PRELIMINARY SITE INVESTIGATION REPORT
and
REMEDIATION PLAN

PLAINS MARKETING L.P.
SAUNDERS 8" # 1 & 3
EMS No. 2004-00142
Lea County, New Mexico
UNIT L, Section 24, Township 14 South, Range 33 East
33°, 05', 14.9" North, 103°, 34', 31.2" West

Prepared For:

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

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

26 October 2004

Ken Dutton
Basin Environmental Service Technologies, LLC

Plains 34053
Facility ID = fPAC0601949862
Incident = nPAC0601950066

Table of Contents

Tables

Figures

Appendices

INTRODUCTION

Allstate Environmental Services, LLC (AES) responded to a pipeline release for Plains Marketing L.P. (Plains), located on the Saunders 8" Pipeline on 30 July 2004. The Saunders 8" Pipeline was clamped and the impacted soils was excavated and stockpiled on a poly liner. Basin Environmental Service Technologies, LLC (Basin), will perform subsequent remediation of the site at the request of Plains.

This site is located in Unit L, Section 24, Township 14 South, Range 33 East, in Lea County, New Mexico (topographic Site Location Map is attached as Figure 1). The latitude is 33°, 05', 14.9" North, and longitude is 103°, 34', 31.2" West. The site is characterized by a right-of-way for the pipeline in a pasture utilized for cattle grazing. The stained area includes the release point and progresses south following an unimproved road covering an area approximately 160 feet by 54 feet. The stained area following the unimproved road is approximately 1200 feet by 8 feet. Approximately 60 barrels of crude oil were released from the Plains pipeline and approximately 23 barrels were recovered. An additional release (Saunders #3) occurred on 9 August 2004 at the original release point, which resulted in approximately 20 barrels of crude oil released and approximately 14 barrels recovered. The second release was contained in the excavation resulting from the initial release.

An Emergency One-Call was initiated 30 July 2004 and all affected companies either cleared or marked their respective lines. Subsequent renewals of the one-call have been accomplished as required.

Mr. Leon Anderson and Ms. Myra Meyers, New Mexico State Land Office, Hobbs Office, were notified 2 August 2004. A Right of Entry (ROE) permit was verbally approved (2 August 2004) by Mr. Cody Morrow, New Mexico State Land Office, Santa Fe, with appropriate protocols adhered to in obtaining a written ROE. Mr. Paul Sheeley, New Mexico Oil Conservation Division, Hobbs District 1 was verbally notified of the release on 30 July 2004.

The lessee, Mr. Norman Hahn, has been out of state for an extended period of time, however; the ranch foreman, Mr. Kenneth Augustine is aware of the release and subsequent remedial actions taken. Contact with Mr. Hahn was accomplished 13 September 2004. Mr. Hahn was informed of all activities that have been accomplished to date and remedial actions that are being considered.

On 16 August 2004, Plains Pipeline initiated the replacement of approximately 1300 feet of the existing 8" steel pipeline with a 6" poly line completing the replacement on 17 August 2004. The 8" steel pipeline was purged of fluid and removed from the existing Plains right-of-way. After removal from the Plains right-of-way the steel pipeline was cut into 30-foot joints and transported to the Plains Pipeline Lovington, New Mexico yard. The 6" poly line will be placed in the existing Plains right-of-way upon completion of remediation of the impacted soil.

SUMMARY OF FIELD ACTIVITIES

On 30 July 2004, AES employee Bobby Blackwood arrived at the Saunders 8" Pipeline release to repair and contain the crude oil pipeline release. After the release had been contained utilizing a pipeline repair clamp, excavation of the impacted soil was initiated. The impacted soil was placed on a poly liner adjacent to the release.

On 2 August 2004, AES employee Ken Dutton began extended excavation of the impacted area. The release point was excavated to approximately 160 feet long by 54 feet wide and 14 feet below ground surface (bgs). The unimproved road area was excavated to approximately 1200 feet long by 8 feet wide and 2 feet bgs. The south pooling area was excavated to approximately 75 feet long by 90 feet wide and 6 feet bgs. All excavated soil was placed on a poly liner for future remedial action.

On 14 September 2004, Basin employee, Ken Dutton, installed 4 boil borings, utilizing Straub Corporation, of Stanton, Texas, collecting soil samples every 5 feet in order to delineate the horizontal and vertical nature and extent of crude oil impacted soil at the pipeline release (see Site Map, Figure 2). The soil borings were installed at the floor of the excavation, 14 feet bgs, the release point, and continued up gradient and down gradient around the excavation. The soil borings ranged in depth from 70 feet bgs to 79 feet bgs (soil boring logs are attached as Appendix C). Each sample was screened with a Photoionization Detector (PID) calibrated 13 September 2004. The selected soil samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), and total petroleum hydrocarbons – gasoline range organics/diesel range organics (TPH-GRO/DRO).

NEW MEXICO OIL CONSERVATION DIVISION (NMOCD) SOIL CLASSIFICATION

A search of the New Mexico State Engineers database revealed no water depth information for that section; however the adjoining sections had water depth information, which was 100 to 125 feet bgs. There are no surface water bodies or water wells within 1000 feet of the release site. Based on this data, the site has an NMOCD Ranking Score of >19 due to the soil boring installed in the excavation floor, which indicated contamination at less than 50 feet bgs to water depth, and 10 – 19 at the pooling area and unimproved road area, therefore the remediation levels for the release point area, the pooled area and unimproved road area are:

Release Point		Pooled Area and Unimproved Road	
Benzene:	10 ppm	Benzene:	10 ppm
BTEX:	50 ppm	BTEX:	50 ppm
TPH:	100 ppm	TPH:	1000 ppm

Distribution of Hydrocarbons in the Unsaturated Zone (Release Point)

The release point area has been excavated to a depth of approximately 14 feet bgs and evidence of crude oil impact still exist on the floor of the excavation. Photoionization Detector (PID) readings reflect elevated concentrations of Volatile Organic Compounds (VOC) remain. A drill rig was utilized to delineate the vertical and horizontal extent of crude oil impacted soil. Four soil borings were installed consisting of one soil boring on the floor of the excavation (release point) and the remaining three soil borings up and down gradient of the excavation. Soil samples were collected in the subsurface from the soil borings at 5 feet intervals. No visual observations of free phase hydrocarbons were encountered during the installation of the 4 soil borings (as indicated on Appendix C) or excavation of the site. PID field screenings were utilized to determine which soil samples were to be submitted to the laboratory for analysis. Soil samples were analyzed for concentrations of BTEX and TPH. Laboratory data sheets and chain-of-custody forms are attached (Appendix B)

Soil Boring 1, as depicted on the Site Map (Figure 2), was installed on the floor of the excavation at 14 feet bgs. Samples collected at the 10, 20, 30, 40, 50 and 65 feet bgs were analyzed. The true bgs of each sample is determined by adding 14 feet to each soil boring depth due to the installation of the soil boring at 14 feet bgs on the floor of the excavation. Analytical results indicated that BTEX and TPH were above NMOCD regulatory standards at 10, 20, and 30 feet bgs. Analytical results indicated that the soil samples were below NMOCD regulatory standards at 40, 50, and 65 feet bgs for BTEX and TPH.

Soil Boring 2, as depicted on the Site Map (Figure 2), was installed up gradient at the northwest corner of the excavation approximately 5 feet from the excavation edge. Soil samples collected at the 5, 15, 45 and 70 feet bgs were analyzed. Analytical results indicated that BTEX and TPH concentrations were not detected above the laboratory method detection limits for the four soil samples.

Soil Boring 3, as depicted on the Site Map (Figure 2), was installed down gradient at the southwest corner of the excavation approximately 5 feet from the excavation edge. Soil samples collected at the 5, 15, 45 and 70 feet bgs were analyzed. Analytical results indicated that BTEX and TPH concentrations were not detected above the laboratory method detection limits for the four soil samples.

Soil Boring 4, as depicted on the Site Map (Figure 2), was installed cross gradient near the east side of the excavation approximately 5 feet from the excavation edge. Soil samples collected at the 5, 15, 45 and 70 feet bgs were analyzed. Analytical results indicated that BTEX and TPH concentrations were not detected above the laboratory method detection limits for the four soil samples.

Distribution of Hydrocarbons in the Unsaturated Zone (Unimproved Road Area and Pooling Area)

Soil samples were collected on 15 September 2004, from the pooling area and the unimproved road area as depicted on the Site Map (Figure 2). The soil sample collected from the pooling area was at a depth of 6.5 feet bgs. Analytical results indicated that BTEX was below laboratory detection limits and TPH exceeded NMOCD regulatory standards at 2060 mg/kg. The soil samples from the unimproved road were at a depth of 2.5 feet bgs. Analytical results indicated that the BTEX was below laboratory detection limits and the TPH exceeded NMOCD regulatory standards at 7560 mg/kg and 4070 mg/kg. Excavation of these two areas will be necessary to conform to NMOCD regulatory samples. Confirmation soil samples will be collected to determine if NMOCD regulatory samples have been achieved.

RECOMMENDATIONS FOR REMEDIATION

Approximately 6000 cubic yards of impacted soil and caliche rock have been excavated and stockpiled on-site. Approximately 75% of the excavated material consists of caliche rock. Due to the high content of caliche rock, screening of the stockpile is warranted to separate the rock and soil. Upon completion of the screening activities, the caliche rock will be utilized as partial backfill in accordance with standard NMOCD approved practices. The screened soil, estimated to be 1500 cubic yards, will then be stockpiled in bio-mounds of approximately 200 cubic yards. These bio-mounds will be placed on a poly liner and earthen berms will be placed around each individual bio-mound to prevent run-off of impacted soil due to inclement weather. Nutrients will be added during the screening process to enhance the remediation process. Aeration tubing will be installed before the soil is screened to supply the required aeration for enhanced remediation. Approximately 7 bio-mounds will be required to facilitate the 1500 cubic yards. These bio-mounds will be strategically placed around the excavation to limit land damage and the travel distance for backfilling. A header system will be connected to each bio-mound allowing individual aeration of the bio-mound. Initial soil sampling of the bio-mounds will be conducted to document the baseline level of contaminants and the bio-mounds will be aerated on a monthly basis. Soil sampling will be conducted on a monthly basis and once NMOCD regulatory standards, based on the ranking criteria, have been met, the remediated soil will be backfilled in the excavation. Approximately 10 inches to 1 foot of topsoil will be purchased, placed on the top of the backfilled soil and contoured to the original rangeland surrounding the site and reseeded with approved New Mexico State Land Office (NMSLO) grass seed. A closure report will be submitted to NMOCD upon completion of all tasks with appropriate documentation. Additionally, a Site Restoration Plan will be submitted to NMSLO outlining the procedures for restoring the site to pre-release status.

The unimproved road and pooling areas will require further excavation and soil sampling to adhere to NMOCD regulatory standards. The excavated soils will be placed on poly liner and then screened and treated as described above. Field

screening with a PID will be utilized to determine the depth at which soil samples will be collected to adhere to NMOCD regulatory standards.

The release point has been excavated to an approximate depth of 14 feet bgs. Based on the results of the soil boring and sampling activities, it is estimated that 2700 cubic yards of impacted soil and rock are present beneath the floor of the excavation. An extremely hard layer of sandstone was encountered at the 14 feet bgs and further excavation will be difficult and would not be of significant benefit to the site since soil impacts are present to at least 50 feet bgs and a risk-based closure is proposed. The soil borings indicate that deeper crude oil impact was limited to the immediate vicinity of the release point area. Due to the remote area of this location and lack of receptors it is recommended that the following actions be taken.

- Based on the results of the soil delineation investigation, it is recommended that an impermeable 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 barrier. The separated (impacted) soil will be sampled and analyzed for concentrations of TPH and BTEX to determine if NMOCD regulatory standards have been met and be utilized as backfill.

CLOSURE PROPOSAL

The estimated 2700 cubic yards of hydrocarbon impacted soil and rock that remains at the site is represented by approximately thirty feet of impacted soil beneath the excavation floor. It is proposed to isolate the remaining source term with an impermeable barrier constructed of a minimum 40-ml poly liner. The barrier will extend a minimum of four feet beyond the edges of soil impacted above the NMOCD remedial thresholds and will be permanently installed to prevent vertical migration. A 6-inch layer of fine sand will be installed beneath and above the 40-ml poly liner to prevent degrading the integrity of the poly liner. Installation of the 40-ml poly barrier at a depth of approximately 14 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 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 concentrations of 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 exceeding the site-specific cleanup levels will be aerated as previously described.

QA/QC PROCEDURES

Soil Sampling

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

The soil samples were analyzed as follows:

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

Groundwater Sampling

As groundwater 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 chain-of-custody form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

LIMITATIONS

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

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

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

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

DISTRIBUTION

Copy 1:
Jeff Dann
Plains All American
333 Clay Street
Suite 1600
Houston, Texas 77002
jpdann@paalp.com

Copy 2:
Camille Reynolds
Plains All American
214 W. C-61
Hobbs, New Mexico 88240
cjreynolds@paalp.com

Copy 3:
Mr. Larry Johnson
New Mexico Oil Conservation Division
Francis Dr.
Hobbs, New Mexico 88240
LWJohnson@state.nm.us

Copy 4:
New Mexico State Land Office
P. O. Box 1148
Santa Fe, New Mexico 87404-1148
cmorrow@slo.state.nm.us

Copy 5:
Basin Environmental Service Technologies LLC
P. O. Box 301
Lovington, New Mexico 88260
kdutton@basinenv.com

Copy _____

TABLES

TABLE 1

SOIL CHEMISTRY, POOLING AREA, UNIMPROVED ROAD

TABLE 1

SOIL CHEMISTRY, POOLING AREA, UNIMPROVED ROAD

PLAINS MARKETING L.P.
SAUNDERS 8" # 1 & 3
LEA COUNTY, NEW MEXICO
EMS: 2004-00182

SAMPLE LOCATION	SAMPLE DEPTH	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL
			BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)
Pooling Area	6.5'	09/15/04	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	137	1920	2060
North Unimproved Road	2.5'	09/15/04	<0.0250	<0.0250	<0.0250	0.073	0.0534	198	7360	7560
South Unimproved Road	2.5'	09/15/04	<0.0250	0.03	0.0438	0.162	0.0936	90.7	3980	4070

TABLE 2

SOIL CHEMISTRY, SOIL BORINGS

TABLE 2

SOIL CHEMISTRY, SOIL BORINGS

PLAINS MARKETING L.P.
SAUNDERS 8" # 1 & 3
LEA COUNTY, NEW MEXICO
EMS: 2004-00182

SAMPLE LOCATION	SAMPLE DEPTH	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL
			BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)
SB-1*	10' **(24')**	09/14/04	0.316	5.12	3.36	14.8	7.56	2210	7210	9420
SB-1*	20' **(34')**	09/14/04	0.338	5.18	4.97	16.4	8.54	3050	8690	11700
SB-1*	30' **(44')**	09/14/04	0.135	2.60	2.95	10.9	5.47	2170	7370	9540
SB-1*	40' **(54')**	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	815	815
SB-1*	50' **(64')**	09/14/04	<0.025	<0.025	<0.025	0.050	<0.025	19.7	250	270
SB-1*	65' **(79')**	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	19.1	19.1
SB-2	5'	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-2	15'	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-2	45'	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-2	70'	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-3	5'	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-3	15'	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-3	45'	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-3	70'	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-4	5'	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-4	15'	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-4	45'	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-4	70'	09/14/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10

NOTE: * Soil Boring was installed on excavation floor, 14' bgs, bold number indicates true bgs from surface

TABLE 3
SOIL CHEMISTRY, EXCAVATED AREA

TABLE 3

SOIL CHEMISTRY

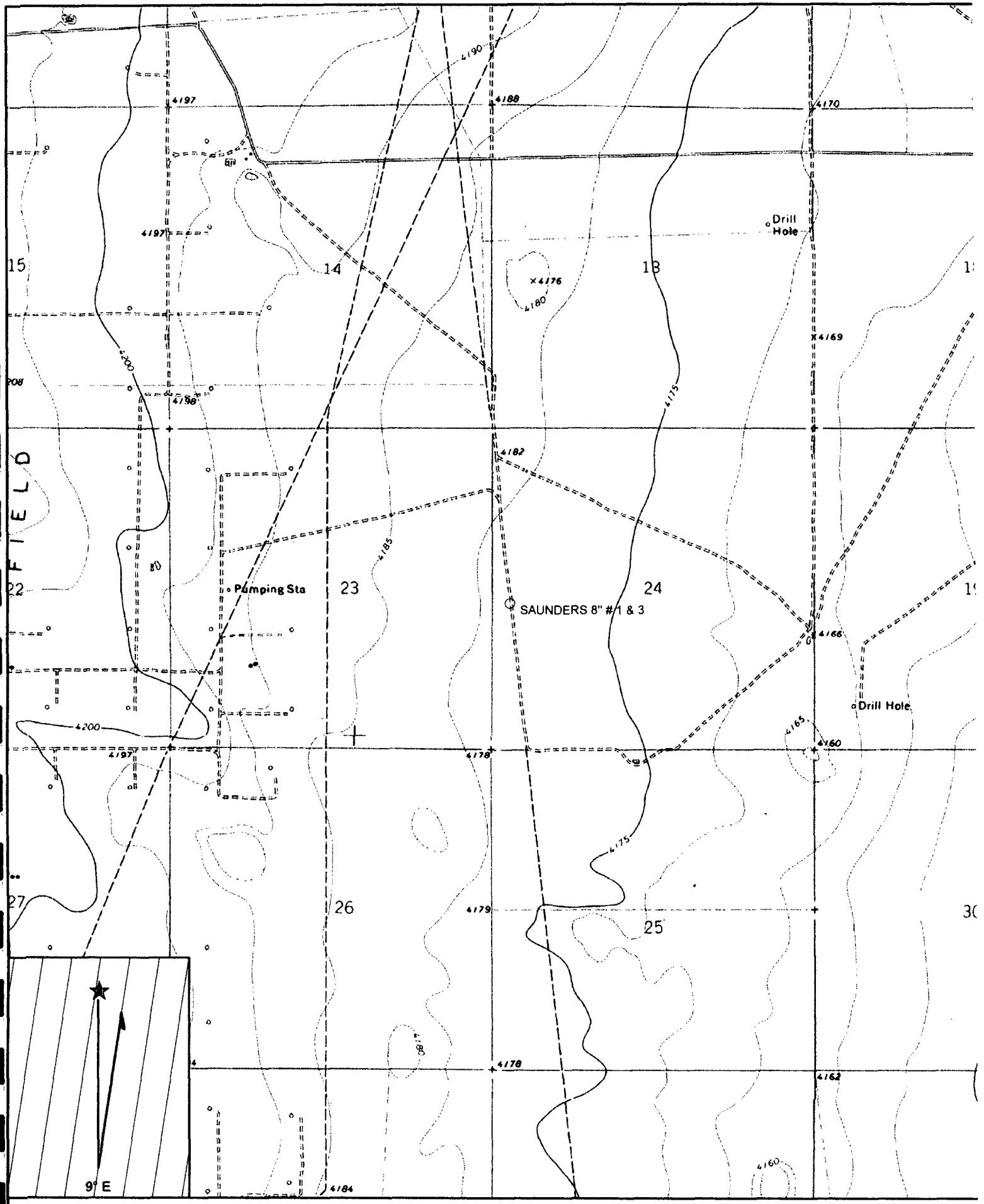
PLAINS MARKETING L.P.
SAUNDERS 8" # 1 & 3
LEA COUNTY, NEW MEXICO
EMS: 2004-00182

SAMPLE LOCATION	SAMPLE DEPTH	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL
			BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)
North Ramp-Exc	7'	11/04/04	<0.025	0.164	0.128	0.399	0.162	42.5	588	680
South Ramp-Exc	7'	11/04/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	14.7	14.7
Exc Floor-East	14'	11/04/04	1.02	16.1	11.6	41.9	18.0	3770	12200	16000
Exc Floor-West	14'	11/04/04	0.186	2.34	2.15	11.6	5.75	344	1630	1970

FIGURES

FIGURE 1

SITE LOCATION MAP

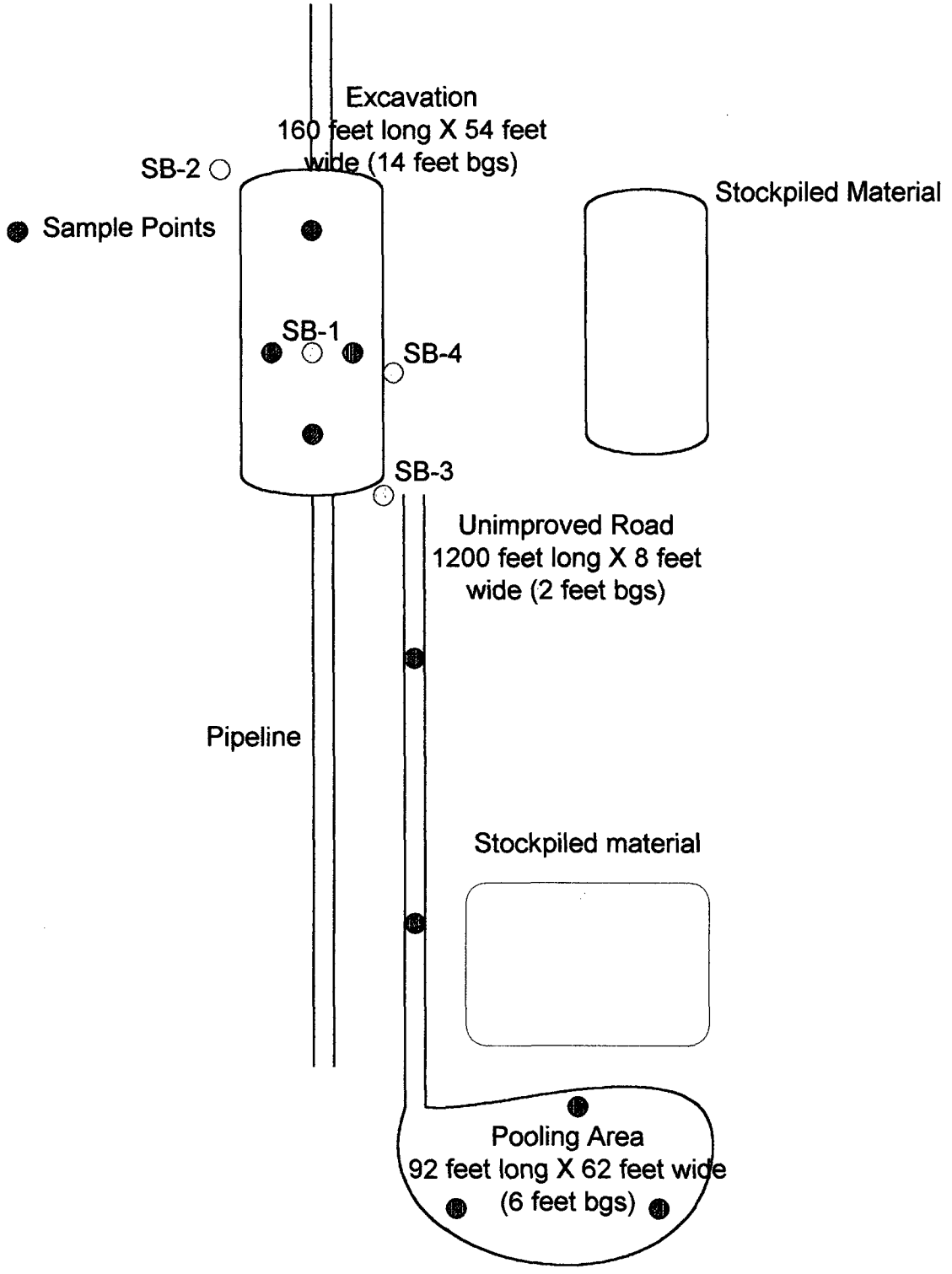


Name: FORT RANCH
Date: 10/31/2004
Scale: 1 inch equals 2000 feet

Location: 033° 05' 21.42" N 103° 34' 30.63" W
Caption: Saunders 8" # 1.3

FIGURE 2

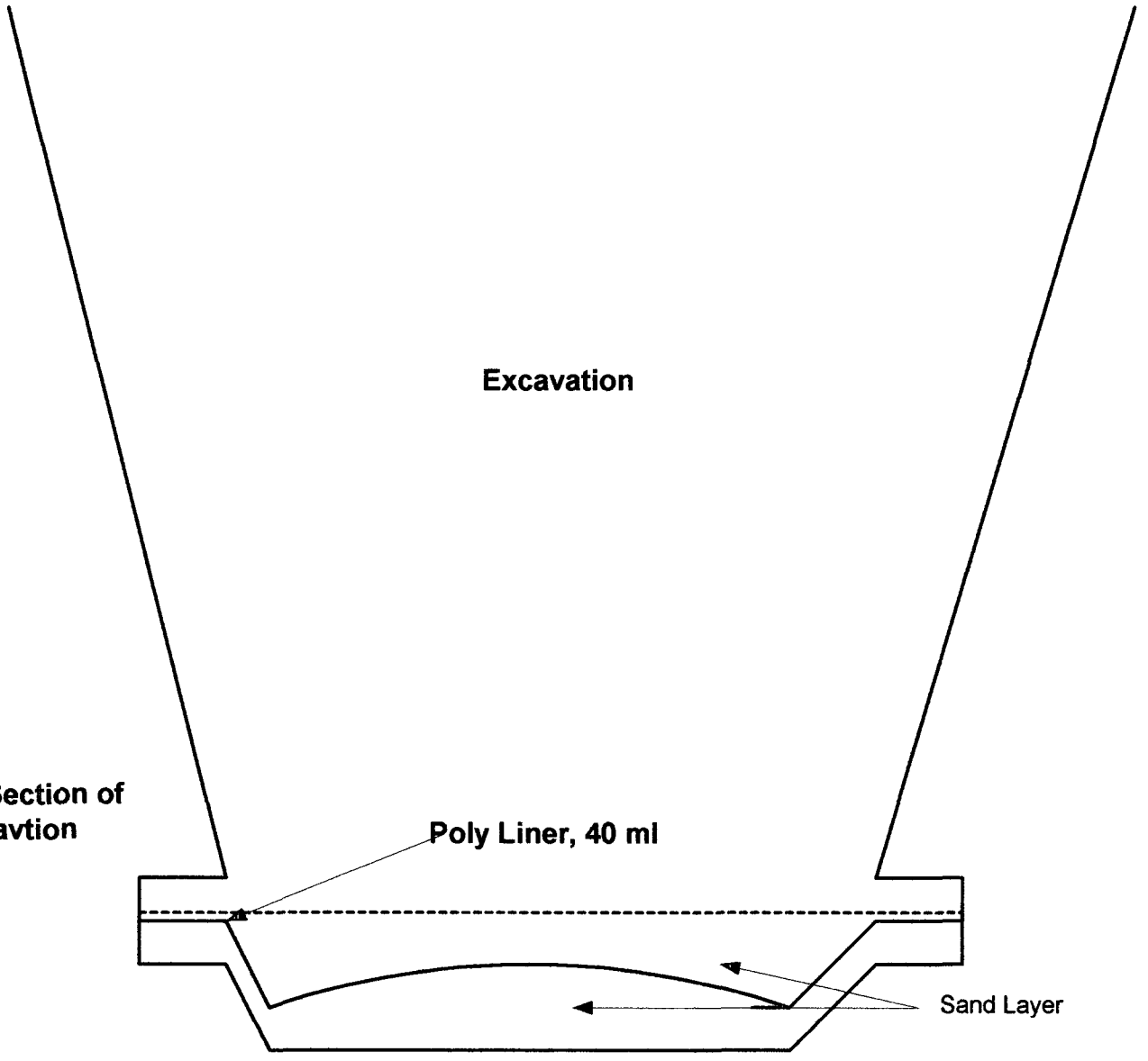
SITE MAP



LABEL	DATE
Figure 2	10/28/2004
TITLE	DRAWN BY
Site Map Saunders 8" # 1 & 3	K. Dutton Basin Environmental Service

FIGURE 3

INSTALLATION OF 40-ml POLY LINER



TITLE	DATE
Saunders 8" # 1/3	11/12/2004
DRAWN BY Basin Environmental Services KAD	LABEL Installation of 40 ml Poly Liner

APPENDICES

APPENDIX A

NEW MEXICO OFFICE OF THE STATE ENGINEER WATER WELL DATABASE REPORT

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 14S Range: 33E Sections: 14

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

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

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report | Clear Form | WATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 10/29/2004

								(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
L	14S	33E	14				2	100	100	100

Record Count: 2

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 14S Range: 33E Sections: 26

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report | Clear Form | WATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 10/29/2004

								(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
L	14S	33E	26				2	125	125	125

Record Count: 2

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 14S Range: 33E Sections: 25

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | WATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 10/29/2004

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 14S Range: 33E Sections: 24,13,23

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report | Clear Form | WATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 10/29/2004

								(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
L	14S	33E	13				1	80	80	80
L	14S	33E	23				2	58	100	79

Record Count: 3

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 14S Range: 33E Sections: 13

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

Well / Surface Data Report | Avg Depth to Water Report
Water Column Report
Clear Form | WATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 10/29/2004

								(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
L	14S	33E	13				1	80	80	80

Record Count: 1

APPENDIX B

ENVIRONMENTAL LABORATORY OF TEXAS ANALYTICAL RESULTS

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Ken Dutton

Basin Environmental Services

P.O. Box 301

Lovington, TX 88260

Project: Saunders 8 inch #1

Project Number: 2004-00174

Location: Lea County, NM

Lab Order Number: 4117013

Report Date: 09/26/04

Basin Environmental Services	Project: Saunders 8 inch #1	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00174	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:03

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Pooling Area	4I17013-01	Soil	09/15/04 11:10	09/17/04 14:15
North Unimproved Road	4I17013-02	Soil	09/15/04 11:45	09/17/04 14:15
South Unimproved Road	4I17013-03	Soil	09/15/04 11:20	09/17/04 14:15

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

Basin Environmental Services	Project: Saunders 8 inch #1	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00174	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:03

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Pooling Area (4I17013-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42407	09/22/04	09/22/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*95.4 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.5 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**137**	10.0	mg/kg dry	1	EI41720	09/20/04	09/21/04	EPA 8015M	
Diesel Range Organics >C12-C35	**1920**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**2060**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*108 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*159 %*	*70-130*		"	"	"	"	*S-04*
North Unimproved Road (4I17013-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42407	09/22/04	09/22/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	**J [0.0157]**	0.0250	"	"	"	"	"	"	*J*
Xylene (p/m)	**0.0730**	0.0250	"	"	"	"	"	"	
Xylene (o)	**0.0534**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*95.9 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.4 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**198**	10.0	mg/kg dry	1	EI41720	09/20/04	09/21/04	EPA 8015M	
Diesel Range Organics >C12-C35	**7360**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**7560**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*125 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*178 %*	*70-130*		"	"	"	"	*S-04*
South Unimproved Road (4I17013-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42407	09/22/04	09/22/04	EPA 8021B	
Toluene	**0.0257**	0.0250	"	"	"	"	"	"	
Ethylbenzene	**0.0438**	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**0.162**	0.0250	"	"	"	"	"	"	
Xylene (o)	**0.0936**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*94.4 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.9 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**90.7**	10.0	mg/kg dry	1	EI41720	09/20/04	09/21/04	EPA 8015M	
Diesel Range Organics >C12-C35	**3980**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**4070**	10.0	"	"	"	"	"	"	

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

Basin Environmental Services	Project: Saunders 8 inch #1	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00174	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:03

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
South Unimproved Road (4117013-03) Soil									
Surrogate: 1-Chlorooctane		*121 %*		*70-130*	*EI41720*	*09/20/04*	*09/21/04*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*146 %*		*70-130*	*"*	*"*	*"*	*"*	*S-04*

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

Basin Environmental Services	Project: Saunders 8 inch #1	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00174	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:03

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Pooling Area (4I17013-01) Soil									
% Solids	**99.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
North Unimproved Road (4I17013-02) Soil									
% Solids	**99.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
South Unimproved Road (4I17013-03) Soil									
% Solids	**99.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	

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

Basin Environmental Services	Project: Saunders 8 inch #1	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00174	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:03

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 EI41720 - Solvent Extraction (GC)										
Blank (EI41720-BLK1)				Prepared: 09/20/04 Analyzed: 09/21/04						
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	*52.1*		*mg/kg*	*50.0*		*104*	*70-130*			
Surrogate: 1-Chlorooctadecane	*62.4*		"	*50.0*		*125*	*70-130*			
Blank (EI41720-BLK2)				Prepared: 09/20/04 Analyzed: 09/21/04						
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	*44.8*		*mg/kg*	*50.0*		*89.6*	*70-130*			
Surrogate: 1-Chlorooctadecane	*36.1*		"	*50.0*		*72.2*	*70-130*			
LCS (EI41720-BS1)				Prepared & Analyzed: 09/20/04						
Gasoline Range Organics C6-C12	418	10.0	mg/kg wet	500		83.6	75-125			
Diesel Range Organics >C12-C35	412	10.0	"	500		82.4	75-125			
Total Hydrocarbon C6-C35	830	10.0	"	1000		83.0	75-125			
Surrogate: 1-Chlorooctane	*49.4*		*mg/kg*	*50.0*		*98.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*35.6*		"	*50.0*		*71.2*	*70-130*			
LCS (EI41720-BS2)				Prepared: 09/20/04 Analyzed: 09/21/04						
Gasoline Range Organics C6-C12	438	10.0	mg/kg wet	500		87.6	75-125			
Diesel Range Organics >C12-C35	470	10.0	"	500		94.0	75-125			
Total Hydrocarbon C6-C35	908	10.0	"	1000		90.8	75-125			
Surrogate: 1-Chlorooctane	*49.5*		*mg/kg*	*50.0*		*99.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*35.5*		"	*50.0*		*71.0*	*70-130*			
Calibration Check (EI41720-CCV1)				Prepared & Analyzed: 09/20/04						
Gasoline Range Organics C6-C12	455		mg/kg	500		91.0	80-120			
Diesel Range Organics >C12-C35	552		"	500		110	80-120			
Total Hydrocarbon C6-C35	1010		"	1000		101	80-120			
Surrogate: 1-Chlorooctane	*57.2*		"	*50.0*		*114*	*70-130*			
Surrogate: 1-Chlorooctadecane	*61.2*		"	*50.0*		*122*	*70-130*			

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

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 EI41720 - Solvent Extraction (GC)										
Calibration Check (EI41720-CCV2)				Prepared: 09/20/04 Analyzed: 09/21/04						
Gasoline Range Organics C6-C12	436		mg/kg	500		87.2	80-120			
Diesel Range Organics >C12-C35	583		"	500		117	80-120			
Total Hydrocarbon C6-C35	1020		"	1000		102	80-120			
Surrogate: 1-Chlorooctane	*57.7*		"	*50.0*		*115*	*70-130*			
Surrogate: 1-Chlorooctadecane	*62.6*		"	*50.0*		*125*	*70-130*			
Matrix Spike (EI41720-MS1)	**Source: 4117011-06**			Prepared & Analyzed: 09/20/04						
Gasoline Range Organics C6-C12	428	10.0	mg/kg dry	510	ND	83.9	75-125			
Diesel Range Organics >C12-C35	543	10.0	"	510	19.1	103	75-125			
Total Hydrocarbon C6-C35	971	10.0	"	1020	19.1	93.3	75-125			
Surrogate: 1-Chlorooctane	*53.7*		*mg/kg*	*50.0*		*107*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.1*		"	*50.0*		*100*	*70-130*			
Matrix Spike (EI41720-MS2)	**Source: 4117012-05**			Prepared: 09/20/04 Analyzed: 09/21/04						
Gasoline Range Organics C6-C12	466	10.0	mg/kg dry	515	ND	90.5	75-125			
Diesel Range Organics >C12-C35	540	10.0	"	515	6.50	104	75-125			
Total Hydrocarbon C6-C35	1010	10.0	"	1030	ND	98.1	75-125			
Surrogate: 1-Chlorooctane	*58.4*		*mg/kg*	*50.0*		*117*	*70-130*			
Surrogate: 1-Chlorooctadecane	*43.5*		"	*50.0*		*87.0*	*70-130*			
Matrix Spike Dup (EI41720-MSD1)	**Source: 4117011-06**			Prepared & Analyzed: 09/20/04						
Gasoline Range Organics C6-C12	445	10.0	mg/kg dry	510	ND	87.3	75-125	3.89	20	
Diesel Range Organics >C12-C35	563	10.0	"	510	19.1	107	75-125	3.62	20	
Total Hydrocarbon C6-C35	1010	10.0	"	1020	19.1	97.1	75-125	3.94	20	
Surrogate: 1-Chlorooctane	*56.0*		*mg/kg*	*50.0*		*112*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.5*		"	*50.0*		*101*	*70-130*			
Matrix Spike Dup (EI41720-MSD2)	**Source: 4117012-05**			Prepared: 09/20/04 Analyzed: 09/21/04						
Gasoline Range Organics C6-C12	460	10.0	mg/kg dry	515	ND	89.3	75-125	1.30	20	
Diesel Range Organics >C12-C35	540	10.0	"	515	6.50	104	75-125	0.00	20	
Total Hydrocarbon C6-C35	1000	10.0	"	1030	ND	97.1	75-125	0.995	20	
Surrogate: 1-Chlorooctane	*58.2*		*mg/kg*	*50.0*		*116*	*70-130*			
Surrogate: 1-Chlorooctadecane	*43.9*		"	*50.0*		*87.8*	*70-130*			

Basin Environmental Services	Project: Saunders 8 inch #1	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00174	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:03

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 EI42407 - EPA 5030C (GC)										
Blank (EI42407-BLK1)				Prepared & Analyzed: 09/22/04						
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	*94.9*		*ug/kg*	*100*		*94.9*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*80.4*		"	*100*		*80.4*	*80-120*			
LCS (EI42407-BS1)				Prepared & Analyzed: 09/22/04						
Benzene	105		ug/kg	100		105	80-120			
Toluene	106		"	100		106	80-120			
Ethylbenzene	101		"	100		101	80-120			
Xylene (p/m)	226		"	200		113	80-120			
Xylene (o)	106		"	100		106	80-120			
Surrogate: a,a,a-Trifluorotoluene	*117*		"	*100*		*117*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*98.0*		"	*100*		*98.0*	*80-120*			
Calibration Check (EI42407-CCV1)				Prepared: 09/22/04 Analyzed: 09/23/04						
Benzene	105		ug/kg	100		105	80-120			
Toluene	106		"	100		106	80-120			
Ethylbenzene	101		"	100		101	80-120			
Xylene (p/m)	224		"	200		112	80-120			
Xylene (o)	104		"	100		104	80-120			
Surrogate: a,a,a-Trifluorotoluene	*116*		"	*100*		*116*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*93.6*		"	*100*		*93.6*	*80-120*			
Matrix Spike (EI42407-MS1)	**Source: 4117012-05**			Prepared: 09/22/04 Analyzed: 09/23/04						
Benzene	108		ug/kg	100	ND	108	80-120			
Toluene	107		"	100	ND	107	80-120			
Ethylbenzene	103		"	100	ND	103	80-120			
Xylene (p/m)	228		"	200	ND	114	80-120			
Xylene (o)	108		"	100	ND	108	80-120			
Surrogate: a,a,a-Trifluorotoluene	*119*		"	*100*		*119*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*98.1*		"	*100*		*98.1*	*80-120*			

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

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 EI42407 - EPA 5030C (GC)										
Matrix Spike Dup (EI42407-MSD1)	**Source: 4117012-05**			Prepared: 09/22/04 Analyzed: 09/23/04						
Benzene	114		ug/kg	100	ND	114	80-120	5.41	20	
Toluene	109		"	100	ND	109	80-120	1.85	20	
Ethylbenzene	102		"	100	ND	102	80-120	0.976	20	
Xylene (p/m)	237		"	200	ND	118	80-120	3.45	20	
Xylene (o)	105		"	100	ND	105	80-120	2.82	20	
Surrogate: a,a,a-Trifluorotoluene	*117*		"	*100*		*117*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*95.1*		"	*100*		*95.1*	*80-120*			

Basin Environmental Services	Project: Saunders 8 inch #1	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00174	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:03

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 EI42110 - % Solids										
Blank (EI42110-BLK1)				Prepared: 09/20/04 Analyzed: 09/21/04						
% Solids	100		%							
Duplicate (EI42110-DUP1)		**Source: 4I17011-03**		Prepared: 09/20/04 Analyzed: 09/21/04						
% Solids	93.0		%		93.0			0.00	20	

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

Basin Environmental Services	Project: Saunders 8 inch #1	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00174	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:03

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	*Laboratory Control Spike*
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 9/26/04

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 Biezugbe, Lab Tech.

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 (BES)
Company Name: Basin Environmental Service Tech.
Company Address: P.O. Box 301
City/State/Zip: Lovington, NM 88260
Telephone No: (505) 396-2378
Fax No: (505) 396-1429
Sampler Signature: Ken Dutton

Project Name: Saunders 8 #1
Project #: 2004-00174
Project Loc: Lea County, NM
PO #:

4I17013

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP: TPH: 418.1 (8015M) 1005 1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX (8021B/5030) / BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule)	Standard TAT
-01	Pooling Area	15-SEP	11:10	1	X									X		X							X				X
-02	North Unimproved Road	↓	11:45	1	↓									↓		↓							↓				↓
-03	South - Unimproved Road	↓	11:20	1	↓									↓		↓							↓				

Special Instructions: Email RESULTS TO KAD@ZIANET.COM
Direct Bill PAA

Sample Containers Intact? (Y) N
Temperature Upon Receipt: 1.5°C
Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Ken Dutton	17 SEP 04	0850		17 SEP 04	0850
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
	9/17/04	1415		9-17-04	1415

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

Client: Basin Environmental

Date/Time: 09-17-04 @ 1530

Order #: 417013

Initials: JMA

Sample Receipt Checklist

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

Other observations:

Variance Documentation:

Contact Person: - Date/Time: Contacted by:

Regarding:

Corrective Action Taken:

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Ken Dutton

Basin Environmental Services

P.O. Box 301

Lovington, TX 88260

Project: Saunders 8 inch #3

Project Number: 2004-00182

Location: Lea County, NM

Lab Order Number: 4117011

Report Date: 09/26/04

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1-10'	4I17011-01	Soil	09/14/04 10:16	09/17/04 14:15
SB-1-20'	4I17011-02	Soil	09/14/04 10:28	09/17/04 14:15
SB-1-30'	4I17011-03	Soil	09/14/04 10:42	09/17/04 14:15
SB-1-40'	4I17011-04	Soil	09/14/04 11:00	09/17/04 14:15
SB-1-50'	4I17011-05	Soil	09/14/04 11:30	09/17/04 14:15
SB-1-65'	4I17011-06	Soil	09/14/04 11:58	09/17/04 14:15
SB-2-5'	4I17011-07	Soil	09/14/04 12:40	09/17/04 14:15
SB-2-15'	4I17011-08	Soil	09/14/04 12:46	09/17/04 14:15
SB-2-45'	4I17011-09	Soil	09/14/04 13:14	09/17/04 14:15
SB-2-70'	4I17011-10	Soil	09/14/04 13:49	09/17/04 14:15
SB-3-5'	4I17011-11	Soil	09/14/04 14:02	09/17/04 14:15
SB-3-15'	4I17011-12	Soil	09/14/04 14:09	09/17/04 14:15
SB-3-45'	4I17011-13	Soil	09/14/04 14:48	09/17/04 14:15
SB-3-70'	4I17011-14	Soil	09/14/04 15:30	09/17/04 14:15
SB-4-5'	4I17011-15	Soil	09/14/04 15:45	09/17/04 14:15
SB-4-15'	4I17011-16	Soil	09/14/04 15:54	09/17/04 14:15
SB-4-45'	4I17011-17	Soil	09/14/04 16:46	09/17/04 14:15
SB-4-70'	4I17011-18	Soil	09/14/04 17:41	09/17/04 14:15

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

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1-10' (4117011-01) Soil									
Benzene	**0.316**	0.0250	mg/kg dry	25	EI42206	09/21/04	09/21/04	EPA 8021B	
Toluene	**5.12**	0.0250	"	"	"	"	"	"	
Ethylbenzene	**3.36**	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**14.8**	0.0250	"	"	"	"	"	"	
Xylene (o)	**7.56**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*139 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*115 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**2210**	10.0	mg/kg dry	1	EI41719	09/17/04	09/20/04	EPA 8015M	
Diesel Range Organics >C12-C35	**7210**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**9420**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*118 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*127 %*	*70-130*		"	"	"	"	
SB-1-20' (4117011-02) Soil									
Benzene	**0.338**	0.0250	mg/kg dry	25	EI42206	09/21/04	09/21/04	EPA 8021B	
Toluene	**5.18**	0.0250	"	"	"	"	"	"	
Ethylbenzene	**4.97**	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**16.4**	0.0250	"	"	"	"	"	"	
Xylene (o)	**8.54**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*132 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*110 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**3050**	10.0	mg/kg dry	1	EI41719	09/17/04	09/20/04	EPA 8015M	
Diesel Range Organics >C12-C35	**8690**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**11700**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*138 %*	*70-130*		"	"	"	"	*S-04*
Surrogate: 1-Chlorooctadecane		*180 %*	*70-130*		"	"	"	"	*S-04*
SB-1-30' (4117011-03) Soil									
Benzene	**0.135**	0.0250	mg/kg dry	25	EI42206	09/21/04	09/21/04	EPA 8021B	
Toluene	**2.60**	0.0250	"	"	"	"	"	"	
Ethylbenzene	**2.95**	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**10.9**	0.0250	"	"	"	"	"	"	
Xylene (o)	**5.47**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*185 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*96.3 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**2170**	10.0	mg/kg dry	1	EI41720	09/20/04	09/20/04	EPA 8015M	
Diesel Range Organics >C12-C35	**7370**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**9540**	10.0	"	"	"	"	"	"	

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

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1-30' (4117011-03) Soil									
Surrogate: 1-Chlorooctane		*156 %*	*70-130*		*EI41720*	*09/20/04*	*09/20/04*	*EPA 8015M*	*S-04*
Surrogate: 1-Chlorooctadecane		*143 %*	*70-130*		"	"	"	"	*S-04*
SB-1-40' (4117011-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42206	09/21/04	09/21/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*95.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.9 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/20/04	EPA 8015M	
Diesel Range Organics >C12-C35	**815**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**815**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*116 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*125 %*	*70-130*		"	"	"	"	
SB-1-50' (4117011-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42206	09/21/04	09/21/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**0.0503**	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*102 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.7 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**19.7**	10.0	mg/kg dry	1	EI41720	09/20/04	09/20/04	EPA 8015M	
Diesel Range Organics >C12-C35	**250**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**270**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*100 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*114 %*	*70-130*		"	"	"	"	

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

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1-65' (4117011-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42206	09/21/04	09/22/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*98.3 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.8 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/20/04	EPA 8015M	
Diesel Range Organics >C12-C35	**19.1**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**19.1**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*103 %*	*70-130*		"	"	"	"	
SB-2-5' (4117011-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42206	09/21/04	09/21/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*98.7 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.5 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/22/04	EPA 8015M	
Diesel Range Organics >C12-C35	**J [9.17]**	10.0	"	"	"	"	"	"	J
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*112 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*125 %*	*70-130*		"	"	"	"	
SB-2-15' (4117011-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42206	09/21/04	09/21/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*99.4 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.3 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/20/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

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

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-2-15' (4I17011-08) Soil									
Surrogate: 1-Chlorooctane		*94.4 %*	*70-130*		*EI41720*	*09/20/04*	*09/20/04*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*73.2 %*	*70-130*		"	"	"	"	
SB-2-45' (4I17011-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42206	09/21/04	09/21/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*101 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.7 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/22/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*115 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*128 %*	*70-130*		"	"	"	"	
SB-2-70' (4I17011-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42206	09/21/04	09/21/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*101 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*81.6 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/20/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*95.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*71.2 %*	*70-130*		"	"	"	"	

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

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3-5' (4I17011-11) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42206	09/21/04	09/21/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*102 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.0 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/20/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*72.6 %*	*70-130*		"	"	"	"	
SB-3-15' (4I17011-12) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42206	09/21/04	09/22/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*99.3 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.4 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/22/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*126 %*	*70-130*		"	"	"	"	
SB-3-45' (4I17011-13) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42206	09/21/04	09/22/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*99.4 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.7 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/22/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

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

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3-45' (4117011-13) Soil									
Surrogate: 1-Chlorooctane		*94.4 %*	*70-130*		*EI41720*	*09/20/04*	*09/22/04*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*101 %*	*70-130*		"	"	"	"	
SB-3-70' (4117011-14) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42206	09/21/04	09/22/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*101 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*81.3 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/22/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*110 %*	*70-130*		"	"	"	"	
SB-4-5' (4117011-15) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42407	09/22/04	09/22/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*88.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.7 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/21/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*97.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*75.2 %*	*70-130*		"	"	"	"	

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

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-4-15' (4117011-16) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42407	09/22/04	09/22/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*92.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*81.4 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/21/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*71.8 %*	*70-130*		"	"	"	"	
SB-4-45' (4117011-17) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42407	09/22/04	09/22/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*93.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.7 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/21/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*70.2 %*	*70-130*		"	"	"	"	
SB-4-70' (4117011-18) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EI42407	09/22/04	09/22/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*99.7 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*81.1 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41720	09/20/04	09/21/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	

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

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-4-70' (4117011-18) Soil									
Surrogate: 1-Chlorooctane		*100 %*	*70-130*		*EI41720*	*09/20/04*	*09/21/04*	*EPA 8015M*	
Surrogate: 1-Chlorooctadecane		*70.6 %*	*70-130*		"	"	"	"	

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

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-1-10' (4I17011-01) Soil									
% Solids	**92.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-1-20' (4I17011-02) Soil									
% Solids	**95.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-1-30' (4I17011-03) Soil									
% Solids	**93.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-1-40' (4I17011-04) Soil									
% Solids	**98.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-1-50' (4I17011-05) Soil									
% Solids	**83.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-1-65' (4I17011-06) Soil									
% Solids	**98.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-2-5' (4I17011-07) Soil									
% Solids	**99.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-2-15' (4I17011-08) Soil									
% Solids	**98.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-2-45' (4I17011-09) Soil									
% Solids	**98.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-2-70' (4I17011-10) Soil									
% Solids	**99.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-3-5' (4I17011-11) Soil									
% Solids	**99.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	

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

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-3-15' (4117011-12) Soil									
% Solids	**99.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-3-45' (4117011-13) Soil									
% Solids	**98.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-3-70' (4117011-14) Soil									
% Solids	**97.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-4-5' (4117011-15) Soil									
% Solids	**99.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-4-15' (4117011-16) Soil									
% Solids	**100**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-4-45' (4117011-17) Soil									
% Solids	**98.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	
SB-4-70' (4117011-18) Soil									
% Solids	**98.0**		%	1	EI42110	09/20/04	09/21/04	% calculation	

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

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 EI41719 - Solvent Extraction (GC)										
Blank (EI41719-BLK1)				Prepared: 09/17/04 Analyzed: 09/19/04						
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	*44.2*		*mg/kg*	*50.0*		*88.4*	*70-130*			
Surrogate: 1-Chlorooctadecane	*41.8*		*"*	*50.0*		*83.6*	*70-130*			
Blank (EI41719-BLK2)				Prepared: 09/17/04 Analyzed: 09/19/04						
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	*48.3*		*mg/kg*	*50.0*		*96.6*	*70-130*			
Surrogate: 1-Chlorooctadecane	*36.3*		*"*	*50.0*		*72.6*	*70-130*			
LCS (EI41719-BS1)				Prepared: 09/17/04 Analyzed: 09/19/04						
Gasoline Range Organics C6-C12	426	10.0	mg/kg wet	500		85.2	75-125			
Diesel Range Organics >C12-C35	498	10.0	"	500		99.6	75-125			
Total Hydrocarbon C6-C35	924	10.0	"	1000		92.4	75-125			
Surrogate: 1-Chlorooctane	*51.3*		*mg/kg*	*50.0*		*103*	*70-130*			
Surrogate: 1-Chlorooctadecane	*56.4*		*"*	*50.0*		*113*	*70-130*			
LCS (EI41719-BS2)				Prepared: 09/17/04 Analyzed: 09/19/04						
Gasoline Range Organics C6-C12	415	10.0	mg/kg wet	500		83.0	75-125			
Diesel Range Organics >C12-C35	505	10.0	"	500		101	75-125			
Total Hydrocarbon C6-C35	920	10.0	"	1000		92.0	75-125			
Surrogate: 1-Chlorooctane	*54.0*		*mg/kg*	*50.0*		*108*	*70-130*			
Surrogate: 1-Chlorooctadecane	*44.3*		*"*	*50.0*		*88.6*	*70-130*			
Calibration Check (EI41719-CCV1)				Prepared: 09/17/04 Analyzed: 09/19/04						
Gasoline Range Organics C6-C12	425		mg/kg	500		85.0	80-120			
Diesel Range Organics >C12-C35	520		"	500		104	80-120			
Total Hydrocarbon C6-C35	945		"	1000		94.5	80-120			
Surrogate: 1-Chlorooctane	*52.0*		*"*	*50.0*		*104*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.9*		*"*	*50.0*		*95.8*	*70-130*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI41719 - Solvent Extraction (GC)										
Calibration Check (EI41719-CCV2)				Prepared: 09/17/04 Analyzed: 09/19/04						
Gasoline Range Organics C6-C12	427		mg/kg	500		85.4	80-120			
Diesel Range Organics >C12-C35	483		"	500		96.6	80-120			
Total Hydrocarbon C6-C35	910		"	1000		91.0	80-120			
Surrogate: 1-Chlorooctane	*51.6*		*"*	*50.0*		*103*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.0*		*"*	*50.0*		*94.0*	*70-130*			
Matrix Spike (EI41719-MS1)	**Source: 4I16003-01**			Prepared: 09/17/04 Analyzed: 09/19/04						
Gasoline Range Organics C6-C12	469	10.0	mg/kg dry	521	ND	90.0	75-125			
Diesel Range Organics >C12-C35	555	10.0	"	521	ND	107	75-125			
Total Hydrocarbon C6-C35	1020	10.0	"	1040	ND	98.1	75-125			
Surrogate: 1-Chlorooctane	*55.9*		*mg/kg*	*50.0*		*112*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.5*		*"*	*50.0*		*105*	*70-130*			
Matrix Spike (EI41719-MS2)	**Source: 4I17004-13**			Prepared: 09/17/04 Analyzed: 09/19/04						
Gasoline Range Organics C6-C12	506	10.0	mg/kg dry	549	ND	92.2	75-125			
Diesel Range Organics >C12-C35	627	10.0	"	549	15.3	111	75-125			
Total Hydrocarbon C6-C35	1130	10.0	"	1100	15.3	101	75-125			
Surrogate: 1-Chlorooctane	*55.1*		*mg/kg*	*50.0*		*110*	*70-130*			
Surrogate: 1-Chlorooctadecane	*54.7*		*"*	*50.0*		*109*	*70-130*			
Matrix Spike Dup (EI41719-MSD1)	**Source: 4I16003-01**			Prepared: 09/17/04 Analyzed: 09/19/04						
Gasoline Range Organics C6-C12	478	10.0	mg/kg dry	521	ND	91.7	75-125	1.90	20	
Diesel Range Organics >C12-C35	577	10.0	"	521	ND	111	75-125	3.89	20	
Total Hydrocarbon C6-C35	1060	10.0	"	1040	ND	102	75-125	3.85	20	
Surrogate: 1-Chlorooctane	*57.5*		*mg/kg*	*50.0*		*115*	*70-130*			
Surrogate: 1-Chlorooctadecane	*53.8*		*"*	*50.0*		*108*	*70-130*			
Matrix Spike Dup (EI41719-MSD2)	**Source: 4I17004-13**			Prepared: 09/17/04 Analyzed: 09/19/04						
Gasoline Range Organics C6-C12	522	10.0	mg/kg dry	549	ND	95.1	75-125	3.11	20	
Diesel Range Organics >C12-C35	630	10.0	"	549	15.3	112	75-125	0.477	20	
Total Hydrocarbon C6-C35	1150	10.0	"	1100	15.3	103	75-125	1.75	20	
Surrogate: 1-Chlorooctane	*57.0*		*mg/kg*	*50.0*		*114*	*70-130*			
Surrogate: 1-Chlorooctadecane	*57.5*		*"*	*50.0*		*115*	*70-130*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI41720 - Solvent Extraction (GC)										
Blank (EI41720-BLK1)				Prepared: 09/20/04 Analyzed: 09/21/04						
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	*52.1*		*mg/kg*	*50.0*		*104*	*70-130*			
Surrogate: 1-Chlorooctadecane	*62.4*		"	*50.0*		*125*	*70-130*			
Blank (EI41720-BLK2)				Prepared: 09/20/04 Analyzed: 09/21/04						
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	*44.8*		*mg/kg*	*50.0*		*89.6*	*70-130*			
Surrogate: 1-Chlorooctadecane	*36.1*		"	*50.0*		*72.2*	*70-130*			
LCS (EI41720-BS1)				Prepared & Analyzed: 09/20/04						
Gasoline Range Organics C6-C12	418	10.0	mg/kg wet	500		83.6	75-125			
Diesel Range Organics >C12-C35	412	10.0	"	500		82.4	75-125			
Total Hydrocarbon C6-C35	830	10.0	"	1000		83.0	75-125			
Surrogate: 1-Chlorooctane	*49.4*		*mg/kg*	*50.0*		*98.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*35.6*		"	*50.0*		*71.2*	*70-130*			
LCS (EI41720-BS2)				Prepared: 09/20/04 Analyzed: 09/21/04						
Gasoline Range Organics C6-C12	438	10.0	mg/kg wet	500		87.6	75-125			
Diesel Range Organics >C12-C35	470	10.0	"	500		94.0	75-125			
Total Hydrocarbon C6-C35	908	10.0	"	1000		90.8	75-125			
Surrogate: 1-Chlorooctane	*49.5*		*mg/kg*	*50.0*		*99.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*35.5*		"	*50.0*		*71.0*	*70-130*			
Calibration Check (EI41720-CCV1)				Prepared & Analyzed: 09/20/04						
Gasoline Range Organics C6-C12	455		mg/kg	500		91.0	80-120			
Diesel Range Organics >C12-C35	552		"	500		110	80-120			
Total Hydrocarbon C6-C35	1010		"	1000		101	80-120			
Surrogate: 1-Chlorooctane	*57.2*		"	*50.0*		*114*	*70-130*			
Surrogate: 1-Chlorooctadecane	*61.2*		"	*50.0*		*122*	*70-130*			

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

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 EI41720 - Solvent Extraction (GC)										
Calibration Check (EI41720-CCV2)				Prepared: 09/20/04 Analyzed: 09/21/04						
Gasoline Range Organics C6-C12	436		mg/kg	500		87.2	80-120			
Diesel Range Organics >C12-C35	583		"	500		117	80-120			
Total Hydrocarbon C6-C35	1020		"	1000		102	80-120			
Surrogate: 1-Chlorooctane	*57.7*		"	*50.0*		*115*	*70-130*			
Surrogate: 1-Chlorooctadecane	*62.6*		"	*50.0*		*125*	*70-130*			
Matrix Spike (EI41720-MS1)	**Source: 4I17011-06**			Prepared & Analyzed: 09/20/04						
Gasoline Range Organics C6-C12	428	10.0	mg/kg dry	510	ND	83.9	75-125			
Diesel Range Organics >C12-C35	543	10.0	"	510	19.1	103	75-125			
Total Hydrocarbon C6-C35	971	10.0	"	1020	19.1	93.3	75-125			
Surrogate: 1-Chlorooctane	*53.7*		*mg/kg*	*50.0*		*107*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.1*		"	*50.0*		*100*	*70-130*			
Matrix Spike (EI41720-MS2)	**Source: 4I17012-05**			Prepared: 09/20/04 Analyzed: 09/21/04						
Gasoline Range Organics C6-C12	466	10.0	mg/kg dry	515	ND	90.5	75-125			
Diesel Range Organics >C12-C35	540	10.0	"	515	6.50	104	75-125			
Total Hydrocarbon C6-C35	1010	10.0	"	1030	ND	98.1	75-125			
Surrogate: 1-Chlorooctane	*58.4*		*mg/kg*	*50.0*		*117*	*70-130*			
Surrogate: 1-Chlorooctadecane	*43.5*		"	*50.0*		*87.0*	*70-130*			
Matrix Spike Dup (EI41720-MSD1)	**Source: 4I17011-06**			Prepared & Analyzed: 09/20/04						
Gasoline Range Organics C6-C12	445	10.0	mg/kg dry	510	ND	87.3	75-125	3.89	20	
Diesel Range Organics >C12-C35	563	10.0	"	510	19.1	107	75-125	3.62	20	
Total Hydrocarbon C6-C35	1010	10.0	"	1020	19.1	97.1	75-125	3.94	20	
Surrogate: 1-Chlorooctane	*56.0*		*mg/kg*	*50.0*		*112*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.5*		"	*50.0*		*101*	*70-130*			
Matrix Spike Dup (EI41720-MSD2)	**Source: 4I17012-05**			Prepared: 09/20/04 Analyzed: 09/21/04						
Gasoline Range Organics C6-C12	460	10.0	mg/kg dry	515	ND	89.3	75-125	1.30	20	
Diesel Range Organics >C12-C35	540	10.0	"	515	6.50	104	75-125	0.00	20	
Total Hydrocarbon C6-C35	1000	10.0	"	1030	ND	97.1	75-125	0.995	20	
Surrogate: 1-Chlorooctane	*58.2*		*mg/kg*	*50.0*		*116*	*70-130*			
Surrogate: 1-Chlorooctadecane	*43.9*		"	*50.0*		*87.8*	*70-130*			

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

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 EI42206 - EPA 5030C (GC)										
Blank (EI42206-BLK1)				Prepared & Analyzed: 09/21/04						
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	*95.1*		*ug/kg*	*100*		*95.1*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*88.0*		*"*	*100*		*88.0*	*80-120*			
LCS (EI42206-BS1)				Prepared & Analyzed: 09/21/04						
Benzene	97.6		ug/kg	100		97.6	80-120			
Toluene	100		"	100		100	80-120			
Ethylbenzene	97.7		"	100		97.7	80-120			
Xylene (p/m)	219		"	200		110	80-120			
Xylene (o)	104		"	100		104	80-120			
Surrogate: a,a,a-Trifluorotoluene	*111*		*"*	*100*		*111*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*95.1*		*"*	*100*		*95.1*	*80-120*			
Calibration Check (EI42206-CCV1)				Prepared & Analyzed: 09/21/04						
Benzene	108		ug/kg	100		108	80-120			
Toluene	107		"	100		107	80-120			
Ethylbenzene	94.1		"	100		94.1	80-120			
Xylene (p/m)	208		"	200		104	80-120			
Xylene (o)	99.5		"	100		99.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	*118*		*"*	*100*		*118*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*85.5*		*"*	*100*		*85.5*	*80-120*			
Matrix Spike (EI42206-MS1)	**Source: 4117011-12**			Prepared: 09/21/04 Analyzed: 09/22/04						
Benzene	100		ug/kg	100	ND	100	80-120			
Toluene	103		"	100	ND	103	80-120			
Ethylbenzene	101		"	100	ND	101	80-120			
Xylene (p/m)	226		"	200	ND	113	80-120			
Xylene (o)	107		"	100	ND	107	80-120			
Surrogate: a,a,a-Trifluorotoluene	*120*		*"*	*100*		*120*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*96.9*		*"*	*100*		*96.9*	*80-120*			

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 EI42206 - EPA 5030C (GC)										
Matrix Spike Dup (EI42206-MSD1)	**Source: 4I17011-12**			Prepared: 09/21/04 Analyzed: 09/22/04						
Benzene	99.5		ug/kg	100	ND	99.5	80-120	0.501	20	
Toluene	100		"	100	ND	100	80-120	2.96	20	
Ethylbenzene	98.0		"	100	ND	98.0	80-120	3.02	20	
Xylene (p/m)	221		"	200	ND	110	80-120	2.69	20	
Xylene (o)	105		"	100	ND	105	80-120	1.89	20	
Surrogate: a,a,a-Trifluorotoluene	*115*		"	*100*		*115*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*93.5*		"	*100*		*93.5*	*80-120*			
Batch EI42407 - EPA 5030C (GC)										
Blank (EI42407-BLK1)				Prepared & Analyzed: 09/22/04						
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	*94.9*		*ug/kg*	*100*		*94.9*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*80.4*		"	*100*		*80.4*	*80-120*			
LCS (EI42407-BS1)				Prepared & Analyzed: 09/22/04						
Benzene	105		ug/kg	100		105	80-120			
Toluene	106		"	100		106	80-120			
Ethylbenzene	101		"	100		101	80-120			
Xylene (p/m)	226		"	200		113	80-120			
Xylene (o)	106		"	100		106	80-120			
Surrogate: a,a,a-Trifluorotoluene	*117*		"	*100*		*117*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*98.0*		"	*100*		*98.0*	*80-120*			

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

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 EI42407 - EPA 5030C (GC)										
Calibration Check (EI42407-CCV1)				Prepared: 09/22/04 Analyzed: 09/23/04						
Benzene	105		ug/kg	100		105	80-120			
Toluene	106		"	100		106	80-120			
Ethylbenzene	101		"	100		101	80-120			
Xylene (p/m)	224		"	200		112	80-120			
Xylene (o)	104		"	100		104	80-120			
Surrogate: a,a,a-Trifluorotoluene	*116*		"	*100*		*116*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*93.6*		"	*100*		*93.6*	*80-120*			
Matrix Spike (EI42407-MS1)	**Source: 4117012-05**			Prepared: 09/22/04 Analyzed: 09/23/04						
Benzene	108		ug/kg	100	ND	108	80-120			
Toluene	107		"	100	ND	107	80-120			
Ethylbenzene	103		"	100	ND	103	80-120			
Xylene (p/m)	228		"	200	ND	114	80-120			
Xylene (o)	108		"	100	ND	108	80-120			
Surrogate: a,a,a-Trifluorotoluene	*119*		"	*100*		*119*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*98.1*		"	*100*		*98.1*	*80-120*			
Matrix Spike Dup (EI42407-MSD1)	**Source: 4117012-05**			Prepared: 09/22/04 Analyzed: 09/23/04						
Benzene	114		ug/kg	100	ND	114	80-120	5.41	20	
Toluene	109		"	100	ND	109	80-120	1.85	20	
Ethylbenzene	102		"	100	ND	102	80-120	0.976	20	
Xylene (p/m)	237		"	200	ND	118	80-120	3.45	20	
Xylene (o)	105		"	100	ND	105	80-120	2.82	20	
Surrogate: a,a,a-Trifluorotoluene	*117*		"	*100*		*117*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*95.1*		"	*100*		*95.1*	*80-120*			

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

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

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 EI42110 - % Solids										
Blank (EI42110-BLK1)				Prepared: 09/20/04 Analyzed: 09/21/04						
% Solids	100		%							
Duplicate (EI42110-DUP1)		**Source: 4I17011-03**		Prepared: 09/20/04 Analyzed: 09/21/04						
% Solids	93.0		%		93.0			0.00	20	

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

Basin Environmental Services	Project: Saunders 8 inch #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: 2004-00182	**Reported:**
Lovington TX, 88260	Project Manager: Ken Dutton	09/26/04 11:01

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 9/26/04

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 Biezugbe, Lab Tech.

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
Company Name: BASIN ENV. SVS. (BES)
Company Address: P. O. BOX 301
City/State/Zip: LOVINGTON NM 88260
Telephone No: (505) 396-2378 Fax No: (505) 396-1429
Sampler Signature: Ken Dutton

Project Name: SAUNDERS 8" # 3
Project #: 2004-00182
Project Loc: LEA COUNTY, NM
PO #:

4I17011

LAB # (lab use only)	FIELD CODE	Date Sampled (2004)	Time Sampled	No. of Containers (1 oz glass)	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP: TPH: 418.1 (8015M) 1005 1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or 8TEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule)	Standard TAT
-01	SB-1-10'	14 SEP	1016	1	X									X		X							X				X
-02	SB-1-20'		1028	1																							
-03	SB-1-30'		1042	1																							
-04	SB-1-40'		1100	1																							
-05	SB-1-50'		1130	1																							
-06	SB-1-65'		1158	1																							
-07	SB-2-5'		1240	1																							
-08	SB-2-15'		1246	1																							
-09	SB-2-45'		1314	1																							
-10	SB-2-70'		1349	1																							

Special Instructions: EMAIL RESULTS TO KAD@ZIANET.COM
DIRECT BILL PAA

Sample Containers Intact? Y N
Temperature Upon Receipt: ice -1.5°C
Laboratory Comments:

Relinquished by	Date	Time	Received by	Date	Time
Ken Dutton	9/8/04	0850		17 SEP 04	0850
Relinquished by	Date	Time	Received by ELOT	Date	Time
	9/17/04	1415	Kal. ak TQ	9-17-04	1415

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 Button (BES)
Company Name: Basin Environmental Service Tech
Company Address: P.O. Box 301
City/State/Zip: Lovington, NM 88260
Telephone No: (505) 396-2378 Fax No: (505) 396-1429
Sampler Signature: Ken Button

Project Name: Saunders B "#3
Project #: 3004-00182
Project Loc: Lea County, NM
PO #:

4I17011

LAB # (lab use only)	FIELD CODE	Date Sampled (2004)	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TCLP: TPH: 418.1 (8015M) 1006 1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX (8021B/5030) or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule)	Standard TAT
-11	SB-3-5'	14-Sep.	14:02	1	X									X		X								X			X
-12	SB-3-15'	14-Sep	14:09	1																							
-13	SB-3-45'		14:48	1																							
-14	SB-3-70'		15:30	1																							
-15	SB-4-5'		15:45	1																							
-16	SB-4-15'		15:54	1																							
-17	SB-4-45'		16:46	1																							
-18	SB-4 70'		17:41	1																							

Special Instructions: EMAIL RESULTS TO KAOR@ZIANET.COM
DIRECT BILL PAA

Sample Containers Intact? Y N
Temperature Upon Receipt: 4c -1.5°C
Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Ken Button	17 14-Sep-04	0850		17-Sep-04	0850
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
	9/17/04	14:15	Rad dlc	9-17-04	1415

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

Client: Basin Environmental

Date/Time: 09-17-04 @ 1530

Order #: 4I17011

Initials: JMM

Sample Receipt Checklist

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

Other observations:

Variance Documentation:

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

Regarding:

Corrective Action Taken:

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Ken Dutton

Basin Environmental Services

P.O. Box 301

Lovington, NM 88260

Project: Saunders 8 inch #1 & #3

Project Number: EMS: 2004-00182

Location: Lea County, NM

Lab Order Number: 4K05016

Report Date: 11/11/04

Basin Environmental Services	Project: Saunders 8 inch #1 & #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: EMS: 2004-00182	**Reported:**
Lovington NM, 88260	Project Manager: Ken Dutton	11/11/04 10:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
North Ramp-Exc	4K05016-01	Solid	11/04/04 14:45	11/05/04 15:27
South Ramp-Exc	4K05016-02	Solid	11/04/04 14:50	11/05/04 15:27
Exc. Floor-East	4K05016-03	Solid	11/04/04 15:00	11/05/04 15:27
Exc. Floor-West	4K05016-04	Solid	11/04/04 14:55	11/05/04 15:27

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

Basin Environmental Services	Project: Saunders 8 inch #1 & #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: EMS: 2004-00182	**Reported:**
Lovington NM, 88260	Project Manager: Ken Dutton	11/11/04 10:23

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
North Ramp-Exc (4K05016-01) Solid									
Benzene	ND	0.0250	mg/kg dry	25	EK41003	11/09/04	11/10/04	EPA 8021B	
Toluene	**0.164**	0.0250	"	"	"	"	"	"	
Ethylbenzene	**0.128**	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**0.399**	0.0250	"	"	"	"	"	"	
Xylene (o)	**0.162**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*91.1 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.5 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**42.5**	10.0	mg/kg dry	1	EK40508	11/05/04	11/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	**588**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**630**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*108 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*124 %*	*70-130*		"	"	"	"	
South Ramp-Exc (4K05016-02) Solid									
Benzene	ND	0.0250	mg/kg dry	25	EK41003	11/09/04	11/10/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.1 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.5 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40508	11/05/04	11/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	**14.7**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**14.7**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*99.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*105 %*	*70-130*		"	"	"	"	
Exc. Floor-East (4K05016-03) Solid									
Benzene	**1.02**	0.100	mg/kg dry	100	EK41003	11/09/04	11/10/04	EPA 8021B	
Toluene	**16.1**	0.100	"	"	"	"	"	"	
Ethylbenzene	**11.6**	0.100	"	"	"	"	"	"	
Xylene (p/m)	**41.9**	0.100	"	"	"	"	"	"	
Xylene (o)	**18.0**	0.100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*224 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*148 %*	*80-120*		"	"	"	"	*S-04*
Gasoline Range Organics C6-C12	**3770**	10.0	mg/kg dry	1	EK40508	11/05/04	11/09/04	EPA 8015M	
Diesel Range Organics >C12-C35	**12200**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**16000**	10.0	"	"	"	"	"	"	

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

Basin Environmental Services	Project: Saunders 8 inch #1 & #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: EMS: 2004-00182	**Reported:**
Lovington NM, 88260	Project Manager: Ken Dutton	11/11/04 10:23

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Exc. Floor-East (4K05016-03) Solid									
Surrogate: 1-Chlorooctane		*39.0 %*	*70-130*		*EK40508*	*11/05/04*	*11/09/04*	*EPA 8015M*	*S-06*
Surrogate: 1-Chlorooctadecane		*35.8 %*	*70-130*		"	"	"	"	*S-06*
Exc. Floor-West (4K05016-04) Solid									
Benzene	**0.186**	0.0250	mg/kg dry	25	EK41003	11/09/04	11/10/04	EPA 8021B	
Toluene	**2.34**	0.0250	"	"	"	"	"	"	
Ethylbenzene	**2.15**	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**11.6**	0.0250	"	"	"	"	"	"	
Xylene (o)	**5.75**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*221 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*116 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	**344**	10.0	mg/kg dry	1	EK40508	11/05/04	11/06/04	EPA 8015M	
Diesel Range Organics >C12-C35	**1630**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**1970**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*111 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*104 %*	*70-130*		"	"	"	"	

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

Basin Environmental Services	Project: Saunders 8 inch #1 & #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: EMS: 2004-00182	**Reported:**
Lovington NM, 88260	Project Manager: Ken Dutton	11/11/04 10:23

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
North Ramp-Exc (4K05016-01) Solid									
% Moisture	**10.0**		%	1	EK40804	11/08/04	11/08/04	% calculation	
South Ramp-Exc (4K05016-02) Solid									
% Moisture	**12.0**		%	1	EK40804	11/08/04	11/08/04	% calculation	
Exc. Floor-East (4K05016-03) Solid									
% Moisture	**13.0**		%	1	EK40804	11/08/04	11/08/04	% calculation	
Exc. Floor-West (4K05016-04) Solid									
% Moisture	**13.0**		%	1	EK40804	11/08/04	11/08/04	% calculation	

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

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 EK40508 - Solvent Extraction (GC)										
Blank (EK40508-BLK1)				Prepared & Analyzed: 11/05/04						
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	*42.8*		*mg/kg*	*50.0*		*85.6*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.7*		"	*50.0*		*105*	*70-130*			
Blank (EK40508-BLK2)				Prepared: 11/05/04 Analyzed: 11/06/04						
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	*44.9*		*mg/kg*	*50.0*		*89.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.4*		"	*50.0*		*105*	*70-130*			
LCS (EK40508-BS1)				Prepared & Analyzed: 11/05/04						
Gasoline Range Organics C6-C12	446	10.0	mg/kg wet	500		89.2	75-125			
Diesel Range Organics >C12-C35	477	10.0	"	500		95.4	75-125			
Total Hydrocarbon C6-C35	923	10.0	"	1000		92.3	75-125			
Surrogate: 1-Chlorooctane	*52.2*		*mg/kg*	*50.0*		*104*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.9*		"	*50.0*		*102*	*70-130*			
LCS (EK40508-BS2)				Prepared: 11/05/04 Analyzed: 11/06/04						
Gasoline Range Organics C6-C12	430	10.0	mg/kg wet	500		86.0	75-125			
Diesel Range Organics >C12-C35	502	10.0	"	500		100	75-125			
Total Hydrocarbon C6-C35	932	10.0	"	1000		93.2	75-125			
Surrogate: 1-Chlorooctane	*53.0*		*mg/kg*	*50.0*		*106*	*70-130*			
Surrogate: 1-Chlorooctadecane	*45.7*		"	*50.0*		*91.4*	*70-130*			
LCS Dup (EK40508-BSD1)				Prepared & Analyzed: 11/05/04						
Gasoline Range Organics C6-C12	437	10.0	mg/kg wet	500		87.4	75-125	2.04	20	
Diesel Range Organics >C12-C35	477	10.0	"	500		95.4	75-125	0.00	20	
Total Hydrocarbon C6-C35	914	10.0	"	1000		91.4	75-125	0.980	20	
Surrogate: 1-Chlorooctane	*50.1*		*mg/kg*	*50.0*		*100*	*70-130*			
Surrogate: 1-Chlorooctadecane	*53.3*		"	*50.0*		*107*	*70-130*			

Basin Environmental Services	Project: Saunders 8 inch #1 & #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: EMS: 2004-00182	**Reported:**
Lovington NM, 88260	Project Manager: Ken Dutton	11/11/04 10:23

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 EK40508 - Solvent Extraction (GC)										
Calibration Check (EK40508-CCV1)				Prepared & Analyzed: 11/05/04						
Gasoline Range Organics C6-C12	503		mg/kg	500		101	80-120			
Diesel Range Organics >C12-C35	551		"	500		110	80-120			
Total Hydrocarbon C6-C35	1050		"	1000		105	80-120			
Surrogate: 1-Chlorooctane	*55.5*		*"*	*50.0*		*111*	*70-130*			
Surrogate: 1-Chlorooctadecane	*53.2*		*"*	*50.0*		*106*	*70-130*			
Calibration Check (EK40508-CCV2)				Prepared: 11/05/04 Analyzed: 11/06/04						
Gasoline Range Organics C6-C12	493		mg/kg	500		98.6	80-120			
Diesel Range Organics >C12-C35	567		"	500		113	80-120			
Total Hydrocarbon C6-C35	1060		"	1000		106	80-120			
Surrogate: 1-Chlorooctane	*55.6*		*"*	*50.0*		*111*	*70-130*			
Surrogate: 1-Chlorooctadecane	*54.5*		*"*	*50.0*		*109*	*70-130*			
Matrix Spike (EK40508-MS2)	**Source: 4K05013-14**			Prepared: 11/05/04 Analyzed: 11/06/04						
Gasoline Range Organics C6-C12	567	10.0	mg/kg dry	521	ND	109	75-125			
Diesel Range Organics >C12-C35	593	10.0	"	521	ND	114	75-125			
Total Hydrocarbon C6-C35	1160	10.0	"	1040	ND	112	75-125			
Surrogate: 1-Chlorooctane	*58.8*		*mg/kg*	*50.0*		*118*	*70-130*			
Surrogate: 1-Chlorooctadecane	*56.0*		*"*	*50.0*		*112*	*70-130*			
Matrix Spike Dup (EK40508-MSD2)	**Source: 4K05013-14**			Prepared: 11/05/04 Analyzed: 11/06/04						
Gasoline Range Organics C6-C12	594	10.0	mg/kg dry	521	ND	114	75-125	4.65	20	
Diesel Range Organics >C12-C35	604	10.0	"	521	ND	116	75-125	1.84	20	
Total Hydrocarbon C6-C35	1200	10.0	"	1040	ND	115	75-125	3.39	20	
Surrogate: 1-Chlorooctane	*59.4*		*mg/kg*	*50.0*		*119*	*70-130*			
Surrogate: 1-Chlorooctadecane	*53.1*		*"*	*50.0*		*106*	*70-130*			

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

Basin Environmental Services	Project: Saunders 8 inch #1 & #3	Fax: (505) 396-1429
P.O. Box 301	Project Number: EMS: 2004-00182	**Reported:**
Lovington NM, 88260	Project Manager: Ken Dutton	11/11/04 10:23

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 EK41003 - EPA 5030C (GC)										
Blank (EK41003-BLK1)				Prepared & Analyzed: 11/09/04						
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	*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			
Xylene (o)	102		"	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: 11/09/04 Analyzed: 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 (o)	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)	**Source: 4K08003-01**			Prepared: 11/09/04 Analyzed: 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*			

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

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 EK41003 - EPA 5030C (GC)										
Matrix Spike Dup (EK41003-MSD1)	**Source: 4K08003-01**			Prepared: 11/09/04 Analyzed: 11/10/04						
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		"	100	ND	106	80-120	2.87	20	
Xylene (p/m)	235		"	200	ND	118	80-120	5.22	20	
Xylene (o)	110		"	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*			

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 EK40804 - General Preparation (Prep)										
Blank (EK40804-BLK1)				Prepared & Analyzed: 11/08/04						
% Moisture	0.0		%							
Duplicate (EK40804-DUP1)		**Source: 4K05006-01**		Prepared & Analyzed: 11/08/04						
% Moisture	20.0		%		20.0			0.00	20	

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

Report Approved By: Raland K Tuttle Date: 11/11/2004

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.

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
Company Name: BES
Company Address: P. O. BOX 301
City/State/Zip: LOVINGTON, NM 88260
Telephone No: (505) 441-2124
Fax No: (505) 396-1429
Sampler Signature: Ken Dutton

Project Name: SAUNDERS 8" #1+3
Project #: EMS: 2004-00182
Project Loc: LEA COUNTY, NM
PO #:

4K05016

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	4oz glass	Preservative: Ice	HNO_3	HCl	NaOH	H_2SO_4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TCLP: TPH: 418.1	8015M	1005	1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 80218/5030 by BTEX 8260 X	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule)	Standard TAT
-01	NORTH RAMP-EXC	04 NOV	1445	1		X									X		X										X				X
-02	SOUTH RAMP-EXC		1450																												
-03	EXC FLOOR-EAST		1500																												
-04	EXC FLOOR-WEST		1455																												

Special Instructions:

Sample Containers Intact? (Y) N
Temperature Upon Receipt: 1.0°C
Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Ken Dutton	05 NOV 04	1241	[illegible]	11-05-04	11:55
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
[illegible]	11-5-04	13:27	Jane Menzies	11-5-04	1527

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

Client: Basin Environmental

Date/Time: 11-05-04 @ 1600

Order #: 4K05016

Initials: JMM

Sample Receipt Checklist

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

Other observations:

_____

_____

_____

Variance Documentation:

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

Regarding:

_____

_____

_____

Corrective Action Taken:

_____

_____

_____

_____

_____

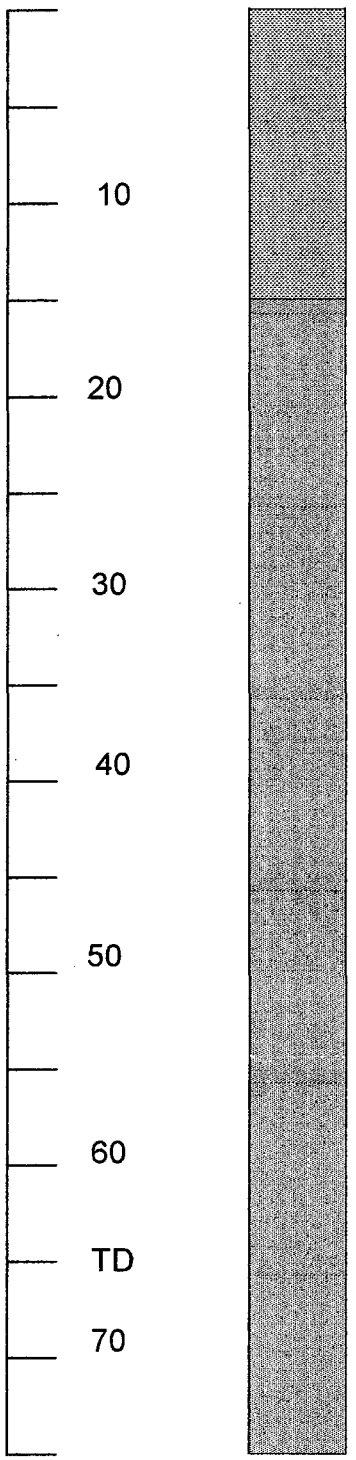
_____

_____

_____

APPENDIX C

SOIL BORING LOGS

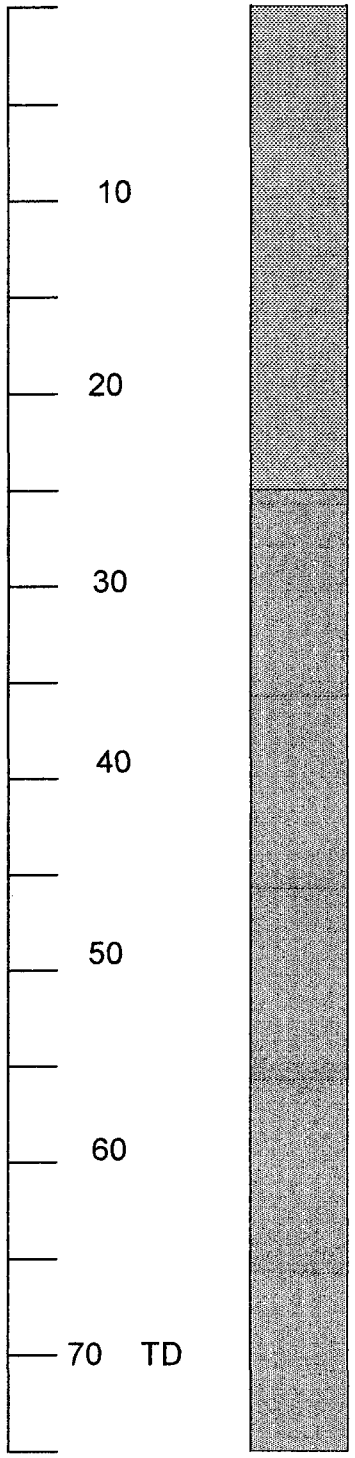


PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
588 ppm	Heavy	Heavy	Caliche Layer
513 ppm	Heavy	Heavy	Caliche Layer
509 ppm	Moderate	Moderate	Sand (SP) Brown, Very Fine Grained, Well Sorted,
667 ppm	Moderate	None	
660 ppm	Heavy	Heavy	
665 ppm	Moderate	None	
215 ppm	Slight	None	
67 ppm	Slight	None	
99 ppm	None	None	
78 ppm	None	None	
49 ppm	None	None	
28 ppm	None	None	
20 ppm	None	None	

Soil Boring was plugged with bentonite

Samples selected for analysis

TITLE	DESCRIPTION
Saunders 8" # 1 & 3	Soil Boring 1
DRAWN BY: K. DUTTON	DATE: 10/10/2004

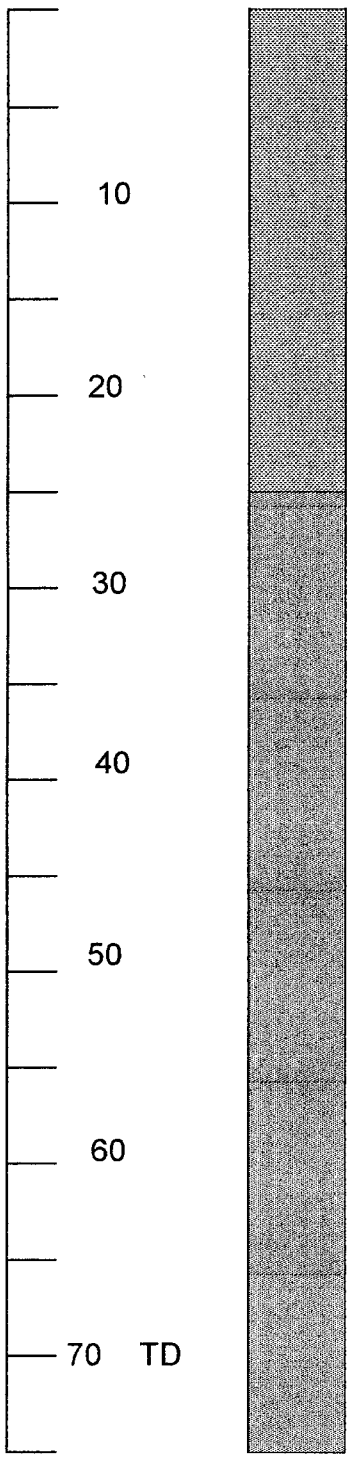


Depth	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
	5.7 ppm	None	None	Caliche Layer
10	4.0 ppm	None	None	
	4.5 ppm	None	None	
20	3.0 ppm	None	None	
	3.5 ppm	None	None	Sand (SP) Brown, Very Fine Grained, Well Sorted,
30	4.3 ppm	None	None	
	3.1 ppm	None	None	
40	3.1 ppm	None	None	
	2.7 ppm	None	None	
50	2.6 ppm	None	None	
	3.4 ppm	None	None	
60	3.9 ppm	None	None	
	3.2 ppm	None	None	
70 TD	2.5 ppm	None	None	

Soil Boring was plugged with bentonite

Samples selected for analysis

TITLE	DESCRIPTION
Saunders 8" # 1 & 3	Soil Boring 2
DRAWN BY K. DUTTON	DATE 10/10/2004

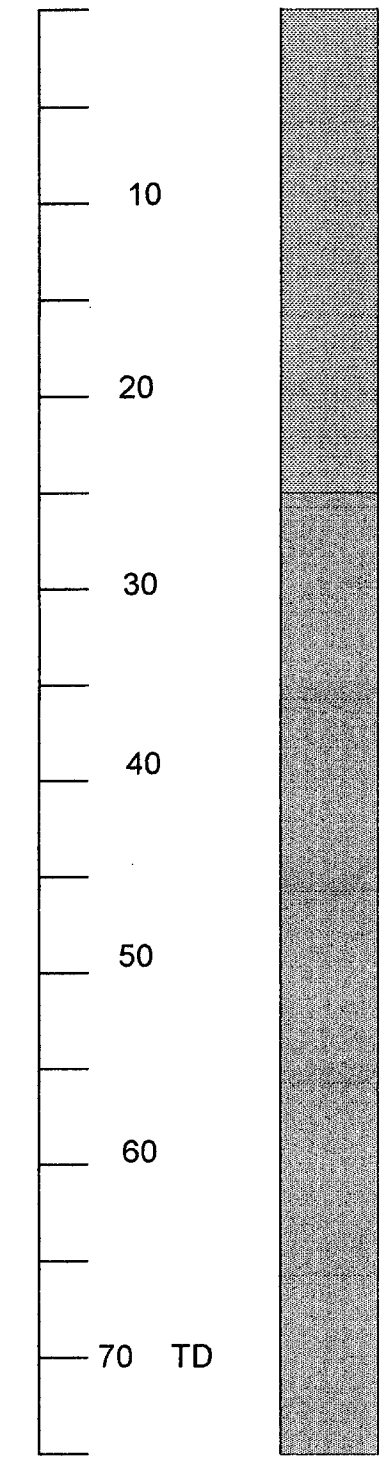


Soil Column	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
	3.3 ppm	None	None	Caliche Layer
	2.9 ppm	None	None	
	3.2 ppm	None	None	
	3.0 ppm	None	None	
	3.0 ppm	None	None	Sand (SP) Brown, Very Fine Grained, Well Sorted,
	2.2 ppm	None	None	
	2.7 ppm	None	None	
	1.8 ppm	None	None	
	1.6 ppm	None	None	
	2.4 ppm	None	None	
	1.6 ppm	None	None	
	1.5 ppm	None	None	
	2.5 ppm	None	None	
	2.0 ppm	None	None	

Soil Boring was plugged with bentonite

Samples selected for analysis

TITLE	DESCRIPTION
Saunders 8" # 1 & 3	Soil Boring 3
DRAWN BY K. DUTTON	DATE 10/10/2004



PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
3.8 ppm	None	None	Caliche Layer
3.8 ppm	None	None	
2.8 ppm	None	None	
0.9 ppm	None	None	
1.6 ppm	None	None	Sand (SP) Brown, Very Fine Grained, Well Sorted,
1.3 ppm	None	None	
2.3 ppm	None	None	
2.3 ppm	None	None	
1.8 ppm	None	None	
1.6 ppm	None	None	
1.7 ppm	None	None	
0.9 ppm	None	None	
1.4 ppm	None	None	
1.1 ppm	None	None	

Soil Boring was plugged with bentonite

Samples selected for analysis

TITLE	DESCRIPTION
Saunders 8" # 1 & 3	Soil Boring 4
DRAWN BY K. DUTTON	DATE 10/10/2004

APPENDIX D

NMOCD FORM C-141

[redacted] Dr., Hobbs, NM 88240
[redacted] l Avenue, Artesia, NM 88210
[redacted] os Road, Aztec, NM 87410
[redacted] Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

x Initial Report ☐ Final Report

Name of Company Plains Marketing, LP	Contact Camille Reynolds
Address 5805 East Hwy. 80, Midland, TX 79706	Telephone No. 505-441-0965
Facility Name Saunders 8" #1	Facility Type 8"Steel Pipeline

Surface Owner State Of New Mexico	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	24	14S	33E					Lea

Latitude 33°05'14.9" **Longitude** 103°34'31.2"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 60 barrels	Volume Recovered 23 barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 7-30-04 @ 06:30	Date and Hour of Discovery 7-30-04 @ 09:15
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Paul Sheeley	
By Whom? Camille Reynolds	Date and Hour 7-30-04 @ 3:30	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* External corrosion of the 8" steel pipeline. A line clamp was installed to mitigate the release. The line is an 8 inch steel transmission pipeline that produces approximately 1,400 barrels of crude oil per day. The pressure on the line varies from 25-30 [illegible] and the gravity of the sweet crude oil is 38-42. The sweet crude oil has an H_2S content of less than 10 ppm.

scribe Area Affected and Cleanup Action Taken.* The impacted soil was excavated and stockpiled on plastic. Aerial extent of surface impact was 854 ft^2.

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

gnature: Camille Reynolds	OIL CONSERVATION DIVISION
inted Name: Camille Reynolds	Approved by District Supervisor:
le: Remediation Coordinator	Approval Date: Expiration Date:
mail Address: cjreynolds@paalp.com	Conditions of Approval: Attached ☐
ne: Rtland Phone:505-441-0965	

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

x Initial Report ☐ Final Report

Name of Company Plains Marketing, LP	Contact Camille Reynolds
Address 5805 East Hwy. 80, Midland, TX 79706	Telephone No. 505-441-0965
Facility Name Saunders 8" #3	Facility Type 8"Steel Pipeline

Surface Owner State Of New Mexico	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	24	14S	33E					Lea

Latitude 33°05'14.9" **Longitude** 103°34'31.2"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 20 barrels	Volume Recovered 14barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 8-9-04 @ 06:00	Date and Hour of Discovery 8-9-04 @ 08:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Larry Johnson	
By Whom? Camille Reynolds	Date and Hour 8-9-04 @ 13:15	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* External corrosion of the 8" steel pipeline. A line clamp was installed to mitigate the release. The line is an 8 inch steel transmission pipeline that produces approximately 1,400 barrels of crude per day. The pressure on the line varies from 25 to 30 psi and the gravity of the sweet crude oil is 38-42. The sweet crude has an H_2S content of less than 10 ppm

Describe Area Affected and Cleanup Action Taken.* The impacted soil was excavated and stockpiled on plastic. Aerial extent of surface impact was 2,500 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-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Camille Reynolds	OIL CONSERVATION DIVISION
Printed Name: Camille Reynolds	Approved by District Supervisor:
Title: Remediation Coordinator	Approval Date: / Expiration Date:
E-mail Address: cjreynolds@paalp.com	Conditions of Approval: / Attached ☐
Date: 8-16-04 Phone:505-441-0965	

* Attach Additional Sheets If Necessary