



ENVIRONMENTAL PLUS, INC. *Micro-Blaze Micro-Blaze Out<sup>TM</sup>*

STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

13 September 2005

Mr. Larry Johnson,  
Environmental Engineer Specialist  
New Mexico Oil Conservation Division  
1625 North French Drive  
Hobbs, NM 88240

*Plains address  
Camelot*

**RE: Closure Report for Plains Marketing, L.P.  
Eunice Booster to Lea – 6" Loop Line  
UL-L, NW¼ of the SW ¼ of Section 4, T21S, R36E  
Latitude N 32° 30' 44.8" and Longitude W 103° 16' 37.6"  
Plains EMS No.: 2004-00198**



Dear Mr. Johnson:

In September 2004, a release occurred along the Plains Marketing, L.P. Eunice Booster to Lea – 6" Loop Line. The release of approximately 30 barrels of crude oil, of which 3 barrels were recovered, occurred due to external corrosion of the 6-inch line. Basin Environmental responded to the release on September 16, 2004 to excavate the release point and install a clamp. Basin Environmental continued excavation activities at the site through September 23, 2004, excavating approximately 400 cubic yards (cy) of impacted soil from the release area, the flow path area and the pooling area. The excavated soil was stockpiled on plastic, until a determination could be made as to the remedial method to be utilized to treat the impacted soil. Field analyses of soil samples collected from the excavation areas, utilizing a photoionization detector (PID), indicated that soil impacted above the remedial guideline of 100 parts per million (ppm) via field analyses had been removed from the release area; however, soil impacted above the remedial guidelines remained in the flow path and pooling area.

Plains Marketing, L.P. retained Environmental Plus, Inc. (EPI) in November 2004 to finish excavating the impacted soil at the site and provide remediation services. This letter report documents the results of the excavation activities and remediation of the impacted soil and recommends the excavation be backfilled.

#### **Site Background**

The site is located in the NW¼ of the SW¼ of Section 4, Township 21 South, Range 36 East at an elevation of approximately 3,565 feet above mean sea level (reference *Figures 1 and 2*). The property is owned by the state of New Mexico. A search for area water wells was completed utilizing the New Mexico Office of the State Engineers website. A total of 6 wells were found to be located in the vicinity of the release (i.e., within the eight sections immediately surrounding the subject-property section). The average depth to water in these wells was reported to be approximately 140 feet (reference *Table 2*). No water supply wells or bodies of

ENVIRONMENTAL PLUS, INC.

surface water were found to be located within a 1,000-foot radius of the release location (reference *Figures 1 and 2*). Based on available information it was determined that the distance between the contamination and groundwater was >100 feet. Utilizing this information, it was determined that the New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this site are as follows:

Parameter	Remedial Goal
Benzene	10 parts per million
BTEX	50 parts per million
TPH	5,000 parts per million

It should be noted that initially, the remedial guidelines were believed to be 1,000 milligrams per kilogram (mg/Kg) based on initial research of depths to groundwater. It was not until excavation activities had been completed that it was determined the depth to groundwater in the area was approximately 140 feet, resulting in approximately 125 feet between the lowest detectable levels of contaminants and the uppermost groundwater bearing unit.

### **Field Work**

EPI was on site from November 1 – 8, 2004 to excavate impacted soil from the flow path and the pooling area (reference Figure 3). Approximately 2,520 additional cubic yards of hydrocarbon impacted soil were excavated and stockpiled on plastic until a determination could be made as to the remedial method to be utilized to treat the impacted soil.

During excavation activities, samples were collected and analyzed in the field utilizing a MiniRae<sup>®</sup> photoionization detector (PID) equipped with a 9.8 electron volt (eV) lamp to indicate when remedial goals had been achieved. Once field analyses indicated soil impacted above the remedial guidelines had been removed, confirmation soil samples were collected from the sidewalls and bottom of the excavation and submitted to Environmental Labs of Texas (ELT) for quantification of benzene, toluene, ethylbenzene, and total xylenes (BTEX), gasoline range organics (GRO) and diesel range organics (DRO).

Initial analytical results indicated soil impacted above the NMOCD remedial guidelines for total petroleum hydrocarbons (TPH) in the south and west sidewalls of the excavation. Based on this, additional excavation activities occurred on December 1, 2004. An additional 100 cubic yards of soil were excavated from the south and west sidewalls of the excavation and samples collected and analyzed in the field for the presence of organic vapors. Field analyses indicated remedial goals had been achieved, so samples were collected and submitted to ELT for quantification of GRO and DRO.

On December 13, 2004, two soil samples were collected from the stockpiled soil and submitted to ELT for quantification of BTEX, GRO and DRO. Based on analytical results of the samples collected from the stockpiled soil it was determined that to remediate the stockpiled soil, approximately 50% of the soil would be transported to Plains Pipeline's Lea Station Landfarm and the remainder blended with clean soil obtained from an offsite source.

Approximately 1,550 cubic yards of hydrocarbon impacted soil were transported to Plains Pipeline's Lea Station Landfarm from February 7 through March 3, 2004 for treatment. The same volume of clean soil was transported to the site and blended with the remaining 1,370 cubic yards of impacted soil.

Upon completion of the blending activities, the stockpiled blended soil was sampled by advancing a series of hand borings in each of the three stockpiles. The stockpiles were split into four quadrants and a soil boring advanced in each quadrant. Soil samples were collected from 3, 6 and 9 feet below the surface and screened in the field for the presence of organic vapors utilizing a MiniRae<sup>®</sup> PID equipped with a 9.8 electron volt (eV). Field analyses indicated the presence of organic vapors ranging from 24.4 parts per million (ppm) to 212 ppm. The samples from each boring were combined to form a composite sample. The composite samples from each boring were combined with a composite sample from an adjacent boring and submitted to ELT for quantification of TPH and BTEX. Composite samples from hand augers BH1 and BH2 from each stockpile were combined to form three composite samples (i.e., north, middle and south stockpiles) and composite samples from hand augers BH3 and BH4 were combined to form three additional composite samples (i.e., north, middle and south stockpiles). In addition, the sample which exhibited the highest PID reading (i.e., NBH2 (6')) was also submitted to Environmental Lab of Texas for quantification of TPH and BTEX.

Upon receipt of approval from the NMOCD, the site was backfilled with the blended soil, graded and contoured to allow natural drainage.

### **Analytical Data**

Analytical results for the samples collected on November 8, 2004 (i.e., the initial sampling event) indicated soil impacted above the NMOCD remedial goals had been excavated with the exception of the west and south sidewalls of the north excavation. Analytical results for the samples collected from the west and south sidewall indicated TPH concentrations of 2,980 milligrams per kilogram (mg/Kg) and 1,510 mg/Kg, respectively (reference *Table 1*). Benzene and BTEX concentrations were reported at concentrations below the NMOCD remedial guidelines for both these samples. However, at the time these samples were collected, the NMOCD remedial threshold for TPH was projected to be 1,000 mg/Kg. Additional research completed subsequent to the collection of these samples revealed the depth to groundwater to be approximately 140 feet

bgs, not the 100 feet originally assumed. Therefore, the contaminant concentrations were below the NMOCD remedial thresholds for this site.

Analytical results for the samples collected from the west and south sidewalls of the south excavation on December 1, 2004, indicated soil impacted above the NMOCD remedial goals had been removed. TPH concentrations for the south and west sidewalls were 6.70 mg/Kg and 205 mg/Kg, respectively (reference *Table 1*).

Analytical results for the soil samples collected from the contaminated soil stockpiled on December 13, 2004, indicated BTEX concentrations of 47,500 micrograms per kilogram (ug/Kg) in the sample collected from the southeast portion of the stockpiled soil and 68,100 ug/Kg in the sample collected from the southwest portion of the stockpiled soil. TPH concentrations for these samples were reported at 12,400 milligrams per kilogram (mg/ Kg) and 15,500 mg/Kg, respectively.

Analytical results for the soil samples collected from the blended stockpiled soil on April 28, 2005, indicated benzene concentrations ranging from non-detectable to 15.5 ug/Kg, BTEX concentrations ranging from 282 ug/ Kg to 1,220 ug/Kg and TPH concentrations ranging from 847 mg/Kg to 1,370 mg/Kg (reference *Table 1*). All analytical results for the samples collected from the blended soil stockpiles were below the NMOCD remedial thresholds for this site.

### **Conclusions**

Based on field and laboratory analytical results, soil impacted above the NMOCD remedial guidelines has been excavated from the release area/flow path/pooling area. In addition, approximately 1,550 cubic yards of hydrocarbon impacted soil were transported to Plains Pipeline's Lea Station Landfarm for treatment. An equivalent amount of clean soil was hauled to the site and blended with the remaining impacted soil. Field and analytical results indicated that the soil has been blended to below NMOCD remedial thresholds. Final remedial activities included backfilling the excavation with blended soil, grading and contouring the site to allow for natural drainage. The remaining remedial activity of seeding the area with a SLO approved seed mixture will be performed upon closure of the site by the NMOCD.

### **Recommendations**

EPI, on behalf of Plains Marketing, L.P., recommends the site be closed and request "no further action" required except for seeding with a blend approved by the State Land Office. In addition, Plains All American Pipeline, L.P., requests that a "no further action" letter be issued.

Mr. Larry Johnson  
13 September 2005

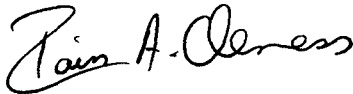
Should you have any questions or concerns, please feel free to contact me at (505) 394-3481 or via e-mail at [iolness@envplus.com](mailto:iolness@envplus.com). Upon your approval, EPI will initiate the next phase of the remediation. All official correspondence should be submitted to Camille Reynolds at:

Camille Reynolds, Remediation Coordinator  
Plains All American Pipeline, L.P.  
3112 West Highway 82  
Lovington, NM 88260

(505) 441-0965  
[cjreynolds@paalp.com](mailto:cjreynolds@paalp.com)

Sincerely,

ENVIRONMENTAL PLUS, INC.



Iain A. Olness, P.G.  
Hydrogeologist

cc: Camille Reynolds, Plains – Lovington, NM  
Jeff Dann, Plains – Houston, TX  
Cody Morrow- New Mexico State Land Office – Sante Fe, NM  
Myra Myers, New Mexico State Land Office – Hobbs, NM  
File

encl. Figure 1 – Area Map  
Figure 2 – Site Location Map  
Figure 3 – Site Map  
Figure 4 – Excavation Sampling Map  
Table 1 – Summary of Soil Analytical Results  
Table 2 – Well/Surface Data Report – 11/09/04  
Attachment I – Laboratory Results and Chain-of-Custody Forms  
Attachment II – Copy of Initial C-141

# FIGURES

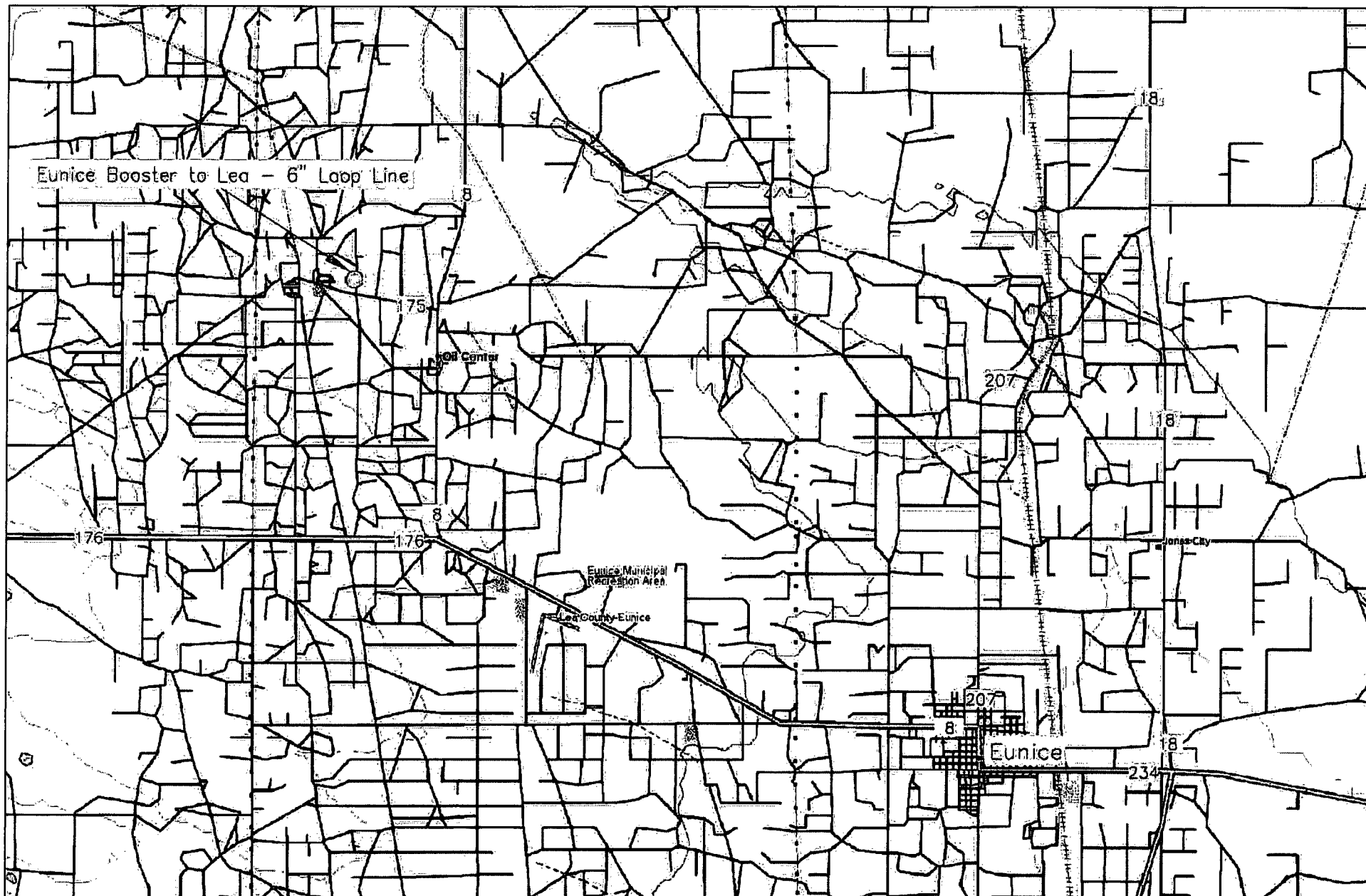


Figure 1  
Area Map  
Plains All American Pipeline  
Eunice Booster to Lea - 6" Loop Line  
Ref. # 2004-00198

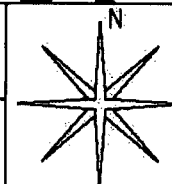
Lea County, New Mexico  
NW 1/4 of the SW 1/4, Sec. 4, T21S, R36E  
N 32° 30' 44.8" W 103° 16' 37.6"  
Elevation: 3,656 feet amsl

DWG By: Iain Olness  
October 2004

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1 of 1



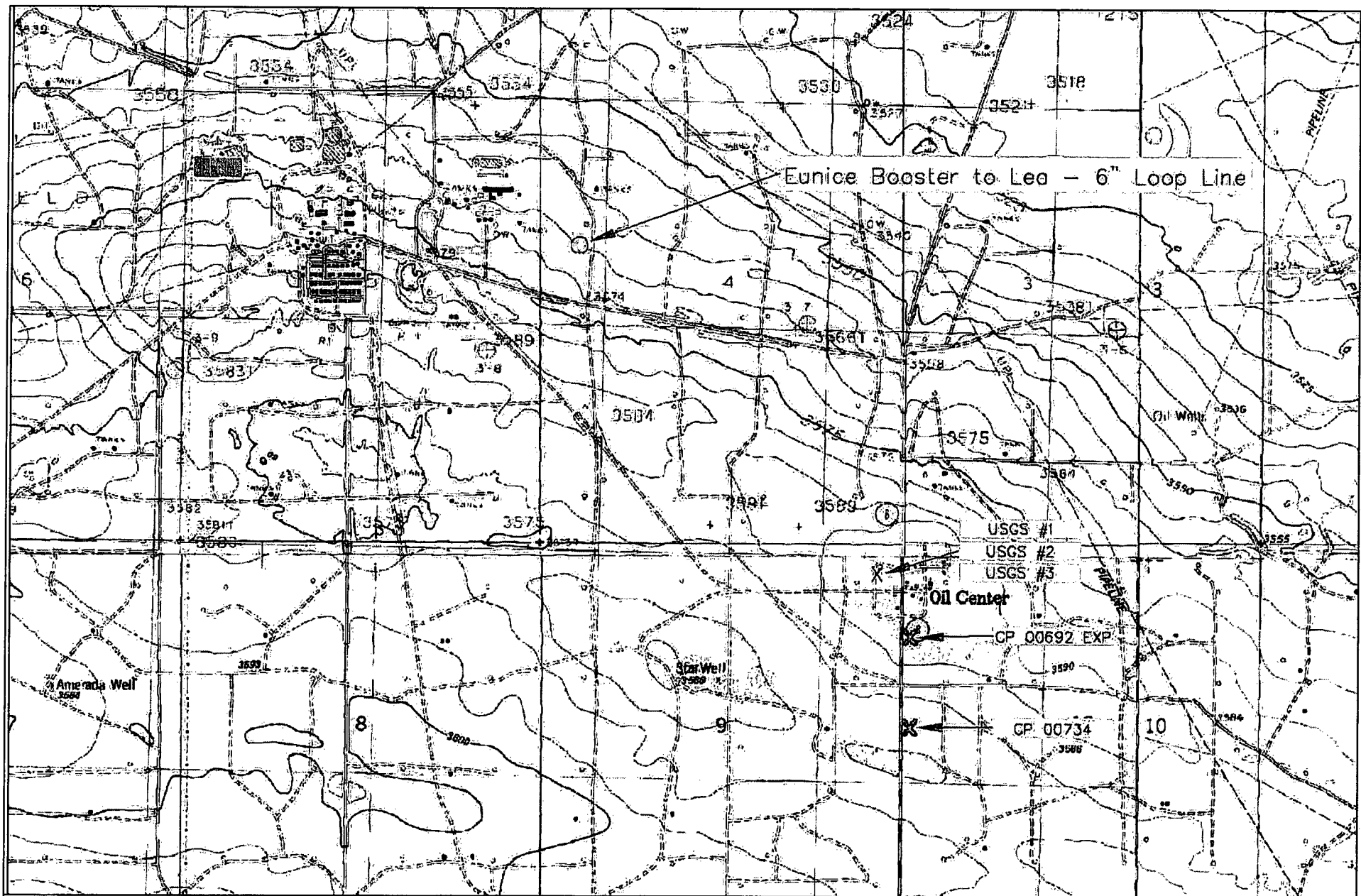


Figure 2  
Site and Well Location Map  
Plains All American Pipeline  
Eunice Booster to Lea - 6" Loop Line  
Ref. # 2004-00198

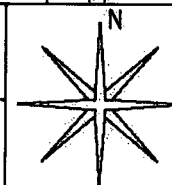
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DWG By: Iain Olness  
October 2004

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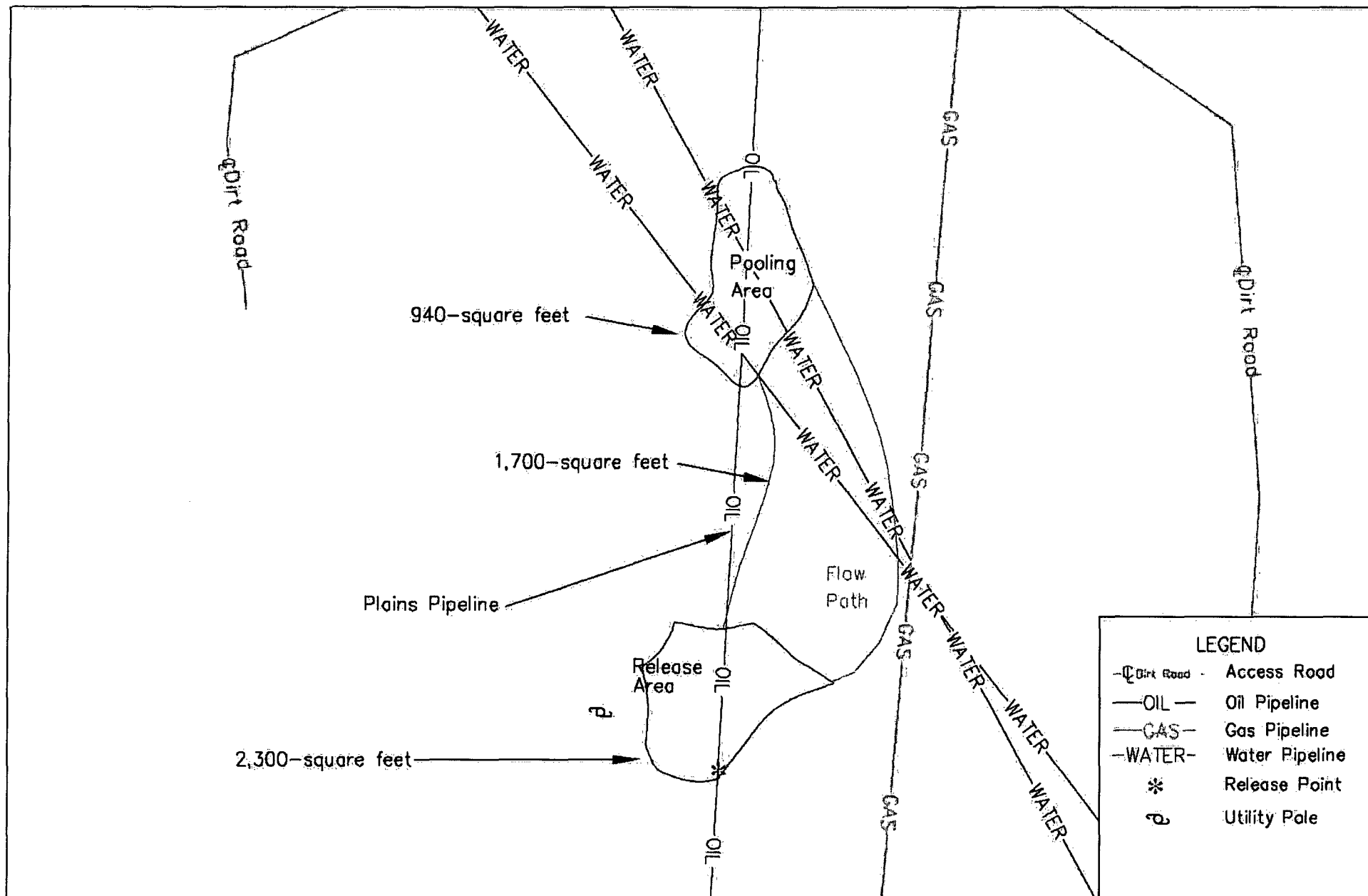


Figure 3  
Site Map

Plains All American Pipeline  
Eunie Booster to Lea - 6" Loop Line  
Ref. #2004-00198

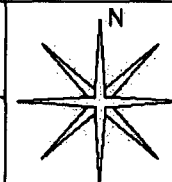
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DWG By: Iain Olness  
November 2004

REVISED:  
JCS, Sept. 2005

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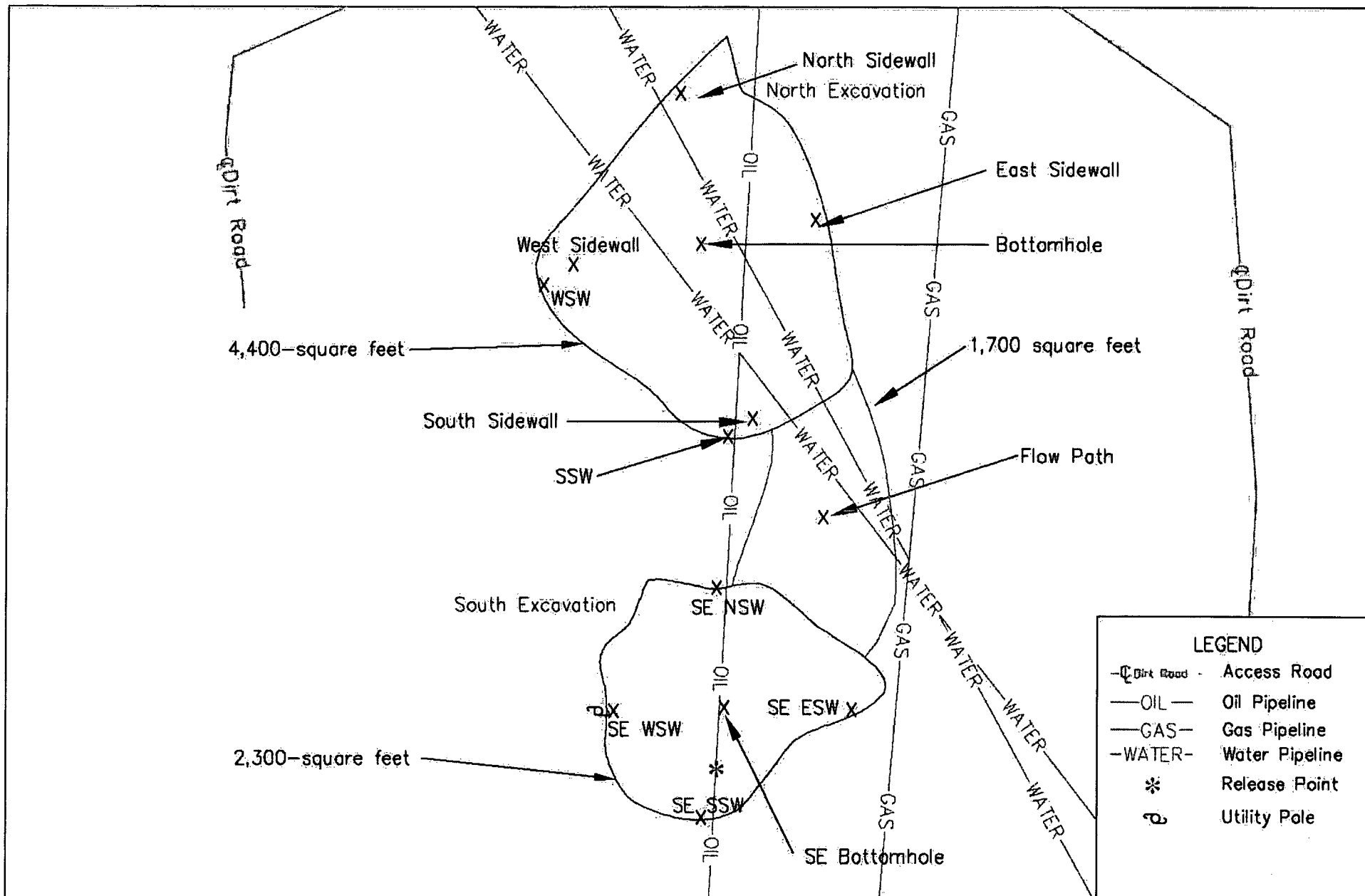


Figure 4  
Excavation Sampling Map  
Plains All American Pipeline  
Eunice Booster to Lea - 6" Loop Line  
Ref. #2004-00198

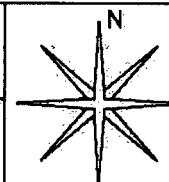
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Elevation: 3,565 feet amsl

DWG By: Iain Olness  
November 2004

REVISED:  
JCS, Sept. 2005



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# TABLES

TABLE 1

Summary of Soil Analytical Results

Plains All American Pipeline Eunice Booster to Lea - 6" Loop Line - Ref. #2004-00198

Sample ID	Sample Date	PID Reading (ppm)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethylbenzene (µg/Kg)	m,p-Xylenes (µg/Kg)	o-Xylene (µg/Kg)	Total BTEX (µg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)
North Sidewall	08-Nov-04	NA	<25	16.2	17.1	57.0	12.1	102	25.3	655	680
East Sidewall	08-Nov-04	NA	<25	<25	<25	49.2	15.7	64.9	18.1	189	207
South Sidewall	08-Nov-04	NA	46.0	173	360	1,100	369	2,048	219	1,290	1,510
West Sidewall	08-Nov-04	NA	<25	24.2	37.6	103	27.9	193	14.7	2,960	2,980
Bottomhole	08-Nov-04	NA	16.3	92.9	186	531	159	985	76.8	542	619
Flow Path	08-Nov-04	10.2	<25	17.8	32.0	148.0	56.7	255	27.6	271	299
SE NSW	08-Nov-04	14.9	<25	30.1	43.4	82.9	34.0	190	32.4	162	194
SE SSW	08-Nov-04	5.7	<25	<25	<25	<25	<25	<125	<10	<10	<10
SE ESW	08-Nov-04	5.1	<25	<25	<25	<25	<25	<125	<10	<10	<10
SE WSW	08-Nov-04	7.7	<25	<25	<25	<25	<25	<125	<10	<10	<10
SE BH	08-Nov-04	13.2	<25	<25	<25	<25	<25	<125	15.4	103	118
SSW	01-Dec-04	86.9	NA	NA	NA	NA	NA	NA	<10.0	6.70	6.70
WSW	01-Dec-04	10.9	NA	NA	NA	NA	NA	NA	13.2	192	205
SE Stockpile	13-Dec-04	NA	743	5,950	7,350	25,400	8,100	47,500	2,570	9,790	12,400
SW Stockpile	13-Dec-04	NA	1,650	12,500	10,700	33,200	10,000	68,100	3,310	12,200	15,500
E Half of M Stockpile	28-Apr-05	NA	15.5 <sup>4</sup>	93.5	121	203	110	543	206	1,160	1,370
W Half of M Stockpile	28-Apr-05	NA	<25.0	41.6	68.2	116	56.0	282	132	881	1,010
NBH2 (6')	28-Apr-05	NA	<25.0	102	150	247	146	645	200	1,010	1,210
S Half of N Stockpile	28-Apr-05	NA	<25.0	54.0	96.5	133	97.0	381	121	726	847
E Half of S Stockpile	28-Apr-05	NA	11.3 <sup>4</sup>	132	160	707	206	1,220	203	1,030	1,230
W Half of S Stockpile	28-Apr-05	NA	<25.0	111	160	655	178	1,104	223	1,120	1,340
N Half of N Stockpile	28-Apr-05	NA	13.3 <sup>4</sup>	129	154	624	143	1,060	207	887	1,090
NMOC Remedial Thresholds		100 <sup>3</sup>	10,000					50,000			5,000

<sup>1</sup> Red: bolded values are in excess of the NMOC Remedial Thresholds.<sup>2</sup> NA: Not Analyzed<sup>3</sup> In lieu of laboratory analyses of benzene, toluene, ethylbenzene and total xylenes.

TABLE 2

## WELL / SURFACE DATA REPORT - 10/28/04\*

## Plains All American Pipeline Eunice Booster to Lea - 6" Loop Line (Ref #200-00198)

Well Number	Diversion <sup>A</sup>	Owner	Use	Source	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation <sup>B</sup>	Depth to Water (ft bgs)
USGS #1					21 S	36 W	9 2 2 2			18-Mar-68	3,595	119.36
USGS #2					21 S	36 W	9 2 2 2			28-Feb-96	3,595	200.43
USGS #3					21 S	36 W	9 2 2 2			20-Mar-86	3,595	203.72
CP 00692 EXP	0	W. L. Van Noy	DOM		21 S	36 E	10 1 1 3	N 32° 29' 48.76"	W 103° 15' 40.54"		3,595	
CP 00734	3	W. L. Van Noy	DOM	Shallow	21 S	36 E	10 1	N 32° 29' 35.71"	W 103° 15' 40.54"	22-Jun-88	3,585	200
USGS #4					20 S	37 E	31 4 4 4			1-Mar-61	3,540	36.73
USGS #5					20 S	37 E	31 3 2 2			15-Jan-71	3,535	79.07
L 07108 EXP	0	Northern Natural Gas	SAN		20 S	37 E	33 1 2 2	N 32° 31' 58.89"	W 103° 15' 36.82"		3,520	
L 07355	3	Northern Natural Gas	SAN	Shallow	20 S	37 E	33 1 2 2	N 32° 31' 58.89"	W 103° 15' 36.82"	4-Jul-75	3,530	120
L 08157	3	Northern Natural Gas	SAN	Shallow	20 S	37 E	33 1 2 2	N 32° 31' 58.89"	W 103° 15' 36.82"	8-Oct-79	3,530	275
CP 00475 EXP	0	Ross Robinson	STK		21 S	36 E	30 4 2 2	N 32° 26' 46.01"	W 103° 17' 59.18"		3,620	
CP 00484 (E)	3	Northern Natural Gas	SAN	Shallow	21 S	36 E	25 4 2	N 32° 26' 45.99"	W 103° 12' 51.03"	20-Jul-70	3,535	148
CP 00490 EXP	0	U. R. Cattle Company	STK		21 S	36 E	19 2 3	N 32° 27' 51.41"	W 103° 18' 14.75"		3,650	
CP 00505	3	Snyder Ranches, Ltd.	STK		21 S	36 E	16 2	N 32° 28' 43.53"	W 103° 16' 11.43"	10-Jul-72	3,605	195
CP 00664	3	Dove Broadcasting, Inc.	SAN	Shallow	21 S	36 E	23 2	N 32° 27' 51.27"	W 103° 14' 7.98"	25-May-84	3,537	150
CP 00676	0	Joe E. Sims	DOM	Shallow	21 S	36 E	18 4 4 1	N 32° 28' 17.46"	W 103° 17' 59.37"	30-Apr-93	3,570	106
CP 00685 ENLRG	0	Will J. McCasland	COM		21 S	36 E	11 4 2	N 32° 29' 22.71"	W 103° 13' 52.54"		3,565	
CP 00685 (1) EXP	0	Chevron USA, Inc.	PRO		21 S	36 E	11 4 2	N 32° 29' 22.71"	W 103° 13' 52.54"		3,565	
CP 00882	3	Laymond Smith	DOM		21 S	36 E	23 2	N 32° 27' 51.27"	W 103° 14' 7.98"		3,537	

\* = Data obtained from the New Mexico Office of the State Engineer Website ([http://iwaters.ose.state.nm.us:7001/iWATERS/wr\\_RegisServlet1](http://iwaters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet1))

Shaded well information indicates well location shown on Figure 2

<sup>A</sup> = in acre feet per annum

<sup>B</sup> = Elevation interpolated from USGS topographical map based on referenced location.

DOM = Domestic

SAN = Sanitary

STK = Livestock Watering

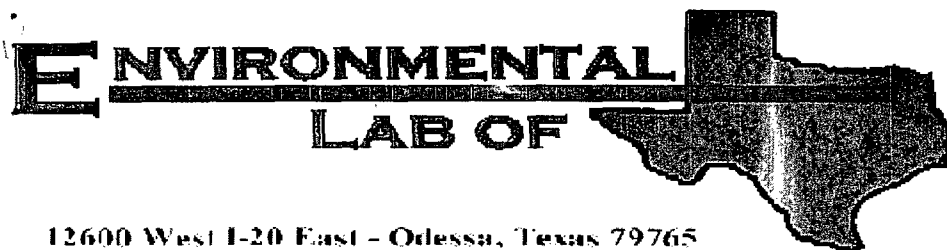
COM = Commercial

EXP = Expired

quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are biggest to smallest

**ATTACHMENT I**

**LABORATORY RESULTS AND  
CHAIN-OF-CUSTODY FORMS**



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: Eunice Booster to Lea 6

Project Number: 2004-00198

Location: None Given

Lab Order Number: 4K09002

Report Date: 11/12/04

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

Project: Eunice Booster to Lea 6  
Project Number: 2004-00198  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:

11/12/04 16:18

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
North Side Wall	4K09002-01	Soil	11/08/04 08:45	11/09/04 09:25
East Side Wall	4K09002-02	Soil	11/08/04 08:55	11/09/04 09:25
South Side Wall	4K09002-03	Soil	11/08/04 09:05	11/09/04 09:25
West Side Wall	4K09002-04	Soil	11/08/04 09:15	11/09/04 09:25
Bottom Hole	4K09002-05	Soil	11/08/04 09:25	11/09/04 09:25
Flow Path	4K09002-06	Soil	11/08/04 10:00	11/09/04 09:25
SE NSW	4K09002-07	Soil	11/08/04 13:30	11/09/04 09:25
SE SSW	4K09002-08	Soil	11/08/04 13:40	11/09/04 09:25
SE ESW	4K09002-09	Soil	11/08/04 13:50	11/09/04 09:25
SE WSW	4K09002-10	Soil	11/08/04 14:00	11/09/04 09:25
SE BH	4K09002-11	Soil	11/08/04 14:10	11/09/04 09:25



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

Project: Eunice Booster to Lea 6  
Project Number: 2004-00198  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
11/12/04 16:18

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>North Side Wall (4K09002-01) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK41003	11/09/04	11/10/04	EPA 8021B	
Toluene	J [0.0162]	0.0250	"	"	"	"	"	"	J
Ethylbenzene	J [0.0171]	0.0250	"	"	"	"	"	"	J
Xylene (p/m)	0.0570	0.0250	"	"	"	"	"	"	
Xylene (o)	J [0.0121]	0.0250	"	"	"	"	"	"	J
Surrogate: a,a,a-Trifluorotoluene		91.1 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.5 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	25.3	10.0	mg/kg dry	1	EK40903	11/09/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	655	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	680	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		116 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		127 %	70-130		"	"	"	"	
<b>East Side Wall (4K09002-02) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.0492	0.0250	"	"	"	"	"	"	
Xylene (o)	J [0.0157]	0.0250	"	"	"	"	"	"	J
Surrogate: a,a,a-Trifluorotoluene		93.7 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	18.1	10.0	mg/kg dry	1	EK40903	11/09/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	189	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	207	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		116 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		128 %	70-130		"	"	"	"	
<b>South Side Wall (4K09002-03) Soil</b>									
Benzene	0.0460	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	0.173	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.360	0.0250	"	"	"	"	"	"	
Xylene (p/m)	1.10	0.0250	"	"	"	"	"	"	
Xylene (o)	0.369	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		122 %	80-120		"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		98.3 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	219	50.0	mg/kg dry	5	EK40903	11/09/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	1290	50.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	1510	50.0	"	"	"	"	"	"	

Environmental Lab of Texas

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

Project: Eunice Booster to Lea 6  
Project Number: 2004-00198  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
11/12/04 16:18

## Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>South Side Wall (4K09002-03) Soil</b>									
Surrogate: 1-Chlorooctane		26.4 %	70-130		EK40903	11 09 04	11 10 04	EPA 8015M	S-06
Surrogate: 1-Chlorooctadecane		30.2 %	70-130		"	"	"	"	S-06
<b>West Side Wall (4K09002-04) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	J [0.0242]	0.0250	"	"	"	"	"	"	J
Ethylbenzene	0.0376	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.103	0.0250	"	"	"	"	"	"	
Xylene (o)	0.0279	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		89.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.7 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	14.7	10.0	mg/kg dry	1	EK40903	11/09/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	2960	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	2980	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		101 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		121 %	70-130		"	"	"	"	
<b>Bottom Hole (4K09002-05) Soil</b>									
Benzene	J [0.0163]	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	J
Toluene	0.0929	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.186	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.531	0.0250	"	"	"	"	"	"	
Xylene (o)	0.159	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		98.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.3 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	76.8	10.0	mg/kg dry	1	EK40903	11/09/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	542	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	619	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		98.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		114 %	70-130		"	"	"	"	

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

Project: Eunice Booster to Lea 6  
Project Number: 2004-00198  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
11/12/04 16:18

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Flow Path (4K09002-06) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	J [0.0178]	0.0250	"	"	"	"	"	"	J
Ethylbenzene	0.0320	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.148	0.0250	"	"	"	"	"	"	
Xylene (o)	0.0567	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		93.7 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	27.6	10.0	mg/kg dry	1	EK40903	11/09/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	271	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	299	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		108 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		126 %	70-130		"	"	"	"	
<b>SE NSW (4K09002-07) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	0.0301	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.0434	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.0829	0.0250	"	"	"	"	"	"	
Xylene (o)	0.0340	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		99.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	32.4	10.0	mg/kg dry	1	EK40903	11/09/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	162	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	194	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		104 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		122 %	70-130		"	"	"	"	
<b>SE SSW (4K09002-08) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	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		91.3 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40903	11/09/04	11/10/04	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: Eunice Booster to Lea 6  
Project Number: 2004-00198  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
11/12/04 16:18

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SE SSW (4K09002-08) Soil</b>									
Surrogate: 1-Chlorooctane		107 %	70-130		EK40903	11 09 04	11 10 04	EPA 8015M	
Surrogate: 1-Chlorooctadecane		124 %	70-130		"	"	"	"	
<b>SE ESW (4K09002-09) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	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		93.9 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.7 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40903	11/09/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		100 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		118 %	70-130		"	"	"	"	
<b>SE WSW (4K09002-10) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	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		95.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40903	11/09/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		105 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		122 %	70-130		"	"	"	"	

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

Project: Eunice Booster to Lea 6  
Project Number: 2004-00198  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
11/12/04 16:18

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SE BH (4K09002-11) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		87.5 %	80-120		"	"	"	"	
Surrogate: <i>4</i> -Bromofluorobenzene		95.1 %	80-120		"	"	"	"	
<b>Gasoline Range Organics C6-C12</b>	<b>15.4</b>	10.0	mg/kg dry	1	EK40903	11/09/04	11/10/04	EPA 8015M	
<b>Diesel Range Organics &gt;C12-C35</b>	<b>103</b>	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>118</b>	10.0	"	"	"	"	"	"	
Surrogate: <i>1</i> -Chlorooctane		106 %	70-130		"	"	"	"	
Surrogate: <i>1</i> -Chlorooctadecane		116 %	70-130		"	"	"	"	

**Environmental Lab of Texas, Inc.**12600 West I-20 East  
Odessa Texas 79763Phone: 915-563-1800  
Fax: 915-563-1713

Project Manager:

IAIN OLNESS E.P.I.

Company Name:

P.A.A P.L. - Camille Reynolds

Company Address:

City/State/Zip:

Telephone No:

Sampler Signature:

Eddie J. Harper

Project Name:

EUNICE BOOSTER TOLAB

Project #:

200400198

Project Loc:

PO#:

4409002		Date Sampled	Time Sampled	No. of Containers	Analyze For														RUSH TAT	Standard TAT									
					ICE	HNO	HCl	NaOH	HSO	None	Other (Specify)	Water	Sludge	Soil	Other (Specify)	TDS/CL/SAR/EC	TPH 418.1	TPH TX 1005 Extended			TPH 8011/MCRODRO	Metals	Volatiles	Semivolatiles	BTX 8021B/5030	Reactivity	Corrosivity	Ignitability	Chlorides
-01	NORTH SIDE WALL	11-8-04	8:45	1	✓																								
-02	EAST SIDE WALL	}	8:55	1	✓																								
-03	SOUTH SIDE WALL		9:02	1	✓																								
-04	WEST SIDE WALL		9:15	1	✓																								
-05	BOTTOM HOLE		9:25	1	✓																								
-06	Flow Path		10:00	1	✓																								
-07	SE NSW	11-8-04	1:30	1	✓																								
-08	SE SSW	}	1:40	1	✓																								
-09	SE ESW		1:50	1	✓																								
-10	SE WSW		2:00	1	✓																								
-11	SE BH		2:10	1	✓																								

Special Instructions

FAX RESULTS TO IAIN OLNESS ASAP FAX-505 394 2601

Sample Containers 16Y NTemperature Upon Request  
Laboratory Comments:

15°C

Relinquished:

Eddie J. Harper

Date

11/9/04

Time

9:25

Received by:

Date

11-09-04

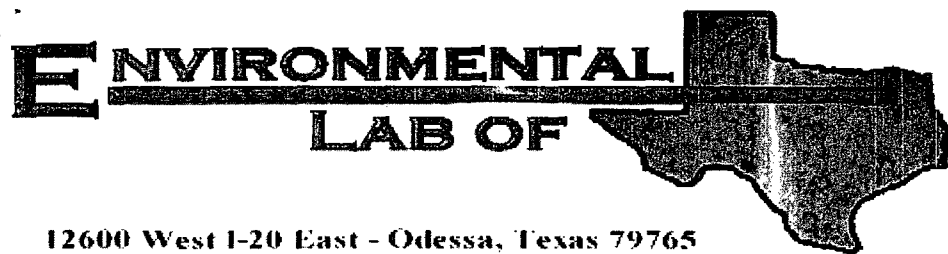
Time

0925

Relinquished:

Received by:

Jane Murray



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: Booster to Lea 6 in.

Project Number: 2004-00198

Location: None Given

Lab Order Number: 4L02003

Report Date: 12/06/04

Plains All American EH & S	Project: Booster to Lea 6 in.	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2004-00198	Reported:
Midland TX, 79706-4476	Project Manager: Camille Reynolds	12/06/04 08:44

# **ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SSW	4L02003-01	Soil	12/01/04 09:00	12/02/04 10:42
WSW	4L02003-02	Soil	12/01/04 14:00	12/02/04 10:42



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

Project: Booster to Lea 6 in.  
Project Number: 2004-00198  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
12/06/04 08:44

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SSW (4L02003-01) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EL40206	12/02/04	12/02/04	EPA 8015M	
<b>Diesel Range Organics &gt;C12-C35</b>	<b>J [6.70]</b>	10.0	"	"	"	"	"	"	J
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		77.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		74.7 %	70-130		"	"	"	"	
<b>WSW (4L02003-02) Soil</b>									
Gasoline Range Organics C6-C12	13.2	10.0	mg/kg dry	1	EL40206	12/02/04	12/02/04	EPA 8015M	
<b>Diesel Range Organics &gt;C12-C35</b>	<b>192</b>	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>205</b>	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		90.7 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		94.5 %	70-130		"	"	"	"	

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

Fair Oakes

~~Plus~~ Environmental Plus Inc

P.O. Box 1588

Canine N. Mexico

394-3481 FAX 505 394 2601

Edw A Harper

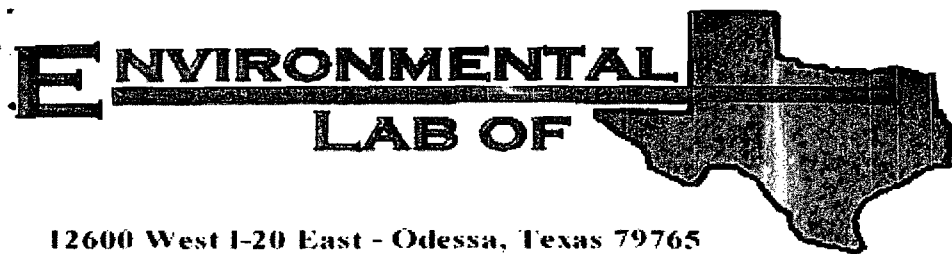
Booster To Leg 6"

200400198

PO#:

4401003

-1.05



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: Eunice Booster to Lea - 6 in. Loop Line

Project Number: 2004-00198

Location: None Given

Lab Order Number: 4L13010

Report Date: 12/16/04

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

Project: Eunice Booster to Lea - 6 in. Loop Line  
Project Number: 2004-00198  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

**Reported:**  
12/16/04 09:40

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SE Stockpile	4L13010-01	Soil	12/13/04 10:00	12/13/04 13:20
NW Stockpile	4L13010-02	Soil	12/13/04 10:00	12/13/04 13:20

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

Project: Eunice Booster to Lea - 6 in. Loop Line  
Project Number: 2004-00198  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
12/16/04 09:40

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


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SE Stockpile (4L13010-01) Soil</b>									
<b>Benzene</b>	<b>0.743</b>	0.100	mg/kg dry	100	EL41503	12/14/04	12/14/04	EPA 8021B	
<b>Toluene</b>	<b>5.95</b>	0.100	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>7.35</b>	0.100	"	"	"	"	"	"	
<b>Xylene (p/m)</b>	<b>25.4</b>	0.100	"	"	"	"	"	"	
<b>Xylene (o)</b>	<b>8.10</b>	0.100	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		180 %	80-120		"	"	"	"	S-04
<i>Surrogate: 4-Bromofluorobenzene</i>		136 %	80-120		"	"	"	"	S-04
<b>Gasoline Range Organics C6-C12</b>	<b>2570</b>	10.0	mg/kg dry	1	EL41311	12/13/04	12/14/04	EPA 8015M	
<b>Diesel Range Organics &gt;C12-C35</b>	<b>9790</b>	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>12400</b>	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		118 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		106 %	70-130		"	"	"	"	
<b>NW Stockpile (4L13010-02) Soil</b>									
<b>Benzene</b>	<b>1.65</b>	0.100	mg/kg dry	100	EL41503	12/14/04	12/14/04	EPA 8021B	
<b>Toluene</b>	<b>12.5</b>	0.100	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>10.7</b>	0.100	"	"	"	"	"	"	
<b>Xylene (p/m)</b>	<b>33.2</b>	0.100	"	"	"	"	"	"	
<b>Xylene (o)</b>	<b>10.0</b>	0.100	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		171 %	80-120		"	"	"	"	S-04
<i>Surrogate: 4-Bromofluorobenzene</i>		133 %	80-120		"	"	"	"	S-04
<b>Gasoline Range Organics C6-C12</b>	<b>3310</b>	50.0	mg/kg dry	5	EL41311	12/13/04	12/14/04	EPA 8015M	
<b>Diesel Range Organics &gt;C12-C35</b>	<b>12200</b>	50.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>15500</b>	50.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		28.0 %	70-130		"	"	"	"	S-06
<i>Surrogate: 1-Chlorooctadecane</i>		34.4 %	70-130		"	"	"	"	S-06

# Environmental Labs of Texas

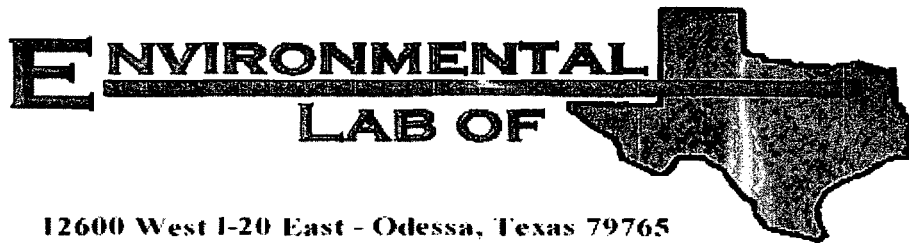
12600 West I-20 East, Odessa, TX 79763

(915) 563-1800 FAX: (915) 563-1713

Chain of Custody Form

Company Name		Environmental Plus, Inc.		Bill To				ANALYSIS REQUEST																							
EPI Project Manager		Iain Olness		 <p>Attn: ENV Accounts Payable PO Box 4648, Houston, TX 77210-4648</p>																											
Mailing Address		P.O. BOX 1558																													
City, State, Zip		Eunice New Mexico 88231																													
EPI Phone#/Fax#		505-394-3481 / 505-394-2601																													
Client Company		Plains All American																													
Facility Name		Eunice Booster to Lea - 6" Loop Line																													
Project Reference		2004-00198																													
EPI Sampler Name		Roger Boone																													
LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.			SAMPLING		BTEX 8021B	TPH 8015M	CHLORIDES (Cl <sup>-</sup> )	SULFATES (SO <sub>4</sub> <sup>2-</sup> )	PH	TCLP	OTHER >>>	PAH										
				GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE															TIME			
4L130010	-01 SE Stockpile	C	1			X					X		13-Dec	10:00	X	X															
	-02 NW Stockpile	C	1			X					X		13-Dec	10:00	X	X															
	3																														
	4																														
	5																														
	6																														
	7																														
	8																														
	9																														
	10																														

Sampler Relinquished:		Date	12-13	Received By:	E-mail results to: iolness@hotmail.com & cjreynolds@paalp.com    Seal REMARKS: 1.5°C 4oz glass on ice	
Relinquished by:		Time	10:40	Received By: (lab staff)		
Delivered by:		Date	12-13-04	Time		
		Sample Cool & Intact			Checked By:	
		<input checked="" type="radio"/> Yes <input type="radio"/> No			JMM	



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: Booster Line

Project Number: 2004-00198

Location: None Given

Lab Order Number: 5B15006

Report Date: 02/18/05

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

Project: Booster Line  
Project Number: 2004-00198  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

**Reported:**  
02/18/05 17:53

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SPBL021505BCC	5B15006-01	Soil	02/15/05 10:05	02/15/05 15:08



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

Project: Booster Line  
Project Number: 2004-00198  
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Reported:  
02/18/05 17:53

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SPBL021505BCC (5B15006-01) Soil</b>									
<b>Benzene</b>	<b>0.0821</b>	0.0500	mg/kg dry	50	EB51805	02/16/05	02/17/05	EPA 8021B	
<b>Toluene</b>	<b>0.599</b>	0.0500	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>1.16</b>	0.0500	"	"	"	"	"	"	
<b>Xylene (p/m)</b>	<b>3.56</b>	0.0500	"	"	"	"	"	"	
<b>Xylene (o)</b>	<b>1.10</b>	0.0500	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		146 %	80-120		"	"	"	"	S-04
<i>Surrogate: 4-Bromofluorobenzene</i>		117 %	80-120		"	"	"	"	
<b>Gasoline Range Organics C6-C12</b>	<b>348</b>	10.0	mg/kg dry	1	EB51604	02/15/05	02/16/05	EPA 8015M	
<b>Diesel Range Organics &gt;C12-C35</b>	<b>1610</b>	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>1960</b>	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		89.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		89.4 %	70-130		"	"	"	"	

12600 West I-20 East	Phone: 915-563-1800
Odessa Texas 79763	Fax: 915-563-1713

Project Name: Booster Line

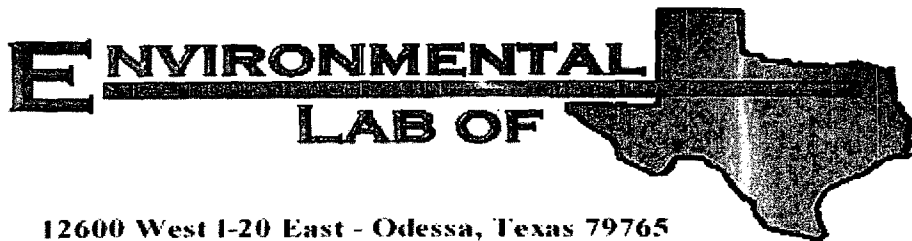
Project #:

Project Loc:

PO#: 2004-00198

**Sampler Signature:** \_\_\_\_\_

[illegible]



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Jimmy Bryant

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: Eunice Booster to Lea - 6 in. Loop Line

Project Number: 2004-00198

Location: Lea

Lab Order Number: 5D29015

Report Date: 05/04/05

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

Project: Eunice Booster to Lea - 6 in. Loop Line  
Project Number: 2004-00198  
Project Manager: Jimmy Bryant

Fax: (432) 687-4914

**Reported:**  
05/04/05 08:02

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E Half of M Stockpile	5D29015-01	Soil	04/28/05 12:00	04/29/05 14:10
W Half of M Stockpile	5D29015-02	Soil	04/28/05 11:00	04/29/05 14:10
N BH 2 (6')	5D29015-03	Soil	04/28/05 08:30	04/29/05 14:10
S Half of N Stockpile	5D29015-04	Soil	04/28/05 10:00	04/29/05 14:10
E Half of S Stockpile	5D29015-05	Soil	04/28/05 14:30	04/29/05 14:10
W Half of S Stockpile	5D29015-06	Soil	04/28/05 13:30	04/29/05 14:10
N Half of N Ntockpile	5D29015-07	Soil	04/28/05 09:00	04/29/05 14:10

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

Project: Eunice Booster to Lea - 6 in. Loop Line  
Project Number: 2004-00198  
Project Manager: Jimmy Bryant

Fax: (432) 687-4914

Reported:  
05/04/05 08:02

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>E Half of M Stockpile (5D29015-01) Soil</b>									
<b>Benzene</b>	<b>J [0.0155]</b>	0.0250	mg/kg dry	25	EE50202	04/29/05	05/02/05	EPA 8021B	J
<b>Toluene</b>	<b>0.0935</b>	0.0250	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.121</b>	0.0250	"	"	"	"	"	"	
<b>Xylene (p/m)</b>	<b>0.203</b>	0.0250	"	"	"	"	"	"	
<b>Xylene (o)</b>	<b>0.110</b>	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.3 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		109 %	80-120		"	"	"	"	
<b>Gasoline Range Organics C6-C12</b>	<b>206</b>	10.0	mg/kg dry	1	ED52904	04/29/05	04/29/05	EPA 8015M	
<b>Diesel Range Organics &gt;C12-C35</b>	<b>1160</b>	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>1370</b>	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		80.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		84.0 %	70-130		"	"	"	"	
<b>W Half of M Stockpile (5D29015-02) Soil</b>									
<b>Benzene</b>	<b>ND</b>	0.0250	mg/kg dry	25	EE50202	04/29/05	05/02/05	EPA 8021B	
<b>Toluene</b>	<b>0.0416</b>	0.0250	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.0682</b>	0.0250	"	"	"	"	"	"	
<b>Xylene (p/m)</b>	<b>0.116</b>	0.0250	"	"	"	"	"	"	
<b>Xylene (o)</b>	<b>0.0560</b>	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.9 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.0 %	80-120		"	"	"	"	
<b>Gasoline Range Organics C6-C12</b>	<b>132</b>	10.0	mg/kg dry	1	ED52904	04/29/05	04/29/05	EPA 8015M	
<b>Diesel Range Organics &gt;C12-C35</b>	<b>881</b>	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>1010</b>	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		72.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		74.0 %	70-130		"	"	"	"	
<b>N BH 2 (6') (5D29015-03) Soil</b>									
<b>Benzene</b>	<b>ND</b>	0.0250	mg/kg dry	25	EE50203	05/02/05	05/02/05	EPA 8021B	
<b>Toluene</b>	<b>0.102</b>	0.0250	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.150</b>	0.0250	"	"	"	"	"	"	
<b>Xylene (p/m)</b>	<b>0.247</b>	0.0250	"	"	"	"	"	"	
<b>Xylene (o)</b>	<b>0.146</b>	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		111 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		111 %	80-120		"	"	"	"	
<b>Gasoline Range Organics C6-C12</b>	<b>200</b>	10.0	mg/kg dry	1	ED52904	04/29/05	04/29/05	EPA 8015M	
<b>Diesel Range Organics &gt;C12-C35</b>	<b>1010</b>	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>1210</b>	10.0	"	"	"	"	"	"	

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.

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

Project: Eunice Booster to Lea - 6 in. Loop Line  
Project Number: 2004-00198  
Project Manager: Jimmy Bryant

Fax: (432) 687-4914

Reported:  
05/04/05 08:02

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>N BH 2 (6') (5D29015-03) Soil</b>									
Surrogate: 1-Chlorooctane		76.2 %	70-130		ED52904	04/29/05	04/29/05	EPA 8015M	
Surrogate: 1-Chlorooctadecane		76.0 %	70-130		"	"	"	"	
<b>S Half of N Stockpile (5D29015-04) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EE50203	05/02/05	05/02/05	EPA 8021B	
Toluene	0.0540	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.0965	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.133	0.0250	"	"	"	"	"	"	
Xylene (o)	0.0970	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		96.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	121	10.0	mg/kg dry	1	ED52904	04/29/05	04/29/05	EPA 8015M	
Diesel Range Organics >C12-C35	726	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	847	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		77.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		78.4 %	70-130		"	"	"	"	
<b>E Half of S Stockpile (5D29015-05) Soil</b>									
Benzene	J [0.0113]	0.0250	mg/kg dry	25	EE50203	05/02/05	05/02/05	EPA 8021B	J
Toluene	0.132	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.160	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.707	0.0250	"	"	"	"	"	"	
Xylene (o)	0.206	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		102 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	203	10.0	mg/kg dry	1	ED52904	04/29/05	04/29/05	EPA 8015M	
Diesel Range Organics >C12-C35	1030	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	1230	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		79.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		81.6 %	70-130		"	"	"	"	

Environmental Lab of Texas

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Page 3 of 12

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

Project: Eunice Booster to Lea - 6 in. Loop Line  
Project Number: 2004-00198  
Project Manager: Jimmy Bryant

Fax: (432) 687-4914

Reported:  
05/04/05 08:02

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>W Half of S Stockpile (5D29015-06) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EE50203	05/02/05	05/02/05	EPA 8021B	
Toluene	0.111	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.160	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.655	0.0250	"	"	"	"	"	"	
Xylene (o)	0.178	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		96.8 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	223	10.0	mg/kg dry	1	ED52904	04/29/05	04/29/05	EPA 8015M	
Diesel Range Organics >C12-C35	1120	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	1340	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		83.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		84.2 %	70-130		"	"	"	"	
<b>N Half of N Ntackpile (5D29015-07) Soil</b>									
Benzene	J [0.0133]	0.0250	mg/kg dry	25	EE50203	05/02/05	05/02/05	EPA 8021B	J
Toluene	0.129	0.0250	"	"	"	"	"	"	
Ethylbenzene	0.154	0.0250	"	"	"	"	"	"	
Xylene (p/m)	0.624	0.0250	"	"	"	"	"	"	
Xylene (o)	0.143	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		117 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	207	10.0	mg/kg dry	1	ED52909	04/29/05	04/29/05	EPA 8015M	
Diesel Range Organics >C12-C35	887	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	1090	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		79.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		78.8 %	70-130		"	"	"	"	

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 12

**ATTACHMENT II**

**COPY OF INITIAL C-141**



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

Form C-141  
Revised October 10, 2003

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

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

**Release Notification and Corrective Action**

**OPERATOR**

☒ Initial Report

☐ Final Report

Name of Company Plains Marketing, LP	Contact Camille Reynolds	
Address 5805 East Hwy. 80, Midland, TX 79706	Telephone No. 505-441-0965	
Facility Name Eunice Booster To Lea 6" Loop Line 2004-00198	Facility Type 6" Steel Pipeline	
Surface Owner Millard Deck Estate	Mineral Owner	Lease No.

**LOCATION OF RELEASE**

Unit Letter L	Section 4	Township 21S	Range 36E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
------------------	--------------	-----------------	--------------	---------------	------------------	---------------	----------------	---------------

Latitude 32° 30' 44.6" Longitude 103° 16' 37.5"

**NATURE OF RELEASE**

Type of Release Crude Oil	Volume of Release 30 barrels	Volume Recovered 3 barrels
Source of Release 6" Steel Pipeline	Date and Hour of Occurrence 9-16-04 @ 09:30	Date and Hour of Discovery 9-16-04 @ 14:30
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Larry Johnson	
By Whom? Camille Reynolds	Date and Hour 9-16-04 @ 18:00	
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.\* External corrosion of the 6" steel pipeline. A line clamp was installed to mitigate the release. The line is a 6 inch steel transmission pipeline that produces approximately 1,100 to 1,200 barrels of crude oil per day. The pressure on the line varies from 40 to 45 psi and the gravity of the sour crude oil is 36-37. The sour crude has an H<sub>2</sub>S content of approximately 16 ppm

Describe Area Affected and Cleanup Action Taken.\* The impacted soil was excavated and stockpiled on plastic. Aerial extent of surface impact was 7,740 ft<sup>2</sup>.

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

**OIL CONSERVATION DIVISION**

Signature: *Camille Reynolds*

Printed Name: Camille Reynolds

Title: Remediation Coordinator

E-mail Address: cjreynolds@paalp.com

Date: 9-23-04

Phone: 505-441-0965

Approved by District Supervisor:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

\* Attach Additional Sheets If Necessary