

3R - 206

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

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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 ANNUAL GROUNDWATER REPORT**

**K-51 LINE DRIP
Meter/Line ID - LD244**

SITE DETAILS

Legals - Twn: 26N Rng: 6W Sec: 34 Unit: A
NMOCD Hazard Ranking: 30 Land Type: FEDERAL
Operator: EL PASO FIELD SERVICES

PREVIOUS ACTIVITIES

Site Assessment: Sep-95 Excavation: Sep-95 (230 cy) Soil Boring: May-97
Monitor Well: May-97 Quarterly Sampling Initiated: July-97

1998 ACTIVITIES

Quarterly Groundwater Monitoring - Quarterly groundwater has 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 first and last monitoring event in 1998. New Mexico Groundwater Standards for Benzene were exceeded during the second and third monitoring events. Benzene levels have been reduced by an order of magnitude through natural attenuation since monitoring began at this site.

Pertinent data from the 1997 groundwater report include the following: Groundwater samples collected during the first quarterly sampling event were 81.9 ppb, which is above New Mexico Groundwater Standards. Groundwater samples collected during the second, third and sixth quarters were below standards for BTEX. Groundwater gradient has not been established at this site.

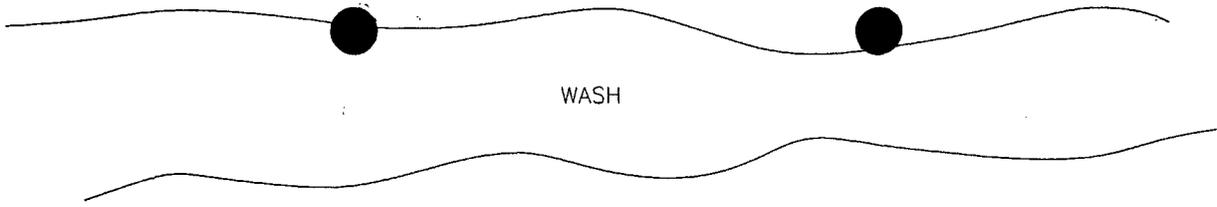
RECOMMENDATIONS

- Quarterly sampling will continue at MW-1 until analytical results show 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.

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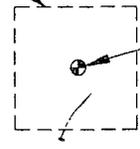
APR 05 1999

**ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION**

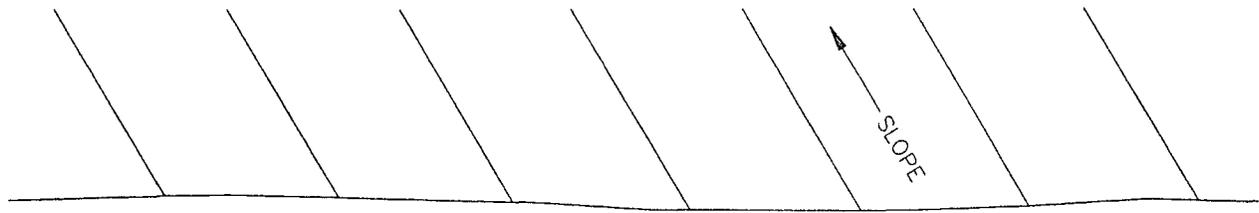


WASH

FORMER PIT



MW-1
 B=1.36
 T=<1
 E=<1
 X=<3



ROAD

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. 17520A-002



TITLE:
 K-51 LINE DRIP
 LD244
 OCTOBER 8, 1998

DWN: TMM	DES.: CI
CHKD: CI	APPD:
DATE: 2/9/99	REV.: 0

PROJECT NO.: 17520
 EPFS GW PITS

FIGURE 1

EPFS Groundwater Pits
1998 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
980015	LD244	K-51 Line Drip	01/08/98	1	Sample 4 - 3rd Quarter	= 5.76	< 1.00	< 1.00	= 2.09	= 8.00
980313	LD244	K-51 Line Drip	04/23/98	1	Sample 4 - 4th Quarter	= 16.70	= 11.90	= 1.12	= 8.99	= 39.00
980533	LD244	K-51 Line Drip	07/21/98	1	Sample 4 - 5th Quarter	= 14.90	= 6.85	< 1.00	= 4.21	= 26.00
980696	LD244	K-51 Line Drip	10/08/98	1	Sample 4 - 6th Quarter	= 1.36	< 1.00	< 1.00	= 3.00	= 1.36

**1998 GROUNDWATER
ANALYTICAL**



Well Development and Purging Data

Site Name K-51 GINE DRIP

Well Number MW-1
 Meter Code L0244

Development
 Purging

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) 23.00
 Initial Depth to Water (feet) 12.19
 Height of Water Column in Well (feet) 10.81

Diameter (inches): Well 4 Gravel Pack _____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		<u>7.1</u>	<u>21.4</u>
Gravel Pack			
Drilling Fluids			
Total			

Instruments

- pH Meter
- DO Monitor
- Conductivity Meter
- Temperature Meter
- Other R.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					
1-8-98	1106						5.0	5.0			10.5	6.79	1433		
1-8-98	1112						5.0	10.0			11.8	7.16	1448		
1-8-98	1119						5.0	15.0			11.7	7.30	1484		
1-8-98	1125						5.0	20.0			11.6	7.48	1580		
1-8-98	1131						5.0	25.0			11.9	7.60	1587		
1-8-98	1138						5.0	30.0			12.3	7.73	1658	2.5	

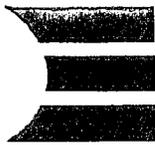
Comments _____

Developer's Signature Dennis Bied

Date 1-8-98

Reviewer John Faldi

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	980015
MTR CODE SITE NAME:	LD244	K-51 Line Drip
SAMPLE DATE TIME (Hrs):	1/8/98	1148
PROJECT:	Sample 4 3rd 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	5.76	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	2.09	PPB				
TOTAL BTEX	8	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 103.0 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: John Ladd

Date: 1/21/98

980015BTEXMonitorWell, 1/16/98



Well Development and Purging Data

Site Name K-51 LINE DRIP

Well Number MW-1
 Meter Code LD244

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) 23.00
 Initial Depth to Water (feet) 11.99
 Height of Water Column in Well (feet) 11.05
 Diameter (inches): Well 4 Gravel Pack _____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		<u>7.3</u>	<u>26.9</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

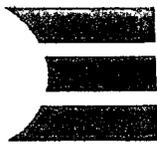
Date	Time	Development Method	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gal)		Product Volume Removed (gallons)		Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
						Increment	Cumulative	Increment	Cumulative					
4-23-98	1356									18.3	7.60	1276		
4-23-98	1403					5.0	5.0			17.0	7.59	1325		
4-23-98	1408					5.0	10.0			16.6	7.59	1438		
4-23-98	1415					5.0	15.0			16.7	7.69	1433		
4-23-98	1422					5.0	20.0			15.4	7.77	1535		
4-23-98	1430					5.0	25.0			16.3	7.82	1509	2.5	

Comments _____

Developer's Signature Wendy Bird

Date 4-23-98 Reviewer _____

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	980313
MTR CODE SITE NAME:	LD244	K-51 Line Drip
SAMPLE DATE TIME (Hrs):	4/23/98	1440
PROJECT:	Sample 4 4th 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	16.7	PPB				
TOLUENE	11.9	PPB				
ETHYL BENZENE	1.12	PPB				
TOTAL XYLENES	8.99	PPB				
TOTAL BTEX	39	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 99.2 % for this sample All QA/QC was acceptable.
F = Dilution Factor Used

Narrative: _____

Approved By: _____

John Lardin

Date: _____

5/6/98

980313BTEXMW, 5/6/98

Well Development and Purging Data

Well Number MW-1
 Meter Code LD244

Development
 Purging

Site Name K-51 GINE DRIP

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

Water Volume Calculation
 Initial Depth of Well (feet) 23.80
 Initial Depth to Water (feet) 13.07
 Height of Water Column in Well (feet) 9.73

Methods of Development
 Pump
 Centrifugal Bottom Valve
 Submersible Double Check Valve
 Peristaltic Stainless-steel Kemmerer
 Other

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		6.6	19.7
Gravel Pack			
Drilling Fluids			
Total			

Instruments
 pH Meter
 DO Monitor
 Conductivity Meter
 Temperature Meter
 Other R.R. 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					
7-21-98	1144						5.0	5.0			21.2	7.03	1210		
7-21-98	1149						5.0	10.0			20.0	7.82	1205		
7-21-98	1156						5.0	15.0			18.7	7.29	1381		
7-21-98	1203						5.0	20.0			18.8	7.63	1431		
7-21-98	1210						5.0	25.0			18.7	7.70	1427		
7-21-98	1218						5.0	30.0			19.5	7.75	1428	2.5	

Comments

Developer's Signature Dennis Bird

Date 7-21-98 Reviewer John Farib

Date 7/29/98



E. PASO FIELD SERVICES

FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980533
MTR CODE SITE NAME:	LD244	K-51 Line Drip
SAMPLE DATE TIME (Hrs):	7/21/98	1230
PROJECT:	Sample 4 5th 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	14.9	PPB				
TOLUENE	6.85	PPB				
ETHYL BENZENE	< 1	PPB				
TOTAL XYLENES	4.21	PPB				
TOTAL BTEX	26.0	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:

Date:

7/29/98

980533BTEXMW,7/29/98



E2 PASO FIELD SERVICES

FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980534
MTR CODE SITE NAME:	LD244	K-51 Line Drip
SAMPLE DATE TIME (Hrs):	7/21/98	1230
PROJECT:	Sample 4 5th Quarter	
DATE OF BTEX EXT. ANAL.:	7/27/98	7/27/98
TYPE DESCRIPTION:	MW-1 Field Dup	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	14.1	PPB				
TOLUENE	5.60	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	3.22	PPB				
TOTAL BTEX	22.9	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 94.2 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

Date: _____

7/29/98

980534BTEXMW,7/29/98



Well Development and Purging Data

Site Name K-51 LINE DRIP

Well Number MW-1
Meter Code L0244

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
- Other _____

Water Volume Calculation

Initial Depth of Well (feet) 23.00
 Height of Water Column in Well (feet) 2.03
 Diameter (inches): Well 4 Gravel Pack _____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		6.6	19.8
Gravel Pack			
Drilling Fluids			
Total			

Instruments

- pH Meter
- DO Monitor
- Conductivity Meter
- Temperature Meter
- Other _____

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	1139						5.0	5.0			19.1	7.13	1367		
10-8-98	1145						5.0	10.0			17.6	7.28	1366		
10-8-98	1152						5.0	15.0			17.0	7.37	1369		
10-8-98	1159						5.0	20.0			16.8	7.57	1477		
10-8-98	1205						5.0	25.0			16.8	7.65	1488		
10-8-98	1215						5.0	30.0			16.6	7.66	1442	3.5	

Comments _____

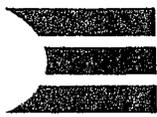
Developer's Signature Dennis Bied

Date 10-8-98

Reviewer _____

Dennis Bied

Date 10/15/98



FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980696
MTR CODE SITE NAME:	LD244	K-51 Line Drip
SAMPLE DATE TIME (Hrs):	10/8/98	1226
PROJECT:	Sample 4 6th 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	1.36	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	1.36	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 100.9 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

Date: _____

10/15/98

980696BTEXMW, 10/14/98



FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980697
MTR CODE SITE NAME:	LD244	K-51 Line Drip
SAMPLE DATE TIME (Hrs):	10/8/98	1226
PROJECT:	Sample 4 6th Quarter	
DATE OF BTEX EXT. ANAL.:	10/12/98	10/12/98
TYPE DESCRIPTION:	MW-1 Field Dup	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	0		
BENZENE	1.44	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	1.44	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 100.4 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Narrative: _____

Approved By: _____

John Larkin

Date: _____

10/15/98

980697BTEXMW,10/14/98

