

SB # ( MISSING ) DOES OK PROPUSAL SITE HAS NOT BEEN SUFFIEGETRY DELINEATED TO PROPOSE : MYTHING

July 19, 2004

Mr. Larry Johnson State of New Mexico Oil Conservation Division 1625 French Drive Hobbs, New Mexico 88240

Re:

Preliminary Site Investigation Report and Remediation Plan

Plains Marketing - Chevron-Texaco Monument 12 Site

NE/4, SW/4, Section 12, T19S, R36E

Lea County, New Mexico Plains EMS No.: 2004-00142

Dear Mr. Johnson:

Please find attached a copy of the Preliminary Site Investigation and Remediation Plan for the above-referenced site. This crude oil release occurred in early May 2004 and is located at an active Chevron-Texaco tank battery. Partial excavation of the impacted production pad has been conducted and the release has been delineated. Based on the location of this release on an active production site, Plains Marketing and Chevron-Texaco request an expedited review of the investigation report and proposed remediation plan. Upon your approval of this plan, Plains will expedite remediation activities.

Should you have any questions or comments concerning the proposed remediation plan, please contact me at (713) 646-4657 or Doug Kennedy at (713) 646-4610.

Sincerely.

/Jeffrey P. Dann, P.G.

Sr. Environmental Specialist

Plains All American

CC: Nathan Mouser, Chevron-Texaco

File: c/jeff-files/2004-00142-OCDcover1

Jacobly 10= 54053

Jacobly 10= FPAC 0601953470

Director = nPAC 0601953803

Collication PPAC 0601953983

# PRELIMINARY SITE INVESTIGATION REPORT and REMEDIATION PLAN

PLAINS MARKETING L.P.
CHEVRON-TEXACO MONUMENT 12
Lea County, New Mexico
NE 1/4 SW 1/4 Section 12, Township 19S, Range 36E

Prepared For:

Plains Marketing, L.P. 333 Clay Street Suite 1600 Houston, Texas 77002 EMS No. 2004-00142

Prepared By:
Allstate Environmental Services, LLC
P. O. Box 11322
Midland, Texas 79702

06July 2004

Allstate Environmental Services, LLC

#### INTRODUCTION

Allstate Environmental Services, LLC (AES) conducted a subsurface investigation of a transport truck release for Plains Marketing L.P., located on the Chevron-Texaco Monument 12 lease. The investigation was conducted in order to document subsurface conditions resulting from a release of crude oil at this facility.

This site is located in NE¼ of the SW¼, Section 12, Township 19 South, Range 36 East in Lea County, New Mexico (topographic Site Location Map is attached as Figure 1). The site is characterized by a producing well and a tank battery. The stained area is located in the middle of the gravel pad and to the east of the tank battery covering an area approximately 150 feet by 70 feet. Approximately 92 barrels of crude oil were released from a Plains Marketing transport truck and approximately 25 barrels were recovered.

An Emergency One-Call was initiated 10 May 2004 and all affected companies either cleared or marked their respective lines.

Mr. Leon Anderson, New Mexico State Land Office was notified and visited the site to ascertain the extent the release. Mr. Larry Johnson, New Mexico Oil Conservation Division, Hobbs District 1 was verbally notified of the release on May 9, 2004.

#### **SUMMARY OF FIELD ACTIVITIES**

On 10 May 2004, AES employee Bobby Blackwood arrived at the Chevron-Texaco Monument 12 tank battery to conduct a preliminary site investigation and determine the nature and extent of hydrocarbon impact of the area. The area directly east of the tank battery contained an electrical panel with numerous 480-volt lines powering the equipment inside the tank battery (see Figure 2). Due to safety concerns, hand excavation to expose these lines was initiated prior to mechanized excavation. The area east of the Power Panel, approximately 36 feet by 45 feet was excavated to approximately 4 feet below ground surface (bgs) and the contaminated soil and caliche placed on a 40-mil plastic liner. The Power Panel was relocated and excavation was initiated in an area approximately 96 feet by 60 feet to a depth of approximately 5 feet bgs. This impacted soil and caliche was also placed on a 40-mil plastic liner.

On May 12, 2004, AES employee Ken Dutton installed 7 soil borings, utilizing Straub Corporation, Stanton, Texas, collecting representative soil samples every 5 feet in order to delineate the horizontal and vertical contamination of the transport truck release (a Site Plan is attached as Figure 2). These soil borings were installed at the release point and continued within the visually stained area. The soil borings ranged in depth of 35 feet bgs to 60 feet bgs (soil boring logs are attached). Each sample was screened with a photoionization detector (PID) calibrated 12 May 2004. The soil samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX),

total petroleum hydrocarbons – gasoline range organics/diesel range organics (TPH-GRO/DRO).

A search of the New Mexico State Engineers database revealed a depth to water of 40 feet bgs; however, the actual depth to water at this location is 58 feet to 60 feet bgs based on installation of the soil borings. There are no surface water bodies or water wells within 1000 feet of the release site. Based on this data, the site has an NMOCD Ranking Score of >19, which sets the remediation levels at:

Benzene:

10 ppm

BTEX:

50 ppm

TPH:

100 ppm

### Distribution of Hydrocarbons in the Unsaturated Zone

On initiation of the site investigation, soil samples were collected in the subsurface from the soil borings at 5 feet intervals utilizing a drill rig to determine the vertical extent of hydrocarbon contamination in the soil. No visual observation of free phase crude oil was encountered during the installation of the 7 soil borings or excavation of the east area. A PID reading of 1568 ppm was recorded from a surface sample in the impacted east area. PID field screenings were utilized to determine which soil samples were to be submitted to the laboratory for analysis. Laboratory data sheets and chain-of-custody form are attached.

Soil Boring 1, as depicted on the site map, was installed in the east area. Samples SB LOO collected at the 5, 15, 20 and 25 feet bgs were analyzed. The bottom hole, 35 feet pgs sample was additionally analyzed for BTEX and TPH. Analytical results indicated that BTEX was below NMOCD regulatory standards on all soil samples. Analytical results indicated that TPH was below NMOCD regulatory standards at the 5, 15, 20 and 35 feet bgs. The 25 feet bgs sample exceeded the NMOCD regulatory standard at 173 mg/kg.

Soil Boring 2, as depicted on the site map, was installed in the far east area and BTEX and TPH concentrations were not detected above the laboratory method detection limits on the 20 and 35 feet bgs soil samples.

Soil Boring 3, as depicted on the site map, was installed in the east area adjacent to the tank battery fence. The 5 feet bgs soil sample indicated BTEX was below NMOCD regulatory standards and TPH exceeded NMOCD regulatory standards at 303 mg/kg. The 35 feet bgs soil sample was non-detect for BTEX and TPH.

Soil Boring 4, as depicted on the site map, was installed in the east area adjacent to the tank battery fence. The 5 feet bgs soil sample indicated BTEX was below

NMOCD regulatory standards and TPH exceeded NMOCD regulatory standards at 243 mg/kg. The 35 feet bgs sample indicated that BTEX and TPH were below NMOCD regulatory standards.

Soil Boring 5, as depicted on the site map, was installed at the release point. This soil boring was drilled into the vadose zone and a soil sample collected. Analytical results indicated that the 25 feet and 59 feet bgs soil samples were below NMOCD regulatory standards for BTEX and TPH.

Soil Boring 6, as depicted on the site map, was installed in the middle of the production pad. This soil boring was drilled into the vadose zone and a soil sample collected. Analytical results indicated that BTEX was below the NMOCD regulatory standards at 5, 20, 25 and 59 feet bgs collection levels. TPH was above NMOCD regulatory standards at the 5, 20 and 25 feet bgs at concentrations of 182 mg/kg, 106 mg/kg, and 164 mg/kg, respectively.

Soil Boring 7, as depicted on the site map, was installed in the east area. This soil boring was drilled into the vadose zone and a sample collected. Analytical results indicated that BTEX and TPH were below NMOCD regulatory standards.

#### **CLOSURE PROPOSAL FOR SITE SOIL**

Approximately 1758 cubic yards of hydrocarbon impacted soil remains at the site and is represented by approximately five feet of impacted soil remaining beneath the excavation floor. It is proposed to isolate the remaining source term with an impermeable barrier constructed of dense compactable red clay with a minimum permeability of 1 X 10<sup>-5</sup> cm/sec. The barrier will extend a minimum of four feet beyond the edges of soil impacted above the NMOCD remedial thresholds and will be a minimum of one-foot thick. The barrier will be installed in six-inch lifts. compacted and tested to verify that the compaction has achieved a minimum of 95% its Proctor Density. Installation of the clay barrier at a depth of approximately six feet bgs will protect the barrier from erosion and human intrusion for a term sufficient to allow natural biodegradation of contaminants in the soil. After the barrier has been installed and tested to be acceptable, the excavation will be backfilled with rock separated from the stockpiled soil (pursuant to standard NMOCD practices). Soil separated from the rock will be sampled for TPH and BTEX at a rate of one sample per 250 cubic yards. Soil with TPH concentration less than 100 ppm, benzene concentrations less than 10 ppm and total BTEX concentrations less than 50 ppm will be utilized as backfill. Soil, which exceeds these criteria, will be removed and transported to Plains Centralized Land Farm at Lea Station.

#### RECOMMENDATIONS FOR REMEDIATION

The east area adjacent to the tank battery has been excavated to an approximate depth of 4 feet bgs. The release point and middle of the tank battery pad have not been excavated. Due to the remote area of this location and lack of receptors it is recommended that the following actions be taken.

- PID readings taken at the 4 feet bgs depth interval indicated VOC levels of well below 100 ppm. It is recommended that confirmation soil samples be collected in the east area to document contaminate levels. Based on the results of the soil delineation investigation, it is recommended that a 1-foot thick clay cap barrier be installed to inhibit vertical migration of contaminates in soil left in place below the cap. Plains proposes to mechanically separate the rock and soil and the rock will be placed back in the excavation over the cap. The separated (impacted) soil will be sampled and analyzed for TPH and BTEX to determine if regulatory standards have been met and possibly be utilized as backfill. If the separated soil cannot meet NMOCD regulatory standards it will be transported to a certified New Mexico land farm.
- Excavate the middle of the tank battery pad (release area) to a depth of 5 to 6 feet bgs and stockpile. It is recommended that confirmation soil samples be collected in the middle of the tank battery area to document contaminate levels. Based on the results of the soil delineation investigation, it is recommended that a 1-foot thick clay cap barrier be installed to inhibit vertical migration of contaminates in soil left in place below the cap. Plains proposes to mechanically separate the rock and soil and the rock will be placed back in the excavation over the cap. The separated (impacted) soil will be sampled and analyzed for TPH and BTEX to determine if regulatory standards have been met and possibly be utilized as back fill. If the separated soil cannot meet NMOCD regulatory standards it will be transported to a certified New Mexico land farm.

#### **QA/QC PROCEDURES**

#### Soil Sampling

Soil samples were delivered to Environmental Lab of Texas, Inc. in Midland, Texas for BTEX and TPH. Soil samples were analyzed for BTEX and TPH-GRO/DRO within fourteen days following the collection date.

The soil samples were analyzed as follows:

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

### **Groundwater Sampling**

As ground water was not encountered during the investigation process, no water samples were obtained.

#### **Decontamination Of Equipment**

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

#### **Laboratory Protocol**

The laboratory was responsible for proper QA/QC procedures after signing the chainof-custody form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

#### **LIMITATIONS**

Allstate Environmental Services, LLC has prepared this Preliminary Investigation Report and Remediation Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

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

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

## FIGURE 1 SITE LOCATION MAP

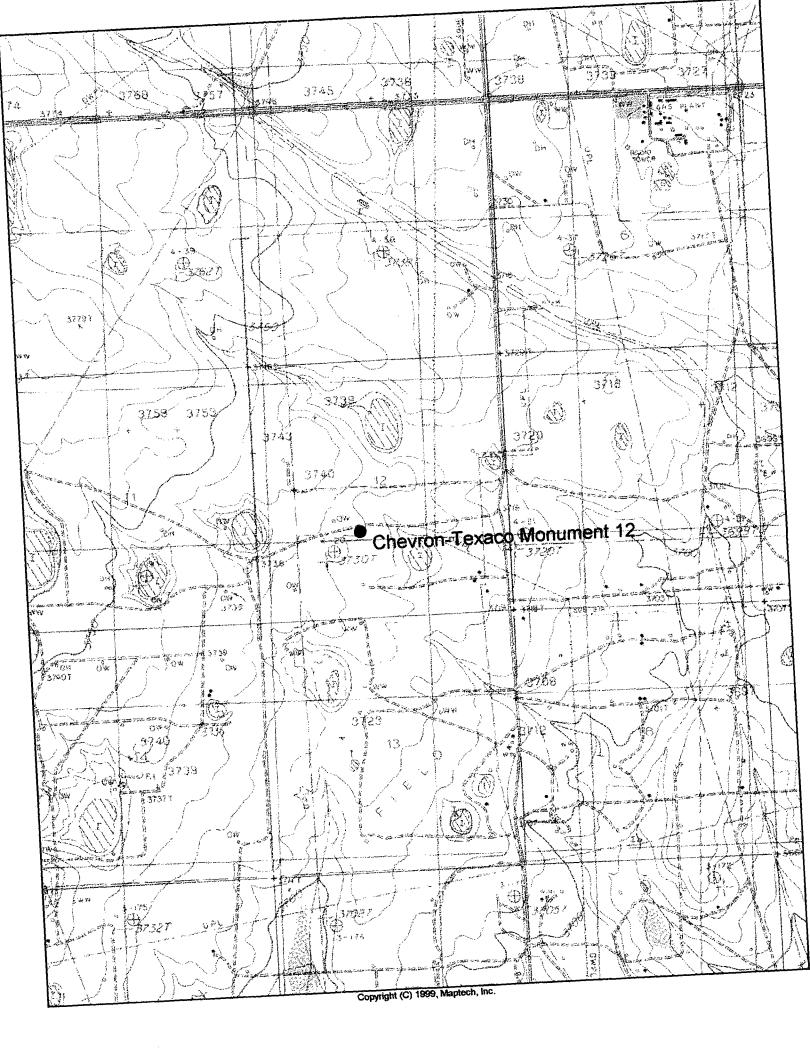


FIGURE 2

SITE MAP

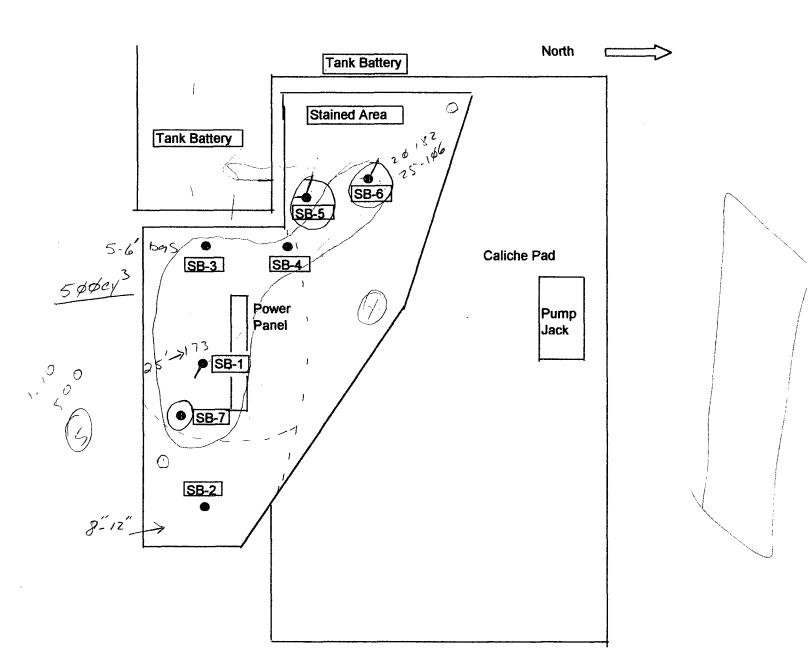


TABLE 1

### TABLE 1

### **SOIL CHEMISTRY**

#### PLAINS MARKETING LP CHEVRON-TEXACO MONUMENT 12 LEA COUNTY, NEW MEXICO

SAMPLE	SAMPLE	MET	THOD: EPA S	N 846-8021B,	5030	METHO	): 8015M	
LOCATION	DATE	BENZENE	TOLUENE	ETHYL- BENZENE	TOTAL XYLENES	GRO	DRO	TOTAL TPH
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SB-1 5'	05/12/04	<0.025	<0.025	0.025	0.084	16.5	76.5	93.0
SB-1 15'	05/12/04	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-1,20'	05/12/04	<0.025	<0.025	<0.025	<0.025	<10	13.6	13.6
8B-1 25'	05/12/04	<0.025	0.149	0.123	0.591	31	142	(173)
SB-1 35'	05/12/04	<0.025	<0.025	<0.25	0.046	<10	14.5	14.5
SB-2 20'	05/12/04	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-2 35'	05/12/04	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-3 5'	05/12/04	<0.025	<0.025	<0.025	0.086	25	278	303
SB-3 35'	05/12/04	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-4 5'	05/12/04	<0.025	0.039	0.100	0.426	46.5	196	243
SB-4 35'	05/12/04	<0.025	<0.025	<0.025	<0.025	<10	15.1	15.1
SB-5 25'	05/12/04	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-5 59'	05/12/04	<0.025	<0.025	<0.025	<0.025	<10	10.6	10.6
SB-6 5'	05/12/04	<0.025	0.026	0.061	0.284	30.9	151	182
SB-6 20'	05/12/04	<0.025	<0.025	<0.025	0.052	15.7	90	106
SB-6 25'	05/12/04	<0.025	<0.025	0.081	0.373	38.4	126	164 -
SB-6 59'	05/12/04	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-7 5'	05/13/04	<0.025	<0.025	<0.025	<0.025	<10	12.4	12.4
SB-7 35'	05/13/04	<0.025	<0.025	0.033	0.123	<10	42.8	42.8
SB-7 60'	05/13/04	<0.025	<0.025	<0.025	<0.025	<10	<10	<10



File Number:	
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### 1. OWNER OF WELL

Name: Plains Pipeline, LP	Work Phone:Home Phone:		
Address: 333 Clay Street, Suite 1600			
City: Houston	, State: <u>TX</u> Zip: <u>77005</u>		
2. LOCATION OF WELL (A, B, C, or D	required, E or F if known)		
A1/41/4 Section:7	Fownship: Range: N.M.P.M.		
B. X = feet, Y =	Countyfeet, N.M. Coordinate System		
Zone in the	Grant.		
U.S.G.S. Quad Map			
C. Latitude: <u>32</u> d <u>41</u> m <u>06</u> s	Longitude: 103d 18m 09s		
D. East (m), North	_(m), UTM Zone 13, NAD (27 or 83)		
E. Tract No, Map No of the _	Hydrographic Survey		
F. Lot No, Block No of Unit/	Tract of the		
Subdivision record	ded in County.		
G. Other:			
H. Give State Engineer File Number if exist	ing well:		
I. On land owned by (required):			
3. DRILLING CONTRACTOR			
License Number:			
Name: Straub Corporation	Work Phone: <u>432-756-3489</u>		
Agent: Edward Bryan	Home Phone:		
	Home Phone:		
City: Stanton	State: TX Zip: 79782		
4. DRILLING RECORD			
Drilling began: 05/12/2004 ; Compl	leted: 05/13/2004; Type tools: Air Rotary Drilling Ri		
Size of hole: 5 in.; Total depth of well: 3	15ft.;		
Completed well is:(sha	allow, artesian);		
Depth to water upon completion of well:			
File Number: Trn Numb	er:		
Fo			

File Number:	

### Depth in Feet Thickness Description of Estimated Yield From To in feet water-hearing formation (GPM)

5. PRINCIPAL WATER-BEARING STRATA

From To in feet water	-bearing formation (GPM)	
(inches) per ft. per in.	eads Depth in Feet Length Type of Shoe Perforations Top Bottom (feet) From To	
7. RECORD OF MU	IDDING AND CEMENTING  licks Cubic Feet Method of Placement mud of Cement	
8. PLUGGING REC	ORD	
Plugging Contractor:		
Address: P.O. Box 19	2, Stanton, Texas 79782	
Plugging Method: Por	uring Bentonite Holeplug	
Plugging approved by	5/13/2004	
r ragging approved by	State Engineer Representative	
No. Depth in Feet Top Bottom	Cubic Feet of Cement	
	8 bags holeplug	
2		
3		
	Trn Number:	

Form: wr-20 page 2 of 4

File	Number:	

<u>2, I</u>	o in fee Lea Cou	mty, New	Mexico
0	13	13	Caliche, Tan Silty Sand
13	21	08	Limestone Layers, Tan Silty Sand
21	35	14	Limestone (Hard)
			Lamostono (Hard)
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			Trn Number:

File Number:	
rue Number.	

10. ADDITIONAL STATEMENTS OR EXPLANATIONS:		
	The state of the s	
The undersigned hereby certifies that, to the best of his		
belief, the foregoing is a true and correct record of the a	above described	
hole. Edward Bryan 0	5/13/2004	
Edward Bryan 0 Driller (mm/dd/year)	J/13/2007	
FOR STATE ENGINEER USE ONLY		
Quad; FWL; FSL; Use	_; Location No	
File Number: Trn Number: Form: wr-20	page 4 of 4	
Form, WI-20	hall inta	

File Number:	

### 1. OWNER OF WELL

Name: Plains Pipeline, LP	Work F	Work Phone:		
Contact:	Home Phe	one:		
Address: 333 Clay Street, Suite 1600				
City: <u>Houston</u>	, State:	TX Zip: 77005		
2. LOCATION OF WELL (A, B, C, or	D required, E or F if know	n)		
A1/41/41/4 Section:				
n feet, Y =	<del></del>	County.		
3. X = feet, Y =	feet, N.M. Coor	dinate System		
Zone in the		Grant.		
U.S.G.S. Quad Map	T 1. 1 1051	10 00		
C. Latitude: 32d 41m 06s				
D. East (m), North of the	(m), U1M Zone 13, NAL	) (2/ 0f 85)		
E. Tract No, Map No of the F. Lot No of Un	: Hydrogi	rapnic Survey		
Lot No, Block No of Off	rded in	County		
Subdivision reco	raca m	County.		
H. Give State Engineer File Number if exi	sting well:			
. On land owned by (required):	Janig Woll.			
	<del></del>			
3. DRILLING CONTRACTOR				
License Number:				
Name: Straub Corporation	Work I	Phone: 432-756-3489		
Agent: Edward Bryan	Home	Phone:		
Mailing Address: P.O. Box 192		<del></del>		
7'. 6'.		TY 7' 70700		
City: Stanton	State: 7	Zip: <u>79782</u>		
I. DRILLING RECORD				
Orilling began: 05/12/2004; Com	oleted: 05/13/2004 : Type t	ools: Air Rotary Drilling Ri		
Size of hole: 5 in.; Total depth of well:				
Completed well is:(s	nallow, artesian);			
Depth to water upon completion of well:	Ř.			
File Number: Trn Num		•		
	Form: wr-20 page 1 of 4			

File Number:	

5. PRINCIPAL WAT	TER-BEARING STRATA	
From To in feet water-	ss Description of Estimated Yield bearing formation (GPM)	
6. RECORD OF CAS	SING	
(inches) per ft. per in.	rads Depth in Feet Length Type of Shoe Perforations Top Bottom (feet) From To	
7. RECORD OF MU	DDING AND CEMENTING  cks Cubic Feet Method of Placement mud of Cement	
8. PLUGGING REC	ORD	
Plugging Method: Pou	2, Stanton, Texas 79782 uring Bentonite Holeplug 5/13/2004	
2 3 4	Cubic Feet of Cement  8 bags holeplug	
File Number:	Trn Number: Form: wr-20 page 2 of 4	

File Number:	

Depth in		ess Color and Type of Material Encountered
From To in feet		
SB-3,	Lea County, No	w Mexico
0	21 21	Caliche, Tan Sand, Limestone Layers
21	35 14	Limestone (Hard), Tan Sand
	***************************************	
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Tila Nim	nher	Trn Number:

File Number:	
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10. ADDITIONAL STATEMENTS OR EXPL	ANATIONS:
The undersigned hereby certifies that, to the best belief, the foregoing is a true and correct record chole.	
Edward Bryan	<u>05/13/2004</u>
Driller (mm/dd/year)	
FOR STATE ENGINEER USE ONLY	
Quad; FWL; FSL; Use	; Location No
File Number: Trn Number:	wr-20 page 4 of 4
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File Number:	
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### 1. OWNER OF WELL

Name: Plains Pipeline, LP	Work Phone:	
Contact:	Home Phone:	
Address: 333 Clay Street, Suite 1600		
City: Houston	, State: TX Zip: 77005	
2. LOCATION OF WELL (A, B, C, or D required, F	E or F if known)	
A1/41/4 Section: Township:_	Range: N.M.P.M.	
in	County.	
in feet, Y = f	eet, N.M. Coordinate System	
Zone in the	Grant.	
U.S.G.S. Quad Map		
C. Latitude:32d41m06s Longitude:	103d18m09s	
D. East (m), North (m), UTM	Zone 13, NAD (27 or 83)	
E. Tract No, Map No of the	Hydrographic Survey	
F. Lot No, Block No of Unit/Tract	of the	
Subdivision recorded in	County.	
G. Other:		
H. Give State Engineer File Number if existing well:		
I. On land owned by (required):		
3. DRILLING CONTRACTOR		
License Number:		
Name: Straub Corporation	Work Phone: 432-756-3489	
	Home Phone:	
Mailing Address: P.O. Box 192		
City: Stanton		
4. DRILLING RECORD		
Drilling began: <u>05/12/2004</u> ; Completed: <u>05/13/</u>	/2004 ; Type tools: Air Rotary Drilling R	
Size of hole: 5 in.; Total depth of well: 35 fi	t.;	
Completed well is: (shallow, artesis	an);	
Depth to water upon completion of well:	_ Á.	
File Number: Trn Number:	- 	
Form: wr-20 p	page 1 of 4	
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File Number:	<u></u>
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### 5. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness Description of Estimated Yield From To in feet water-bearing formation (GPM) 6. RECORD OF CASING Diameter Pounds Threads Depth in Feet Length Type of Shoe Perforations (inches) per ft. per in. Top Bottom (feet) From To 7. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet Method of Placement From To Diameter of mud of Cement 8. PLUGGING RECORD Plugging Contractor: Straub Corporation Address: P.O. Box 192, Stanton, Texas 79782 Plugging Method: Pouring Bentonite Holeplug Date Well Plugged: 05/13/2004 Plugging approved by: \_\_\_ State Engineer Representative No. Depth in Feet Cubic Feet of Cement Top Bottom 0 35 8 bags holeplug 2 \_\_\_\_\_\_ \_\_\_\_\_\_ File Number: \_\_\_\_\_ Trn Number: \_\_\_

Form: wr-20 page 2 of 4

File Number:	

epth i	OF HO	Thickness	Color and Type of Material Encountered
From To in feet			
B-4,	Lea Co	ounty, New Mex	<u>xico</u>
0	21	21	Tan Silty Sand, Caliche
21	35	14	Hard Limestone, Tan Sand
			Table Daniestone, Table State
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File	Number:	

10. ADDITIONAL STATEMENTS OR EXPLANATIONS:			
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The undersigned hereby certifi	es that, to the best of	f his knowledge and	
belief, the foregoing is a true a			
holc.			
Edward Bryan Driller (mm/dd/year)		05/13/2004	
Driffer (min/dd/year)			
FOR STATE ENGINEER US			
Quad; FWL; FSI	; Use	; Location No	
File Number:		-20 page 4 of 4	
	ronn. Wi	-20 page 4 or 4	

File Number:	
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### 1. OWNER OF WELL

Name: Plains Pipeline, LP	Work Phone:	
Contact:	Home Phone:	
Address: 333 Clay Street, Suite 1600		
City: Houston	, State: TX	Zip: <u>77005</u>
2. LOCATION OF WELL (A, B, C, or D required, E	or F if known)	
A1/41/4 Section: Township:		
in	C	ounty.
Zone in the	Gra	ant.
U.S.G.S. Quad Map	1024 10 0	D~
D. East (m), North (m), UTM 2	7 one 13 NAD (27 or 5	<u>z</u> s (3)
F. Tract No. Man No. of the	Hydrographic Surve	90) 90
E. Tract No, Map No of the F. Lot No, Block No of Unit/Tract	of the	· <i>y</i>
Subdivision recorded in	County	<i>'</i> .
G. Other:		
H. Give State Engineer File Number if existing well:		
I. On land owned by (required):		···
3. DRILLING CONTRACTOR		
License Number:		
Name: Straub Corporation		
Agent: Edward Bryan	Home Phone:	····
Mailing Address: P.O. Box 192		
City: Stanton		Cip: <u>79782</u>
4. DRILLING RECORD		
Drilling began: <u>05/12/2004</u> ; Completed: <u>05/13/2</u>	004 · Tyne tools: Air Ro	atary Drilling Rig
Size of hole: 5 in.; Total depth of well: 60 ft.;		,
Completed well is:(shallow, artesian		
Depth to water upon completion of well:	Ŕ.	
File Number: Trn Number:		
Form: wr-20 pa		

File Number:	

5. PRINCIPAL WATE	R-BEARING STRATA	
Depth in Feet Thickness From To in feet water-be	Description of Estimated Yield earing formation (GPM)	
6. RECORD OF CASI	NG	
Diameter Pounds Thread (inches) per ft. per in. To	ds Depth in Feet Length Type of Shoe Perforations op Bottom (feet) From To	
7. RECORD OF MUD	DING AND CEMENTING	
Depth in Feet Hole Sack From To Diameter of m	ss Cubic Feet Method of Placement ud of Cement	
8. PLUGGING RECO	RD	
Plugging Contractor: <u>Str</u> Address: <u>P.O. Box 192</u> , Plugging Method: Pouri		
Date Well Plugged: 05/1	3/2004	
Plugging approved by: _	State Engineer Representative	
No. Depth in Feet Top Bottom	Cubic Feet of Cement	
1 0 2	1 bag concrete	
2 2 35 3 35 60	8 bags holcplug 3 bags Cement grout	
File Number:	Trn Number: Form: wr-20 page 2 of 4	

File Number:	
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#### 9. LOG OF HOLE

Depth in Feet	Thickness	Color and Type of Material Encountered
Depui iii rect	1 HICKHC99	Color and Type of Material Effective

From To in feet
SB-5, Lea County, New Mexico



	10	10	m 014 6 10 11	/
_0_	18	18	Tan Silty Sand, Caliche	·····
18	22	4	Limestone, Tan Silty Sand	
	45	23	Limestone (Hard), Tan Silty Sand	
45	50	5	Tan Silty Sand	
50	54	4	Tan Silty Sand	
54	60	6	Tan Sand, Limestone	
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Form: wr-20 page 3 of 4

File Number:	

10. ADDITIONAL STATEMENTS OR EXPLANATIONS:			
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	certifies that, to the best		
belief, the foregoing is a hole.	true and correct record of	of the above described	
r. 1 n		05/13/2004	
Driller (mm/dd/year)			
FOR STATE ENGINEE			
Quad; FWL	; FSL; Use	; Location No	<del></del>
File Number:	Trn Number:		
	rorm: v	wr-20 page 4 of 4	

File Number	r:
	· · · · · · · · · · · · · · · · · · ·

#### 1. OWNER OF WELL

Name: Plains Pipeline, LP	Work Phone:	
Contact:		
Address: 333 Clay Street, Suite 1600		
City: Houston		
2. LOCATION OF WELL (A, B, C, or D requir	ed, E or F if known)	
A1/41/4 Section: Townsl		
n feet, Y =	County.	
3. X = feet, Y =	feet, N.M. Coordinate System	
Zone in the	Grant.	
J.S.G.S. Quad Map		
C. Latitude: 32d 41m 06s Long	tude: 103d 18m 09s	
D. East (m), North (m),	UTM Zone 13, NAD (27 or 83)	
E. Tract No, Map No of the	Hydrographic Survey	
F. Lot No, Block No of Unit/Tract	of the	
Subdivision recorded in S. Other:	County.	
j. Other:	44	
H. Give State Engineer File Number if existing we		
. On land owned by (required):		
D. DRILLING CONTRACTOR		
License Number:		
Name: Straub Corporation	Work Phone: 432-756-3489	
Agent: Edward Bryan		
Mailing Address: P.O. Box 192		
City: Stanton		
I. DRILLING RECORD		
Orilling began: 05/12/2004; Completed: 0		
Size of hole: 5 in.; Total depth of well: 60		
Completed well is:(shallow, a	artesian);	
Depth to water upon completion of well:	ft.	
File Number: Trn Number:	······································	
Form: w	r-20 page 1 of 4	

### 5. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness Description of Estimated Yield From To in feet water-bearing formation (GPM) 6. RECORD OF CASING Diameter Pounds Threads Depth in Feet Length Type of Shoe Perforations (inches) per ft. per in. Top Bottom (feet) From To 7. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet Method of Placement From To Diameter of mud of Cement 8. PLUGGING RECORD Plugging Contractor: Straub Corporation Address: P.O. Box 192, Stanton, Texas 79782 Plugging Method: Pouring Bentonite Holeplug/Cement Grout Date Well Plugged: 05/13/2004 Plugging approved by: \_ State Engineer Representative No. Depth in Feet **Cubic Feet of Cement** Top Bottom 1 bag concrete 35\_\_\_ 8 bags holeplug 35 60 3 3 bags Cement grout 5

Form: wr-20 page 2 of 4

File Number: \_\_\_\_\_ Trn Number: \_\_\_\_

9. LOG OF HOLE
Depth in Feet Thickness
From To in feet

Color and Type of Material Encountered

SB-6, Lea County, New Mexico

0	18	18 12	Tan Silty Sand, Caliche Limestone, Tan Sand Limestone, Tan Silty Sand
18	30	12	Limestone, Tan Sand
30	50	20	Limestone, Tan Silty Sand
50	60	10	Tan Silty Sand
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File Nu	mber: _		Trn Number:
			Form: wr-20 page 3 of 4



File Number:

10. ADDITIONAL STATEMENTS OR EXPLANATIONS:			
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Inc undersigned hereby	certifies that, to the best of true and correct record of	of his knowledge and	
hole.	. uue and correct record of	t the above described	
m		05/13/2004	
Driller (mm/dd/year)			
FOR STATE ENGINEE	ER USE ONLY		
Quad; FWL	_; FSL; Use	; Location No	er a vois er alaman
File Number:	Trn Number:		
	Form: w	т-20 page 4 of 4	

File Nur	nber:	

### 1. OWNER OF WELL

Name: Plains Pipeline, LP	Work Phone:		
Contact:	Home Phone:		
Address: 333 Clay Street, Suite 1600			
City: Houston	, State: <u>TX</u> Zip: <u>77005</u>		
2. LOCATION OF WELL (A, B, C, or D requi	red, E or F if known)		
A1/41/41/4 Section: Towns	ship: Range: N.M.P.M.		
nfeet, Y =	feet, N.M. Coordinate System		
Zone in the	Grant.		
U.S.G.S. Quad Man			
C. Latitude: 32d 41m 06s Long			
D. East (m), North (m),	UTM Zone 13, NAD (27 or 83)		
E. Tract No, Map No of the	Hydrographic Survey		
F. Lot No, Block No of Unit/Tract	of the		
Subdivision recorded in	County.		
G. Other: H. Give State Engineer File Number if existing w	ell:		
I. On land owned by (required):			
3. DRILLING CONTRACTOR			
License Number:			
Name: Straub Corporation	Work Phone: 432-756-3489		
Agent: Edward Bryan	Home Phone:		
Mailing Address: P.O. Box 192			
City: Stanton			
4. DRILLING RECORD			
Drilling began: 05/13/2004; Completed:	05/13/2004; Type tools: Air Rotary Drilling Rig		
Size of hole: 5 in.; Total depth of well: 60	ft;		
Completed well is:(shallow,			
Depth to water upon completion of well:			
File Number: Trn Number:			
Form: v			

File Number:	

### 5. PRINCIPAL WATER-BEARING STRATA Depth in Feet Thickness Description of Estimated Yield From To in feet water-bearing formation (GPM) 6. RECORD OF CASING Diameter Pounds Threads Depth in Feet Length Type of Shoe Perforations (inches) per ft. per in. Top Bottom (feet) From To 7. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet Method of Placement From To Diameter of mud of Cement 8. PLUGGING RECORD Plugging Contractor: Straub Corporation Address: P.O. Box 192, Stanton, Texas 79782 Plugging Method: Pouring Bentonite Holeplug/Cement Grout Date Well Plugged: 05/13/2004 Plugging approved by: \_\_ State Engineer Representative No. Depth in Feet **Cubic Feet of Cement** Top Bottom 1 bag concrete 8 bags holeplug 3 bags Cement grout

Form: wr-20 page 2 of 4

File Number: \_\_\_\_\_ Trn Number: \_\_\_\_

File Number:	
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#### NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

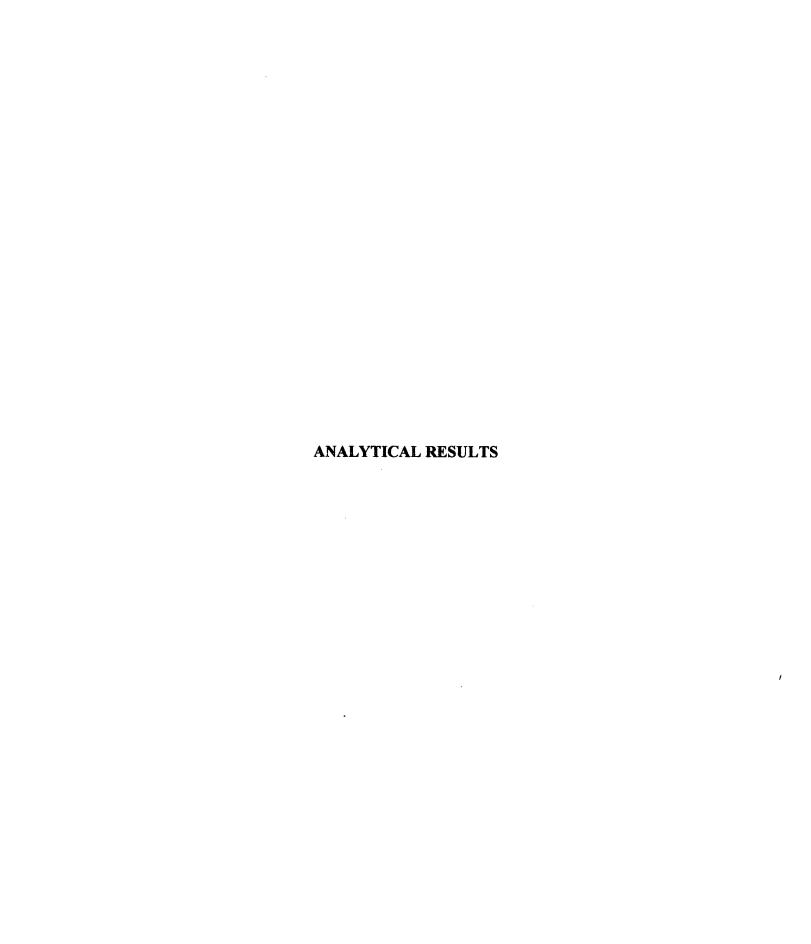
9. LOG OF HOLE
Depth in Fect Thickness C
From To in feet
SB-7, Lea County, New Mexico Color and Type of Material Encountered

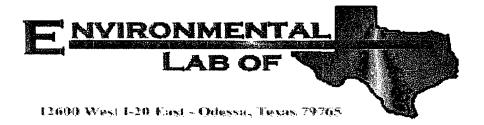
0	20	20	Tan Silty Sand, Caliche
20	31	11	Limestone, Tan Sand, Caliehe
31	42	11	Limestone, Tan Silty Sand
42	49	7	Tan Silty Sand, Limestone Layers
49	60	11	Tan Silty Sand, Limestone Layers
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PH 37			
rue Nu	ımber: _		Trn Number:
			Form: wr-20 page 3 of 4



### NEW MEXICO OFFICE OF THE STATE ENGINEER WELL RECORD

10. ADDITIONAL STATE	MENTS OR EXPLAN	IATIONS:	
· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	
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The undersigned hereby cert	ifies that to the best of	hic knowledge and	<del></del>
belief, the foregoing is a true	and correct record of the	ne above described	
hole.			
	<del> </del>	05/13/2004	
Driller (mm/dd/year)			
FOR STATE ENGINEER U	SE ONLY		
Quad; FWL; F	SL; Use	; Location No	<del></del>
File Number:	Trn Number:		
	Form: wr-	20 page 4 of 4	





### **Analytical Report**

#### **Prepared for:**

Ken Dutton

Allstate Environmental Services, LLC

P.O. Box 11322

Midland, TX 79702

Project: PAA MNT 12
Project Number: [none]
Location: Lea County, NM

Lab Order Number: 4E13005

Report Date: 05/17/04

P.O. Box 11322 Midland TX, 79702 Project: PAA MNT 12

Project Number: [none]
Project Manager: Ken Dutton

Fax: (432) 397-5125

Reported:
05/17/04 13:46

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 5'	4E13005-01	Soil	05/12/04 11:29	05/13/04 15:00
SB-1 15'	4E13005-02	Soil	05/12/04 11:35	05/13/04 15:00
SB-1 20'	4E13005-03	Soil	05/12/04 11:42	05/13/04 15:00
SB-1 25'	4E13005-04	Soil	05/12/04 11:55	05/13/04 15:00
SB-1 35'	4E13005-05	Soil	05/12/04 12:15	05/13/04 15:00
SB-2 20'	4E13005-06	Soil	05/12/04 13:27	05/13/04 15:00
SB-2 35'	4E13005-07	Soil	05/12/04 13:59	05/13/04 15:00
SB-3 5'	4E13005-08	Soil	05/12/04 14:45	05/13/04 15:00
SB-3 35'	4E13005-09	Soil	05/12/04 15:19	05/13/04 15:00
SB-4 5'	4E13005-10	Soil	05/12/04 15:30	05/13/04 15:00
SB-4 35°	4E13005-11	Soil	05/12/04 16:12	05/13/04 15:00
SB-5 25'	4E13005-12	Soil	05/12/04 16:45	05/13/04 15:00
SB-5 59'	4E13005-13	Soil	05/12/04 17:45	05/13/04 15:00
SB-6 5'	4E13005-14	Soil	05/12/04 18:12	05/13/04 15:00
SB-6 20'	4E13005-15	Soil	05/12/04 18:22	05/13/04 15:00
SB-6 59'	4E13005-16	Soil	05/12/04 19:17	05/13/04 15:00
SB-7 5'	4E13005-17	Soil	05/13/04 07:42	05/13/04 15:00
SB-7 35'	4E13005-18	Soil	05/13/04 08:29	05/13/04 15:00
SB-7 60°	4E13005-19	Soil	05/13/04 09:13	05/13/04 15:00
SB-6 25'	4E13005-20	Soil	05/12/04 18:31	05/13/04 15:00

P.O. Box 11322 Midland TX, 79702 Project: PAA MNT 12

Project Number: [none]
Project Manager: Ken Dutton

Fax: (432) 397-5125

Reported: 05/17/04 13:46

# Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 5' (4E13005-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/13/04	EPA 8021B	
Toluene	ND	0.0250	•	ч	Ħ	u	Ħ	Ħ	
Ethylbenzene	0.0252	0.0250	**	W	•	*	n	•	
Xylene (p/m)	0.0846	0.0250	•	н	•		n	**	
Xylene (o)	J [0.0214]	0.0250	n	*		"	n	n	j
Surrogate: a,a,a-Trifluorotoluene		90.0 %	80-1	120	,	*	7	•	
Surrogate: 4-Bromofluorobenzene		93.1 %	80-1	120	n	,	n	•	
Gasoline Range Organics C6-C12	16.5	10.0	mg/kg dry	1	EE41308	05/13/04	05/13/04	EPA 8015M	
Diesei Range Organics >C12-C35	76.5	10.0	н	*			11	Ħ	
Total Hydrocarbon C6-C35	93.0	10.0	Ħ	#	•			н	
Surrogate: 1-Chlorooctane		105 %	70-1	30	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	n	n	, , , , , , , , , , , , , , , , , , , ,	
Surrogate: 1-Chlorovctadecane		120 %	70-	30	,	•	*	n	
SB-1 15' (4E13005-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/13/04	EPA 8021B	
Toluene	ND	0.0250	*	н	u	u	n		
Ethylbenzene	ND	0.0250	4	•	н	u	77	w	
Xylene (p/m)	ND	0.0250	n	**		n	n	n	
Xylene (o)	ND	0.0250	*	•	ч	**	7	**	
Surrogate: a,a,a-Trifluorotoluene		92.8 %	80-1	120	"	,,,,,	,	*	
Surrogate: 4-Bromofluorobenzene		92.5 %	80-1	120	n	•	*	,	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EE41308	05/13/04	n	EPA 8015M	
Diesel Range Organics >C12-C35	J [9.38]	10.0	*			15	*	*	J
Total Hydrocarbon C6-C35	ND	10.0	*	*	W.	a	n	*	
Surrogate: 1-Chlorooctane		107 %	70-1	30	*	,	,	,	
Surrogate: 1-Chlorooctadecane		119 %	70-1	(30		,,	,,	**	

Environmental Lab of Texas

P.O. Box 11322 Midland TX, 79702 Project: PAA MNT 12

Project Number: [none]
Project Manager: Ken Dutton

Fax: (432) 397-5125

Reported: 05/17/04 13:46

### Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method `	Notes
SB-1 20' (4E13005-03) Soil				Distion	Batch	герасы	Allaryzeu	Metrod	NOIES
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/14/04	EPA 8021B	
Toluene	ND	0.0250	"	"	n	u	н	"	
Ethylbenzene	ND	0.0250	#	•		u	**		
Xylene (p/m)	ND	0.0250	,	**	н	"	ti	*	
Xylene (o)	ND	0.0250		"	н	n	*	*	
Surrogate: a,a,a-Trifluorotoluene		99.5 %	80-1	20	я			n	
Surrogate: 4-Bromofluorobenzene		89.4 %	80-1	20	n	,,	*	n	
Gasoline Range Organics C6-C12	J [5.81]	10.0	mg/kg dry	1	EE41308	05/13/04	05/13/04	EPA 8015M	]
Diesel Range Organics >C12-C35	13.6	10.0	**		*		*	Ħ	
Total Hydrocarbon C6-C35	13.6	10.0	•	•	•	*	**	n	
Surrogate: 1-Chlorooctane		93.8 %	70-1	30	ĸ	n	n	и	
Surrogate: I-Chlorooctadecane		100 %	70-1	30	ıı	"	,	n	
SB-1 25' (4E13005-04) Soil									
Benzene	J [0.0148]	0.0250	mg/kg dry	25	EE41305	05/13/04	05/13/04	EPA 8021B	J
Toluene	0.149	0.0250	**		-		•	n	
Ethylbenzene	0.123	0.0250	*	*			#	14	
Xylene (p/m)	9.475	0.0250					7	n	
Xylene (o)	0.116	0.0250	•		*	*	н	**	
Surrogate: a,a,a-Trifluorotoluene		98.9 %	80-1	20		7	п		*
Surrogate: 4-Bromofluorobenzene		99.4 %	80-1	20	*	*	я	п	
Gasoline Range Organics C6-C12	31.0	10.0	mg/kg dry	1	EE41308	05/13/04	05/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	142	10.0	•	*			n	n	
Total Hydrocarbon C6-C35	173	10.0	#	**	u	n	19		
Surrogate: 1-Chlorooctane		96.6 %	70-1	30	"	*	н	"	
Surrogate: 1-Chlorooctadecane		113 %	70-1	30				n	

Environmental Lab of Texas

P.O. Box 11322 Midland TX, 79702 Project: PAA MNT 12

Project Number: [none]
Project Manager: Ken Dutton

Fax: (432) 397-5125

Reported: 05/17/04 13:46

#### Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 35' (4E13005-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/14/04	EPA 8021B	
Toluene	ND	0.0250	e	**	n	н	n	n	
Ethylbenzene	J [0.0220]	0.0250	Ħ	ч		u		*	1
Xylene (p/m)	0.0462	0.0250	n	π	-		"	**	
Xylene (o)	ND	0.0250	n	*		•	п	w	
Surrogate: a,a,a-Trifluorotoluene		92.5 %	80-	120	п		17	n	
Surrogate: 4-Bromofluorobenzene		90.8 %	80-	120	Ħ	*	,,	W	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EE41308	05/13/04	05/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	14.5	10.0	*	*	*	n	**	n	
Total Hydrocarbon C6-C35	14.5	10.0	**	*		n		п	
Surrogaie: 1-Chlorooctane		94.6 %	70-	130	п	,	n		
Surrogate: 1-Chlorooctadecane		110 %	70-	130	,,		n	*	
SB-2 20' (4E13005-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/13/04	EPA 8021B	
Toluene	ND	0.0250	*	*	**	n	**	•	
Ethylbenzene	ND	0.0250	*	4			•	•	
Xylene (p/m)	ND	0.0250	#	4	"	*	,	•	
Xylene (o)	ND	0.0250	Ħ	*	н	u	ss .	*	
Surrogate: a,a,a-Trifluorotoluene		90.7 %	80-	120	"	,,	Ħ	n	
Surrogate: 4-Bromofluorobenzene		94.0 %	80-	120	"	*	*	*	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EE41308	05/13/04	05/14/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	•	п	n	**	n	Ħ	
Total Hydrocarbon C6-C35	ND	10.0	•	ч	"	u	n	m	
Surrogate: 1-Chlorooctane		127%	70-	130	n	,	п	n	
Surrogate: 1-Chlorooctadecane		129 %	70-	130	•	*		<i>m</i>	

Environmental Lab of Texas

P.O. Box 11322 Midland TX, 79702 Project: PAA MNT 12

Project Number: [none]
Project Manager: Ken Dutton

Fax: (432) 397-5125

**Reported:** 05/17/04 13:46

# Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	P311	D	D d	A 1	3.6-dJ	27
	Result	Link	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2 35' (4E13005-07) Soil							·		
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/13/04	EPA 8021B	
Toluene	ND	0.0250	n	4	n	u	n	п	
Ethylbenzene	ND	0.0250	*	•		u	*		
Xylene (p/m)	ND	0.0250	n	ч	u	"	15	**	
Xylene (o)	ND	0.0250	ir.	•	u	*	*	**	
Surrogate: a,a,a-Trifluorotoluene		92.9 %	80-1	20	7	n	7	<b>39</b>	
Surrogate: 4-Bromofluorobenzene		90.3 %	80-1	20	P	n	*	**	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EE41308	05/13/04	05/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	n	**	11		n		
Total Hydrocarbon C6-C35	ND	10.0	н	•			Ħ	**	
Surrogate: 1-Chlorooctane		97.4 %	70-1	30	n	,,	п	n	
Surrogate: 1-Chlorooctadecane		113 %	70-1	30	n	,,	н	n	
SB-3 5' (4E13005-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/13/04	EPA 8021B	
Toluene	J [0.0155]	0.0250	*	•		*	•	н	J
Ethylbenzene	J [0.0244]	0.0250	*	*			•	ņ	j
Xylene (p/m)	0.0863	0.0250	Ħ	**	<b>a</b>	•	11	n	
Xylene (o)	J [0.0223]	0.0250	P			u	*	n	J
Surrogate: a,a,a-Trifluorotoluene		91.6%	80-1	20	,,	*	,	"	
Surrogate: 4-Bromofluorobenzene	•	91.9 %	80-1	20	#	•		n	
Gasoline Range Organics C6-C12	25.0	10.0	mg/kg dry	1	EE41308	05/13/04	05/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	278	10.0	**	**	• .	*	π	•	
Total Hydrocarbon C6-C35	303	10.0	Ħ		*	,	*	*	
Surrogate: 1-Chlorooctane		103 %	70-1	30	,,	*	,	,	
Surrogate: 1-Chlorooctadecane		116%	70-1	30		*	M	#	

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Project Number: [none]
Project Manager: Ken Dutton

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# Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3 35' (4E13005-09) Soil	<del></del>	·····		Direction		Trepared	7111119220	Wethou	
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/14/04	EPA 8021B	
Toluene	ND	0.0250	*	*	**	n	**		
Ethylbenzene	ND	0.0250	<b>#</b> .	•		**	**	w	
Xylene (p/m)	ND	0.0250	**	71		**	n	**	
Xylene (o)	ND	0.0250	Ħ	4		tt	n	*	
Surrogate: a,a,a-Trifluorotoluene		93.0 %	80-	120	"	<i>n</i>	п	7	
Surrogate: 4-Bromofluorobenzene		95.2 %	80-1	120	"	•	*	**	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EE41308	05/13/04	05/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	J [7.40]	10.0	**	•	•	*		**	J
Total Hydrocarbon C6-C35	ND	10.0	*	**	•	u	*	**	,
Surrogate: 1-Chlorooctane		102 %	70-1	130	"	#	Ħ	<b>"</b>	•
Surrogate: 1-Chlorooctadecane		114%	70-	130	"	,,	•	•	
SB-4 5' (4E13005-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/14/04	EPA 8021B	
Toluene	0.0394	0.0250	н	**			*	π	
Ethylbenzene	0.100	0.0250	**	*	*	*	*	#	
Xylene (p/m)	0.347	0.0250	**	н			•	#	
Xylene (o)	0.0795	0.0250	n	**			п	त्त	
Surrogate: a,a,a-Trifluorotoluene		100 %	80-1	120	n	"	п	n	
Surrogate: 4-Bromofluorobenzene		91.0%	80-	120	*	•	n	,,	
Gasoline Range Organics C6-C12	46.5	10.0	mg/kg dry	1	EE41308	05/13/04	05/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	196	10.0	**	•		•	₩	w	
Total Hydrocarbon C6-C35	243	10.0		"	•	•	#	*	
Surrogate: 1-Chlorooctane		109 %	70-1	130	п		н	п	
Surrogate: 1-Chlorooctadecane		117%	70-1	130		"	*	•	

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Project Manager: Ken Dutton

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### Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-4 35' (4E13005-11) Soil	······································								
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/14/04	EPA 8021B	
Toluene	ND	0.0250	n	*		u	n	#	
Ethylbenzene	ND	0.0250	**	•	н	u	*	*	
Xylene (p/m)	ND	0.0250	*	n	**	n	n	*	
Xylene (o)	ND	0.0250	*	41	4	u	•	•	
Surrogate: a,a,a-Trifluorotoluene		89.1 %	80-2	120	"	n	"	η	
Surrogate: 4-Bromofluorobenzene		94.3 %	80-1	120	,	#		*	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	t	EE41308	05/13/04	05/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	15.1	10.0	*	*	•	*	•	n	
Total Hydrocarbon C6-C35	15.1	10.0	Ħ	н	•	Ħ		n	
Surrogate: 1-Chlorooctane		102 %	70-130		*	,	11	"	
Surrogate: 1-Chlorooctadecane		118 %	70-j	130	n	n	п	n	
SB-5 25' (4E13005-12) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/14/04	EPA 8021B	
Toluene	ND	0.0250	"	*	n	u	n		
Ethylbenzene	J [0.0126]	0.0250	*	**	*	•	*	11	j
Xylene (p/m)	ND	0.0250	tr	n			,	Ħ	
Xylene (o)	ND	0.0250	R	ч	"	"	n		
Surrogate: a,a,a-Trifluorotoluene		98.3 %	80-	120	'n	и	п	<b>"</b>	
Surrogate: 4-Bromofluorobenzene		94.4 %	80-1	120	"	n	n	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EE41308	05/13/04	05/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	J [9.34]	10.0	п	"			n	n	J
Total Hydrocarbon C6-C35	J [9.34]	10.0	**	•			n	Ħ	1
Surrogate: 1-Chlorooctane		99.6 %	70-1	30	"	,,	п	,	
Surrogate: 1-Chlorooctadecane		114 %	70-1	130	n	n	n	n	

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# Organics by GC Environmental Lab of Texas

Analyte _	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-5 59' (4E13005-13) Soil			***				•		
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/14/04	EPA 8021B	
Toluene	ND	0.0250	,,	4	H	n	n	10	
Ethylbenzene	ND	0.0250	*	*	n		*	**	
Xylene (p/m)	ND	0.0250	**	•	и	"	п		
Xylene (o)	ND	0.0250	•	•	n	,,	*	*	
Surrogate: a,a,a-Trifluorotoluene		87.5 %	80-1	20	"	,		77	
Surrogate: 4-Bromofluorobenzene		88.1 %	80-1	20	,,	*	*	,	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EE41308	05/13/04	05/14/04	EPA 8015M	
Diesel Range Organics >C12-C35	10.6	10.0	. *	•	•	*	•	*	
Total Hydrocarbon C6-C35	10.6	10.0	н		•		n	w	
Surrogate: 1-Chlorovctane		98.2 %	70-130		7	n	u	п	
Surrogate: 1-Chlorooctadecane		106 %	70-1	30	#	n	"	n	
SB-6 5' (4E13005-14) Seil									
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/14/04	EPA 8021B	
Toluene	0.0263	0.0250	n	**			п	**	
Ethylbenzene	0.0614	0.0250	*	н	•	N		**	
Xylene (p/m)	0.217	0.0250	*		•	n	*	*	
Xylene (o)	0.0677	0.0250	n	*	•		n	W	
Surrogate: a,a,a-Trifluorotoluene		88.2 %	80-1	20	"	n	я	n	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Surrogate: 4-Bromofluorobenzene		95.0 %	80-1	20	n	,,	n	n	
Gasoline Range Organics C6-C12	30.9	10.0	mg/kg dry	1	EE41308	05/13/04	05/14/04	EPA 8015M	
Diesel Range Organics >C12-C35	151	10.0		•	•	*	,	71	
Total Hydrocarbon C6-C35	182	10.0					•	**	
Surrogate: 1-Chlorooctane		108 %	70-1	30	,	,	*	n	
Surrogate: 1-Chlorovctadecane		116%	70-1	30	n	,,	н	,,	

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# Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-6 20' (4E13005-15) Soil				<del>,</del>					
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/14/04	EPA 8021B	
Toluene	ND	0.0250	Ħ	*	n	11	**	er .	
Ethylbenzene	J [0.0206]	0.0250	п	н	•		•	*	j
Xylene (p/m)	0.0521	0.0250	*	н	н	*	n	Ħ	
Xylene (o)	ND	0.0250	•	"	*	u	**	**	
Surrogate: a,a,a-Trifluorotoluene		92.7 %	80-1	20	ts.	,	7	77	
Surrogate: 4-Bromofluorobenzene		97.4 %	80-1	20	**	•	•	*	
Gasoline Range Organics C6-C12	15.7	10.0	mg/kg dry	i	EE41308	05/13/04	05/14/04	EPA 8015M	
Diesel Range Organics >C12-C35	90.0	10.0	+	"	•	*	11	н	
Total Hydrocarbon C6-C35	106	10.0	*	*			n	n	
Surrogate: 1-Chlorooctane		104 %	70-1	30	,		,	,	
Surrogate: 1-Chlorooctadecane		114 %	70-1	130	n	"	"	n	
SB-6 59' (4E13005-16) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EE41305	05/13/04	05/14/04	EPA 8021B	
Toluene	ND	0.0250	*	41	н	u	**	*	
Ethylbenzene	ND	0.0250	*	*	н	**			
Xylene (p/m)	ND	0.0250	**	4	н	и	**		
Xylene (o)	ND	0.0250	Ħ	"	н	и	н	*	
Surrogate: a,a,a-Trifluorotoluene		91.8 %	80-1	20	,,	,,	n	n	
Surrogate: 4-Bromofluorobenzene		94.2 %	80-1	20	"	•	•		
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EE41308	05/13/04	05/14/04	EPA 8015M	
Diesel Range Organics >C12-C35	J [9.76]	10.0	**	•		•	71	n	J
Total Hydrocarbon C6-C35	ND	10.0	Ħ	*	**	*	n	*	
Surrogate: 1-Chlorooctane		98.0 %	70-1	30	п	"	"	,	
Surrogate: 1-Chlorooctadecane		106 %	70-1	30					

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# Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-7 5' (4E13005-17) Soil				<del></del>			· · · · · · · · · · · · · · · · · · ·		
Benzene	ND	0.0250	mg/kg dry	25	EE41401	05/13/04	05/14/04	EPA 8021B	
Toluene	ND	0.0250	п	*	п	a	n	Ħ	
Ethylbenzene	ND	0.0250	ır	4	"	и	*	**	
Xylene (p/m)	ND	0.0250	#	ч	а	n	15	ri	
Xylene (o)	ND	0.0250		н		11	н	**	
Surrogate: a,a,a-Trifluorotoluene		91.5 %	80-1	20	,	,,		7	
Surrogate: 4-Bromofluorobenzene		90.6 %	80-1	20		•	*	Ħ	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	ı	EE41308	05/13/04	05/14/04	EPA 8015M	
Diesel Range Organics >C12-C35	12.4	10.0	*	*		**	*	n	
Total Hydrocarbon C6-C35	12.4	10.0	#	*	*	•	•	*	
Surrogate: I-Chlorooctane		89.6 %	70-1	30	,	,	ж	7	
Surrogate: 1-Chlorooctadecane		99.4 %	70-1	30	n	#	п	n	
SB-7 35' (4E13005-18) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EE41401	05/13/04	05/14/04	EPA 8021B	
Toluene	J [0.0128]	0.0250	n	w		*	•	#	J
Ethylbenzene	0.0337	0.0250		•	•		n	Ħ	
Xylene (p/m)	0.0950	0.0250	*	•		**	n	11	
Xylene (o)	0.0281	0.0250		*		•	*	n	
Surrogate: a,a,a-Trifluorotoluene		95.1 %	80-1	20	n	,	п	,	
Surrogate: 4-Bromofluorobenzene		94.6 %	80-1	20	п	<b>n</b>	π	n	
Gasoline Range Organics C6-C12	J [7.09]	10.0	mg/kg dry	1	EE41308	05/13/04	05/14/04	EPA 8015M	J
Diesel Range Organics >C12-C35	42.8	10.0	•	*	н	n	*	*	
Total Hydrocarbon C6-C35	42.8	10.0	**	Ħ			н	n	
Surrogate: 1-Chloroociane		94.4 %	70-1	30	"	,	*	"	
Surrogate: 1-Chlorooctadecane		108 %	70-1	30	**		"		

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### Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-7 60' (4E13005-19) Soil								-	
Benzene	ND	0.0250	mg/kg dry	25	EE41401	05/13/04	05/14/04	EPA 8021B	
Toluene	ND	0.0250	Ħ	н		**	и	•	
Ethylbenzene	ND	0.0250		4			*	**	
Xylene (p/m)	ND	0.0250	π	**	н	u	и	п	
Xylene (o)	ND	0.0250	n	*	u	u	*	*	
Surrogate: 4,a,a-Trifluorotoluene		82.9 %	80-1	20	"	, ,,	п	n	
Surrogate: 4-Bromofluorobenzene		83.7%	80-1	20	,	•	"	n	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EE41308	05/13/04	05/14/04	EPA 8015M	
Diesel Range Organics >C12-C35	J [7.52]	10.0	**	*				ņ	J
Total Hydrocarbon C6-C35	ND	10.0	**	•		u	•	•	
Surrogate: 1-Chlorooctane		102 %	70-1	30	п	,	,	W	
Surrogate: I-Chlorooctadecane			70-1	30	n	•	*	n	
SB-6 25' (4E13005-20) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EE41401	05/13/04	05/14/04	EPA 8021B	
Toluene	J [0.0243]	0.0250	•		•	4	10	11	J
Ethylbenzene	0.0817	0.0250	*	•		•	**	*	
Xylene (p/m)	0.285	0.0250	*	*		**	n	"	
Xylene (o)	0.0883	0.0250	π-			u	п	•	
Surrogate: a,a,a-Trifluorotoluene		81.7%	80-1	20	u u	p	H	n	
Surrogate: 4-Bromofluorobenzene		90.0 %	80-1	20	#	,	,	n	
Gasoline Range Organics C6-C12	38.4	10.0	mg/kg dry	1	EE41308	05/13/04	05/14/04	EPA 8015M	
Diesel Range Organics >C12-C35	126	10.0	H	*		п	•	*	
Total Hydrocarbon C6-C35	164	10.0		*	*	H	•	-	
Surrogate: 1-Chlorooctane		102 %	70-1	30	,	"	п	77	
Surrogate: 1-Chlorooctadecane		113%	70-1	30	,,	,,	n	•	

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1 5' (4E13005-01) Soil									
% Solids	97.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-1 15' (4E13005-02) Soil								···· · · · · · · · · · · · · · · · · ·	
% Solids	95.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-1 20' (4E13005-03) Soil									
% Solids	94.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-1 25' (4E13005-04) Soil				·					
% Solids	99.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-1 35' (4E13005-05) Soil									
% Solids	99.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-2 20' (4E13005-06) Soil									
% Solids	96.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-2 35' (4E13005-07) Soil									
% Solids	99.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-3 5' (4E13005-08) Soil									
% Solids	96.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-3 35' (4E13005-09) Soil									
% Solids	98.0		%	i	EE41402	05/13/04	05/14/04	% calculation	

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Donner	Analyzed	Method	Mater
SB-4 5' (4E13005-10) Soil	Nesun	Dinte	Onna	THIRDON	Baich	Prepared	Anaiyzed	Metriod	Notes
% Solids	95.0		%	· · · · · · · · · · · · · · · · · · ·	EE41402	05/13/04	05/14/04	% calculation	
70 COINGS	25.0		,,	'	EE41402	03/13/04	03/14/04	7,0000000000000000000000000000000000000	
SB-4 35' (4E13005-11) Soil	· · · · · · · · · · · · · · · · · · ·		·. ···· · · - ·				<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		
% Solids	97.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-5 25' (4E13005-12) Soil									
% Solids	96.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-5 59' (4E13005-13) Soil									
% Solids	91.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-6 5' (4E13005-14) Seil									
% Solids	94.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-6 20' (4E13005-15) Soil									
% Solids	96.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-6 59' (4E13005-16) Soil									
% Solids	87.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-7 5' (4E13005-17) Soil									
% Solids	95.0	***	%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-7 35' (4E13005-18) Soil		•							
% Solids	99.0		%	1	EE41402	05/13/04	05/14/04	% calculation	

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### General Chemistry Parameters by EPA / Standard Methods

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-7 60' (4E13005-19) Soil									
% Solids	90.0		%	1	EE41402	05/13/04	05/14/04	% calculation	
SB-6 25' (4E13005-20) Soil							•		
% Solids	98.0		%	1	EE41402	05/13/04	05/14/04	% calculation	· · · · · · · · · · · · · · · · · · ·

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Project Number: [none]
Project Manager: Ken Dutton

Fax: (432) 397-5125

Reported: 05/17/04 13:46

#### 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 EE41305 - EPA 5030C (GC)								•		
Blank (EE41305-BLK1)				Prepared &	Analyzed:	05/13/04				
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	*							
Ethylbenzene	ND	0.00100	4							
Xylene (p/m)	ND	0.00100	**							
Xylene (o)	ND	0.00100	•							
Surrogate: a,a,a-Triftuorotoluene	105		ug/kg	100		105	80-120			****
Surrogate: 4-Bromofluorobenzene	81.3		"	100		81.3	80-120			
LCS (EE413 <del>05-</del> BS1)				Prepared &	Analyzed:	05/13/04				
Benzene	102		ug/kg	100		102	80-120			
Toluene	96.3			100		96.3	80-120			
Ethylbenzene	94.9			100	•	94.9	80-120			
Xylene (p/m)	183			200		91.5	80-120			
Xylene (o)	90.8		*	100		90.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	105		п	100		105	80-120			
Surrogate: 4-Bromofluorobenzene	84.6		H	100		84.6	80-120			
Calibration Check (EE41305-CCV1)				Prepared; 0	5/13/04 A	nalyzed: 05	5/14/04			
Henzene	101		ug/kg	100		101	80-120			
Toluene	98.8		п	100		98.8	80-120			
Ethylbenzene	96.5		•	100		96.5	80-120			
Xylene (p/m)	190		*	200		95.0	80-120			
Xylenc (o)	96.6		*	100		96.6	80-120			
Surrogate: a,a,a-Triftuorotoluene	93.8		×	100		93.8	80-120			
Surrogate: 4-Bromofluorobenzene	93.5		u	100		93.5	80-120			
Matrix Spike (EE41305-MS1)	Son	rce: 4E13005	i-05	Prepared: 0	5/13/04 A	nalyzed: 05	5/14/04			
Benzene	2510		ug/kg	2500	ND	100	80-120			
Toluene	2440		*	2500	ND	97.6	80-120			
Ethylbenzene	2440		•	2500	21.8	96.7	80-120			
Xylene (p/m)	4790		*	5000	45.7	94.9	80-120			
Xylene (o)	2370		#	2500	ND	94.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	100		11	100		100	80-120			
Surrogate: 4-Bromofluorobenzene	99.2		ir	100		99.2	80-120			

Environmental Lab of Texas

P.O. Box 11322 Midland TX, 79702 Project: PAA MNT 12

Project Number: [none]
Project Manager: Ken Dutton

Fax: (432) 397-5125

**Reported:** 05/17/04 13:46

#### 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 EE41305 - EPA 5030C (GC)					· · · · <del>-</del> · · · · · · · · · · · · · · · · · · ·					
Matrix Spike Dup (EE41305-MSD1)	Sour	ce: 4E13005	<b>-05</b>	Prepared: (	05/13/04 A	nalyzed: 05	/14/04			
Benzene	2440		ug/kg	2500	ND	97.6	80-120	2.43	20	
Toluene	2410		•	2500	ND	96.4	80-120	1.24	20	
Ethylbenzene	2410		•	2500	21.8	95.5	80-120	1.25	20	
Xylene (p/m)	4740			5000	45.7	93.9	80-120	1.06	20	
Xylene (o)	2320		•	2500	ND	92.8	80-120	2.13	20	
Surrogate: a,a,a-Trifluorotoluene	91.0		H	100		91.0	80-120			
Surrogate: 4-Bromoftuorobenzene	89.0		B	100		89.0	80-120			
Batch EE41308 - Solvent Extraction (GC)										
Blank (EE41308-BLK1)					Analyzed:	05/13/04				
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wei							
Diesel Range Organics >C12-C35	ND	10.0								
Total Hydrocarbon C6-C35	ND	10.0	•							
Surrogate: 1-Chlorooctane	36.9		mg/kg	50.0		73.8	70-130		· · · · · · · · · · · · · · · · · · ·	
Surrogate: 1-Chlorooctadecane	43.4		<b>A</b>	50.0		86.8	70-130			
LCS (EE41308-BS1)	•			Prepared &	Analyzed:	05/13/04				
Gasoline Range Organics C6-C12	424	10.0	mg/kg wet	500		84.8	75-125			
Diesel Range Organics >C12-C35	513	10.0		500		103	75-125			
Total Hydrocarbon C6-C35	937	0.01	•	1000		93.7	75-125			
Surrogate: 1-Chloroociane	52.6		mg/kg	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane	44.2		*	50.0		88.4	70-130			
Calibration Check (EE41308-CCV1)	;				Prepared & Analyzed: 05/13/04					
Gasoline Range Organics C6-C12	463		mg/kg	500		92.6	80-120			
Diesel Range Organics >C12-C35	528		*	500		106	80-120			
Total Hydrocarbon C6-C35	991			1000		99.1	80-120			
Surrogate: 1-Chlorooctane	52.6		-	50.0		105	70-130		<del></del>	
Surrogate: 1-Chlorooctadecane	54.6		<b>u</b>	50.0		109	70-130			

Environmental Lab of Texas

P.O. Box 11322 Midland TX, 79702 Project: PAA MNT 12

Project Number: [none]
Project Manager: Ken Dutton

Fax: (432) 397-5125

**Reported:** 05/17/04 13:46

#### 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 EE41308 - Solvent Extraction (GC)												
Matrix Spike (EE41308-MS1)	Sour	ce: 4E13005	<b>-07</b>	Prepared &	: Analyzed:	05/13/04						
Gasoline Range Organies C6-C12	499	10.0	mg/kg dry	505	ND	98.8	75-125					
Diesel Range Organics >C12-C35	561	10.0		505	ND	111	75-125					
Total Hydrocarbon C6-C35	1060	10.0	•	1010	ND	105	75-125					
Surrogate: 1-Chlorooctane	53.3		mg/kg	50.0		107	70-130		· · · · · · · · · · · · · · · · · · ·			
Surrogate: 1-Chlorooctadecane	56.2		*	50.0		112	70-130					
Matrix Spike Dup (EE41308-MSD1)	Sour	ce: 4E13005	<b>-07</b>	Prepared &	Analyzed:	05/13/04						
Gasoline Range Organics C6-C12	507	10.0	mg/kg dry	505	ND	100	75-125	1.59	20			
Diesel Range Organics >C12-C35	579	10.0		505	ND	115	75-125	3.16	20			
Total Hydrocarbon C6-C35	1090	10.0	•	1010	ND	108	75-125	2.79	20			
Surrogate: 1-Chlorooctane	53.4		mg/kg	50.0		107	70-130					
Surrogate: 1-Chlorooctadecane	55.4			50.0		1111	70-130					
Batch EE41401 - EPA 5030C (GC)												
Blank (EE41401-BLK1)				Prepared: 05/13/04 Analyzed: 05/14/04								
Benzene	ND	0.0250	mg/kg wet									
Toluene	ND	0.0250	*									
Ethylbenzene	ND	0.0250	•									
Xylene (p/m)	ND	0.0250	•									
Xylene (o)	ND	0.0250										
Surrogate: a,a,a-Trifluorotoluene	86.9		ug/kg	100		86.9	80-120					
Surrogate: 4-Bromofluorobenzene	88.9		n	100		88.9	80-120					
LCS (EE41401-BS1)				Prepared: 0	05/13/04 A	nalyzed: 05	/14/04					
Benzene	90.3		ug/kg	100		90.3	80-120					
Toluene	88.7			100		88.7	80-120					
Ethylbenzene	88.2		**	100		88.2	80-120					
Xylene (p/m)	173			200		86.5	80-120					
Xylene (o)	87.7			100		87.7	80-120					
Surrogate: a,a,a-Trifluorotoluene	83.2	• • • • • • •	n	100		83.2	80-120					
Surrogate: 4-Bromofluorobenzene	90.8			100		90.8	80-120					

Environmental Lab of Texas

P.O. Box 11322 Midland TX, 79702 Project: PAA MNT 12

Project Number: [none]
Project Manager: Ken Dutton

Fax: (432) 397-5125

Reported: 05/17/04 13:46

#### 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 EE41401 - EPA 5030C (GC)										
Calibration Check (EE41401-CCV1)				Prepared: (	05/13/04 A	nalyzed: 05	/14/04			
Benzene	101		ug/kg	100		101	80-120			
Toluene	98.8		•	100		98.8	80-120			
Ethylbenzene	96.5		•	100		96.5	80-120			
Xylene (p/m)	190		•	200		95.0	80-120			
Xylene (o)	96.6		•.	100		96.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	93.8			100		93.8	80-120			
Surrogate: 4-Bromosluorobenzene	93.5		H	100		93.5	80-120			
Matrix Spike (EE41401-MS1)	<del> </del>			Prepared: (	05/13/04 A	nalyzed: 05	/14/04			
Berizene	2410		ug/kg	2500	ND	96.4	80-120			
Toluene	2390			2500	12.7	<b>9</b> 5.1	80-120			
Ethylbenzene	2430		-	2500	33.4	95.9	80-120			
Xylene (p/m)	4810		*	5000	94.0	94.3	80-120			
Xylene (o)	2410			2500	27.8	95.3	80-120			
Surrogate: a,a,a-Trifluorotolvene	86.8		×	100		86.8	80-120			
Surrogate: 4-Bromofluorobenzene	99.5		,	100		99.5	80-120			
Matrix Spike Dup (EE41401-MSD1)	Sour	rce: 4E13005-	18	Prepared: (	05/13/04 A	nalyzed: 05	/14/04			
Benzene	2450		ug/kg	2500	ND	98.0	80-120	1.65	20	
Toluene	2410		-	2500	12.7	95.9	80-120	0.838	20	
Ethylbenzene	2420			2500	33.4	95.5	80-120	0.418	20	
Xylene (p/m)	4780		-	5000	94.0	93.7	80-120	0.638	20	
Xylene (o)	2380		*	2500	27.8	94.1	80-120	1.27	20	
Surrogate: a,a,a-Trifluorotoluene	97.8		н	100		97.8	80-120			
Surrogate: 4-Bromofluorobenzene	101		н	100		101	80-120			

Environmental Lab of Texas

Project: PAA MNT 12

Fax: (432) 397-5125

P.O. Box 11322

Reported: 05/17/04 13:46

Midland TX, 79702

Project Number: [none]
Project Manager: Ken Dutton

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 EE41402 - % Solids										
Blank (EE41402-BLK1)				Prepared: 0	05/13/04 A	nalyzed: 05	/14/04			
% Solids	100		%							
Duplicate (EE41402-DUP1)	Sour	Prepared: 0	05/13/04 A	nalyzed: 05	/14/04					
% Solids	97.0		%		97.0			0.00	20	

Environmental Lab of Texas

Allstate Environmental Services, LLC
Project: PAA MNT 12
P.O. Box 11322
Project Number: [none]
Midland TX, 79702
Project Manager: Ken Dutton
Fax: (432) 397-5125
Reported:
05/17/04 13:46

#### **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

Environmental Lab of Texas

### **Environmental Lab of Texas**

12800 West I-20 East Odesse, Texas 79765 Phone: 432-583-1800 Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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### **Environmental Lab of Texas**

12600 West I-20 East Odessa, Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713 CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: KEN DUTTON										Pro	ject	Nam	19:	PA	14	:	MI	YT.	1	2						
Company Name ALLSTATE EN STRONMENTAL SYC Project #:											,,															
Company Address: P. D. BOX 1132										-		p		et La										***************************************		
City/State/Zip: MIDLAND, TX 79	-	ne en e		~	******				***************************************			·	,-							<i>pd</i>	. Z		···········			
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Telephone No: 432-682-3547		Fax No:	4	<u>32</u>		680	<u> </u>	41	82	4.																
Sampler Signature: Ren Dutton	<del></del>			<del></del>		·							<del></del>				*********	Barriera Barriera	-	-						
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WATER WELL REPORT NEW MEXICO OFFICE OF THE STATE ENGINEER

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

Township: 19	S Range: 36E Sec	ctions: 12	
NAD27 X:	Y: Z	Zone: Sear	ch Radius:
County:	Basin:	Number:	Suffix:
Owner Name: (First)	(Last)	€ All	on-Domestic C Domestic
Well / S	urface Data Report	Avg Depth to W	/ater Report
	Water Co	olumn Report	
	Clear Form \	WATERS Menu Help	

#### AVERAGE DEPTH OF WATER REPORT 07/07/2004

								(nebru	water in	reet)
Bsn	Tws	Rng	Sec	Zone	x	Y	Wells	Min	Max	Avg
L	19S	36E	12				2	40	40	40

Record Count: 2