3R - 172

REPORTS

DATE:
1997

EL PASO ENERGY

Certified Mail: #Z 295 387 297; #Z 295 387 296

February 27, 1998

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

Re: 1997 Groundwater Annual Report

Dear Mr. Olson:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual updates for 57 groundwater impacted locations that were identified during our pit closure project of 1994/1995.

Of the 57 reports, EPFS hereby requests your approval for closure of 11 of these locations. The 11 reports for which EPFS requests closure, are in 2 separate binders entitled "Request for Closure".

After you have had an opportunity to review these updates, EPFS would like to schedule a meeting with you to discuss issues related to closure criteria for some of the more complex locations that are currently being addressed.

If you have any questions regarding this information, please call me at 505/599-2141. I will contact you within the next quarter to schedule a meeting.

Sincerely,

Sandra D. Miller
Environmental Manager

xc: Mr. Bill Liesse, BLM w/o enclosures
Mr. Denny Foust, NMOCD - Aztec w/enclosures; **Certified Mail #Z 295 387 298; #Z 295 387 299**
Ms. Charmaine Tso, Navajo EPA w/enclosures; **Certified Mail #Z 295 387 292**

SAN JUAN BASIN PIT CLOSURES
San Juan Basin, New Mexico

El Paso Field Services Pit Project
Pit Closure Report

March 1998

Prepared For

El Paso Field Services
Farmington, New Mexico

Project 17520

PHILIP ENVIRONMENTAL

FLORANCE C LS #7
Meter/Line ID - 74997

SITE DETAILS

Legals - Twn: 28N **Rng:** 8W **Sec:** 30 **Unit:** F
NMOCD Hazard Ranking: 40 **Land Type:** FEDERAL
Operator: AMOCO PRODUCTION COMPANY

SITE ACTIVITIES

Site Assessment: May-94 **Excavation:** May-94 (80 cy) **Soil Boring:** Sep-95
Monitor Well: Sep-95

The pit was excavated to 12 feet beneath ground surface (bgs), and one soil sample was collected. The headspace soil reading from the excavation bottom was 219 parts per million. Soil analytical were as follows; benzene - <0.62 mg/kg, total BTEX – 6.4 mg/kg, TPH – 2,110 mg/kg.

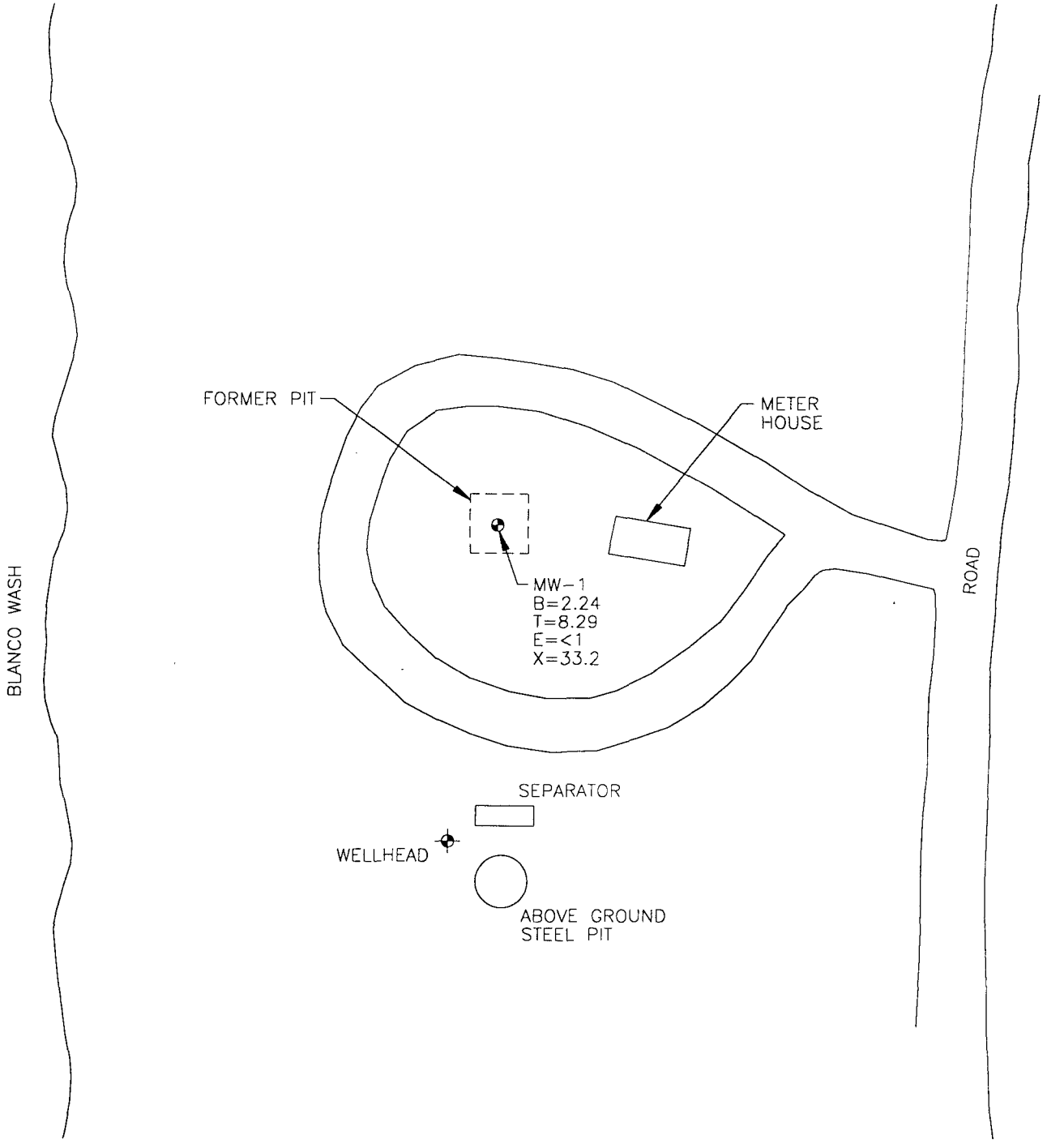
One soil boring was drilled in the center of the former pit and a monitoring well was installed. One soil sample was collected from 35-36.5 bgs. Soil analytical were as follows; benzene – 1.4 mg/kg, total BTEX – 293 mg/kg, TPH – 3,750 mg/kg. Initial groundwater analytical were as follows; benzene - 71.8 ppb, toluene – 1,360 ppb, ethyl benzene – 275 ppb, total xylenes – 3,780 ppb. Groundwater samples have been collected for four consecutive quarters and have been below standards since quarterly sampling was initiated on 11/7/96, as presented in Table 1. A site map is presented in Figure 1.

CONCLUSIONS

Groundwater analytical data has been below standards since quarterly sampling was initiated for 4 consecutive quarters at MW-1. Minimal impact to groundwater has occurred at this site.

RECOMMENDATIONS

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



LEGEND

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

0 50
FEET

N

PHILIP SERVICES CORP

TITLE:
FLORANCE CLS#7
74997

DWN:	DES.:
TMM	CC
CHKD:	APPD:
CC	
DATE:	REV.:
1/14/98	0

PROJECT NO.: 17520
EPFS GW PITS

FIGURE 1

COL. 17520AR-001

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 74997 Location: Florance CLS9

Operator #: 0203 Operator Name: Amoco P/L District: Blanco

Coordinates: Letter: F Section 30 Township: 28 Range: 8

Or Latitude _____ Longitude _____

Pit Type: Dehydrator ___ Location Drip: ✓ Line Drip: ___ Other: _____

Site Assessment Date: 5/16/94 Area: 03 Run: 82

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps)

Inside ☒ (1)

Outside ☐ (2)

Land Type:

BLM ☒ (1)

State ☐ (2)

Fee ☐ (3)

Indian _____

Depth to Groundwater

Less Than 50 Feet (20 points) ☒ (1)

50 Ft to 99 Ft (10 points) ☐ (2)

Greater Than 100 Ft (0 points) ☐ (3)

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? ☐ (1) YES (20 points) ☒ (2) NO (0 points)

Horizontal Distance to Surface Water Body

Less Than 200 Ft (20 points) ☒ (1)

200 Ft to 1000 Ft (10 points) ☐ (2)

Greater Than 1000 Ft (0 points) ☐ (3)

Name of Surface Water Body Blanco Canyon

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

Distance to Nearest Ephemeral Stream ☐ (1) < 100'(Navajo Pits Only)

☐ (2) > 100'

TOTAL HAZARD RANKING SCORE: 40 **POINTS**

REMARKS

Remarks : Refline Wells - Inside

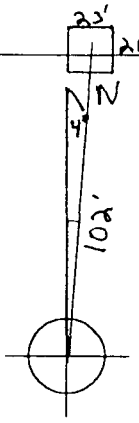
1 Pit Will close

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 4° Footage from Wellhead 102'

b) Length : 23' Width : 20' Depth : 5'



REMARKS

Remarks :

Pictures @ 1203 (11-15)
Dump Truck

Completed By:

Cory Champ
Signature

5/18/94
Date

TABLE 1

Sample #	Meter/ Line #	Site Name	Sample Date	MW #	Project	Benzene (PPB)	Toluene (PPB)	Ethyl Benzene (PPB)	Total Xylenes (PPB)	Total BTEX
960927	74997	Florance CLS-7	11/07/96	1	Sample 4 - 1st Quarter	= 2.74	< 1	= 10.8	= 51.8	= 66
970077	74997	Florance CLS-7	2/10/97	1	Sample 4 - 2nd Qtr	= 2.98	= 2.85	= 5.64	= 21.6	= 33
970415	74997	Florance CLS-7	5/14/97	1	Sample 4 - 3rd Qtr	= 1.49	= 6.09	= 4.28	= 23	= 35
970811	74997	Florance CLS-7	8/5/97	1	Sample 4 - 4th Qtr	= 2.24	= 8.29	< 1	= 33.2	= 44

PHASE I EXCAVATION

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 74997 Location: Florance CLS 7

Coordinates: Letter: F Section 30 Township: 28 Range: 8

Or Latitude _____ Longitude _____

Date Started : 5-31-94 Area: 03 Run: 82

FIELD OBSERVATIONS

Sample Number(s): KP#72 _____ _____ _____

Sample Depth: 12' Feet

Final PID Reading 219 PID Reading Depth 12' Feet

	Yes	No	
Groundwater Encountered	☐ (1)	☒ (2)	Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation	☒ (1)	Approx. Cubic Yards 80
Onsite Bioremediation	☐ (2)	
Backfill Pit Without Excavation	☐ (3)	

Soil Disposition:

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

Pit Closure Date: 5-31-94 Pit Closed By: B.E.I

REMARKS

Remarks : No Line markers gone down 3' soil BLACK Smells Bad. At 12' soil still Black.

Signature of Specialist: Kelly Pedutt

(SP3191) 04/07/94

El Paso Natural Gas Company

CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT NUMBER	PROJECT NAME
11957	Pit Closure Project # 24324

SAMPLERS: (Signature) Kelly Padilla DATE: 5-31-94

	LAB ID	DATE	TIME	MATRIX	SAMPLE NUMBER	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	REQUESTED ANALYSIS: TPH EPA 418.1	BTEX EPA 8020		SCQ			CONTRACT LABORATORY P. O. NUMBER / REMARKS
94	5303	5-31-94	1100	soil	KP #7	1	VC	X	X		63			
~~94~~	~~5304~~	KDK	4-1-94											
94	5304	5-31-94	1520	soil	KP #7.2	1	VC	X	X		64			

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Kelly Padilla	5-31-94 1740	F. Casebeer 34°	L Casebeer	6/1/94 0855	35°
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED OF LABORATORY BY: (Signature)
					Kim Kyle

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☐ RUSH

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS

CHARGE CODE

RESULTS & INVOICES TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
505-599-2144 FAX: 505-599-2261

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

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil

90

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP72	945304
MTR CODE | SITE NAME:	74997	N/A FLORANCE CLS #7
SAMPLE DATE | TIME (Hrs):	5-31-94	1520
SAMPLED BY:	N/A Phase I	
DATE OF TPH EXT. | ANAL.:	6-2-94	6/2/94
DATE OF BTEX EXT. | ANAL.:	6/6/94	6/6/94
TYPE | DESCRIPTION:	VC	BLACK COARSE SAND & CLAY

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.62	MG/KG	25			
TOLUENE	0.84	MG/KG	25			
ETHYL BENZENE	0.30	MG/KG	25			
TOTAL XYLENES	4.6	MG/KG	25			
TOTAL BTEX	6.4	MG/KG				
TPH (418.1)	2110	MG/KG			1.98	28
HEADSPACE PID	219	PPM				
PERCENT SOLIDS	90.7	%				

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

ie Surrogate Recovery was at 80 % for this sample All QA/QC was acceptable.

arr[illegible]e: ATI results attached.

= Dilution Factor Used

pproved By: [signature] Date: 7/14/94

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : EL PASO NATURAL GAS ATI I.D.: 406313

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	945303	NON-AQ	05/31/94	06/06/94	06/06/94	1
08	945304	NON-AQ	05/31/94	06/06/94	06/06/94	25
09	945325	NON-AQ	06/01/94	06/06/94	06/06/94	1

PARAMETER	UNITS	07	08	09
BENZENE	MG/KG	<0.025	<0.62	<0.025
TOLUENE	MG/KG	0.18	0.84	<0.025
ETHYLBENZENE	MG/KG	0.029	0.30	<0.025
TOTAL XYLENES	MG/KG	0.12	4.6	0.027
SURROGATE:				
BROMOFLUOROBENZENE (%)		95	80	99

Analytical **Technologies,** Inc.

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

ATI I.D. **406313**

June 10, 1994

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On **06/03/94**, 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.

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

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jd

Enclosure

PHASE II SOIL BORING

DJ-82 Blanco

RECORD OF SUBSURFACE EXPLORATION

Borehole # BH-1
Well #
Page 1 of 2

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(606) 326-2262 FAX (606) 326-2388

Project Name EPNG Pits
Project Number 14509 Phase ~~601~~ 6000
Project Location Florance CLS 7, 74997

Elevation
Borehole Location T28, R8, S.30, F
GWL Depth
Logged By S.Kelly
Drilled By K. Padilla
Date/Time Started 9/22/95, 0815
Date/Time Completed 9/22/95, ~~0920~~ 0930 AK 9/22/95

Well Logged By S.Kelly
Personnel On-Site K.Padilla, F.Rivera, D.Charley
Contractors On-Site
Client Personnel On-Site

Drilling Method 4¼" ID HSA
Air Monitoring Method CGI, PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ	BH	SHS	Drilling Conditions & Blow Counts
0				Backfill to 12'						
5										
10										
15	1	15-17	.7'/2.0'	sandy SILT, black, 5-20% fine sand, loose, dry					175/428	0843
20	2	20-21.5	.9'/2.0'			21			128/394	0850
25	3	25-27	.85'/2.0'	silty SAND, grey, 10-30% silt, fine to med. sand, loose, dry		22			302/1122	0906 has intervals of silt and clayey silt - approx. 2" - 4" thick.
30	4	30-31.5	.9'/1.5'	silty SAND, grey with black mottling, 10-30% silt, fine to med. sand, loose, damp		33			159/677	0915
35	5	35-37	1.75'/1.5'	SAND, brown, fine to med sand, loose, damp		35			228/887	0924
40	AK 9/22/95	36.5'		silty SAND, trace clay, olive brown, 10-25% silt, fine to med. sand, loose, damp						

Comments: 35'-36.5' sample (SEK 90) sent to lab. (BTEX & TPH.) Water level at 38.5'. Installed well.

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(606) 326-2262 FAX (606) 326-2388

Borehole # _____
Well # _____
Page 2 of 2

Project Name EPNG Pits
Project Number 14509 Phase 601
Project Location Florance C 45 T, 24997

Elevation _____
Borehole Location _____
GWL Depth _____
Logged By S.Kelly
Drilled By _____
Date/Time Started _____
Date/Time Completed _____

Well Logged By S.Kelly
Personnel On-Site _____
Contractors On-Site _____
Client Personnel On-Site _____

Drilling Method _____
Air Monitoring Method CGI, PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ	BH	S/HS	Drilling Conditions & Blow Counts
40	6	40-42		No split spoon taken - water table.					—	Hit water at approx. 40'. Water level rises to 38.5' after 10 min.
45										
50 ~~10~~				TOB - 48.0'						
55 ~~15~~										
20										
25										
30										
35										
40										

Comments: _____

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(606) 326-2262 FAX (606) 326-2388

Borehole # BH-1
Well #
Page 1 of 1

Project Name EPNG Pit Drilling
Project Number 14509 Phase 6001.77
Project Location Florance CLS 7, 74997

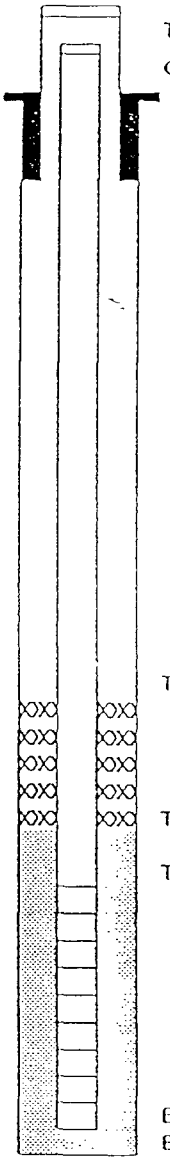
Elevation
Well Location T28, R8, S.30, F
GWL Depth
Installed By K. Padilla

On-Site Geologist S. Kelly
Personnel On-Site K. Padilla, F. Rivera, D. Charley
Contractors On-Site
Client Personnel On-Site

Date/Time Started 9/22/95, ~~0920~~ 0930 SK 9/22/95
Date/Time Completed 9/22/95, 1515

Depths in Reference to Ground Surface

Item	Material	Depth Feet
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		
Bottom of Permanent Borehole Casing		
Top of Concrete		
Bottom of Concrete		
Top of Grout	Type I-II cement with 5% bentonite	0.0
Bottom of Grout	13-94# bags "	-28.0'
Top of Well Riser	4", sch 40, PVC	+2.5
Bottom of Well Riser	" "	-32.3'
Top of Well Screen	4" Sch 40, .010 slot, PVC	-32.3'
Bottom of Well Screen	" "	-47.3
Top of bentonite ~~Pellonite~~ Seal SK 9/22/95	Enviroplug-Med 2-50# bags	-28.0'
Bottom of bentonite ~~Pellonite~~ Seal	" "	-30.0'
Top of Gravel Pack	10-20 CSSI sand. 22-50# bags.	-30.0'
Bottom of Gravel Pack	" "	-47.3
Top of Natural Cave-In		-47.3
Bottom of Natural Cave-In		-48.0
Top of Groundwater		
Total Depth of Borehole		-48.0



Top of Protective Casing N/A
Top of Riser +2.5
Ground Surface 0.0

Top of Seal -28.0'
Top of Gravel Pack -30.0'
Top of Screen -32.3'
Bottom of Screen -47.3'
Bottom of Borehole -47.3'

Comments: Water level at 38.5', 10 minutes after it was first encountered

Geologist Signature Sarah Kelly

El Paso Natural Gas Company

Phase II Drills

CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT NUMBER	PROJECT NAME
# 24324	Pit Closure Project

SAMPLERS: (Signature) Sarah Kelly DATE: 9/22/95

LAB ID	DATE	TIME	MATRIX	FIELD ID	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	TPH EPA 418.1	BTEX EPA 8020	LAB PID		PID HS ppm	SEQUENCE #	REMARKS
947524	9/22/95	0924	Soil	SEK 90	1	VG	V	V			887	75	Florance CLS 7, 74997 35-36, 51

SEK 9/22/95

CONTRACT LABORATORY P. O. NUMBER

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Sarah Kelly 36°F	9/22/95 1630	Julie Diddle	Julie Diddle	9/25/95 8:30	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED OF LABORATORY BY: (Signature)

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☐ RUSH _____

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS

CHARGE CODE

RESULTS & INVOICES TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499

505-599-2144 FAX: 505-599-2261

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

FM-08-0565 A (Rev. 05-94)

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	SEK90	947524
MTR CODE | SITE NAME:	74997	Florance CL57
SAMPLE DATE | TIME (Hrs):	09/22/95	0924
PROJECT:	Phase II Drill	
DATE OF TPH EXT. | ANAL.:	9-27-95	9/27/95 mdw 9/20/96
DATE OF BTEX EXT. | ANAL.:	9/25/95	9/26/95
TYPE | DESCRIPTION:	VG	Brown Sand & Clay

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	1.4	MG/KG	2	D		
TOLUENE	50.7	MG/KG	2	D		
ETHYL BENZENE	12.7	MG/KG	2	D		
TOTAL XYLENES	228	MG/KG	2	D		
TOTAL BTEX	293	MG/KG	2	D		
TPH (418.1)	3750	MG/KG			2.03	28
HEADSPACE PID	887	PPM				
PERCENT SOLIDS	89.2	%				

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

The Surrogate Recovery was at 102% for this sample All QA/QC was acceptable.

Narrative:

ATI Results for mod 8015 attached (2250).

DF = Dilution Factor Used

Analytical**Technologies**, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED

CLIENT : EL PASO NATURAL GAS ATI I.D.: 510301

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE/PHASE II

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	947512	NON-AQ	09/20/95	10/03/95	10/04/95	10
02	947516	NON-AQ	09/21/95	10/03/95	10/04/95	1
03	947524	NON-AQ	09/22/95	10/03/95	10/04/95	10

PARAMETER	UNITS	01	02	03
FUEL HYDROCARBONS	MG/KG	3100	57	2000
HYDROCARBON RANGE		C6-C14	C6-C14	C6-C14
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE	GASOLINE
FUEL HYDROCARBONS	MG/KG	1100	120	250
HYDROCARBON RANGE		C14-C36	C14-C36	C16-C32
HYDROCARBONS QUANTITATED USING		DIESEL	DIESEL	DIESEL
SURROGATE:				
O-TERPHENYL (%)		120	101	110

Analytical**Technologies,**Inc.

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

ATI I.D. **510301**

October 9, 1995

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

Project Name/Number: PIT CLOSURE/PHASE II 24324

Attention: John Lambdin

On **10/03/95**, 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.

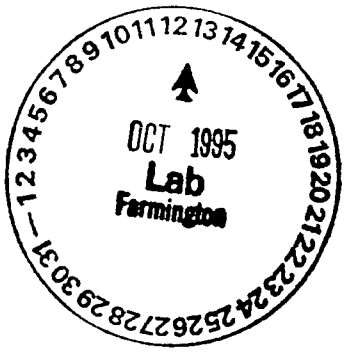
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure



GROUNDWATER ANALYSIS

PHILIP ENVIRONMENTAL Well Development and Purging Data

☑ Development ☐ Purging Well Number MW-1

Serial No. WDPD- Page 1 of 1

Project Name EPNG Pits Project Manager CM Chance Project No. 14509

Client Company EPNG Phase.Task No. 6002.77

Site Name Florance CLS 7 74997 Site Address QF-S30-T28-R8

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) 50.47' TOR
Initial Depth to Water (feet) 40.25'
Height of Water Column in Well (feet) 10.22
Diameter (inches): Well 4" Gravel Pack

Item	Water Volume in Well: Cubic Feet	Water Volume in Well: Gallons	Gallons to be Removed
Well Casing		6.67 x 5	33.4
Gravel Pack			
Drilling Fluids			
Total			33.4

Instruments

	Serial No. (If applicable)
☐ pH Meter	9206
☐ DO Monitor	
☑ Conductivity Meter	9206
☑ Temperature Meter	9206
☐ Other	

Water Disposal

Kutz

Water Removal Data

Date	Time	Development Method: Pump	Development Method: Bailer	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons): Increment	Water Volume Removed (gallons): Cumulative	Product Volume Removed (gallons): Increment	Product Volume Removed (gallons): Cumulative	Temperature ~~°C~~ °F	pH	Conductivity (µmhos/cm) XIDOX	Dissolved Oxygen (mg/L)	Comments
9/29/95	0731						5	5			66.2	6.20	6.78		Br, silty, odor
	0742						5	10			59.7	6.98	7.58		AA
	0754						5	15			59.4	7.26	7.98		AA
	0804						5	20			59.4	7.33	8.28		lt br, sl silty
	0813						5	25			59.0	7.26	8.22		AA
	0825						5	30			58.7	7.37	8.25		v. lt br, sl silty
(9/29/95)	(0834)						5	35			58.2	7.43	8.30		AA
						40.93									

Circle the date and time that the development criteria are met.

Comments Initial bail had slight product odor. Ending water depth taken after sampling

Developer's Signature(s) Cary Chance Date 9/29/95 Reviewer _____ Date _____

Form A0101 Rev. 03/21/94

PHILIP ENVIRONMENTAL Water Sampling Data

Location No. _____

Serial No. WSD- _____

Group List Number _____

Sample Type: ☑ Groundwater ☐ Surface Water ☐ Other _____ Date 9/29/95

Project Name EPNG Plants Project No. 14509

Project Manager _____ Phase.Task No. 6003 .77

Site Name Florance CLS-7 74997

Sampling Specifications

Requested Sampling Depth Interval (feet) Upper 3'

Requested Wait Following Development/Purging (hours) NA

Initial Measurements

Time Elapsed From Final Development/Purging (hours) .5 h

Initial Water Depth (feet) ~~40~~ 40.25

Nonaqueous Liquids Present (Describe) None

Water Quality/Water Collection

DO = Dissolved Oxygen; Cond. = Conductivity

Date	Time	Sampler Initials	Water Quality Readings: Temp. (°C)	pH	DO (mg/L)	Cond. (µmhos/cm)	Water Collection Data: Volume Removed (gallons)	Removal Rate (gal/min)	Pump Intake Depth (feet)	Bail	Final Water Depth (feet)	Notes (Explain in Comments Below)
		SEE Development Form										

Sample Containers

Container Type: G = Clear Glass; A = Amber Glass; P = Plastic; V = VOA Vial (Glass); O = Other (Specify)

Preservatives: H = HCl; N = HNO_3; S = H_2SO_4; A = NaOH; O = Other (Specify); — = None

Analytical Parameter List	Container: Number	Type	Volume (mL)	Field Filtered: Yes	No	Preserved	Cooled During Collection: Yes	No	Comments
BTEX	2	V	40		✓	HCl, 4°C	✓		CMC123 0850h
TDS	1	P	250		✓	4°C	✓		11

Filter Type _____ Chain-of-Custody Form Number EPNG COC

Comments Slight drizzle during sample collection. Samples sent to EPNG lab for analysis

Signature Cory Olsen Date 9/29/95 Reviewer _____ Date _____

Form A0202 Rev. 02/24/94

El Paso Natural Gas Company

Phase II MW

CHAIN OF CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
# 24324	Pit Closure Project

SAMPLERS: (Signature) Cory Chavez DATE: 9/29/95

LAB ID	DATE	TIME	MATRIX	FIELD ID	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	TPH EPA 418.1	BTEX EPA 8020	LAB PID	TDS		SEQUENCE #	REMARKS
947565	9/29/95	0850	Water	CMC 123	3	W		✓		✓		4	Florance C LS-7 74997
947566	↕	NA	↕	CMC124	1	B		✓				4	Trip Blank
947567	9/29/95	1305	WATER	CMC125	3	W		✓		✓		5	Lat H-37 Drip Y-3 QF-51-T31-R13 LD002

CONTRACT LABORATORY P. O. NUMBER

REQUESTED ANALYSIS

Cmc 9/29/95

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Cory Chavez	9/29/95 1600	Julie Diddle	Julie Diddle	10/2/95 8:55	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED OF LABORATORY BY: (Signature)

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☐ RUSH

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS

CHARGE CODE

RESULTS & INVOICES TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
505-599-2144 FAX: 505-599-2261

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

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Water

SAMPLE IDENTIFICATION

SAMPLE NUMBER:	947565
FIELD ID:	CMC 123
MTR CODE:	74997
SAMPLE DATE:	09-29-95
SAMPLE TYPE:	W [MW]
SITE NAME:	Florance CLS-7
PROJECT:	Phase II MW
DATE OF BTEX ANALYSIS:	10/2/95

FIELD COMMENTS:

EPA Method 8020 (BTEX) RESULTS

PARAMETER	RESULT	QUALIFIER	WQCC LIMIT PPB
TDS - TOTAL DISSOLVED SOLIDS (PPM)	4620		None
BENZENE (PPB)	71.8	D (X20)	10
TOLUENE (PPB)	1360	D (X20)	740
ETHYL BENZENE (PPB)	275	D (X20)	750
TOTAL XYLENES (PPB)	3780	D (X20)	620
SURROGATE % RECOVERY	96%	Allowed Range 80 to 120 %	

NOTES:

Approved By: [signature] 10-10-95

El Paso Natural Gas Company

A 2674

CHAIN OF CUSTODY RECORD

Project No.	Project Name	Type and No. of Sample Containers	Preservation Technique	Requested Analysis: BTXE	Requested Analysis: GENERAL CHEMISTRY & RCRA METALS	Remarks
	HUGHES PIPELINE					
Samplers: (Signature) Dennis Bird	Date: 11-7-96					

MATRIX	Date	Time	Comp.	GRAB	Sample Number							
WATER	11-7-96	1355		X	760737	P2 S2	4°C	X	X	X		FLORANCE CLS-7 MW-1 MC 74997

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Dennis Bird	11-7-96 1618				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks:	
		Marlon Hopper	11/8/96 0720		

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

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	960927
MTR CODE | SITE NAME:	74997	Fl.orance CLS-7
SAMPLE DATE | TIME (Hrs):	11/7/96	1358
PROJECT:	Sample 4 - 1st Quarter	
DATE OF BTEX EXT. | ANAL.:	11/11/96	11/11/96
TYPE | DESCRIPTION:	Monitor Well	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	2.74	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	10.8	PPB				
TOTAL XYLENES	51.8	PPB				
TOTAL BTEX	65.3	PPB				

–BTEX is by EPA Method 8020 –

The Surrogate Recovery was at 101 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Narrative:

Approved By: John Zanda Date: 11/14/96

960920BT.XLS,11/13/96

EL PASO FIELD SERVICES

Field Services Laboratory
Analytical Report

SAMPLE IDENTIFICATION

EPFS LAB ID:	960927
DATE SAMPLED:	11/07/96
TIME SAMPLED (Hrs):	1358
SAMPLED BY:	D. Bird
MATRIX:	Water
METER CODE:	74997
SAMPLE SITE NAME:	Huerfano Pipeline
SAMPLE POINT:	Florance CLS-7 MW-1

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Laboratory pH	8.1	Units	11/06/96
Alkalinity as $C0_3$	0.0	PPM	11/06/96
Alkalinity as $HC0_3$	369	PPM	11/06/96
Calcium as Ca	215	PPM	11/07/96
Magnesium as Mg	39	PPM	11/07/96
Total Hardness as $CaC0_3$	696	PPM	11/07/96
Chloride as Cl	27	PPM	11/06/96
Sulfate as $S0_4$	3,180	PPM	11/06/96
Fluoride as F	1.6	PPM	11/07/96
Nitrate as $N0_3$-N*	<0.6	PPM	11/06/96
Nitrite as $N0_2$-N	<0.6	PPM	11/06/96
Ammonium as NH_4^+	<0.6	PPM	11/07/96
Phosphate as PO_4	<0.6	PPM	11/06/96
Potassium as K	4.9	PPM	11/07/96
Sodium as Na	1320	PPM	11/07/96
Total Dissolved Solids	4,850	PPM	11/06/96
Conductivity	5,440	umhos/cm	11/06/96
Anion/Cation %	1.2%	%, <5.0 Accepted	11/20/96

Laboratory Remarks:
* Nitrate was analyzed outside of holding limits.

Reported By: Linda Approved By: Date: 11/26/96

EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY
ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER:	960927
SAMPLE DATE:	11/07/96
SAMPLE TIME (Hrs):	1358
SAMPLED BY:	D. Bird
MATRIX:	Water
METER CODE:	74997
SAMPLE SITE NAME:	Huerfano Pipeline
SAMPLE POINT:	Florance CLS-7 MW-1

REMARKS: _____

RESULTS

PARAMETER	TOTAL RESULT (mg/L)	N. M. WQCC LIMIT (mg/L)
ARSENIC	<.010	0.100
BARIUM	0.05	1.00
CADMIUM	<.0002	0.010
CHROMIUM	0.002	0.050
LEAD	<.004	0.050
MERCURY	<.00024	0.002
SELENIUM	<.003	0.050
SILVER	0.0005	0.050

NOTE: The sample results have been corrected for volume adjustment associated with Method 3015.

References:

Method 3015, Microwave Assisted Acid Digestion of Aqueous Samples and Extracts, Test Methods for Evaluating Solid Waste, SW-846, Sept., 1994.

Method 7061A, Arsenic (Atomic Absorption, Gaseous Hydride), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.

Method 7081, Barium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.

Method 7131, Cadmium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1986.

Method 7191, Chromium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1986.

Method 7421, Lead (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1986.

Method 245.5, Mercury (Automated Cold Vapor Technique), Methods for the Determination of Metals in Environmental Samples, EPA 600/4-91/010, USEPA, June, 1991.

Method 7741A, Selenium (Atomic Absorption, Gaseous Hydride), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1994.

Method 7761, Silver (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.

EL PASO FIELD SERVICES

QUALITY CONTROL REPORT

Sample ID: 960927
Date Sampled: 11/07/96

Date Reported: 12/16/96

STANDARD REFERENCE MATERIAL

Analyte	Found Result (µg/L)	Known Value (µg/L)	% Recovery
Arsenic	30.6	32.4	94%
Barium	75.5	64.9	116%
Cadmium	2.75	2.38	116%
Chromium	5.07	4.76	107%
Lead	28.8	29.7	97%
Mercury	4.86	4.59	106%
Selenium	36.3	40.5	90%
Silver	4.81	4.32	111%

DUPLICATE ANALYSIS (mg/L)

Analyte	Original Sample Result	Duplicate Sample Result	% RPD
Arsenic	ND	ND	NA
Barium	0.58	0.55	5.3%
Cadmium	ND	ND	NA
Chromium	0.002	0.002	0.0%
Lead	ND	ND	NA
Mercury	ND	ND	NA
Selenium	ND	ND	NA
Silver	ND	ND	NA

SPIKE ANALYSIS (µg/L)

Analyte	Original Sample Result	Spike Sample Result	Spike Added	Recovery Percent
Arsenic	ND	115	100	105%
Barium	580	1520	1000	94%
Cadmium	ND	9.53	10.0	95%
Chromium	2.3	51.6	50.0	99%
Lead	ND	40.2	50.0	80%
Mercury	ND	1.82	2.00	91%
Selenium	ND	47.9	50.0	96%
Silver	ND	49.6	50.0	99%

METHOD BLANK

Analyte	Found Result (µg/L)	Detection Level (µg/L)
Arsenic	ND	10
Barium	ND	10
Cadmium	ND	0.2
Chromium	ND	2
Lead	ND	4
Mercury	ND	0.24
Selenium	ND	3
Silver	ND	0.5

ND: Not Detected at stated detection level.

NA: Not Applicable.

EPFS
EL PASO FIELD SERVICES

Well Development and Purging Data

☐ Development
☒ Purging

Well Number MW-1

Site Name FLORANCE CLS-7

Meter Code 74997

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removed
☐ 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) 50.47
Initial Depth to Water (feet) 40.28
Height of Water Column in Well (feet) 10.19
Diameter (inches): Well 4 Gravel Pack

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		6.7	20.2
Gravel Pack			
Drilling Fluids			
Total			

Instruments

☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other D.O. CHEMETS KIT

Water Disposal

KUTZ SEPARATOR

Water Removal Data

Date	Time	Development Method		Removal Rate	Intake Depth	Ending Water Depth	Water Volume Removed (gal)		Product Volume Removed (gallons)		Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
		Pump	Bailer	(gal/min)	(feet)	(feet)	Increment	Cumulativ	Increment	Cumulative					
11-7-96	1305										13.8	7.29	6030		
11-7-96	1312						5.0	5.0			13.7	7.27	6650		
11-7-96	1320						5.0	10.0			13.8	7.26	6500		
11-7-96	1328						5.0	15.0			13.4	7.29	6480		
11-7-96	1335						5.0	20.0			13.9	7.27	6580		
11-7-96	1345						5.0	25.0			13.3	7.29	6560	1.5	

Comments

Developer's Signature Dennis Bird Date 11-7-96 Reviewer John Tabb Date 11/14/96

A 2221

El Paso Natural Gas Company

CHAIN OF CUSTODY RECORD

Project No.	Project Name	Type and No. of Sample Containers	Preservation Technique	Requested Analysis: BTXE			Remarks
	HOGBACK PIPELINE						
Samplers: (Signature) Dennis Bird	Date: 2-10-97						

MATRIX	Date	Time	Comp.	GRAB	Sample Number							
WATER	2-10-97	1436		X	970077	G2	4°C	X				FLORANCE GLS-7 MW-1 MC 74777
WATER	2-10-97	—		X	—	G1	4°C	X				TRIP BLANK

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Dennis Bird	2-10-97 1435				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks:	
		Marion Hopper	2/11/97 1515		

Carrier Co:

Carrier Phone No.

Air Bill No.:

Date Results Reported / by: (Signature)

EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	970077
MTR CODE | SITE NAME:	74997	Florance CLS-7 MW-1
SAMPLE DATE | TIME (Hrs):	2/10/97	1426
PROJECT:	Sample 4 - 2nd Quarter	
DATE OF BTEX EXT. | ANAL.:	2/13/97	2/13/97
TYPE | DESCRIPTION:	Monitor Well	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	2.98	PPB				
TOLUENE	2.85	PPB				
ETHYL BENZENE	5.64	PPB				
TOTAL XYLENES	21.6	PPB				
TOTAL BTEX	33.1	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 95.6 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By: _____ Date: 2-19-97

970077.XLS,2/18/97

EPFS
EL PASO FIELD SERVICES

Well Development and Purging Data

☐ Development
☒ Purging

Well Number MW-1

Site Name FLORANCE CLS-7

Meter Code 74997

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removel
☐ Stabilization of Indicator Parameters
☐ Other_____

Water Volume Calculation

Initial Depth of Well (feet) 50.47
Initial Depth to Water (feet) 40.15
Height of Water Column in Well (feet) 10.32
Diameter (inches): Well 4 Gravel Pack_____

Item	Water Volume in Well Cubic Feet	Water Volume in Well Gallons	Gallons to be Removed
Well Casing		6.8	20.5
Gravel Pack			
Drilling Fluids			
Total			

Instruments

☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other O.O. CHEMETS KIT

Methods of Development

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

☐ Other_____

Water Disposal

KUTZ SEPARATOR

Water Removal Data

Date	Time	Development Method Pump	Development Method Bailer	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gal) Increment	Water Volume Removed (gal) Cumulativ	Product Volume Removed (gallons) Increment	Product Volume Removed (gallons) Cumulative	Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
2-10-97	1333										14.2	6.45	5590		
2-10-97	1341						5.0	5.0			14.6	5.97	5750		
2-10-97	1348						5.0	10.0			14.4	7.12	5650		
2-10-97	1357						5.0	15.0			14.6	7.33	5680		
2-10-97	1404						5.0	20.0			15.3	7.21	5330		
2-10-97	1413						5.0	25.0			15.2	7.38	5470	1.0	

Comments_____

Developer's Signature Dennis Bird Date 2-10-97 Reviewer John Dahl Date 2-19-97

El Paso Natural Gas Company

A 1950

CHAIN OF CUSTODY RECORD

Project No.	Project Name	Type and No. of Sample Containers	Preservation Technique	Requested Analysis			Remarks
	HOSKFAND PIPELINE						
Samplers: (Signature) Dennis Bird	Date: 5-8-97						

MATRIX	Date	Time	Comp.	GRAB	Sample Number						
WATER	5-8-97	1540		X	970415	5Z	HPC	X	BTXE		FLORANCE GS-7 MW-1 MC 74997

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Dennis Bird	5-8-97 1721				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks:	
		Marlon Hoppe	5/9/97 0710		
Carrier Co:		Carrier Phone No.		Date Results Reported / by: (Signature)	
Air Bill No.					

EL PASO FIELD SERVICES

6-11-97

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	970415
MTR CODE | SITE NAME:	74997	Florance CLS-7 MW-1
SAMPLE DATE | TIME (Hrs):	5/8/97	1540
PROJECT:	Sample 4 - 3rd Quarter	
DATE OF BTEX EXT. | ANAL.:	5/14/97	5/14/97
TYPE | DESCRIPTION:	Monitor Well	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	1.49	PPB				
TOLUENE	6.09	PPB				
ETHYL BENZENE	4.28	PPB				
TOTAL XYLENES	23.0	PPB				
TOTAL BTEX	34.9	PPB				

The Surrogate Recovery was at 98.4 for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By: John Keller Date: 6/3/97

970415,6/2/97

EPFS
EL PASO FIELD SERVICES

Well Development and Purging Data

☐ Development
☒ Purging

Well Number MW-1

Site Name FLORANCE CLS-7

Meter Code 74997

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removel
☐ Stabilization of Indicator Parameters
☐ Other_____

Water Volume Calculation

Initial Depth of Well (feet) 50.47
Initial Depth to Water (feet) 40.07
Height of Water Column in Well (feet) 10.40
Diameter (inches): Well 4 Gravel Pack_____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		6.9	20.6
Gravel Pack			
Drilling Fluids			
Total			

Instruments

☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other D.O. CHEMETS KIT

Methods of Development

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

☐ Other_____

Water Disposal

KUTZ SEPARATOR

Water Removal Data

Date	Time	Development Method		Removal Rate	Intake Depth	Ending Water Depth	Water Volume Removed (gal)		Product Volume Removed (gallons)		Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
		Pump	Bailer	(gal/min)	(feet)	(feet)	Increment	Cumulativ	Increment	Cumulative					
5-8-97	1447										20.2	7.00	4820		
5-8-97	1454						5.0	5.0			19.5	7.26	5230		
5-8-97	1502						5.0	10.0			18.8	7.27	5190		
5-8-97	1510						5.0	15.0			18.9	7.28	5250		
5-8-97	1518						5.0	20.0			17.6	7.38	5160		
5-8-97	1527						5.0	25.0			17.4	7.48	5410	0.5	

Comments THE WATER HAD A LIGHT HYDROGEN SULFIDE SMELL.

Developer's Signature Dennis Bird Date 5-8-97 Reviewer John Hall Date 5/9/97

Samp 4 - 4th QUARTER

El Paso Natural Gas Company

A 2043

CHAIN OF CUSTODY RECORD

Project No.	Project Name	Type and No. of Sample Containers	Preservation Technique	Requested Analysis	Remarks
	HUERFANO PIPELINE			BTXE	
Samplers: (Signature) Dennis Bird	Date: 8-5-97				

MATRIX	Date	Time	Comp.	GRAB	Sample Number						
WATER	8-5-97	1604		X	970811	G-1	4°C	X			FLORANCE CLS-7 MW-1 MC 74997 88 8/24/97

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Dennis Bird	8-5-97 1745				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks:	
		Maria Knapp	8/6/97 0730		

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

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	970811
MTR CODE | SITE NAME:	74997	Florance CLS-7 MW-1
SAMPLE DATE | TIME (Hrs):	8/5/97	1604
PROJECT:	Sample 4 - 4th Quarter	
DATE OF BTEX EXT. | ANAL.:	8/6/97	8/6/97
TYPE | DESCRIPTION:	Monitor Well	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	2.24	PPB				
TOLUENE	8.29	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	33.2	PPB				
TOTAL BTEX	44	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 93.4 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Narrative:

Approved By: John Saenz Date: 8/25/97

970811BTEX,8/22/97

EPFS
EL PASO FIELD SERVICES

Well Development and Purging Data

☐ Development
☒ Purging

Well Number MW-1

Site Name FLORANCE C LS-7

Meter Code 74997

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removel
☐ 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) 50.47
Initial Depth to Water (feet) 40.30
Height of Water Column in Well (feet) 10.17
Diameter (inches): Well 4 Gravel Pack_____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		6.7	202
Gravel Pack			
Drilling Fluids			
Total			

Instruments

☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other D.O. CHEMETS KIT

Water Disposal

KOT2 SEPARATOR

Water Removal Data

Date	Time	Development Method		Removal Rate	Intake Depth	Ending Water Depth	Water Volume Removed (gal)		Product Volume Removed (gallons)		Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
		Pump	Bailer	(gal/min)	(feet)	(feet)	Increment	Cumulativ	Increment	Cumulative					
8-5-97	1516										19.0	6.99	5460		
8-5-97	1523						5.0	5.0			18.3	7.12	5440		
8-5-97	1530						5.0	10.0			18.0	7.13	5590		
8-5-97	1540						5.0	15.0			18.5	7.15	5410		
8-5-97	1547						5.0	20.0			18.1	7.16	5580		
8-5-97	1555						5.0	25.0			18.4	7.16	5570	0.5	

Comments THE WATER HAD A LIGHT HYDROGEN SULFIDE SMELL.

Developer's Signature Dennis Bird Date 8-5-97 Reviewer John Fowler Date 8/22/97