1R – 411

WORK PLAN

DATE:
JULY 2006

IR-411
Work Plan
July 2006

August 11, 2006

PLAINS MARKETING, L.P.

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

Re: Plains Pipeline, L.P.
Document Submittal
Clay Osborn Ranch – Jalmat #1
Clay Osborn Ranch – Jalmat #2
Clay Osborn Ranch – Jalmat #3
Clay Osborn Ranch – Rocky Top #2
Clay Osborn Ranch – Jalmat #22A
Clay Osborn Ranch – East Shell North
Jal, Lea County, New Mexico

Dear Mr. Stone:

Plains Pipeline, L.P. (Plains) is pleased to submit the attached Site Investigation Reports and Site-Specific Remediation Work Plans for six of the soil remediation project sites located on the Osborn's Rocky Top Ranch in Jal, Lea County, New Mexico. These documents include the results of an additional soil investigation conducted at the site and the remediation plan are based on the General Remediation Work Plan recently submitted to the New Mexico Oil Conservation Commission (NMOCD) by Plains.

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

Attachments: Jalmat #1, #2, #3, #22A, East Shell North and Rocky Top #2, 22B Site Investigation Report and Site-Specific Remediation Work Plans

File: n/jeff-files/Osborn-RockyTopRanch/Jalmat-1 CovrLtr.doc

SITE INVESTIGATION REPORT
and
SITE-SPECIFIC REMEDIATION WORK PLAN

Clay Osborn Rocky Top Ranch
Jalmat 22A Release Site

SW1/4 SW1/4 UL-E, Section 18, Township 25 North, Range 37 East
Latitude 32° 7' 58" Latitude North, Longitude 103° 12' 38" West
Lea County, New Mexico

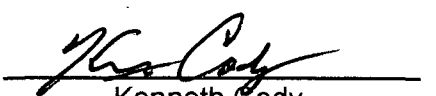
PLAINS PIPELINE, L.P. SRS ID: 2000-10614

Prepared For:

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

Prepared By:
SDG Environmental Services
6611 Vialinda, Suite 204
Houston, Texas 77083

July 2006



Kenneth Cody
SDG Environmental Services

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1.0 INTRODUCTION

SDG Environmental Services (SDG) was retained by Plains Pipeline, L.P. (Plains) to evaluate historical information, conduct additional investigation, and develop a site-specific remediation work plan for the Clay Osborn Jalmat 22A release site located on the Clay Osborne Rocky Top Ranch in Lea County, New Mexico. Plains is the owner/operator of several pipelines present on the Clay Osborne Rocky Top Ranch located near Jal, New Mexico.

This site is located in Unit Letter-E, in the SW¼ SW ¼ of Section 18, Township 25 North, Range 37 East, approximately 1-mile northwest of Jal, Lea County, New Mexico. A topographic Site Location Map is provided as Figure 1. The latitude is 32° 7′ 58″ North, and Longitude 103° 12′ 38″ West. The site is characterized by a pipeline right-of-way in a pasture and an area of surface staining.

The hydrocarbon impacted area is the result of a historical release and the date of the release as well as the volume of crude oil released and recovered is not known. The visually stained area is approximately 23,500 ft^2. A summary of site activities is provided in Section 2.0

Plains prepared and submitted a General Remediation Work Plan dated April 2006 to address the release sites located on the Rocky Top Ranch. The objective of the General Remediation Work Plan was to remediate crude oil impacted sites at the Rocky Top Ranch, consistent with the remediation/abatement goals and objectives set forth in the New Mexico Oil Conservation Division (NMOCD) "NMOCD Guidelines for Remediation of Leaks, Spills, and Releases, August 13, 1993." The General Remediation Work Plan proposed appropriate risk-based thresholds for contaminates of concern (CoCs) based on relative risk posed by the CoC residuals to local groundwater, area water wells, surface water bodies and impacts on surface reclamation.

The General Remediation Work Plan proposed remediation strategies for sites would be developed under the following three scenarios.

1. Surface Restoration Sites (Scenario 1)
   This scenario was developed for sites 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.

2. Total Excavation (Scenario 2)
   For sites where data indicates that soil impacts are limited in vertical extent (i.e. 10 to 15 feet in depth) and total excavation of the impacted soil is practical.

3. Limited Excavation and Risk-based Closure (scenario 3)
   For sites where data indicates that soil impacts in the source area extend to between 10 feet and 45 feet below ground surface (bgs) and excavation of all the impacted soil to below NMOCD guidelines is not practical.

The General Remediation Work Plan was conditionally approved by the NMOCD in a letter to Plains dated May 30, 2006.

The soil analytical data in the EPI December 2001 Jalmat #22A Site Investigation Report as well as the visual observations, field photoionization detector (PID) measurement, and soil analytical data from a site investigation conducted in May 2006 by SDG was used in development of this Site Specific Remediation Work Plan.

2.0 SUMMARY OF SITE ACTIVITIES

On 27 July 2000 through 3 August 2000, initial subsurface horizontal and vertical delineation was conducted by EPI with the installation of twenty-six (26) soil borings installed at the site. Each soil boring was installed to a depth of 15 feet bgs and are identified in Figure 2 as BH-1 through BH-26. 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 one hundred four (104) soil samples. Laboratory results indicated that TPH-GRO/DRO concentrations exceed 100 mg/kg TPH in thirty (30) of the soil samples and the remaining seventy-four (74) soil samples were either below NMCOD regulatory standards or were not detected above the laboratory method detection limits. The highest concentrations were exhibited in samples collected from BH-25 and BH-26. A table summarizing the analytical results from July/August 2000 investigation report is provided in Appendix C.

On 25 May 2006, SDG conducted an additional soil investigation in an effort to determine the vertical extent of impacts at the Clay Osborn Jalmat 22A site. Clay Osborn Jalmat 22A site was identified as an area of stained soils south of the Plains pipeline right-of-way.

One soil boring was installed in the Clay Osborne Jalmat 22A area and is identified in Figure 2 as JM 22A-SB1. Soil Boring JM 22A-SB1 was installed to 25 feet bgs and no groundwater was encountered.

The soil boring was installed by Straub Corporation, Stanton, Texas utilizing an air rotary drill rig. Soil samples were collected at 2 ft, 5 ft, 10 ft, 15 ft, 20 ft, and 25 ft depths using a core sampler. Soil samples were split for headspace analysis to screen for total volatile organic vapor concentrations in soils. A one quart zip-lock bag was filled one-half full of soil and sealed leaving the remainder of the bag filled with air. The sample was allowed to volatilize for five to ten minutes. One end of the bag was opened and the PID probe inserted carefully into the bag and the bag re-

sealed around the probe as much as possible to prevent vapors from escaping. The peak measurement associated with the sample was recorded. The peak PID measurements are provided on the soil boring log included in Appendix B.

3.0 NEW MEXICO OIL CONSERVATION DIVISION (NMOCD) SOIL CLASSIFICATION

The December 8, 2001 Site Investigation Report provided an estimated depth to water at the site of 70 ft bgs. A soil boring installed at a nearby site (Jalmat 22B) (LM22B-SB1) during the May 2006 investigation indicated the depth to water at the site may be greater than 75 ft. 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 ft 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 ft southwest of the site. At the time of the May 2006 investigation, there was no water in the basin. There are no surface water bodies not constructed as part of remediation within 1000 ft 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 of 10 to19, which establish the following remediation levels:

Benzene:	10 mg/kg
BTEX:	50 mg/kg
TPH:	1000 mg/kg

4.0 DISTRIBUTION OF HYDROCARBONS IN THE UNSATURATED ZONE

The estimated area of soils impacted above NMOCD Standards is shown in Figure 3. The area is estimated to be approximately 16,875 square feet. The vertical extent of soils impacted above NMOCD standards based on the data obtained in the 22 May 2006 subsurface sampling is surface to less than 10 feet bgs.

On 25 May 2006, an air rotary drill rig, operated by Straub Corporation, Stanton, Texas, was utilized to delineate the vertical extent of crude oil impacted soil at the site. Soil samples were collected in the subsurface from the soil boring at 5 feet intervals; field screened with a PID and selected soil samples were analyzed for constituent concentrations of BTEX and TPH-GRO/DRO. Laboratory data sheets and chain-of-custody forms are attached (Appendix A). No visual observations of free phase hydrocarbons were encountered during the installation of the soil boring. The soil boring log is provided in Appendix B.

Soil Boring JM 22A-SB1 was installed adjacent to the location of the historical boring BH-25. This location was selected based on the data provided in the December 2001 Investigation Report which indicated that the impacted soils at this location was not vertically delineated. The soil boring was installed to 25 feet bgs and samples were collected at 2, 5, 10, 15, 20, and, 25 feet bgs, field screened with a PID and submitted for laboratory analysis of TPH GRO/DRO and BTEX. Analytical results indicated that constituent concentrations of BTEX were not detected above the laboratory method detection limits in any of the samples. Analytical results indicated that TPH concentration exceeded the NMOCD standard of 1000 mg/kg at 2 feet bgs (6,190 mg/kg) and at 5 feet bgs (5,170 mg/kg). TPH was detected at 10 feet bgs (32.4 mg/kg) but did not exceed NMOCD standard of 1000 mg/kg. TPH was not detected above the laboratory detection limits in soil samples collected at 15, 20, and 25 feet bgs.

The extent of hydrocarbon impacted soils has been delineated vertically. Hydrocarbon impacted shallow soils shallower than 10 feet bgs have not been fully delineated to the north of the location of historical soil boring BH-8. However, based on the results of the soil samples collected and analyzed from surrounding soil borings, it is likely that the horizontal impact of shallow soils are limited in extent.

5.0 DISTRIBUTION OF HYDROCARBONS IN THE SATURATED ZONE

No saturated conditions were observed in the boring. Soil boring JM 22A-SB1 was installed to 25 feet bgs and no groundwater was encountered. The depth of hydrocarbon impacted soils above 1000 mg/kg TPH is limited to less than 15 feet bgs. Therefore there is no indication that hydrocarbons from the historical release have impacted the saturated zone.

6.0 RECOMMENDATIONS FOR REMEDIATION

Based on the results of the vertical soil boring investigation conducted at the site, it appears that hydrocarbon impacted soils are present to depths of 5 to 10 feet bgs. Given the NMOCD guideline cleanup standard of 1000 mg/kg TPH, an estimated 5,000 cubic yards of impacted soil and segregated clean overburden will require excavation. Because the horizontal impacts have not been fully defined, delineation samples will be collected commensurate with excavation and/or cleanup confirmation sampling activities.

The area with observed staining and where laboratory analytical results indicate that surface impacts do not extend to below 2 feet bgs as defined by soil borings BH6, BH7, and BH10 through BH20 will be addressed under the General Work Plan Scenario 1 involving the following procedures as were outlined under the General Remediation Work Plan and approved by NMOCD in the May 2006 NMOCD approval letter:

General Work Plan Scenario 1

- 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.

Because the impacts greater than 1000 mg/kg TPH are limited in vertical extent (i.e. 5 to 10 feet in depth) as defined by soil borings BH5, BH8, BH9, BH21 through BH24, and JM22A-SB1; these soils will be remediated under the General Work Plan Scenario 2 (Total Excavation) involving the following procedures as were outlined in the approved General Remediation Work Plan and includes NMOCD conditions presented in the May 2006 NMOCD approval letter.

General Work Plan Scenario 2

- Excavation of impacted soil to below site guidelines;
- 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;
- Prepare a risk based closure proposal for submittal and approval by the NMOCD;
- Backfill the excavation with treated soil and restore the area to as close as possible to pre-spill conditions.

Should impacted soils be determined to be limited in extent based on additional delineation samples collected commensurate with excavation activities, the soils may be blended on site and stockpiled adjacent to the excavation pending approval of the NMOCD Project Manager.

Impacted soils above the NMOCD standard have been found to be shallower than 10 feet bgs. However, should areas where vertical hydrocarbon impacted soils extend below 10 feet bgs be determined based on analytical results commensurate with excavation activities, Plains recommends that the approved General Work Plan Closure Scenario 3 be applied. Under this scenario, an impermeable barrier consisting of an oversized 20-mil polyethylene liner will be permanently installed at a minimum depth of 10 feet to inhibit vertical migration of contaminants in soil left in

place below the cap. A 3-foot wide clean area buffer will be established around the impacted soil in the floor of the excavation. The buffer extent will be determined using a calibrated PID and confirmed by laboratory analysis of grab samples collected around the perimeter of the excavation. The liner shall be cushioned above and below with a 3 to 4-inch layer of sand or geotextile to protect it from puncture and tearing during the backfilling process. Installation of the 20-mil polyethylene liner at a minimum depth of 10 feet bgs will protect the barrier from erosion and human intrusion for a term sufficient to allow natural biodegrading of contaminates in the soil.

The clean overburden and impacted soils will be blended and utilized as backfill. Soil samples will be collected at a rate of one sample per 500 cubic yards to verify constituent concentrations of BTEX are below NMOCD guidelines and TPH-GRO/DRO are below 1000 mg/kg as approved for backfill over liners. Once the excavation has been confirmed to meet NMOCD standards or the installation of the 20-mil poly liner is completed, backfilling of the excavation will be initiated with the blended soil. The backfilled excavation will be contoured to the original grade surrounding the site and reseeded with approved grass seed.

A request for closure will be submitted to the NMOCD, upon completion of backfilling activities. Plains is requesting approval from NMOCD to implement these proposed final remediation and site closure activities.

7.0 QA/QC PROCEDURES

Soil Sampling

Soil samples will be delivered to Environmental Lab of Texas, Inc. in Odessa, Texas for BTEX, TPH analyses using the methods described below. Soil samples will be analyzed for BTEX, TPH-GRO/DRO within fourteen days following the collection date.

The soil samples will be analyzed as follows:

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

Decontamination of Equipment

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

Laboratory Protocol

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

8.0 LIMITATIONS

SDG Environmental Services has prepared this Site Investigation Report and Site-Specific Remediation Work Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

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

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

DISTRIBUTION

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SDG Environmental Services
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Houston, Texas 77083
kcody@sdgenv.com

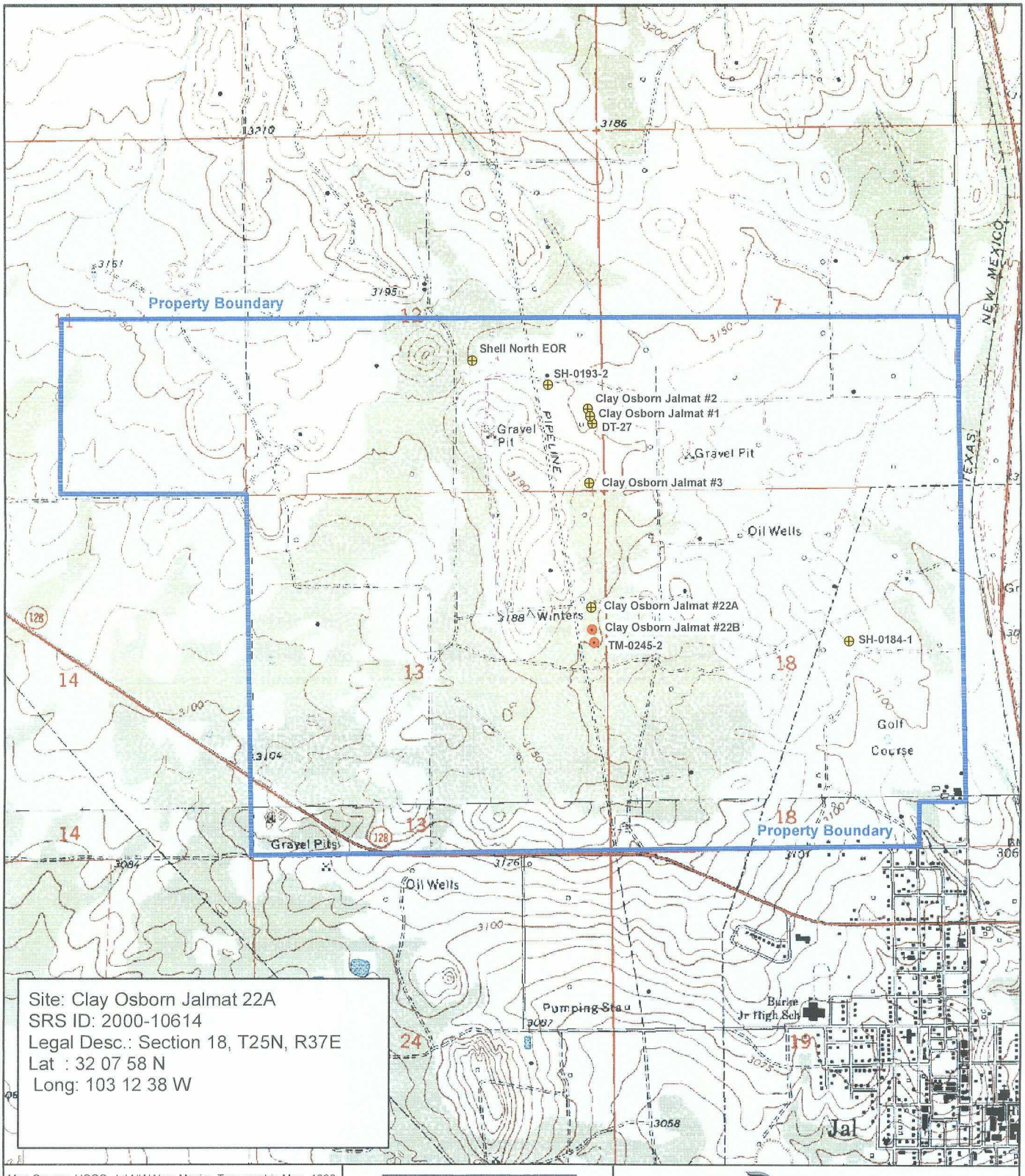
TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS SUMMARY

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

SAMPLE LOCATION	DEPTH ft bgs	SAMPLE DATE	LABORATORY I.D.	METHOD: EPA SW 846-8021B, 5030					METHOD: 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)
JM22A-SB1-2	2'	05/25/06	6E26006-01	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	401	5270	520	6190
JM22A-SB1-5	5'	05/25/06	6E26006-02	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	213	4470	484	5170
JM22A-SB1-10	10'	05/25/06	6E26006-03	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10	32.4	<10	32.4
JM22A-SB1-15	15'	05/25/06	6E26006-04	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10	<10	<10	<10
JM22A-SB1-20	20'	05/25/06	6E26006-05	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10	<10	<10	<10
JM22A-SB1-25	25'	05/25/06	6E26006-06	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10	<10	<10	<10

< indicates the constituent was not detected
J indicates estimated value (detected below method reporting limit)

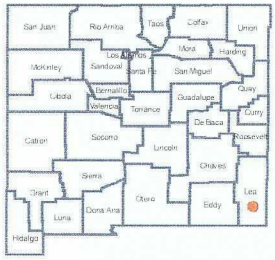


Map Source: USGS, Jal NW New Mexico Topographic Map, 1980.

0 1,000 2,000

Feet

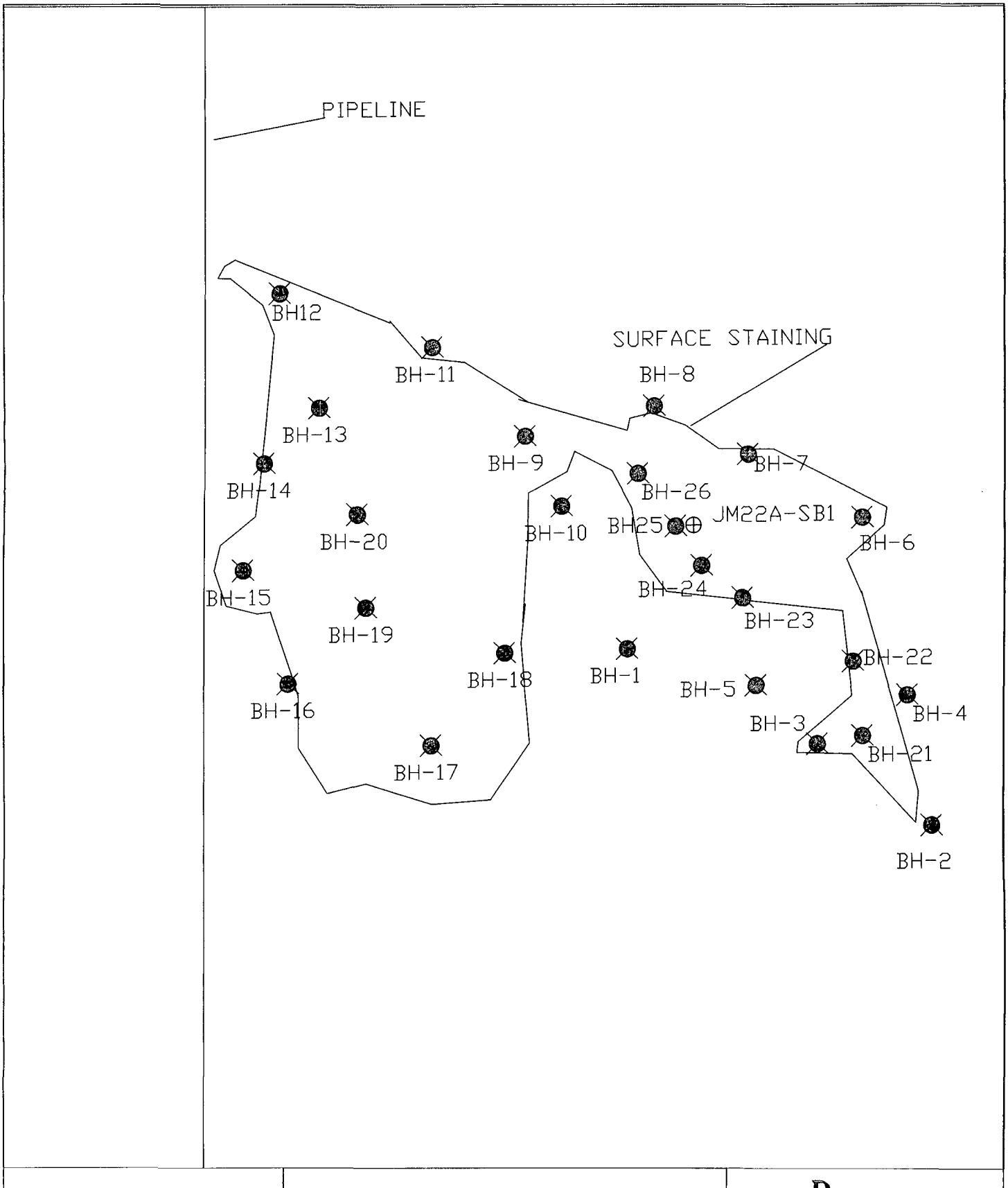
N

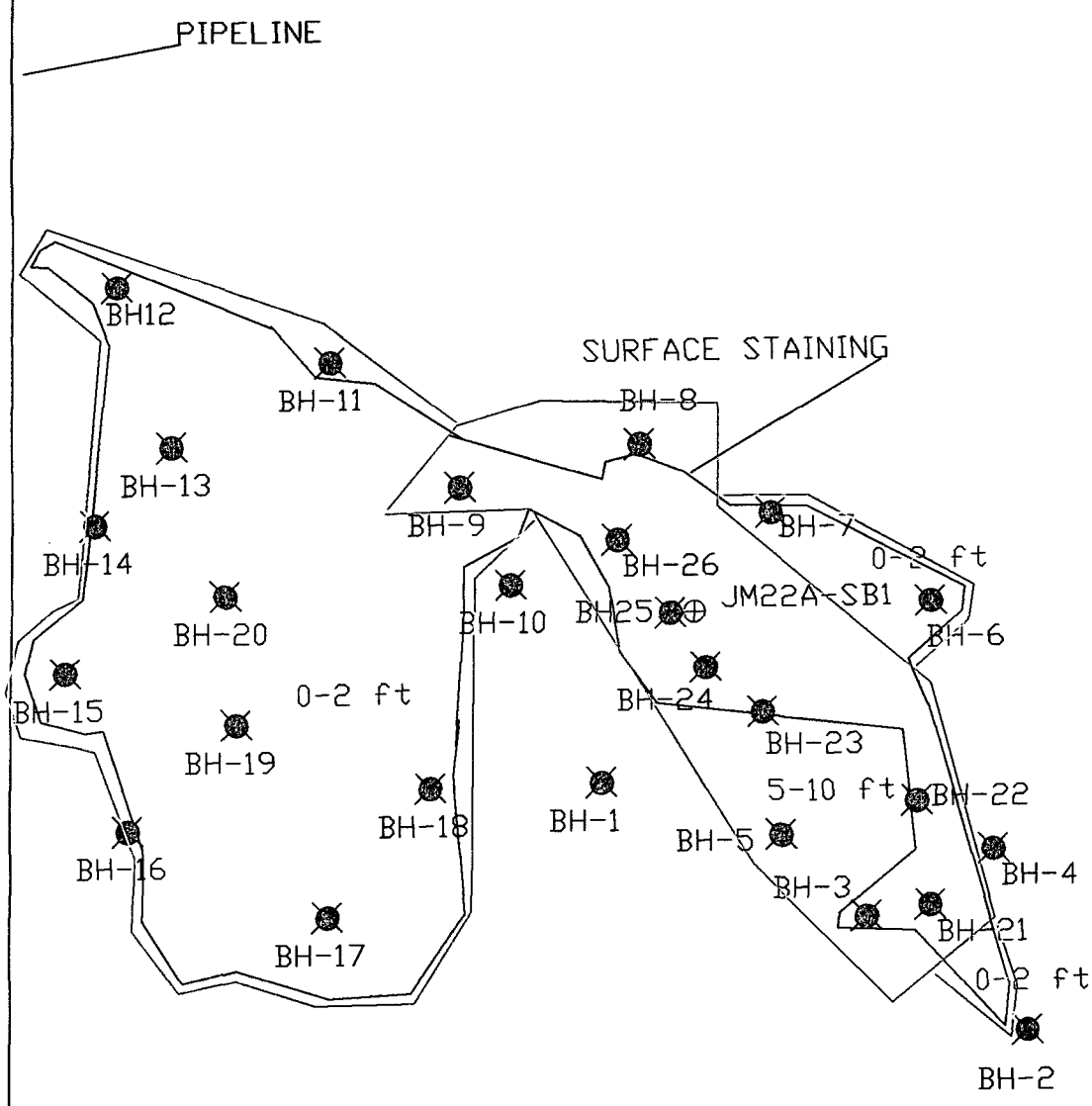


SDG ENVIRONMENTAL SERVICES

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

Figure 1: Site Location Map


PIPELINE
BH12
BH-11
SURFACE STAINING
BH-8
BH-13
BH-9
BH-7
BH-14
BH-26
BH-20
BH-10
BH25
JM22A-SB1
BH-6
BH-15
BH-24
BH-23
BH-19
BH-22
BH-18
BH-1
BH-5
BH-4
BH-16
BH-3
BH-21
BH-17
BH-2
0
25
50
Feet
N
LEGEND:
Soil boring Locations
Historical Soil Boring Locations
SDG
ENVIRONMENTAL SERVICES
Rocky Top Ranch
Clay Osborn Jalmat 22A
SRS No:2000-10614
Lea County, New Mexico
Figure 2: Soil Boring Locations



LEGEND:

⊕ Soil boring Locations

Historical Soil Boring Locations

SDG ENVIRONMENTAL SERVICES

Rocky Top Ranch
Clay Osborn Jalmat 22A
SRS No:2000-10614
Lea County, New Mexico

Figure 3: Estimated Excavation and Depths

APPENDIX A
ENVIRONMENTAL LABORATORY OF TEXAS
ANALYTICAL RESULTS

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Jalmat Clay Osborne #22A

Project Number: 2000-10614

Location: JM-22A

Lab Order Number: 6E26006

Report Date: 06/07/06

Plains All American EH & S	Project: Jalmat Clay Osborne #22A	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	**Reported:**
Midland TX, 79706-4476	Project Manager: Camille Reynolds	06/07/06 12:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM22A-SB1-2	6E26006-01	Soil	05/25/06 16:35	05/26/06 09:34
JM22A-SB1-5	6E26006-02	Soil	05/25/06 16:40	05/26/06 09:34
JM22A-SB1-10	6E26006-03	Soil	05/25/06 16:45	05/26/06 09:34
JM22A-SB1-15	6E26006-04	Soil	05/25/06 16:50	05/26/06 09:34
JM22A-SB1-20	6E26006-05	Soil	05/25/06 16:55	05/26/06 09:34
JM22A-SB1-25	6E26006-06	Soil	05/25/06 17:00	05/26/06 09:34

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

Plains All American EH & S	Project: Jalmat Clay Osborne #22A	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	**Reported:**
Midland TX, 79706-4476	Project Manager: Camille Reynolds	06/07/06 12:59

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM22A-SB1-2 (6E26006-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EF60301	06/03/06	06/04/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*83.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	**401**	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	**5270**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**520**	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	**6190**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*88.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*107 %*	*70-130*		"	"	"	"	
JM22A-SB1-5 (6E26006-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EF60301	06/03/06	06/04/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*83.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	**213**	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	**4470**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**484**	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	**5170**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*96.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*140 %*	*70-130*		"	"	"	"	*S-04*
JM22A-SB1-10 (6E26006-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EF60301	06/03/06	06/04/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*85.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EE63114	05/31/06	06/06/06	EPA 8015M	

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Plains All American EH & S	Project: Jalmat Clay Osborne #22A	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	**Reported:**
Midland TX, 79706-4476	Project Manager: Camille Reynolds	06/07/06 12:59

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM22A-SB1-10 (6E26006-03) Soil									
Carbon Ranges C12-C28	**32.4**	10.0	mg/kg dry	1	EE63114	05/31/06	06/06/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	**32.4**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*93.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*81.0 %*	*70-130*		"	"	"	"	
JM22A-SB1-15 (6E26006-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EF60301	06/03/06	06/04/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*82.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*90.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*89.4 %*	*70-130*		"	"	"	"	
JM22A-SB1-20 (6E26006-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EF60301	06/03/06	06/04/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*81.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*95.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*93.4 %*	*70-130*		"	"	"	"	

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Plains All American EH & S	Project: Jalmat Clay Osborne #22A	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	**Reported:**
Midland TX, 79706-4476	Project Manager: Camille Reynolds	06/07/06 12:59

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM22A-SB1-25 (6E26006-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EF60301	06/03/06	06/04/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*82.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EE63114	05/31/06	06/01/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*96.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*93.0 %*	*70-130*		"	"	"	"	

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Plains All American EH & S	Project: Jalmat Clay Osborne #22A	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	**Reported:**
Midland TX, 79706-4476	Project Manager: Camille Reynolds	06/07/06 12:59

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM22A-SB1-2 (6E26006-01) Soil									
% Moisture	**4.7**	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
JM22A-SB1-5 (6E26006-02) Soil									
% Moisture	**4.2**	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
JM22A-SB1-10 (6E26006-03) Soil									
% Moisture	**12.4**	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
JM22A-SB1-15 (6E26006-04) Soil									
% Moisture	**6.4**	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
JM22A-SB1-20 (6E26006-05) Soil									
% Moisture	**3.6**	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	
JM22A-SB1-25 (6E26006-06) Soil									
% Moisture	**5.3**	0.1	%	1	EE62901	05/26/06	05/27/06	% calculation	

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE63114 - Solvent Extraction (GC)										
Blank (EE63114-BLK1)				Prepared: 05/31/06 Analyzed: 06/01/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbon nC6-nC35	ND	10.0	"							
Surrogate: 1-Chlorooctane	*45.9*		*mg kg*	*50.0*		*91.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.0*		*"*	*50.0*		*94.0*	*70-130*			
LCS (EE63114-BS1)				Prepared: 05/31/06 Analyzed: 06/01/06						
Carbon Ranges C6-C12	561	10.0	mg/kg wet	500		112	75-125			
Carbon Ranges C12-C28	564	10.0	"	500		113	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbon nC6-nC35	1130	10.0	"	1000		113	75-125			
Surrogate: 1-Chlorooctane	*53.8*		*mg kg*	*50.0*		*108*	*70-130*			
Surrogate: 1-Chlorooctadecane	*46.3*		*"*	*50.0*		*92.6*	*70-130*			
Calibration Check (EE63114-CCV1)				Prepared: 05/31/06 Analyzed: 06/01/06						
Carbon Ranges C6-C12	288		mg/kg	250		115	80-120			
Carbon Ranges C12-C28	284		"	250		114	80-120			
Total Hydrocarbon nC6-nC35	572		"	500		114	80-120			
Surrogate: 1-Chlorooctane	*62.5*		*"*	*50.0*		*125*	*70-130*			
Surrogate: 1-Chlorooctadecane	*61.9*		*"*	*50.0*		*124*	*70-130*			
Matrix Spike (EE63114-MS1)	**Source: 6E26006-03**			Prepared: 05/31/06 Analyzed: 06/01/06						
Carbon Ranges C6-C12	589	10.0	mg/kg dry	571	ND	103	75-125			
Carbon Ranges C12-C28	598	10.0	"	571	32.4	99.1	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbon nC6-nC35	1190	10.0	"	1140	32.4	102	75-125			
Surrogate: 1-Chlorooctane	*51.9*		*mg kg*	*50.0*		*104*	*70-130*			
Surrogate: 1-Chlorooctadecane	*45.7*		*"*	*50.0*		*91.4*	*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 EE63114 - Solvent Extraction (GC)										
Matrix Spike Dup (EE63114-MSD1)	**Source: 6E26006-03**			Prepared: 05/31/06 Analyzed: 06/01/06						
Carbon Ranges C6-C12	579	10.0	mg/kg dry	571	ND	101	75-125	1.71	20	
Carbon Ranges C12-C28	589	10.0	"	571	32.4	97.5	75-125	1.52	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbon nC6-nC35	1170	10.0	"	1140	32.4	99.8	75-125	1.69	20	
Surrogate: 1-Chlorooctane	*51.0*		*mg kg*	*50.0*		*102*	*70-130*			
Surrogate: 1-Chlorooctadecane	*44.7*		*"*	*50.0*		*89.4*	*70-130*			
Batch EF60301 - EPA 5030C (GC)										
Blank (EF60301-BLK1)				Prepared: 06/03/06 Analyzed: 06/04/06						
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	*37.0*		*ug kg*	*40.0*		*92.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.7*		*"*	*40.0*		*96.8*	*80-120*			
LCS (EF60301-BS1)				Prepared: 06/03/06 Analyzed: 06/04/06						
Benzene	1.04	0.0250	mg/kg wet	1.25		83.2	80-120			
Toluene	1.03	0.0250	"	1.25		82.4	80-120			
Ethylbenzene	1.13	0.0250	"	1.25		90.4	80-120			
Xylene (p/m)	2.41	0.0250	"	2.50		96.4	80-120			
Xylene (o)	1.18	0.0250	"	1.25		94.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*36.6*		*ug kg*	*40.0*		*91.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*44.7*		*"*	*40.0*		*112*	*80-120*			

Plains All American EH & S	Project: Jalmat Clay Osborne #22A	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	**Reported:**
Midland TX, 79706-4476	Project Manager: Camille Reynolds	06/07/06 12:59

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 EF60301 - EPA 5030C (GC)										
Calibration Check (EF60301-CCV1)				Prepared: 06/03/06 Analyzed: 06/05/06						
Benzene	40.3		ug/kg	50.0		80.6	80-120			
Toluene	40.3		"	50.0		80.6	80-120			
Ethylbenzene	42.0		"	50.0		84.0	80-120			
Xylene (p/m)	85.4		"	100		85.4	80-120			
Xylene (o)	43.8		"	50.0		87.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.2*		"	*40.0*		*93.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*45.3*		"	*40.0*		*113*	*80-120*			
Matrix Spike (EF60301-MS1)	**Source: 6E26005-05**			Prepared: 06/03/06 Analyzed: 06/05/06						
Benzene	1.02	0.0250	mg/kg dry	1.26	ND	81.0	80-120			
Toluene	1.01	0.0250	"	1.26	ND	80.2	80-120			
Ethylbenzene	1.03	0.0250	"	1.26	ND	81.7	80-120			
Xylene (p/m)	2.28	0.0250	"	2.52	ND	90.5	80-120			
Xylene (o)	1.11	0.0250	"	1.26	ND	88.1	80-120			
Surrogate: a,a,a-Trifluorotoluene	*36.7*		*ug kg*	*40.0*		*91.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*37.8*		"	*40.0*		*94.5*	*80-120*			
Matrix Spike Dup (EF60301-MSD1)	**Source: 6E26005-05**			Prepared: 06/03/06 Analyzed: 06/05/06						
Benzene	1.02	0.0250	mg/kg dry	1.26	ND	81.0	80-120	0.00	20	
Toluene	1.02	0.0250	"	1.26	ND	81.0	80-120	0.993	20	
Ethylbenzene	1.02	0.0250	"	1.26	ND	81.0	80-120	0.860	20	
Xylene (p/m)	2.24	0.0250	"	2.52	ND	88.9	80-120	1.78	20	
Xylene (o)	1.08	0.0250	"	1.26	ND	85.7	80-120	2.76	20	
Surrogate: a,a,a-Trifluorotoluene	*38.0*		*ug kg*	*40.0*		*95.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*37.8*		"	*40.0*		*94.5*	*80-120*			

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Plains All American EH & S	Project: Jalmat Clay Osborne #22A	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	**Reported:**
Midland TX, 79706-4476	Project Manager: Camille Reynolds	06/07/06 12:59

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 EE62901 - General Preparation (Prep)										
Blank (EE62901-BLK1)				Prepared: 05/26/06 Analyzed: 05/30/06						
% Moisture	ND	0.1	%							
Blank (EE62901-BLK2)				Prepared: 05/26/06 Analyzed: 05/30/06						
% Moisture	ND	0.1	%							
Duplicate (EE62901-DUP1)	**Source: 6E26001-01**			Prepared: 05/26/06 Analyzed: 05/27/06						
% Solids	79.6		%		79.2			0.504	20	
Duplicate (EE62901-DUP2)	**Source: 6E26001-21**			Prepared: 05/26/06 Analyzed: 05/27/06						
% Solids	99.5		%		99.4			0.101	20	
Duplicate (EE62901-DUP3)	**Source: 6E26001-41**			Prepared: 05/26/06 Analyzed: 05/27/06						
% Solids	99.1		%		99.1			0.00	20	
Duplicate (EE62901-DUP4)	**Source: 6E26001-61**			Prepared: 05/26/06 Analyzed: 05/27/06						
% Solids	75.2		%		76.2			1.32	20	
Duplicate (EE62901-DUP5)	**Source: 6E26003-07**			Prepared: 05/26/06 Analyzed: 05/27/06						
% Solids	98.0		%		98.3			0.306	20	
Duplicate (EE62901-DUP6)	**Source: 6E26004-07**			Prepared: 05/26/06 Analyzed: 05/27/06						
% Solids	97.9		%		96.7			1.23	20	
Duplicate (EE62901-DUP7)	**Source: 6E26005-06**			Prepared: 05/26/06 Analyzed: 05/27/06						
% Solids	99.3		%		99.5			0.201	20	
Duplicate (EE62901-DUP8)	**Source: 6E26008-04**			Prepared: 05/26/06 Analyzed: 05/27/06						
% Solids	98.6		%		91.7			7.25	20	

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Plains All American EH & S	Project: Jalmat Clay Osborne #22A	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10614	**Reported:**
Midland TX, 79706-4476	Project Manager: Camille Reynolds	06/07/06 12:59

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: Raland K Tuttle Date: 6/7/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

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

Jalmat Clay Osborne # 22A

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Jal/Mat 22A

Project Manager: Kenneth Cody / C. Reynolds
Company Name: SDC Environmental Services / Plains P/L
Company Address: 6611 Viaduct
City/State/Zip: Houston Tx 77083
Telephone No: 713-806-7948
Fax No:
Sampler Signature:
Email:

Project Name: Plains ~~Eddy~~ Top
Project #: 20000-1064
Project Loc: JM - 22A
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)	Analyze For: TCLP: TPH 418.1 (8015M) 1005 1006	Analyze For: TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX (8021B/5030 or BTEX 8260) X	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule)	Standard TAT
6E26006				40 of 43																							
-01	JM22A-SB1-2	5-25-06	1635	1	X									X		X							X				
-02	JM22A-SB1-5	"	1640	1	X									X		X							X				
-03	JM22A-SB1-10		1645	1	X									X		X							X				
-04	JM22A-SB1-15		1650	1	X									X		X							X				
-05	JM22A-SB1-20		1655	1	X									X		X							X				
-06	JM22A-SB1-25		1700	1	X									X		X							X				
	End of Grid																										

Special Instructions:

Sample Containers Intact? (Y) N
Labels on container? (Y) N
Custody Seals: Containers / Cooler
Temperature Upon Receipt: 1.5 C

Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
	5-26-06	0934			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Joanne McMurry	05-26-06	0934

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

Client: Plains P/L

Date/Time: 05-26-06 @ 0934

Order #: 6E26006

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	1.5 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	(Yes)	No	Not present
Custody Seals intact on sample bottles?	Yes	No	(Not present)
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	(Yes)	No	Not Applicable

Other observations:

Variance Documentation:

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

Regarding:

Corrective Action Taken:

APPENDIX B
SOIL BORING LOGS

SDG

ENVIRONMENTAL SERVICES

SOIL BORING NUMBER JM22A-SB1

PROJECT 2000-10614 LOCATION Jal, N.M.

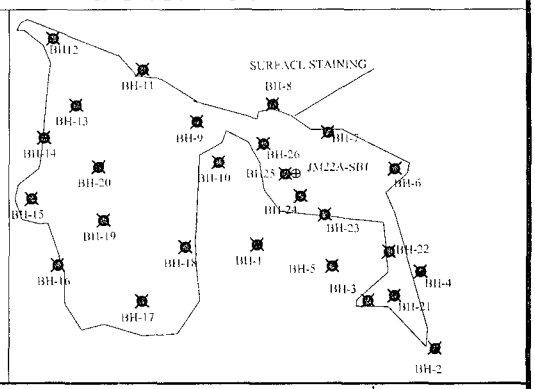
TOTAL BORING DEPTH 25' BOREHOLE DIA (in) 8.25"

DRILLING CO. Straub Drilling DRILLING METHOD HSA

GEOLOGIST Kenneth Cody DATE DRILLED 5/25/06

TOP OF CASING ELEV. (ft) N/A GROUND SURFACE ELV. (ft) N/A

LOCATION MAP



	INTERVAL	RECOVERY %	LOG	PID (ppm)	Sample	LITHOLOGIC DESCRIPTION/COMMENTS	REMARKS
0							
2		100		39.3	JM22A-SB1-2	Sand, tan, fine grained, well sorted, rounded, some asphaltic material.	Mod. odor Stained
4		100		29.4	JM22A-SB1-5	Sand, red, fine grained, well sorted, rounded, dry.	Mod. odor Slt Staining
6						Sandy clay, red, dense, dry.	Faint odor No Staining
8							
10		100		2.3	JM22A-SB1-10	Sand, red, fine grained, well sorted, rounded, slightly damp.	No odor No Staining
12							
14		100		0.0	JM22A-SB1-15	Sand, red to tan, fine grained, well sorted, rounded, dry, with some gravel.	No odor No Staining
16							
18							
20		100		0.0	JM22A-SB1-20	Sand, tan, fine grained, well sorted, rounded, dry, with some caliche.	No odor No Staining
22							
24		100		0.0	JM22A-SB1-25		No odor No Staining
26						TD= 25'	
28							
30							
32							
34							
36							
38							
40							

APPENDIX C
EPI July/ August 2000 Soil Sample Results

E.O.T.T. Energy Pipeline Clay Osborn Jalmat 22A

Borehole	Sampling Interval (FT. BGS[1])	SAMPLE ID#	Date	Lithology	HEADSPACE VOC[2] (ppm)	GRO[3] mg/Kg	DRO[4] mg/Kg	TPH[5] mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ehtyl Benzene mg/Kg	m,p-Xylene mg/Kg	o-Xylene mg/Kg
1	2	ECO22AGP1-02	7/27/2000	Sand	N/A	10	10	*20.000*	0.515	0.100	0.115	0.100	0.100	0.100
	5	ECO22AGP1-05	7/27/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP1-10	7/27/2000	Sand	N/A	10	10	*20.000*	0.521	*0.100*	0.121	0.100	0.100	0.100
	15	ECO22AGP1-15	7/27/2000	Sand	N/A	10	10	*20.000*	0.553	0.100	0.153	0.100	0.100	0.100
2	2	ECO22AGP2-02	7/27/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP2-05	7/27/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP2-10	7/27/2000	Sand	N/A	10	10	*20.000*	0.530	0.100	0.130	0.100	0.100	0.100
	15	ECO22AGP2-15	7/27/2000	Sand	N/A	10	10	*20.000*	0.543	0.100	0.143	0.100	0.100	0.100
3	2	ECO22AGP3-02	7/27/2000	Sand	N/A	50	2493	**2543.000**	*0.500*	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP3-05	7/27/2000	Sand	N/A	50	957	**1007.000**	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP3-10	7/27/2000	Sand	N/A	10	57	67.000	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP3-15	7/27/2000	Sand	N/A	10	74	84.000	*0.500*	0.100	0.100	0.100	0.100	0.100
4	2	ECO22AGP4-02	7/28/2000	Sand	N/A	10	151	161.000	*0.500*	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP4-05	7/28/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP4-10	7/28/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP4-15	7/28/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
5	2	ECO22AGP5-02	7/28/2000	Sand	N/A	10	1520	**1530.000**	0.579	0.100	0.179	0.100	0.100	0.100
	5	ECO22AGP5-05	7/28/2000	Sand	N/A	10	114	124.000	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP5-10	7/28/2000	Sand	N/A	10	65	75.000	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP5-15	7/28/2000	Sand	N/A	10	11	21.000	*0.500*	0.100	0.100	0.100	0.100	0.100
6	2	ECO22AGP6-02	7/28/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP6-05	7/28/2000	Sand	N/A	10	10	*20.000*	0.508	0.100	0.100	0.108	0.100	0.100
	10	ECO22AGP6-10	7/28/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP6-15	7/28/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
7	2	ECO22AGP7-02	7/28/2000	Sand	N/A	10	10	*20.000*	0.514	0.100	0.111	0.103	0.100	0.100
	5	ECO22AGP7-05	7/28/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP7-10	7/28/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP7-15	7/28/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
8	2	ECO22AGP8-02	7/28/2000	Sand	N/A	10	976	986.000	*0.500*	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP8-05	7/28/2000	Sand	N/A	50	4898	**4948.000**	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP8-10	7/28/2000	Sand	N/A	10	102	112.000	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP8-15	7/28/2000	Sand	N/A	10	451	461.000	*0.500*	0.100	0.100	0.100	0.100	0.100

[1]bgs – below ground surface
[2]VOC–Volatile Organic Contaminants/Constituents
[3]GRO-Gasoline Range Organics C_6-C_{10}
[4]DRO-Diesel Range Organics C_{10}-C_{28}
[5]TPH-Total Petroleum Hydrocarbon = GRO+DRO.
[6]Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter
[7]Italicized values are < the instrument detection limit.
[8]N/A Not Analyzed
Reported detection limits are considered "de minimus" values and are included in the GRO/DRO and BTEX summations.

E.O.T.T. Energy Pipeline Clay Osborn Jalmat 22A

Borehole	Sampling Interval (FT. BGS[1])	SAMPLE ID#	Date Taken	Lithology	HEADSPACE VOC[2] (ppm)	GRO[3] mg/Kg	DRO[4] mg/Kg	TPH[5] mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ehtyl Benzene mg/Kg	m,p-Xylene mg/Kg
9	2	**ECO22AGP9-02**	7/28/2000	Sand	N/A	50	3970	**4020.000**	*0.500*	0.100	0.100	0.100	0.100
	5	**ECO22AGP9-05**	7/28/2000	Sand	N/A	10	170	180.000	*0.500*	0.100	0.100	0.100	0.100
	10	**ECO22AGP9-10**	7/28/2000	Sand	N/A	10	56	66.000	*0.500*	0.100	0.100	0.100	0.100
	15	**ECO22AGP9-15**	7/28/2000	Sand	N/A	10	70	80.000	0.502	0.100	0.100	0.102	0.100
10	2	ECO22AGP10-02	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	5	ECO22AGP10-05	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	10	ECO22AGP10-10	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	15	ECO22AGP10-15	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
11	2	**ECO22AGP11-02**	7/31/2000	Sand	N/A	10	19	29.000	*0.500*	0.100	0.100	0.100	0.100
	5	**ECO22AGP11-05**	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	10	**ECO22AGP11-10**	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	15	**ECO22AGP11-15**	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
12	2	ECO22AGP12-02	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	5	ECO22AGP12-05	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	10	ECO22AGP12-10	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	15	ECO22AGP12-15	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
13	2	**ECO22AGP13-02**	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	5	**ECO22AGP13-05**	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	10	**ECO22AGP13-10**	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	15	**ECO22AGP13-15**	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
14	2	ECO22AGP14-02	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	5	ECO22AGP14-05	7/31/2000	Sand	N/A	10	21	31.000	*0.500*	0.100	0.100	0.100	0.100
	10	ECO22AGP14-10	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	15	ECO22AGP14-15	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
15	2	**ECO22AGP15-02**	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	5	**ECO22AGP15-05**	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	10	**ECO22AGP15-10**	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
	15	**ECO22AGP15-15**	7/31/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100
16	2	ECO22AGP16-02	8/1/2000	Sand	N/A	10	484	494.000	*0.500*	0.100	0.100	0.100	0.100
	5	ECO22AGP16-05	8/1/2000	Sand	N/A	10	85	95.000	0.586	0.100	0.117	0.153	0.116
	10	ECO22AGP16-10	8/1/2000	Sand	N/A	10	24	34.000	*0.500*	0.100	0.100	0.100	0.100
	15	ECO22AGP16-15	8/1/2000	Sand	N/A	10	24	34.000	*0.500*	0.100	0.100	0.100	0.100

[1]bgs – below ground surface

[2]VOC–Volatile Organic Contaminants/Constituents

[3]GRO-Gasoline Range Organics C_6-C_{10}

[4]DRO-Diesel Range Organics C_{10}-C_{28}

[5]TPH-Total Petroleum Hydrocarbon = GRO+DRO.

[6]Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter

[7]Italicized values are < the instrument detection limit.

[8]N/A Not Analyzed

Reported detection limits are considered "de minimus" values and are included in the GRO/DRO and BTEX summations.

E.O.T.T. Energy Pipeline Clay Osborn Jalmat 22A

Borehole	Sampling Interval (FT. BGS[1])	SAMPLE ID#	Date Taken	Lithology	HEADSPACE VOC[2] (ppm)	GRO[3] mg/Kg	DRO[4] mg/Kg	TPH[5] mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ehtyl Benzene mg/Kg	m,p-Xylene mg/Kg	o-Xylene mg/Kg
17	2	ECO22AGP17-02	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP17-05	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP17-10	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP17-15	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
18	2	ECO22AGP18-02	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP18-05	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP18-10	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP18-15	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
19	2	ECO22AGP19-02	8/1/2000	Sand	N/A	50	50	100.000	*0.500*	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP19-05	8/1/2000	Sand	N/A	10	14	24.000	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP19-10	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP19-15	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
20	2	ECO22AGP20-02	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP20-05	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP20-10	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP20-15	8/1/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
21	2	ECO22AGP21-02	8/2/2000	Sand	N/A	10	98	108.000	0.588	0.100	0.188	0.100	0.100	0.100
	5	ECO22AGP21-05	8/2/2000	Sand	N/A	50	5240	**5290.000**	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP21-10	8/2/2000	Sand	N/A	10	87	97.000	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP21-15	8/2/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
22	2	ECO22AGP22-02	8/2/2000	Sand	N/A	50	4098	**4148.000**	*0.500*	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP22-05	8/2/2000	Sand	N/A	10	357	367.000	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP22-10	8/2/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP22-15	8/2/2000	Sand	N/A	10	10	*20.000*	*0.500*	0.100	0.100	0.100	0.100	0.100
23	2	ECO22AGP23-02	8/2/2000	Sand	N/A	92	4052	**4144.000**	*0.500*	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP23-05	8/2/2000	Sand	N/A	161	2040	**2201.000**	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP23-10	8/2/2000	Sand	N/A	10	30	40.000	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP23-15	8/2/2000	Sand	N/A	10	168	178.000	*0.500*	0.100	0.100	0.100	0.100	0.100
24	2	ECO22AGP24-02	8/3/2000	Sand	N/A	74	7823	**7897.000**	*0.500*	0.100	0.100	0.100	0.100	0.100
	5	ECO22AGP24-05	8/3/2000	Sand	N/A	135	2678	**2813.000**	*0.500*	0.100	0.100	0.100	0.100	0.100
	10	ECO22AGP24-10	8/3/2000	Sand	N/A	10	202	212.000	*0.500*	0.100	0.100	0.100	0.100	0.100
	15	ECO22AGP24-15	8/3/2000	Sand	N/A	10	109	119.000	*0.500*	0.100	0.100	0.100	0.100	0.100

[1]bgs – below ground surface

[2]VOC-Volatile Organic Contaminants/Constituents

[3]GRO-Gasoline Range Organics C_6-C_{10}

[4]DRO-Diesel Range Organics C_{10}-C_{28}

[5]TPH-Total Petroleum Hydrocarbon = GRO+DRO.

[6]Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter

[7]Italicized values are < the instrument detection limit.

[8]N/A Not Analyzed

Reported detection limits are considered "de minimus" values and are included in the GRO/DRO and BTEX summations.

E.O.T.T. Energy Pipeline Clay Osborn Jalmat 22A

Borehole	Sampling Interval (FT. BGS[1])	SAMPLE ID#	Date Taken	Lithology	HEADSPACE VOC[2] (ppm)	GRO[3] mg/Kg	DRO[4] mg/Kg	TPH[5] mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ehtyl Benzene mg/Kg	m,p-Xylene mg/Kg
25	2	ECO22AGP25-02	8/3/2000	Sand	N/A	50	3980	**4030.000**	*0.500*	0.100	0.100	0.100	0.100
	5	ECO22AGP25-05	8/3/2000	Sand	N/A	120	2621	**2741.000**	*0.500*	0.100	0.100	0.100	0.100
	10	ECO22AGP25-10	8/3/2000	Sand	N/A	331	4040	**4371.000**	0.599	0.100	0.100	0.100	0.143
	15	ECO22AGP25-15	8/3/2000	Sand	N/A	10	208	218.000	*0.500*	0.100	0.100	0.100	0.100
26	2	ECO22AGP26-02	8/3/2000	Sand	N/A	214	6346	**6560.000**	*0.500*	0.100	0.100	0.100	0.100
	5	ECO22AGP26-05	8/3/2000	Sand	N/A	543	2947	**3490.000**	8.155	0.100	0.645	1.040	3.480
	10	ECO22AGP26-10	8/3/2000	Sand	N/A	15	348	363.000	4.201	0.100	0.934	0.505	1.820
	15	ECO22AGP26-15	8/3/2000	Sand	N/A	10	28	38.000	*0.500*	0.100	0.100	0.100	0.100

[1]bgs – below ground surface

[2]VOC--Volatile Organic Contaminants/Constituents

[3]GRO-Gasoline Range Organics C_6-C_{10}

[4]DRO-Diesel Range Organics C_{10}-C_{28}

[5]TPH-Total Petrolcum Hydrocarbon = GRO+DRO.

[6]Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter

[7]Italicized values are < the instrument detection limit.

[8]N/A Not Analyzed

Reported detection limits are considered "de minimus" values and are included in the GRO/DRO and BTEX summations.