in soils remaining in place at the liner edge ranged from 210 mg/kg in one wall sample to <10 mg/kg in all other samples. The soil samples from the perimeter of the liner installation did not exhibit BTEX concentrations above the NMOCD cleanup guidelines.

Sample results were compared to the site-specific soil remediation guidelines. As indicated in Table 2 and the laboratory reports, all constituents for soils remaining in place are below the site-specific cleanup guidelines for the closure scenarios implemented at the site. Therefore, remediation at this site is considered complete.

8.0 Conclusion

SDG Environmental Services was retained by Plains Pipeline, L.P. (Plains) to provide oversight of remediation activities and prepare a closure report for the Clay Osborn Jalmat #22A release site located on the Clay Osborn Rocky Top Ranch. The site is located in the SE ¼ of the NE ¼ of Section 13, Township 25 South, Range 36 East, approximately 1 mile northwest of Jal at Latitude 32°07′58″ North, and Longitude 103°12′38″ West.

The hydrocarbon impacted area was the result of a historical release. The date of the release as well as the volume of crude released and recovered is not known. A Site-Specific Remediation Work Plan dated April 2006 provided for closure of the site under three closure scenarios which were implemented at the release site in January through March 2007.

Impacted soils were excavated, a 20-mil polyethylene liner installed in one area, and confirmation samples were collected and compared to the site-specific cleanup guidelines. Soil samples from the excavated areas confirm that the Jalmat #22A release site was remediated per the NMOCD approved Site-Specific Work Plan. Therefore, remediation at this site has been completed and no further investigation is warranted. SDG recommends that Plains submit a copy of this report to the NMOCD and request that the NMOCD close this case and issue a "no further action letter" to Plains.

TABLE 1

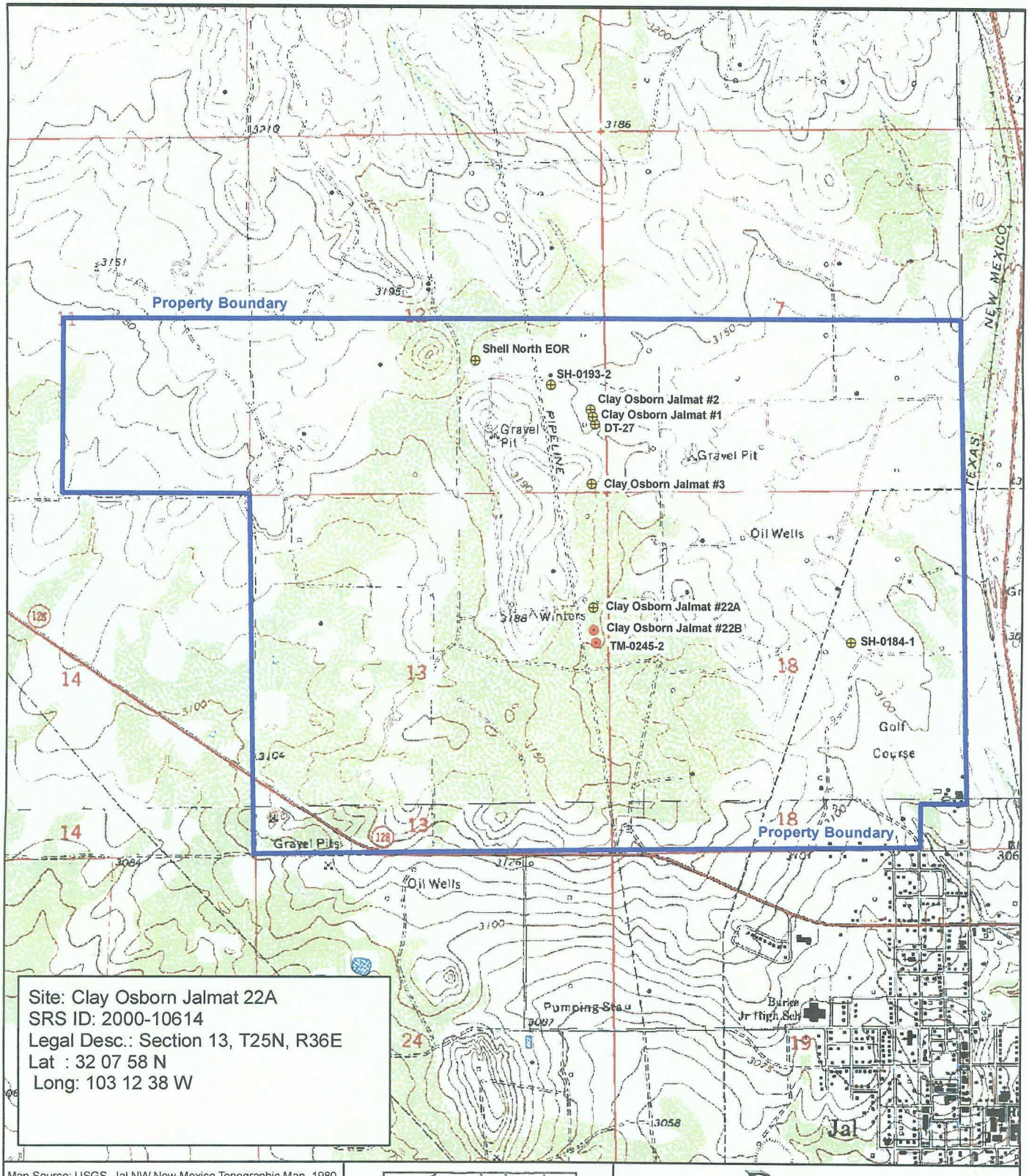
SOIL SAMPLE ANALYTICAL RESULTS SUMMARY

PLAINS PIPELINE, L.P.
Jalmat 22A
LEA COUNTY, NEW MEXICO
PLAINS SRS NO: 2000-10614

SAMPLE LOCATION	DEPTH ft bgs	SAMPLE DATE	LABORATORY I.D.	METHOD: EPA 8021B					METHOD: EPA 8015M			TOTAL TPH
				BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	C6-C12 (mg/kg)	C12-C28 (mg/kg)	C28-C35 (mg/kg)	C6-C35 (mg/kg)
22A-F7	8	1/18/2007	7A18005-01	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-F8	6	1/18/2007	7A18005-02	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-F9	4	1/18/2007	7A18005-03	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	188	21.8	210
22A-NW5	3	1/18/2007	7A18005-04	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-EW2	2	1/18/2007	7A18005-05	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-002	4	1/18/2007	7A18005-06	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-001	*3**	*1/12/2007*	*7A12027-01*	*na*	*na*	*na*	*na*	*na*	*453*	*2850*	*107*	*3410*
22A-SW1	4	1/12/2007	7A12027-02	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	64.7	<10.0	64.7
22A-F1	5	1/12/2007	7A12027-03	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-WW1	4	1/12/2007	7A12027-04	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-NW1	4	1/12/2007	7A12027-05	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-SW2	2	1/12/2007	7A12027-06	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	25.1	<10.0	25.1
22A-SW3	8	1/12/2007	7A12027-07	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-F2	*8**	*1/12/2007*	*7A12027-08*	*na*	*na*	*na*	*na*	*na*	*450*	*2480*	*104*	*3030*
22A-F3	*8**	*1/12/2007*	*7A12027-09*	*na*	*na*	*na*	*na*	*na*	*303*	*2620*	*118*	*3040*
22A-NW4	8	1/12/2007	7A12027-10	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	65.1	<10.0	65.1
22A-SW4	6	1/12/2007	7A12027-11	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-F4	10	1/12/2007	7A12027-12	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	77	<10.0	77
22A-NW2	10	1/12/2007	7A12027-13	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	49.4	<10.0	49.4
22A-SW5	2	1/12/2007	7A12027-14	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-F5	10	1/12/2007	7A12027-15	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-SW6	5	1/12/2007	7A12027-16	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-F6	6	1/12/2007	7A12027-17	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-NW3	5	1/12/2007	7A12027-18	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-EW1	4	1/12/2007	7A12027-19	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-F10	*12***	*1/29/2007*	*7A30001-01*	*<0.00200*	*<0.00200*	*<0.00200*	*<0.00200*	*<0.00200*	*73.6*	*3030*	*624*	*3730*
22A-SP3A	stockpile	2/2/2007	7B03006-01	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<10.0	<10.0	<10.0	<10.0
22A-SP3B	stockpile	2/2/2007	7B03006-02	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	17.1	222	44.8	284
22A-SP3C	stockpile	2/2/2007	7B03006-03	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	23.3	215	46.8	286
22A-SP2B	stockpile	2/2/2007	7B03006-04	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	15.2	430	77.1	522
22A-F10-15	*15***	*2/2/2007*	*7B03006-05*	*na*	*na*	*na*	*na*	*na*	*144*	*1070*	*155*	*1370*

* Soils subsequently excavated after sample collection.
** Soils subsequently covered by impermeable liner.
< indicates the constituent was not detected
J indicates estimated value (detected below method reporting limit
na indicates not analyzed

Appendix A
Figures

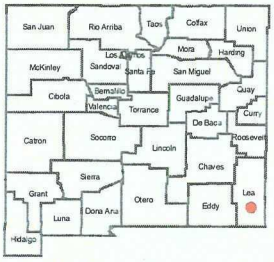


Map Source: USGS, Jal NW New Mexico Topographic Map, 1980.

0 1,000 2,000

Feet

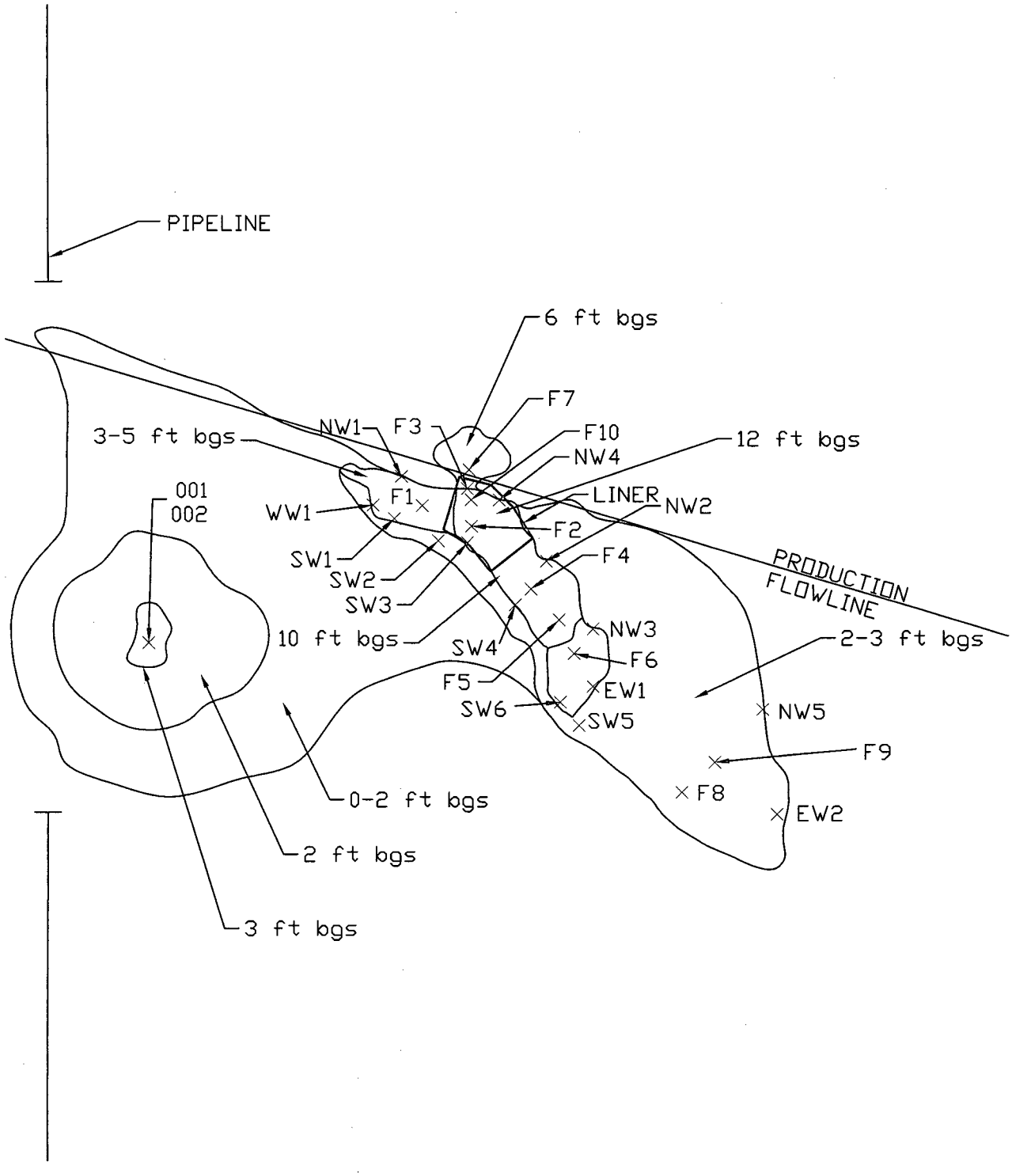
N



SDG ENVIRONMENTAL SERVICES

Clay Osborn Jalmat 22A
SRS ID: 2000-10614
Plains Pipeline L.P.
Lea County, New Mexico

Figure 1: Site Location Map



N

0 50 100

Feet

LEGEND:

× Soil Sample Locations

— Final Excavation Boundary

F2 Interim Sample (Removed)

SDG ENVIRONMENTAL SERVICES

Rocky Top Ranch
Clay Osborn Jalmat 22A
SRS ID: Rocky Top 1
Lea County, New Mexico

Figure 2: Excavation Detail

Appendix B
Site Photographs

JALMAT 22A – North-Central Excavation Area

JALMAT 22A – Scrape and Blend Area

JALMAT 22A – Prepared for Liner

JALMAT 22A – Liner Installed

JALMAT 22A – Area Backfilled

Appendix C
Analytical Reports

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

A Xenco Laboratories, Inc. Company

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Jalmat 22A Landfarm

Project Number: 2000-10614

Location: Clay Osborn Ranch

Lab Order Number: 7A18005

Report Date: 01/25/07

Plains All American EH & S	Project: Jalmat 22A Landfarm	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	
Midland TX, 79706-4476	Project Manager: Camille Reynolds	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
22A-F7	7A18005-01	Soil	01/18/07 09:00	01-18-2007 14:25
22A-F8	7A18005-02	Soil	01/18/07 09:05	01-18-2007 14:25
22A-F9	7A18005-03	Soil	01/18/07 09:10	01-18-2007 14:25
22A-NW5	7A18005-04	Soil	01/18/07 09:20	01-18-2007 14:25
22A-EW2	7A18005-05	Soil	01/18/07 09:25	01-18-2007 14:25
22A-002	7A18005-06	Soil	01/18/07 10:50	01-18-2007 14:25

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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

Project: Jalmat 22A Landfarm
Project Number: 2000-10614
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A-F7 (7A18005-01) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71902	01/19/07	01/20/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*98.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*97.0 %*	*70-130*		"	"	"	"	
22A-F8 (7A18005-02) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71902	01/19/07	01/20/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*102 %*	*70-130*		"	"	"	"	
22A-F9 (7A18005-03) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71902	01/19/07	01/20/07	EPA 8015M	
Carbon Ranges C12-C28	**188**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**21.8**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**210**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*100 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*101 %*	*70-130*		"	"	"	"	
22A-NW5 (7A18005-04) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71902	01/19/07	01/20/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*92.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*89.8 %*	*70-130*		"	"	"	"	

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A-EW2 (7A18005-05) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71902	01/19/07	01/20/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*103 %*	*70-130*		"	"	"	"	
22A-002 (7A18005-06) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71902	01/19/07	01/20/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*90.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*86.6 %*	*70-130*		"	"	"	"	

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General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A-F7 (7A18005-01) Soil									
% Moisture	**10.6**	0.1	%	1	EA71901	01/18/07	01/19/07	% calculation	
22A-F8 (7A18005-02) Soil									
% Moisture	**12.8**	0.1	%	1	EA71901	01/18/07	01/19/07	% calculation	
22A-F9 (7A18005-03) Soil									
% Moisture	**27.1**	0.1	%	1	EA71901	01/18/07	01/19/07	% calculation	
22A-NW5 (7A18005-04) Soil									
% Moisture	**9.0**	0.1	%	1	EA71901	01/18/07	01/19/07	% calculation	
22A-EW2 (7A18005-05) Soil									
% Moisture	**12.0**	0.1	%	1	EA71901	01/18/07	01/19/07	% calculation	
22A-002 (7A18005-06) Soil									
% Moisture	**21.5**	0.1	%	1	EA71901	01/18/07	01/19/07	% calculation	

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Volatile Organic Compounds by EPA Method 8260B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A-F7 (7A18005-01) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72303	01/23/07	01/23/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*118 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97.2 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.8 %*	*66-145*		"	"	"	"	
22A-F8 (7A18005-02) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72303	01/23/07	01/23/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*109 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*95.6 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*123 %*	*66-145*		"	"	"	"	
22A-F9 (7A18005-03) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72303	01/23/07	01/23/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*120 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*	*66-145*		"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A-NW5 (7A18005-04) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72303	01/23/07	01/23/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95.2 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*91.8 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*66-145*		"	"	"	"	
22A-EW2 (7A18005-05) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72303	01/23/07	01/23/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*120 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95.6 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*97.0 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*	*66-145*		"	"	"	"	
22A-002 (7A18005-06) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72303	01/23/07	01/23/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*134 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*111 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*96.6 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*117 %*	*66-145*		"	"	"	"	

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA71902 - Solvent Extraction (GC)										
Blank (EA71902-BLK1)				Prepared: 01/19/07 Analyzed: 01/20/07						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*53.2*		*mg/kg*	*50.0*		*106*	*70-130*			
Surrogate: 1-Chlorooctadecane	*54.2*		"	*50.0*		*108*	*70-130*			
LCS (EA71902-BS1)				Prepared: 01/19/07 Analyzed: 01/21/07						
Carbon Ranges C6-C12	505	10.0	mg/kg wet	500		101	75-125			
Carbon Ranges C12-C28	404	10.0	"	500		80.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	909	10.0	"	1000		90.9	75-125			
Surrogate: 1-Chlorooctane	*55.0*		*mg/kg*	*50.0*		*110*	*70-130*			
Surrogate: 1-Chlorooctadecane	*39.3*		"	*50.0*		*78.6*	*70-130*			
Calibration Check (EA71902-CCV1)				Prepared: 01/19/07 Analyzed: 01/20/07						
Carbon Ranges C6-C12	272		mg/kg	250		109	80-120			
Carbon Ranges C12-C28	274		"	250		110	80-120			
Total Hydrocarbons	546		"	500		109	80-120			
Surrogate: 1-Chlorooctane	*60.9*		"	*50.0*		*122*	*70-130*			
Surrogate: 1-Chlorooctadecane	*53.1*		"	*50.0*		*106*	*70-130*			
Matrix Spike (EA71902-MS1)	**Source: 7A18002-02**			Prepared: 01/19/07 Analyzed: 01/20/07						
Carbon Ranges C6-C12	573	10.0	mg/kg dry	515	ND	111	75-125			
Carbon Ranges C12-C28	462	10.0	"	515	ND	89.7	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1040	10.0	"	1030	ND	101	75-125			
Surrogate: 1-Chlorooctane	*57.5*		*mg/kg*	*50.0*		*115*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.6*		"	*50.0*		*95.2*	*70-130*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA71902 - Solvent Extraction (GC)										
Matrix Spike Dup (EA71902-MSD1)	**Source: 7A18002-02**			Prepared: 01/19/07 Analyzed: 01/20/07						
Carbon Ranges C6-C12	594	10.0	mg/kg dry	515	ND	115	75-125	3.54	20	
Carbon Ranges C12-C28	476	10.0	"	515	ND	92.4	75-125	2.97	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1070	10.0	"	1030	ND	104	75-125	2.93	20	
Surrogate: 1-Chlorooctane	*59.6*		*mg/kg*	*50.0*		*119*	*70-130*			
Surrogate: 1-Chlorooctadecane	*48.5*		*"*	*50.0*		*97.0*	*70-130*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA71901 - General Preparation (Prep)										
Blank (EA71901-BLK1)				Prepared: 01/18/07 Analyzed: 01/19/07						
% Solids	100		%							
Duplicate (EA71901-DUP1)		**Source: 7A17007-01**		Prepared: 01/18/07 Analyzed: 01/19/07						
% Solids	76.7		%		77.9			1.55	20	
Duplicate (EA71901-DUP2)		**Source: 7A17005-01**		Prepared: 01/18/07 Analyzed: 01/19/07						
% Solids	61.0		%		62.7			2.75	20	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA72303 - EPA 5030C (GCMS)										
Blank (EA72303-BLK1)				Prepared & Analyzed: 01/23/07						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: Dibromofluoromethane	*57.0*		*ug/kg*	*50.0*		*114*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*48.6*		*"*	*50.0*		*97.2*	*52-149*			
Surrogate: Toluene-d8	*50.1*		*"*	*50.0*		*100*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*51.2*		*"*	*50.0*		*102*	*66-145*			
LCS (EA72303-BS1)				Prepared & Analyzed: 01/23/07						
Benzene	0.0517	0.00100	mg/kg wet	0.0500		103	70-130			
Toluene	0.0487	0.00100	"	0.0500		97.4	70-130			
Ethylbenzene	0.0522	0.00100	"	0.0500		104	70-130			
Xylene (p/m)	0.100	0.00100	"	0.100		100	70-130			
Xylene (o)	0.0518	0.00100	"	0.0500		104	70-130			
Surrogate: Dibromofluoromethane	*50.9*		*ug/kg*	*50.0*		*102*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*52.2*		*"*	*50.0*		*104*	*52-149*			
Surrogate: Toluene-d8	*50.8*		*"*	*50.0*		*102*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*51.1*		*"*	*50.0*		*102*	*66-145*			
Calibration Check (EA72303-CCV1)				Prepared & Analyzed: 01/23/07						
Toluene	48.4		ug/kg	50.0		96.8	70-130			
Ethylbenzene	53.9		"	50.0		108	70-130			
Surrogate: Dibromofluoromethane	*51.8*		*"*	*50.0*		*104*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*46.6*		*"*	*50.0*		*93.2*	*52-149*			
Surrogate: Toluene-d8	*46.7*		*"*	*50.0*		*93.4*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*51.9*		*"*	*50.0*		*104*	*66-145*			

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA72303 - EPA 5030C (GCMS)										
Matrix Spike (EA72303-MS1)	**Source: 7A18002-01**			Prepared & Analyzed: 01/23/07						
Benzene	0.115	0.00200	mg/kg dry	0.113	ND	102	70-130			
Toluene	0.105	0.00200	"	0.113	ND	92.9	70-130			
Ethylbenzene	0.110	0.00200	"	0.113	ND	97.3	70-130			
Xylene (p/m)	0.207	0.00200	"	0.226	ND	91.6	70-130			
Xylene (o)	0.118	0.00200	"	0.113	ND	104	70-130			
Surrogate: Dibromofluoromethane	*60.1*		*ug/kg*	*50.0*		*120*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*54.4*		"	*50.0*		*109*	*52-149*			
Surrogate: Toluene-d8	*47.7*		"	*50.0*		*95.4*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*56.1*		"	*50.0*		*112*	*66-145*			
Matrix Spike Dup (EA72303-MSD1)	**Source: 7A18002-01**			Prepared & Analyzed: 01/23/07						
Benzene	0.118	0.00200	mg/kg dry	0.113	ND	104	70-130	1.94	20	
Toluene	0.103	0.00200	"	0.113	ND	91.2	70-130	1.85	20	
Ethylbenzene	0.104	0.00200	"	0.113	ND	92.0	70-130	5.60	20	
Xylene (p/m)	0.197	0.00200	"	0.226	ND	87.2	70-130	4.92	20	
Xylene (o)	0.112	0.00200	"	0.113	ND	99.1	70-130	4.83	20	
Surrogate: Dibromofluoromethane	*54.9*		*ug/kg*	*50.0*		*110*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*50.2*		"	*50.0*		*100*	*52-149*			
Surrogate: Toluene-d8	*46.8*		"	*50.0*		*93.6*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*54.2*		"	*50.0*		*108*	*66-145*			

Notes and Definitions

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

Report Approved By: _____ Date: 1/25/2007

Brent Barron, Laboratory Director/Corp. Technical Director
Celey D. Keene, Org. Tech Director
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA/QC Officer
Jeanne Mc Murrey, Inorg. Tech Director

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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Project Manager: Camille Reynolds
Company Name: Plains Pipeline LP
Company Address:
City/State/Zip:
Telephone No: Fax No:
Sampler Signature: e-mail: kcoody@sdgenv.com

Project Name: Jalmat 22A
Project #: 2000-10614
Project Loc: Clay Osborn Ranch
PO #:
Report Format: ☐ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 7A18005

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL: BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	22A-F7			1/18/07	0900		1	1								S	X								X				X
-02	22A-F8			1/18/07	0905		1	1								S	X								X				X
-03	22A-F9			1/18/07	0910		1	1								S	X								X				X
-04	22A-NW5			1/18/07	0920		1	1								S	X								X				X
-05	22A-EW2			1/18/07	0925		1	1								S	X								X				X
-06	22A-002			1/18/07	1050		1	1								S	X								X				X

Special Instructions:
(1) Run BTEX if TPH < 1000 mg/kg

PC

Relinquished by:	Date	Time	Received by:	Date	Time
	1/18/07	1425			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				01-18-07	1425

Laboratory Comments:

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

Temperature Upon Receipt: -0.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains P/L

Date/ Time: 01-18-07 @ 1425

Lab ID #: 7A18005

Initials: JMM

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	-0.5 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	(Not Present)	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

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

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

A Xenco Laboratories, Inc. Company

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Jalmat 22A Landfarm

Project Number: 2000-10614

Location: Clay Osborn Ranch

Lab Order Number: 7A12027

Report Date: 01/25/07

Plains All American EH & S	Project: Jalmat 22A Landfarm	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	
Midland TX, 79706-4476	Project Manager: Camille Reynolds	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
22A- 001	7A12027-01	Soil	01/12/07 11:00	01-12-2007 16:30
22A- SW1	7A12027-02	Soil	01/12/07 12:05	01-12-2007 16:30
22A- F1	7A12027-03	Soil	01/12/07 12:09	01-12-2007 16:30
22A- WW1	7A12027-04	Soil	01/12/07 12:15	01-12-2007 16:30
22A- NW1	7A12027-05	Soil	01/12/07 12:20	01-12-2007 16:30
22A- SW2	7A12027-06	Soil	01/12/07 12:22	01-12-2007 16:30
22A- SW3	7A12027-07	Soil	01/12/07 12:27	01-12-2007 16:30
22A- F2	7A12027-08	Soil	01/12/07 12:30	01-12-2007 16:30
22A- F3	7A12027-09	Soil	01/12/07 12:45	01-12-2007 16:30
22A- NW4	7A12027-10	Soil	01/12/07 12:50	01-12-2007 16:30
22A- SW4	7A12027-11	Soil	01/12/07 13:00	01-12-2007 16:30
22A- F4	7A12027-12	Soil	01/12/07 13:05	01-12-2007 16:30
22A- NW2	7A12027-13	Soil	01/12/07 13:09	01-12-2007 16:30
22A- SW5	7A12027-14	Soil	01/12/07 13:13	01-12-2007 16:30
22A- F5	7A12027-15	Soil	01/12/07 13:20	01-12-2007 16:30
22A- SW6	7A12027-16	Soil	01/12/07 13:25	01-12-2007 16:30
22A- F6	7A12027-17	Soil	01/12/07 13:30	01-12-2007 16:30
22A- NW3	7A12027-18	Soil	01/12/07 13:35	01-12-2007 16:30
22A- EW1	7A12027-19	Soil	01/12/07 13:40	01-12-2007 16:30

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- 001 (7A12027-01) Soil									
Carbon Ranges C6-C12	**453**	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	**2850**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**107**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**3410**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*117 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*152 %*	*70-130*		"	"	"	"	*S-04*
22A- SW1 (7A12027-02) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	**64.7**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**64.7**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*112 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*117 %*	*70-130*		"	"	"	"	
22A- F1 (7A12027-03) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*112 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*116 %*	*70-130*		"	"	"	"	
22A- WW1 (7A12027-04) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*93.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*103 %*	*70-130*		"	"	"	"	

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- NW1 (7A12027-05) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*78.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*102 %*	*70-130*		"	"	"	"	
22A- SW2 (7A12027-06) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	**25.1**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**25.1**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*109 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*117 %*	*70-130*		"	"	"	"	
22A- SW3 (7A12027-07) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*109 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*111 %*	*70-130*		"	"	"	"	
22A- F2 (7A12027-08) Soil									
Carbon Ranges C6-C12	**450**	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	**2480**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**104**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**3030**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*118 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*144 %*	*70-130*		"	"	"	"	*S-04*

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- F3 (7A12027-09) Soil									
Carbon Ranges C6-C12	**303**	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	**2620**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**118**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**3040**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*122 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*122 %*	*70-130*		"	"	"	"	
22A- NW4 (7A12027-10) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	**65.1**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**65.1**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*100 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*109 %*	*70-130*		"	"	"	"	
22A- SW4 (7A12027-11) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*111 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*119 %*	*70-130*		"	"	"	"	
22A- F4 (7A12027-12) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	**77.0**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**77.0**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*111 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*119 %*	*70-130*		"	"	"	"	

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- NW2 (7A12027-13) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	**49.4**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**49.4**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*115 %*	*70-130*		"	"	"	"	
22A- SW5 (7A12027-14) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*113 %*	*70-130*		"	"	"	"	
22A- F5 (7A12027-15) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*108 %*	*70-130*		"	"	"	"	
22A- SW6 (7A12027-16) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*109 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*116 %*	*70-130*		"	"	"	"	

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- F6 (7A12027-17) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*108 %*	*70-130*		"	"	"	"	
22A- NW3 (7A12027-18) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*112 %*	*70-130*		"	"	"	"	
22A- EW1 (7A12027-19) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71510	01/15/07	01/17/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*104 %*	*70-130*		"	"	"	"	

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General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- 001 (7A12027-01) Soil									
% Moisture	**6.6**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- SW1 (7A12027-02) Soil									
% Moisture	**14.4**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- F1 (7A12027-03) Soil									
% Moisture	**5.8**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- WW1 (7A12027-04) Soil									
% Moisture	**1.7**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- NW1 (7A12027-05) Soil									
% Moisture	**1.4**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- SW2 (7A12027-06) Soil									
% Moisture	**5.9**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- SW3 (7A12027-07) Soil									
% Moisture	**4.9**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- F2 (7A12027-08) Soil									
% Moisture	**5.0**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- F3 (7A12027-09) Soil									
% Moisture	**7.5**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- NW4 (7A12027-10) Soil									
% Moisture	**2.9**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- SW4 (7A12027-11) Soil									
% Moisture	**3.2**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	

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General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- F4 (7A12027-12) Soil									
% Moisture	**8.0**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- NW2 (7A12027-13) Soil									
% Moisture	**12.6**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- SW5 (7A12027-14) Soil									
% Moisture	**13.6**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- F5 (7A12027-15) Soil									
% Moisture	**9.2**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- SW6 (7A12027-16) Soil									
% Moisture	**9.2**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- F6 (7A12027-17) Soil									
% Moisture	**11.2**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- NW3 (7A12027-18) Soil									
% Moisture	**20.1**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	
22A- EW1 (7A12027-19) Soil									
% Moisture	**7.6**	0.1	%	1	EA71607	01/15/07	01/16/07	% calculation	

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Project: Jalmat 22A Landfarm
Project Number: 2000-10614
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Volatile Organic Compounds by EPA Method 8260B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- SW1 (7A12027-02) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*114 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.4 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*97.2 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*110 %*	*66-145*		"	"	"	"	
22A- F1 (7A12027-03) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98.4 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*95.4 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*66-145*		"	"	"	"	
22A- WW1 (7A12027-04) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*109 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*121 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*98.8 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.8 %*	*66-145*		"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- NW1 (7A12027-05) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/22/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*136 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*123 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*112 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*113 %*	*66-145*		"	"	"	"	
22A- SW2 (7A12027-06) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*119 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*66-145*		"	"	"	"	
22A- SW3 (7A12027-07) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*123 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*99.2 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*66-145*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- NW4 (7A12027-10) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*116 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*111 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*66-145*		"	"	"	"	
22A- SW4 (7A12027-11) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*117 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*99.4 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.6 %*	*66-145*		"	"	"	"	
22A- F4 (7A12027-12) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*120 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*97.0 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*	*66-145*		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- NW2 (7A12027-13) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*114 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*98.2 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*66-145*		"	"	"	"	
22A- SW5 (7A12027-14) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98.0 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*98.0 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*113 %*	*66-145*		"	"	"	"	
22A- F5 (7A12027-15) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*117 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*66-145*		"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- SW6 (7A12027-16) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*117 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*98.4 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*111 %*	*66-145*		"	"	"	"	
22A- F6 (7A12027-17) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*115 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98.2 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*96.4 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*	*66-145*		"	"	"	"	
22A- NW3 (7A12027-18) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*121 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*110 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*97.4 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*66-145*		"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- EW1 (7A12027-19) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72101	01/21/07	01/21/07	EPA 8260B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*124 %*	*70-139*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*52-149*		"	"	"	"	
Surrogate: Toluene-d8		*99.6 %*	*76-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*110 %*	*66-145*		"	"	"	"	

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA71510 - Solvent Extraction (GC)										
Blank (EA71510-BLK1)				Prepared: 01/15/07 Analyzed: 01/17/07						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*45.5*		*mg/kg*	*50.0*		*91.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*49.4*		*"*	*50.0*		*98.8*	*70-130*			
LCS (EA71510-BS1)				Prepared: 01/15/07 Analyzed: 01/16/07						
Carbon Ranges C6-C12	591	10.0	mg/kg wet	500		118	75-125			
Carbon Ranges C12-C28	487	10.0	"	500		97.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1080	10.0	"	1000		108	75-125			
Surrogate: 1-Chlorooctane	*55.7*		*mg/kg*	*50.0*		*111*	*70-130*			
Surrogate: 1-Chlorooctadecane	*54.7*		*"*	*50.0*		*109*	*70-130*			
Calibration Check (EA71510-CCV1)				Prepared & Analyzed: 01/15/07						
Carbon Ranges C6-C12	231		mg/kg	250		92.4	80-120			
Carbon Ranges C12-C28	286		"	250		114	80-120			
Total Hydrocarbons	517		"	500		103	80-120			
Surrogate: 1-Chlorooctane	*53.0*		*"*	*50.0*		*106*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.4*		*"*	*50.0*		*101*	*70-130*			
Matrix Spike (EA71510-MS1)	**Source: 7A12026-05**			Prepared: 01/15/07 Analyzed: 01/17/07						
Carbon Ranges C6-C12	620	10.0	mg/kg dry	526	ND	118	75-125			
Carbon Ranges C12-C28	501	10.0	"	526	ND	95.2	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1120	10.0	"	1050	ND	107	75-125			
Surrogate: 1-Chlorooctane	*62.6*		*mg/kg*	*50.0*		*125*	*70-130*			
Surrogate: 1-Chlorooctadecane	*58.7*		*"*	*50.0*		*117*	*70-130*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA71510 - Solvent Extraction (GC)										
Matrix Spike Dup (EA71510-MSD1)	**Source: 7A12026-05**			Prepared: 01/15/07 Analyzed: 01/17/07						
Carbon Ranges C6-C12	651	10.0	mg/kg dry	526	ND	124	75-125	4.96	20	
Carbon Ranges C12-C28	518	10.0	"	526	ND	98.5	75-125	3.41	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1170	10.0	"	1050	ND	111	75-125	3.67	20	
Surrogate: 1-Chlorooctane	*63.1*		*mg/kg*	*50.0*		*126*	*70-130*			
Surrogate: 1-Chlorooctadecane	*64.6*		*"*	*50.0*		*129*	*70-130*			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA71607 - General Preparation (Prep)										
Blank (EA71607-BLK1)				Prepared: 01/15/07 Analyzed: 01/16/07						
% Solids	99.8		%							
Duplicate (EA71607-DUP1)		**Source: 7A12022-01**		Prepared: 01/15/07 Analyzed: 01/16/07						
% Solids	96.4		%		94.6			1.88	20	
Duplicate (EA71607-DUP2)		**Source: 7A12022-32**		Prepared: 01/15/07 Analyzed: 01/16/07						
% Solids	95.2		%		95.1			0.105	20	
Duplicate (EA71607-DUP3)		**Source: 7A12024-20**		Prepared: 01/15/07 Analyzed: 01/16/07						
% Solids	97.7		%		97.8			0.102	20	
Duplicate (EA71607-DUP4)		**Source: 7A12027-12**		Prepared: 01/15/07 Analyzed: 01/16/07						
% Solids	92.4		%		92.0			0.434	20	
Duplicate (EA71607-DUP5)		**Source: 7A15002-03**		Prepared: 01/15/07 Analyzed: 01/16/07						
% Solids	83.9		%		85.9			2.36	20	

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA72101 - EPA 5030C (GCMS)										
Blank (EA72101-BLK1)				Prepared & Analyzed: 01/21/07						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: Dibromofluoromethane	*49.5*		*ug/kg*	*50.0*		*99.0*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*50.9*		*"*	*50.0*		*102*	*52-149*			
Surrogate: Toluene-d8	*50.4*		*"*	*50.0*		*101*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*48.4*		*"*	*50.0*		*96.8*	*66-145*			
LCS (EA72101-BS1)				Prepared & Analyzed: 01/21/07						
Benzene	0.0464	0.00100	mg/kg wet	0.0500		92.8	70-130			
Toluene	0.0447	0.00100	"	0.0500		89.4	70-130			
Ethylbenzene	0.0522	0.00100	"	0.0500		104	70-130			
Xylene (p/m)	0.102	0.00100	"	0.100		102	70-130			
Xylene (o)	0.0538	0.00100	"	0.0500		108	70-130			
Surrogate: Dibromofluoromethane	*52.9*		*ug/kg*	*50.0*		*106*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*47.0*		*"*	*50.0*		*94.0*	*52-149*			
Surrogate: Toluene-d8	*46.0*		*"*	*50.0*		*92.0*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*51.1*		*"*	*50.0*		*102*	*66-145*			
Calibration Check (EA72101-CCV1)				Prepared & Analyzed: 01/21/07						
Toluene	46.8		ug/kg	50.0		93.6	70-130			
Ethylbenzene	48.9		"	50.0		97.8	70-130			
Surrogate: Dibromofluoromethane	*52.8*		*"*	*50.0*		*106*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*47.0*		*"*	*50.0*		*94.0*	*52-149*			
Surrogate: Toluene-d8	*50.6*		*"*	*50.0*		*101*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*49.8*		*"*	*50.0*		*99.6*	*66-145*			

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

Project: Jalmat 22A Landfarm
Project Number: 2000-10614
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA72101 - EPA 5030C (GCMS)										
Matrix Spike (EA72101-MS1)	**Source: 7A12027-02**			Prepared: 01/21/07 Analyzed: 01/22/07						
Benzene	0.119	0.00200	mg/kg dry	0.117	ND	102	70-130			
Toluene	0.112	0.00200	"	0.117	ND	95.7	70-130			
Ethylbenzene	0.118	0.00200	"	0.117	ND	101	70-130			
Xylene (p/m)	0.227	0.00200	"	0.234	ND	97.0	70-130			
Xylene (o)	0.120	0.00200	"	0.117	ND	103	70-130			
Surrogate: Dibromofluoromethane	*56.4*		*ug/kg*	*50.0*		*113*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*50.9*		"	*50.0*		*102*	*52-149*			
Surrogate: Toluene-d8	*49.7*		"	*50.0*		*99.4*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*56.6*		"	*50.0*		*113*	*66-145*			
Matrix Spike Dup (EA72101-MSD1)	**Source: 7A12027-02**			Prepared: 01/21/07 Analyzed: 01/22/07						
Benzene	0.117	0.00200	mg/kg dry	0.117	ND	100	70-130	1.98	20	
Toluene	0.110	0.00200	"	0.117	ND	94.0	70-130	1.79	20	
Ethylbenzene	0.112	0.00200	"	0.117	ND	95.7	70-130	5.39	20	
Xylene (p/m)	0.215	0.00200	"	0.234	ND	91.9	70-130	5.40	20	
Xylene (o)	0.117	0.00200	"	0.117	ND	100	70-130	2.96	20	
Surrogate: Dibromofluoromethane	*61.8*		*ug/kg*	*50.0*		*124*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*48.0*		"	*50.0*		*96.0*	*52-149*			
Surrogate: Toluene-d8	*49.3*		"	*50.0*		*98.6*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*55.1*		"	*50.0*		*110*	*66-145*			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: _____ Date: 1/25/2007

Brent Barron, Laboratory Director/Corp. Technical Director
Celey D. Keene, Org. Tech Director
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA/QC Officer
Jeanne Mc Murrey, Inorg. Tech Director

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Camille Reynolds
Company Name: Plains Pipeline, LP
Company Address:
City/State/Zip:
Telephone No: Fax No:
Sampler Signature: K Cody e-mail: KCody@sdgen.com

Project Name: Jalmat 22A
Project #: 2000 - 10614
Project Loc: Clay Osborn Ranch
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: MH2087

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 / 8015M	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021 or 8260 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	22A - 001			1/12/07	1100		1	✓								S	X								X				X
02	22A - SW1			1/12/07	1205		1	✓								S	X								X				X
03	22A - F1			1/12/07	1209		1	✓								S	X								X				X
04	22A - NW1			1/12/07	1215		1	✓								S	X								X				X
05	22A - NW1			1/12/07	1220		1	✓								S	X								X				X
06	22A - SW2			1/12/07	1222		1	✓								S	X								X				X
07	22A - SW3			1/12/07	1227		1	✓								S	X								X				X
08	22A - F2			1/12/07	1230		1	✓								S	X								X				X
09	22A - F3			1/12/07	1245		1	✓								S	X								X				X
10	22A - NW4			1/12/07	1253		1	✓								S	X								X				X

(X) Add BTEX – 01-18-07

Special Instructions:
(1) Run BTEX if TPH < 1000 mg/kg. Notify K. Cody when TPH completed.

Relinquished by:	Date	Time	Received by:	Date	Time
K Cody	1/12/07	1630			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time

Laboratory Comments:
Sample containers intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Reynolds
Company Name: Plains Pipeline LP
Company Address:
City/State/Zip:
Telephone No: Fax No:
Sampler Signature: e-mail: kcady@eslgenv.com

Project Name: Jalmat 22A
Project #: 2000 - 10614
Project Loc: Clay Osborn Ranch
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: MA12027

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: 8015B	8015M	TPH: 418.1	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
11	22A-SW4			1/12/07	1300		1	✓								S	X											X				X
12	22A-F4			1/12/07	1305		1	✓								S	X											X				X
13	22A-NW2			1/12/07	1309		1	✓								S	X											X				X
14	22A-SW5			1/12/07	1313		1	✓								S	X											X				X
15	22A-F5			1/12/07	1320		1	✓								S	X											X				X
16	22A-SW6			1/12/07	1325		1	✓								S	X											X				X
17	22A-F6			1/12/07	1330		1	✓								S	X											X				X
18	22A-NW3			1/12/07	1335		1	✓								S	X											X				X
19	22A-EW1			1/12/07	1340		1	✓								S	X											X				X

Special Instructions:
(1) Run BTEX if TPH < 1000 mg/kg. Notify K. Cady when TPH completed

Relinquished by:	Date	Time	Received by:	Date	Time
	1/12/07	1630			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Kal. 1/12	Date	Time

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

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains

Date/ Time: 1/12/07 10:30

Lab ID # : 7A12024

Initials: CK

Sample Receipt Checklist

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

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

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

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

A Xenco Laboratories Company

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Jalmat 22A

Project Number: 2000-10614

Location: Clay Osborn Ranch

Lab Order Number: 7A30001

Report Date: 02/09/07

Plains All American EH & S	Project: Jalmat 22A	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	
Midland TX, 79706-4476	Project Manager: Camille Reynolds	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
22A- F10	7A30001-01	Soil	01/29/07 11:50	01-29-2007 17:35

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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

Project: Jalmat 22A
Project Number: 2000-10614
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- F10 (7A30001-01) Soil									
Carbon Ranges C6-C12	**73.6**	50.0	mg/kg dry	5	EA73008	01/30/07	01/30/07	EPA 8015M	
Carbon Ranges C12-C28	**3030**	50.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**624**	50.0	"	"	"	"	"	"	
Total Hydrocarbons	**3730**	50.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*15.5 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*26.0 %*	*70-130*		"	"	"	"	*S-06*

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Plains All American EH & S	Project: Jalmat 22A	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	
Midland TX, 79706-4476	Project Manager: Camille Reynolds	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A- F10 (7A30001-01) Soil									
% Moisture	**10.5**	0.1	%	1	EA73101	01/30/07	01/31/07	% calculation	

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

Project: Jalmat 22A
Project Number: 2000-10614
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA73008 - Solvent Extraction (GC)										
Blank (EA73008-BLK1)				Prepared: 01/30/07 Analyzed: 02/02/07						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*51.4*		*mg/kg*	*50.0*		*103*	*70-130*			
Surrogate: 1-Chlorooctadecane	*58.5*		*"*	*50.0*		*117*	*70-130*			
LCS (EA73008-BS1)				Prepared: 01/30/07 Analyzed: 02/02/07						
Carbon Ranges C6-C12	552	10.0	mg/kg wet	500		110	75-125			
Carbon Ranges C12-C28	529	10.0	"	500		106	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1080	10.0	"	1000		108	75-125			
Surrogate: 1-Chlorooctane	*54.5*		*mg/kg*	*50.0*		*109*	*70-130*			
Surrogate: 1-Chlorooctadecane	*55.8*		*"*	*50.0*		*112*	*70-130*			
Calibration Check (EA73008-CCV1)				Prepared: 01/30/07 Analyzed: 02/03/07						
Carbon Ranges C6-C12	221		mg/kg	250		88.4	80-120			
Carbon Ranges C12-C28	261		"	250		104	80-120			
Total Hydrocarbons	481		"	500		96.2	80-120			
Surrogate: 1-Chlorooctane	*64.4*		*"*	*50.0*		*129*	*70-130*			
Surrogate: 1-Chlorooctadecane	*62.3*		*"*	*50.0*		*125*	*70-130*			
Matrix Spike (EA73008-MS1)	**Source: 7A30003-02**			Prepared: 01/30/07 Analyzed: 02/03/07						
Carbon Ranges C6-C12	525	10.0	mg/kg dry	551	ND	95.3	75-125			
Carbon Ranges C12-C28	526	10.0	"	551	16.0	92.6	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1050	10.0	"	1100	16.0	94.0	75-125			
Surrogate: 1-Chlorooctane	*50.5*		*mg/kg*	*50.0*		*101*	*70-130*			
Surrogate: 1-Chlorooctadecane	*46.2*		*"*	*50.0*		*92.4*	*70-130*			

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

Project: Jalmat 22A
Project Number: 2000-10614
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA73008 - Solvent Extraction (GC)										
Matrix Spike Dup (EA73008-MSD1)	**Source: 7A30003-02**			Prepared: 01/30/07 Analyzed: 02/03/07						
Carbon Ranges C6-C12	556	10.0	mg/kg dry	551	ND	101	75-125	5.81	20	
Carbon Ranges C12-C28	590	10.0	"	551	16.0	104	75-125	11.6	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1150	10.0	"	1100	16.0	103	75-125	9.14	20	
Surrogate: 1-Chlorooctane	*53.3*		*mg/kg*	*50.0*		*107*	*70-130*			
Surrogate: 1-Chlorooctadecane	*49.4*		*"*	*50.0*		*98.8*	*70-130*			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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

Project: Jalmat 22A
Project Number: 2000-10614
Project Manager: Camille Reynolds

Fax: (432) 687-4914

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA73101 - General Preparation (Prep)										
Blank (EA73101-BLK1)				Prepared: 01/30/07 Analyzed: 01/31/07						
% Solids	100		%							
Duplicate (EA73101-DUP1)		**Source: 7A29026-01**		Prepared: 01/30/07 Analyzed: 01/31/07						
% Solids	85.7		%		86.1			0.466	20	
Duplicate (EA73101-DUP2)		**Source: 7A30003-10**		Prepared: 01/30/07 Analyzed: 01/31/07						
% Solids	97.5		%		97.1			0.411	20	

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

Project: Jalmat 22A
Project Number: 2000-10614
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: _____ Date: 2/9/2007

Brent Barron, Laboratory Director/Corp. Technical Director
Celey D. Keene, Org. Tech Director
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA/QC Officer
Jeanne Mc Murrey, Inorg. Tech Director

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Camille Reynolds
Company Name: Plains Pipeline LP
Company Address:
City/State/Zip:
Telephone No: Fax No:
Sampler Signature: e-mail: lcody@elabtx.com

Project Name: Jalmat 22A
Project #: 2000-10614
Project Loc: Clay Osborn Ranch
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Verbals on TPH ASAP 1/31/07

(lab use only) ORDER #: 7A3C001 / 7A3C001

4oz glass

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge	GW=Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	TPH: 418.1	8015M	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.			TRUSH TAT (Pre-Scheduled) 24, 48, 72 hrs	Standard TAT
																			TCLP:																	
																			TOTAL:										X					
01	22A-F10			1/29/07	1150		1	X									S		X										X					X	X

Special Instructions:
(X) Run BTEX if TPH < 1000 mg/kg mobile: 713-806-7948

Relinquished by:	Date	Time	Received by:	Date	Time
	1/29/07	17:35			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				1/30/07	9:00

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star		
Temperature Upon Receipt: 2.5 °C		

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

t: Plains

te/ Time: 1/29/07 17:35

D #: ~~7A29024~~ Taylor 7A30001

tials: CK

Sample Receipt Checklist

					Client Initials
	Temperature of container/ cooler?	Yes	No	2.5 °C	
	Shipping container in good condition?	Yes	No		
	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
	Chain of Custody present?	Yes	No		
	Sample instructions complete of Chain of Custody?	Yes	No		
	Chain of Custody signed when relinquished/ received?	Yes	No		
	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
	Container label(s) legible and intact?	Yes	No	Not Applicable	
0	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
11	Containers supplied by ELOT?	Yes	No		
	Samples in proper container/ bottle?	Yes	No	See Below	
13	Samples properly preserved?	Yes	No	See Below	
14	Sample bottles intact?	Yes	No		
	Preservations documented on Chain of Custody?	Yes	No		
	Containers documented on Chain of Custody?	Yes	No		
17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
	All samples received within sufficient hold time?	Yes	No	See Below	
	Subcontract of sample(s)?	Yes	No	Not Applicable	
20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

ontact: _____ Contacted by: _____ Date/ Time: _____

egarding: _____

orrective Action Taken: _____

heck all that Apply:

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

Jeanne McMurrey

From: "kcody" <kcody@sdgenv.com>
To: '"Jeanne McMurrey" <jeanne@elabtexas.com>
Sent: Friday, February 09, 2007 9:06 AM
Subject: RE: Jalmat 22A Landfarm 7A30001

Jeanne,

This report should be for Jalmat 22A and not Jalmat 22A Landfarm. They both have the same SRS number but different names.

Thanks

-----Original Message-----
From: Jeanne McMurrey [mailto:jeanne@elabtexas.com]
Sent: Monday, February 05, 2007 5:13 PM
To: Kellie Carter; Daniel M. Bryant; Camille Reynolds
Cc: Kenneth Cody
Subject: RE: Jalmat 22A Landfarm 7A30001

Jeanne McMurrey
Environmental Lab of Texas I, Ltd.
12600 West I-20 East
Odessa, Texas 79765
432-563-1800

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ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

A Xenco Laboratories Company

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Jalmat 22A Landfarm

Project Number: 2000-10614

Location: Clay Osborn Ranch

Lab Order Number: 7B03006

Report Date: 02/12/07

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

Project: Jalmat 22A Landfarm
Project Number: 2000-10614
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
22A-SP3A	7B03006-01	Soil	02/02/07 09:05	02-02-2007 16:50
22A-SP3B	7B03006-02	Soil	02/02/07 09:10	02-02-2007 16:50
22A-SP3C	7B03006-03	Soil	02/02/07 09:12	02-02-2007 16:50
22A-SP2B	7B03006-04	Soil	02/02/07 09:25	02-02-2007 16:50
22A-F10-15	7B03006-05	Soil	02/02/07 11:00	02-02-2007 16:50

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A-SP3A (7B03006-01) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EB70904	02/09/07	02/10/07	EPA 8021B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*68.4 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*79.0 %*	*80-120*		"	"	"	"	*S-04*
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EB70503	02/05/07	02/08/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*103 %*	*70-130*		"	"	"	"	
22A-SP3B (7B03006-02) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EB70904	02/09/07	02/10/07	EPA 8021B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*66.0 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*74.0 %*	*80-120*		"	"	"	"	*S-04*
Carbon Ranges C6-C12	**17.1**	10.0	mg/kg dry	1	EB70503	02/05/07	02/08/07	EPA 8015M	
Carbon Ranges C12-C28	**222**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**44.8**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**284**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*110 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*115 %*	*70-130*		"	"	"	"	
22A-SP3C (7B03006-03) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EB70904	02/09/07	02/10/07	EPA 8021B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*66.8 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*84.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	**23.3**	10.0	mg/kg dry	1	EB70616	02/06/07	02/08/07	EPA 8015M	

Plains All American EH & S	Project: Jalmat 22A Landfarm	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	
Midland TX, 79706-4476	Project Manager: Camille Reynolds	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A-SP3C (7B03006-03) Soil									
Carbon Ranges C12-C28	**215**	10.0	mg/kg dry	1	EB70616	02/06/07	02/08/07	EPA 8015M	
Carbon Ranges C28-C35	**46.8**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**286**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*105 %*	*70-130*		"	"	"	"	
22A-SP2B (7B03006-04) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EB70904	02/09/07	02/10/07	EPA 8021B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*70.8 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*63.2 %*	*80-120*		"	"	"	"	*S-04*
Carbon Ranges C6-C12	**15.2**	10.0	mg/kg dry	1	EB70616	02/06/07	02/08/07	EPA 8015M	
Carbon Ranges C12-C28	**430**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**77.1**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**522**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*82.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*88.2 %*	*70-130*		"	"	"	"	
22A-F10-15 (7B03006-05) Soil									
Carbon Ranges C6-C12	**144**	10.0	mg/kg dry	1	EB70616	02/06/07	02/07/07	EPA 8015M	
Carbon Ranges C12-C28	**1070**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**155**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**1370**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*113 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*114 %*	*70-130*		"	"	"	"	

Plains All American EH & S	Project: Jalmat 22A Landfarm	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	
Midland TX, 79706-4476	Project Manager: Camille Reynolds	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
22A-SP3A (7B03006-01) Soil									
% Moisture	**8.1**	0.1	%	1	EB70504	02/03/07	02/05/07	% calculation	
22A-SP3B (7B03006-02) Soil									
% Moisture	**7.5**	0.1	%	1	EB70504	02/03/07	02/05/07	% calculation	
22A-SP3C (7B03006-03) Soil									
% Moisture	**5.9**	0.1	%	1	EB70504	02/03/07	02/05/07	% calculation	
22A-SP2B (7B03006-04) Soil									
% Moisture	**7.9**	0.1	%	1	EB70504	02/03/07	02/05/07	% calculation	
22A-F10-15 (7B03006-05) Soil									
% Moisture	**10.3**	0.1	%	1	EB70504	02/03/07	02/05/07	% calculation	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB70503 - Solvent Extraction (GC)										
Blank (EB70503-BLK1)				Prepared: 02/05/07 Analyzed: 02/08/07						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*51.5*		*mg/kg*	*50.0*		*103*	*70-130*			
Surrogate: 1-Chlorooctadecane	*56.2*		*"*	*50.0*		*112*	*70-130*			
LCS (EB70503-BS1)				Prepared: 02/05/07 Analyzed: 02/07/07						
Carbon Ranges C6-C12	583	10.0	mg/kg wet	500		117	75-125			
Carbon Ranges C12-C28	536	10.0	"	500		107	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1120	10.0	"	1000		112	75-125			
Surrogate: 1-Chlorooctane	*59.9*		*mg/kg*	*50.0*		*120*	*70-130*			
Surrogate: 1-Chlorooctadecane	*64.9*		*"*	*50.0*		*130*	*70-130*			
Calibration Check (EB70503-CCV1)				Prepared: 02/05/07 Analyzed: 02/08/07						
Carbon Ranges C6-C12	210		mg/kg	250		84.0	80-120			
Carbon Ranges C12-C28	245		"	250		98.0	80-120			
Total Hydrocarbons	455		"	500		91.0	80-120			
Surrogate: 1-Chlorooctane	*61.7*		*"*	*50.0*		*123*	*70-130*			
Surrogate: 1-Chlorooctadecane	*59.4*		*"*	*50.0*		*119*	*70-130*			
Matrix Spike (EB70503-MS1)	**Source: 7B03006-01**			Prepared: 02/05/07 Analyzed: 02/08/07						
Carbon Ranges C6-C12	561	10.0	mg/kg dry	544	ND	103	75-125			
Carbon Ranges C12-C28	539	10.0	"	544	ND	99.1	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1100	10.0	"	1090	ND	101	75-125			
Surrogate: 1-Chlorooctane	*54.5*		*mg/kg*	*50.0*		*109*	*70-130*			
Surrogate: 1-Chlorooctadecane	*44.1*		*"*	*50.0*		*88.2*	*70-130*			

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB70503 - Solvent Extraction (GC)										
Matrix Spike Dup (EB70503-MSD1)	**Source: 7B03006-01**			Prepared: 02/05/07 Analyzed: 02/08/07						
Carbon Ranges C6-C12	576	10.0	mg/kg dry	544	ND	106	75-125	2.87	20	
Carbon Ranges C12-C28	553	10.0	"	544	ND	102	75-125	2.88	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1130	10.0	"	1090	ND	104	75-125	2.93	20	
Surrogate: 1-Chlorooctane	*58.7*		*mg/kg*	*50.0*		*117*	*70-130*			
Surrogate: 1-Chlorooctadecane	*46.3*		*"*	*50.0*		*92.6*	*70-130*			
Batch EB70616 - Solvent Extraction (GC)										
Blank (EB70616-BLK1)				Prepared: 02/06/07 Analyzed: 02/08/07						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*40.9*		*mg/kg*	*50.0*		*81.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*43.6*		*"*	*50.0*		*87.2*	*70-130*			
LCS (EB70616-BS1)				Prepared: 02/06/07 Analyzed: 02/08/07						
Carbon Ranges C6-C12	589	10.0	mg/kg wet	500		118	75-125			
Carbon Ranges C12-C28	535	10.0	"	500		107	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1120	10.0	"	1000		112	75-125			
Surrogate: 1-Chlorooctane	*63.2*		*mg/kg*	*50.0*		*126*	*70-130*			
Surrogate: 1-Chlorooctadecane	*61.8*		*"*	*50.0*		*124*	*70-130*			
Calibration Check (EB70616-CCV1)				Prepared: 02/06/07 Analyzed: 02/08/07						
Carbon Ranges C6-C12	202		mg/kg	250		80.8	80-120			
Carbon Ranges C12-C28	206		"	250		82.4	80-120			
Total Hydrocarbons	408		"	500		81.6	80-120			
Surrogate: 1-Chlorooctane	*50.8*		*"*	*50.0*		*102*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.7*		*"*	*50.0*		*95.4*	*70-130*			

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB70616 - Solvent Extraction (GC)										
Matrix Spike (EB70616-MS1)	**Source: 7B03005-08**			Prepared: 02/06/07 Analyzed: 02/08/07						
Carbon Ranges C6-C12	541	10.0	mg/kg dry	535	ND	101	75-125			
Carbon Ranges C12-C28	512	10.0	"	535	ND	95.7	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1050	10.0	"	1070	ND	98.1	75-125			
Surrogate: 1-Chlorooctane	*59.7*		*mg/kg*	*50.0*		*119*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.1*		*"*	*50.0*		*100*	*70-130*			
Matrix Spike Dup (EB70616-MSD1)	**Source: 7B03005-08**			Prepared: 02/06/07 Analyzed: 02/08/07						
Carbon Ranges C6-C12	548	10.0	mg/kg dry	535	ND	102	75-125	0.985	20	
Carbon Ranges C12-C28	495	10.0	"	535	ND	92.5	75-125	3.40	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1040	10.0	"	1070	ND	97.2	75-125	0.922	20	
Surrogate: 1-Chlorooctane	*62.2*		*mg/kg*	*50.0*		*124*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.5*		*"*	*50.0*		*101*	*70-130*			
Batch EB70904 - EPA 5030C (GC)										
Blank (EB70904-BLK1)				Prepared: 02/09/07 Analyzed: 02/10/07						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*41.0*		*ug/kg*	*50.0*		*82.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.2*		*"*	*50.0*		*80.4*	*80-120*			
LCS (EB70904-BS1)				Prepared: 02/09/07 Analyzed: 02/10/07						
Benzene	0.0539	0.00100	mg/kg wet	0.0500		108	80-120			
Toluene	0.0523	0.00100	"	0.0500		105	80-120			
Ethylbenzene	0.0533	0.00100	"	0.0500		107	80-120			
Xylene (p/m)	0.112	0.00100	"	0.100		112	80-120			
Xylene (o)	0.0478	0.00100	"	0.0500		95.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*45.5*		*ug/kg*	*50.0*		*91.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*57.3*		*"*	*50.0*		*115*	*80-120*			

Plains All American EH & S
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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB70904 - EPA 5030C (GC)										
Calibration Check (EB70904-CCV1)				Prepared: 02/09/07 Analyzed: 02/10/07						
Benzene	54.8		ug/kg	50.0		110	80-120			
Toluene	52.3		"	50.0		105	80-120			
Ethylbenzene	52.4		"	50.0		105	80-120			
Xylene (p/m)	108		"	100		108	80-120			
Xylene (o)	46.7		"	50.0		93.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.7*		"	*50.0*		*87.4*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*56.9*		"	*50.0*		*114*	*80-120*			
Matrix Spike (EB70904-MS1)		**Source: 7B03005-02**		Prepared: 02/09/07 Analyzed: 02/10/07						
Benzene	0.113	0.00200	mg/kg dry	0.108	ND	105	80-120			
Toluene	0.108	0.00200	"	0.108	ND	100	80-120			
Ethylbenzene	0.131	0.00200	"	0.108	ND	121	80-120			M1
Xylene (p/m)	0.231	0.00200	"	0.216	ND	107	80-120			
Xylene (o)	0.100	0.00200	"	0.108	ND	92.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*42.7*		*ug/kg*	*50.0*		*85.4*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*57.0*		"	*50.0*		*114*	*80-120*			
Matrix Spike Dup (EB70904-MSD1)		**Source: 7B03005-02**		Prepared: 02/09/07 Analyzed: 02/10/07						
Benzene	0.111	0.00200	mg/kg dry	0.108	ND	103	80-120	1.92	20	
Toluene	0.105	0.00200	"	0.108	ND	97.2	80-120	2.84	20	
Ethylbenzene	0.125	0.00200	"	0.108	ND	116	80-120	4.22	20	
Xylene (p/m)	0.220	0.00200	"	0.216	ND	102	80-120	4.78	20	
Xylene (o)	0.0956	0.00200	"	0.108	ND	88.5	80-120	4.53	20	
Surrogate: a,a,a-Trifluorotoluene	*41.4*		*ug/kg*	*50.0*		*82.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*53.3*		"	*50.0*		*107*	*80-120*			

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

Project: Jalmat 22A Landfarm
Project Number: 2000-10614
Project Manager: Camille Reynolds

Fax: (432) 687-4914

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB70504 - General Preparation (Prep)										
Blank (EB70504-BLK1)				Prepared: 02/03/07 Analyzed: 02/05/07						
% Solids	98.4		%							
Duplicate (EB70504-DUP1)	**Source: 7B03005-01**			Prepared: 02/03/07 Analyzed: 02/05/07						
% Solids	96.6		%		97.5			0.927	20	

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: _____ Date: 2/12/2007

Brent Barron, Laboratory Director/Corp. Technical Director
Celey D. Keene, Org. Tech Director
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA/QC Officer
Jeanne Mc Murrey, Inorg. Tech Director

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Camille Reynolds
Company Name: Plains Pipeline, L.P.
Company Address:
City/State/Zip:
Telephone No: Fax No:
Sampler Signature: e-mail: lcody@sdgcnw.com

Project Name: Jalmat 22A
Project #: 2428 - 10614
Project Loc: Clay Osborn Ranch
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 7B03006

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 (8015B)	TOTAL: TPH: 8015B	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	22A - SP3 A			2/2/07	0905		1	✓								S	X									X				X
-02	22A - SP3 B			2/2/07	0910		1	✓								S	X									X				X
-03	22A - SP3 C			2/2/07	0912		1	✓								S	X									X				X
-04	22A - SP2 B			2/2/07	0925		1	✓								S	X									X				X
-05	22A - FIO - 15			2/2/07	1100		1	✓								S	X									X				X

Special Instructions: Rush-Verbal on -05 as of 2/6/7 @ 1110 (713) 806-7948
(X) Run BTEX if TPH > 1000 mg/kg ; notify K. Cody when TPH complete

Relinquished by:	Date	Time	Received by:	Date	Time
K. Cody	2/2/07	1650			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				2-2-07	

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s)? Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered by Sampler/Client Rep.? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 2.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains Pipeline

Date/ Time: 02/02/07 16:50

Lab ID #: 780300

Initials: BM

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	2.0 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	(Yes)	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

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