

ENVIRONMENTAL PLUS, INC. Micro-Blaze Misso-Blaze Ocar

STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

16 May 2005

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



RE: Closure Proposal for 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 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 All American Pipeline 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 <u>New</u> <u>Mexico Office of the State Engineers</u> 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 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

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It should be noted that initially, the remedial guidelines were believed to 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[®] 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[®] 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 (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.

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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 analytical analyses, 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. No further excavation is required at this site. This site is eligible for closure, and all that remains to close the site is backfilling the excavation, grading and contouring the site to allow for natural drainage and reseeding the area with a SLO approved seed mixture.

Recommendations

It is recommended that the excavation be backfilled, the site graded and contoured to allow for natural drainage and reseeded.

Upon your approval, Plains All American Pipeline, L.P. will commence with backfilling the excavation, grading and contouring the site and reseeding the disturbed area.

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

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

(505) 441-0965 cjreynolds@paalp.com

Sincerely,

ENVIRONMENTAL PLUS, INC.

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Iain A. Olness, P.G. Hydrogeologist

- cc: Camille Reynolds, Plains Lovington, NM Jeff Dann, Plains – Houston, TX 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

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TABLES

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TABLE 1

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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	Benzene	Toluene (µg/Kg)	Ethylbenzene	m,p-Xylenes (µg/Kg)	o-Xylene		TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH
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	•98-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	15.54	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
N BH2 (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 ⁴	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 ⁴	129	154	624	143	1,060	207	887	1,090
NMOCD Remedi	al Thresholds	100 ³	10,000					50,000			5,000

⁷Red, holded values are in excess of the NMOCD Remediation Thresholds

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²NA : Not Analyzed

³ In lieu of laboratory analyes of benzene, toluene, ethylbenzene and total xylenes.

TABLE 2

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

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

Well Number	Diversion ^A	Owner	Use	Source	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation ^B	Depth to Water (ft bgs)
USGS #1					⇒_21:S →_	36 W-,	9 222			18-Mar-68	3,595	119.36
USGS #2					21 S	- 36 W	9-2.2.2	Cales Carter and Cart		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	10 113	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	1051	N 32º 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	31 322			15-Jan-71	3,535	79.07
L 07108 EXP	0	Northern Natural Gas	SAN		20 S	37 E	33 122	N 32° 31' 58.89"	W 103° 15' 36.82"		3,520	
L 07355	3	Northern Natural Gas	SAN	Shallow	20 S	37 E	33 122	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	33 122	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	30 422	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 23	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	18 441	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 42	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)

Shaded well information indicates well location shown on Figure 2

 A = in acre feet per annum

 B = 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



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	Project:	Eunice Booster to Lea 6	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number:	2004-00198	Reported:
Midland TX, 79706-4476	Project Manager:	Camille Reynolds	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

Organics by GC

Environmental Lab of Texas

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
North Side Wall (4K09002-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK41003	11/09/04	11/10/04	EPA 8021B	
Toluene	J [0.0162]	0.0250	"	*1		"	0	н	
Ethylbenzene	J [0.0171]	0.0250	"		и	п	"	n	
Xylene (p/m)	0.0570	0.0250		"		"	u		
Xylene (o)	J [0.0121]	0.0250	0	"		"	н	"	
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	w		n	11	n	n	
Total Hydrocarbon C6-C35	680	10.0	"	"		"	"	0	
Surrogate: 1-Chlorooctane		116 %	70	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		127 %	70-1	130	"	"	"	"	
East Side Wall (4K09002-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	ND	0.0250	"	н		и	н		
Ethylbenzene	ND	0.0250		"	"		n	"	
Xylene (p/m)	0.0492	0.0250	"		"	υ	۲		
Xylene (o)	J [0.0157]	0.0250	"	*		11	**	"	j
Surrogate: a,a,a-Trifluorotoluene		93.7%	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	80-1	20	"	"	"	"	
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	"	"		н	н	**	
Total Hydrocarbon C6-C35	207	10.0	н		"				
Surrogate: 1-Chlorooctane		116 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		128 %	70-1	30	"	"	"	"	
South Side Wall (4K09002-03) Soil									
Benzene	0.0460	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	0.173	0.0250	н				"	0	
Ethylbenzene	0.360	0.0250	"	и	"		м		
Xylene (p/m)	1.10	0.0250	н		"	"	n	n	
Xylene (o)	0.369	0.0250	"	55	"		11	•	
Surrogate: a,a,a-Trifluorotoluene		122 %	80-1	20	"	"	"	"	S-0-
Surrogate: 4-Bromofluorobenzene		98.3 %	80-1	20	"	"	"	"	
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	"		"	"	U	11	

Environmental Lab of Texas

Plains All American EH & S	Project:	Eunice Booster to Lea 6	Fax: (432) 687-4914
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Organics by GC

Environmental Lab of Texas

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
South Side Wall (4K09002-03) Soil									
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	n	"	"	"	S-06
West Side Wall (4K09002-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	J [0.0242]	0.0250	**			u	в		J
Ethylbenzene	0.0376	0.0250	"	"	"			"	
Xylene (p/m)	0.103	0.0250		"	"	H	"	**	
Xylene (o)	0.0279	0.0250	"	н	"	и	n	"	
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	н		n	"		"	
Total Hydrocarbon C6-C35	2980	10.0	н	"	"	"	н	н	
Surrogate: 1-Chlorooctane		101 %	70-	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		121 %	70-	130	"	"	"	"	
Bottom Hole (4K09002-05) Soil									
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	"	н		н	"		
Ethylbenzene	0.186	0.0250	"	۲		"		"	
Xylene (p/m)	0.531	0.0250	"	n		"	"	и	
Xylene (o)	0.159	0.0250	n	ч			"		
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	ı	EK40903	11/09/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	542	10.0	"	11		"		н	
Total Hydrocarbon C6-C35	619	10.0	н	"			0	н	
Surrogate: 1-Chlorooctane		98.0 %	70	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		114 %	70-	130	"	"	**	"	

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

Organics by GC

Environmental Lab of Texas

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Flow Path (4K09002-06) Soil	<u>.</u>								
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	J [0.0178]	0.0250	u.	"		"	11	"	
Ethylbenzene	0.0320	0.0250		"	"	11	"	"	
Xylene (p/m)	0.148	0.0250	"	"		**	"	п	
Xylene (o)	0.0567	0.0250	**	н		11	"	11	
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	н	"				"	
Total Hydrocarbon C6-C35	299	10.0	и	н	**	н	"	81	
Surrogate: 1-Chlorooctane		108 %	70	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		126 %	70	130	"	"	"	"	
SE NSW (4K09002-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	0.0301	0.0250	"	9		"	u	n	
Ethylbenzene	0.0434	0.0250	н	"			"	n	
Xylene (p/m)	0.0829	0.0250	н	"	н		"	"	
Xylene (o)	0.0340	0.0250	"		н		"		
Surrogate: a,a,a-Trifluorotoluene		99.0 %	80-1	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	80-1	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	"	"	"	"		11	
Total Hydrocarbon C6-C35	194	10.0	"	"		"	н		
Surrogate: 1-Chlorooctane		104 %	70-,	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		122 %	70	130	"	"	"	"	
SE SSW (4K09002-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	ND	0.0250	n	н		11	"	n	
Ethylbenzene	ND	0.0250	"	0	п	u	"	11	
Xylene (p/m)	ND	0.0250	11		n	n	n	0	
Xylene (o)	ND	0.0250	11		**	11	И	et.	
Surrogate: a,a,a-Trifluorotoluene		91.3 %	80-1	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	80-1	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	"	п	11	11	н		
Total Hydrocarbon C6-C35	ND	10.0		н	"	"	н	11	

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Midland TX, 79706-4476

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

Organics by GC

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A polyte	Result	Reporting Limit	Units	Diluti	Detab	Deserved	A malanan 1	Marth - J	N-
Analyte	Result		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SE SSW (4K09002-08) Soil									
Surrogate: 1-Chlorooctane		107 %	70	130	EK40903	11 09 04	11 10 04	EPA 8015M	
Surrogate: 1-Chlorooctadecane		124 %	7 0	130	"	"	"	n	
SE ESW (4K09002-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	ND	0.0250	"	н	*	11	н	и	
Ethylbenzene	ND	0.0250	0	н	•	"	"	**	
Xylene (p/m)	ND	0.0250	"	"		н	"	17	
Xylene (o)	ND	0.0250	"	"		"		"	
Surrogate: a,a,a-Trifluorotoluene		93.9 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.7 %	80-1	20	"	"	"	"	
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	11		0	и	и	"	
Total Hydrocarbon C6-C35	ND	10.0	"		57	"	"	n	
Surrogate: 1-Chlorooctane		100 %	70-1	30	"	"	n	"	
Surrogate: 1-Chlorooctadecane		118 %	70-1	30	"	"	"	"	
SE WSW (4K09002-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	ND	0.0250	n		и	и	и	U .	
Ethylbenzene	ND	0.0250	u	"		"	и		
Xylene (p/m)	ND	0.0250	n	"	"	"	и	"	
Xylene (o)	ND	0.0250	n		"	н	11	"	
Surrogate: a,a,a-Trifluorotoluene		95.0 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	80-1	20	"	"	"	"	
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	"		н		11		
Total Hydrocarbon C6-C35	ND	10.0			"	9	"	н	
Surrogate: 1-Chlorooctane		105 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		122 %	70-1	30	"	"	"	"	

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

Organics by GC

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SE BH (4K09002-11) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	ND	0.0250	и	"	"	"	"	**	
Ethylbenzene	ND	0.0250	"	н	**	u	0	"	
Xylene (p/m)	ND	0.0250	n	"	"	"	"		
Xylene (o)	ND	0.0250		"	н	11	"	"	
Surrogate: a,a,a-Trifluorotoluene		87.5 %	80-12	20	"	n	"	n	
Surrogate: 4-Bromofluorobenzene		95.1 %	80-12	20	"	"	"	"	
Gasoline Range Organics C6-C12	15.4	10.0	mg/kg dry	1	EK40903	11/09/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	103	10.0	"	"	н	"	"	"	
Total Hydrocarbon C6-C35	118	10.0	n	"	11		"	"	
Surrogate: 1-Chlorooctane		106 %	70-1.	30	n	"	"	"	
Surrogate: 1-Chlorooctadecane		116 %	70-13	30	"	"	"	"	

Environmental Lab of Texas

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

	_	Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
North Side Wall (4K09002-01) Soil									
% Moisture	5.0		%	1	EK41001	11/09/04	11/10/04	% calculation	
East Side Wall (4K09002-02) Soil									
% Moisture	13.0		%	1	EK41001	11/09/04	11/10/04	% calculation	
South Side Wall (4K09002-03) Soil									
% Moisture	9.0		%	1	EK41001	11/09/04	11/10/04	% calculation	
West Side Wall (4K09002-04) Soil									
% Moisture	15.0		%	1	EK41001	11/09/04	11/10/04	% calculation	
Bottom Hole (4K09002-05) Soil									
% Moisture	10.0		%	1	EK41001	11/09/04	11/10/04	% calculation	
Flow Path (4K09002-06) Soil									
% Moisture	4.0		%	1	EK41001	11/09/04	11/10/04	% calculation	
SE NSW (4K09002-07) Soil									
% Moisture	12.0		%	1	EK41001	11/09/04	11/10/04	% calculation	· · · · · ·
SE SSW (4K09002-08) Soil									
% Moisture	19.0		%	1	EK41001	11/09/04	11/10/04	% calculation	
SE ESW (4K09002-09) Soil									
% Moisture	11.0		%	1	EK41001	11/09/04	11/10/04	% calculation	
SE WSW (4K09002-10) Soil									
% Moisture	15.0		%	1	EK41001	11/09/04	11/10/04	% calculation	
SE BH (4K09002-11) Soil									
% Moisture	21.0		%	1	EK41001	11/09/04	11/10/04	% calculation	

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Organics by GC - Quality Control

Environmental Lab of Texas

		Reporting		Spike	Source		%REC	-	RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EK40903 - Solvent Extraction (GC	<u>`)</u>						·			
Blank (EK40903-BLK1)				Prepared &	z Analyzed:	11/09/04				
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	38.4		mg kg	50.0		76.8	70-130			
Surrogate: 1-Chlorooctadecane	42.8		"	50.0		85.6	70-130			
Blank (EK40903-BLK2)				Prepared &	z Analyzed:	11/09/04				
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	n							
Surrogate: 1-Chlorooctane	38.6		mg kg	50.0		77.2	70-130			
Surrogate: 1-Chlorooctadecane	44.4		"	50.0		88.8	70-130			
LCS (EK40903-BS1)				Prepared &	: Analyzed:	11/09/04				
Gasoline Range Organics C6-C12	463	10.0	mg/kg wet	500		92.6	75-125			
Diesel Range Organics >C12-C35	494	10.0	"	500		98.8	75-125			
Total Hydrocarbon C6-C35	957	10.0	"	1000		95.7	75-125			
Surrogate: 1-Chlorooctane	47.4		mg kg	50.0		94.8	70-130			
Surrogate: 1-Chlorooctadecane	43.4		"	50.0		86.8	70-130			
LCS (EK40903-BS2)		_		Prepared &	: Analyzed:	11/09/04				
Gasoline Range Organics C6-C12	435	10.0	mg/kg wet	500		87.0	75-125			
Diesel Range Organics >C12-C35	463	10.0		500		92.6	75-125			
Total Hydrocarbon C6-C35	898	10.0	н	1000		89.8	75-125			
Surrogate: 1-Chlorooctane	48.1		mg kg	50.0		96.2	70-130			
Surrogate: 1-Chlorooctadecane	46.4		"	50.0		<i>92</i> .8	70-130			
Calibration Check (EK40903-CCV1)				Prepared &	Analyzed:	11/09/04				
Gasoline Range Organics C6-C12	484		mg/kg	500		96.8	80-120			
Diesel Range Organics >C12-C35	545		n	500		109	80-120			
Total Hydrocarbon C6-C35	1030		u.	1000		103	80-120			
Surrogate: 1-Chlorooctane	51.9		n	50.0		104	70-130			
Surrogate: 1-Chlorooctadecane	45.7		"	50.0		91.4	70-130			

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Organics by GC - Quality Control

Environmental Lab of Texas

	. .	Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EK40903 - Solvent Extraction (GC)	•••••									
Calibration Check (EK40903-CCV2)				Prepared &	z Analyzed:	11/09/04				
Gasoline Range Organics C6-C12	552		mg/kg	500		110	80-120			
Diesel Range Organics >C12-C35	586		"	500		117	80-120			
Total Hydrocarbon C6-C35	1140		•	1000		114	80-120			
Surrogate: 1-Chlorooctane	56.9		"	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	58.9		"	50.0		118	70-130			
Matrix Spike (EK40903-MS1)	Sour	rce: 4K08003	-02	Prepared &	z Analyzed:	11/09/04				
Gasoline Range Organics C6-C12	537	10.0	mg/kg dry	515	ND	104	75-125			
Diesel Range Organics >C12-C35	589	10.0	*	515	ND	114	75-125			
Total Hydrocarbon C6-C35	1130	10.0		1030	ND	110	75-125			
Surrogate: 1-Chlorooctane	51.7		mg kg	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	39.8		"	50.0		79.6	70-130			
Matrix Spike (EK40903-MS2)	Sour	rce: 4K09001	-07	Prepared: 1	1/09/04 An	nalyzed: 11	/10/04			
Gasoline Range Organics C6-C12	620	10.0	mg/kg dry	568	ND	109	75-125			
Diesel Range Organics >C12-C35	634	10.0	**	568	ND	112	75-125			
Total Hydrocarbon C6-C35	1250	10.0	"	1140	ND	110	75-125			
Surrogate: 1-Chlorooctane	56.1		mg kg	50.0		112	70-130			
Surrogate: 1-Chlorooctadecane	60.9		"	50.0		122	70-130			
Matrix Spike Dup (EK40903-MSD1)	Sour	rce: 4K08003	-02	Prepared &	Analyzed:	11/09/04				
Gasoline Range Organics C6-C12	525	10.0	mg/kg dry	515	ND	102	75-125	2.26	20	
Diesel Range Organics >C12-C35	580	10.0	u	515	ND	113	75-125	1.54	20	
Total Hydrocarbon C6-C35	1100	10.0		1030	ND	107	75-125	2.69	20	
Surrogate: 1-Chlorooctane	54.1		mg kg	50.0		108	70-130			
Surrogate: 1-Chlorooctadecane	40.8		"	50.0		81.6	70-130			
Matrix Spike Dup (EK40903-MSD2)	Sour	rce: 4K09001	-07	Prepared: 1	1/09/04 An	nalyzed: 11	/10/04			
Gasoline Range Organics C6-C12	601	10.0	mg/kg dry	568	ND	106	75-125	3.11	20	
Diesel Range Organics >C12-C35	662	10.0		568	ND	117	75-125	4.32	20	
Total Hydrocarbon C6-C35	1260	10.0	"	1140	ND	111	75-125	0.797	20	
Surrogate: 1-Chlorooctane	60.0		mg kg	50.0		120	70-130			
Surrogate: 1-Chlorooctadecane	58.4		,							

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Organics by GC - Quality Control

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		Environ	nentai L		Aa5					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK41003 - EPA 5030C (GC)										
Blank (EK41003-BLK1)				Prepared &	Analyzed	11/09/04				
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	11							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	n							
Xylene (o)	ND	0.0250	11							
Surrogate: a,a,a-Trifluorotoluene	88.3	· · · · · · · · · · · · · · · · · · ·	ug kg	100		88.3	80-120			
Surrogate: 4-Bromofluorobenzene	102		"	100		102	80-120			
LCS (EK41003-BS1)				Prepared &	Analyzed	11/09/04				
Benzene	88.8		ug/kg	100		88.8	80-120			
Toluene	98.0		"	100		98.0	80-120			
Ethylbenzene	98.8		"	100		98.8	80-120			
Xylene (p/m)	220		*	200		110	80-120			
Xylené (o)	102		11	100		102	80-120			
Surrogate: a,a,a-Trifluorotoluene	102		"	100		102	80-120			
Surrogate: 4-Bromofluorobenzene	117		"	100		117	80-120			
Calibration Check (EK41003-CCV1)				Prepared: 1	1/09/04 A	nalyzed: 11	/10/04			
Benzene	88.4		ug/kg	100		88.4	80-120			
Toluene	98.0		"	100		98.0	80-120			
Ethylbenzene	92.2		*	100		92.2	80-120			
Xylene (p/m)	199		"	200		99.5	80-120			
Xylene (0)	95.5		**	100		95.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	105		"	100		105	80-120			
Surrogate: 4-Bromofluorobenzene	102		"	100		102	80-120			
Matrix Spike (EK41003-MS1)	Sou	rce: 4K08003	i-01	Prepared: 1	1/09/04 A	nalyzed: 11	/10/04			
Benzene	87.9		ug/kg	100	ND	87.9	80-120			
Toluene	98.0		"	100	ND	98.0	80-120			
Ethylbenzene	103		"	100	ND	103	80-120			
Xylene (p/m)	225		"	200	ND	112	80-120			
Xylene (o)	106		**	100	ND	106	80-120			
Surrogate: a,a,a-Trifluorotoluene	106		"	100		106	80-120			
Surrogate: 4-Bromofluorobenzene	115		"	100		115	80-120			

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Organics by GC - Quality Control

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		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch EK41003 - EPA 5030C (GC)

Matrix Spike Dup (EK41003-MSD1)	Source: 4	K08003-01	Prepared:	1/09/04 A	nalyzed: 1	1/10/04		
Benzene	90.9	ug/kg	100	ND	90.9	80-120	3.36	20
Toluene	103	"	100	ND	103	80-120	4.98	20
Ethylbenzene	106	'n	100	ND	106	80-120	2.87	20
Xylene (p/m)	235	"	200	ND	118	80-120	5.22	20
Xylene (0)	110	n	100	ND	110	80-120	3.70	20
Surrogate: a,a,a-Trifluorotoluene	110	"	100		110	80-120		
Surrogate: 4-Bromofluorobenzene	116	"	100		116	80-120		

Batch EK41203 - EPA 5030C (GC)

Blank (EK41203-BLK1)				Prepared & Ana	lyzed: 11/11/04		
Benzene	ND	0.0250	mg/kg wet				
Toluene	ND	0.0250	"				
Ethylbenzene	ND	0.0250	"				
Xylene (p/m)	ND	0.0250	"				
Xylene (0)	ND	0.0250	17				
Surrogate: a,a,a-Trifluorotoluene	84.6		ug kg	100	84.6	80-120	
Surrogate: 4-Bromofluorobenzene	99.5		"	100	99.5	80-120	
LCS (EK41203-BS1)				Prepared & Ana	lyzed: 11/11/04		
Benzen¢	91.3		ug/kg	100	91.3	80-120	
Toluene	100		"	100	100	80-120	
Ethylbenzene	107			100	107	80-120	
Xylene (p/m)	234		"	200	117	80-120	
Xylene (0)	113			100	113	80-120	
Surrogate: a,a,a-Trifluorotoluene	108		"	100	108	80-120	
Surrogate: 4-Bromofluorobenzene	119		"	100	119	80-120	

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK41203 - EPA 5030C (GC)										
Calibration Check (EK41203-CCV1)				Prepared &	Analyzed:	11/11/04				
Benzene	93.9		ug/kg	100		93.9	80-120			
Toluene	104		"	100		104	80-120			
Ethylbenzene	103		"	100		103	80-120			
Xylene (p/m)	226		"	200		113	80-120			
Xylene (0)	109		"	100		109	80-120			
Surrogate: a,a,a-Trifluorotoluene	112		n	100		112	80-120			
Surrogate: 4-Bromofluorobenzene	116		"	100		116	80-120			
Matrix Spike (EK41203-MS1)	Sou	rce: 4K10007-	02	Prepared &	Analyzed:	11/11/04				
Benzene	92.4		ug/kg	100	ND	92.4	80-120			
Toluene	105		n	100	ND	105	80-120			
Ethylbenzene	110		"	100	ND	110	80-120			
Xylene (p/m)	236		"	200	ND	118	80-120			
Xylene (o)	115		"	100	ND	115	80-120			
Surrogate: a,a,a-Trifluorotoluene	114		"	100		114	80-120			
Surrogate: 4-Bromofluorobenzene	120		"	100		120	80-120			
Matrix Spike Dup (EK41203-MSD1)	Sou	rce: 4K10007-	02	Prepared &	Analyzed:	11/11/04				
Benzene	93.3		ug/kg	100	ND	93.3	80-120	0.969	20	
Toluene	105		"	100	ND	105	80-120	0.00	20	
Ethylbenzene	110		"	100	ND	110	80-120	0.00	20	
Xylene (p/m)	239		"	200	ND	120	80-120	1.68	20	
Xylene (0)	117		"	100	ND	117	80-120	1.72	20	
Surrogate: a,a,a-Trifluorotoluene	97.5		"	100		97.5	80-120		<u> </u>	
Surrogate: 4-Bromofluorobenzene	117		"	100		117	80-120			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Límit	Notes
Batch EK41001 - General Preparati	on (Prep)									
Blank (EK41001-BLK1)				Prepared: I	1/09/04 A	nalyzed: 11	/10/04			
% Moisture	0.0		%							
Duplicate (EK41001-DUP1)	Sou	rce: 4K08006-	01RE1	Prepared: 1	1/09/04 A	nalyzed: 11	/10/04			
% Moisture	61.0		%		61.0			0.00	20	

Environmental Lab of Texas

Plains All American EH & S	Project:	Eunice Booster to Lea 6	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number:	2004-00198	Reported:
Midland TX, 79706-4476	Project Manager:	Camille Reynolds	11/12/04 16:18

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 Juis

Date:

11/12/04

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer Jeanne Mc Murrey, Inorg. Tech Director James L. Hawkins, Chemist/Geologist 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

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Project Manager: <u>JAIN</u> Company Name: <u>PAA</u> ?		2	- 2				, 			Pr	rojecl	t Narr roject	ie: _	Eu	<u>n/n</u>	<u>t_</u>		<u> </u>	10;	ste	2	to	1	EA.	6	
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Jeanne McMurrey

From:	"lain Olness" <iolness@hotmail.com></iolness@hotmail.com>
To:	<jeanne@elabtexas.com></jeanne@elabtexas.com>
Sent:	Wednesday, November 10, 2004 9:07 AM
Subject:	Eunice Booster to Lea - 6" Loop Line (2004-00198)

Jeanne,

2

Could you please hold on the chloride analysis for the samples delivered yesterday for the above-referenced site. Should you have any questions, please feel free to contact me at (505) 394-3481.

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain Olness, P.G. Hydrogeologist

Environmental Plus, Inc. P.O. Box 1558 2100 Avenue O Eunice, NM 88231

(505) 394-3481 (505) 394-2601 (facsimile)

This message has been scanned for viruses and dangerous content by MailScanner at **BasinBroadBand.com**, and is believed to be clean.

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

Client: <u>P</u>	iains ML
Date/Time:	11-09-04 @ 1015
Order #: _	4K09002
Initials:	JMM

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Sample Receipt Checklist

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

Other observations:

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Variance Documentation:

Contact Person: Regarding:	Date/Time:	Contacted by:	
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Corrective Action Taken:			
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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

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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	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

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SSW (4L02003-01) Soil		<u></u>							
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EL40206	12/02/04	12/02/04	EPA 8015M	,
Diesel Range Organics >C12-C35	J [6.70]	10.0	"	n	n	n	n	"	J
Total Hydrocarbon C6-C35	ND	10.0	11	11	"	"	u.	"	
Surrogate: 1-Chlorooctane		77.0 %	70-1.	30	17	"	"	"	
Surrogate: 1-Chlorooctadecane		74.7 %	70-1.	30	"	"	"	"	
WSW (4L02003-02) Soil									
Gasoline Range Organics C6-C12	13.2	10.0	mg/kg dry	1	EL40206	12/02/04	12/02/04	EPA 8015M	
Diesel Range Organics >C12-C35	192	10.0	"	•	"	"	"	р	
Total Hydrocarbon C6-C35	205	10.0	**	.,	"	"	н	"	
Surrogate: 1-Chlorooctane		90.7 %	70-1.	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		94.5 %	70-1.	30	"	"	"	"	

Environmental Lab of Texas

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

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

Reported: 12/06/04 08:44

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SSW (4L02003-01) Soil									
% Moisture	11.0		%	1	EL40307	12/02/04	12/03/04	% calculation	
WSW (4L02003-02) Soil									
% Moisture	14.0		%	1	EL40307	12/02/04	12/03/04	% calculation	

Environmental Lab of Texas

Reported: 12/06/04 08:44

Organics by GC - Quality Control

Environmental Lab of Texas

	Dec. k	Reporting	T T '+	Spike	Source	WDDC	%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EL40206 - Solvent Extraction (GC)									
Blank (EL40206-BLK1)				Prepared &	Analyzed:	12/02/04				
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	39.2		"	50.0		78.4	70-130			
Surrogate: 1-Chlorooctadecane	41.2		"	50.0		82.4	70-130			
LCS (EL40206-BS1)				Prepared &	Analyzed:	12/02/04				
Gasoline Range Organics C6-C12	454	10.0	mg/kg wet	500		90.8	75-125		*	
Diesel Range Organics >C12-C35	481	10.0	ч	500		96.2	75-125			
Total Hydrocarbon C6-C35	935	10.0	"	1000		93.5	75-125			
Surrogate: 1-Chlorooctane	42.0		"	50.0		84.0	70-130			
Surrogate: 1-Chlorooctadecane	38.7		"	50.0		77.4	70-130			
Calibration Check (EL40206-CCV1)				Prepared &	Analyzed:	12/02/04				
Gasoline Range Organics C6-C12	489		mg/kg	500		97.8	80-120			
Diesel Range Organics >C12-C35	498		"	500		99.6	80-120			
Total Hydrocarbon C6-C35	987		P.	1000		98.7	80-120			
Surrogate: 1-Chlorooctane	60.0		mg kg wet	50.0		120	70-130			
Surrogate: 1-Chlorooctadecane	58.3		"	50.0		117	70-130			
Matrix Spike (EL40206-MS1)	Sour	·ce: 4L01005	-01	Prepared &	Analyzed:	12/02/04				
Gasoline Range Organics C6-C12	484	10.0	mg/kg dry	625	ND	77.4	75-125			
Diesel Range Organics >C12-C35	695	10.0		625	30.6	106	75-125			
Total Hydrocarbon C6-C35	1180	10.0	"	1250	30.6	92.0	75-125			
Surrogate: 1-Chlorooctane	70.5		"	62.5	<u> </u>	113	70-130			
Surrogate: 1-Chlorooctadecane	65.2		"	62.5		104	70-130			
Matrix Spike Dup (EL40206-MSD1)	Sour	-ce: 4L01005	-01	Prepared &	Analyzed:	12/02/04				
Gasoline Range Organics C6-C12	490	10.0	mg/kg dry	625	ND	78.4	75-125	1.23	20	
Diesel Range Organics >C12-C35	685	10.0	"	625	30.6	105	75-125	1.45	20	
Total Hydrocarbon C6-C35	1180	10.0		1250	30.6	92.0	75-125	0.00	20	
Surrogate: 1-Chlorooctane	71.2		"	62.5		114	70-130			
Surrogate: 1-Chlorooctadecane	65.2		"	62.5		104	70-130			

Environmental Lab of Texas
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Reported: 12/06/04 08:44

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL40307 - General Preparation (Prep)									
Blank (EL40307-BLK1)				Prepared:	12/02/04 A	nalyzed: 12	/03/04			
% Moisture	0.0		%							
Duplicate (EL40307-DUP1)	Sou	rce: 4L01005-	01	Prepared:	12/02/04 A	nalyzed: 12	/03/04			
% Moisture	20.0		%		20.0			0.00	20	

Environmental Lab of Texas

	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
1		Notes and De	finitions	
	J Detected but below the Reporting Limit; therefore	re, result is an estimated	d 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 Just 12/6/2004 Date:

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer Jeanne Mc Murrey, Inorg. Tech Director James L. Hawkins, Chemist/Geologist Sandra Sanchez, Lab Tech.

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

Environmental Lab of Texas

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

Client: P	lains P/L
Date/Time:	12-02-04 @ 1125
Order #: _	4102003
Initials:	JMM

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	-1.0 C
Shipping container/cooler in good condition?	Ves	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	(Not present)
Chain of custody present?	(res)	No	
Sample Instructions complete on Chain of Custody?	(res)	No	
Chain of Custody signed when relinquished and received?	(Tes)	No	
Chain of custody agrees with sample label(s)	Vés'	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(tes)	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	(Tes)	No	
Preservations documented on Chain of Custody?	Fes	No	
Containers documented on Chain of Custody?	Nes	No	
Sufficient sample amount for indicated test?	Ves	No	
All samples received within sufficient hold time?	(Tes)	No	
VOC samples have zero headspace?	(Yes	No	Not Applicable

Other observations:

• *•* •

Variance Documentation:

Contact Person: Regarding:	Date/Time:	Contacted by:	
Corrective Action Taken:		· · · · · · · · · · · · · · · · · · ·	



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	Project:	Eunice Booster to Lea - 6 in. Loop Line	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number:	2004-00198	Reported:
Midland TX, 79706-4476	Project Manager:	Camille Reynolds	12/16/04 09:40

ANALYTICAL REPORT FOR SAMPLES

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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

-

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

12/16/04 09:40

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Organics by GC

Environmental Lab of Texas

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SE Stockpile (4L13010-01) Soil			-						
Benzene	0.743	0.100	mg/kg dry	100	EL41503	12/14/04	12/14/04	EPA 8021B	
Toluene	5.95	0.100	н	"	"	n	п	"	
Ethylbenzene	7.35	0.100	"	"	u	"	"	**	
Xylene (p/m)	25.4	0.100	11	**		11	11	"	
Xylene (0)	8.10	0.100	"	н		"	н		
Surrogate: a,a,a-Trifluorotoluene		180 %	80-1	120	"	ť	11	"	S-04
Surrogate: 4-Bromofluorobenzene		136 %	80-1	20	"	"	"	"	S-04
Gasoline Range Organics C6-C12	2570	10.0	mg/kg dry	1	EL41311	12/13/04	12/14/04	EPA 8015M	
Diesel Range Organics >C12-C35	9790	10.0	"	"	**	н	•	n	
Total Hydrocarbon C6-C35	12400	10.0	"	n	n	n	w	0	
Surrogate: 1-Chlorooctane		118 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		106 %	70-1	30	"	"	"	"	
NW Stockpile (4L13010-02) Soil									
Benzene	1.65	0.100	mg/kg dry	100	EL41503	12/14/04	12/14/04	EPA 8021B	
Toluene	12.5	0.100	"	н	"	**	"	"	
Ethylbenzene	10.7	0.100	"		"		11	в	
Xylene (p/m)	33.2	0.100	u					u	
Xylene (0)	10.0	0.100	"	и	н	*	n	n	
Surrogate: a,a,a-Trifluorotoluene		171 %	80-1	20	"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		133 %	80-1	20	"	"	"	"	S-04
Gasoline Range Organics C6-C12	3310	50.0	mg/kg dry	5	EL41311	12/13/04	12/14/04	EPA 8015M	
Diesel Range Organics >C12-C35	12200	50.0	**		"		"	и	

Total Hydrocarbon C6-C35 Surrogate: 1-Chlorooctane

15500

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50.0

28.0 %

34.4 %

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Surrogate: 1-Chlorooctadecane

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.

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70-130

70-130

S-06

S-06

Plains All American EH & S	Project:	Eunice Booster to Lea - 6 in. Loop Line	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number:	2004-00198	Reported:
Midland TX, 79706-4476	Project Manager:	Camille Reynolds	12/16/04 09:40

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SE Stockpile (4L13010-01) Soil			-						
% Moisture	5.4		%	1	EL41401	12/13/04	 12/14/04	% calculation	
NW Stockpile (4L13010-02) Soil									
% Moisture	9.7		%	1	EL41401	12/13/04	12/14/04	% calculation	

Environmental Lab of Texas

Reported: 12/16/04 09:40

Organics by GC - Quality Control

Environmental Lab of Texas

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EL41311 - Solvent Extraction (GC)										
Blank (EL41311-BLK1)				Prepared &	: Analyzed:	12/13/04				
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	37.1		mg kg	50.0		74.2	70-130			
Surrogate: 1-Chlorooctadecane	36.5		"	50.0		73.0	70-130			
Blank (EL41311-BLK2)				Prepared: 1	2/13/04 Ar	alyzed: 12	/14/04			
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	0							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	39.0		mg kg	50.0		78.0	70-130			
Surrogate: 1-Chlorooctadecane	37.6		"	50.0		75.2	70-130			
LCS (EL41311-BS1)				Prepared &	Analyzed:	12/13/04				
Gasoline Range Organics C6-C12	478	10.0	mg/kg wet	500		95.6	75-125			
Diesel Range Organics >C12-C35	499	10.0	n	500		99.8	75-125			
Total Hydrocarbon C6-C35	977	10.0	"	1000		97.7	75-125			
Surrogate: 1-Chlorooctane	51.3	<u> </u>	mgʻkg	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	37.6		"	50.0		75.2	70-130			
LCS (EL41311-BS2)				Prepared: 1	2/13/04 An	alyzed: 12	/14/04			
Gasoline Range Organics C6-C12	492	10.0	mg/kg wet	500		98.4	75-125			
Diesel Range Organics >C12-C35	503	10.0	**	500		101	75-125			
Total Hydrocarbon C6-C35	995	10.0	*1	1000		99.5	75-125			
Surrogate: 1-Chlorooctane	52.0		mg kg	50.0		104	70-130			
Surrogate: 1-Chlorooctadecane	41.7		"	50.0		83.4	70-130			
Calibration Check (EL41311-CCV1)				Prepared &	Analyzed:	12/13/04				
Gasoline Range Organics C6-C12	472		mg/kg	500		94.4	80-120			
Diesel Range Organics >C12-C35	528		"	500		106	80-120			
Total Hydrocarbon C6-C35	1000		"	1000		100	80-120			
Surrogate: 1-Chlorooctane	50.1		"	50.0		100	70-130			
Surrogate: 1-Chlorooctadecane	43.8		"	50.0		87.6	70-130			

Environmental Lab of Texas

Reported: 12/16/04 09:40

Organics by GC - Quality Control

Environmental Lab of Texas

		Reporting		Spike	Source	a - - -	%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EL41311 - Solvent Extraction (GC)					<u></u>					
Calibration Check (EL41311-CCV2)				Prepared: 1	12/13/04 A	nalyzed: 12	/14/04			
Gasoline Range Organics C6-C12	483		mg/kg	500		96.6	80-120			
Diesel Range Organics >C12-C35	522		11	500		104	80-120			
Total Hydrocarbon C6-C35	1000		**	1000		100	80-120			
Surrogate: I-Chlorooctane	51.5		"	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	48.1		"	50.0		96.2	70-130			
Matrix Spike (EL41311-MS1)	Sour	rce: 4L13002	-02	Prepared: 1	2/13/04 A	nalyzed: 12	/14/04			
Gasoline Range Organics C6-C12	504	10.0	mg/kg dry	553	ND	91.1	75-125			
Diesel Range Organics >C12-C35	531	10.0	"	553	ND	96.0	75-125			
Total Hydrocarbon C6-C35	1040	10.0		1110	ND	93.7	75-125			
Surrogate: 1-Chlorooctane	50.9		mg kg	50.0		102	70-130			
Surrogate: 1-Chlorooctadecane	48.7		"	50.0		97.4	70-130			
Matrix Spike (EL41311-MS2)	Sour	rce: 4L13007	-01	Prepared: 1	2/13/04 A	nalyzed: 12	/14/04			
Gasoline Range Organics C6-C12	596	10.0	mg/kg dry	575	12.3	102	75-125			
Diesel Range Organics >C12-C35	586	10.0		575	17.2	98.9	75-125			
Total Hydrocarbon C6-C35	1180	10.0	"	1150	29.5	100	75-125			
Surrogate: 1-Chlorooctane	57.4		mgʻkg	50.0		115	70-130			
Surrogate: 1-Chlorooctadecane	52.6		17	50.0		105	70-130			
Matrix Spike Dup (EL41311-MSD1)	Sour	rce: 4L13002	-02	Prepared: 1	2/13/04 A	nalyzed: 12	/14/04			
Gasoline Range Organics C6-C12	523	10.0	mg/kg dry	553	ND	94.6	75-125	3.70	20	
Diesel Range Organics >C12-C35	524	10.0	"	553	ND	94.8	75-125	1.33	20	
Total Hydrocarbon C6-C35	1050	10.0	"	1110	ND	94.6	75-125	0.957	20	
Surrogate: 1-Chlorooctane	51.8		mg kg	50.0		104	70-130			
Surrogate: 1-Chlorooctadecane	49.5		"	50.0		99.0	70-130			
Matrix Spike Dup (EL41311-MSD2)	Sour	rce: 4L13007	-01	Prepared: 1	2/13/04 A	nalyzed: 12	/14/04			
Gasoline Range Organics C6-C12	572	10.0	mg/kg dry	575	12.3	97.3	75-125	4.11	20	
Diesel Range Organics >C12-C35	581	10.0	"	575	17.2	98.1	75-125	0.857	20	
Total Hydrocarbon C6-C35	1150	10.0	n	1150	29.5	97.4	75-125	2.58	20	
Surrogate: 1-Chlorooctane	55.5		mg kg	50.0		111	70-130	<u> </u>		
Surrogate: 1-Chlorooctadecane	51.2		"	50.0		102	70-130			

Environmental Lab of Texas

Reported: 12/16/04 09:40

Organics by GC - Quality Control

Environmental Lab of Texas

	. .	Reporting	.	Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EL41503 - EPA 5030C (GC)										
Blank (EL41503-BLK1)				Prepared &	Analyzed	: 12/14/04				
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	п							
Xylene (p/m)	ND	0.0250	"							
Xylene (0)	ND	0.0250	н							
Surrogate: a,a,a-Trifluorotoluene	104		ug kg	100		104	80-120			
Surrogate: 4-Bromofluorobenzene	104		"	100		104	80-120			
LCS (EL41503-BS1)				Prepared &	: Analyzed:	: 12/14/04				
Benzene	89.3		ug/kg	100		89.3	80-120			
Toluene	92.7		n	100		92.7	80-120			
Ethylbenzene	106		**	100		106	80-120			
Xylene (p/m)	236		"	200		118	80-120			
Xylene (0)	119		19	100		119	80-120			
Surrogate: a,a,a-Trifluorotoluene	117		"	100		117	80-120			
Surrogate: 4-Bromofluorobenzene	116		"	100		116	80-120			
Calibration Check (EL41503-CCV1)				Prepared &	: Analyzed:	12/14/04				
Benzene	95.9		ug/kg	100		95.9	80-120			
Toluene	98.3		н	100		98.3	80-120			
Ethylbenzene	102		н	100		102	80-120			
Xylene (p/m)	226		"	200		113	80-120			
Xylene (0)	111		u	100		111	80-120			
Surrogate: a,a,a-Trifluorotoluene	114		"	100		114	80-120			······································
Surrogate: 4-Bromofluorobenzene	112		"	100		112	80-120			
Matrix Spike (EL41503-MS1)	Sou	rce: 4L13013	-02	Prepared &	Analyzed	12/14/04				
Benzene	91.2		ug/kg	100	ND	91.2	80-120			
Toluene	96.5			100	ND	96.5	80-120			
Ethylbenzene	108		н	100	ND	108	80-120			
Xylene (p/m)	238		н	200	ND	119	80-120			
Xylene (0)	116		"	100	ND	116	80-120			
Surrogate: a,a,a-Trifluorotoluene	117		"	100		117	80-120			
Surrogate: 4-Bromofluorobenzene	119		"	100		119	80-120			

Environmental Lab of Texas

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

12/16/04 09:40

Organics by GC - Quality Control

Environmental Lab of Texas

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch EL41503 - EPA 5030C (GC)

Matrix Spike Dup (EL41503-MSD1)	Source: 4	L13013-02	Prepared &	Analyzed:	12/14/04			
Benzene	92.3	ug/kg	100	ND	92.3	80-120	1.20	20
Toluene	97.4	и	100	ND	97.4	80-120	0.928	20
Ethylbenzene	109		100	ND	109	80-120	0.922	20
Xylene (p/m)	239	н	200	ND	120	80-120	0.837	20
Xylene (0)	117		100	ND	117	80-120	0.858	20
Surrogate: a,a,a-Trifluorotoluene	116	"	100		116	80-120		
Surrogate: 4-Bromofluorobenzene	120	"	100		120	80-120		

Environmental Lab of Texas

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL41401 - General Preparatio	on (Prep)									
Blank (EL41401-BLK1)				Prepared:	12/13/04 A	nalyzed: 12	/14/04			
% Moisture	0.001		%						······	
Duplicate (EL41401-DUP1)	Sou	rce: 4L10023-	01	Prepared: 1	12/13/04 A	nalyzed: 12	/14/04			
% Moisture	3.0		%		3.2		· · · · · · · · · · · · · · · · · · ·	6.45	20	

Environmental Lab of Texas

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	Plains All American EH & S	Project:	Eunice Booster to Lea - 6 in. Loop Line	Fax: (432) 687-4914
	1301 S. County Road 1150	Project Number:	2004-00198	Reported:
	Midland TX, 79706-4476	Project Manager:	Camille Reynolds	12/16/04 09:40
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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.
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

Ciliz & Kune

Report Approved By:

Date:

12/16/2004

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer Jeanne Mc Murrey, Inorg. Tech Director James L. Hawkins, Chemist/Geologist 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

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Chain of Custody Form

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12600 West I-20 East, Odessa, TX 79763

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

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EPI Project Mana	iger Iain Olnes	SS									Г			7												
Mailing Address	P.O. BOX	1558												1											ł	
City, State, Zip	Eunice Ne	ew Mexico	882	31																					l	
EPI Phone#/Fax#	505-394-3	481 / 505-3	94-	260	1						$\overline{\mathbf{p}}$	LA	IN	S												
Client Company	Plains All	American									ALI PII	AME TELL	E. L	<u>e</u>												
Facility Name	Eunice Boo	ster to Lea -	6" L	oop	Line				Attn	1: El	NV /	Acc	oun	ts Payab	le											
Project Referenc	وسينجذ والمتحد والمتحد والمتحد والمتحد والمتحد والمتحد والمحد والمحد والمحد والمحد والمحد والمحد والمحد والمحد	8									PO	Box	x 46	48,												
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							MAT	RIX			PR	ESE	RV.	SAMP	PLING											
LAB I.D. UL (30 ^{0 10}	SAMPLE I.I	D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	отнея	DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (CI')	SULFATES (SO4 [®])	hq	тсер	OTHER >>>	РАН			
-01	SE Stockpile		С	1			X					X		13-Dec	10:00	X	X									
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Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

Client: Plains P/L

Date/Time: 12-13-04 @ 1320

Order #: 41130010

Initials: 5mm

Sample Receipt Checklist

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

Other observations:

Variance Documentation:

Contact Person: Regarding:	Date/Time:	Contacted by:	M
*******	*************	***************************************	448, a 4-a 4-a - 6-a
Corrective Action Taken:			m4
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# 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

#### Organics by GC

#### Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Not
E Half of M Stockpile (5D29015-01) So	il								
Benzene	J [0.0155]	0.0250	mg/kg dry	25	EE50202	04/29/05	05/02/05	EPA 8021B	
Toluene	0.0935	0.0250	н	"	11	"	"	н	
Ethylbenzene	0.121	0.0250	"		"	n	"	н	
Xylene (p/m)	0.203	0.0250	"	**	"	и	"		
Xylene (0)	0.110	0.0250	"	11		11	17	н	
Surrogate: a,a,a-Trifluorotoluene		90.3 %	80-1	20	"	"	n	n	
Surrogate: 4-Bromofluorobenzene		109 %	80-1	20	"	"	"	"	
Gasoline Range Organics C6-C12	206	10.0	mg/kg dry	1	ED52904	04/29/05	04/29/05	EPA 8015M	
Diesel Range Organics >C12-C35	1160	10.0	н		"	Ħ	"	"	
Total Hydrocarbon C6-C35	1370	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		80.8 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		84.0 %	70-1	30	"	"	"	"	
W Half of M Stockpile (5D29015-02) S	oil								
Benzene	ND	0.0250	mg/kg dry	25	EE50202	04/29/05	05/02/05	EPA 8021B	
Foluene	0.0416	0.0250	н		"	"	"	11	
Ethylbenzene	0.0682	0.0250	"	"	"		"	"	
Xylene (p/m)	0.116	0.0250	"	*	n	n	n	u	
Xylene (0)	0.0560	0.0250	"	н	"		"	"	
Surrogate: a,a,a-Trifluorotoluene		94.9 %	80-1	20	"	"	"	п	
Surrogate: 4-Bromofluorobenzene		94.0 %	80-1	20	"		"	"	
Gasoline Range Organics C6-C12	132	10.0	mg/kg dry	I	ED52904	04/29/05	04/29/05	EPA 8015M	
Diesel Range Organics >C12-C35	881	10.0	"	и	"			"	
Total Hydrocarbon C6-C35	1010	10.0		"	"	**	н	ч	
Surrogate: 1-Chlorooctane		72.8 %	70-1	30	"	"	"	н	
Surrogate: 1-Chlorooctadecane		74.0 %	70-1	30	"	"	"	"	
N BH 2 (6') (5D29015-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EE50203	05/02/05	05/02/05	EPA 8021B	
Toluene	0.102	0.0250	"		"	"	н	"	
Ethylbenzene	0.150	0.0250	n	"	"	17	н	83	
Xylene (p/m)	0.247	0.0250	"	"	"	"	"	"	
Xylene (o)	0.146	0.0250	"	**	н		"	n	
Surrogate: a,a,a-Trifluorotoluene		111 %	80-1	20	"	"	и	"	
Surrogate: 4-Bromofluorobenzene		111 %	80-1		"	55	"	**	
Gasoline Range Organics C6-C12	200	10.0	mg/kg dry	1	ED52904	04/29/05	04/29/05	EPA 8015M	
Diesel Range Organics >C12-C35	1010	10.0		17	"	"	"		
Total Hydrocarbon C6-C35	1210	10.0	"		н			н	

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

### Organics by GC

#### Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N BH 2 (6') (5D29015-03) Soil									
Surrogate: 1-Chlorooctane		76.2 %	70-13	0	ED52904	04/29/05	04/29/05	EPA 8015M	
Surrogate: 1-Chlorooctadecane		76.0 %	70-13	0	"	"	"	"	
S Half of N Stockpile (5D29015-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EE50203	05/02/05	05/02/05	EPA 8021B	
Toluene	0.0540	0.0250	"	"		н		"	
Ethylbenzene	0.0965	0.0250		u	w	11	"	"	
Xylene (p/m)	0.133	0.0250		н	"	н	н	11	
Xylene (0)	0.0970	0.0250	11	"	"	11	"	"	
Surrogate: a,a,a-Trifluorotoluene		96.2 %	80-12	0	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	80-12	0	"	"	"	"	
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	۲	**	"		"	и	
Total Hydrocarbon C6-C35	847	10.0	11	н	"	"	"	"	
Surrogate: 1-Chlorooctane		77.4 %	70-13	0	"	"	"	11	
Surrogate: 1-Chlorooctadecane		78.4 %	70-13	0	"	"	"	"	

#### E Half of S Stockpile (5D29015-05) Soil

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	н	"		n	11	и	
Xylene (p/m)	0.707	0.0250	"		n	"	"		
Xylene (0)	0.206	0.0250	н	н		"	n		
Surrogate: a,a,a-Trifluorotoluene		102 %	80-120	)	"	"	"	11	
Surrogate: 4-Bromofluorobenzene		111 %	80-120	ı –	"	"	"	"	
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	н	"	"	n	11	и	
Total Hydrocarbon C6-C35	1230	10.0		w	**	"	n		
Surrogate: 1-Chlorooctane		79.6 %	70-130	)	"	"	"	"	
Surrogate: 1-Chlorooctadecane		81.6 %	70-130	1	"	"	"	"	

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

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

#### Organics by GC

#### Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W Half of S Stockpile (5D29015-06) So					1)al611	i iopaicu			140105
Benzene	ND	0.0250	mg/kg dry	25	EE50203	05/02/05	05/02/05	EPA 8021B	
Toluene	0.111	0.0250		"	н	н			
Ethylbenzene	0.160	0.0250	"	"	"			н	
Xylene (p/m)	0.655	0.0250	"	п		"	н	"	
Xylene (0)	0.178	0.0250	"	"	**		"	п	
Surrogate: a,a,a-Trifluorotoluene		96.8 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	80-1	20	"	"	"	"	
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	*	"	"	n			
Total Hydrocarbon C6-C35	1340	10.0		п	11	н	"	**	
Surrogate: 1-Chlorooctane		83.4 %	70-1	30	"	"	"	0	
Surrogate: 1-Chlorooctadecane		84.2 %	70-1	30	"	"	"	"	
N Half of N Ntockpile (5D29015-07) So	il								
Benzene	J [0.0133]	0.0250	mg/kg dry	25	EE50203	05/02/05	05/02/05	EPA 8021B	
Toluene	0.129	0.0250		11	"		0	и	
Ethylbenzene	0.154	0.0250	"	"		"	"		
Xylene (p/m)	0.624	0.0250	н	"	"	н	"	11	
Xylene (o)	0.143	0.0250	н	"	11	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		117 %	80-1	20	"	"	H	"	
Surrogate: 4-Bromofluorobenzene		103 %	80-1	20	"	"	"	"	
Gasoline Range Organics C6-C12	207	10.0	mg/kg dry	1	ED52909	04/29/05	04/29/05	EPA 8015M	
	887	10.0		"	"	"	"	н	
Diesel Range Organics >C12-C35	007								
Diesel Range Organics >C12-C35 Total Hydrocarbon C6-C35	1090	10.0	"	**		ч	н	"	
		10.0 79.4 %	" 70-1		n n	"	"	"	

Environmental Lab of Texas

#### General Chemistry Parameters by EPA / Standard Methods

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E Half of M Stockpile (5D29015-01) Soil									
% Moisture	7.7	0.1	%	1	EE50206	04/29/05	05/02/05	% calculation	
W Half of M Stockpile (5D29015-02) Soil				-					
% Moisture	7.8	0.1	%	1	EE50206	04/29/05	05/02/05	% calculation	
N BH 2 (6') (5D29015-03) Soil									
% Moisture	9.6	0.1	%	1	EE50206	04/29/05	05/02/05	% calculation	
S Half of N Stockpile (5D29015-04) Soil									
% Moisture	8.9	0.1	%	1	EE50206	04/29/05	05/02/05	% calculation	
E Half of S Stockpile (5D29015-05) Soil									
% Moisture	9.6	0.1	%	1	EE50206	04/29/05	05/02/05	% calculation	
W Half of S Stockpile (5D29015-06) Soil									
% Moisture	9.7	0.1	%	1	EE50206	04/29/05	05/02/05	% calculation	
N Half of N Ntockpile (5D29015-07) Soil									
% Moisture	9.1	0.1	%	1	EE50206	04/29/05	05/02/05	% calculation	

Environmental Lab of Texas

#### **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
Analyte			omis	Level		/01CEC				THOLES
Batch ED52904 - Solvent Extraction (GC)						•- <u></u>				
Blank (ED52904-BLK1)				Prepared &	Analyzed:	04/29/05				
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	11							
Surrogate: 1-Chlorooctane	36.3		mg/kg	50.0		72.6	70-130			
Surrogate: 1-Chlorooctadecane	<b>38</b> .7		"	50.0		77.4	70-130			
LCS (ED52904-BS1)				Prepared &	: Analyzed:	04/29/05				
Gasoline Range Organics C6-C12	430	10.0	mg/kg wet	500		86.0	75-125			
Diesel Range Organics >C12-C35	445	10.0	10	500		89.0	75-125			
Total Hydrocarbon C6-C35	875	10.0	"	1000		87.5	75-125			
Surrogate: 1-Chlorooctane	35.6		mg/kg	50.0		71.2	70-130			
Surrogate: 1-Chlorooctadecane	36.6		"	50.0		73.2	70-130			
Calibration Check (ED52904-CCV1)				Prepared &	Analyzed:	04/29/05				
Gasoline Range Organics C6-C12	464		mg/kg	500		92.8	80-120			
Diesel Range Organics >C12-C35	519		"	500		104	80-120			
Total Hydrocarbon C6-C35	983		*	1000		98.3	80-120			
Surrogate: 1-Chlorooctane	46.2		"	50.0		92.4	70-130	··		
Surrogate: 1-Chlorooctadecane	37.3		п	50.0		74.6	70-130			
Matrix Spike (ED52904-MS1)	Sou	rce: 5D29001	-01	Prepared &	: Analyzed:	04/29/05				
Gasoline Range Organics C6-C12	482	10.0	mg/kg dry	533	ND	90.4	75-125			
Diesel Range Organics >C12-C35	575	10.0	.,	533	ND	108	75-125			
Total Hydrocarbon C6-C35	1060	10.0		1070	ND	99.1	75-125			
Surrogate: 1-Chlorooctane	44.0		mg/kg	50.0		88.0	70-130			
Surrogate: 1-Chlorooctadecane	36.6		"	50.0		73.2	70-130			
Matrix Spike Dup (ED52904-MSD1)	Sou	rce: 5D29001	-01	Prepared &	: Analyzed:	04/29/05				
Gasoline Range Organics C6-C12	483	10.0	mg/kg dry	533	ND	90.6	75-125	0.207	20	
Diesel Range Organics >C12-C35	561	10.0	"	533	ND	105	75-125	2.46	20	
Total Hydrocarbon C6-C35	1040	10.0	n	1070	ND	97.2	75-125	1.90	20	
Surrogate: 1-Chlorooctane	42.7		mg/kg	50.0		85.4	70-130			
Surrogate: 1-Chlorooctadecane	36.2		"	50.0		72.4	70-130			

Environmental Lab of Texas

05/04/05 08:02

#### **Organics by GC - Quality Control**

#### **Environmental Lab of Texas**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch ED52909 - Solvent Extraction (GC)							<u> </u>			<u></u>
Blank (ED52909-BLK1)				Prepared &	: Analyzed:	04/29/05				
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	11							
Surrogate: 1-Chlorooctane	35.3		mg/kg	50.0		70.6	70-130			
Surrogate: 1-Chlorooctadecane	35.2		"	50.0		70.4	70-130			
LCS (ED52909-BS1)				Prepared &	: Analyzed:	04/29/05				
Gasoline Range Organics C6-C12	432	10.0	mg/kg wet	500		86.4	75-125			
Diesel Range Organics >C12-C35	444	10.0	11	500		88.8	75-125			
Total Hydrocarbon C6-C35	876	10.0	"	1000		87.6	75-125			
Surrogate: 1-Chlorooctane	35.6		mg/kg	50.0		71.2	70-130			
Surrogate: 1-Chlorooctadecane	35.9		,	50.0		71.8	70-130			
Calibration Check (ED52909-CCV1)				Prepared &	Analyzed:	04/29/05				
Gasoline Range Organics C6-C12	476		mg/kg	500	······································	95.2	80-120			
Diesel Range Organics >C12-C35	522			500		104	80-120			
Total Hydrocarbon C6-C35	998		"	1000		99.8	80-120			
Surrogate: 1-Chlorooctane	46.5		"	50.0		93.0	70-130			
Surrogate: 1-Chlorooctadecane	39.5		"	50.0		79.0	70-130			
Matrix Spike (ED52909-MS1)	Sour	rce: 5D29016	i-02	Prepared: 0	4/29/05 At	nalyzed: 04	/30/05			
Gasoline Range Organics C6-C12	500	10.0	mg/kg dry	566	ND	88.3	75-125		,	
Diesel Range Organics >C12-C35	599	10.0	0	566	ND	106	75-125			
Total Hydrocarbon C6-C35	1100	10.0	**	1130	ND	97.3	75-125			
Surrogate: 1-Chlorooctane	41.2		mg/kg	50.0		82.4	70-130			
Surrogate: 1-Chlorooctadecane	35.7		"	50.0		71.4	70-130			
Matrix Spike Dup (ED52909-MSD1)	Sour	rce: 5D29016	i-02	Prepared: 0	4/29/05 Ar	1alyzed: 04	/30/05			
Gasoline Range Organics C6-C12	496	10.0	mg/kg dry	566	ND	87.6	75-125	0.803	20	
Diesel Range Organics >C12-C35	626	10.0	11	566	ND	111	75-125	4.41	20	
Fotal Hydrocarbon C6-C35	1120	10.0		1130	ND	99.1	75-125	1.80	20	
Surrogate: 1-Chlorooctane	42.5		mg/kg	50.0		85.0	70-130			
Surrogate: 1-Chlorooctadecane	36.2		"	50.0		72.4	70-130			

Environmental Lab of Texas

#### **Organics by GC - Quality Control**

#### **Environmental Lab of Texas**

		Reporting	- 11	Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

#### Batch EE50202 - EPA 5030C (GC)

			·······					·····
Blank (EE50202-BLK1)				Prepared &	Analyzed	1: 04/29/05		
Benzene	ND	0.0250	mg/kg wet					
Toluene	ND	0.0250	•					
Ethylbenzene	ND	0.0250	н					
Xylene (p/m)	ND	0.0250						
Xylene (o)	ND	0.0250	н					
Surrogate: a,a,a-Trifluorotoluene	94.7		ug/kg	100		94.7	80-120	
Surrogate: 4-Bromofluorobenzene	101		"	100		101	80-120	
LCS (EE50202-BS1)				Prepared &	Analyzed	I: 04/29/05		
Benzene	94.7		ug/kg	100		94.7	80-120	
Toluene	99.0		"	100		99.0	80-120	
Ethylbenzene	98.0		H	100		98.0	80-120	
Xylene (p/m)	220			200		110	80-120	
Xylene (0)	104		"	100		104	80-120	
Surrogate: a,a,a-Trifluorotoluene	111		"	100			80-120	
Surrogate: 4-Bromofluorobenzene	113		н	100		113	80-120	
Calibration Check (EE50202-CCV1)				Prepared: 0	4/29/05 A	Analyzed: 05	5/02/05	
Benzene	89.0		ug/kg	100		89.0	80-120	
Toluene	92.0		н	100		92.0	80-120	
Ethylbenzene	90.0		"	100		90.0	80-120	
Xylene (p/m)	203			200		102	80-120	
Xylene (o)	98.4		ч	100		98.4	80-120	
Surrogate: a,a,a-Trifluorotoluene	105		"	100		105	80-120	
Surrogate: 4-Bromofluorobenzene	111		"	100		111	80-120	
Matrix Spike (EE50202-MS1)	Sour	ce: 5D28002	2-05	Prepared: 0	4/29/05 A	nalyzed: 04	4/30/05	
Benzene	2310		ug/kg	2500	ND	92.4	80-120	
Toluene	2340			2500	ND	93.6	80-120	
Ethylbenzene	2180		*1	2500	ND	87.2	80-120	
Xylene (p/m)	4770		"	5000	47.5	94.4	80-120	
Xylene (o)	2150		"	2500	ND	86.0	80-120	
Surrogate: a,a,a-Trifluorotoluene	101		"	100		101	80-120	
Surrogate: 4-Bromofluorobenzene	100		"	100		100	80-120	

Environmental Lab of Texas

#### **Organics by GC - Quality Control**

#### **Environmental Lab of Texas**

		Reporting		Spike	Source		%REC		RPD	1
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

#### Batch EE50202 - EPA 5030C (GC)

Matrix Spike Dup (EE50202-MSD1)	Source: 5	D28002-05	Prepared: (	04/29/05 A	nalyzed: 04	4/30/05		
Benzene	2380	ug/kg	2500	ND	95.2	80-120	2.99	20
Toluene	2440		2500	ND	97.6	80-120	4.18	20
Ethylbenzene	2370	"	2500	ND	94.8	80-120	8.35	20
Xylene (p/m)	5240	17	5000	47.5	104	80-120	9.68	20
Xylene (0)	2410		2500	ND	96.4	80-120	11.4	20
Surrogate: a,a,a-Trifluorotoluene	96.1	n	100		96.1	80-120		
Surrogate: 4-Bromofluorobenzene	114	"	100		114	80-120		

#### Batch EE50203 - EPA 5030C (GC)

Blank (EE50203-BLK1)				Prepared & Ana	lyzed: 05/02/05		
Benzene	ND	0.0250	mg/kg wet				
Toluene	ND	0.0250	**				
Ethylbenzene	ND	0.0250	"				
Xylene (p/m)	ND	0.0250	Ħ				
Xylene (o)	ND	0.0250	"				
Surrogate: a,a,a-Trifluorotoluene	90.5		ug/kg	100	90.5	80-120	
Surrogate: 4-Bromofluorobenzene	106		"	100	106	80-120	
LCS (EE50203-BS1)				Prepared & Ana	lyzed: 05/02/05		
Benzene	94.5		ug/kg	100	94.5	80-120	·
Toluene	99.8		11	100	99.8	80-120	
Ethylbenzene	98.3		"	100	98.3	80-120	
Xylene (p/m)	222		n	200	111	80-120	
Xylene (0)	104		н	100	104	80-120	
Surrogate: a,a,a-Trifluorotoluene	114		"	100	114	80-120	· · · · · · · · · · · · · · · · · · ·
Surrogate: 4-Bromofluorobenzene	116		"	100	116	80-120	

Environmental Lab of Texas

05/04/05 08:02

## Organics by GC - Quality Control

#### **Environmental Lab of Texas**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EE50203 - EPA 5030C (GC)	and age - togethere									
Calibration Check (EE50203-CCV1)				Prepared: 0	05/02/05 A	nalyzed: 05	/03/05			
Benzene	89.9		ug/kg	100		89.9	80-120			
Toluene	90.8		н	100		90.8	80-120			
Ethylbenzene	90.7		'n	100		90.7	80-120			
Xylene (p/m)	205		"	200		102	80-120			
Xylene (0)	103		"	100		103	80-120			
Surrogate: a,a,a-Trifluorotoluene	109		"	100		109	80-120			
Surrogate: 4-Bromofluorobenzene	115		"	100		115	80-120			
Matrix Spike (EE50203-MS1)	Sou	Prepared &	Analyzed:	05/02/05						
Benzene	89.4		ug/kg	100	ND	89.4	80-120			
Toluene	93.5		н	100	ND	93.5	80-120			
Ethylbenzene	92.0		ч	100	ND	92.0	80-120			
Xylene (p/m)	205		v	200	ND	102	80-120			
Xylene (0)	98.0		**	100	ND	98.0	80-120			
Surrogate: a,a,a-Trìfluorotoluene	107		"	100		107	80-120			
Surrogate: 4-Bromofluorobenzene	116		"	100		116	80-120			
Matrix Spike Dup (EE50203-MSD1)	Sou	rce: 5D29016-0	3	Prepared &	Analyzed:	05/02/05				
Benzene	91.6		ug/kg	100	ND	91.6	80-120	2.43	20	
Toluene	94.7			100	ND	94.7	80-120	1.28	20	
Ethylbenzene	89.3		**	100	ND	89.3	80-120	2.98	20	
Xylene (p/m)	197			200	ND	98.5	80-120	3.49	20	
Xylene (0)	92.4		н	100	ND	92.4	80-120	5.88	20	
Surrogate: a,a,a-Trifluorotoluene	102		"	100		102	80-120			
Surrogate: 4-Bromofluorobenzene	111		н	100		111	80-120			

Environmental Lab of Texas

Plains All American EH & S	Project: Eunice Booster to Lea - 6 in.	Loop Line Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2004-00198	Reported:
Midland TX, 79706-4476	Project Manager: Jimmy Bryant	05/04/05 08:02

#### General Chemistry Parameters by EPA / Standard Methods - Quality Control

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE50206 - General Preparation (Prep)										
Blank (EE50206-BLK1)				Prepared: (	04/29/05 A	nalyzed: 05	/02/05			
% Moisture	ND	0.1	%							
Duplicate (EE50206-DUP1)	Sou	rce: 5D29001-	01	Prepared: (	)4/29/05 A	nalyzed: 05	/02/05			
% Moisture	6.3	0.1	%		6.2			1.60	20	

Environmental Lab of Texas

1	Plains All American EH & S	Project: Eunice Booster to Lea - 6 in. Loop Line	Fax: (432) 687-4914
	1301 S. County Road 1150	Project Number: 2004-00198	Reported:
	Midland TX, 79706-4476	Project Manager: Jimmy Bryant	05/04/05 08:02

#### **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

Ciliz D. Kune Date:

Report Approved By:

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer Jeanne Mc Murrey, Inorg. Tech Director James L. Hawkins, Chemist/Geologist Sandra Sanchez, Lab Tech.

5/4/2005

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

Environmental Lab of Texas

# **Environmental Lab of Texas**

12600 West I-20 Ea Odessa, Texas 7970			CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST																							
Project M	lanager: J: NMY	Bryant	!									-	Pr	ojeci	Nam	e:	F	- u	п.,	<u>'                                    </u>	<u>: L</u>	300	<b>.s/</b> 99	ent	bha	á
	y Name Plains F											-		Pr	oject	#:	<u></u>	70	<u>) 0</u>	4	- 61	<u>01</u>	99	<u>;</u>	~90 J	~/A 
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	Email:									, Bart, ro <b>ginit</b> a		•		<b>F</b>		TCLF		Λn	ialyz	e For	<u></u>				1	
				******	-	I	D.c	serva	atiwa	فعاد مرد بالي	<b>-</b> T	Mat		L	<b>-</b>	TOTAL				괴						
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					5									1005	Ŷ	33, HC	d Cr Pb			or BTE					Scher	
200 A			npted	npted	Containers					City,			ify):	TPH: 418 1 (8015M)	Cations (Ca, Mg, Na, K)	Anions (Cl. SO4, CO3, HCO3) SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg			9/2030					RUSH TAT (Pre-Schedule	LAT
SV S			Date Sampled	Tima Sampled	5		5	H	3	None Other ( Specify)	5	ge	Soil Other (specify);	418.1	ns (Ca,	Anions (Cl. SO4, ( SAR / ESP / CEC	Is: As A	lles	Semivolatiles	8021	ZM.				HTA	Standard TAT
LAB # (lab use only)	FIELD COL				° N	<u>8</u>	HNO FICI	HOEN	H ₃ S	e de	Water	Studge	Othe Othe	HdT	Catio	Anior SAR	Meta	Valatites	Semi	E E	NO.R.M.				RUS	Stan
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-02-	W Half of MS	tock rile		11:000	1	X							<u>k</u>			_				K_						
103	N 13H 2 (6'	)	-	8:30m	1	X							K_							<u>x</u>						
-04	5 Halfot N	Stock of le		10:00an	٢	X							X	K					Ĵ,	X						
-05	E Half of 5-	fack p:/e		14:30		R							*	Z						X						
- 00	w Half of S	Stockp:/e	-	13:30	1	K					Τ		A	R						X	-					
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Special Instructions:	······			<b>.</b>		8h.a		-l				ii	t	<u> </u>	- I '	ampl							Y	N	1	7
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Relinquisbed by:	Da	le Time	Received by:								Da	ate		Time	L	abor	atory	Cor	mme	ents:						
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Relinquished by:	Da		Received by EL	OT:						-†-	Da	ate		Time			~	,								
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Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

Client:	Plana At
Date/Time	A/20/05 3:00
Order #	5029015
Initials:	· ch

Sample Receipt Checklist

Temperature of container/cooler?	Yes No A C C
Shipping container/cooler in good condition?	I CEE J NO :
Custody Seals Intact on shipping container/cocler?	Yes No : Notesets
Custody Seals Intact on sample bottles?	1 CES I No Not cresent
Chain of custody present?	1 Pes No 1
Sample Instructions complete on Chain of Custody?	IVES I NO. 1
Chain of Custody signed when relinquished and received?	Aas No
Chain of custody agrees with sample lagel(s)	1 No
Container labels legible and intact?	I Clas I No
Sample Matrix and crocerties same as on chain of custody?	Has No
Samples in proper container/bottle?	I Nic
Samples properly preserved?	Yes No
Sample cottles intact?	Kes, No
Preservations documented on Chain of Custody?	Has No
Containers documented on Chain of Custony?	No No
Sufficient semple emplors for inclusied test?	
All samples received within surfacers relations?	No No
VCC samples have zero headspace?	(Tes) No Not Accilcacia

Other observations:

Variance Documentation:

*

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

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Corrective Action Taken:

ATTACHMENT II COPY OF INITIAL C-141

e

District 1
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

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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

P/WI 3000

Release Notification and Corrective Action															
						OPERATOR x Initial Report									
		ains Marketi				Contact Camille Reynolds									
Address 58	05 East Hv	vy. 80, Midla	and, TX'	79706 00p Line 2004	y -		No. 505-441-09 e 6"Steel Pipeli								
				001	70	racinty Typ	e o Steer Fipen	01¢		·····					
Surface Ow	ner Millan	Deck Estat	ē	Mineral (Dwner				Lease N	10.					
	STATE LOCATION OF RELEASE														
Unit Letter L	Section 4	Township 21S	Range 36E	Feet from the	North	n/South Line	Feet from the	East/W	est Line	County Lea					
	Latitude_32° 30' 44.6" Longitude_103° 16' 37.5"														
Turna - E Data	ana Canada C	N1		NAI	URE	OF RELI	EASE Release 30 barrel		Voluma D	ecovered 3	horala	·			
Type of Rele Source of Re					<u>_</u>		our of Occurrenc			Hour of Dis					
		-				9-16-04@	09:30		9-16-04 @						
Was Immedi	ate Notice C		Yes 🗌] No 🔲 Not R	equired	If YES, To Larry John									
By Whom? (our 9-16-04 @ 1								
Was a Water	course Read		Yes 🛛	No		If YES, Vo	lume Impacting t	he Water	course.						
If a Watercou	irse was Im	pacted, Descri	be Fully.*	£		1	· · · · · · · · · · · · · · · · · · ·	<u> </u>	<u> </u>			, <u></u>			
The line is a	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 ₂ S content of approximately 16 ppm														
Describe Are 7,740 ft ² .	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 ² .														
						·····		·							
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-14P report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have filled to acceptance of a C-14P report does not relieve the operator of guarding 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															
$\left \right $	D			20- AAA		OIL CONSERVATION DIVISION									
Signature:			State.	Epholds	2	Approved by District Supervisor:									
Title: Remed	iation Coord	linator				Approval Dat	e:	E	xpiration l	Date:					
						Conditions of Approval: Attached									

* Attach Additional Sheets If Necessary