

3R - 233

REPORTS

DATE:

1998



Certified Mail: #Z 211 324 121

March 31, 1999

Mr. William C. Olson
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87504

RECEIVED

APR 05 1999

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

RE: 1998 Pit Project Annual Groundwater Report

Dear Mr. Olson:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual updates for the 49 remaining groundwater impacted locations that were identified during our pit closure project of 1994 / 1995.

Of the 49 reports, EPFS hereby requests closure of 18 of these locations. The 18 sites EPFS is requesting closure on are presented in 4 separate binders entitled "Final Closure Report for Groundwater Sites with Four Consecutive Quarters Below Standards".

The Jaquez Com. C #1 and Jaquez Com. E #1 site is included in a separate report which is entitled "Jaquez Com. C #1 and Jaquez Com. E #1 Annual Report for Soil and Groundwater Remediation".

If you have any questions concerning the enclosed reports or closure requests, please call me at (505) 599-2124.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Scott T. Pope'.

Scott T. Pope P.G.
Senior Environmental Scientist

xc: Mr. Denny Foust, NMOCD, Aztec - w / enclosures; **Certified Mail # Z 211 324 122**
Mr. Bill Liesse, BLM - w / enclosures; **Certified Mail # Z 211 324 123**
Ms. Charmaine Tso, Navajo EPA - w / enclosures; **Certified Mail # Z 211 324 120**

SAN JUAN BASIN PIT CLOSURES
San Juan Basin, New Mexico

El Paso Field Services
Final Closure Report For Groundwater Sites With Four
Consecutive Quarters Below Standards

December 1998

RECEIVED

APR 05 1999

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Prepared For

El Paso Field Services
Farmington, New Mexico

Project 17520
Book 1



EPFS GROUNDWATER PITS 1998 CLOSURE REPORT

SANCHEZ GAS COM B #1
Meter/Line ID - 75220

RECEIVED

APR 05 1999

SITE DETAILS

Legals - Twn: 29N Rng: 10W Sec: 28 Unit: G
NMOCD Hazard Ranking: 40 Land Type: FEE
Operator: AMOCO PRODUCTION COMPANY

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

PREVIOUS ACTIVITIES

Site Assessment: Apr-94 Excavation: Apr-94 (40 cy) Geoprobe: Oct-96
Soil Boring: Feb-97 Monitor Well: Feb-97

The pit was excavated to 10 feet beneath ground surface (bgs) and a composite soil sample was collected from the pit bottom and four walls. Approximately 220 cubic yards of impacted soil were removed during excavation. The headspace soil reading from the excavation bottom was 200 ppm. Soil analytical was as follows; benzene - <0.05 mg/kg, total BTEX 19.4 mg/kg, and TPH (418.1) <10 mg/kg.

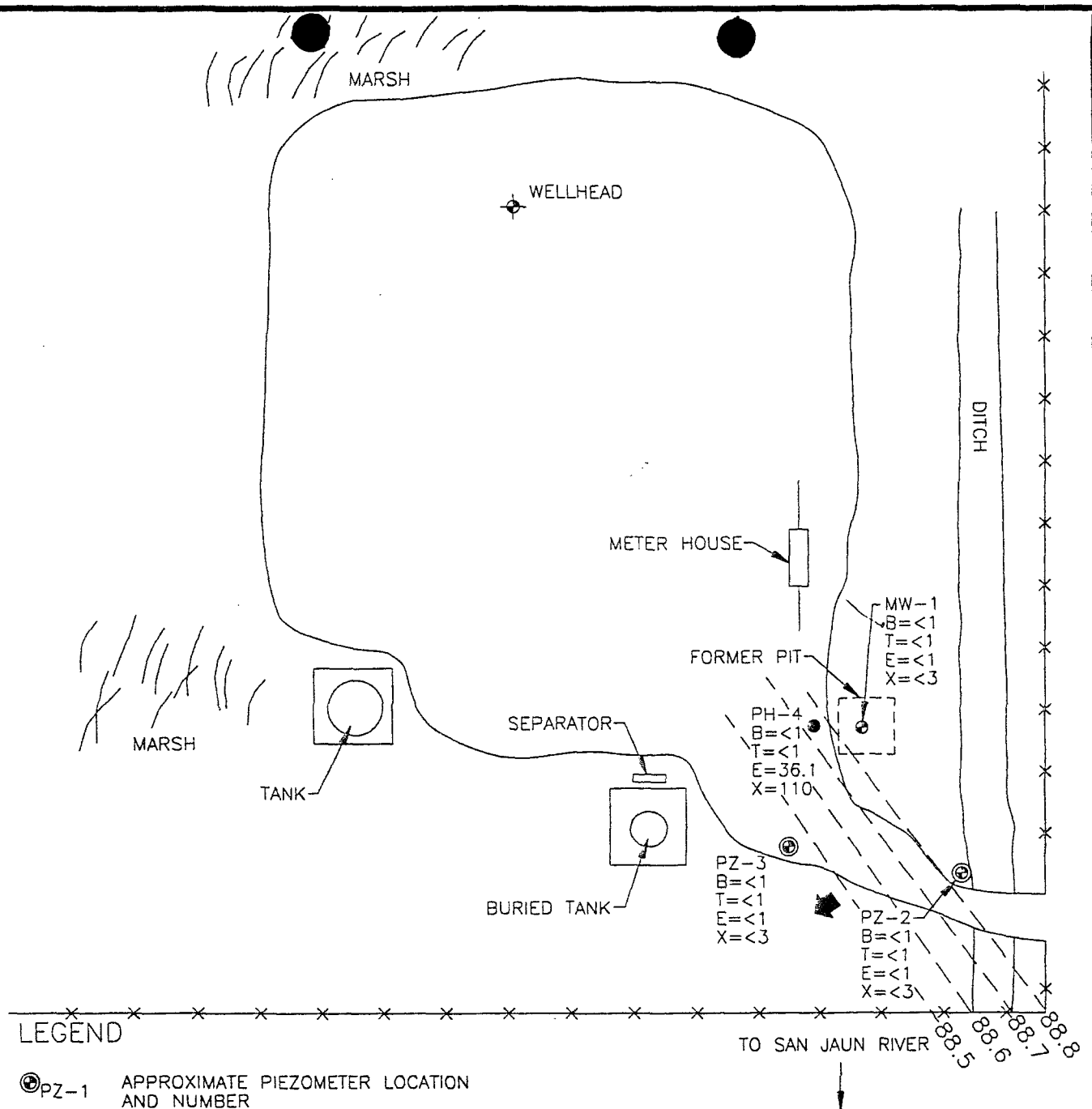
One soil boring was drilled in the center of the former pit and a monitoring well was installed. Groundwater was encountered at approximately 10 feet bgs. No soil samples were collected. Quarterly groundwater monitoring was initiated on 8/12/97 and continued through 5/5/98. Groundwater analytical data are presented in Table 1. Additional geoprobe sample points showed BTEX levels in groundwater to be below standards down gradient of the former production pit. Groundwater analytical data prior to 1998 has been previously submitted in the 1997 Annual Report.

CONCLUSIONS

The soil sample from the bottom of the pit was below NMOCD standards. Initial groundwater sampling indicated xylenes above standards. Subsequent sampling has shown all BTEX parameters to be below standards. Groundwater analysis from MW-1 has been non detect or below standards for 4 consecutive quarters, indicating minimal impact to groundwater at this site.

RECOMMENDATIONS

- EPFS request closure at this site.
- Following OCD approval for closure, MW-1 will be abandoned following OCD approved abandonment procedures.



⊙ PZ-1 APPROXIMATE PIEZOMETER LOCATION AND NUMBER

● PH-1 APPROXIMATE PROBEHOLE LOCATION AND NUMBER

⊙ MW-1 APPROXIMATE MONITORING WELL LOCATION AND NUMBER

B BENZENE (ug\L)
T TOLUENE (ug\L)
E ETHYL BENZENE (ug\L)
X XYLENE (ug\L)

ug\L MICROGRAMS PER LITER

88.5 GROUNDWATER POTENTIOMETRIC SURFACE

➔ APPROXIMATE GROUNDWATER GRADIENT

TO SAN JAUN RIVER

0 50
FEET

COL 17520AA-001



TITLE:

SANCHEZ GAS COM B1
75220

DWN:

TMM

DES.:

CC

CHKD:

CC

APPD:

DATE:

1/20/98

REV.:

0

PROJECT NO.:

17520

EPFS GW PITS

FIGURE 1

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 75220 Location: SANCHEZ GAS COM B #1
 Operator #: 0203 Operator Name: AMOCO P/L District: BLOOMFIELD
 Coordinates: Letter: 6 Section 28 Township: 29 Range: 10
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator X Location Drip: _____ Line Drip: _____ Other: _____
 Site Visit Date: 4.11.94 Run: 10 42

SITE ASSESSMENT

NMOCD Zone: Inside Land Type: BLM ☐
 (From NMOCD Vulnerable State ☐
 Maps) Zone ☒ Fee ☒
 Outside ☐ Indian _____

Depth to Groundwater

Less Than 50 Feet (20 points) ☒
 50 Ft to 99 Ft (10 points) ☐
 Greater Than 100 Ft (0 points) ☐

Wellhead Protection Area :

Is it less than 1000 ft from wells, springs, or other sources of fresh water extraction? , or ; Is it less than 200 ft from a private domestic water source? ☐ YES (20 points) ☒ NO (0 points)

Horizontal Distance to Surface Water Body

Less Than 200 Ft (20 points) ☒
 200 Ft to 1000 Ft (10 points) ☐
 Greater Than 1000 Ft (0 points) ☐

Name of Surface Water Body SAN JUAN RIVER

(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

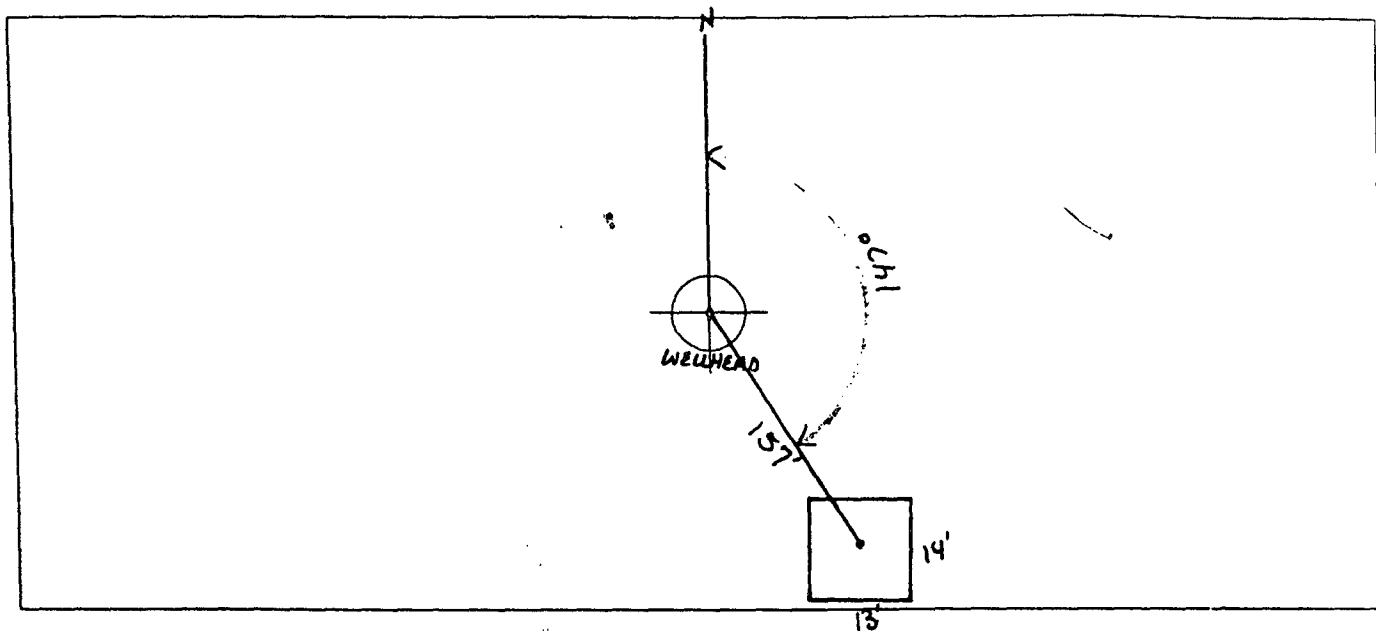
TOTAL HAZARD RANKING SCORE: 40 POINTS

REMARKS

Remarks : THREE PITS ON LOCATION. WILL CLOSE ONLY ONE. PIT IS DRY. LOCATION IS NEXT TO SAN JUAN RIVER.

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 142° Footage to Wellhead 157'
 b) Degrees from North _____ Footage to Dogleg _____
 Dogleg Name _____
 c) Length : 14' Width : 13' Depth : 2'



REMARKS :

STARTED TAKING PICTURES AT
END DUMP

Completed By:

Robert Thompson
 Signature

4-11-94
 Date

PHASE I EXCAVATION

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 75220 Location: Sanchez Gas Com B#1
 Coordinates: Letter: G Section 28 Township: 29 Range: 10
 Or Latitude _____ Longitude _____
 Date Started : 4-29-94 Area: 10 Run: 42

FIELD OBSERVATIONS

Sample Number(s): AP7
 Sample Depth: 10 Feet
 Final PID Reading 200 ppm PID Reading Depth 10 Feet
 Yes No
 Groundwater Encountered ☒ (1) ☐ (2) Approximate Depth 10 Feet

CLOSURE

Remediation Method :

Excavation ☒ (1) Approx. Cubic Yards 40
 Onsite Bioremediation ☐ (2)
 Backfill Pit Without Excavation ☐ (3)

Soil Disposition:

Envirotech ☐ (1) ☒ (3) Tierra
 Other Facility ☐ (2) Name: _____

Pit Closure Date: 4-29-94 Pit Closed By: BEI

REMARKS

Remarks : STARTED Remediating pit to 10' which is ground
water level. Allen James took water sample + soil sample. Took 5 point
VC sample PID read 200 ppm at 75". OGD said we could close
pit the persons name was Bill Olson

Signature of Specialist: James J. Pearson



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

SAMPLE NUMBER:

Field ID

Lab ID

MTR CODE | SITE NAME:

SAMPLE DATE | TIME (Hrs):

SAMPLED BY:

N/A

DATE OF TPH EXT. | ANAL.:

DATE OF BTEX EXT. | ANAL.:

TYPE | DESCRIPTION:

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	10.05	MG/KG				
TOLUENE	1.1	MG/KG				
ETHYL BENZENE	1.2	MG/KG				
TOTAL XYLENES	17	MG/KG				
TOTAL BTEX	19.4	MG/KG				
TPH (418.1)	444 ⁵¹⁰ _{ASB 5/19/94}	MG/KG			2.05	28
HEADSPACE PID	200	PPM				
PERCENT SOLIDS	82.7	%				

- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 -

The Surrogate Recovery was at 65 % for this sample All QA/QC was acceptable.

Narrative:

ATI results attached.

DF = Dilution Factor Used

Approved By:

Date:

5/21/94



Page

of

White - Testing Laboratory Canary - EPNG Lab Pink - Field Sampler



Analytical**Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 405313

May 13, 1994

El Paso Natural Gas Company
P.O. Box 4990
Farmington, NM 87499

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 05/03/94, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

EPA Method 8015 analysis was added on 05/05/94 for sample 945008 per Stacy Sendler.

The matrix spike/spike duplicate data from the samples extracted on 05/05/94 is reported twice reflecting quantification using both the internal standard and external standard protocols. Both protocols were employed to quantify the samples submitted for this project.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Letitia Krakowski, Ph.D.
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jd

Enclosure





Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX, MTBE (EPA 8020)
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 405313
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
31	945044	NON-AQ	04/29/94	05/05/94	05/06/94	2
32	945045	NON-AQ	04/29/94	05/05/94	05/06/94	10
33	945046	NON-AQ	04/29/94	05/05/94	05/08/94	20

PARAMETER	UNITS	31	32	33
BENZENE	MG/KG	<0.05	1.4	<0.50
TOLUENE	MG/KG	1.1	<0.25	<0.50
METHYLBENZENE	MG/KG	1.2	7.9	2.2
TOTAL XYLENES	MG/KG	17	72	27
METHYL-t-BUTYL ETHER	MG/KG	<0.24	<1.2	<2.4

SURROGATE:

BROMOFLUOROBENZENE (%)	65	93	52*
------------------------	----	----	-----

*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

GEOPROBE

PIEZOMETER INSTALLATION RECORD

Philip Environmental Services, Inc.

4000 Monroe Rd.

Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # PZ - 1

Well # _____

Page 1 of 1

Project Name EPFS PITS

Project Number 16297 Phase 6004

Site Location Sanchez GC Bl 75220

Elevation _____

Well Location Center of Pit

GWL Depth 8.55 BGJ

Installed By K PADILLA

On-Site Geologist CM CHANCE

Personnel On-Site D CHARLEY

Contractors On-Site _____

Client Personnel On-Site _____

Date/Time Started 10/29/96

Date/Time Completed 10/29/96

Depths in Reference to Ground Surface				
Item	Material	Depth (feet)		
Top of Protective Casing			Top of Protective Casing <u>NA</u>	
Bottom of Protective Casing			Top of Riser _____	
Top of Permanent Borehole Casing		N/A	Ground Surface _____	
Bottom of Permanent Borehole Casing		N/A		
Top of Concrete				
Bottom of Concrete				
Top of Grout				
Bottom of Grout				
Top of Well Riser				
Bottom of Well Riser				
Top of Well Screen			Top of Seal _____	
Bottom of Well Screen				
Top of Peltonite Seal				
Bottom of Peltonite Seal			Top of Gravel Pack _____	
Top of Gravel Pack			Top of Screen <u>4.97</u>	
Bottom of Gravel Pack				
Top of Natural Cave-In				
Bottom of Natural Cave-In				
Top of Groundwater			Bottom of Screen <u>9.97</u>	
Total Depth of Borehole			Bottom of Borehole <u>12.0</u>	

Comments: _____

Geologist Signature _____

PIEZOMETER INSTALLATION RECORD

Philip Environmental Services, Inc.

4000 Monroe Rd.

Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # PZ-2

Well # _____

Page 1 of 1

Project Name EPFS PITS

Project Number 16297 Phase 6004

Site Location Sanchez GC B1 75220

Elevation _____

Well Location Center of Pit SE of P21

GWL Depth 8.29 BGS

Installed By K PADILLA

On-Site Geologist CM CHANCE

Personnel On-Site D CHARLEY

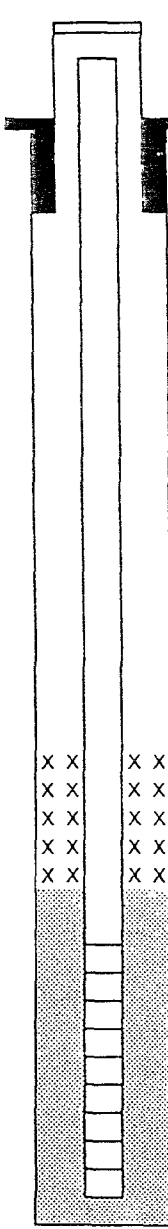
Contractors On-Site _____

Client Personnel On-Site _____

Date/Time Started 10/29/96

Date/Time Completed 10/29/96

Depths in Reference to Ground Surface		
Item	Material	Depth (feet)
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		N/A
Bottom of Permanent Borehole Casing		N/A
Top of Concrete		
Bottom of Concrete		
Top of Grout		
Bottom of Grout		
Top of Well Riser		
Bottom of Well Riser		
Top of Well Screen		
Bottom of Well Screen		
Top of Peltonite Seal		
Bottom of Peltonite Seal		
Top of Gravel Pack		
Bottom of Gravel Pack		
Top of Natural Cave-In		
Bottom of Natural Cave-In		
Top of Groundwater		
Total Depth of Borehole		



Top of Protective Casing NA

Top of Riser _____

Ground Surface _____

Top of Seal _____

Top of Gravel Pack _____

Top of Screen 6.51

Bottom of Screen 9.01

Bottom of Borehole 9.5

Comments: _____

PIEZOMETER INSTALLATION RECORD

Philip Environmental Services, Inc.

4000 Monroe Rd.

Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # PZ - 3

Well # _____

Page 1 of 1

Project Name EPFS PITS

Project Number 16297 Phase 6004

Site Location Sanchez Gas Com Bl 75220

Elevation _____

Well Location SW of PZ1

GWL Depth 8.45 BGS

Installed By K PADILLA

On-Site Geologist CM CHANCE

Personnel On-Site D CHARLEY

Contractors On-Site _____

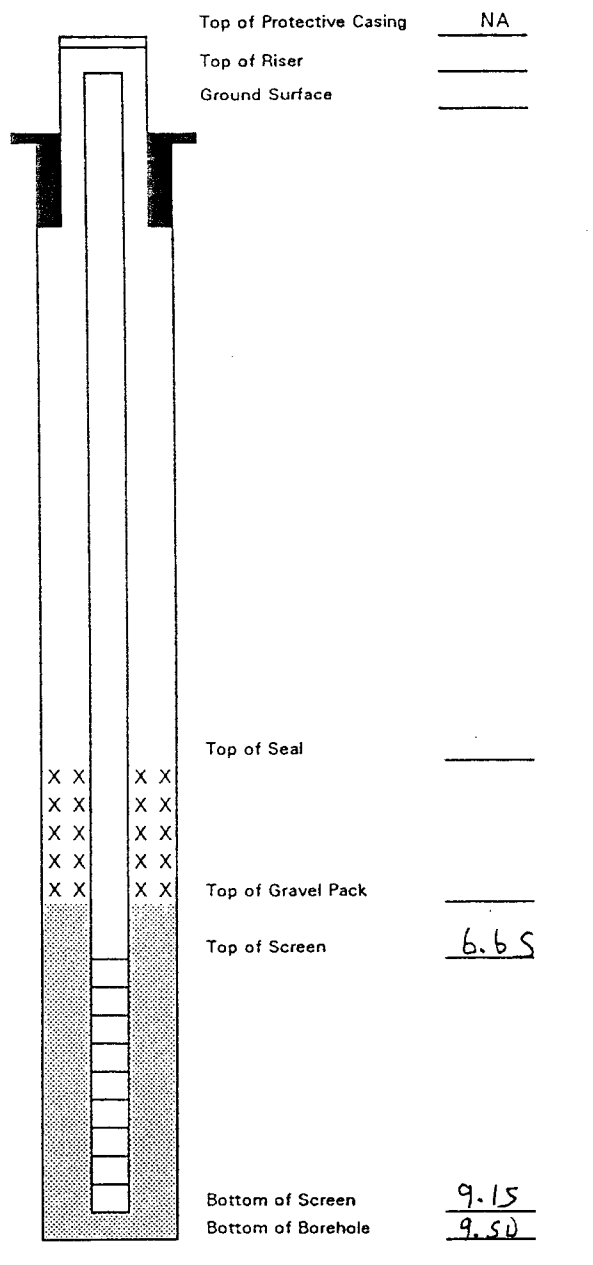
Client Personnel On-Site _____

Date/Time Started _____

Date/Time Completed _____

Depths in Reference to Ground Surface

Item	Material	Depth (feet)
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		N/A
Bottom of Permanent Borehole Casing		N/A
Top of Concrete		
Bottom of Concrete		
Top of Grout		
Bottom of Grout		
Top of Well Riser		
Bottom of Well Riser		
Top of Well Screen		
Bottom of Well Screen		
Top of Peltonite Seal		
Bottom of Peltonite Seal		
Top of Gravel Pack		
Bottom of Gravel Pack		
Top of Natural Cave-In		
Bottom of Natural Cave-In		
Top of Groundwater		
Total Depth of Borehole		



Comments: _____



as Company

CHAIN OF CUSTODY RECORD

A 2684

Project No.		Project Name		Date		Sample Number		Type and No. of Sample Containers		Preservation Technique		Requested Analysis		Remarks	
16297		EPFS #175		10/29/96						BTEX					
Samplers: (Signature)		Date		Time		Comp.		GRAB							
CM Chavez		10/29/96		0925				✓		✓		P21 Sanchez Gas Can B1 75220			
47968	10/29/96	0925				✓		✓	✓	✓	✓	✓	P22		
47969	10/29/96	1115				✓		✓	✓	✓	✓	✓	P23		
47970	10/29/96	1201				✓		✓	✓	✓	✓	✓	PH4		
47971	10/29/96	1230				✓		✓	✓	✓	✓	✓	TRIP BLANK		
CMC 10/29/96															
*Note: Product odor on P21 sample															
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Relinquished by: (Signature)		Date/Time		Received by: (Signature)			
CM Chavez		10/29/96 1500		P. J. Stull		10/29/96 1030		P. J. Stull		10/29/96 1030		M. J. Armenta			
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Relinquished by: (Signature)		Date/Time		Received by: (Signature)			
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)		Date/Time		Relinquished by: (Signature)		Date/Time		Received by: (Signature)			
Carrier Co:		Carrier Phone No.		Date Results Reported / by: (Signature)											
Air Bill No.:															



EL PASO FIELD SERVICES
FIELD SERVICES LABORATORY

ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

SAMPLE NUMBER:

Field ID

CMC237

Lab ID

947968

MTR CODE | SITE NAME:

75220

Sanchez Gas Com B 1

SAMPLE DATE | TIME (Hrs):

10/29/96

925

PROJECT:

GEOPROBE

DATE OF BTEX EXT. | ANAL.:

10/31/96

10/31/96

TYPE | DESCRIPTION:

PZ1

Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	32.5	PPB	10	D		
TOLUENE	< 1	PPB	10	D		
ETHYL BENZENE	33.0	PPB	10	D		
TOTAL XYLENES	4039	PPB	10	D		
TOTAL BTEX	4105	PPB				

—BTEX is by EPA Method 8020 —

The Surrogate Recovery was at 109 % for this sample All QA/QC was acceptable.

The "D" qualifier indicates that the analyte is calculated based on a secondary dilution factor.

Narrative:

DF = Dilution Factor Used

Approved By:

John Feller

Date:

11/5/96



EL PASO FIELD SERVICES
FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

SAMPLE NUMBER:	Field ID CMC238	Lab ID 947969
MTR CODE SITE NAME:	75220	Sanchez Gas Com B 1
SAMPLE DATE TIME (Hrs):	10/29/96	1115
PROJECT:	GEOPROBE	
DATE OF BTEX EXT. ANAL.:	10/31/96	10/31/96
TYPE DESCRIPTION:	PZ2	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	< 1	PPB				
TOLUENE	< 1	PPB				
ETHYL BENZENE	< 1	PPB				
TOTAL XYLENES	< 3	PPB				
TOTAL BTEX	< 6	PPB				

—BTEX is by EPA Method 8020 —

The Surrogate Recovery was at 108 % for this sample All QA/QC was acceptable.

Narrative: _____

DF = Dilution Factor Used

Approved By: John Fabela

Date: 11/5/96



EL PASO FIELD SERVICES
FIELD SERVICES LABORATORY

ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

SAMPLE NUMBER:

Field ID
CMC239

Lab ID
947970

MTR CODE | SITE NAME:

75220

Sanchez Gas Com B 1

SAMPLE DATE | TIME (Hrs):

10/29/96

1221

PROJECT:

GEOPROBE

DATE OF BTEX EXT. | ANAL::

10/31/96

10/31/96

TYPE | DESCRIPTION:

PZ3

Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				

—BTEX is by EPA Method 8020—

The Surrogate Recovery was at 106 % for this sample All QA/QC was acceptable.

Narrative: _____

DF = Dilution Factor Used

Approved By: _____

John Latch

Date: _____

11/5/96



EL PASO FIELD SERVICES
FIELD SERVICES LABORATORY

ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

SAMPLE NUMBER:

Field ID
CMC240

Lab ID
947971

MTR CODE | SITE NAME:

75220

Sanchez Gas Com B 1

SAMPLE DATE | TIME (Hrs):

10/29/96

1230

PROJECT:

GEOPROBE

DATE OF BTEX EXT. | ANAL.:

10/31/96

10/31/96

TYPE | DESCRIPTION:

PH4

Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	36.1	PPB				
TOTAL XYLENES	110	PPB				
TOTAL BTEX	146	PPB				

—BTEX is by EPA Method 8020—

The Surrogate Recovery was at 108 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: _____

John Latta

Date: _____

11/5/96

EPFS

EL PASO FIELD SERVICES

QUALITY CONTROL REPORT EPA METHOD 8020 - BTEX

Samples: 947968 - 947971

QA/QC for 10/30/96 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE NUMBER	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
ICV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	55.4	111	75 - 125 %	X
Toluene	Standard	50.0	54.9	110	75 - 125 %	X
Ethylbenzene	Standard	50.0	54.6	109	75 - 125 %	X
m & p - Xylene	Standard	100	109	109	75 - 125 %	X
o - Xylene	Standard	50.0	54.2	108	75 - 125 %	X
SAMPLE NUMBER	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
LCS LA-45476 25 PPB					RANGE	
Benzene	Standard	25.0	25.8	103	39 - 150	X
Toluene	Standard	25.0	25.9	104	46 - 148	X
Ethylbenzene	Standard	25.0	26.2	105	32 - 160	X
m & p - Xylene	Standard	50.0	53.0	106	Not Given	X
o - Xylene	Standard	25.0	26.3	105	Not Given	X
SAMPLE NUMBER	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
CCV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	52.7	105	75 - 125 %	X
Toluene	Standard	50.0	52.1	104	75 - 125 %	X
Ethylbenzene	Standard	50.0	51.8	104	75 - 125 %	X
m & p - Xylene	Standard	100	103	103	75 - 125 %	X
o - Xylene	Standard	50.0	51.7	103	75 - 125 %	X
SAMPLE NUMBER	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
CCV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	52.2	104	75 - 125 %	X*
Toluene	Standard	50.0	51.6	103	75 - 125 %	X
Ethylbenzene	Standard	50.0	51.1	102	75 - 125 %	X
m & p - Xylene	Standard	100	102	102	75 - 125 %	X
o - Xylene	Standard	50.0	51.1	102	75 - 125 %	X

Narrative: Acceptable.

EL PASO FIELD SERVICES LAB

QUALITY CONTROL REPORT

EPA METHOD 8020 - BTEX

Samples: 947968 - 947971

LABORATORY DUPLICATES:

SAMPLE ID	TYPE	SAMPLE RESULT PPB	DUPLICATE RESULT PPB	RPD	ACCEPTABLE	
					YES	NO
947969					RANGE	
Benzene	Matrix Duplicate	<1.0	<1.0	0.00	+/- 20 %	X
Toluene	Matrix Duplicate	<1.0	<1.0	0.00	+/- 20 %	X
Ethylbenzene	Matrix Duplicate	<1.0	<1.0	0.00	+/- 20 %	X
m & p - Xylene	Matrix Duplicate	<2.0	<2.0	0.00	+/- 20 %	X
o - Xylene	Matrix Duplicate	<1.0	<1.0	0.00	+/- 20 %	X

ative: Acceptable.

LABORATORY SPIKES:

SAMPLE ID	SPIKE ADDED PPB	SAMPLE RESULT PPB	SPIKE SAMPLE RESULT PPB	%R	ACCEPTABLE	
					YES	NO
2nd Analysis 947969					RANGE	
Benzene	50	<1.0	52.8	106	75 - 125 %	X
Toluene	50	<1.0	52.8	106	75 - 125 %	X
Ethylbenzene	50	<1.0	52.2	104	75 - 125 %	X
m & p - Xylene	100	<2.0	104	104	75 - 125 %	X
o - Xylene	50	<1.0	52.0	104	75 - 125 %	X

ative: Acceptable

ANALYTICAL BLANKS:

ANALYTICAL BLANK	SOURCE	PPB	STATUS
Benzene	Boiled Water	<1.0	ACCEPTABLE
Toluene	Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Boiled Water	<3.0	ACCEPTABLE

ative: Acceptable.

SOIL VIAL BLANK	SOURCE Lot MB1461	PPB (Analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

ative: Acceptable.

CONTAMINATION ARRYOVER CHECK	SOURCE	PPB (Two analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

ive: Acceptable.

Sorted By: mdaApproved By: John ForchDate: 11/5/90

PHASE II SOIL BORING

RECORD OF SUBSURFACE EXPLORATION

PHILIP ENVIRONMENTAL SERVICES INC.

4000 Monroe Road

Cambridge, New Mexico 87401

TEL 326-2262 FAX (505) 326-2388

Borehole # BH- 2

Well # 1

Page 1 of 1

Project Name EPFS GW PITS

Project Number 17520 Phase 6001.77

Project Location SANCHEZ GC B#1 — 75220

Well Logged By D CESARK

Personnel On-Site D CHARLEY

Contractors On-Site

Client Personnel On-Site

Drilling Method 4 1/4" ID HSA

Air Monitoring Method PID, CGI

Elevation

Borehole Location T29-R10-S28-Ltr G

GWL Depth 7' BGS

Logged By D CESARK

Drilled By M DONOHUE

Date/Time Started 2/27/97 — 1230

Date/Time Completed — 1300

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S	
0				BACKFILL						
5				TO						
10				10' GWC 7' (FROM PZ 1) — COBBLES @ 9.5'						
15				Auger Refusal in COBBLES C 14'						
20				TD = 14'						
25										
30										
35										
40										

Comments:

DEPTH TO GW 7' BGS AS MEASURED @ PZ 1. PZ 1 WAS REMOVED & REPLACED WITH
MW-1. TD = 14' @ AUGER REFUSAL IN COBBLES/GRAVELS. SINCE GW WAS LOCATED
IN FILL, NO SAMPLES WERE COLLECTED SET WELL - PLEASE SEE WELL CAMP. DIAGRAM

Geologist Signature

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services, Inc.
4000 Monroe Rd.
Farmington, NM 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # 2
Well # 1
Page 1 of 1

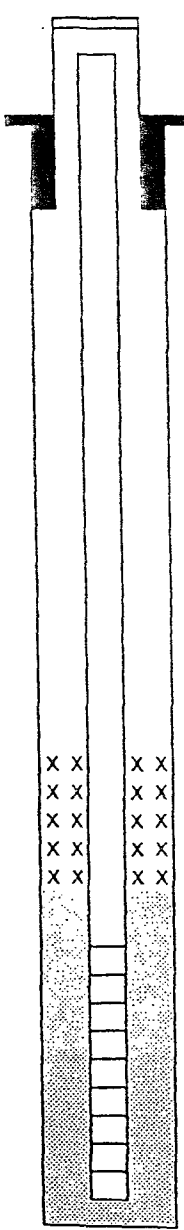
Project Name EPFS GW PITS
Project Number 17520 Phase 6002.77
Site Location SANCHEZ GC B #1 - 75220

Elevation _____
Well Location T29N-R10W-S28-L6'
GWL Depth 7' BGS
Installed By M DONOHUE

On-Site Geologist D CESARK
Personnel On-Site D CHARLEY
Contractors On-Site _____
Client Personnel On-Site _____

Date/Time Started 2/27/97 - 1300
Date/Time Completed " - 1415

Depths in Reference to Ground Surface		
Item	Material	Depth (feet)
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		N/A
Bottom of Permanent Borehole Casing		N/A
Top of Concrete		
Bottom of Concrete		
Top of Grout		
Bottom of Grout		
Top of Well Riser	SCH 40 PVC	+3'
Bottom of Well Riser	"	-3'
Top of Well Screen	.010 SLOT	-3'
Bottom of Well Screen	"	-13'
Top of Peltonite Seal	ENVIROPLUG	-.5'
Bottom of Peltonite Seal	"	-2'
Top of Gravel Pack	10-20 SAND	-2'
Bottom of Gravel Pack	"	-13'
Top of Natural Cave-In		-13'
Bottom of Natural Cave-In		-14'
Top of Groundwater		-7'
Total Depth of Borehole		-14'



Top of Protective Casing +3'

Top of Riser +3'

Ground Surface -0-

Top of Seal -.5'

Top of Gravel Pack -2'

Top of Screen -3'

Bottom of Screen -13'

Bottom of Borehole -14'

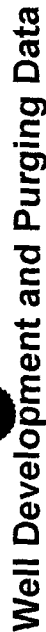
Comments: _____

Geologist Signature _____

QUARTERLY MONITORING RESULTS

Sample #	Meter/ Line #	Site Name	Sample Date	Project	S1	Benzene (PPB)	S2	Toluene (PPB)	S3	Ethyl Benzene (PPB)	S4	Total Xylenes (PPB)	S7	Total BTEX PPB
970207 *	75220	Sanchez GC B #1	3/11/97	Phase II Drilling - Initial	=	1.5	<	1	=	98.6	=	817	=	918
970853 *	75220	Sanchez GC B #1	8/12/97	Sample 4 - 1st Qtr	=	1.09	=	4.34	=	2.11	=	5.6	=	13
971190 *	75220	Sanchez GC B #1	11/6/97	Sample 4 - 2nd Qtr	<	1	<	1	<	1	<	3	<	6
980142	75220	Sanchez GC B #1	2/5/98	Sample 4 - 3rd Qtr	<	1	<	1	<	1	<	3	<	6
980345	75220	Sanchez GC B #1	5/5/98	Sample 4 - 4th Qtr	<	1	=	1.77	<	1	<	3	=	2

* Analytical reports provided to NMOCD in prior annual report.



☐	Development
☒	Purging

Well Number 9W1

Meter Code 75220

Development Criteria

- | | |
|-------------------------------------|--|
| ☒ | 3 to 5 Casing Volumes of Water Removal |
| ☐ | Stabilization of Indicator Parameters |
| ☐ | Other |

Water Volume Calculation

Initial Depth of Well (feet) 15.97
Initial Depth to Water (feet) 9.64
Height of Water Column in Well (feet) 6.33

Methods of Development

- | | | | |
|--------------------------|-------------|-------------------------------------|--------------------------|
| ☐ | Pump | ☐ | Bailer |
| ☐ | Centrifugal | ☒ | Bottom Valve |
| ☐ | Submersible | ☐ | Double Check Valve |
| ☐ | Peristaltic | ☐ | Stainless-steel Kemmerer |

Instruments

- | | |
|-------------------------------------|---------------------|
| ☒ | pH Meter |
| ☐ | DO Monitor |
| ☒ | Conductivity Meter |
| ☒ | Temperature Meter |
| ☒ | Other <u>D.O.C.</u> |

Diameter (inches): Well 4 Gravel Pack

Water Disposal

KUTZ SEPARATOR

Water Removal Data

[illegible]

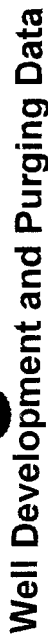
Comments

Developer's Signature
Jennie Bird

Date 2-5-98

John Fowler

Date 2/17/98



Well Number MW-1
Meter Code 75220

Site Name SANCHET GC B#1

Development Criteria

- | | |
|-------------------------------------|--|
| ☒ | 3 to 5 Casing Volumes of Water Removal |
| ☐ | Stabilization of Indicator Parameters |
| ☐ | Other |

Methods of Development

- | | | | |
|--------------------------|-------------|-------------------------------------|--------------------------|
| ☐ | Pump | ☒ | Bailer |
| ☐ | Centrifugal | ☒ | Bottom Valve |
| ☐ | Submersible | ☐ | Double Check Valve |
| ☐ | Peristaltic | ☐ | Stainless-steel Kemmerer |
| ☐ | Other | | |

Water Volume Calculation

Initial Depth of Well (feet) 15.97
Initial Depth to Water (feet) 9.44
Height of Water Column in Well (feet) 6.53
Diameter (Inches): Well 4 Gravel Pack

Item	Diameter (inches): Well <u>4</u> Gravel Pack		Gallons to be Removed
	Water Volume in Well		
	Cubic Feet	Gallons	
Well Casing		4.3	12.9
Gravel Pack			
Drilling Fluids			
Total			

Instruments

- | | |
|-------------------------------------|---------------------|
| ☒ | pH Meter |
| ☐ | DO Monitor |
| ☒ | Conductivity Meter |
| ☒ | Temperature Meter |
| ☒ | Other <u>D.O. C</u> |

Water Disposal

KUTZ SEPARATOR

Water Removal Data

[illegible]

Comments

Developer's Signature Dennis Bird Date 5-5-98 Reviewer John Lunde Date 5/11/98



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980142
MTR CODE SITE NAME:	75220	Sanchez GC B#1
SAMPLE DATE TIME (Hrs):	2/5/98	1126
PROJECT:	Sample 4 3rd Quarter	
DATE OF BTEX EXT. ANAL.:	2/6/98	2/6/98
TYPE DESCRIPTION:	MW-1	Water

Field Remarks: Surrogate recovery is low due to malfunction of surrogate injection syringe.

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	< 1	PPB				
TOLUENE	< 1	PPB				
ETHYL BENZENE	< 1	PPB				
TOTAL XYLENES	< 3	PPB				
TOTAL BTEX	< 6	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 43.8 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Surrogate low due to injection malfunction.

Approved By: Joan Scurdw

Date: 2/17/98

980142BTEXMW, 2/10/98

Sample 430077P



A 2191

✓ 1898
2-1998

CHAIN OF CUSTODY RECORD

Project No.		Project Name		Requested Analysis		Remarks	
Samplers: (Signature)		Date: 2-5-98		Type and No. of Sample Containers		Preservation Technique	
Date	Time	Comp.	GRAB	Sample Number			
2-5-98	1135		X	980143	G-1 4°C	X	Sanchez GC B*1 MW-1
2-5-98	—		X	—	G-1 4°C	X	TRIP BLANK
[The following rows are crossed out with a diagonal line]							
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time	
Dennis Bied		2-5-98 1710					
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time	
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)		Remarks:	
				M. J. Kopper		2/16/98 1145	
Carrier Co:		Carrier Phone No.		Date Results Reported / by: (Signature)			
Air Bill No.:							



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980345
MTR CODE SITE NAME:	75220	Sanchez GC B #1
SAMPLE DATE TIME (Hrs):	5/5/98	1121
PROJECT:	Sample 4 4th Quarter	
DATE OF BTEX EXT. ANAL.:	5/7/98	5/7/98
TYPE DESCRIPTION:	MW-1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	1.77	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	2	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 94.4 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: John Larch

Date: 5/11/98

980345BTEXMW,5/8/98

SAMPLE 4 4TH QTR



Edso
Natural Gas Company

5-18-98
5-18-98
5-18-98

A 2656

CHAIN OF CUSTODY RECORD

Project No.		Project Name		Requested Analysis		Remarks	
Samplers: (Signature)		Date: 5-5-98		Type and No. of Sample Containers		Preservation Technique	
Date	Time	Comp.	GRAB	Sample Number			
WATER 5-5-98	11:01	X		980345 ✓	G-1 40C X		SANCHEZ GC B#1 MW-1
WATER 5-5-98	—	X		—	G-1 40C X		TRIP BLANK
[Diagonal line across the rest of the table]							
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time	
Dennis Bird		5-5-98 1712					
Relinquished by: (Signature)		Date/Time		Relinquished by: (Signature)		Date/Time	
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)		Remarks:	
				M. Mark Hopper		5/17/98 0900	
Carrier Co:				Date Results Reported / by: (Signature)			
Air Bill No.:				Carrier Phone No.			



QUALITY CONTROL REPORT
EPA METHOD 8020 - BTEX

Samples: 980345 to 980348, 980350 to 980352

QA/QC for 5/7/98 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE NUMBER	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
ICV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	49.7	99.4	75 - 125 %	X
Toluene	Standard	50.0	50.9	102	75 - 125 %	X
Ethylbenzene	Standard	50.0	51.7	103	75 - 125 %	X
m & p - Xylene	Standard	100	104.0	104.0	75 - 125 %	X
o - Xylene	Standard	50.0	50.8	102	75 - 125 %	X
LCS LA-45476 25 PPB					RANGE	
Benzene	Standard	25.0	25.1	100.5	39 - 150	X
Toluene	Standard	25.0	25.6	102	46 - 148	X
Ethylbenzene	Standard	25.0	26.0	104	32 - 160	X
m & p - Xylene	Standard	50.0	52.7	105	Not Given	X
o - Xylene	Standard	25.0	25.7	103	Not Given	X
CCV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	48.8	97.5	75 - 125 %	X
Toluene	Standard	50.0	50.0	100.0	75 - 125 %	X
Ethylbenzene	Standard	50.0	51.2	102.3	75 - 125 %	X
m & p - Xylene	Standard	100	103.0	103.0	75 - 125 %	X
o - Xylene	Standard	50.0	49.9	100	75 - 125 %	X
CCV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	48.1	96.2	75 - 125 %	X
Toluene	Standard	50.0	49.0	98.1	75 - 125 %	X
Ethylbenzene	Standard	50.0	50.2	100.3	75 - 125 %	X
m & p - Xylene	Standard	100	100.7	100.7	75 - 125 %	X
o - Xylene	Standard	50.0	49.1	98.1	75 - 125 %	X

Narrative: Acceptable.

LABORATORY DUPLICATES:

SAMPLE ID	TYPE	SAMPLE RESULT PPB	DUPLICATE RESULT PPB	RPD	ACCEPTABLE	
					YES	NO
980345					RANGE	
Benzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
Toluene	Matrix Duplicate	1.8	1.8	0.31	+/- 20 %	X
Ethylbenzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
m & p - Xylene	Matrix Duplicate	<2	<2	0.00	+/- 20 %	X
o - Xylene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X

Narrative: Acceptable.

LABORATORY SPIKES:

SAMPLE ID	SPIKE ADDED PPB	SAMPLE RESULT PPB	SPIKE SAMPLE RESULT PPB	%R	ACCEPTABLE	
					YES	NO
2nd Analysis 980345					RANGE	
Benzene	50	<1	49.2	98.4	75 - 125 %	X
Toluene	50	1.8	51.8	100	75 - 125 %	X
Ethylbenzene	50	<1	50.2	100	75 - 125 %	X
m & p - Xylene	100	<2	101.3	101.3	75 - 125 %	X
o - Xylene	50	<1	50.2	100	75 - 125 %	X

Narrative: Acceptable

AUTO BLANK	SOURCE	PPB (2 analyzed with set)	STATUS
Benzene	Boiled Water	<1.0	ACCEPTABLE
Toluene	Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

SOIL VIAL BLANK	SOURCE Lot MB1461	PPB (none analyzed with set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

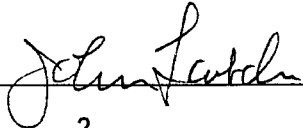
CONTAMINATION CARRYOVER CHECK	SOURCE	PPB (none analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

TRIP BLANK	SOURCE	PPB (2 analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

Reported By: CV

Approved By: 

Date: 5/11/98



EL PASO FIELD SERVICES

QUALITY CONTROL REPORT EPA METHOD 8020 - BTEX

Samples: 980132 to 980135, 980142 to 980145

QA/QC for 2/6/98 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE NUMBER	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
ICV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	47.5	95.0	75 - 125 %	X
Toluene	Standard	50.0	47.8	96	75 - 125 %	X
Ethylbenzene	Standard	50.0	48.3	97	75 - 125 %	X
m & p - Xylene	Standard	100	96.4	96.4	75 - 125 %	X
o - Xylene	Standard	50.0	48.4	97	75 - 125 %	X
LCS LA-45476 25 PPB					RANGE	
Benzene	Standard	25.0	24.7	98.7	39 - 150	X
Toluene	Standard	25.0	24.5	98	46 - 148	X
Ethylbenzene	Standard	25.0	24.5	98	32 - 160	X
m & p - Xylene	Standard	50.0	48.8	98	Not Given	X
o - Xylene	Standard	25.0	24.5	98	Not Given	X
CCV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	49.2	98.4	75 - 125 %	X
Toluene	Standard	50.0	49.4	98.7	75 - 125 %	X
Ethylbenzene	Standard	50.0	49.6	99.2	75 - 125 %	X
m & p - Xylene	Standard	100	98.9	98.9	75 - 125 %	X
o - Xylene	Standard	50.0	49.7	99	75 - 125 %	X
CCV LA-52589 50 PPB					RANGE	
Benzene	Standard	50.0	49.3	98.5	75 - 125 %	X
Toluene	Standard	50.0	50.4	100.8	75 - 125 %	X
Ethylbenzene	Standard	50.0	49.9	99.7	75 - 125 %	X
m & p - Xylene	Standard	100	99.3	99.3	75 - 125 %	X
o - Xylene	Standard	50.0	50.0	100.0	75 - 125 %	X

Narrative: Acceptable.

SAMPLE NUMBER CCV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
					RANGE	
Benzene	Standard	50.0	47.6	95.2	75 - 125 %	X
Toluene	Standard	50.0	47.0	94.0	75 - 125 %	X
Ethylbenzene	Standard	50.0	47.9	95.7	75 - 125 %	X
m & p - Xylene	Standard	100	95.0	95.0	75 - 125 %	X
o - Xylene	Standard	50.0	48.5	97.0	75 - 125 %	X

Narrative: Acceptable.

LABORATORY DUPLICATES:

LABORATORY REPORT

SAMPLE ID	TYPE	SAMPLE RESULT PPB	DUPLICATE RESULT PPB	RPD	ACCEPTABLE	
					YES	NO
					RANGE	
980143						
Benzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
Toluene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
Ethylbenzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
m & p - Xylene	Matrix Duplicate	<2	<2	0.00	+/- 20 %	X
o - Xylene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X

Narrative: Acceptable.

LABORATORY SPIKES:

SAMPLE ID 2nd Analysis 980143	SPIKE ADDED PPB	SAMPLE RESULT PPB	SPIKE SAMPLE RESULT PPB	%R	ACCEPTABLE	
					YES	NO
					RANGE	
Benzene	50	<1	48.7	97.3	75 - 125 %	X
Toluene	50	<1	48.4	97	75 - 125 %	X
Ethylbenzene	50	<1	48.6	97	75 - 125 %	X
m & p - Xylene	100	<2	96.7	96.7	75 - 125 %	X
o - Xylene	50	<1	48.6	97	75 - 125 %	X

Narrative: Acceptable

AUTO BLANK	SOURCE	PPB (2 analyzed with set)	STATUS
Benzene	Boiled Water	<1.0	ACCEPTABLE
Toluene	Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

SOIL VIAL BLANK	SOURCE Lot MB1461	PPB (none analyzed with set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

CONTAMINATION CARRYOVER CHECK	SOURCE	PPB (none analyzed with this set)	STATUS
● Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

TRIP BLANK	SOURCE	PPB (3 analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	< 1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	< 1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	< 1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	< 3.0	ACCEPTABLE

Narrative: Acceptable.

Reported By: CLW

Approved By: John Larch

Date: 2/17/98