

**3R - 223**

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# **REPORTS**

**DATE:**

2003

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**Certified Mail: #7002 0510 0000 0307 7497**

February 26, 2004

**RECEIVED**

Mr. William C. Olson  
New Mexico Oil Conservation Division  
1220 St. Francis Dr.  
Santa Fe, NM 87504

MAR 03 2004

**Oil Conservation Division  
Environmental Bureau**

**RE: 2003 Pit Project Annual Groundwater Report**

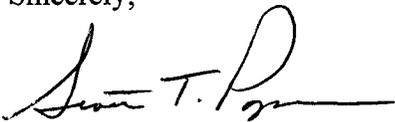
Dear Mr. Olson:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual reports for the 24 remaining groundwater impacted sites that were identified during our pit closure project of 1994 / 1995.

EPFS has organized the 24 Annual Reports (Volumes 1, 2 and 3) by land type. Volume 1 contains Annual Reports for sites found on Federal land. Volume 2 contains Non Federal sites and Volume 3 contains sites on Navajo land. Of the 24 reports submitted, EPFS is requesting closure of one site located on Navajo lands (Jennepah #1). EPFS understands closure of groundwater sites on Navajo lands falls under jurisdiction of the Navajo Nation Environmental Protection Agency and original documents have been submitted to them for review. Other Navajo sites are included in the report for your information.

If you have any questions concerning the enclosed reports, 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 # 7002 0510 0000 0307 7473**  
Mr. Bill Liesse, BLM - w / enclosures (federal sites only), **Certified Mail # 7002 0510 0000 0307 7466**

**2003 ANNUAL GROUNDWATER REPORT  
FEDERAL SITES VOLUME I  
EL PASO FIELD SERVICES**

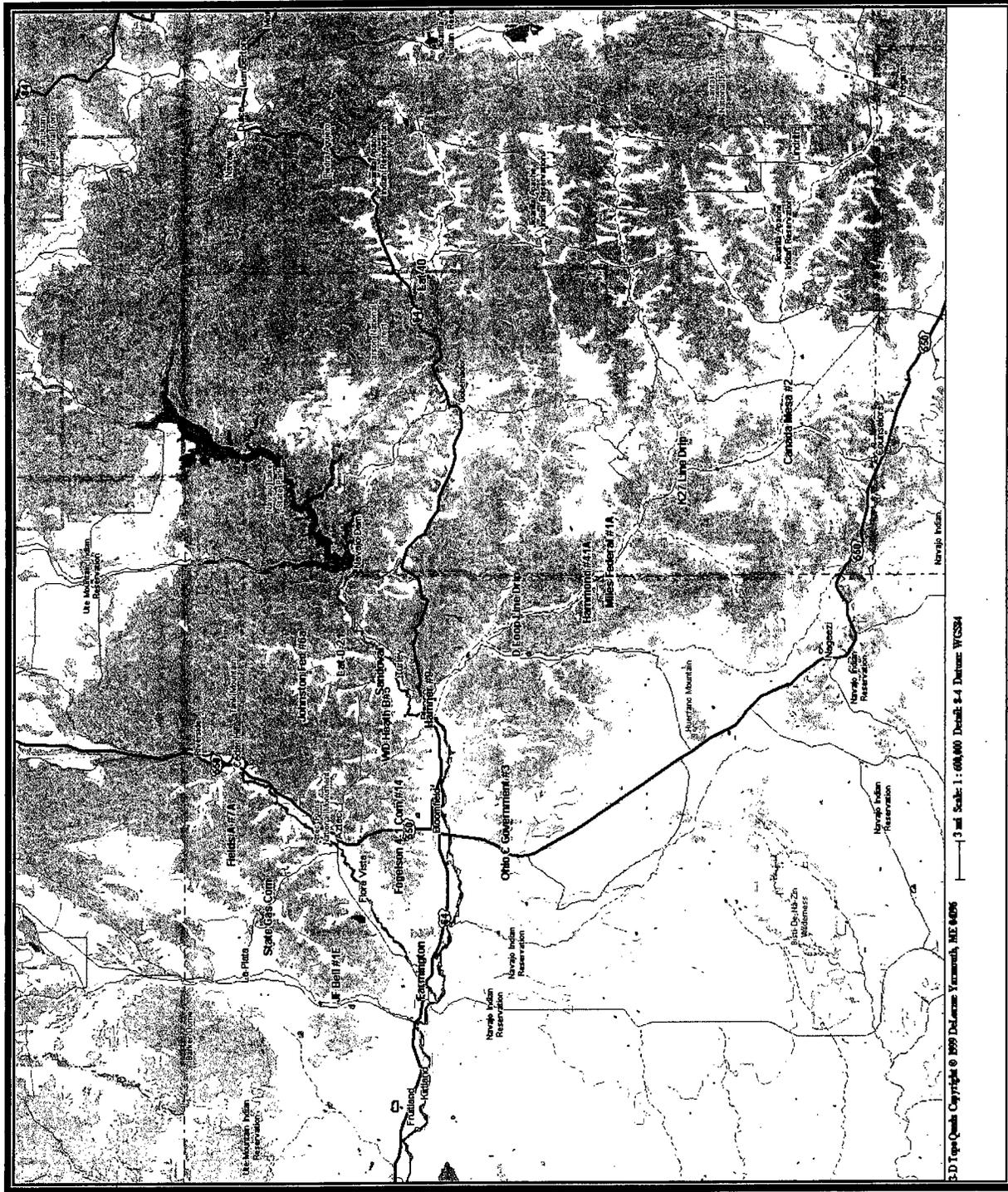
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METER or LINE ID	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT
89961	Fields A#7A	32N	11W	34	E
89232	Johnston Fed #6A	31N	09W	35	F
94715	James F. Bell #1E	30N	13W	10	P
89620	Sandoval GC A #1A	30N	09W	35	C
LD151	Lat 0-21 Line Drip	30N	09W	12	O
73220	Fogelson 4-1 Com. #14	29N	11W	4	P
97213	Hamner #9	29N	09W	20	A
LD174	LAT L 40	28N	04W	13	H
89894	Hammond #41A	27N	08W	25	O
94810	Miles Fed 1A	26N	07W	5	F
LD072	K27 LD072	25N	06W	4	E
87640	Canada Mesa #2	24N	06W	24	I



**MWH**  
MONTGOMERY WATSON HARZA

# Federal Groundwater Site Map



## LIST OF ACRONYMS

B	benzene
btoc	below top of casing
E	ethylbenzene
EPFS	El Paso Field Services
ft	foot/feet
GWEL	groundwater elevation
ID	identification
MW	monitoring well
PSH	phase-separated hydrocarbons
NMWQCC	New Mexico Water Quality Control Commission
T	toluene
TOC	top of casing
NA	not applicable
NE	not established
NM	not measured
NMOCD	New Mexico Oil Conservation Division
NS	not sampled
ORC	oxygen-releasing compound
ppb	parts per billion
µg/L	micrograms per liter
X	total xylenes

**EPFS GROUNDWATER SITES  
2003 ANNUAL GROUNDWATER REPORT**

**Miles Fed 1A  
Meter Code: 94810**

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**SITE DETAILS**

<b>Legal Description:</b>	<b>Town:</b> 26N	<b>Range:</b> 7W	<b>Sec:</b> 5	<b>Unit:</b> F
<b>NMOCD Haz Ranking:</b>	40	<b>Land Type:</b> Federal	<b>Operator:</b> Louis Dreyfus Natural Gas	

**PREVIOUS ACTIVITIES**

<b>Site Assessment:</b>	5/94	<b>Excavation:</b>	6/94	<b>Soil Boring:</b>	9/95
<b>Monitor Well:</b>	9/95	<b>Geoprobe:</b>	2/97	<b>Additional MWs:</b>	10/99
<b>Downgradient MWs:</b>	10/99	<b>Replace MW:</b>	NA	<b>Quarterly Initiated:</b>	NA
<b>ORC Nutrient Injection:</b>	NA	<b>Re-Excavation:</b>	NA	<b>PSH Removal Initiated:</b>	2/99
<b>Annual Initiated:</b>	10/99	<b>Quarterly Resumed:</b>	NA		

**SUMMARY OF 2003 ACTIVITIES**

**MW-1:** Quarterly free-product recovery activities and water level monitoring were performed.

**MW-2:** Quarterly water level monitoring was performed.

**MW-3:** Quarterly water level monitoring was performed.

**Site-Wide Activities:** The site was inspected quarterly for hydrocarbon seeps.

**SITE MAP**

Site maps (January and April) are attached in Figures 1 and 2.

**SUMMARY TABLES AND GRAPHS**

- Historic analytical data are presented graphically in Figures 3 through 5.
- Free-product recovery data from 2003 are summarized in Table 1, and historic data are presented graphically in Figure 6.
- Field documentation is presented in Attachment 1.

**EPFS GROUNDWATER SITES  
2003 ANNUAL GROUNDWATER REPORT**

Miles Fed 1A  
Meter Code: 94810

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**GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS**

No subsurface activities were performed at this site during 2003.

**DISPOSITION OF GENERATED WASTES**

All phase-separated hydrocarbons were disposed of at the EPFS Kutz Separator located in Bloomfield, New Mexico.

**ISOCONCENTRATION MAPS**

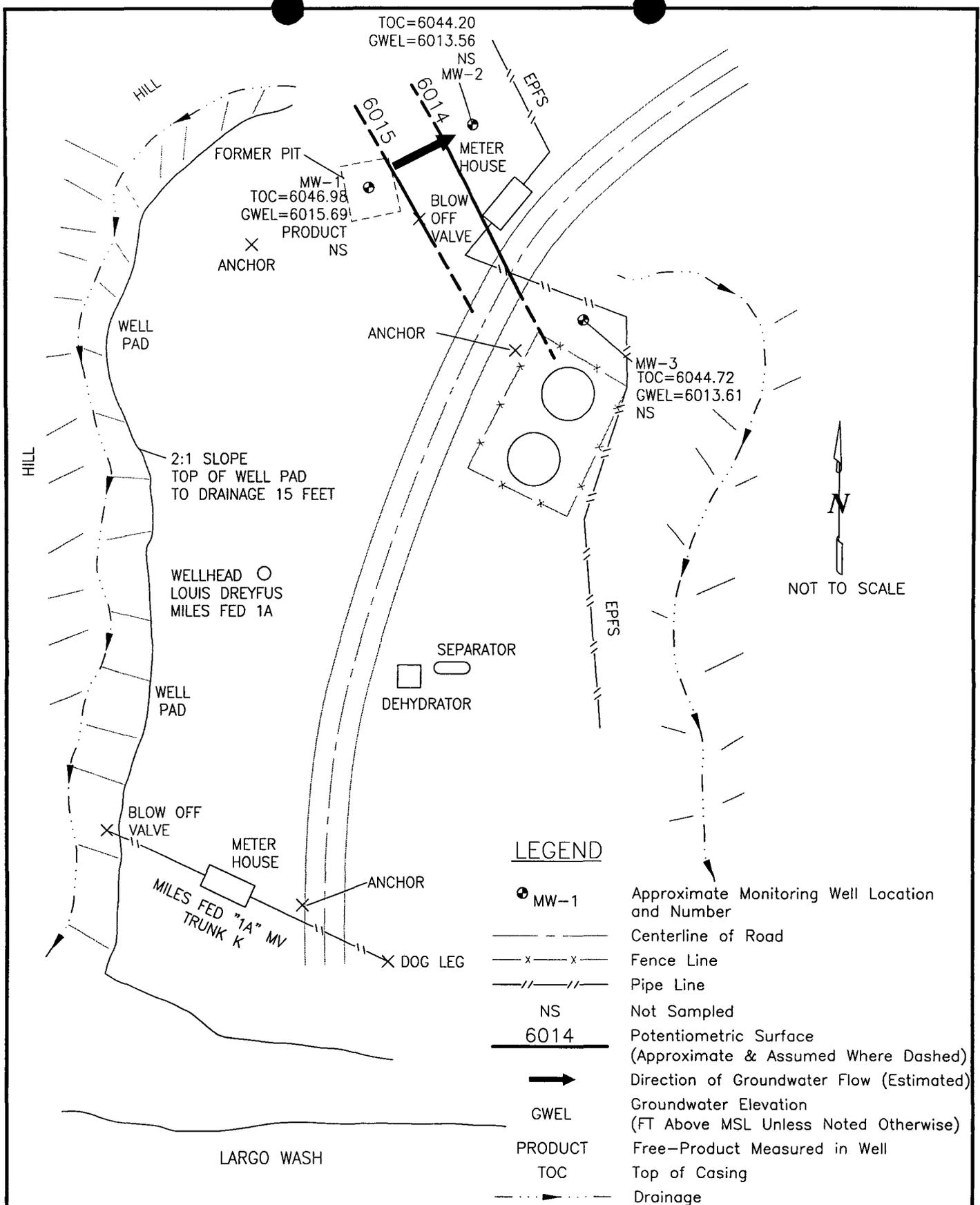
No isoconcentration maps were prepared for this site, however, the attached site maps present water level data collected during 2003.

**CONCLUSIONS**

- Free-product recovery efforts at MW-1 resulted in removal of approximately 1.7 gallons of free-phase hydrocarbons during 2003 bringing the cumulative total recovered to date to approximately 10.2 gallons.
- The groundwater flow direction at this site trends toward the northeast.
- No seeps along the well pad slopes were noted during 2003.

**RECOMMENDATIONS**

- EPFS will continue to inspect the well pad slopes for evidence of seeps. If a seep is found, photographic documentation will be made and the seep will be sampled.
- EPFS will redevelop MW-1 in April 2004 in an attempt to increase free-product recovery.
- EPFS will continue quarterly free-product recovery efforts at MW-1. EPFS will evaluate passive free-product removal methodologies (i.e., hand bailing, passive skimmers, or hydrocarbon-absorbent material socks) and frequencies for most efficient free-product removal from this well during 2004.
- Once free-product recovery efforts are completed at MW-1, this well will be sampled on an annual basis until sample results approach closure criteria. The well will then be scheduled for quarterly sampling until closure criteria are met.
- EPFS will continue quarterly water level monitoring at MW-2 and MW-3. Because historical analyses indicate minimal contamination in MW-2 and MW-3, these wells will not be sampled until free-product recovery efforts at MW-1 are complete. These wells will then be sampled on an annual basis until closure samples are collected.

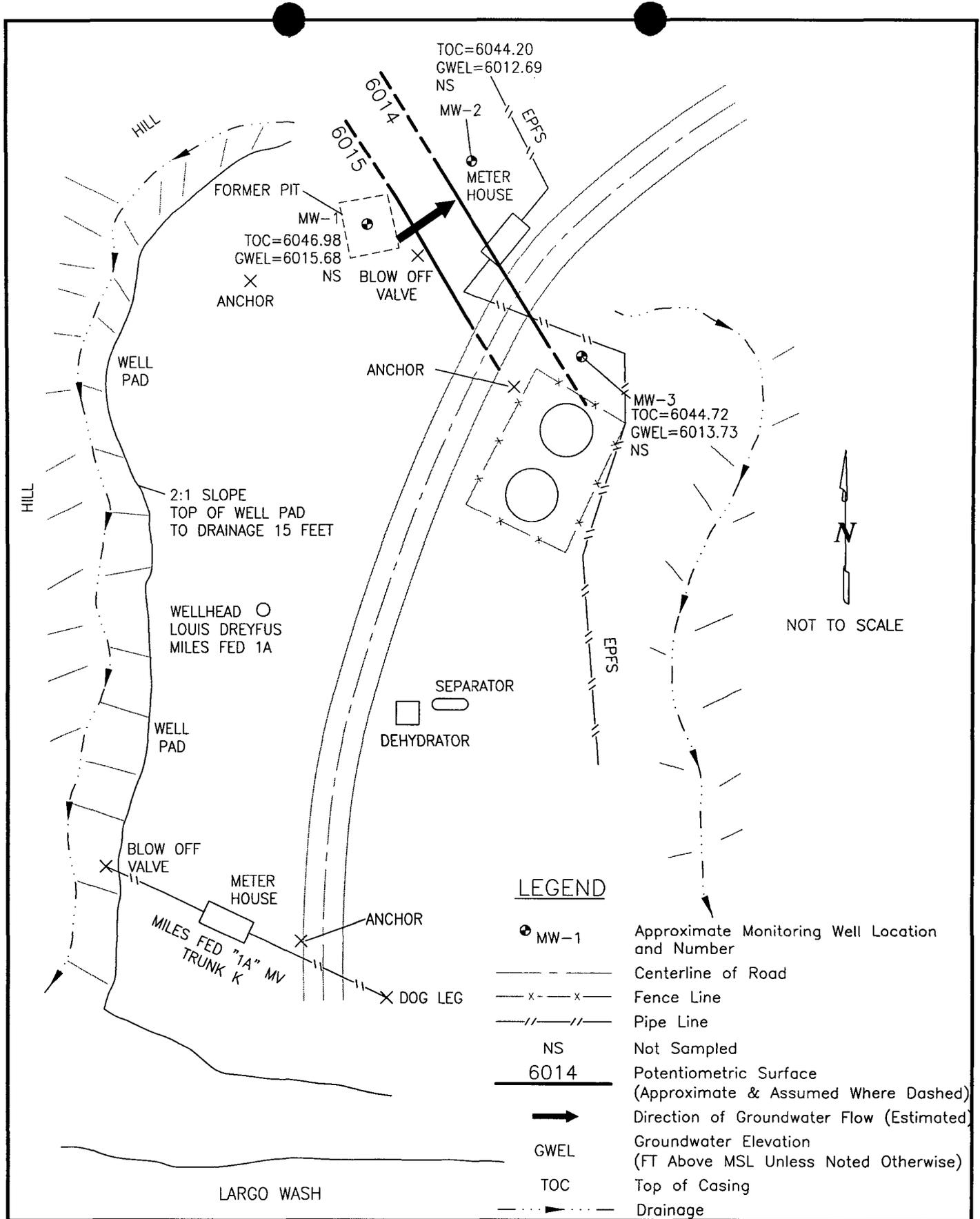


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MILES FED 1A, METER 94810  
 JANUARY 2003

GROUNDWATER SITES  
 EL PASO FIELD SERVICES

FIGURE 1



NOT TO SCALE

**LEGEND**

- MW-1 Approximate Monitoring Well Location and Number
- Centerline of Road
- Fence Line
- Pipe Line
- NS Not Sampled
- 6014 Potentiometric Surface (Approximate & Assumed Where Dashed)
- Direction of Groundwater Flow (Estimated)
- GWEL Groundwater Elevation (FT Above MSL Unless Noted Otherwise)
- TOC Top of Casing
- Drainage

MILES FED 1A, METER 94497  
APRIL 2003

GROUNDWATER SITES  
EL PASO FIELD SERVICES

FIGURE 2

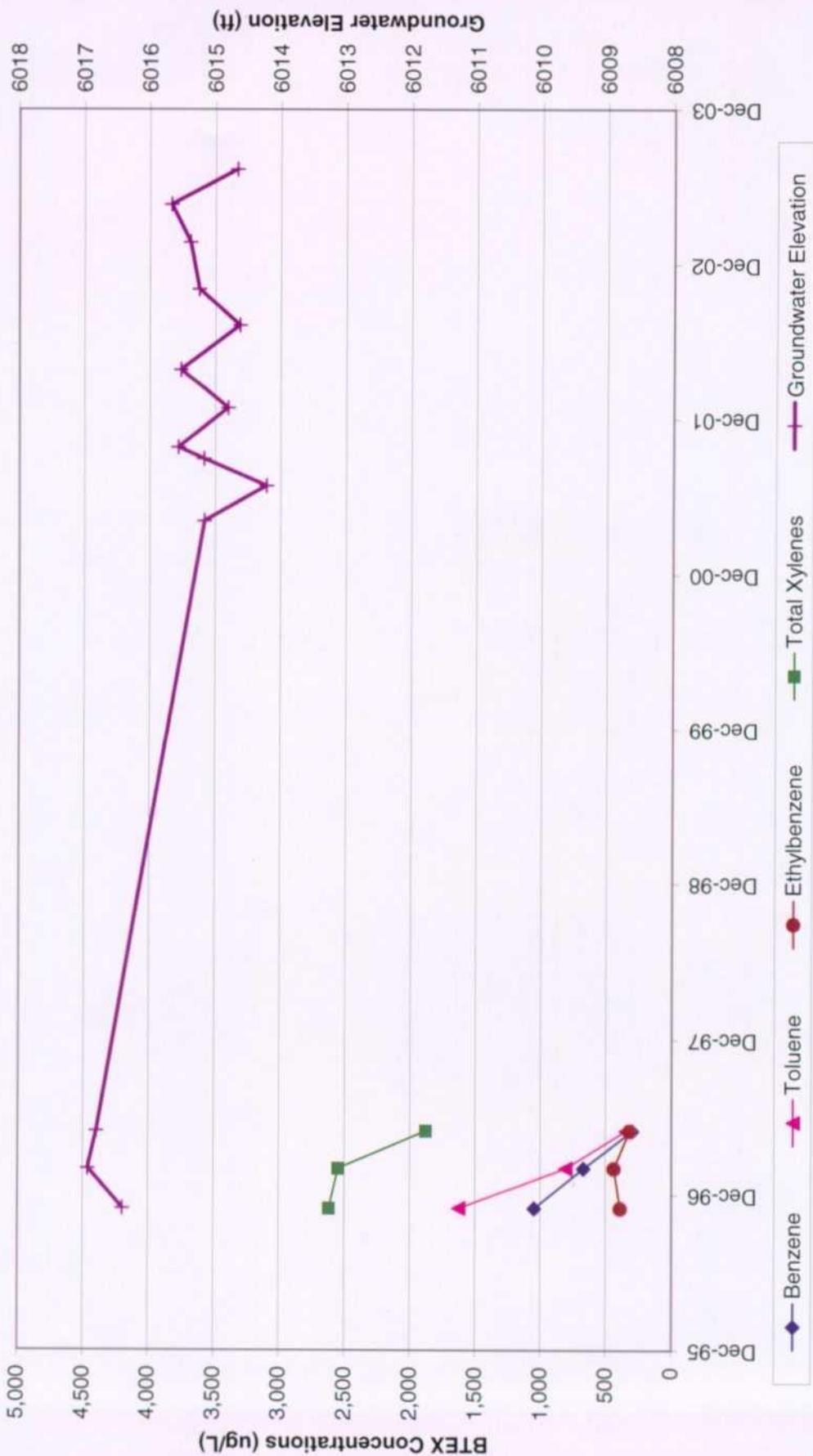
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**TABLE 1**  
**SUMMARY OF FREE-PRODUCT REMOVAL DURING 2003**  
**MILES FED 1A (METER #94810)**

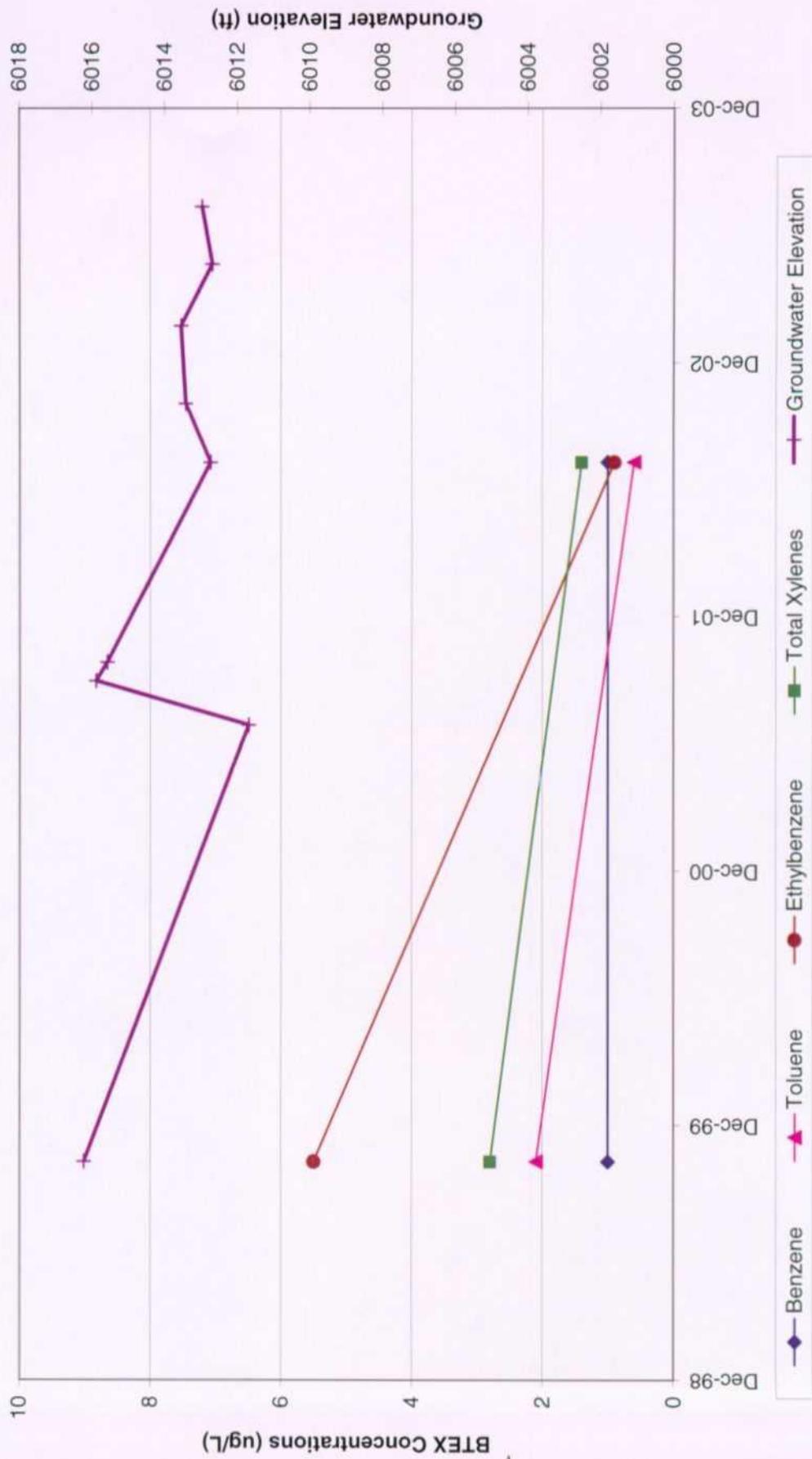
Site Name	Monitoring Well	Removal Date	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Product Thickness (feet)	Volume of Product Removed (gallons)	Cummulative Volume of Product Removed (gallons)
Miles Fed 1A	MW-1	1/27/03	31.21	31.59	0.38	0.75	9.25
Miles Fed 1A	MW-1	4/26/03	31.16	31.30	0.14	0.20	9.45
Miles Fed 1A	MW-1	7/17/03	31.73	32.31	0.58	0.75	10.20
Miles Fed 1A	MW-1	10/13/03	NM	NM	NM	0.00	10.20

The Miles Federal 1A site could not be accessed in October due to the road being washed-out.

**FIGURE 3**  
**HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS**  
**MILES FED 1A**  
**MW-1**



**FIGURE 4**  
**HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS**  
**MILES FED 1A**  
**MW-2**



**FIGURE 5**  
**HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS**  
**MILES FED 1A**  
**MW-3**

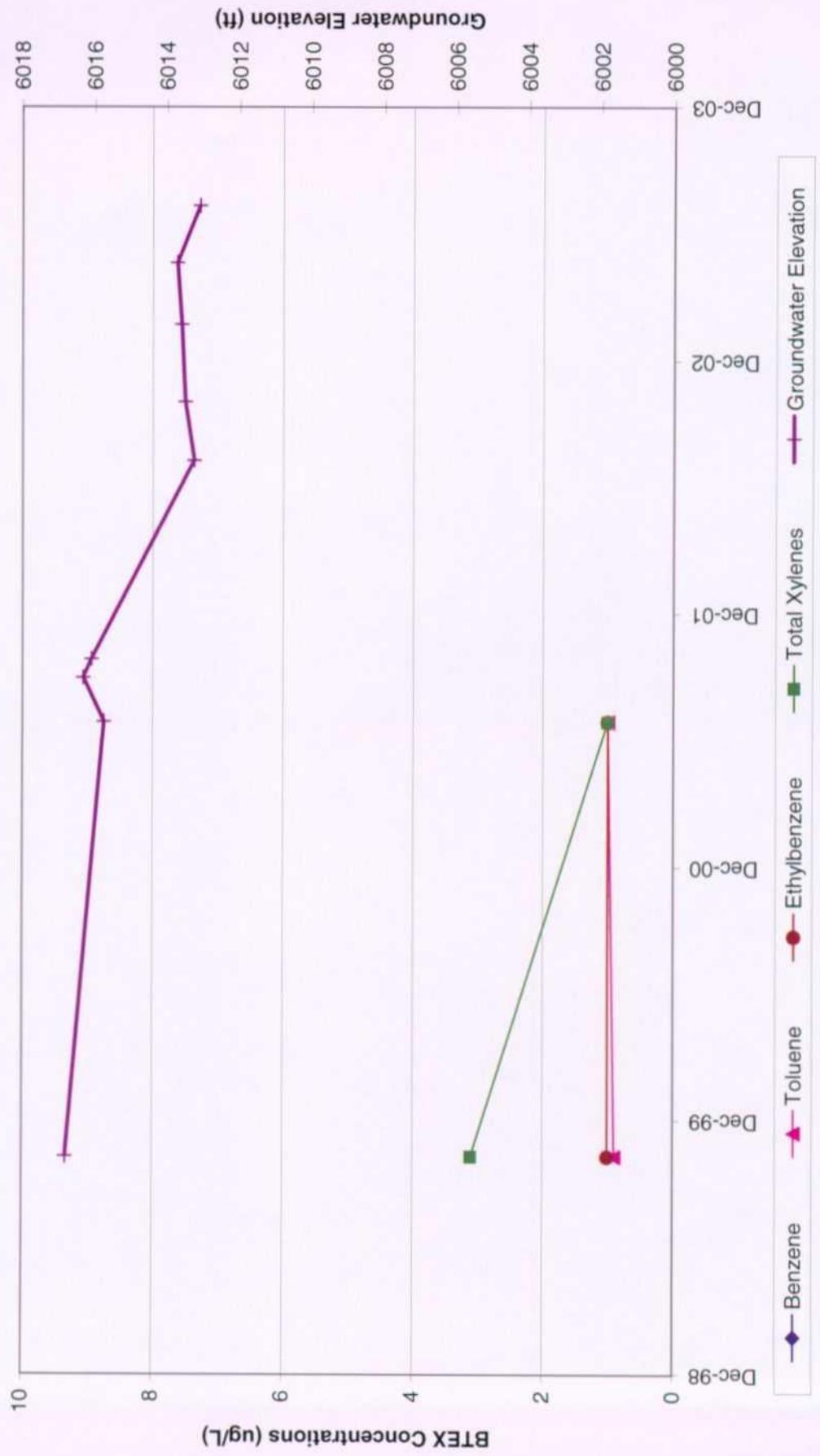
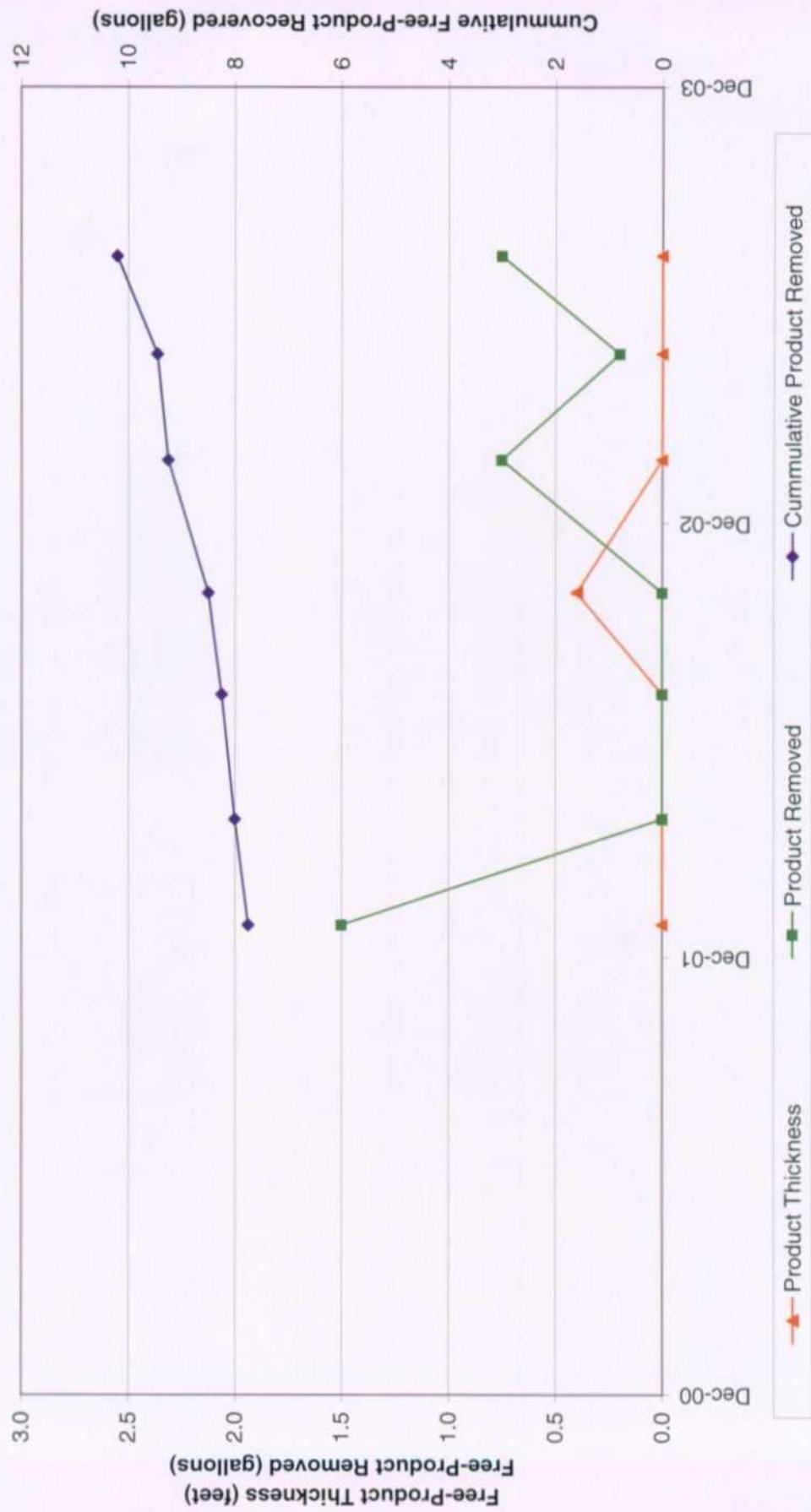


FIGURE 6  
 HISTORIC FREE-PRODUCT RECOVERY  
 MILES FED 1A  
 MW-1



**ATTACHMENT 1**  
**FIELD DOCUMENTATION**

## PRODUCT RECOVERY/WATER LEVEL DATA

Martin J. Nee  
 PO Box 3861  
 Farmington, NM 87499-3861  
 (505)334-2791 (505)320-9675cell

<b>Project Name</b>	<u>San Juan Basin Ground Water</u>	<b>Project No.</b>	<u>30001.0</u>
<b>Project Manager</b>	<u>MJN</u>		
<b>Client Company</b>	<u>MWH</u>	<b>Date</b>	<u>10/13/03</u>
<b>Site Name</b>	<u>Miles Federal</u>		

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1 initial	1600				
MW-1 final					
MW-2 initial					
MW-3 initial					

**Comments**

**Largo crossing to Miles Federal washed out. Five-foot cut bank where road used to be. No access.**

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Signature: Martin J. Nee Date: October 13, 2003

## PRODUCT RECOVERY/WATER LEVEL DATA

Martin J. Nee  
PO Box 3861  
Farmington, NM 87499-3861  
(505)334-2791 (505)320-9675cell

Project Name San Juan Basin Ground Water Project No. 30001.0  
Project Manager MJN  
Client Company MWH Date July 17, 2003  
Site Name Miles Federal

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1 initial	11:00	31.73	32.31	0.58	0.75
MW-1 final		32.19	32.36	0.17	
MW-2 initial			31.23		
MW-3 initial			31.62		

**Comments**

**MW-1:Recovered approximately 0.25 gallons of water and 0.75 gallons of product.**

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Signature: Martin J. Nee Date: July 17, 2003

## PRODUCT RECOVERY/WATER LEVEL DATA

Martin J. Nee  
PO Box 3861  
Farmington, NM 87499-3861  
(505)334-2791 (505)320-9675cell

Project Name San Juan Basin Ground Water Project No. 30001.0  
Project Manager MJN  
Client Company MWH Date 4-26-03  
Site Name Miles Federal

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1 initial	11:00	31.16	31.30	0.14	0.20
MW-1 final			31.95		
MW-2 initial			31.51		
MW-3 initial			30.99		

**Comments**

**MW-1: Recovered approximately 2 gallons of water. Large bailer would not go to bottom of well. Interface probe went to 38.35 feet btoc. There may be an obstruction in well.**

Signature: Martin J. Nee Date: April 26, 2003

# Product Recovery and Well Observation Data

Project Name: San Juan Basin  
 Project Manager: Nee  
 Client Company: MWH  
 Site Name: Miles Federal

Project No: 2200013  
 Date: 1-27-03

Well	Time	Depth to Water (ft)	Depth to Product (ft)	Total Well Depth (ft)	Product Thickness (ft)	Volume Removed	Comments
MW-1	1503	31.57	31.21		.38'	.75 gal	
MW-2		30.64					water only
MW-3		31.11					water only

COMMENTS: Build a 3 gal water both water and product and crystal also

Signature: 

Date: 1-27-03