

3R - 235

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 black ink that reads "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

Prepared For

El Paso Field Services
Farmington, New Mexico

Project 17520
Book 1



EPFS GROUNDWATER PITS 1998 ANNUAL GROUNDWATER REPORT

SANDOVAL GAS COM A #1A Meter/Line ID - 89620

SITE DETAILS

Legals - Twn: 30N Rng: 9W Sec: 35 Unit: C
NMOCD Hazard Ranking: 10 Land Type: FEDERAL
Operator: AMOCO PRODUCTION COMPANY

PREVIOUS ACTIVITIES

Site Assessment: May-94 Excavation: Sep-94 (50 cy) Soil Boring: May-95
Monitor Well: May-95 Re-Excavation: Jul-97 (504 cy) Re-Install MW: Aug-97
Quarterly Sampling Initiated: Apr-96

1998 ACTIVITIES

Quarterly Groundwater Monitoring - Quarterly groundwater monitoring continued through the first two quarters of 1998. Groundwater analytical data are presented in Table 1. A site map is presented as Figure 1.

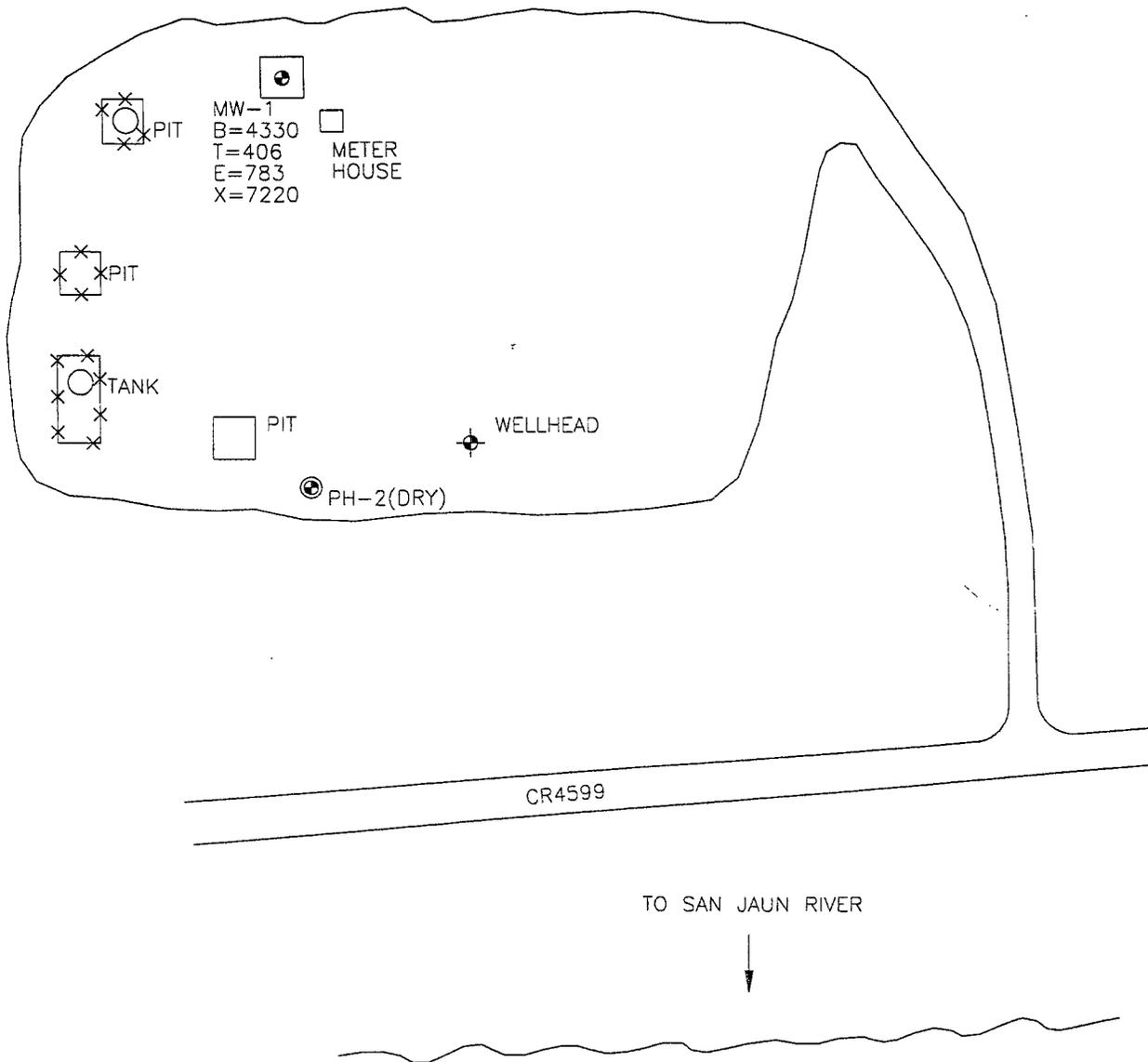
CONCLUSIONS

Analytical results of groundwater samples from MW-1 show levels of benzene, ethyl benzene and total xylenes above New Mexico Groundwater Standards. Groundwater samples collected from MW-1 have been over standards for BTEX since quarterly sampling was initiated. BTEX levels have consistently decreased since quarterly sampling was initiated. Quarterly sampling was discontinued in April of 1998 while ORC socks in MW-1 were installed. Quarterly sampling will resume after a 6-12 month period in order to achieve full benefit of the ORC "oxygenate socks".

Pertinent data from the 1997 groundwater report include the following: A formerly unlined pit is adjacent to MW-1 and may be an additional source. An attempt was made to install down-gradient monitor wells in December of 1995. However, refusal was encountered at approximately 38 feet below ground surface and no groundwater was encountered. In addition, an attempt was made to collect groundwater samples with the Geoprobe, and refusal was encountered at approximately 26 feet below ground surface on 4 sides of the pit.

RECOMMENDATIONS

- EPFS proposes to conduct annual sampling at the site.
- EPFS will contact operator and provide pertinent site data regarding EPFS activities at the site.
- Annual sampling will be conducted early in 1999 to see what effect the ORC sock may have had on the hydrocarbon constituents that are in the groundwater.



LEGEND

- ⊙ PH-1 APPROXIMATE PIEZOMETER 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

NOT TO SCALE



COL. 17520AX-002



TITLE:
 SANDOVAL GAS COM A #1A
 METER 89620
 APRIL 23, 1998

DWN: TMM	DES.: CI
CHKD: CI	APPD:
DATE: 2/26/99	REV.: 0

PROJECT NO.: 17520 EPFS GW PITS
FIGURE 1

EPFS Groundwater Pits
1998 Annual Groundwater Report

TABLE 1

Sample #	Meter/Line #	Site Name	Sample Date	MW #	Project	Benzene (PPB)	Toluene (PPB)	Ethyl Benzene (PPB)	Total Xylenes (PPB)	Total BTEX
980008	89620	Sandoval GC A #1A	01/06/98	R-1	Sample 4 - 2nd Quarter	= 3850	= 194	= 795	= 8570	= 13409
980312	89620	Sandoval GC A #1A	04/23/98	R-1	Sample 4 - 3rd Quarter	= 4330	= 406	= 783	= 7220	= 12740

**1998 GROUNDWATER
ANALYTICAL**

Well Development and Purging Data

R-1 *WV*

- Development
 Purging

Well Number AAW-1

Mefer Code 89670

Site Name SANDVAL GC A#1A

Development Criteria

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

Water Volume Calculation

Initial Depth of Well (feet) 38.50
Height of Water Column in Well (feet) 35.10
Diameter (inches): Well 4 Gravel Pack _____

Methods of Development

- Pump
 Centrifugal Bottom Valve
 Submersible Double Check Valve
 Peristaltic Stainless-steel Kemmerer
 Other _____

Instruments

- pH Meter
 DO Monitor
 Conductivity Meter
 Temperature Meter
 Other DR CHEMETS KIT

Water Disposal

KUTZ SEPARATOR

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		2.7	6.7
Gravel Pack			
Drilling Fluids			
Total			

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
		Pump	Bailer				Increment	Cumulative	Increment	Cumulative					
1-6-98	1121										13.3	6.45	4720		
1-6-98	1129						3.0	3.0			13.3	6.48	4920		
1-6-98	1143						3.0	5.0			15.4	6.59	4570		
1-6-98	1210						3.0	7.0			16.4	6.63	4320	1.5	

Comments _____

Developer's Signature Walter Bied

Date 1-6-98

Reviewer John J. Jordin

Date 1/2/98



**FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT**

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980008
MTR CODE SITE NAME:	89620	Sandoval GC A #1A
SAMPLE DATE TIME (Hrs):	1/6/98	1247
PROJECT:	Sample 4 2nd Quarter	
DATE OF BTEX EXT. ANAL.:	1/13/98	1/13/98
TYPE DESCRIPTION:	R-1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	D		
BENZENE	3850	PPB	25	D		
TOLUENE	194	PPB	25	D		
ETHYL BENZENE	795	PPB	25	D		
TOTAL XYLENES	8570	PPB	25	D		
TOTAL BTEX	13409	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 103.3 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

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

Narrative: _____

Approved By: John Sandoval Date: 5/7/98

Well Development and Purging Data

Site Name STANDOVAL GC A#1A

Well Number AW-1 R-1
 Meter Code 89610

Development Criteria

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

Methods of Development

- Pump
 - Centrifugal
 - Bottom Valve
 - Submersible
 - Double Check Valve
 - Peristaltic
 - Stainless-steel Kemmerer
 - Other _____

Water Volume Calculation

Initial Depth of Well (feet) 38.50
 Initial Depth to Water (feet) 35.15
 Height of Water Column in Well (feet) 3.35

Diameter (inches): Well 4 Gravel Pack _____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		<u>7.2</u>	
Gravel Pack			<u>6.6</u>
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)		Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
		Pump	Bailer				Increment	Cumulative	Increment	Cumulative					
4-23-98	1049										18.4	6.19	4680		
4-23-98	1056						3.0	3.0			18.3	6.24	4460		
4-23-98	1115						2.0	5.0			19.6	6.36	4490		
4-23-98	1148						2.0	7.0			19.0	6.40	4320	1.5	

Comments _____

Developer's Signature Rennia Bird

Date 4-23-98

Reviewer _____

John Feld

Date _____

5/1/98



**FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT**

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980312
MTR CODE SITE NAME:	89620	Sandoval GC A #1A
SAMPLE DATE TIME (Hrs):	4/23/98	1156
PROJECT:	Sample 4 3rd Quarter	
DATE OF BTEX EXT. ANAL.:	4/29/98	4/29/98
TYPE DESCRIPTION:	R-1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	4330	PPB	50	D		
TOLUENE	406	PPB	50	D		
ETHYL BENZENE	783	PPB	50	D		
TOTAL XYLENES	7220	PPB	50	D		
TOTAL BTEX	12740	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 96.8 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

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

Narrative: _____

Approved By: _____

John Ladd

Date: _____

5/6/98

980312BTEXMW, 5/6/98

