

NO RP  
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## Basin Environmental Service Technologies, LLC

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OK close  
w/CRP 7.5.06

### PRELIMINARY SITE INVESTIGATION REPORT and REMEDIATION/CLOSURE PLAN

PLAINS MARKETING, L.P. (231735)  
Young Deep to Lynch 8" Site  
Lea County, New Mexico  
Plains EMS # 2005-00157

UNIT O (SW/SE), Section 4, Township 19S, Range 32E  
Latitude 32°, 40', 59.8" North, Longitude 103°, 46', 03.6" West

Prepared For:

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



Prepared By:

Basin Environmental Service Technologies, LLC  
P. O. Box 301  
Lovington, New Mexico 88260

28 June 2006

  
Ken Dutton

Basin Environmental Service Technologies, LLC

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## **INTRODUCTION**

Basin Environmental Service Technologies, LLC (Basin), responded to a pipeline release for Plains Marketing, L.P. (Plains), located on the Young Deep to Lynch 8" Pipeline on 30 June 2005. The Young Deep to Lynch 8" Pipeline was clamped and the impacted soil was excavated and stockpiled on a 6-mil poly-liner adjacent to the excavation. The Young Deep to Lynch 8" Pipeline right-of-way is located on land owned by the U. S. Department of the Interior Bureau of Land Management (BLM).

This site is located in Unit O (SW/SE), Section 4, Township 19 South, Range 32 East, in Lea County, New Mexico (topographic Site Location Map is attached as Figure 1). The site latitude is 32°, 40', 59.8" North and the site longitude is 103°, 46', 03.6" West. The site is characterized by a right-of-way for the pipeline in a pasture utilized for cattle grazing. The visible surface stained area includes the release point covering an area approximately 120 feet long by 20 feet wide. An estimated 20 barrels of crude oil were released from the Young Deep to Lynch 8" Pipeline and 5 barrels were recovered.

An emergency one-call was initiated 30 June 2005 and all responding companies either cleared or marked their respective lines. Subsequent renewals of the one-call have been accomplished as required.

Mr. James Amos, BLM, Carlsbad, New Mexico Office, was verbally notified 30 June 2005. Mr. Larry Johnson, New Mexico Oil Conservation Division (NMOCD), Hobbs, New Mexico District I was verbally notified of the release on 30 June 2005. A BLM Undesirable Event report was prepared and delivered to Mr. James Amos on 06 July 2005. A NMOCD C-141 was prepared and delivered to Mr. Larry Johnson on 06 July 2005.

## **SUMMARY OF FIELD ACTIVITIES**

On 30 June 2005, Basin mobilized to the Young Deep to Lynch 8" Pipeline release to repair and contain the crude oil pipeline release under the direction of Plains operations personnel. After the crude oil release had been contained utilizing a pipeline repair clamp, excavation of the impacted soil was accomplished (see Figure 2, Excavation Site Map & Soil Boring Locations). The release point and visually stained area was initially excavated to approximately 120 feet long by 20 feet wide at the release point and 8 feet wide at the flow path and ranged in depth from approximately 4 to 12 feet below ground surface (bgs). The excavated soil was placed on a 6-mil poly liner for future remedial action adjacent to the excavation. Approximately 350 cubic yards of impacted soil was stockpiled adjacent to the site.

On 15 September 2005, fifteen (15) confirmation soil samples were collected from the floor and walls of the excavated area. The fifteen (15) confirmation soil samples were analyzed for constituent concentrations of BTEX and TPH-GRO/DRO. Laboratory results of the confirmation soil samples collected from the floor and walls

of the excavation indicated that TPH-GRO/DRO and BTEX concentrations were either not detected above laboratory method detection limits or were below NMOCD regulatory standards with the exception of the release point excavation floor which exceeded NMOCD regulatory standards for TPH-GRO/DRO concentrations. Soil sampling results are attached as Table 1, Soil Chemistry Table (Soil Borings & Excavation Results)

During October 2005, excavation of the release point area continued. On 30 November 2005, a confirmation soil sample was collected and analyzed for constituent concentrations of BTEX and TPH-GRO/DRO. Laboratory results indicated that constituent concentrations of BTEX and TPH-GRO/DRO exceeded NMOCD regulatory standards for the soil sample.

On 20 February 2006, Basin initiated vertical and horizontal delineation of the crude oil impacted site. Three (3) soil borings were installed at up gradient, down gradient and cross gradient positions of the release point to evaluate the full extent of crude oil impact. The three (3) soil borings were installed to a depth of approximately 35 feet bgs and soil samples were collected at 5 feet intervals. The selected soil samples were analyzed for constituent concentrations of BTEX and TPH-GRO/DRO. Laboratory results indicated that detectable BTEX and TPH-GRO/DRO concentrations were either not detected above laboratory method detection limits or below NMOCD regulatory standards.

#### **NEW MEXICO OIL CONSERVATION DIVISION (NMOCD) SOIL CLASSIFICATION**

A search of the New Mexico State Engineers database revealed no groundwater depth information for that section. However, Section 20 in the same Township and Range contains groundwater information revealing an average depth to groundwater of 345 feet bgs. There are no surface water bodies or water wells within 1000 feet of the release site. Based on this data, the site has an NMOCD Ranking Score of 0 –9, which sets the remediation levels at:

Benzene:	10 ppm
BTEX:	50 ppm
TPH:	5000 ppm

#### **ARCHEOLOGICAL SURVEY RESULTS**

Boone Archeological Services, LLC, Carlsbad, New Mexico, conducted an archeological survey of the site, in accordance with BLM directives. Results of the archeological survey did not find evidence of cultural resources present, and therefore, recommended archeological clearance. A copy of the archeological survey is included in Appendix D.

## **DISTRIBUTION OF HYDROCARBONS IN THE USATURATED ZONE**

The original release point and visually stained area was excavated to approximately 120 feet long and 20 feet wide at the release point and 8 feet wide at the flow path and ranged in depth from approximately 4 to 12 feet bgs and evidence of crude oil impact still existed on the floor beneath the release point. Photoionization Detector (PID) readings and laboratory results following the initial excavation activities indicated elevated concentrations of Volatile Organic Compounds (VOC) remain. Approximately 350 cubic yards of impacted soil was excavated and stockpiled on a 6-mil poly-liner adjacent to the excavation.

On 15 September 2005, fifteen (15) confirmation soil samples were collected from the floor and walls of the excavated area ranging in depth from 2 to 12 feet bgs. The fifteen (15) confirmation soil samples were analyzed for constituent concentrations of BTEX and TPH-GRO/DRO. Laboratory results of the confirmation soil samples collected from the floor and walls of the excavation indicated that BTEX and TPH-GRO/DRO concentrations were either not detected above laboratory method detection limits or were below NMOCD regulatory standards with the exception of the release point excavation floor which exceeded NMOCD regulatory standards for TPH-GRO/DRO concentrations at 8,880 mg/kg.

During October 2005, excavation of the release point area was conducted to a depth of approximately 14 feet bgs resulting in a final excavation area of approximately 120 feet long and 20 feet wide at the release point and 8 feet wide at the flow path and ranged in depth from approximately 4 to 14 feet bgs. On 30 November 2005, a confirmation soil sample was collected and analyzed for constituent concentrations of BTEX and TPH-GRO/DRO. Laboratory results indicated that constituent concentrations of BTEX and TPH-GRO/DRO exceeded NMOCD regulatory standards for the excavation floor soil sample at 7120 mg/kg for TPH-GRO/DRO concentrations.

On 20 February 2006, Basin installed three (3) soil borings utilizing an air rotary drill rig operated by Straub Corporation, Stanton, Texas, to evaluate the vertical and horizontal extent of crude oil impact at the up gradient, down gradient and cross gradient positions of the excavation. The three (3) soil borings were installed at a depth of approximately 35 feet bgs. Subsurface soil samples were collected at 5 foot intervals and field screened with a PID. Soil boring logs are included in Appendix E. No visual observations of free phase hydrocarbons were encountered during the installation of the soil borings. The selected soil samples were analyzed for concentrations of BTEX and TPH-GRO/DRO. Laboratory data sheets and chain-of-custody forms are attached (Appendix C).

Soil Boring 1, as depicted on the Excavation Site Map & Soil Boring Locations (Figure 3), was installed at the surface level down gradient position of the release point. Soil samples collected at 5, 15 and 35 feet bgs sample depths were submitted for analysis. Analytical results indicated that BTEX constituent concentrations were

not detected above laboratory method detection limits for the 5, 15 and 35 feet bgs soil samples. Analytical results indicated that TPH-GRO/DRO constituent concentrations were below NMOCD regulatory standards for the 5 feet bgs sample and were not detected above laboratory method detection limits for the 15 and 35 feet bgs soil samples.

Soil Boring 2 was installed at surface level in the east cross gradient position. Soil samples collected at 5, 15 and 35 feet bgs sample depths were submitted for analysis. Analytical results indicated that BTEX and TPH-GRO/DRO constituent concentrations were not detected above laboratory method detection limits for the 5, 15 and 35 feet bgs soil samples.

Soil Boring 3 was installed at surface level in the north up gradient position. Soil samples collected at 5, 15 and 35 feet bgs sample depths were submitted for analysis. Analytical results indicated that BTEX and TPH-GRO/DRO constituent concentrations were not detected above laboratory method detection limits for the 5, 15 and 35 feet bgs soil samples.

## **RECOMMENDATIONS FOR REMEDIATION/CLOSURE**

Approximately 350 cubic yards of impacted soil has been excavated and stockpiled on-site resulting from the emergency response and excavation of the release point and flow path. Based on the excavation analytical results and three (3) vertical and horizontal delineation soil borings, which indicates the crude oil impact is contained in a limited vertical subsurface area of the release point, Plains proposes to blend the excavated impacted soils with the surrounding undulating sand dunes adjacent to the release site. The blended soil will be divided into equal cell grids of approximately 250 cubic yards.

Due to the remote area of this location, depth to groundwater, and lack of receptors, Plains recommends that an impermeable barrier consisting of a 40-mil poly liner be permanently installed at the base of the excavation to inhibit vertical migration of contaminants in soil left in place below the cap (see Figure 4, Installation Diagram of 40-mil Poly Liner). The barrier will extend to a minimum of three (3) feet beyond the edges of soil impacted above NMOCD remedial thresholds. A 6-inch layer of fine sand will be installed beneath and above the 40-mil poly liner to prevent degrading the integrity of the poly liner. Installation of the 40-mil poly liner at a depth of 14 feet bgs will protect the barrier from erosion and human intrusion for a term sufficient to allow natural biodegrading of contaminants in the soil.

Confirmation soil samples from the blended material will be collected to ensure TPH concentrations of less than 5,000 mg/kg. Once confirmation soil sampling of the blended material has been confirmed through laboratory analysis to be below NMOCD regulatory standards for concentrations of BTEX and TPH-GRO/DRO, and installation of the 40-mil poly liner completed, backfilling of the excavation will be initiated with the blended material. The backfilled excavation will be contoured to the

original rangeland grade surrounding the site and reseeded with BLM approved grass seed.

A request for closure will be submitted to the Hobbs District I office, upon completion of backfilling activities. Based on the results of the remediation activities conducted, Plains requests approval from the OCD and BLM to implement these proposed final remediation and site closure activities.

## **QA/QC PROCEDURES**

### **Soil Sampling**

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

The soil samples were analyzed as follows:

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

### **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<sup>®</sup> 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.

## **LIMITATIONS**

Basin Environmental Service Technologies, LLC, has prepared this Preliminary Investigation Report and Work Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Service Technologies, LLC, has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Service Technologies, LLC, has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin

Environmental Service Technologies, LLC, has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Service Technologies, LLC, also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

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



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- Copy 4

TABLE 1

## SOIL CHEMISTRY

PLAINS MARKETING, L.P.  
 YOUNG DEEP TO LYNCH 8"  
 LEA COUNTY, NEW MEXICO  
 EMS: 2005-00157

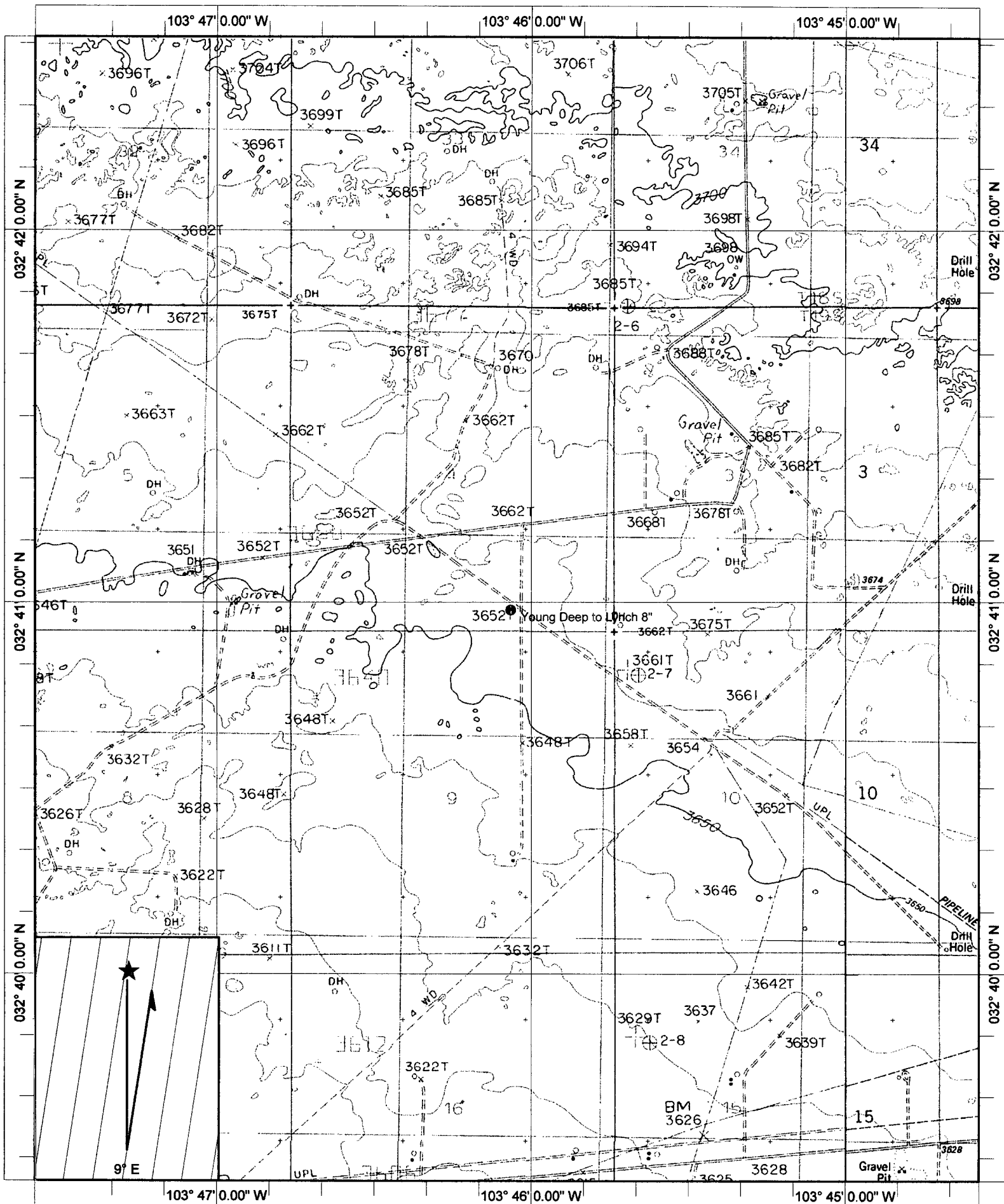
SAMPLE LOCATION	SAMPLE DEPTH (Below normal surface grade)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL TPH	CHLORIDES
			BENZENE	TOLUENE	ETHYL-BENZENE	M,P-XYLENES	O-XYLENE	GRO	DRO		
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Excavation West Wall	8' bgs	09/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
Excavation North Wall	5' bgs	09/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
Excavation East Wall	5' bgs	09/15/05	0.070	1.18	1.93	3.26	1.48	919	3020	3940	
Excavation South Wall	5' bgs	09/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	15.2	211	226	
Excavation South Floor	12' bgs	09/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	13.2	153	166	
Excavation RP Floor	12' bgs	09/15/05	5.38	33.4	19.4	27.5	11.0	3120	5760	8880	134
Right of Way Floor 30' from RP	6' bgs	09/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	13.2	85.6	98.8	
Right of Way North Wall 30' from RP	3' bgs	09/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
Right of Way South Wall 30' from RP	3' bgs	09/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
Stock Pile Composite	N/A	09/15/05	0.752	4.24	3.02	4.92	1.73	114	473	587	
Right of Way South Wall 50' from RP	3' bgs	09/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
Right of Way North Wall 50' from RP	3' bgs	09/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	18.2	18.2	
Right of Way Floor 50' from RP	6' bgs	09/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	

TABLE 1 (cont)

## SOIL CHEMISTRY

PLAINS MARKETING, L.P.  
 YOUNG DEEP TO LYNCH 8"  
 LEA COUNTY, NEW MEXICO  
 EMS: 2005-00157

SAMPLE LOCATION	SAMPLE DEPTH (Below normal surface grade)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL TPH	CHLORIDES
			BENZENE	TOLUENE	ETHYL-BENZENE	M,P-XYLENES	O-XYLENE	GRO	DRO		
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Right of Way South Wall 80' from RP	3' bgs	09/15/05	<0.025	0.160	0.124	0.199	0.064	<10.0	<10.0	<10.0	
Right of Way North Wall 80' from RP	3' bgs	09/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	14.8	14.8	
Right of Way Floor 80' from RP	6' bgs	09/15/05	<0.025	0.179	0.165	0.331	0.125	<10.0	<10.0	<10.0	
FLR R/P 14' bgs	14' bgs	11/30/05	13.3	100	66.3	96.4	37.5	2740	4380	7120	
SB-1 5'	5' bgs	02/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	10.4	10.4	
SB-1 15'	15' bgs	02/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
SB-1 35'	35' bgs	02/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
SB-2 5'	5' bgs	02/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
SB-2 15'	15' bgs	02/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
SB-2 35'	35' bgs	02/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
SB-3 5'	5' bgs	02/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
SB-3 15'	15' bgs	02/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
SB-3 35'	35' bgs	02/20/06	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	
NMOC CRITERIA			10	TOTAL BTEX 50						5000	



Name: GREENWOOD LAKE  
 Date: 6/29/2006  
 Scale: 1 inch equals 2000 feet

Location: 032° 40' 58.63" N 103° 46' 04.60" W  
 Caption: Figure 1, Plains Marketing, L.P.  
 Young Deep to Lynch 8"  
 Plains EMS: 2005-00157



Plains Marketing, L.P.  
Young Deep to Lynch 8"  
SW/SE S4, T19S, R32E  
Eddy County, New Mexico  
EMS: 2005-00157

Plains Young Deep to Lynch 10" Sour  
Pipeline

Soil Boring 3

Plains Young Deep to Lynch 8"  
Pipeline

Release Point

8 feet wide

4 feet bgs

6 feet bgs

120 feet long

14 feet bgs

20 feet wide

Soil Boring 2

Caliche  
Road

Soil Boring 1

Stockpiled  
Material

LEGEND

● Soil Boring Locations

TITLE  
Figure 2  
Young Deep to Lynch 8"

DESCRIPTION  
Excavation Site Map & Soil  
Boring Locations

DRAWN BY  
Basin Environmental Service  
Technologies  
kad



Plains Marketing, L.P.  
Young Deep to Lynch 8"  
SW/SE S4, T19S, R32E  
Eddy County, New Mexico  
EMS: 2005-00157

**Plains Young Deep to Lynch 10" Sour Pipeline**

**Soil Boring 3**

Exc N Wall  
Exc S Wall  
BTEX: <0.025  
TPH: <10.0

**Plains Young Deep to Lynch 8" Pipeline**

ROW N Wall  
3' bgs  
BTEX: <0.025  
TPH: 14.8

ROW N Wall  
3' bgs  
BTEX: <0.025  
TPH: 18.2

4 feet bgs  
ROW Flr  
6' bgs  
BTEX: 0.800  
TPH: <10.0

ROW Flr  
6' bgs  
BTEX: <0.025  
TPH: <10.0

6 feet bgs  
ROW Flr  
6' bgs  
BTEX: <0.025  
TPH: 98.8

Exc W Wall  
8' bgs  
BTEX: <0.025  
TPH: <10.0

14 feet bgs

**Release Point**

Exc RP Flr  
14' bgs  
BTEX: 313.5  
TPH: 7120

**Soil Boring 2**

Exc E Wall  
5' bgs  
BTEX: 7.92  
TPH: 3940

**Caliche Road**

**Soil Boring 1**

ROW S Wall  
3' bgs  
BTEX: 0.547  
TPH: <10.0

ROW S Wall  
3' bgs  
BTEX: <0.025  
TPH: <10.0

ROW S Wall  
3' bgs  
BTEX: <0.025  
TPH: <10.0

Exc S Flr  
12' bgs  
BTEX: <0.025  
TPH: 166

Exc S Wall  
5' bgs  
BTEX: <0.025  
TPH: 226

Stockpiled Material

**LEGEND**

● Soil Boring Locations

● Soil Sampling Locations

**TITLE**  
Figure 3  
Young Deep to Lynch 8"

**DESCRIPTION**  
Final Soil Sampling Locations  
& Soil Boring Locations

**DRAWN BY**  
Basin Environmental Service  
Technologies  
kad

Plains Marketing, L. P.  
Young Deep to Lynch 8"  
SW/SE S4, T19S, R32E  
Lea County, NM  
Plains EMS: 2005-00157





Plains Marketing, L.P.  
Young Deep to Lynch, 8  
SW/SE S4 T10S R32E  
Lea County, NM  
Plains EMS: 2005-00157

02/20/2009

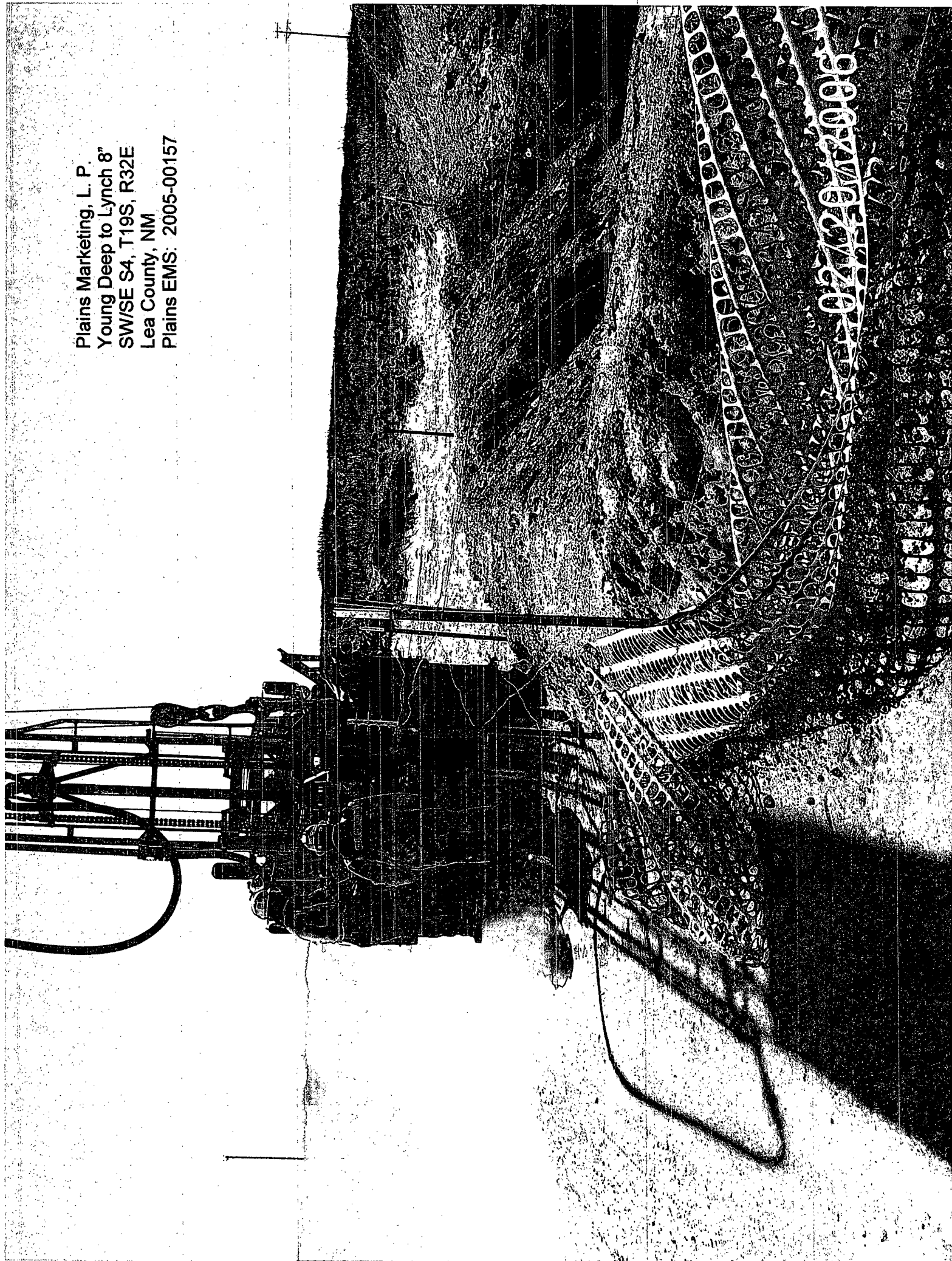




Plains Marketing, L.P.  
Young Deep to Lynch 8"  
SW/SE S4, T29S, R32E  
Lea County, NM  
Plains EMS 2005-00156

9002/02/70

Plains Marketing, L. P.  
Young Deep to Lynch 8"  
SW/SE S4, T19S, R32E  
Lea County, NM  
Plains EMS: 2005-00157



*New Mexico Office of the State Engineer*  
**POD Reports and Downloads**

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Township: 19S    Range: 32E    Sections: 4

NAD27 X:                      Y:                      Zone:                      Search Radius:

County:                      Basin:                      Number:                      Suffix:

Owner Name: (First)                      (Last)                      ☐ Non-Domestic    ☐ Domestic    ☒ All

POD / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

iWATERS Menu

Help

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POD / SURFACE DATA REPORT    02/19/2006

(acre ft per annum)  
DB File Nbr    Use    Diversion    Owner

POD Number

(quarters are  
(quarters are  
Source

No Records found, try again

*New Mexico Office of the State Engineer*  
**Well Reports and Downloads**

Township: 19S Range: 32E Sections: 19,20,21,22,23,24

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

Well / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

WATERS Menu

Help

**AVERAGE DEPTH OF WATER REPORT 12/01/2005**

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
CP	19S	32E	19				1	102	102	102
CP	19S	32E	20				1	345	345	345

Record Count: 2

UNITED STATES DEPARTMENT OF THE INTERIOR  
Bureau of Land Management  
New Mexico State Office

REPORT OF UNDESIRABLE EVENT

DATE OF OCCURRENCE/DISCOVERY: 6:30-05 TIME OF OCCURRENCE: 15:15

DATE REPORTED TO BLM: 7-1-05 TIME REPORTED: 14:50

BLM OFFICE REPORTED TO: (FIELD/DISTRICT/OTHER) Hobbs Office - Steve Caffey

LOCATION: (1/4 1/4) 0 SECTION 4 T. 19S R. 32E MERIDIAN 11m Prime meridian

COUNTY: Lea STATE: NM WELL NAME \_\_\_\_\_

OPERATOR: COMPANY NAME Plains Pipeline PHONE NO. 505-341-0965  
CONTACT PERSON'S NAME Camille Reynolds

SURFACE OWNER: BLM MINERAL OWNER: \_\_\_\_\_  
(FEDERAL/INDIAN/FEE/STATE)

LEASE NO.: \_\_\_\_\_ RIGHT-OF-WAY NO.: LC-58007

UNIT NAME / COMMUNITIZATION AGREEMENT NO.: \_\_\_\_\_

TYPE OF EVENT, CIRCLE APPROPRIATE ITEM (S):

BLOWOUT, FIRE, FATALITY, INJURY, PROPERTY DAMAGE, OIL SPILL SALTWATER SPILL, OIL AND  
SALTWATER SPILL, TOXIC FLUID SPILL, HAZARDOUS MATERIAL SPILL, UNCONTROLLED FLOW  
OF WELLBORE FLUIDS, OTHER (SPECIFY):

CAUSE OF EVENT: Internal corrosion of 8" steel pipeline

HazMat Notified: (for spills) \_\_\_\_\_

Law Enforcement Notified: (for thefts) \_\_\_\_\_

CAUSE AND EXTENT OF PERSONAL INJURIES/CAUSE OF DEATH(S):

None  
Safety Officer Notified: \_\_\_\_\_

EFFECTS OF EVENT: Release of crude oil

ACTION TAKEN TO CONTROL EVENT: Clamp placed on line

LENGTH OF TIME TO CONTROL BLOWOUT OR FIRE: \_\_\_\_\_

VOLUMES DISCHARGED: OIL 20 barrels WATER 0 GAS \_\_\_\_\_

OTHER AGENCIES NOTIFIED: NMOC - Larry Johnson  
Hobbs Office

ACTION TAKEN OR TO BE TAKEN TO PREVENT RECURRENCE: Clamp placed on line

FINAL INVESTIGATION:

TEAM NAME(S) \_\_\_\_\_

FIELD INSPECTION DATE \_\_\_\_\_

SUMMARY OF RESULTS OF INSPECTION \_\_\_\_\_

RESOURCE LOSS WAS (CIRCLE ITEM):      AVOIDABLE      UNAVOIDABLE

DATE OF MEMO NOTIFYING MINEALS MANAGEMENT SERVICE THAT LOSS WAS AVOIDABLE:

DATE/TIME/PERSON NOTIFIED:

DISTRICT OFFICE \_\_\_\_\_

STATE OFFICE \_\_\_\_\_

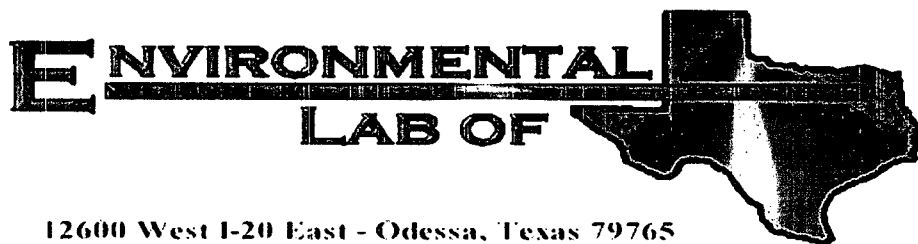
WASHINGTON OFFICE \_\_\_\_\_

SUMMARY OF RESULTS OF RECLAMATION/CORRECTIVE ACTION:

REMARKS: \_\_\_\_\_

SIGNATURE OF AUTHORIZED OFFICER \_\_\_\_\_

DATE: \_\_\_\_\_ TITLE: \_\_\_\_\_



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: Young Deep to Lynch 8 inch

Project Number: EMS: 2005-00157

Location: Lea County, NM

Lab Order Number: 6B27012

Report Date: 03/07/06

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914  
**Reported:**  
03/07/06 13:36

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 5'	6B27012-01	Soil	02/20/06 10:35	02/24/06 17:30
SB-1 15'	6B27012-02	Soil	02/20/06 10:46	02/24/06 17:30
SB-1 35'	6B27012-03	Soil	02/20/06 11:13	02/24/06 17:30
SB-2 5'	6B27012-04	Soil	02/20/06 12:30	02/24/06 17:30
SB-2 15'	6B27012-05	Soil	02/20/06 12:40	02/24/06 17:30
SB-2 35'	6B27012-06	Soil	02/20/06 13:01	02/24/06 17:30
SB-3 5'	6B27012-07	Soil	02/20/06 13:40	02/24/06 17:30
SB-3 15'	6B27012-08	Soil	02/20/06 13:50	02/24/06 17:30
SB-3 35'	6B27012-09	Soil	02/20/06 14:10	02/24/06 17:30



Plains All American EH & S  
1301 S. County Road 1150  
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Project Manager: Carnille Reynolds

Fax: (432) 687-4914

Reported:  
03/07/06 13:36

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-1 5' (6B27012-01) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EC60202	03/02/06	03/02/06	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		86.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60205	03/02/06	03/03/06	EPA 8015M	
Carbon Ranges C12-C28	10.4	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	10.4	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		118 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		122 %	70-130		"	"	"	"	
<b>SB-1 15' (6B27012-02) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EC60202	03/02/06	03/02/06	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		82.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		84.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60205	03/02/06	03/03/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		114 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		116 %	70-130		"	"	"	"	
<b>SB-1 35' (6B27012-03) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EC60202	03/02/06	03/02/06	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		82.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60205	03/02/06	03/03/06	EPA 8015M	

Environmental Lab of Texas

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914  
**Reported:**  
03/07/06 13:36

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-1 35' (6B27012-03) Soil</b>									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EC60205	03/02/06	03/03/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		108 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		109 %	70-130		"	"	"	"	
<b>SB-2 5' (6B27012-04) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EC60202	03/02/06	03/02/06	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		81.8 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60205	03/02/06	03/04/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		70.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		70.6 %	70-130		"	"	"	"	
<b>SB-2 15' (6B27012-05) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EC60202	03/02/06	03/03/06	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		80.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60205	03/02/06	03/04/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		99.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		97.8 %	70-130		"	"	"	"	

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914  
**Reported:**  
03/07/06 13:36

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-2 35' (6B27012-06) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EC60202	03/02/06	03/03/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		85.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60206	03/02/06	03/02/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		105 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		101 %	70-130		"	"	"	"	
<b>SB-3 5' (6B27012-07) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EC60202	03/02/06	03/03/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		85.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60206	03/02/06	03/02/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		102 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		97.0 %	70-130		"	"	"	"	
<b>SB-3 15' (6B27012-08) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EC60202	03/02/06	03/03/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		85.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60206	03/02/06	03/02/06	EPA 8015M	

Environmental Lab of Texas

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
03/07/06 13:36

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-3 15' (6B27012-08) Soil</b>									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EC60206	03/02/06	03/02/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		98.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		96.2 %	70-130		"	"	"	"	
<b>SB-3 35' (6B27012-09) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EC60202	03/02/06	03/03/06	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		80.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC60206	03/02/06	03/02/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		107 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		102 %	70-130		"	"	"	"	

Plains All American EH & S  
1301 S. County Road 1150  
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Fax: (432) 687-4914  
**Reported:**  
03/07/06 13:36

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-1 5' (6B27012-01) Soil</b>									
% Moisture	4.0	0.1	%	1	EB62809	02/27/06	02/28/06	% calculation	
<b>SB-1 15' (6B27012-02) Soil</b>									
% Moisture	2.4	0.1	%	1	EB62809	02/27/06	02/28/06	% calculation	
<b>SB-1 35' (6B27012-03) Soil</b>									
% Moisture	4.5	0.1	%	1	EB62809	02/27/06	02/28/06	% calculation	
<b>SB-2 5' (6B27012-04) Soil</b>									
% Moisture	5.7	0.1	%	1	EB62809	02/27/06	02/28/06	% calculation	
<b>SB-2 15' (6B27012-05) Soil</b>									
% Moisture	4.0	0.1	%	1	EB62809	02/27/06	02/28/06	% calculation	
<b>SB-2 35' (6B27012-06) Soil</b>									
% Moisture	5.2	0.1	%	1	EB62809	02/27/06	02/28/06	% calculation	
<b>SB-3 5' (6B27012-07) Soil</b>									
% Moisture	4.7	0.1	%	1	EB62809	02/27/06	02/28/06	% calculation	
<b>SB-3 15' (6B27012-08) Soil</b>									
% Moisture	1.3	0.1	%	1	EB62809	02/27/06	02/28/06	% calculation	
<b>SB-3 35' (6B27012-09) Soil</b>									
% Moisture	4.9	0.1	%	1	EB62809	02/27/06	02/28/06	% calculation	

Environmental Lab of Texas

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Plains All American EH & S  
1301 S. County Road 1150  
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Fax: (432) 687-4914

Reported:  
03/07/06 13:36

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EC60202 - EPA 5030C (GC)**

**Blank (EC60202-BLK1)**

Prepared & Analyzed: 03/02/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	33.0		ug/kg	40.0		82.5	80-120			
Surrogate: 4-Bromofluorobenzene	34.8		"	40.0		87.0	80-120			

**LCS (EC60202-BS1)**

Prepared & Analyzed: 03/02/06

Benzene	1.04	0.0250	mg/kg wet	1.25		83.2	80-120			
Toluene	1.13	0.0250	"	1.25		90.4	80-120			
Ethylbenzene	1.29	0.0250	"	1.25		103	80-120			
Xylene (p/m)	2.73	0.0250	"	2.50		109	80-120			
Xylene (o)	1.35	0.0250	"	1.25		108	80-120			
Surrogate: a,a,a-Trifluorotoluene	34.8		ug/kg	40.0		87.0	80-120			
Surrogate: 4-Bromofluorobenzene	40.7		"	40.0		102	80-120			

**Calibration Check (EC60202-CCV1)**

Prepared & Analyzed: 03/02/06

Benzene	41.5		ug/kg	50.0		83.0	80-120			
Toluene	46.3		"	50.0		92.6	80-120			
Ethylbenzene	52.9		"	50.0		106	80-120			
Xylene (p/m)	111		"	100		111	80-120			
Xylene (o)	55.5		"	50.0		111	80-120			
Surrogate: a,a,a-Trifluorotoluene	33.1		"	40.0		82.8	80-120			
Surrogate: 4-Bromofluorobenzene	37.9		"	40.0		94.8	80-120			

**Matrix Spike (EC60202-MS1)**

Source: 6B27012-01

Prepared & Analyzed: 03/02/06

Benzene	1.04	0.0250	mg/kg dry	1.30	ND	80.0	80-120			
Toluene	1.15	0.0250	"	1.30	ND	88.5	80-120			
Ethylbenzene	1.32	0.0250	"	1.30	ND	102	80-120			
Xylene (p/m)	2.83	0.0250	"	2.60	ND	109	80-120			
Xylene (o)	1.37	0.0250	"	1.30	ND	105	80-120			
Surrogate: a,a,a-Trifluorotoluene	33.7		ug/kg	40.0		84.2	80-120			
Surrogate: 4-Bromofluorobenzene	36.2		"	40.0		90.5	80-120			

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Reported:  
03/07/06 13:36

**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 EC60202 - EPA 5030C (GC)**

**Matrix Spike Dup (EC60202-MSD1)**

Source: 6B27012-01

Prepared: 03/02/06 Analyzed: 03/03/06

Benzene	1.05	0.0250	mg/kg dry	1.30	ND	80.8	80-120	0.995	20	
Toluene	1.12	0.0250	"	1.30	ND	86.2	80-120	2.63	20	
Ethylbenzene	1.28	0.0250	"	1.30	ND	98.5	80-120	3.49	20	
Xylene (p/m)	2.72	0.0250	"	2.60	ND	105	80-120	3.74	20	
Xylene (o)	1.35	0.0250	"	1.30	ND	104	80-120	0.957	20	
Surrogate: a,a,a-Trifluorotoluene	33.7		ug/kg	40.0		84.2	80-120			
Surrogate: 4-Bromofluorobenzene	36.1		"	40.0		90.2	80-120			

**Batch EC60205 - Solvent Extraction (GC)**

**Blank (EC60205-BLK1)**

Prepared: 03/02/06 Analyzed: 03/03/06

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 C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	49.5		mg/kg	50.0		99.0	70-130			
Surrogate: 1-Chlorooctadecane	48.9		"	50.0		97.8	70-130			

**LCS (EC60205-BS1)**

Prepared: 03/02/06 Analyzed: 03/03/06

Carbon Ranges C6-C12	535	10.0	mg/kg wet	500		107	75-125			
Carbon Ranges C12-C28	512	10.0	"	500		102	75-125			
Total Hydrocarbon C6-C35	1050	10.0	"	1000		105	75-125			
Surrogate: 1-Chlorooctane	62.6		mg/kg	50.0		125	70-130			
Surrogate: 1-Chlorooctadecane	59.6		"	50.0		119	70-130			

**Calibration Check (EC60205-CCV1)**

Prepared: 03/02/06 Analyzed: 03/04/06

Carbon Ranges C6-C12	238		mg/kg	250		95.2	80-120			
Carbon Ranges C12-C28	293		"	250		117	80-120			
Total Hydrocarbon C6-C35	531		"	500		106	80-120			
Surrogate: 1-Chlorooctane	55.5		"	50.0		111	70-130			
Surrogate: 1-Chlorooctadecane	55.7		"	50.0		111	70-130			

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
03/07/06 13:36

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EC60205 - Solvent Extraction (GC)**

<b>Matrix Spike (EC60205-MS1)</b>		<b>Source: 6B27012-01</b>		Prepared: 03/02/06 Analyzed: 03/03/06						
Carbon Ranges C6-C12	555	10.0	mg/kg dry	521	ND	107	75-125			
Carbon Ranges C12-C28	563	10.0	"	521	10.4	106	75-125			
Carbon Ranges C28-C35	8.25	10.0	"	0.00	ND		75-125			J
Total Hydrocarbon C6-C35	1120	10.0	"	1040	10.4	107	75-125			
Surrogate: 1-Chlorooctane	59.6		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	55.5		"	50.0		111	70-130			

<b>Matrix Spike Dup (EC60205-MSD1)</b>		<b>Source: 6B27012-01</b>		Prepared: 03/02/06 Analyzed: 03/03/06						
Carbon Ranges C6-C12	550	10.0	mg/kg dry	521	ND	106	75-125	0.905	20	
Carbon Ranges C12-C28	549	10.0	"	521	10.4	103	75-125	2.52	20	
Carbon Ranges C28-C35	7.97	10.0	"	0.00	ND		75-125	3.45	20	J
Total Hydrocarbon C6-C35	1100	10.0	"	1040	10.4	105	75-125	1.80	20	
Surrogate: 1-Chlorooctane	59.2		mg/kg	50.0		118	70-130			
Surrogate: 1-Chlorooctadecane	55.1		"	50.0		110	70-130			

**Batch EC60206 - Solvent Extraction (GC)**

<b>Blank (EC60206-BLK1)</b>		Prepared & Analyzed: 03/02/06								
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 C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	48.4		mg/kg	50.0		96.8	70-130			
Surrogate: 1-Chlorooctadecane	46.3		"	50.0		92.6	70-130			

<b>LCS (EC60206-BS1)</b>		Prepared & Analyzed: 03/02/06								
Carbon Ranges C6-C12	538	10.0	mg/kg wet	500		108	75-125			
Carbon Ranges C12-C28	501	10.0	"	500		100	75-125			
Total Hydrocarbon C6-C35	1040	10.0	"	1000		104	75-125			
Surrogate: 1-Chlorooctane	58.6		mg/kg	50.0		117	70-130			
Surrogate: 1-Chlorooctadecane	58.3		"	50.0		117	70-130			



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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
03/07/06 13:36

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EC60206 - Solvent Extraction (GC)**

**Calibration Check (EC60206-CCV1)**

Prepared: 03/02/06 Analyzed: 03/03/06

Carbon Ranges C6-C12	233		mg/kg	250		93.2	80-120			
Carbon Ranges C12-C28	270		"	250		108	80-120			
Total Hydrocarbon C6-C35	503		"	500		101	80-120			
Surrogate: 1-Chlorooctane	54.6		"	50.0		109	70-130			
Surrogate: 1-Chlorooctadecane	54.4		"	50.0		109	70-130			

**Matrix Spike (EC60206-MS1)**

Source: 6B27012-06

Prepared & Analyzed: 03/02/06

Carbon Ranges C6-C12	571	10.0	mg/kg dry	527	ND	108	75-125			
Carbon Ranges C12-C28	507	10.0	"	527	ND	96.2	75-125			
Total Hydrocarbon C6-C35	1080	10.0	"	1050	ND	103	75-125			
Surrogate: 1-Chlorooctane	57.1		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	55.5		"	50.0		111	70-130			

**Matrix Spike Dup (EC60206-MSD1)**

Source: 6B27012-06

Prepared & Analyzed: 03/02/06

Carbon Ranges C6-C12	561	10.0	mg/kg dry	527	ND	106	75-125	1.77	20	
Carbon Ranges C12-C28	504	10.0	"	527	ND	95.6	75-125	0.593	20	
Total Hydrocarbon C6-C35	1070	10.0	"	1050	ND	102	75-125	0.930	20	
Surrogate: 1-Chlorooctane	59.2		mg/kg	50.0		118	70-130			
Surrogate: 1-Chlorooctadecane	54.1		"	50.0		108	70-130			

Plains All American EH & S  
1301 S. County Road 1150  
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Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

**Reported:**  
03/07/06 13:36

**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
<b>Batch EB62809 - General Preparation (Prep)</b>										
<b>Blank (EB62809-BLK1)</b>										
					Prepared: 02/27/06 Analyzed: 02/28/06					
% Solids	100		%							
<b>Duplicate (EB62809-DUP1)</b>										
			<b>Source: 6B27001-01</b>		Prepared: 02/27/06 Analyzed: 02/28/06					
% Solids	92.9		%		92.7			0.216	20	
<b>Duplicate (EB62809-DUP2)</b>										
			<b>Source: 6B27012-03</b>		Prepared: 02/27/06 Analyzed: 02/28/06					
% Solids	96.2		%		95.5			0.730	20	

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Reported:  
03/07/06 13:36

### Notes and Definitions

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:

*Raland K. Tuttle*

Date:

3/7/2006

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

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

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

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

**12600 West I-20 East  
Odessa, Texas 79763**

### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Project Name:**

Project #: FHS: 2005-00157

Project Loc: LEFF COUNTY, NM

PO #: YHH1C, KEYNOLD

Fax No: 505-369-1429

Fax No: (505) 369-3910

**Special Instructions:**

**Sample Containers Intact?**

**Temperature Upon Receipt:**

**Laboratory Comments:**

Time

Time

602 glass

infected jar/cup

# Environmental Lab of Texas

## Variance / Corrective Action Report – Sample Log-In

Client: Plains / Basin

Date/Time: 2/24/06 5:30

Order #: 6B27012

Initials: CK

### Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	2.5 C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>	No	
Custody Seals intact on shipping container/cooler?	Yes	No	<del>Not present</del>
Custody Seals intact on sample bottles?	<input checked="" type="checkbox"/>	No	Not present
Chain of custody present?	<input checked="" type="checkbox"/>	No	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/>	No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/>	No	
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/>	No	
Container labels legible and intact?	<input checked="" type="checkbox"/>	No	
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/>	No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/>	No	
Samples properly preserved?	<input checked="" type="checkbox"/>	No	
Sample bottles intact?	<input checked="" type="checkbox"/>	No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/>	No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/>	No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/>	No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/>	No	
VOC samples have zero headspace?	<input checked="" type="checkbox"/>	No	Not Applicable

Other observations:

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### Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding: \_\_\_\_\_

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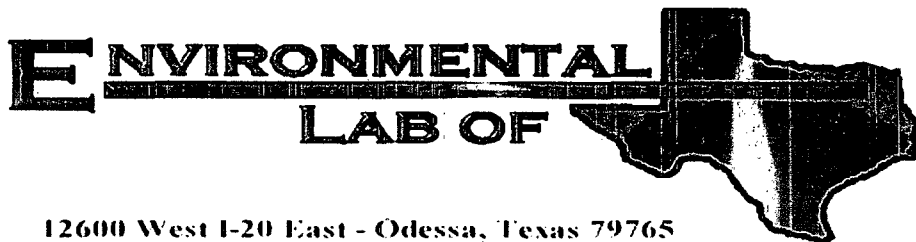


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Corrective Action Taken:



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: Young Deep to Lynch 8 inch

Project Number: EMS: 2005-00157

Location: None Given

Lab Order Number: 5L02033

Report Date: 12/08/05

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914  
**Reported:**  
12/08/05 08:35

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FLR R/P 14' BGS	5L02033-01	Soil	11/30/05 13:50	12/02/05 13:45

Plains All American EH & S  
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Midland TX, 79706-4476

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
12/08/05 08:35

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>FLR R/P 14' BGS (SL02033-01) Soil</b>									
<b>Benzene</b>	<b>13.3</b>	0.500	mg/kg dry	500	EL50510	12/05/05	12/07/05	EPA 8021B	
<b>Toluene</b>	<b>100</b>	0.500	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>66.3</b>	0.500	"	"	"	"	"	"	
<b>Xylene (p/m)</b>	<b>96.4</b>	0.500	"	"	"	"	"	"	
<b>Xylene (o)</b>	<b>37.5</b>	0.500	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		602 %	80-120		"	"	"	"	S-04
<i>Surrogate: 4-Bromofluorobenzene</i>		160 %	80-120		"	"	"	"	S-04
<b>Gasoline Range Organics C6-C12</b>	<b>2740</b>	10.0	mg/kg dry	1	EL50511	12/05/05	12/06/05	EPA 8015M	
<b>Diesel Range Organics &gt;C12-C35</b>	<b>4380</b>	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>7120</b>	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		141 %	70-130		"	"	"	"	S-04
<i>Surrogate: 1-Chlorooctadecane</i>		188 %	70-130		"	"	"	"	S-04



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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914  
**Reported:**  
12/08/05 08:35

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>FLR R/P 14' BGS (SL02033-01) Soil</b>									
<b>% Moisture</b>	<b>5.5</b>	0.1	%	1	EL50505	12/02/05	12/05/05	% calculation	

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914  
Reported:  
12/08/05 08:35

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EL50510 - EPA 5030C (GC)**

**Blank (EL50510-BLK1)**

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

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	32.2		ug/kg	40.0		80.5	80-120			
Surrogate: 4-Bromofluorobenzene	38.3		"	40.0		95.8	80-120			

**LCS (EL50510-BS1)**

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

Benzene	0.0481	0.00100	mg/kg wet	0.0500		96.2	80-120			
Toluene	0.0495	0.00100	"	0.0500		99.0	80-120			
Ethylbenzene	0.0445	0.00100	"	0.0500		89.0	80-120			
Xylene (p/m)	0.0842	0.00100	"	0.100		84.2	80-120			
Xylene (o)	0.0437	0.00100	"	0.0500		87.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	34.8		ug/kg	40.0		87.0	80-120			
Surrogate: 4-Bromofluorobenzene	33.0		"	40.0		82.5	80-120			

**Calibration Check (EL50510-CCV1)**

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

Benzene	48.2		ug/kg	50.0		96.4	80-120			
Toluene	50.0		"	50.0		100	80-120			
Ethylbenzene	44.6		"	50.0		89.2	80-120			
Xylene (p/m)	85.1		"	100		85.1	80-120			
Xylene (o)	42.9		"	50.0		85.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.0		"	40.0		92.5	80-120			
Surrogate: 4-Bromofluorobenzene	34.1		"	40.0		85.2	80-120			

**Matrix Spike (EL50510-MS1)**

Source: 5L02001-23

Prepared: 12/05/05 Analyzed: 12/07/05

Benzene	0.0531	0.00100	mg/kg dry	0.0536	ND	99.1	80-120			
Toluene	0.0576	0.00100	"	0.0536	ND	107	80-120			
Ethylbenzene	0.0536	0.00100	"	0.0536	ND	100	80-120			
Xylene (p/m)	0.103	0.00100	"	0.107	ND	96.3	80-120			
Xylene (o)	0.0515	0.00100	"	0.0536	ND	96.1	80-120			
Surrogate: a,a,a-Trifluorotoluene	40.7		ug/kg	40.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	42.5		"	40.0		106	80-120			

Environmental Lab of Texas

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

Page 4 of 8

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
12/08/05 08:35

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EL50510 - EPA 5030C (GC)**

**Matrix Spike Dup (EL50510-MSD1)**

Source: 5L02001-23

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

Benzene	0.0488	0.00100	mg/kg dry	0.0536	ND	91.0	80-120	8.52	20	
Toluene	0.0531	0.00100	"	0.0536	ND	99.1	80-120	7.67	20	
Ethylbenzene	0.0501	0.00100	"	0.0536	ND	93.5	80-120	6.72	20	
Xylene (p/m)	0.0966	0.00100	"	0.107	ND	90.3	80-120	6.43	20	
Xylene (o)	0.0486	0.00100	"	0.0536	ND	90.7	80-120	5.78	20	
Surrogate: a,a,a-Trifluorotoluene	35.1		ug/kg	40.0		87.8	80-120			
Surrogate: 4-Bromofluorobenzene	36.1		"	40.0		90.2	80-120			

**Batch EL50511 - Solvent Extraction (GC)**

**Blank (EL50511-BLK1)**

Prepared & Analyzed: 12/05/05

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	44.4		mg/kg	50.0		88.8	70-130			
Surrogate: 1-Chlorooctadecane	44.8		"	50.0		89.6	70-130			

**LCS (EL50511-BS1)**

Prepared & Analyzed: 12/05/05

Gasoline Range Organics C6-C12	386	10.0	mg/kg wet	500		77.2	75-125			
Diesel Range Organics >C12-C35	498	10.0	"	500		99.6	75-125			
Total Hydrocarbon C6-C35	884	10.0	"	1000		88.4	75-125			
Surrogate: 1-Chlorooctane	50.7		mg/kg	50.0		101	70-130			
Surrogate: 1-Chlorooctadecane	49.1		"	50.0		98.2	70-130			

**Calibration Check (EL50511-CCV1)**

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

Gasoline Range Organics C6-C12	424		mg/kg	500		84.8	80-120			
Diesel Range Organics >C12-C35	547		"	500		109	80-120			
Total Hydrocarbon C6-C35	971		"	1000		97.1	80-120			
Surrogate: 1-Chlorooctane	54.9		"	50.0		110	70-130			
Surrogate: 1-Chlorooctadecane	53.0		"	50.0		106	70-130			

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
12/08/05 08:35

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EL50511 - Solvent Extraction (GC)**

**Matrix Spike (EL50511-MS1)**

Source: 5L02031-01

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

Gasoline Range Organics C6-C12	460	10.0	mg/kg dry	564	ND	81.6	75-125			
Diesel Range Organics >C12-C35	793	10.0	"	564	174	110	75-125			
Total Hydrocarbon C6-C35	1250	10.0	"	1130	174	95.2	75-125			
Surrogate: 1-Chlorooctane	50.4		mg/kg	50.0		101	70-130			
Surrogate: 1-Chlorooctadecane	55.8		"	50.0		112	70-130			

**Matrix Spike Dup (EL50511-MSD1)**

Source: 5L02031-01

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

Gasoline Range Organics C6-C12	461	10.0	mg/kg dry	564	ND	81.7	75-125	0.217	20	
Diesel Range Organics >C12-C35	783	10.0	"	564	174	108	75-125	1.27	20	
Total Hydrocarbon C6-C35	1240	10.0	"	1130	174	94.3	75-125	0.803	20	
Surrogate: 1-Chlorooctane	56.3		mg/kg	50.0		113	70-130			
Surrogate: 1-Chlorooctadecane	56.3		"	50.0		113	70-130			

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
12/08/05 08:35

**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
<b>Batch EL50505 - General Preparation (Prep)</b>										
<b>Blank (EL50505-BLK1)</b>		Prepared: 12/02/05 Analyzed: 12/05/05								
% Solids	100		%							
<b>Duplicate (EL50505-DUP1)</b>		<b>Source: 5L02001-01</b>		Prepared: 12/02/05 Analyzed: 12/05/05						
% Solids	93.2		%		93.3			0.107	20	
<b>Duplicate (EL50505-DUP2)</b>		<b>Source: 5L02001-21</b>		Prepared: 12/02/05 Analyzed: 12/05/05						
% Solids	94.5		%		94.3			0.212	20	
<b>Duplicate (EL50505-DUP3)</b>		<b>Source: 5L02033-01</b>		Prepared: 12/02/05 Analyzed: 12/05/05						
% Solids	94.5		%		94.5			0.00	20	

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**Reported:**  
12/08/05 08:35

### 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: 12/8/2005

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

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

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

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

**Phone: 915-583-1800**  
**Fax: 915-563-1713**

### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Project Manager:**

KEN DUTTON

**Company Name**

BASTIN ENV. SVC.

**Company Address:**

P.O. Box 301

City/State/Zip: LOVINGTON, NH 08260

**Telephone No.:**

(5085) 441-2124

**Fax No.:**

(505) 369-1429

**Sampler Signature:**

Ken F. Dutton

Requesting by:		Date	Time	Received by:	Date	Time	Special Instructions:
Kurt Dutton		11/20/05	15:45	Amelia Blackwood	Dec 1, 05	3:45 PM	Sample Containers Intact? <input checked="" type="checkbox"/> N Temperature Upon Receipt Laboratory Comments: 1.5 seals / label 40-2
Amelia Blackwood		Dec 20, 05	10:45	Amelia Blackwood	12/2/05	13:45	

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

Client: Plains

Date/Time: 12/2/05 13:45

Order #: SL02033

Initials: CLK

Sample Receipt Checklist

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

Other observations:

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Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
Regarding: \_\_\_\_\_

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Corrective Action Taken:

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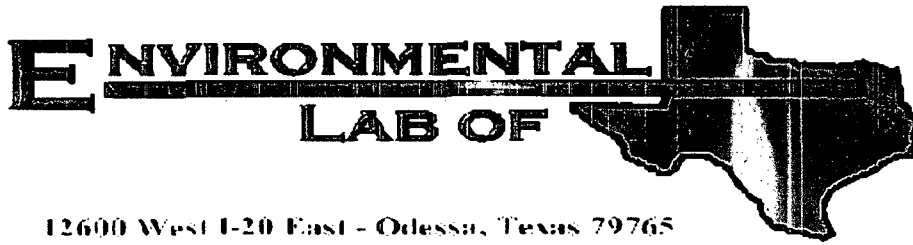


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12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Young Deep to Lynch 8 inch

Project Number: EMS: 2005-00157

Location: Lea County, NM

Lab Order Number: 5I16015

Report Date: 09/23/05

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

**Reported:**  
09/23/05 16:44

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Excavation West Wall 5ft BGS	5I16015-01	Soil	09/15/05 09:00	09/16/05 13:45
Excavation North Wall 5ft BGS	5I16015-02	Soil	09/15/05 09:15	09/16/05 13:45
Excavation East Wall 5ft BGS	5I16015-03	Soil	09/15/05 09:30	09/16/05 13:45
Excavation South Wall 5ft BGS	5I16015-04	Soil	09/15/05 09:45	09/16/05 13:45
Excavation South Floor 10ft BGS	5I16015-05	Soil	09/15/05 10:00	09/16/05 13:45
Excavation RP Floor 12ft BGS	5I16015-06	Soil	09/15/05 10:15	09/16/05 13:45
Right of Way Floor 30ft from RP	5I16015-07	Soil	09/15/05 10:35	09/16/05 13:45
Right of Way North Wall 30ft from RP	5I16015-08	Soil	09/15/05 10:45	09/16/05 13:45
Right of Way South Wall 30ft from RP	5I16015-09	Soil	09/15/05 11:00	09/16/05 13:45
Stock Pile Composite	5I16015-10	Soil	09/15/05 11:10	09/16/05 13:45
Right of Way South Wall 50ft from RP	5I16015-11	Soil	09/15/05 11:20	09/16/05 13:45
Right of Way North Wall 50ft from RP	5I16015-12	Soil	09/15/05 11:30	09/16/05 13:45
Right of Way Floor 50ft from RP	5I16015-13	Soil	09/15/05 11:40	09/16/05 13:45
Right of Way South Wall 80ft from RP	5I16015-14	Soil	09/15/05 11:50	09/16/05 13:45
Right of Way North Wall 80ft from RP	5I16015-15	Soil	09/15/05 12:00	09/16/05 13:45
Right of Way Floor 80ft from RP	5I16015-16	Soil	09/15/05 12:15	09/16/05 13:45

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Reported:  
09/23/05 16:44

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Excavation West Wall 5ft BGS (5116015-01) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EI52006	09/20/05	09/20/05	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.7 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		106 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI51902	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		94.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		100 %	70-130		"	"	"	"	
<b>Excavation North Wall 5ft BGS (5116015-02) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EI52006	09/20/05	09/20/05	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		80.9 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.4 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI51902	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		90.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		102 %	70-130		"	"	"	"	
<b>Excavation East Wall 5ft BGS (5116015-03) Soil</b>									
Benzene	0.0708	0.0250	mg/kg dry	25	EI52006	09/20/05	09/20/05	EPA 8021B	
Toluene	1.18	0.0250	"	"	"	"	"	"	
Ethylbenzene	1.93	0.0250	"	"	"	"	"	"	
Xylene (p/m)	3.26	0.0250	"	"	"	"	"	"	
Xylene (o)	1.48	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		141 %	80-120		"	"	"	"	S-04
<i>Surrogate: 4-Bromofluorobenzene</i>		82.5 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	919	10.0	mg/kg dry	1	EI51902	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	3020	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	3940	10.0	"	"	"	"	"	"	

Environmental Lab of Texas

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Page 2 of 17

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
09/23/05 16:44

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Excavation East Wall 5ft BGS (5116015-03) Soil</b>									
Surrogate: 1-Chlorooctane		138 %	70-130		EI51902	09/19/05	09/20/05	EPA 8015M	S-04
Surrogate: 1-Chlorooctadecane		139 %	70-130		"	"	"	"	S-04
<b>Excavation South Wall 5ft BGS (5116015-04) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EI52006	09/20/05	09/20/05	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		98.9 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.6 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	15.2	10.0	mg/kg dry	1	EI51902	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	211	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	226	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		119 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		116 %	70-130		"	"	"	"	
<b>Excavation South Floor 10ft BGS (5116015-05) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EI52006	09/20/05	09/20/05	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		94.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	13.2	10.0	mg/kg dry	1	EI51902	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	153	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	166	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		98.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		108 %	70-130		"	"	"	"	

Environmental Lab of Texas

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
09/23/05 16:44

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Excavation RP Floor 12ft BGS (5I16015-06) Soil</b>									
Benzene	5.38	0.100	mg/kg dry	100	EI52006	09/20/05	09/20/05	EPA 8021B	
Toluene	33.4	0.100	"	"	"	"	"	"	
Ethylbenzene	19.4	0.100	"	"	"	"	"	"	
Xylene (p/m)	27.5	0.100	"	"	"	"	"	"	
Xylene (o)	11.0	0.100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		317 %	80-120		"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		82.5 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	3120	50.0	mg/kg dry	5	EI51902	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	5760	50.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	8880	50.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		31.8 %	70-130		"	"	"	"	S-06
Surrogate: 1-Chlorooctadecane		24.4 %	70-130		"	"	"	"	S-06
<b>Right of Way Floor 30ft from RP (5I16015-07) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EI52006	09/20/05	09/20/05	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		103 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.4 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	13.2	10.0	mg/kg dry	1	EI51902	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	85.6	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	98.8	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		94.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		103 %	70-130		"	"	"	"	
<b>Right of Way North Wall 30ft from RP (5I16015-08) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EI52006	09/20/05	09/20/05	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		94.6 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI51902	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

Environmental Lab of Texas

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
09/23/05 16:44

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Right of Way North Wall 30ft from RP (5116015-08) Soil</b>									
Surrogate: 1-Chlorooctane		103 %	70-130		EI51902	09/19/05	09/20/05	EPA 8015M	
Surrogate: 1-Chlorooctadecane		110 %	70-130		"	"	"	"	
<b>Right of Way South Wall 30ft from RP (5116015-09) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EI52006	09/20/05	09/21/05	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		96.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.4 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI51902	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		112 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		121 %	70-130		"	"	"	"	
<b>Stock Pile Composite (5116015-10) Soil</b>									
Benzene	0.752	0.0250	mg/kg dry	25	EI52006	09/20/05	09/21/05	EPA 8021B	
Toluene	4.24	0.0250	"	"	"	"	"	"	
Ethylbenzene	3.02	0.0250	"	"	"	"	"	"	
Xylene (p/m)	4.92	0.0250	"	"	"	"	"	"	
Xylene (o)	1.73	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		96.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.8 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	114	10.0	mg/kg dry	1	EI51902	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	473	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	587	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		113 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		114 %	70-130		"	"	"	"	

Plains All American EH & S  
1301 S. County Road 1150  
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Project: Young Deep to Lynch 8 inch  
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**Reported:**  
09/23/05 16:44

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Right of Way South Wall 50ft from RP (5I16015-11) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EI52006	09/20/05	09/21/05	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92.1 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		91.8 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI51902	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		85.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		97.4 %	70-130		"	"	"	"	
<b>Right of Way North Wall 50ft from RP (5I16015-12) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EI52113	09/21/05	09/22/05	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	J [0.0223]	0.0250	"	"	"	"	"	"	J
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.8 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		107 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI51904	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	18.2	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	18.2	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		81.0 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		89.2 %	70-130		"	"	"	"	
<b>Right of Way Floor 50ft from RP (5I16015-13) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EI52113	09/21/05	09/22/05	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		88.2 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		86.5 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI51904	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
09/23/05 16:44

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Right of Way Floor 50ft from RP (5I16015-13) Soil</b>									
Surrogate: 1-Chlorooctane		91.2 %	70-130		EI51904	09/19/05	09/20/05	EPA 8015M	
Surrogate: 1-Chlorooctadecane		90.4 %	70-130		"	"	"	"	
<b>Right of Way South Wall 80ft from RP (5I16015-14) Soil</b>									
Benzene	J [0.0198]	0.0250	mg/kg dry	25	EI52113	09/21/05	09/22/05	EPA 8021B	J
Toluene	0.160	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.124	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.199	0.0250	"	"	"	"	"	"	
Xylene (o)	0.0644	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		96.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI51904	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		124 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		106 %	70-130		"	"	"	"	
<b>Right of Way North Wall 80ft from RP (5I16015-15) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EI52113	09/21/05	09/22/05	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		94.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI51904	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	14.8	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	14.8	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		91.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		102 %	70-130		"	"	"	"	



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**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Right of Way Floor 80ft from RP (5116015-16) Soil</b>									
<b>Benzene</b>	<b>J [0.0150]</b>	0.0250	mg/kg dry	25	EI52113	09/21/05	09/22/05	EPA 8021B	J
<b>Toluene</b>	<b>0.179</b>	0.0250	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.165</b>	0.0250	"	"	"	"	"	"	
<b>Xylene (p/m)</b>	<b>0.331</b>	0.0250	"	"	"	"	"	"	
<b>Xylene (o)</b>	<b>0.125</b>	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		100 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		106 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI51904	09/19/05	09/20/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		83.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		84.6 %	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
<b>Excavation West Wall 5ft BGS (5I16015-01) Soil</b>									
% Moisture	5.4	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Excavation North Wall 5ft BGS (5I16015-02) Soil</b>									
% Moisture	10.6	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Excavation East Wall 5ft BGS (5I16015-03) Soil</b>									
% Moisture	5.0	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Excavation South Wall 5ft BGS (5I16015-04) Soil</b>									
% Moisture	9.6	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Excavation South Floor 10ft BGS (5I16015-05) Soil</b>									
% Moisture	9.4	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Excavation RP Floor 12ft BGS (5I16015-06) Soil</b>									
Chloride	134	5.00	mg/kg	10	EI52102	09/19/05	09/21/05	EPA 300.0	
% Moisture	4.2	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Right of Way Floor 30ft from RP (5I16015-07) Soil</b>									
% Moisture	14.6	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Right of Way North Wall 30ft from RP (5I16015-08) Soil</b>									
% Moisture	2.0	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Right of Way South Wall 30ft from RP (5I16015-09) Soil</b>									
% Moisture	3.3	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Stock Pile Composite (5I16015-10) Soil</b>									
% Moisture	8.3	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
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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
<b>Right of Way South Wall 50ft from RP (5I16015-11) Soil</b>									
% Moisture	1.4	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Right of Way North Wall 50ft from RP (5I16015-12) Soil</b>									
% Moisture	4.7	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Right of Way Floor 50ft from RP (5I16015-13) Soil</b>									
% Moisture	14.4	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Right of Way South Wall 80ft from RP (5I16015-14) Soil</b>									
% Moisture	1.5	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Right of Way North Wall 80ft from RP (5I16015-15) Soil</b>									
% Moisture	3.0	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	
<b>Right of Way Floor 80ft from RP (5I16015-16) Soil</b>									
% Moisture	5.2	0.1	%	1	EI52002	09/20/05	09/20/05	% calculation	

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Reported:  
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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
<b>Batch EI51902 - Solvent Extraction (GC)</b>										
<b>Blank (EI51902-BLK1)</b>				Prepared: 09/19/05 Analyzed: 09/20/05						
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	47.5		mg/kg	50.0		95.0	70-130			
Surrogate: 1-Chlorooctadecane	44.9		"	50.0		89.8	70-130			
<b>LCS (EI51902-BS1)</b>				Prepared: 09/19/05 Analyzed: 09/20/05						
Gasoline Range Organics C6-C12	441	10.0	mg/kg wet	500		88.2	75-125			
Diesel Range Organics >C12-C35	434	10.0	"	500		86.8	75-125			
Total Hydrocarbon C6-C35	875	10.0	"	1000		87.5	75-125			
Surrogate: 1-Chlorooctane	50.2		mg/kg	50.0		100	70-130			
Surrogate: 1-Chlorooctadecane	47.7		"	50.0		95.4	70-130			
<b>Calibration Check (EI51902-CCV1)</b>				Prepared: 09/19/05 Analyzed: 09/20/05						
Gasoline Range Organics C6-C12	448		mg/kg	500		89.6	80-120			
Diesel Range Organics >C12-C35	468		"	500		93.6	80-120			
Total Hydrocarbon C6-C35	916		"	1000		91.6	80-120			
Surrogate: 1-Chlorooctane	53.9		"	50.0		108	0-200			
Surrogate: 1-Chlorooctadecane	54.4		"	50.0		109	0-200			
<b>Matrix Spike (EI51902-MS1)</b>				Source: 5I16015-02	Prepared: 09/19/05 Analyzed: 09/20/05					
Gasoline Range Organics C6-C12	460	10.0	mg/kg dry	559	ND	82.3	75-125			
Diesel Range Organics >C12-C35	488	10.0	"	559	ND	87.3	75-125			
Total Hydrocarbon C6-C35	948	10.0	"	1120	ND	84.6	75-125			
Surrogate: 1-Chlorooctane	58.1		mg/kg	50.0		116	70-130			
Surrogate: 1-Chlorooctadecane	53.3		"	50.0		107	70-130			
<b>Matrix Spike Dup (EI51902-MSD1)</b>				Source: 5I16015-02	Prepared: 09/19/05 Analyzed: 09/20/05					
Gasoline Range Organics C6-C12	466	10.0	mg/kg dry	559	ND	83.4	75-125	1.30	20	
Diesel Range Organics >C12-C35	490	10.0	"	559	ND	87.7	75-125	0.409	20	
Total Hydrocarbon C6-C35	956	10.0	"	1120	ND	85.4	75-125	0.840	20	
Surrogate: 1-Chlorooctane	59.5		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	53.7		"	50.0		107	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
<b>Batch EI51904 - Solvent Extraction (GC)</b>										
<b>Blank (EI51904-BLK1)</b>				Prepared: 09/19/05 Analyzed: 09/20/05						
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	42.0		mg/kg	50.0		84.0	70-130			
Surrogate: 1-Chlorooctadecane	41.2		"	50.0		82.4	70-130			
<b>LCS (EI51904-BS1)</b>				Prepared: 09/19/05 Analyzed: 09/20/05						
Gasoline Range Organics C6-C12	404	10.0	mg/kg wet	500		80.8	75-125			
Diesel Range Organics >C12-C35	431	10.0	"	500		86.2	75-125			
Total Hydrocarbon C6-C35	835	10.0	"	1000		83.5	75-125			
Surrogate: 1-Chlorooctane	49.5		mg/kg	50.0		99.0	70-130			
Surrogate: 1-Chlorooctadecane	44.3		"	50.0		88.6	70-130			
<b>Calibration Check (EI51904-CCV1)</b>				Prepared: 09/19/05 Analyzed: 09/20/05						
Gasoline Range Organics C6-C12	433		mg/kg	500		86.6	80-120			
Diesel Range Organics >C12-C35	415		"	500		83.0	80-120			
Total Hydrocarbon C6-C35	848		"	1000		84.8	80-120			
Surrogate: 1-Chlorooctane	44.5		"	50.0		89.0	0-200			
Surrogate: 1-Chlorooctadecane	38.9		"	50.0		77.8	0-200			
<b>Matrix Spike (EI51904-MS1)</b>				Source: 5I16015-13		Prepared: 09/19/05 Analyzed: 09/20/05				
Gasoline Range Organics C6-C12	504	10.0	mg/kg dry	584	ND	86.3	75-125			
Diesel Range Organics >C12-C35	516	10.0	"	584	ND	88.4	75-125			
Total Hydrocarbon C6-C35	1020	10.0	"	1170	ND	87.2	75-125			
Surrogate: 1-Chlorooctane	37.0		mg/kg	50.0		74.0	70-130			
Surrogate: 1-Chlorooctadecane	37.4		"	50.0		74.8	70-130			
<b>Matrix Spike Dup (EI51904-MSD1)</b>				Source: 5I16015-13		Prepared: 09/19/05 Analyzed: 09/20/05				
Gasoline Range Organics C6-C12	491	10.0	mg/kg dry	584	ND	84.1	75-125	2.61	20	
Diesel Range Organics >C12-C35	518	10.0	"	584	ND	88.7	75-125	0.387	20	
Total Hydrocarbon C6-C35	1010	10.0	"	1170	ND	86.3	75-125	0.985	20	
Surrogate: 1-Chlorooctane	36.5		mg/kg	50.0		73.0	70-130			
Surrogate: 1-Chlorooctadecane	36.8		"	50.0		73.6	70-130			

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**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EI52006 - EPA 5030C (GC)**

**Blank (EI52006-BLK1)**

Prepared & Analyzed: 09/20/05

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	94.2		ug/kg	100		94.2	80-120			
Surrogate: 4-Bromofluorobenzene	95.6		"	100		95.6	80-120			

**LCS (EI52006-BS1)**

Prepared & Analyzed: 09/20/05

Benzene	102		ug/kg	100		102	80-120			
Toluene	103		"	100		103	80-120			
Ethylbenzene	94.7		"	100		94.7	80-120			
Xylene (p/m)	187		"	200		93.5	80-120			
Xylene (o)	83.7		"	100		83.7	80-120			
Surrogate: a,a,a-Trifluorotoluene	102		"	100		102	80-120			
Surrogate: 4-Bromofluorobenzene	106		"	100		106	80-120			

**Calibration Check (EI52006-CCV1)**

Prepared & Analyzed: 09/20/05

Benzene	100		ug/kg	100		100	80-120			
Toluene	101		"	100		101	80-120			
Ethylbenzene	103		"	100		103	80-120			
Xylene (p/m)	209		"	200		104	80-120			
Xylene (o)	107		"	100		107	80-120			
Surrogate: a,a,a-Trifluorotoluene	95.3		"	100		95.3	0-200			
Surrogate: 4-Bromofluorobenzene	116		"	100		116	0-200			

**Matrix Spike (EI52006-MS1)**

Source: 5I19028-02

Prepared & Analyzed: 09/20/05

Benzene	2.36	0.0250	mg/kg dry	2.52	ND	93.7	80-120			
Toluene	2.43	0.0250	"	2.52	0.0243	95.5	80-120			
Ethylbenzene	2.27	0.0250	"	2.52	ND	90.1	80-120			
Xylene (p/m)	4.40	0.0250	"	5.04	0.0440	86.4	80-120			
Xylene (o)	2.08	0.0250	"	2.52	ND	82.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	94.5		ug/kg	100		94.5	80-120			
Surrogate: 4-Bromofluorobenzene	95.8		"	100		95.8	80-120			

Environmental Lab of Texas

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

Page 13 of 17

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
09/23/05 16:44

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EI52006 - EPA 5030C (GC)**

**Matrix Spike Dup (EI52006-MSD1)**

Source: 5119028-02

Prepared & Analyzed: 09/20/05

Benzene	2.43	0.0250	mg/kg dry	2.52	ND	96.4	80-120	2.84	20	
Toluene	2.49	0.0250	"	2.52	0.0243	97.8	80-120	2.38	20	
Ethylbenzene	2.33	0.0250	"	2.52	ND	92.5	80-120	2.63	20	
Xylene (p/m)	4.51	0.0250	"	5.04	0.0440	88.6	80-120	2.51	20	
Xylene (o)	2.12	0.0250	"	2.52	ND	84.1	80-120	1.92	20	
Surrogate: a,a,a-Trifluorotoluene	95.5		ug/kg	100		95.5	80-120			
Surrogate: 4-Bromofluorobenzene	97.6		"	100		97.6	80-120			

**Batch EI52113 - EPA 5030C (GC)**

**Blank (EI52113-BLK1)**

Prepared: 09/21/05 Analyzed: 09/22/05

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	38.3		ug/kg	40.0		95.8	80-120			
Surrogate: 4-Bromofluorobenzene	38.4		"	40.0		96.0	80-120			

**LCS (EI52113-BS1)**

Prepared: 09/21/05 Analyzed: 09/22/05

Benzene	46.1		ug/kg	50.0		92.2	80-120			
Toluene	45.2		"	50.0		90.4	80-120			
Ethylbenzene	51.1		"	50.0		102	80-120			
Xylene (p/m)	94.3		"	100		94.3	80-120			
Xylene (o)	54.6		"	50.0		109	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.0		"	40.0		97.5	80-120			
Surrogate: 4-Bromofluorobenzene	47.0		"	40.0		118	80-120			

Plains All American EH & S  
1301 S. County Road 1150  
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Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
09/23/05 16:44

**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
<b>Batch EI52113 - EPA 5030C (GC)</b>										
<b>Calibration Check (EI52113-CCV1)</b>				Prepared: 09/21/05 Analyzed: 09/23/05						
Benzene	45.3		ug/kg	50.0		90.6	80-120			
Toluene	43.4		"	50.0		86.8	80-120			
Ethylbenzene	46.3		"	50.0		92.6	80-120			
Xylene (p/m)	85.0		"	100		85.0	80-120			
Xylene (o)	48.6		"	50.0		97.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.4		"	40.0		93.5	0-200			
Surrogate: 4-Bromofluorobenzene	40.2		"	40.0		100	0-200			
<b>Matrix Spike (EI52113-MS1)</b>				Source: 5I22008-03		Prepared: 09/21/05 Analyzed: 09/22/05				
Benzene	43.2		ug/kg	50.0	ND	86.4	80-120			
Toluene	42.4		"	50.0	ND	84.8	80-120			
Ethylbenzene	50.1		"	50.0	ND	100	80-120			
Xylene (p/m)	93.8		"	100	ND	93.8	80-120			
Xylene (o)	54.9		"	50.0	ND	110	80-120			
Surrogate: a,a,a-Trifluorotoluene	36.2		"	40.0		90.5	80-120			
Surrogate: 4-Bromofluorobenzene	48.1		"	40.0		120	80-120			
<b>Matrix Spike Dup (EI52113-MSD1)</b>				Source: 5I22008-03		Prepared: 09/21/05 Analyzed: 09/22/05				
Benzene	44.7		ug/kg	50.0	ND	89.4	80-120	3.41	20	
Toluene	43.7		"	50.0	ND	87.4	80-120	3.02	20	
Ethylbenzene	49.2		"	50.0	ND	98.4	80-120	1.61	20	
Xylene (p/m)	91.2		"	100	ND	91.2	80-120	2.81	20	
Xylene (o)	51.3		"	50.0	ND	103	80-120	6.57	20	
Surrogate: a,a,a-Trifluorotoluene	38.6		"	40.0		96.5	80-120			
Surrogate: 4-Bromofluorobenzene	46.7		"	40.0		117	80-120			



Plains All American EH & S  
1301 S. County Road 1150  
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Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

**Reported:**  
09/23/05 16:44

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EI52002 - General Preparation (Prep)</b>									
<b>Blank (EI52002-BLK1)</b>	Prepared & Analyzed: 09/20/05								
% Solids	100		%						
<b>Duplicate (EI52002-DUP1)</b>	Source: 5I16003-01 Prepared & Analyzed: 09/20/05								
% Solids	96.4		%		96.8		0.414	20	
<b>Duplicate (EI52002-DUP2)</b>	Source: 5I16011-02 Prepared & Analyzed: 09/20/05								
% Solids	99.1		%		98.8		0.303	20	
<b>Duplicate (EI52002-DUP3)</b>	Source: 5I16015-11 Prepared & Analyzed: 09/20/05								
% Solids	98.7		%		98.6		0.101	20	
<b>Batch EI52102 - Water Extraction</b>									
<b>Blank (EI52102-BLK1)</b>	Prepared: 09/19/05 Analyzed: 09/21/05								
Chloride	ND	0.500	mg/kg						
<b>LCS (EI52102-BS1)</b>	Prepared: 09/19/05 Analyzed: 09/21/05								
Chloride	8.74		mg/L	10.0		87.4	80-120		
<b>Calibration Check (EI52102-CCV1)</b>	Prepared: 09/19/05 Analyzed: 09/21/05								
Chloride	8.44		mg/L	10.0		84.4	80-120		
<b>Duplicate (EI52102-DUP1)</b>	Source: 5I16013-05 Prepared: 09/19/05 Analyzed: 09/21/05								
Chloride	38.9	5.00	mg/kg		38.2		1.82	20	

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

Project: Young Deep to Lynch 8 inch  
Project Number: EMS: 2005-00157  
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**Reported:**  
09/23/05 16:44

### 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.

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

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

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:

*Raland K. Tuttle*

Date:

9/23/05

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

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

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

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





# Environmental Lab of Texas

## Variance / Corrective Action Report – Sample Log-In

Client: Plains

Date/Time: 9/16/05 1:45

Order #: 5I16015

Initials: UK

### Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	1.0	C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>	No		
Custody Seals intact on shipping container/cooler?	Yes	No	<del>Not present</del>	
Custody Seals intact on sample bottles?	<input checked="" type="checkbox"/>	No	Not present	
Chain of custody present?	<input checked="" type="checkbox"/>	No		
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/>	No		
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/>	No		
Container labels legible and intact?	<input checked="" type="checkbox"/>	No		
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/>	No		
Samples in proper container/bottle?	<input checked="" type="checkbox"/>	No		
Samples properly preserved?	<input checked="" type="checkbox"/>	No		
Sample bottles intact?	<input checked="" type="checkbox"/>	No		
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/>	No		
All samples received within sufficient hold time?	<input checked="" type="checkbox"/>	No		
VOC samples have zero headspace?	<input checked="" type="checkbox"/>	No	Not Applicable	

Other observations:

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### Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding:

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Corrective Action Taken:

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**TITLE PAGE/ABSTRACT/  
NEGATIVE SITE REPORT  
CFO/RFO**

1/03

1. BLM Report No.		2. Reviewer's Initials/Date ACCEPTED ( ) REJECTED ( )		3. NMCRIS No.: 97328	
4. Type of Report:                      Negative (X)                      Positive ( )					
5. Title of Report: Class III archaeological survey of an area where leakage from the Young Deep to Lynch 8" petroleum pipeline a petroleum pipeline will be cleaned up. Author(s): Danny and Ann Boone				6. Fieldwork Date(s): from 30 Jan. 2006 to	
				7. Report Date: 30 Jan 2006	
8. Consultant Name & Address: Boone Archaeological Services 2030 North Canal Carlsbad, NM 88220 Direct Charge: Danny Boone Field Personnel Names: Danny Boone Phone: (505) 885-1352				9. Cultural Resource Permit No. BLM: 190-292-05-G STATE: NM-05-157	
				10. Consultant Report No.: BAS 01-06-56	
11. Customer Name: Plains All American Pipeline, L.P. Responsible Individual: Ken Dutton (Agent) Address: 1301 S Country Road 1150 Midland, Texas 79706-4476 Phone: (432) 682-5392				12. Customer Project No.: EMS 2005-00157	
13. Land Status	BLM	STATE	PRIVATE	OTHER	TOTAL
a. Area Surveyed (acres)	3.33 (+/-)	0	0	0	3.33 (+/-)
b. Area of Effect (acres)	1.44 (+/-)	0	0	0	1.44 (+/-)
14. a. Linear: Length; NA                      Width; NA b. Block: 725' x 200' (+/-)					
15. Location: (Maps Attached if Negative Survey) a. State: New Mexico b. County: Eddy c. BLM Office: Carlsbad d. Nearest City or Town: Maljamar, NM e. Legal Location: T 19S, R 32E, Sec. 4, SW¼ SB¼. f. Well Pad Footages: NA g. USGS 7.5 Map Name(s) and Code Number(s): GREENWOOD LAKE, NM (Prov. Ed. 1985) 32103-F7					

**16. Project Data:**

- a. Records Search: Date(s) of BLM File Review: 30 Jan. 2006  
Date(s) of ARMS Data Review: 30 Jan. 2006

Name of Reviewer (s): Danny Boone

Name of Reviewer (s): Ann Boone

Findings (see Field Office requirements to determine area to be reviewed during records search):

LA 54114 is within 500 feet and LA 19211 is within 0.25 mile.

## b. Description of Undertaking:

Location, footage and acres are estimations based on a Magellan Meridian hand held GPS Unit. The area to be impacted is roughly rectangular shaped, 625 feet in length by 100 feet in width, along a buried pipeline that has leaked and will be cleaned up. Some excavation had occurred at the time of this survey. An additional 50 feet buffer was added to the area resulting in survey acres on 725 feet in length by 200 feet in width.

## c. Environmental Setting (NRCS soil designation; vegetative community; etc.):

Topography: Rolling sands of the Quercho Plains.

Vegetation: Overall groundcover is approximately 15% consisting primarily of shinoak, mesquite, broom snakewood, yucca cactus, assorted grasses and other flora.

NRCS: Peyote-Maljamar-Kermis association: Gently undulating and rolling, deep, sandy soils.

## d. Field Methods: (transect intervals; crew size; time in field, etc.):

Transects: 4 parallel transects spaced 15 meters apart.

Crew Size: One

Time in Field: 1.0 hour.

## e. Artifacts Collected (?): None

**17. Cultural Resource Findings:**

## a. Identification and description: None

## b. Evaluation of significance of Each Resource:


**18. Management Summary (Recommendations):**

Archaeological clearance of an area where leakage from the Young Deep to Lynch 8" petroleum pipeline will be cleaned up for Plains All American Pipeline, L.P. is recommended. If cultural resources are encountered at any time, all activity should cease and the BLM Archaeologist notified immediately.

**19.**

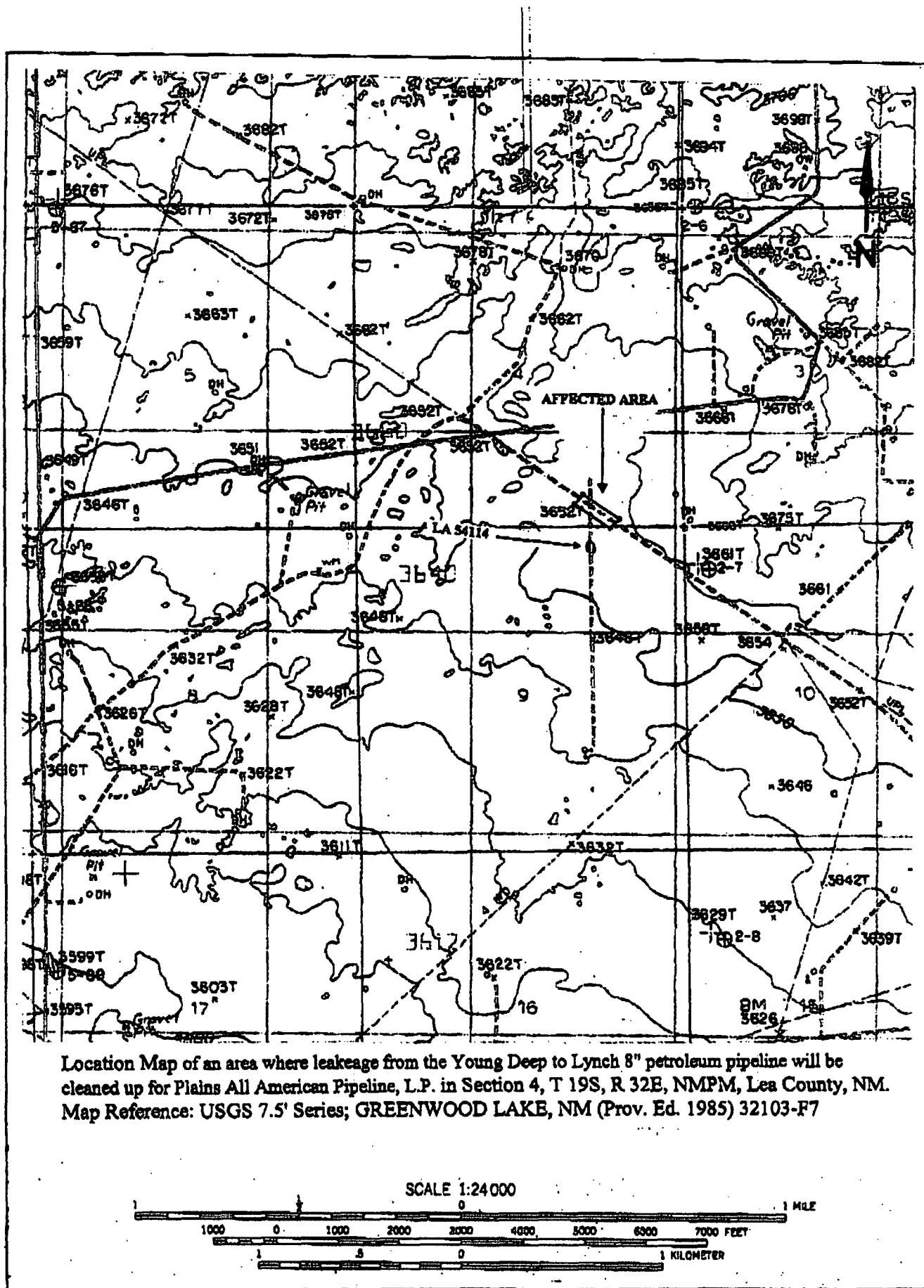
I certify that the information provided above is correct and accurate and meets all appreciable BLM standards.

Responsible Archaeologist

  
Signature

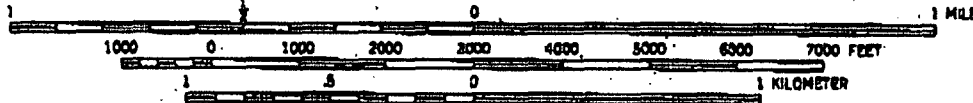
30 Jan. 2006

Date



Location Map of an area where leakage from the Young Deep to Lynch 8" petroleum pipeline will be cleaned up for Plains All American Pipeline, L.P. in Section 4, T 19S, R 32E, NMPM, Lea County, NM. Map Reference: USGS 7.5' Series; GREENWOOD LAKE, NM (Prov. Ed. 1985) 32103-F7

SCALE 1:24000





Plains Marketing, L. P.

Young Deep to Lynch 8"

Lea County, New Mexico

SW/SE S4, T19S, R32E

EMS No. 2005-00157

Soil Boring Completion Data

TD: 35 Feet bgs

Installed 20 Feb 06

Basin Environmental Service Technologies

☐ Samples selected for analysis

Soil Boring Plugging Data

Hydrated Bentonite Plug, Surface to 35' bgs

TITLE

Young Deep to Lynch 8"

DESCRIPTION

SB-1

DRAWN BY

KAD

DATE

24 Feb 06

Plains Marketing, L. P.

Young Deep to Lynch 8"

Lea County, New Mexico

SW/SE S4, T19S, R32E

EMS No. 2005-00157

Soil Boring Completion Data

TD: 35 Feet bgs

Installed 20 Feb 06

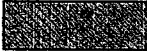






Basin Environmental Service Technologies

☐

Samples selected for analysis

Soil Boring Plugging Data

Hydrated Bentonite Plug, Surface to 35' bgs

Depth	Soil Column	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
5		<div>0.1 ppm</div>	None	None	Sand (SP) Red-Brown, Very Fine Grained, Well Sorted, dry
10		0.1 ppm	None	None	Caliche Layer, dry (7' - 13' bgs)
15		<div>0.1 ppm</div>	None	None	Sand (SP) Red-Brown, Very Fine Grained, Well Sorted, dry
20		0.1ppm	None	None	Caliche Layer, dry (17' - 23' bgs)
25		0.1ppm	None	None	Sand (SP) Red-Brown, Very Fine Grained, Well Sorted, dry, imbedded w/clay
30		0.1ppm	None	None	
35 TD		<div>0.1ppm</div>	None	None	

TITLE

Young Deep to Lynch 8"

DESCRIPTION

SB-2

DRAWN BY

KAD

DATE

24 Feb 06

Plains Marketing, L. P.

Young Deep to Lynch 8"

Lea County, New Mexico

SW/SE S4, T19S, R32E

EMS No. 2005-00157

Soil Boring Completion Data

TD: 35 Feet bgs

Installed 20 Feb 06


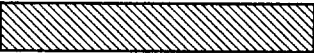

Basin Environmental Service Technologies

☐

Samples selected for analysis

Soil Boring Plugging Data

Hydrated Bentonite Plug, Surface to 35' bgs

Depth	Soil Column	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
5		<div>0.1 ppm</div>	None	None	Sand (SP) Red-Brown, Very Fine Grained, Well Sorted, dry
10		0.1 ppm	None	None	Caliche Layer, dry (7' - 14' bgs)
15		<div>0.1 ppm</div>	None	None	Sand (SP) Red-Brown, Very Fine Grained, Well Sorted, dry
20		0.1ppm	None	None	
25		0.1ppm	None	None	
30		0.1ppm	None	None	Sand (SP) Red-Brown, Very Fine Grained, Well Sorted, dry, imbedded w/clay
35		<div>0.1ppm</div>	None	None	Sand (SP) Red-Brown, Very Fine Grained, Well Sorted, dry

TITLE

Young Deep to Lynch 8"

DESCRIPTION

SB-3

DRAWN BY

KAD

DATE

24 Feb 06

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

x Initial Report ☐ Final Report

Name of Company Plains Marketing, LP	Contact Camille Reynolds
Address 5805 East Hwy. 80, Midland, TX 79706	Telephone No. 505-441-0965
Facility Name Young Deep to Lynch 8"	Facility Type 8" Steel Pipeline

Surface Owner BLM	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter O	Section 4	Township 19S	Range 32E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
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Latitude 32° 40' 59.8" Longitude 103° 46' 03.6"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 20 barrels	Volume Recovered 5 barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 6/30/05 @ 15:00	Date and Hour of Discovery 6/30/05 @ 15:15
Was Immediate Notice Given? x Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Larry Johnson	
By Whom? Camille Reynolds	Date and Hour 7/1/05 @ 07:20	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* Internal corrosion of the 8 inch steel pipeline caused release of sweet crude oil. A clamp was installed on the pipeline to mitigate the release. The line is a 8 inch steel transmission pipeline that produces approximately 1,150 barrels per day. The pressure on the line is approximately 85 psi and the gravity of the sweet crude oil is 36.1. The H<sub>2</sub>S content of the sweet crude is less than 10 parts per million.

Describe Area Affected and Cleanup Action Taken.\* The crude oil was vacuumed up and the impacted soil was excavated and stockpiled on plastic. The aerial extent of surface impact was approximately 3,264 square feet.

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

Signature: <u>Camille Reynolds</u>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Camille Reynolds	Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	Expiration Date:
E-mail Address: cgreynolds@paalp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7/6/05	Phone: 505-441-0965	

Attach Additional Sheets If Necessary

Facility - FPA C0618651999  
Incident NPA C0618652089  
Application PPA C0618652192

RP# 938