

EPFS GROUNDWATER PITS 1997 ANNUAL GROUNDWATER REPORT

Denny & Zett
DEPUTY OIL & GAS INSPECTOR

JUL 22 1998

USSELMAN GAS COM #1

Meter/Line ID - 70753

SITE DETAILS

Legals - Twn: 31N Rng: 10W

Sec: 4

Unit: B

NMOCD Hazard Ranking: 40

Land Type: FEE

Operator: AMOCO PRODUCTION COMPANY

PREVIOUS ACTIVITIES

Site Assessment: Sep-94

Excavation: Sep-94 (30 cy)

Soil Boring: Aug-95

Monitor Well: Aug-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 410 ppm. Soil analytical were as follows; benzene – 0.42 mg/kg, total BTEX – 60.1 mg/kg, TPH – 7,830 mg/kg.

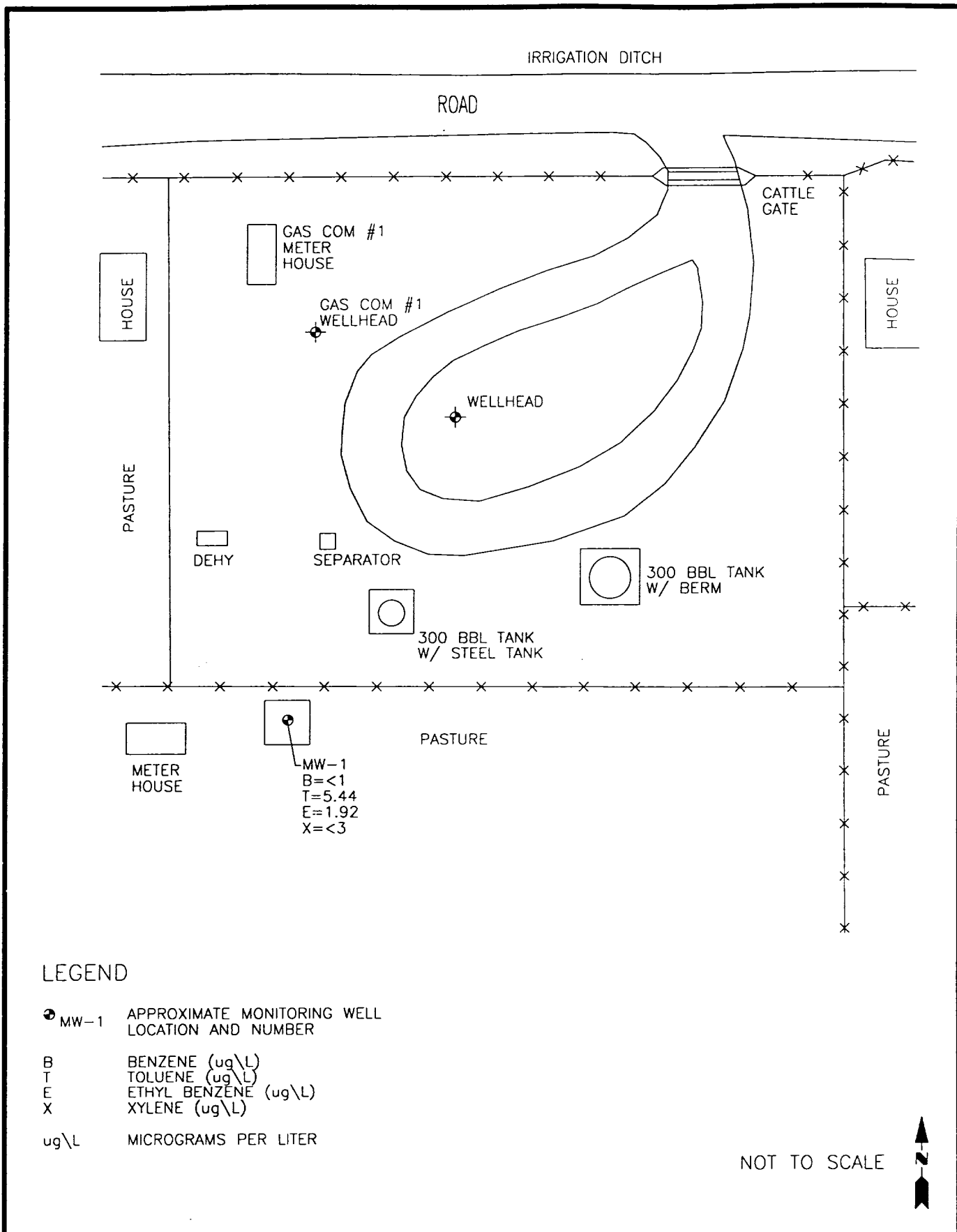
One soil boring was drilled in the center of the former pit and a monitoring well was installed. No soil sample was collected due to encountering shallow groundwater. Quarterly groundwater monitoring was initiated on 12/5/96. Groundwater analytical data are presented in Table 1. A site map is presented in Figure 1.

CONCLUSIONS

Groundwater analytical data has been below standards for 4 consecutive quarters since quarterly sampling was initiated 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.



COL. 175209A-001



TITLE:
USSELMAN GAS COM #1
70753

DWN:	DES.:
TMM	CC
CHKD:	APPD:
CC	
DATE:	REV.:
1/12/98	0

PROJECT NO.: 17520
EPFS GW PITS

FIGURE 1

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 70-753 Location: Usselman Gas Com No. 1
 Operator #: 0203 Operator Name: Amoco P/L District: Aztec
 Coordinates: Letter: B Section 4 Township: 31 Range: 10
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator _____ Location Drip: X Line Drip: _____ Other: _____
 Site Assessment Date: 9/7/94 Area: 04 Run: 43

SITE ASSESSMENT

NMOCD Zone:
 (From NMOCD
 Maps)

Inside
 Outside

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 Animas River

(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

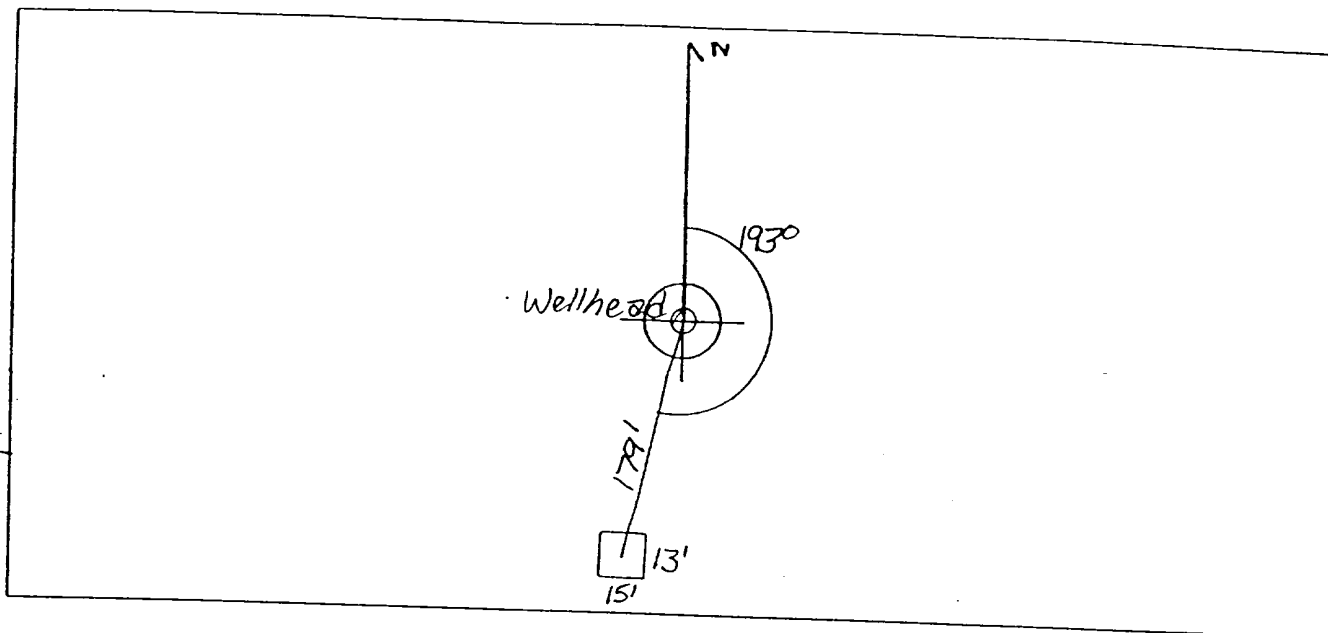
REMARKS

Remarks : Redline Book - Inside Vulnerable Zone Type - Inside
Three pits, location drip pit has liquid in it. Will close
one pit.

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 193° Footage from Wellhead 179'
 b) Length : 15' Width : 13' Depth : 2'

ORIGINAL PIT LOCATION



REMARKS

Remarks :

Pictures @ 1356 (17-20, Roll 2)

Dump Truck

There is a residence approximately 500' away from this site. There is a barbed wire fence that runs right along the north side of the pit.

Completed By:

Amah Kelly
 Signature

9/7/94

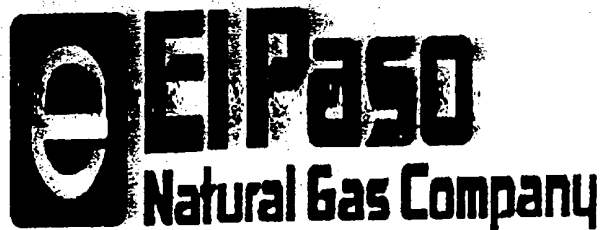
TABLE I

Sample #	Meter/ Line #	Site Name	Sample Date	MW #	Project	Benzene (PPB)	Toluene (PPB)	Ethyl Benzene (PPB)	Total Nylenes (PPB)	Total HTEX
961036	70753	Usselman Gas Com #1	12/05/96	1	Sample 4 - 1st Quarter	< 1	< 1	= 1.55	= 4.8	= 8
970190	70753	Usselman Gas Com #1	3/10/97	1	Sample 4 - 2nd Quarter	< 1	< 1	= 2.06	= 5.36	= 7
970517	70753	Usselman Gas Com #1	6/2/97	1	Sample 4 - 3rd Quarter	< 1	< 1	= 2.64	= 3	= 3
970959	70753	Usselman Gas Com #1	9/8/97	1	Sample 4 - 4th Qtr	< 1	= 5.44	= 1.92	= 3	= 7



CHAIN OF CUSTODY RECORD

[illegible]



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP 246	946178
MTR CODE SITE NAME:	70753	Usseiman GAS Con #1
SAMPLE DATE TIME (Hrs):	9-21-94	1545
SAMPLED BY:	N/A Phase I	
DATE OF TPH EXT. ANAL:	9-22-94	9-22-94
DATE OF BTEX EXT. ANAL:	9-22-94	9-29-94
TYPE DESCRIPTION:	VC	Brown Sand & Clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	0.42	MG/KG	10			
TOLUENE	< 0.25	MG/KG	10			
ETHYL BENZENE	4.4	MG/KG	10			
TOTAL XYLENES	55	MG/KG	10			
TOTAL BTEX	60.1	MG/KG				
TPH (418.1)	7830	MG/KG			.78	28
HEADSPACE PID	410	PPM				
PERCENT SOLIDS	80.0	%				

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

The Surrogate Recovery was at 125 % for this sample All QA/QC was acceptable.

a: 18:

HTI Results Attached. Surrogate Recovery was outside ATQ limits Due to matrix interference.

F = Dilution Factor Used

Approved By:

Date:

10/23/94



GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : EL PASO NATURAL GAS ATI I.D.: 409408
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	946167	NON-AQ	09/20/94	09/27/94	09/29/94	20
05	946177	NON-AQ	09/21/94	09/27/94	09/29/94	10
06	946178	NON-AQ	09/21/94	09/27/94	09/29/94	10
PARAMETER			UNITS	04	05	06
BENZENE			MG/KG	0.86	0.82	0.42
TOLUENE			MG/KG	39	28	<0.25
ETHYLBENZENE			MG/KG	7.4	6.6	4.4
TOTAL XYLENES			MG/KG	110	83	55

SURROGATE:

BROMOFLUOROBENZENE (%) 63* 74 125*

*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

04-43 A=TEC

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.

4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # BH #1
Well # _____
Page 1 of 1

Project Name EPNG Pits
Project Number 14509 Phase 6000
Project Location Usselman Geo Com No. 1 70-753

Elevation _____
Borehole Location T31, R10, Sec 4, B
GWL Depth _____
Logged By S. Kelly J. Kindley
Drilled By M. Donahue
Date/Time Started 08/02/95 1224
Date/Time Completed 08/02/95 1450

Well Logged By S. Kelly J. Kindley
Personnel On-Site M. Donahue, J. O'Kette, D. Gatto
Contractors On-Site _____
Client Personnel On-Site _____
Drilling Method 4 1/4" 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			Drilling Conditions & Blow Counts
							BZ	BH	S	
0				Backfill material to 12'						
5										
10										
15				Sand with cobbles (10%), gray brown color						
20				Boring terminated at 18'						
25										
30										
35										
40										

Comments: Hit cobbles at 3' depth. Moved over several feet and redrilled.

Geologist Signature

William Kindley

Jeffrey Knidley



Well Development and Purging Data

☒ Development
☐ Purging

Well Number WV-1

Serial No. WDPD.

Page 1 of 1

Project Name EPMA Pits

Project No. 14509

Client Company EPMA

Phase/Task No. WV-1

Site Name Usselman Gas Com No. 1 (70753)

Site Address

Development Criteria

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

Water Volume Calculation

Initial Depth of Well (feet) 19.12
Initial Depth to Water (feet) 8.57
Height of Water Column in Well (feet) 10.55
Diameter (inches): Well 4 Gravel Pack

Methods of Development

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

Instruments

- ☒ pH Meter Hydax
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☐ Other

Serial No. (if applicable)

Water Disposal

Drummed and Transported to Kutz Separator in Broomfield

Water Removal Data

Date	Time	Development Method		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)		Product Volume Recovered (gallons)		Temperature (°C)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Comments
		Pump	Bailer				Increment	Cumulative	Increment	Cumulative					
8/7/95	1020		X				5	5			NR	NR	NR		Green Silty
8/7/95	1040						5	10							Green Silty
8/7/95	1055						5	15							
	1100						5	20							Still slightly green silty
	1107						5	25							Green Silty
	1115						5	30							
	1122						5	35							
	1144						5	40							Clearing
8/7/95	1153		X				5	45							Slightly Silty

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

Comments Noted approx 1/4 free phase oily product float on water. No Readings below of groundwater due to free phase hydrocarbon product in well.

Developer's Signature(s) Steve T. Pope

Date 8/7/95

Reviewer _____ Date _____



Water Sampling Data

Location No. MW-1

Serial No. WSD- _____

Group List Number _____

Sample Type: ☒ Groundwater ☐ Surface Water ☐ Other _____ Date 8/7/95Project Name EPNG Pit Drilling Project No. 85/4509Project Manager Cory Chance Phase/Task No. 6003-77Site Name Usselman Gas Com No.1 (70753)

Sampling Specifications

Requested Sampling
Depth Interval (feet) TOP 3'
Requested Wait Following
Development/Purging (hours) N4

Initial Measurements

Time Elapsed From Final Development/Purging ^{min}(hours) 12
Initial Water Depth (feet) 8.57
Nonaqueous Liquids Present (Describe) floating hydrocarbons

Water Quality/Water Collection

DO = Dissolved Oxygen; Cond. = Conductivity

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

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

Sample Containers

Preservatives: H = HCl; N = HNO₃; S = H₂SO₄; A = NaOH; O = Other (Specify); -- = None

Analytical Parameter List	Container			Field Filtered		Preserved	Cooled During Collection		Comments
	Number	Type	Volume (mL)	Yes	No		Yes	No	
BTEX	2	A	40		X	H	X		1205 STP-16
TDS	1	P	250		X	—	X		1205 STP-16

Filter Type _____ Chain-of-Custody Form Number _____

Comments _____

Signature Steve T. Dyer Date 8/7/95 Reviewer _____ Date _____

Page _____ of _____

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



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Water

SAMPLE IDENTIFICATION

SAMPLE NUMBER: 947165
FIELD ID: STP 16
MTR CODE: 70753
SAMPLE DATE: 8/7/95
SAMPLE TYPE: Monitor Well
SITE NAME: Usselman Gas Com #1
PROJECT: Phase II Drilling
DATE OF BTEX ANALYSIS: 8/10/95

FIELD COMMENTS: 3 containers

EPA Method 8020 (BTEX) RESULTS

PARAMETER	RESULT	QUALIFIER	WQCC LIMIT PPB
TDS - TOTAL DISSOLVED SOLIDS (PPM)	516		None
BENZENE (PPB)	39.4		10
TOLUENE (PPB)	13.0		740
ETHYL BENZENE (PPB)	9.28		750
TOTAL XYLENES (PPB)	72.5		620
SURROGATE % RECOVERY	95.8	Allowed Range 80 to 120 %	

N: S: No Air bubbles.

Approved By:

[Signature]

8/10/95



A 1961

CHAIN OF CUSTODY RECORD

Project No.		Project Name		Type and No. of Sample Containers		Preservation Technique		Requested Analysis		Remarks	
Samplers: (Signature)		Date: 12-5-98		Sample Number							
Date	Time	Comp.	GRAB								
12-5-98	1127		X	961036	6-2	40C	X	X	X	USSELMAN GAS CO. #1 MWL M	C70753
12-5-98	—		X	—	6-1	40C	X			TRIP BLANK	
[A large diagonal line is drawn across the remaining rows of the table.]											
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Relinquished by: (Signature)		Date/Time		Received by: (Signature)	
Dennis Bird		12-5-98/1442									
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)		Relinquished by: (Signature)		Date/Time		Remarks:	
				Mason Dwyer				12/5/98/1515			
Carrier Co:		Carrier Phone No.		Date Results Reported / by: (Signature)							
Air Bill No.:											



Field Services Laboratory

Analytical Report

SAMPLE IDENTIFICATION

EPFS LAB ID:	961036
DATE SAMPLED:	12/05/96
TIME SAMPLED (Hrs):	1127
SAMPLED BY:	D. Bird
MATRIX:	Water
METER CODE:	70753
SAMPLE SITE NAME:	Aztec Pipeline
SAMPLE POINT:	Usselman Gas Com #1 MW-1

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Laboratory pH	7.3	Units	12/05/96
Alkalinity as CO ₃	0	PPM	12/05/96
Alkalinity as HCO ₃	497	PPM	12/05/96
Calcium as Ca	115	PPM	12/19/96
Magnesium as Mg	20.9	PPM	12/19/96
Total Hardness as CaCO ₃	373	PPM	12/19/96
Chloride as Cl	34	PPM	12/05/96
Sulfate as SO ₄	32	PPM	12/05/96
Fluoride as F	0.2	PPM	12/05/96
Nitrate as NO ₃ -N	<0.1	PPM	12/05/96
Nitrite as NO ₂ -N	<0.1	PPM	12/05/96
Ammonium as NH ₄ ⁺	1	PPM	12/19/96
Phosphate as PO ₄	<0.1	PPM	12/05/96
Potassium as K	4	PPM	12/19/96
Sodium as Na	37	PPM	12/19/96
Total Dissolved Solids	536	PPM	12/05/96
Conductivity	732	umhos/cm	12/19/96
Anion/Cation %	3.1%	%, <5.0 Accepted	12/23/96

Lab Remarks:

Reported By:

Indo

Approved By:

John Latch

Date: 1-2-97



EL PASO FIELD SERVICES



FIELD SERVICES LABORATORY ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER:	961036
SAMPLE DATE:	12/05/96
SAMPLE TIME (Hrs):	1127
SAMPLED BY:	D. Bird
MATRIX:	Water
METER CODE:	70753
SAMPLE SITE NAME:	Aztec Pipeline
SAMPLE POINT:	Usselman Gas Com #1 MW-1

REMARKS:

RESULTS

PARAMETER	TOTAL RESULT (mg/L)	N. M. WQCC LIMIT (mg/L)
ARSENIC	<.010	0.100
BARIIUM	1.42	1.00
CADMIUM	<.0002	0.010
CHROMIUM	0.003	0.050
LEAD	0.005	0.050
MERCURY	<.00024	0.002
SELENIUM	<.003	0.050
SILVER	<.001	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.

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EL PASO FIELD SERVICES

Well Development and Purging Data

Site Name USSELMAN GAS COM #1

Well Number MW-1
Meter Code 70753

☐ Development
☒ Purging

Development Criteria

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

Methods of Development

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

Water Volume Calculation

Initial Depth of Well (feet) 19.12
Initial Depth to Water (feet) 17.23
Height of Water Column in Well (feet) 1.89

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		<u>1.2</u>	<u>3.7</u>
Gravel Pack			
Drilling Fluids			
Total			

Instruments

- ☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other AA CHEMETS KIT

Water Disposal

KUTZ SEPARATOR

Water Removal Data

Date	Time	Development Method	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gal)		Product Volume Removed (gallons)	Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
						Increment	Cumulative						
12-5-96	1030								10.9	7.02	1905		
12-5-96	1036					2.0	2.0		11.5	6.74	1122		
12-5-96	1043					3.0	5.0		11.2	6.72	917		
12-5-96	1049					3.0	8.0		11.4	6.75	928		
12-5-96	1056					2.0	10.0		12.0	6.80	951	1.5	

Comments _____

Developer's Signature Lennia Bird

Date 12-5-96 Reviewer John Felt Date 1-2-97



A 2249

CHAIN OF CUSTODY RECORD

[illegible]



EL PASO FIELD SERVICES



FIELD SERVICES LABORATORY

ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	970190
MTR CODE SITE NAME:	70753	Usselman Gas Com #1
SAMPLE DATE TIME (Hrs):	3/10/97	1203
PROJECT:	Sample 4 - 2nd Quarter	
DATE OF BTEX EXT. ANAL.:	3/11/97	3/11/97
TYPE DESCRIPTION:	Monitor Well	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	2.06	PPB				
TOTAL XYLENES	5.36	PPB				
TOTAL BTEX	7.42	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: _____

Date: 3/18/97



Well Development and Purging Data

Well Number NW-1
Meter Code 70753

Site Name USSELMAN GAS COM #1

Development Criteria

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

Methods of Development

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

☐ Other

Water Volume Calculation

Initial Depth of Well (feet) 20.03
Initial Depth to Water (feet) 18.58
Height of Water Column in Well (feet) 1.45

Diameter (Inches): Well 4 Gravel Pack

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		96	2.9
Gravel Pack			
Drilling Fluids			
Total			

Instruments

- ☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other 2.2.5

Temperature Meter
O.O. CHEMETS KIT

Water Disposal

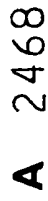
KVTC SEPARATOR

Water Removal Data

[illegible]

Comments DURING PURSING WELL HAD BLACK SEDIMENT IN BOTTOM OF WELL.

Developer's Signature Donnie Bied Date 3-10-97 Reviewer J. de Lard Date 4/8/97



Project No.		Project Name		Requested Analysis		Remarks	
Samplers: (Signature)		Date: 6-2-97		Type and No. of Sample Containers		Preservation Technique	
Date	Time	Comp.	GRAB	Sample Number			
WATER	6-2-97 1104		X	970517	G-2	40C	X
WATER	6-2-97		X		G-1	40C	X
Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature) Date/Time Date/Time Date/Time Received by: (Signature) Received by: (Signature) Received for Laboratory by: (Signature) Date/Time Date/Time Date/Time Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature) Date/Time Date/Time Date/Time Received by: (Signature) Received by: (Signature) Received by: (Signature) Date/Time Date/Time Date/Time							
Carrier Co: <i>Dennis Bird</i> Carrier Phone No: <i>6397 1517</i> Date Results Reported / by: (Signature)							



EL PASO FIELD SERVICES



FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT PROJECT CLOSURE

7-21-97

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	970517
MTR CODE SITE NAME:	70753	Usselman Gas Com #1 MW-1
SAMPLE DATE TIME (Hrs):	6/2/97	1104
PROJECT:	Sample 4 - 3rd Quarter	
DATE OF BTEX EXT. ANAL.:	6/3/97	6/3/97
TYPE DESCRIPTION:	Monitor Well	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	2.64	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	2.64	PPB				

The Surrogate Recovery was at 98.0 for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

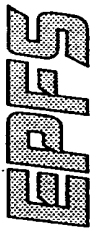
Narrative:

Approved By:

John Salda

Date:

6/16/97



EL PASO FIELD SERVICES

Well Development and Purging Data

Site Name USSELMAN GAS COM #1

Well Number 114-1

Meter Code 70753

☐ Development
☒ Purging

Development Criteria

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

Methods of Development

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

Water Volume Calculation

Initial Depth of Well (feet) 10.03
Initial Depth to Water (feet) 8.35
Height of Water Column in Well (feet) 1.68

Diameter (Inches): Well 4 Gravel Pack _____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		<u>7.7</u>	<u>23.2</u>
Gravel Pack			
Drilling Fluids			
Total			

☐ Other _____

Instruments

- ☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other V.P. CHEMISTS KIT

Water Disposal

KUTZ SEPARATOR

Water Removal Data

Date	Time	Development Method	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gal)		Product Volume Removed (gallons)	Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
						Increment	Cumulative	Increment					
6-2-97	1016								17.9	6.23	1039		
6-2-97	1023					5.0	5.0		16.0	6.53	1073		
6-2-97	1030					5.0	10.0		15.5	6.57	953		
6-2-97	1038					5.0	15.0		15.8	6.76	928		
6-2-97	1044					5.0	20.0		15.5	6.78	918		
6-2-97	1052					5.0	25.0		15.5	6.85	929	0.5	

Comments _____

Developer's Signature Dennis Bird

Date 6-2-97

Reviewer _____

John Tullch

Date 6/14/97

5. 106E 4 4TH QTR



El Paso
Natural Gas Company

CHAIN OF CUSTODY RECORD

A 2068

[illegible]



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	970959
MTR CODE SITE NAME:	70753	Usselman Gas Com. #1
SAMPLE DATE TIME (Hrs):	9/8/97	1130
PROJECT:	Sample 4 4th Quarter	
DATE OF BTEX EXT. ANAL.:	9/9/97	9/9/97
TYPE DESCRIPTION:	MW-1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	< 1	PPB				
TOLUENE	5.44	PPB				
ETHYL BENZENE	1.92	PPB				
TOTAL XYLENES	< 3	PPB				
TOTAL BTEX	7	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 113.2 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

John Tordella

Date: 9-16-97

970959BTEX, 9/15/97



Well Development and Purging Data

Site Name USSELMAN GAS COM #1

Well Number MW-1

Meter Code 70753

☐ Development
☒ Purging

Development Criteria

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

Methods of Development

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

Water Volume Calculation

Initial Depth of Well (feet) 20.03
Initial Depth to Water (feet) 10.73
Height of Water Column in Well (feet) 9.30

Diameter (inches): Well 4 Gravel Pack _____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		<u>6.1</u>	<u>18.4</u>
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 (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gal)		Product Volume Removed (gallons)		pH	Conductivity $\mu\text{mho/cm}$	Dissolved Oxygen mg/L	Comments
						Increment	Cumulative	Increment	Cumulative				
9-8-97	1053												
9-8-97	1100					5.0	5.0			6.27	1510		
9-8-97	1106					5.0	10.0			6.57	1445		
9-8-97	1114					5.0	15.0			6.83	880		
9-8-97	1120					5.0	20.0			6.89	835		
										6.90	770	1.5	

Comments _____

Developer's Signature Dennis Bird

Date 9-8-97

Reviewer _____

John Sauter

Date 9-16-97