

3R - 248

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,



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

W. D. HEATH B #5
Meter/Line ID - 87493

SITE DETAILS

Legals - Twn: 30N Rng: 9W Sec: 31 Unit: M
NMOCD Hazard Ranking: 30 Land Type: FEDERAL
Operator: AMOCO PRODUCTION COMPANY

PREVIOUS ACTIVITIES

Site Assessment: Apr-94 Excavation: May-94 (50 cy) Soil Boring: May-95
Monitor Well: May-95 Geoprobe: Jan-97 Quarterly Sampling Initiated: Apr-96

1998 ACTIVITIES

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

CONCLUSIONS

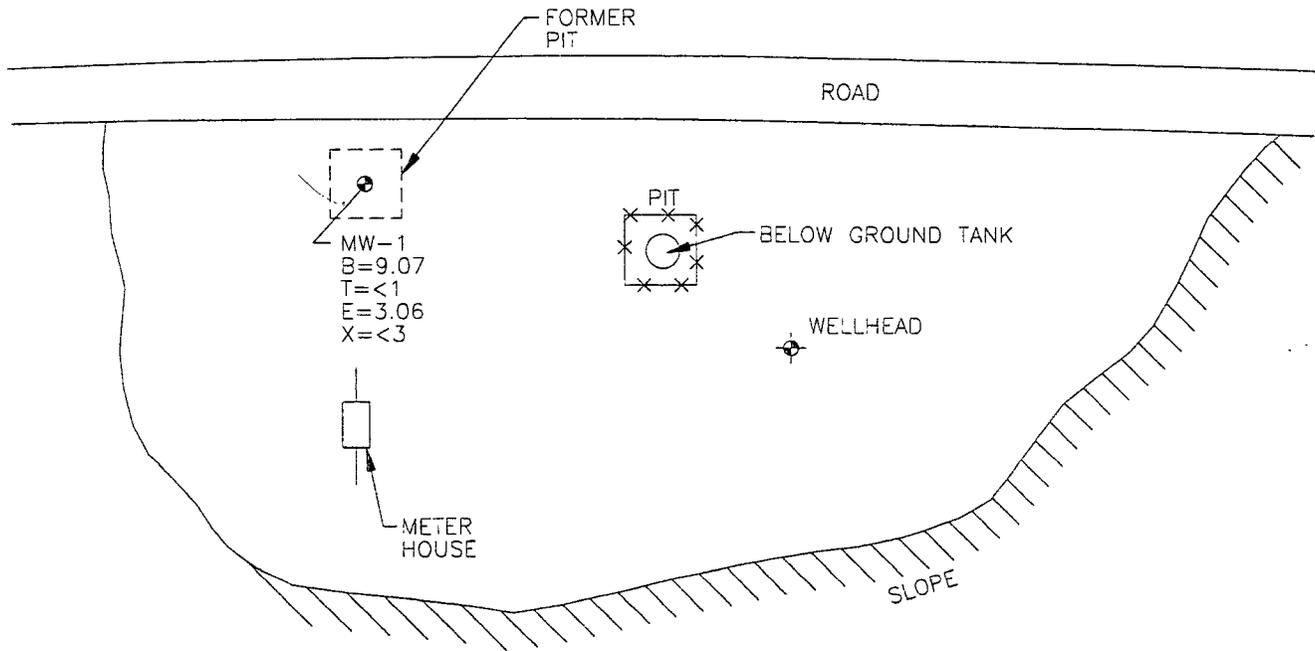
Analytical results of groundwater samples collected from MW-1 show levels of hydrocarbon constituents below New Mexico Groundwater Standards for all analytes during the last two monitoring events in 1998.

Pertinent data from the 1997 groundwater report includes the following: Based on groundwater levels collected from temporary well point data, the groundwater flow trends to the west southwest on this site. Elevated levels of hydrocarbon constituents were observed in the up-gradient monitoring point PH-3. Benzene and toluene levels exceeded New Mexico Groundwater Standards in up-gradient monitoring point PH-2.

RECOMMENDATIONS

- Quarterly sampling will continue at MW-1 until analytical results indicate hydrocarbon constituents are below New Mexico Groundwater Standards for four consecutive quarters.
- Following OCD approval for closure, MW-1 will be abandoned using OCD approved abandonment procedures.

WELL LOCATIONS



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

NOT TO SCALE



COL 17520BF-002



TITLE:
 WD HEATH B#5
 METER 87493
 OCTOBER 8, 1998

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

PROJECT NO.: 17520
EPFS GW PITS
FIGURE 1

TABLE 1

Sample #	Meter/ Line #	Site Name	Sample Date	MW #	Project	Benzene (PPB)	Toluene (PPB)	Ethyl Benzene (PPB)	Total Xylenes (PPB)	Total BTEX
980007	87493	W D Heath B-5	01/06/98	1	Sample 4 - 8th Quarter	= 11.7	<	<	3.00	= 15.0
980311	87493	W D Heath B-5	04/23/98	1	Sample 4 - 9th Quarter	= 18.2	<	=	6.06	= 30.0
980532	87493	W D Heath B-5	07/21/98	1	Sample 4 - 10th Quarter	= 7.38	<	=	1.40	= 12.7
980695	87493	W D Heath B-5	10/08/98	1	Sample 4 - 11th Quarter	= 9.07	<	=	3.00	= 12.1

**1998 GROUNDWATER
ANALYTICAL**

Well Development and Purging Data

Site Name W. D. HEATH B-5

Well Number MW-1
 Meter Code 87493

Development
 Purging

Development Criteria

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

Methods of Development

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

Water Volume Calculation

Initial Depth of Well (feet) 41.0
 Initial Depth to Water (feet) 22.34
 Height of Water Column in Well (feet) 14.57
 Diameter (inches): Well 3 Gravel Pack _____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		<u>2.5</u>	<u>7.6</u>
Gravel Pack			
Drilling Fluids			
Total			

Instruments

- pH Meter
- DO Monitor
- Conductivity Meter
- Temperature Meter
- Other D. D. 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					
1-6-98	0946										12.1	6.51	6580		
1-6-98	0956						3.0	3.0			13.0	6.96	6790		
1-6-98	1005						2.0	5.0			13.1	7.09	6820		
1-6-98	1018						3.0	8.0			12.8	7.10	7110		
1-6-98	1028						2.0	10.0			12.6	7.16	6390	1.0	

Comments _____

Developer's Signature Terrence Bied

Date 1-6-98

Reviewer John Santini

Date 1/21/98



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980007
MTR CODE SITE NAME:	87493	W. D. Heath B-5
SAMPLE DATE TIME (Hrs):	1/6/98	1038
PROJECT:	Sample 4 8th Quarter	
DATE OF BTEX EXT. ANAL.:	1/12/98	1/12/98
TYPE DESCRIPTION:	MW-1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	11.7	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	3.30	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	15	PPB				

--BTEX is by EPA Method 8020 --

Surrogate Recovery was at 102.0 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: John Larden

Date: 1/21/98

980007BTEXMonitorWell, 1/16/98



Well Development and Purging Data

Site Name W.D. HEATH B-5

Development
 Purging

Well Number MW-1
Meter Code 87493

Development Criteria

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

Methods of Development

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

Water Volume Calculation

Initial Depth of Well (feet) 442.1
 Initial Depth to Water (feet) 29.13
 Height of Water Column in Well (feet) 15.08

Diameter (inches): Well 3 Gravel Pack _____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		<u>2.6</u>	<u>7.9</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		Intake Depth (feet)	Removal Rate (gal/min)	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	0923										16.6	6.16	6620		
4-23-98	0933						3.0	3.0			16.4	6.52	6590		
4-23-98	0940						2.0	5.0			16.2	6.83	6680		
4-23-98	0953						3.0	8.0			16.4	7.09	6390		
4-23-98	1001						2.0	10.0			16.6	7.14	6240	1.5	

Comments _____

Developer's Signature Dennis Bird

Date 4-23-98 Reviewer _____

John Jordan

Date 5/1/98



EPASO FIELD SERVICES

FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980311
MTR CODE SITE NAME:	87493	W. D. Heath B-5
SAMPLE DATE TIME (Hrs):	4/23/98	1012
PROJECT:	Sample 4 9th Quarter	
DATE OF BTEX EXT. ANAL.:	4/29/98	4/29/98
TYPE DESCRIPTION:	MW-1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	18.2	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	5.82	PPB				
TOTAL XYLENES	6.06	PPB				
TOTAL BTEX	30	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 100.2 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

John Lard

Date: 5/6/98

980311BTEXMW,5/4/98

Well Development and Purging Data

Site Name W.D. HEATH B-5

Well Number MW-1
Meter Code 87493

Development
 Purging

Development Criteria

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

Methods of Development

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

Water Volume Calculation

Initial Depth of Well (feet) 44.3
Initial Depth to Water (feet) 39.3
Height of Water Column in Well (feet) 14.6
Diameter (Inches): Well 3 Gravel Pack _____

Item	Water Volume In Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		<u>2.5</u>	<u>7.6</u>
Gravel Pack			
Drilling Fluids			
Total			

Instruments

- pH Meter
- DO Monitor
- Conductivity Meter
- Temperature Meter
- Other D.R. CHEMETS KIT

Water Disposal

KUTZ SEPARATOR

Water Removal Data

Date	Time	Development Method		Removal Rate (gall/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	Baller				Increment	Cumulative	Increment	Cumulative					
7-21-98	0907						3.0	3.0			20.6	5.84	5910		
7-21-98	0918						2.0	5.0			20.0	6.17	6150		
7-21-98	0927						3.0	8.0			20.0	6.77	6280		
7-21-98	0940						3.0	10.0			20.4	7.07	5910		
7-21-98	0949										20.0	7.13	5800	1.5	

Comments _____

Developer's Signature Remio Bial

Date 7-21-98 Reviewer _____

Signature John Fudbin

Date 7/29/98



EMPASO FIELD SERVICES

FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

SAMPLE NUMBER:

Field ID

Lab ID

N/A

980532

MTR CODE | SITE NAME:

87493

W. D. Heath B-5

SAMPLE DATE | TIME (Hrs):

7/21/98

1001

PROJECT:

Sample 4 10th Quarter

DATE OF BTEX EXT. | ANAL.:

7/27/98

7/27/98

TYPE | DESCRIPTION:

MW-1

Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	7.38	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	3.90	PPB				
TOTAL XYLENES	1.40	PPB				
TOTAL BTEX	12.7	PPB				

--BTEX is by EPA Method 8020 --

Surrogate Recovery was at
F = Dilution Factor Used

95.5

% for this sample All QA/QC was acceptable.

Narrative:

Approved By:

John L. L...

Date:

7/29/98

980532BTEXMW, 7/29/98



Well Development and Purging Data

Well Number MW-1
 Meter Code 87493

Development
 Purging

Site Name W.D. HEATH B-5

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
- Other _____

Water Volume Calculation

Initial Depth of Well (feet) 44.2
 Initial Depth to Water (feet) 30.03
 Height of Water Column in Well (feet) 14.18
 Diameter (inches): Well 2 Gravel Pack _____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		<u>2.5</u>	<u>7.4</u>
Gravel Pack			
Drilling Fluids			
Total			

Instruments

- pH Meter
- DO Monitor
- Conductivity Meter
- Temperature Meter
- Other B.O. CHEMISTS KIT

Water Disposal

KOTZ 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					
10-8-98	0919										15.5	6.16	6480		
10-8-98	0929						3.0	3.0			15.7	6.31	6580		
10-8-98	0938						3.0	5.0			15.5	6.51	6490		
10-8-98	0950						3.0	8.0			15.5	6.84	6190		
10-8-98	0959						3.0	10.0			15.6	6.95	6350	1.0	

Comments _____

Developer's Signature Tennio Bird

Date 10-8-98 Reviewer _____

Date 10/15/98



FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980695
MTR CODE SITE NAME:	87493	W D Heath B-5
SAMPLE DATE TIME (Hrs):	10/8/98	1008
PROJECT:	Sample 4 11th Quarter	
DATE OF BTEX EXT. ANAL.:	10/12/98	10/12/98
TYPE DESCRIPTION:	MW-1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	9.07	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	3.06	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	12.1	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 98.3 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: *John F. ...*

Date: 10/15/98

980695BTEXMW, 10/14/98

