

# Table of Contents

<u>SECTION</u>	<u>RECEIVED</u>	<u>Page</u>
Introduction	DEC 1 9 1984 DEPT. OF ENVIRONMENTAL CONSERVATION NRC	1
Summary of Findings		2
Water Sampling Procedures		2
Water Quality		2
Discussion of Findings		3
Data Presentation and Validation		4
Recommendations		4
Closure		4

## Appendices:

A - Figures	3 pages
B - Photographs	5 pages
C - Tables and Graphs	33 pages
D - Laboratory Results	21 pages

## 5th Water Sampling Report

### MarkAir Facility Fairbanks, Alaska

#### **Introduction**

A groundwater evaluation is being performed as the first step of corrective action for the MarkAir Facility located at Fairbanks International Airport. The evaluation consists of quarterly water sampling events and analysis. This report summarizes sampling procedures and the results of the fifth water sampling event. These activities were carried out in accordance with Environmental Management, Inc.'s (EMI) Quality Assurance Program Plan (QAPP).

Nine monitoring wells were installed around the Fairbanks, MarkAir Facility during the week of June 21, 1993. On June 30, 1993, EMI collected the first water samples from these wells and the results of this phase of work were submitted in a report entitled MarkAir Fairbanks Monitoring Well Report.

On September 30, 1993, the second water samples from the nine monitoring wells around the MarkAir facilities were collected by EMI. The results from this sampling event were submitted in a report entitled 2nd Water Sampling Report MarkAir Facility, Fairbanks, Alaska.

On December 30, 1993, EMI collected the third water samples from the nine monitoring wells around the MarkAir facilities. The results from this sampling event were submitted in a report entitled 3rd Water Sampling Report MarkAir Facility, Fairbanks, Alaska.

On March 30, 1994, EMI collected the fourth water samples from the nine monitoring wells around the MarkAir facilities. The results from this sampling event were submitted in a report entitled 4th Water Sampling Report MarkAir Facility, Fairbanks, Alaska.

These sampling events were being performed on a quarterly basis, so that contamination can be monitored for the seasonal cycle of watertable fluctuations. This fifth sampling event completes one years' worth of quarterly water sampling data.

## **Summary of Findings**

The following is a summary of findings. Please consult the main body of the report and attachments for supporting information.

- All monitoring wells continue to detect petroleum hydrocarbon constituents.
- Heavy metal concentrations detected seem to be consistent with the natural concentrations in the Fairbanks area.
- The groundwater has risen in the monitoring wells an average of 3.57 ft.  
The groundwater gradient has slightly shifted in a more northerly direction.

## **Water Sampling Procedures**

On June 29, 1994, monitoring wells were purged by removing 3 well casing volumes of water.

*well casing?*

On June 30, 1994 monitoring well samples were collected by Stan Dolloff of EMI following techniques as described in EMI's QAPP. All samples were then sent for laboratory analysis to Superior Precision Analytical, Inc. in Martinez, California. Monitoring well water samples were tested for Diesel Range Petroleum Hydrocarbons (EPA Method 3540/8100 Modified), Gasoline Range Petroleum Hydrocarbons (EPA Method 5030/8015 Modified), Total BTEX (EPA Method 5030/602), Total Range Petroleum Hydrocarbons (EPA Method 3550/418.1), PCB's (EPA Method 3550/8080), Volatile Chlorinated Solvents (EPA Method 5030/601), and Leachable Metals (Arsenic EPA Method 3020/7060), (Cadmium EPA Method 3010/6010), (Chromium EPA Method 3010/6010), (Lead EPA Method 3020/7421). Summary results may be found in Appendix C Tables #2 - #14. The chain of custody and complete analytical results can be found in Appendix D.

## **Water Quality**

Petroleum contaminant concentrations that are above the maximum contaminant

levels (MCLs) (18 AAC 80, Drinking Water Standards, March 18, 1993) are depicted on sheet 2 of 3 and sheet 3 of 3 of Appendix A. Some Monitoring Wells did contain detectable amounts of petroleum products which were not detected in the previous sampling event on March 30, 1994.

The metals arsenic and lead were detected in some monitoring wells and the results are presented in Appendix C, Tables #12 to #15.

Water quality was checked for pH, temperature, and conductivity. These values were rejected from this sampling event, due to the inconsistent temperature/pH meter. Although pH readings were within the maximum contaminant level range of 6.5 to 8.5. Also dissolved oxygen was not checked due to problems in receiving the instrument on the scheduled sampling date.

### **Discussion of Findings**

Due to the continuing pattern of volatile petroleum hydrocarbon constituent detection, the plume of contamination seems to be migrant. Up gradient monitoring wells (MW#4 @ the Weaver Brothers Bldg. and MW#2/MW#4/MW#5 @ the MarkAir Hangar) are showing detectable amounts of Benzene and Toluene. MW #4 @ the Weaver Brothers Building still shows detectable amounts of Benzene above its MCL of 5.0 parts per billion (ppb). Therefore, contamination from nearby sources could be encroaching on to MarkAir properties. Attached behind each Table in Appendix C are monitoring well specific graphs showing the yearly trend in the groundwater table to the petroleum hydrocarbons detected.

Naturally occurring high metal concentrations are consistently found in the groundwater in the Fairbanks area. Concentrations of arsenic in the water from many wells in the Fairbanks area exceeds the State's drinking water standards of 50 parts per billion (ppb). Arsenic is showing up in detectable amounts in water samples from the monitoring wells tested, however; in all cases the amounts are below this standard.

## **Data Presentation and Validation**

Laboratory results are compiled and summarized in Appendix C, Tables #2 to #14. Data validation calculations were performed in accordance with EMI's QAPP and summarized in Appendix C Tables #17 to #19. The complete laboratory data deliverables are presented in Appendix D.

All QA/QC objectives were satisfied.

## **Recommendations**

This concludes one year of quarterly sampling of the monitoring wells. Site specific information from all the land users in this survey should be obtained for this sampling event and all previous sampling events. This information should be compiled on a regional basis (Fairbanks International Airport) to define the extent and levels of hydrocarbons moving across the area. The downstream risk to human health and the environment is a concern in this area. Nearby drinking water wells should be tested for petroleum hydrocarbon constituents on the properties between the Fairbanks International Airport and the Chena River. Also, the impact on the aquatic life in the nearby rivers (Chena and Tanana) should be assessed. Once all information compiled by this quarterly groundwater monitoring effort has been reviewed a decision in conjunction with ADEC, AIDEA, and the land user participants can be made on further actions for the areas of concern.

## **Closure**

The discussion presented in this report is based on our understanding of ADEC guidelines, our investigations, our Quality Assurance Program Plan, and other pertinent information referred to herein.

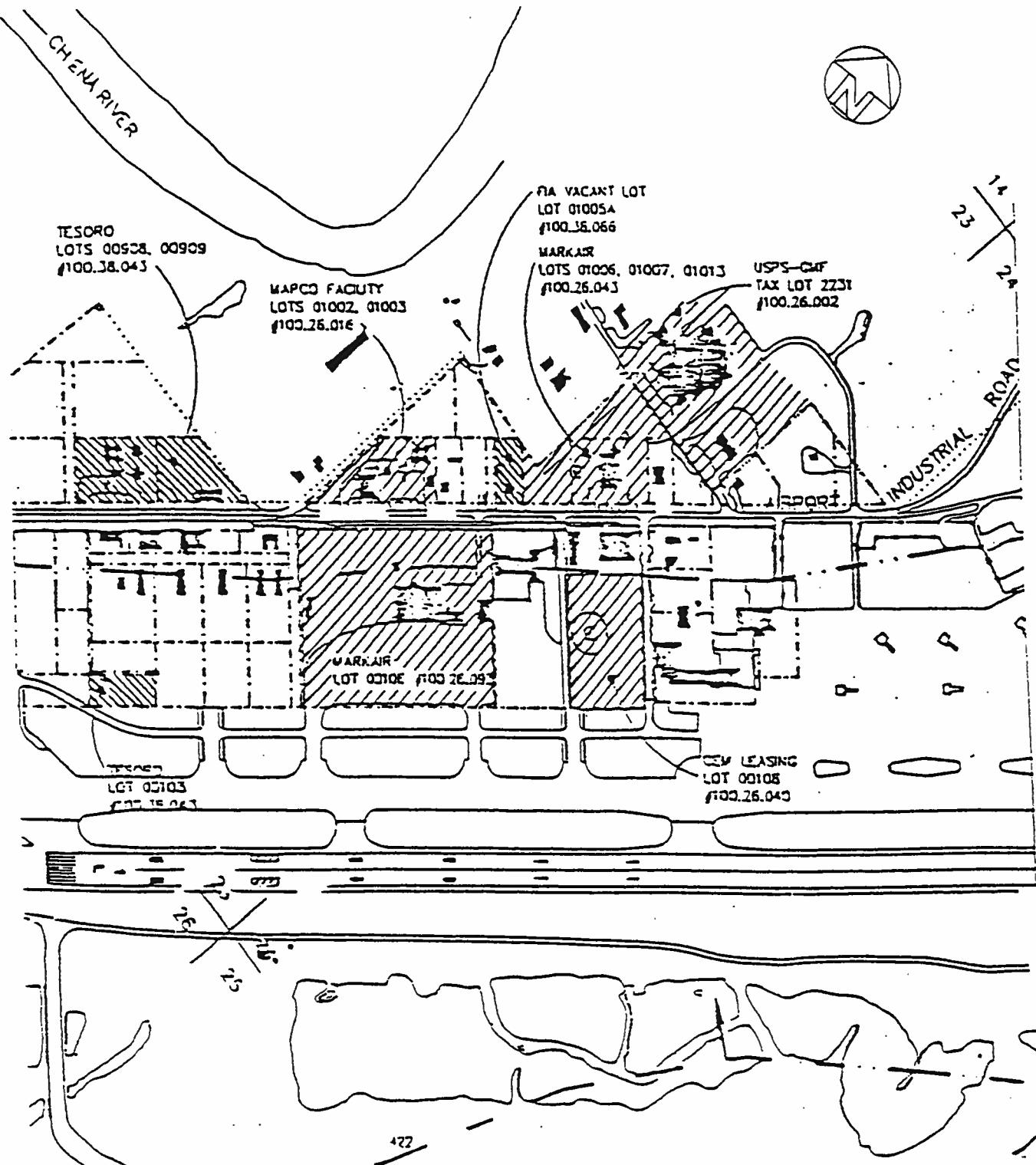
Findings representative of the site at any particular time are the result of services rendered within the scope authorized by the client. Changes due to natural processes and human activity will affect the conditions described herein.

Findings representative of the site at any particular time are the result of services rendered within the scope authorized by the client. Changes due to natural processes and human activity will affect the conditions described herein.

EMI prepared these tasks in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No warranty, express or implied, beyond exercise of reasonable care and professional diligence, is made.

## **APPENDIX A**

### **FIGURES**



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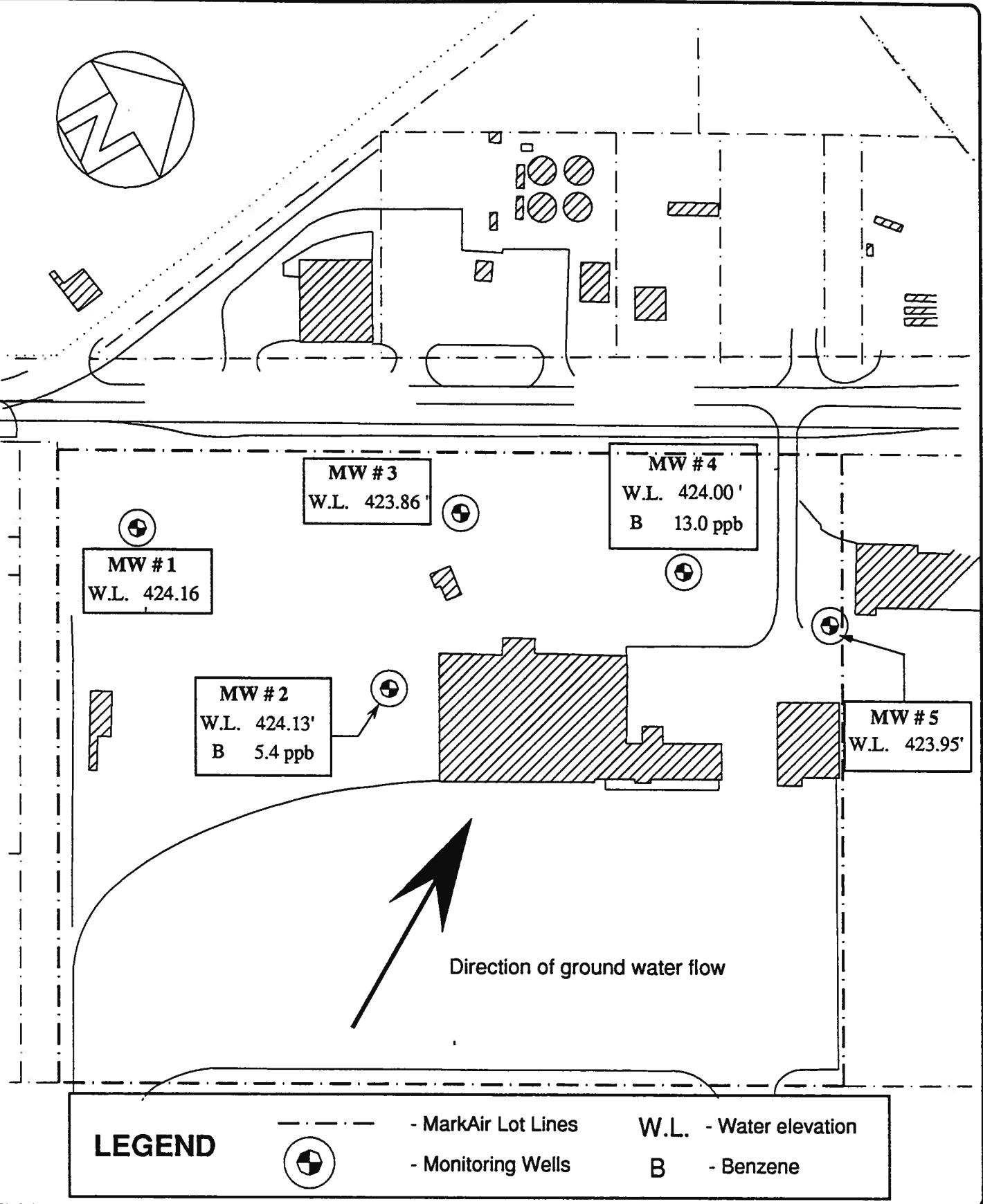
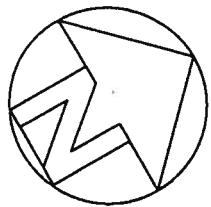
206 WEST FIREWEED LANE, SUITE 201  
ANCHORAGE, ALASKA 99503  
(907) 272-9336 -FAX 272-4159

MARKAIR FAIRBANKS FACILITY  
Vicinity Map  
Range 2 West, Township 1 South  
Fairbanks Meridian, Alaska

DATE 8/8/94  
EMI NO. 6277

A

SHEET 1 OF 3



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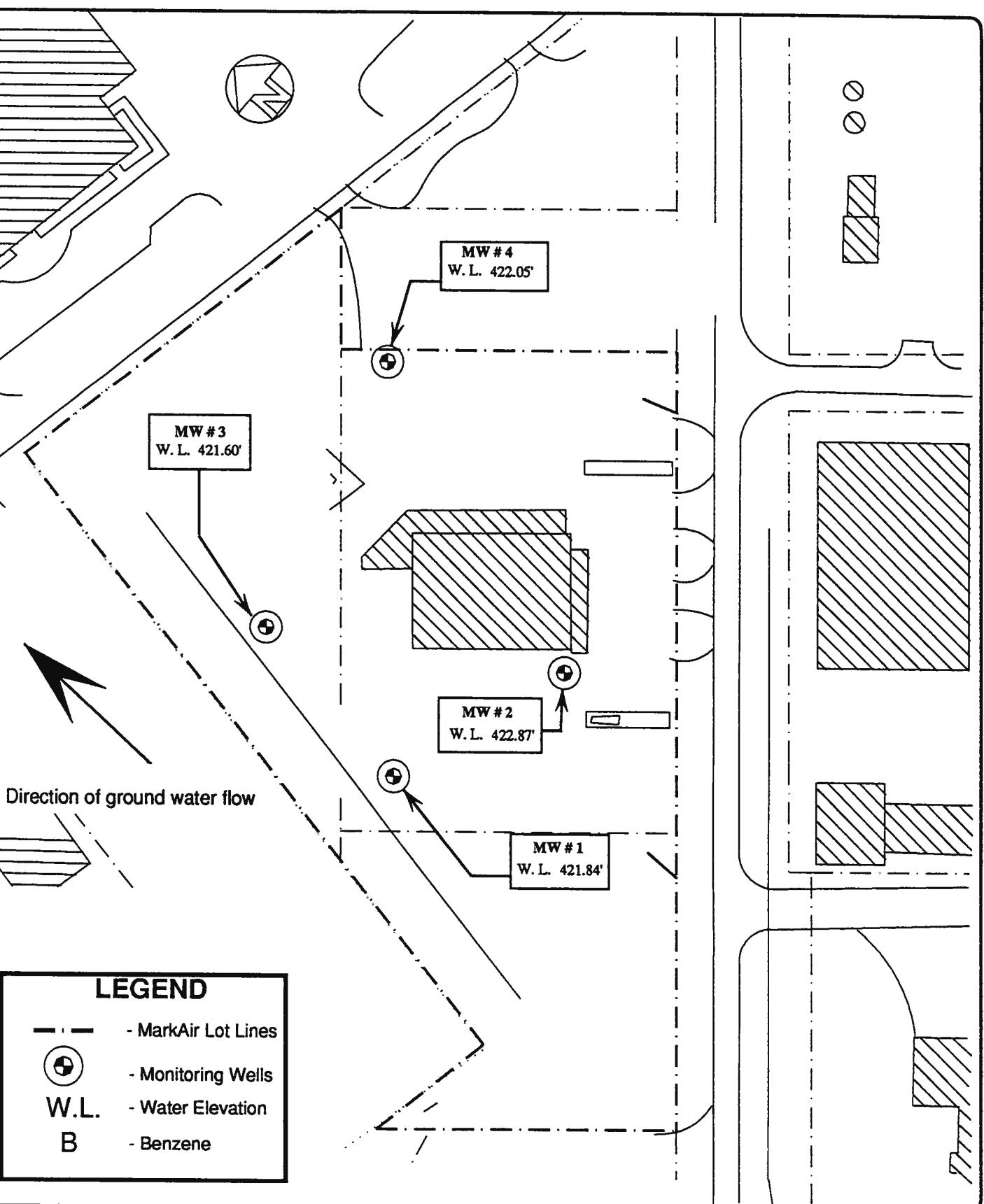
206 EAST FIREWEED LANE - SUITE 201  
ANCHORAGE, ALASKA 99503  
(907) 272-9336 - FAX 272-0319

MARKAIR FAIRBANKS FACILITY  
MONITORING WELL RESULTS  
June 30, 1994  
HANGAR/OFFICE BUILDING  
Not to scale

DATE 8/8/94  
EMI NO. 6277

A

SHEET 2 OF 3



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206 EAST FIREWEED LANE - SUITE 201  
ANCHORAGE, ALASKA 99503  
(907) 272-9336 -FAX 272-4159

**MARKAIR FAIRBANKS FACILITY**  
Monitoring Well Results  
June 30, 1993  
Weaver Brothers Building  
Not to Scale

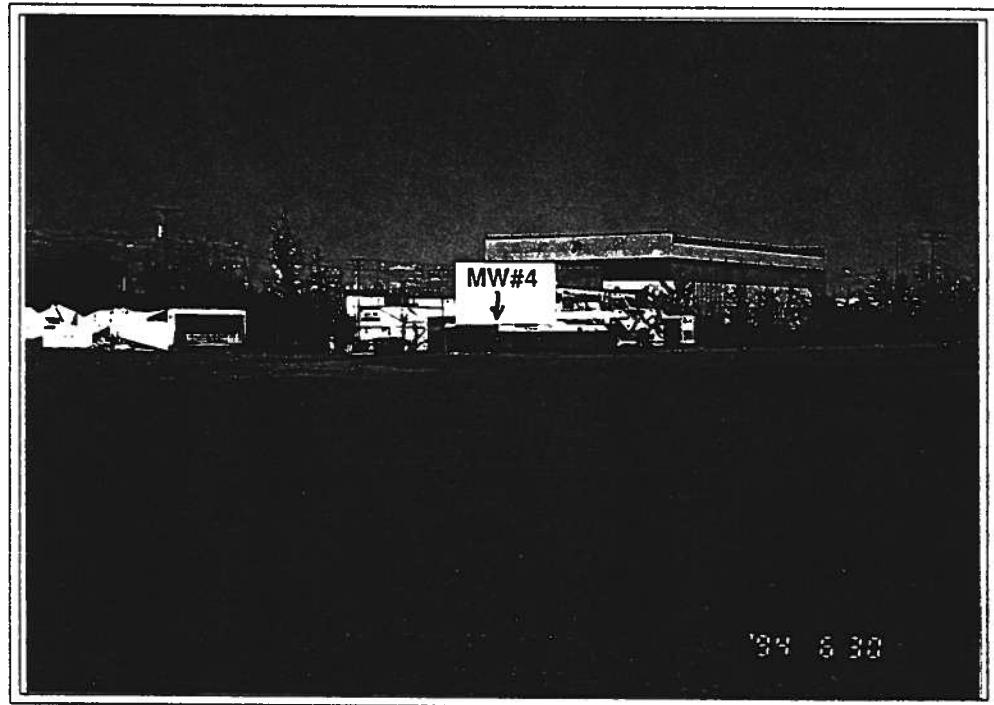
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EMI NO. 6277  
**A**  
SHEET 3 OF 3

**APPENDIX B**

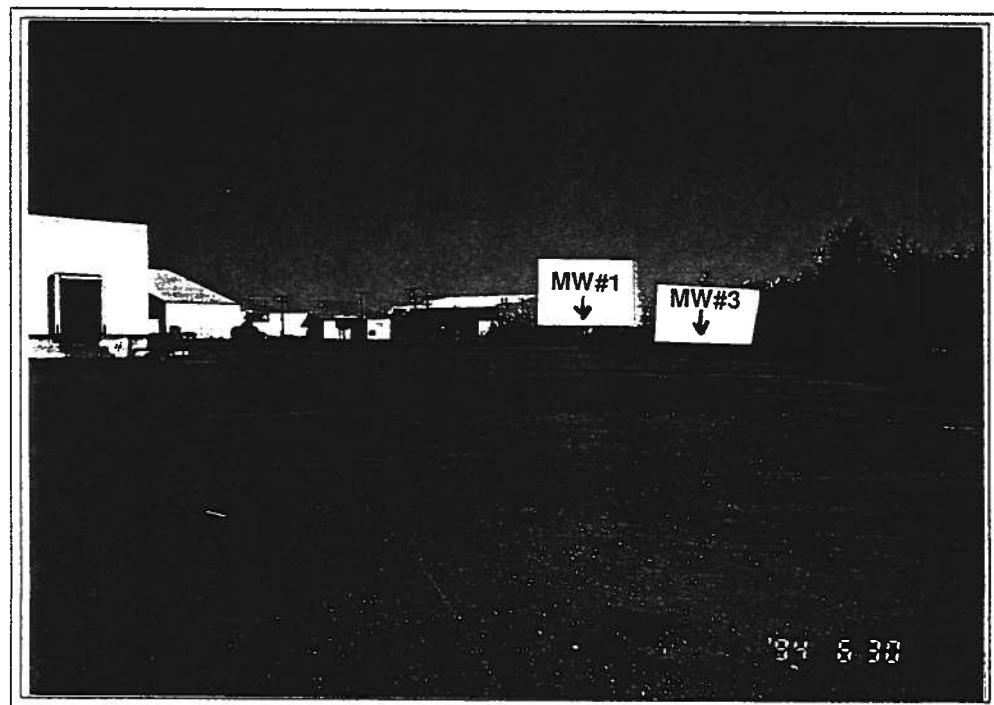
**PHOTOGRAPHS**



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MARKAIR FAIRBANKS, ALASKA  
JUNE 30, 1994



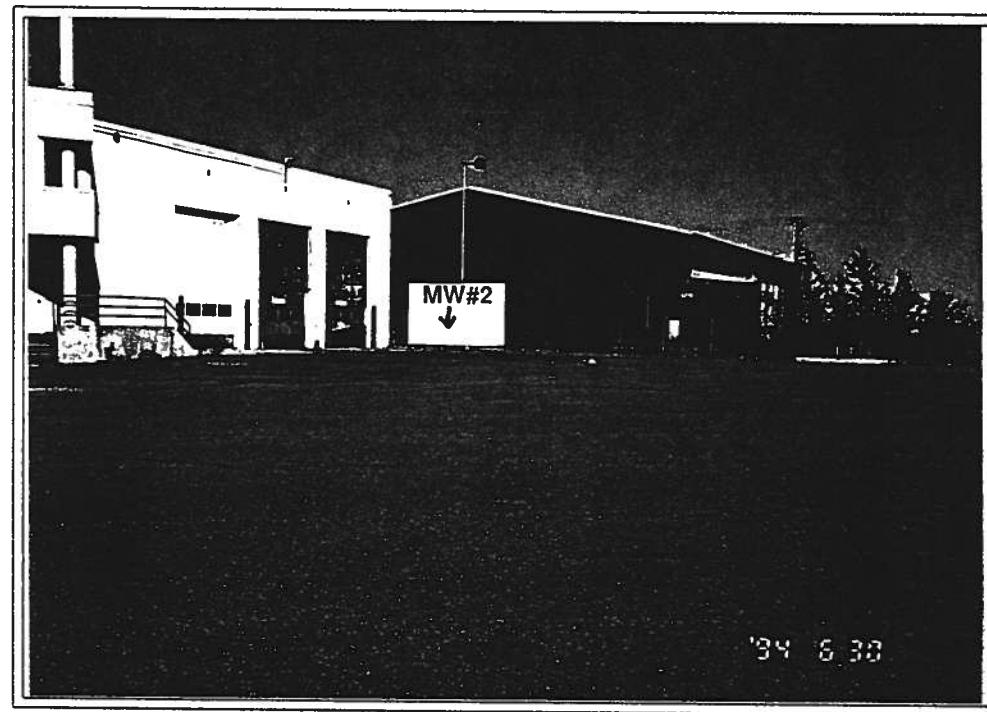
A view of the Weaver Brother's MW#4.



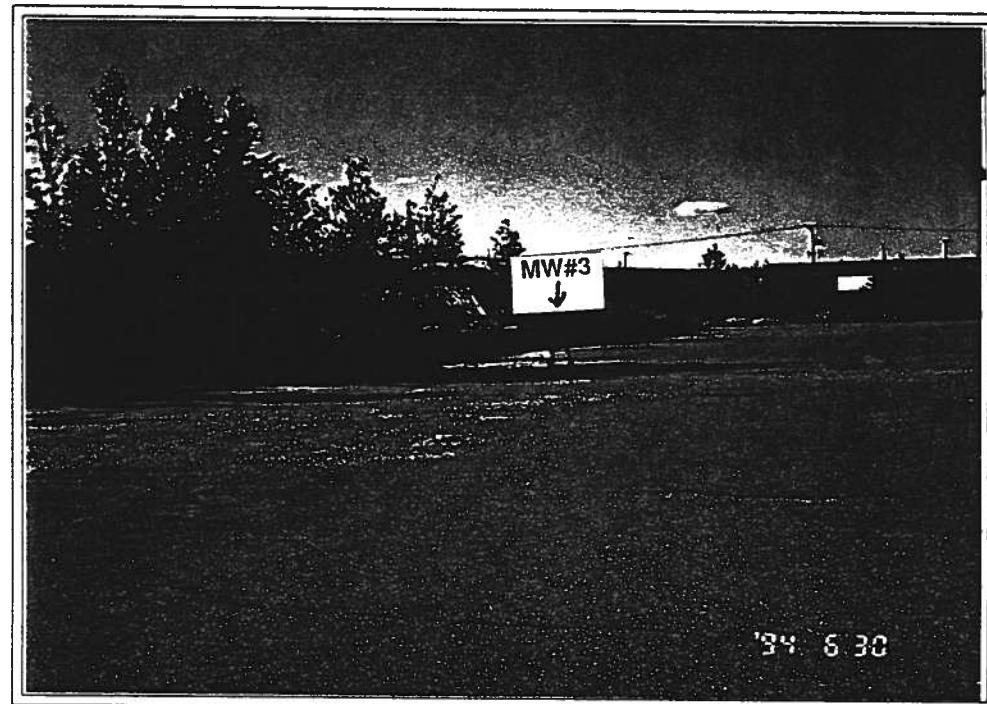
A view of the Weaver Brother's MW#1 and MW#3.



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MARKAIR FAIRBANKS, ALASKA  
JUNE 30, 1994



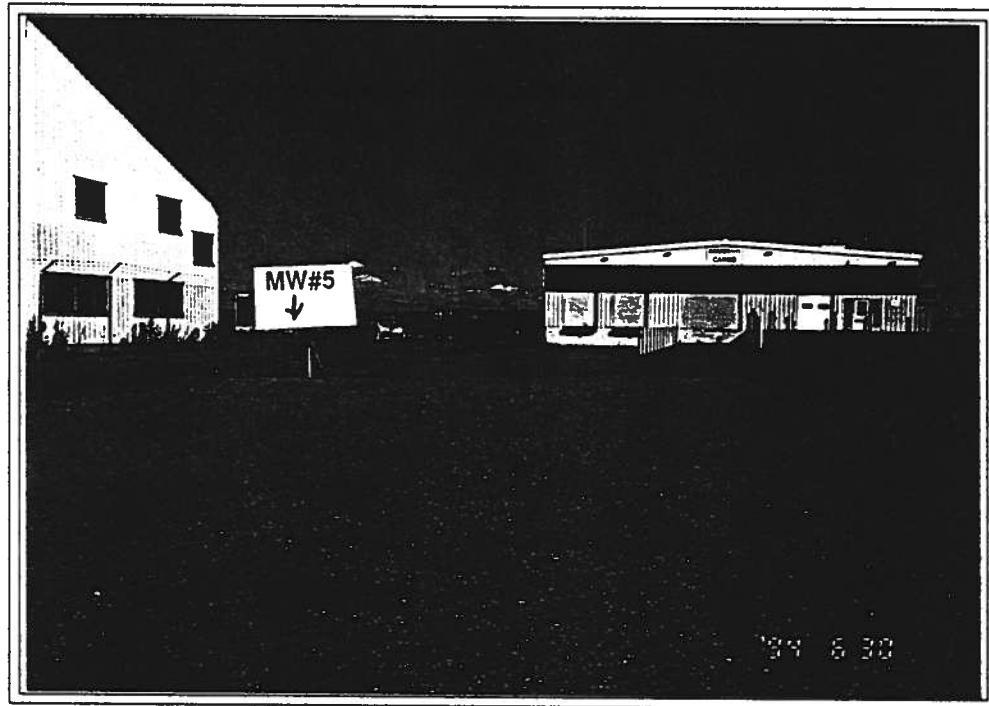
A view of the Weaver Brother's MW#2.



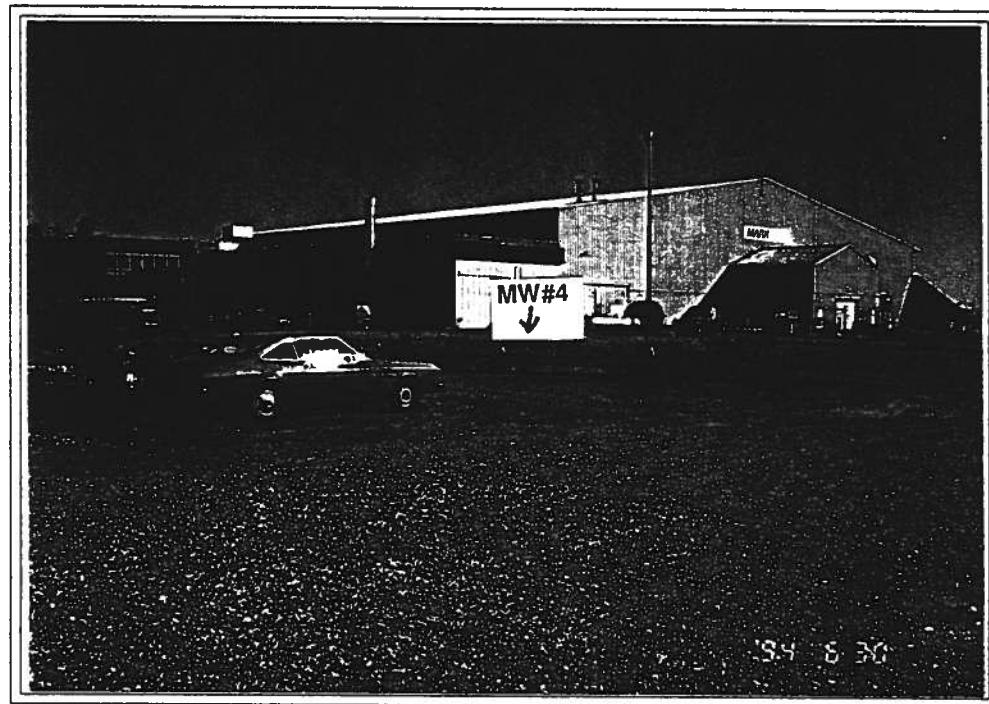
A view of the Weaver Brother's MW#3 and the on-site stockpiled soil..



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**MARKAIR FAIRBANKS, ALASKA**  
**JUNE 30, 1994**



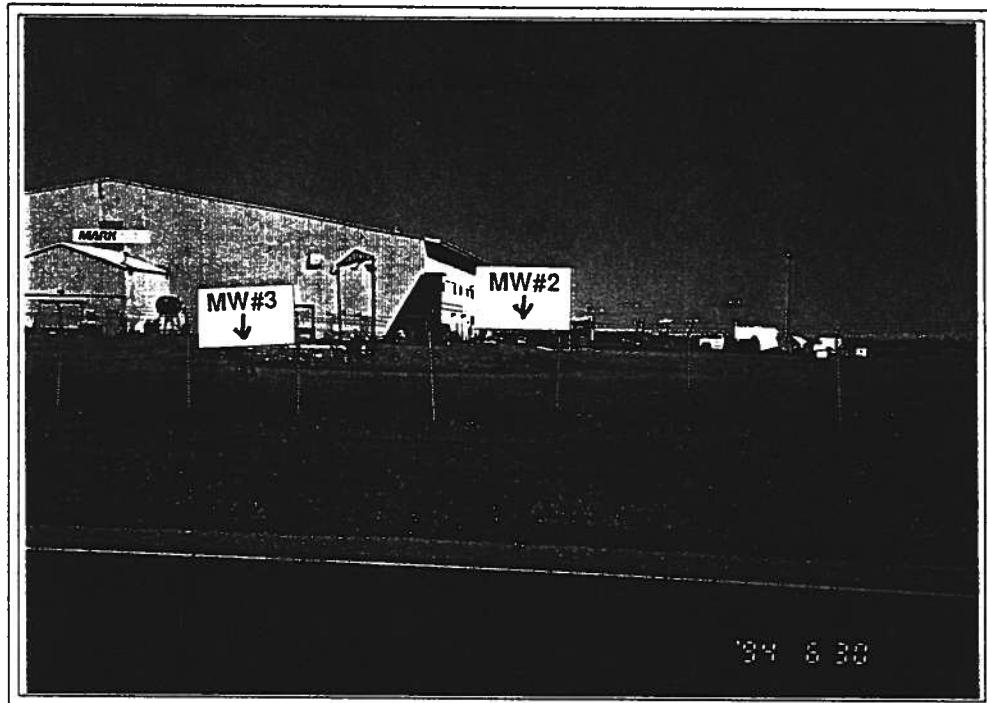
A view of the MarkAir Hangar's MW#5.



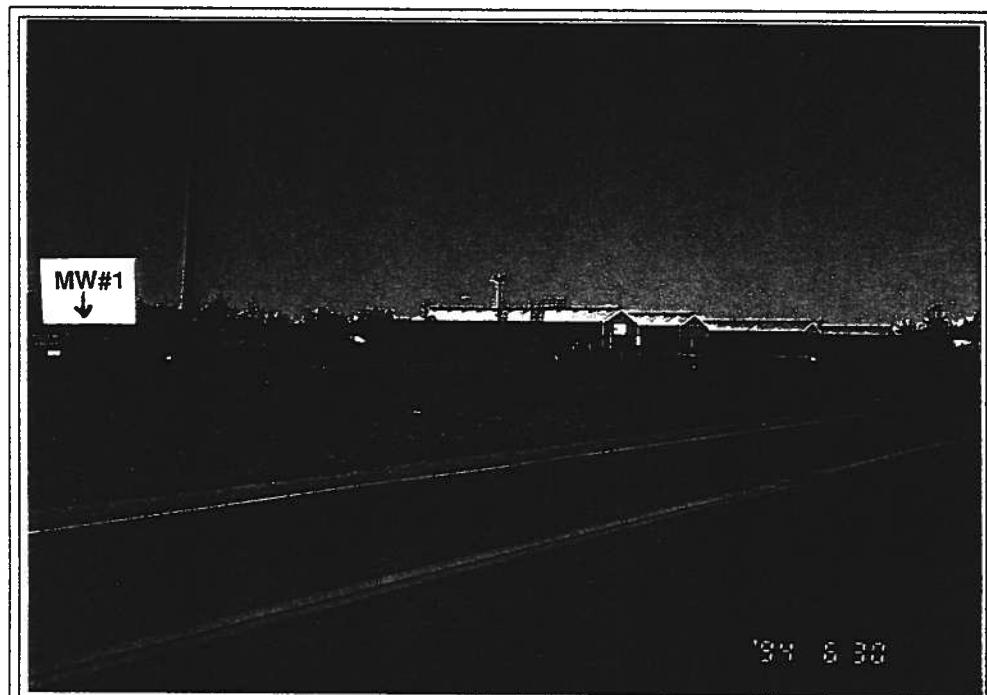
A view of the MarkAir Hangar's MW#4.



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JUNE 30, 1994



A view of the MarkAir Hangar's MW#2 and MW#3.

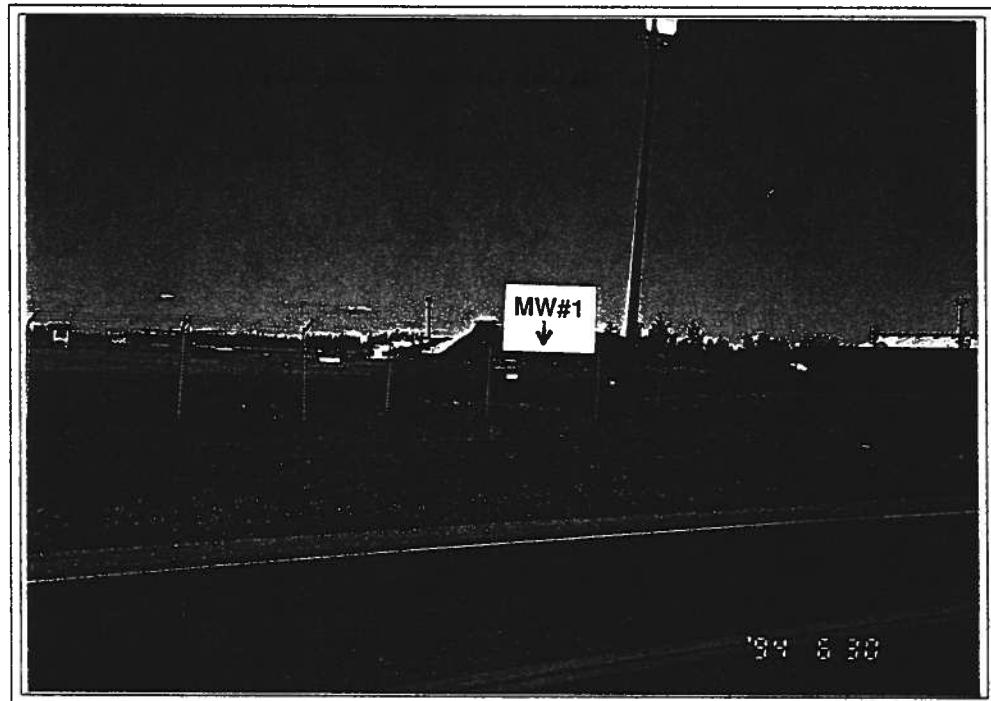


A view of the MarkAir Hangar's MW#1 on the downgradient corner of the property.

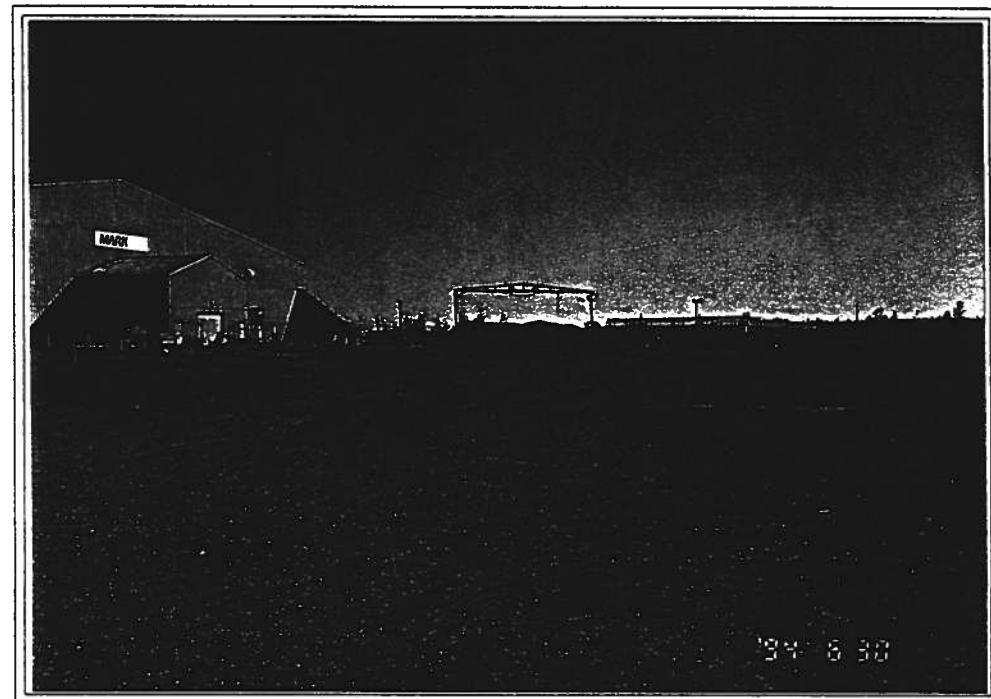


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INCORPORATED

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MARKAIR FAIRBANKS, ALASKA  
JUNE 30, 1994



A view of the MarkAir Hangar's MW#1 and the on-site stockpiled soil.



Another view of the MarkAir Hangar's on-site stockpiled soil.

## **APPENDIX C**

### **TABLES**

**Table #1**  
**Summary of Field Analysis of Monitoring Well Water Elevations**  
**June 30, 1993 thru March 30, 1994**

Well ID	Runway Station	Offset Left	MW Elevation (feet)	Water Elevation (6/30/93) (feet)	Water Elevation (9/30/93) (feet)	Water Elevation (12/30/93) (feet)
MW#1 @ WB	101+47	2081	428.79	421.21	420.91	418.83
MW#2 @ WB	102+50	1941	431.48	422.44	421.19	420.10
MW#3 @ WB	102+62	2191	427.33	420.44	420.79	418.50
MW#4 @ VVB	104+86	2142	428.49	421.74	421.16	420.00
MW#1 @ H	87+26	1603	429.72	423.22	422.14	420.76
MW#2 @ H	90+83	1391	434.57	423.65	422.40	421.57
MW#3 @ H	91+32	1653	430.04	423.37	422.37	420.87
MW#4 @ H	93+86	1582	430.94	423.53	422.32	421.16
MW#5 @ H	96+16	1571	430.78	423.78	422.70	420.90

**Table #1**  
**Summary of Field Analysis of Monitoring Well Water Elevations**  
**June 30, 1993 thru March 30, 1994**

Well ID	Runway Station	Offset Left	MW Elevation (6/25/93) (feet)	MW Elevation (4/7/94) (feet)	Water Elevation (3/30/94) (feet)	Water Elevation (6/30/94) (feet)
MW#1 @ WB	101+47	2081	428.79	428.8	419.96	421.84
MW#2 @ WB	102+50	1941	431.48	431.5	419.25	422.87
MW#3 @ WB	102+62	2191	427.33	427.35	416.43	421.6
MW#4 @ WB	104+86	2142	428.49	428.47	*419.8	422.05
MW#1 @ H	87+26	1603	429.72	429.68	419.97	424.16
MW#2 @ H	90+83	1391	434.57	434.57	420.57	424.13
MW#3 @ H	91+32	1653	430.04	429.98	419.98	423.86
MW#4 @ H	93+86	1582	430.94	431	420.26	424.00
MW#5 @ H	96+16	1571	430.78	430.78	420.11	423.95

**LEGEND:**

WB = Weaver Bros.

H = Hanger

\* = corrected from last report

**Table #2**  
**Summary of Analytical Monitoring Well Water Samples for Diesel**  
**Samples Collected on June 30, 1993 Thru June 30, 1994**

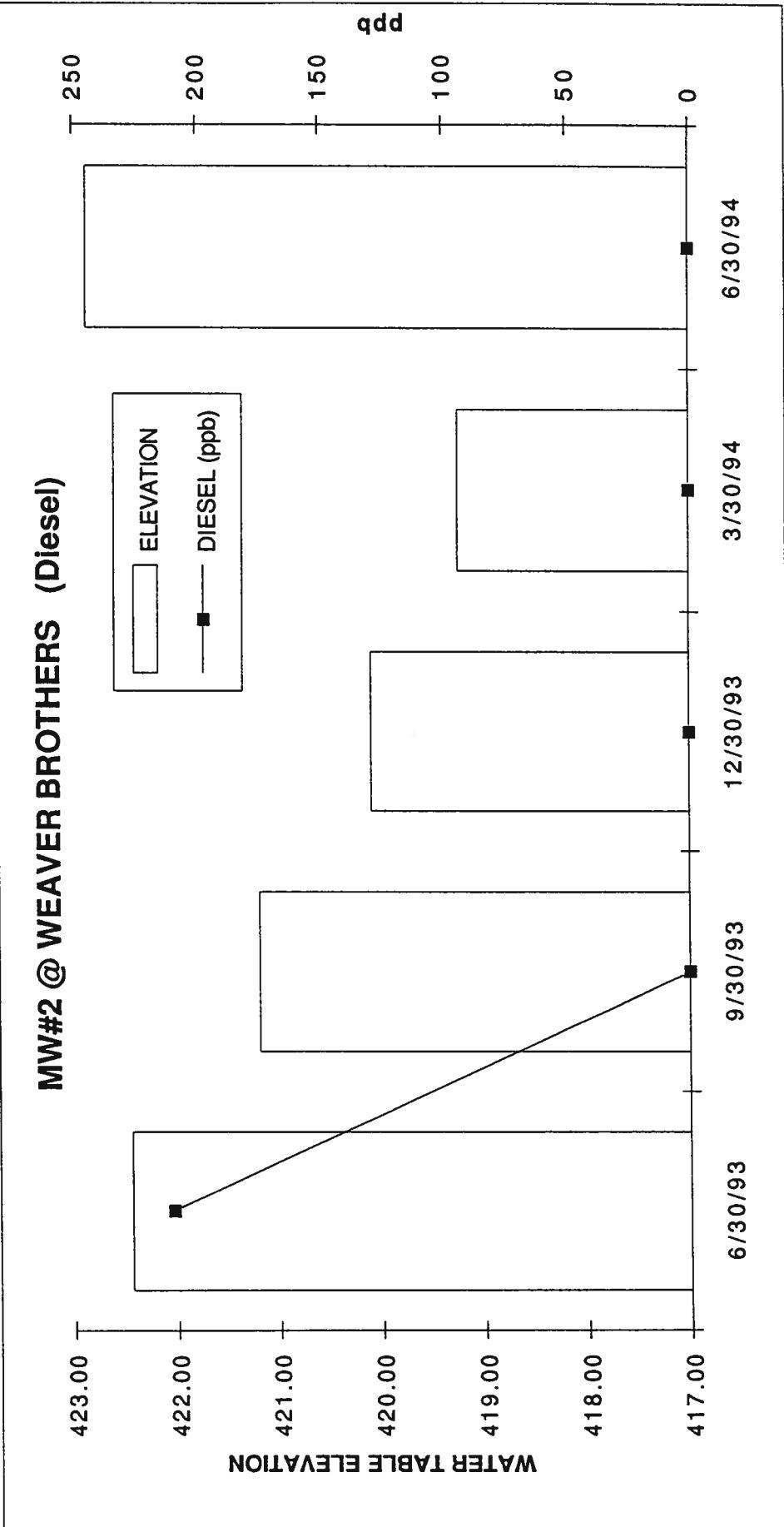
Well ID	Sample ID#	DRPH(6/30/93) 3510/8100M(ppb)	DRPH(9/30/93) 3510/8100M(ppb)	DRPH(12/30/93) 3510/8100M(ppb)	DRPH(3/30/94) 3510/8100M(ppb)	DRPH(6/30/94) 3510/8100M(ppb)
MW#1 @ WB	6277W4	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)
Duplicate	6277W5	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)
MW#2 @ WB	6277W3	210	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)
MW#3 @ WB	6277W2	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)
MW#4 @ WB	6277W1	140	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	1800
MW#1 @ H	6277W10	ND (100 ppb)	320	ND (100 ppb)	ND (100 ppb)	130
MW#2 @ H	6277W9	470	420	ND (100 ppb)	ND (100 ppb)	1100
MW#3 @ H	6277W8	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)
MW#4 @ H	6277W7	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)
MW#5 @ H	6277W6	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	ND (100 ppb)	200

**LEGEND:** WB = Weaver Brothers Bldg.  
 Duplicate = Duplicate of MW#1  
 H = Hanger  
 DRPH = Diesel Range Petroleum Hydrocarbons  
 ND ( ) = Not Detected (Detection Limit)  
 ppb = parts per billion

**Water Elevations and Diesel Levels  
MW #2 at Weaver Brothers Bldg.**

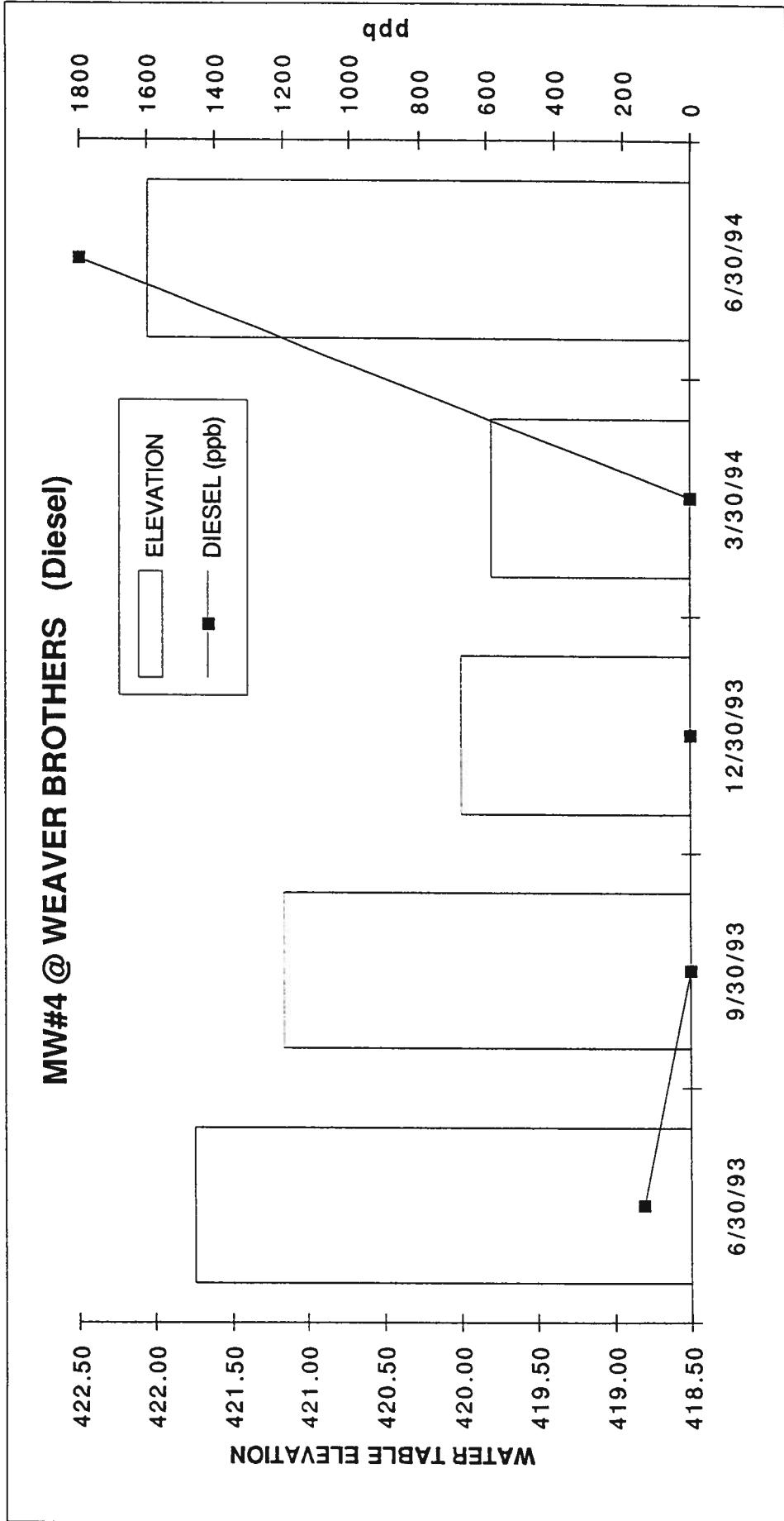
SAMPLE DATE	ELEVATION	DIESEL (ppb)
6/30/93	422.44	210
9/30/93	421.19	ND
12/30/93	420.10	ND
3/30/94	419.25	ND
6/30/94	422.87	ND

**MW#2 @ WEAVER BROTHERS (Diesel)**



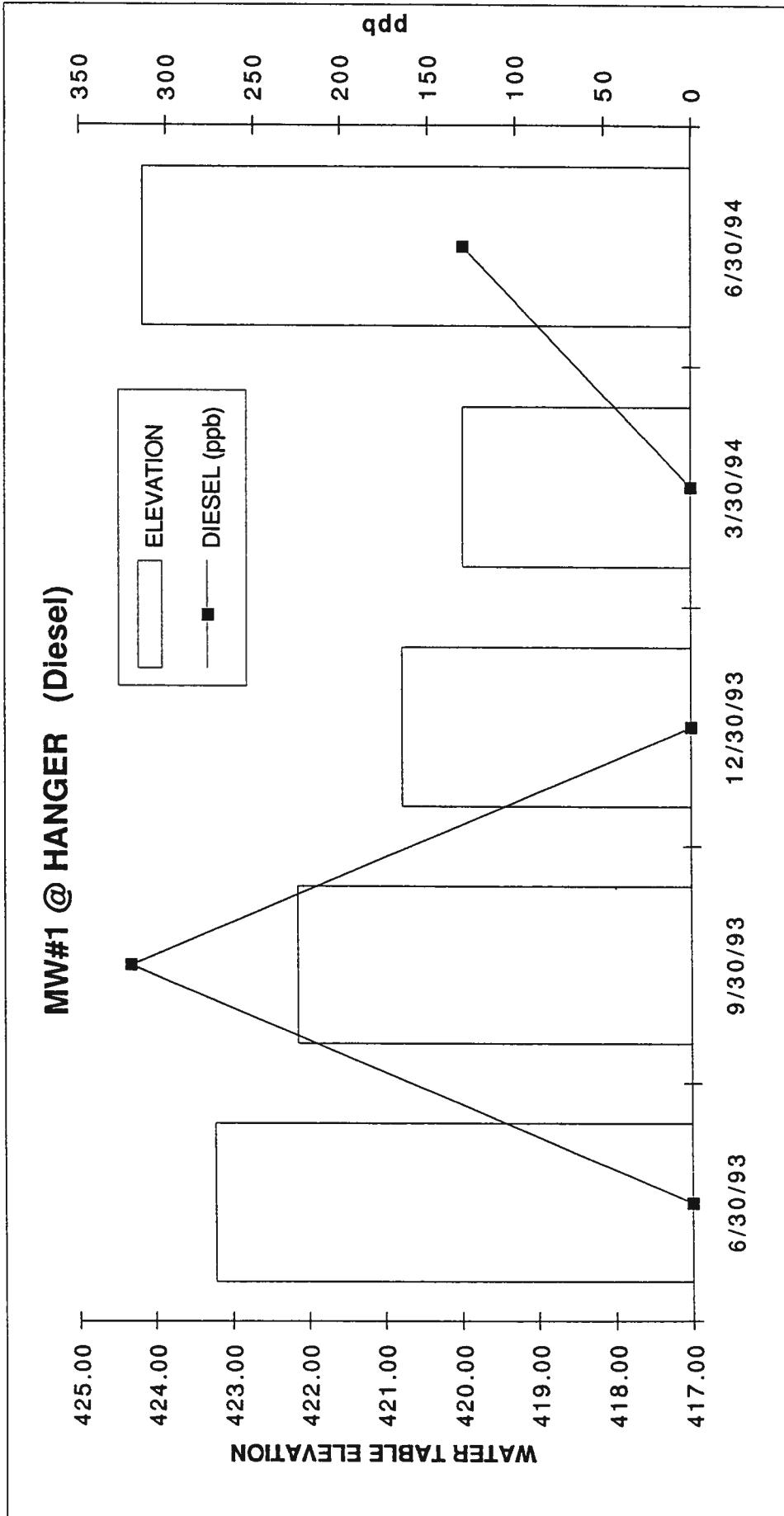
**Water Elevations and Diesel Levels  
MW #4 at Weaver Brothers Bldg.**

SAMPLE DATE	ELEVATION	DIESEL (ppb)
6/30/93	421.74	140
9/30/93	421.16	ND
12/30/93	420.00	ND
3/30/94	419.80	ND
6/30/94	422.05	1800



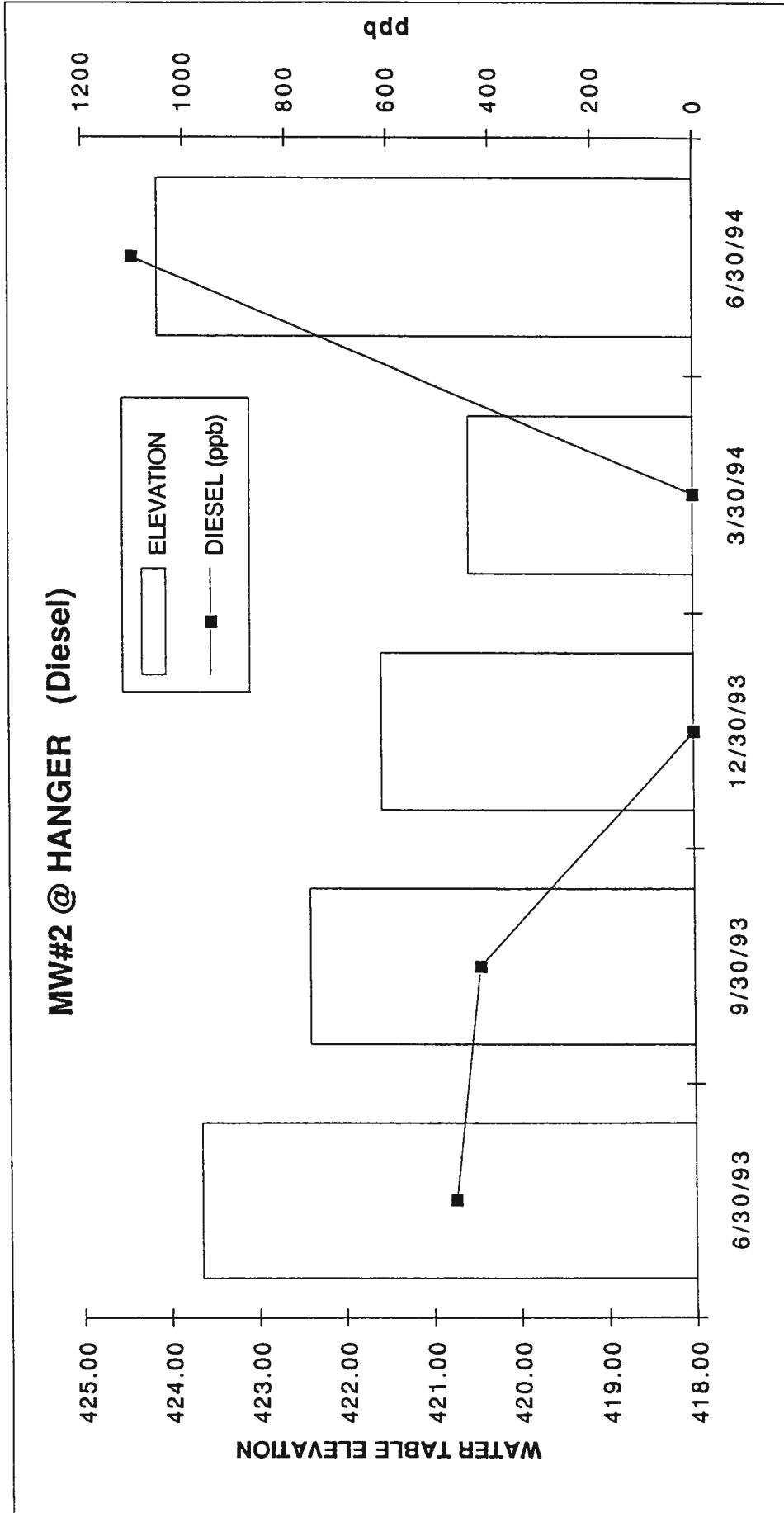
**Water Elevations and Diesel Levels  
MW #1 at Hanger**

SAMPLE DATE	ELEVATION	DIESEL (ppb)
6/30/93	423.22	ND
9/30/93	422.14	320
12/30/93	420.76	ND
3/30/94	419.97	ND
6/30/94	424.16	130



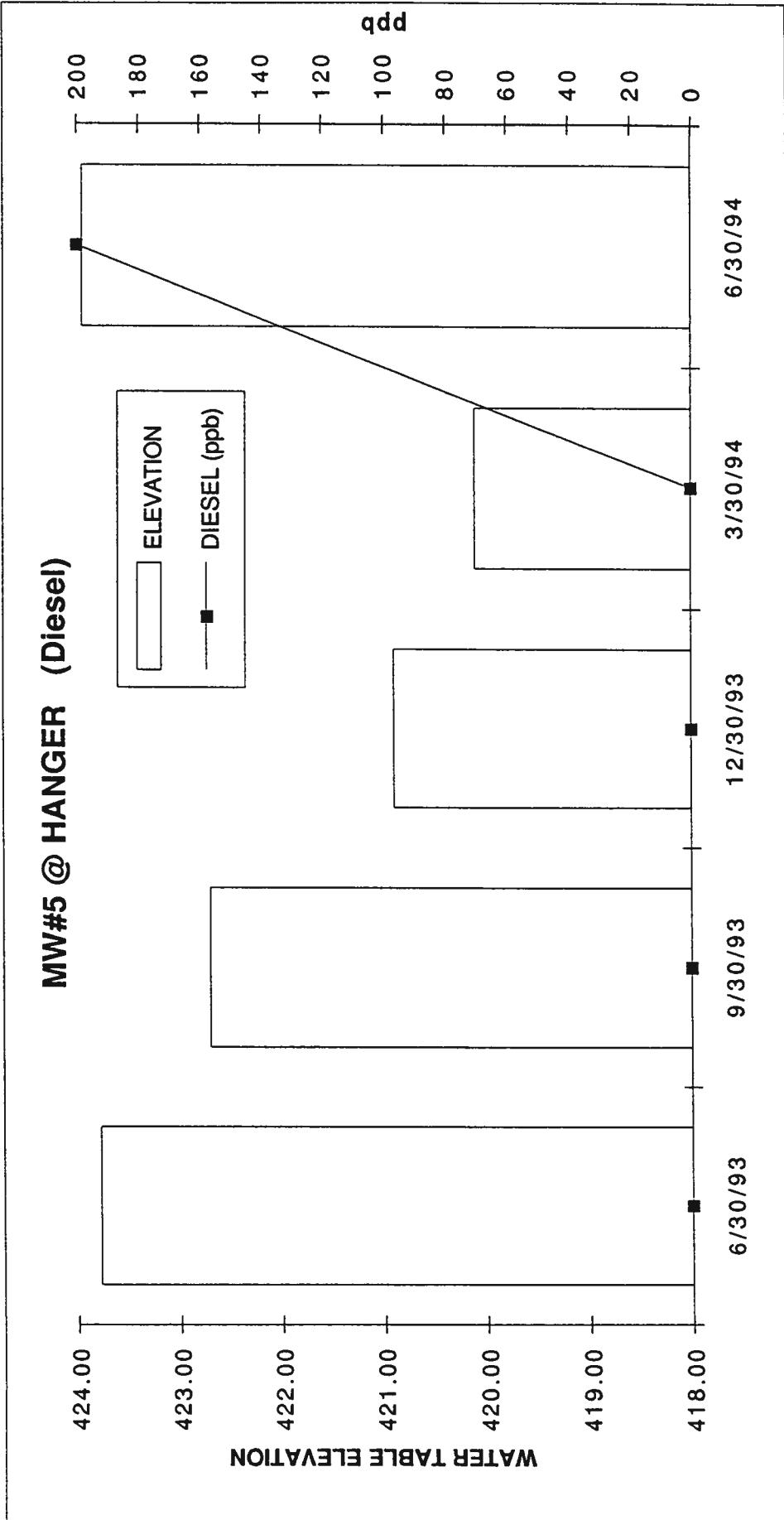
**Water Elevations and Diesel Levels  
MW #2 at Hanger**

SAMPLE DATE	ELEVATION	DIESEL (ppb)
6/30/93	423.65	470
9/30/93	422.40	420
12/30/93	421.57	ND
3/30/94	420.57	ND
6/30/94	424.13	1100



**Water Elevations and Diesel Levels**  
**MW #5 at Hanger**

SAMPLE DATE	ELEVATION	DIESEL (ppb)
6/30/93	423.78	ND
9/30/93	422.70	ND
12/30/93	420.90	ND
3/30/94	420.11	ND
6/30/94	423.95	200



**Table #3**  
**Summary of Analytical Monitoring Well Water Samples for Gasoline**  
**Samples Collected on June 30, 1993 thru June 30, 1994**

Well ID	Sample ID#	GRPH(6/30/93) 5030/8015M(ppb)	GRPH(9/30/93) 5030/8015M(ppb)	GRPH(12/30/93) 5030/8015M(ppb)	GRPH(3/30/94) 5030/8015M(ppb)	GRPH(6/30/94) 5030/8015M(ppb)
MW#1 @ WB	6277W4	ND (100 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)
Duplicate	6277W5	ND (100 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)
MW#2 @ WB	6277W3	ND (100 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)
MW#3 @ WB	6277W2	130	350	9 9	110	ND (50 ppb)
MW#4 @ WB	6277W1	ND (100 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)	6 0
MW#1 @ H	6277W10	150	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)
MW#2 @ H	6277W9	ND (100 ppb)	9 0	52	5 0	200
MW#3 @ H	6277W8	ND (100 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)
MW#4 @ H	6277W7	ND (100 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)
MW#5 @ H	6277W6	ND (100 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)	ND (50 ppb)

**LEGEND:** WB = Weaver Brothers Bldg.

Duplicate = Duplicate of MW#1

H = Hanger

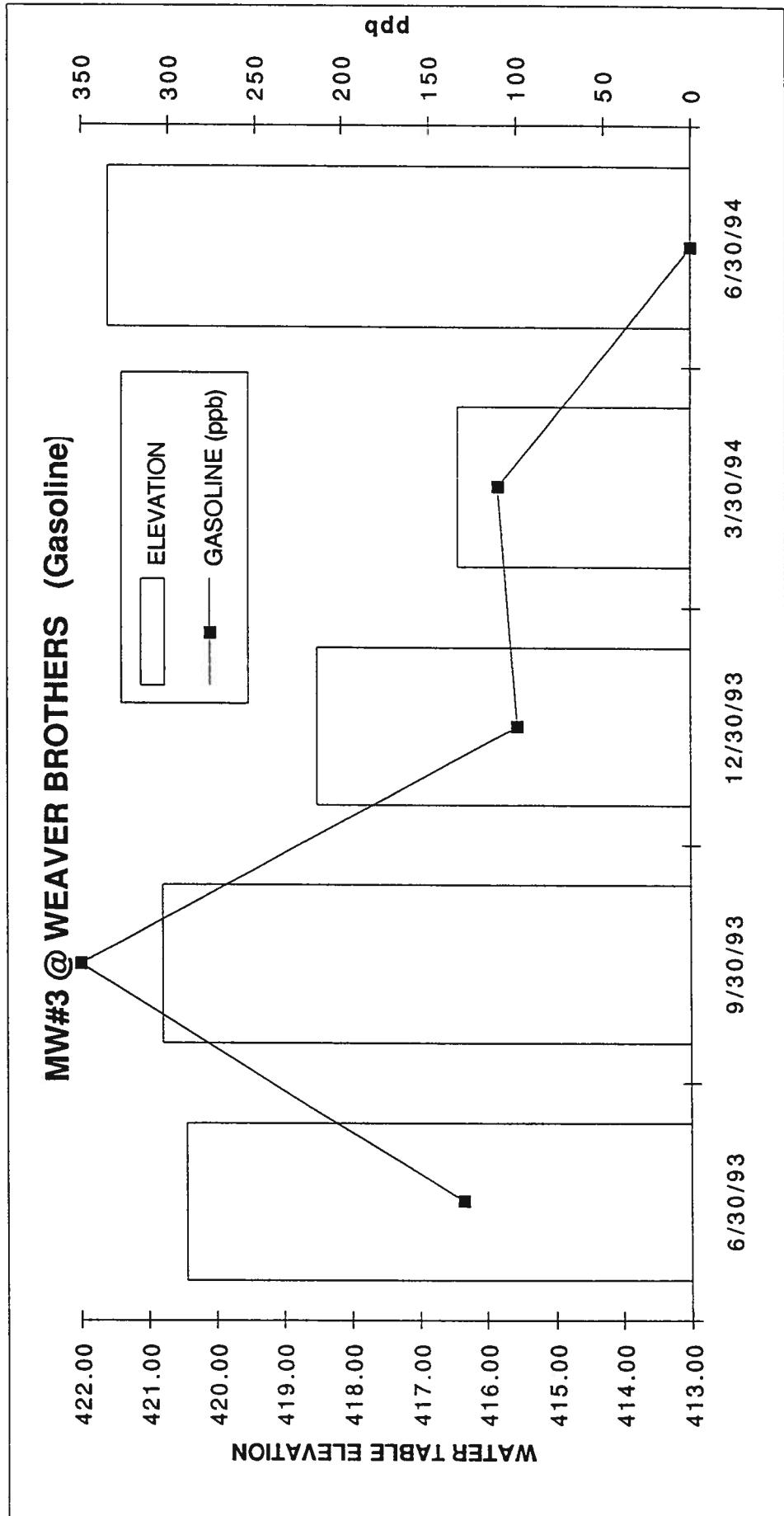
GRPH = Gasoline Range Petroleum Hydrocarbons

ND ( ) = Not Detected (Detection Limit)

ppb = parts per billion

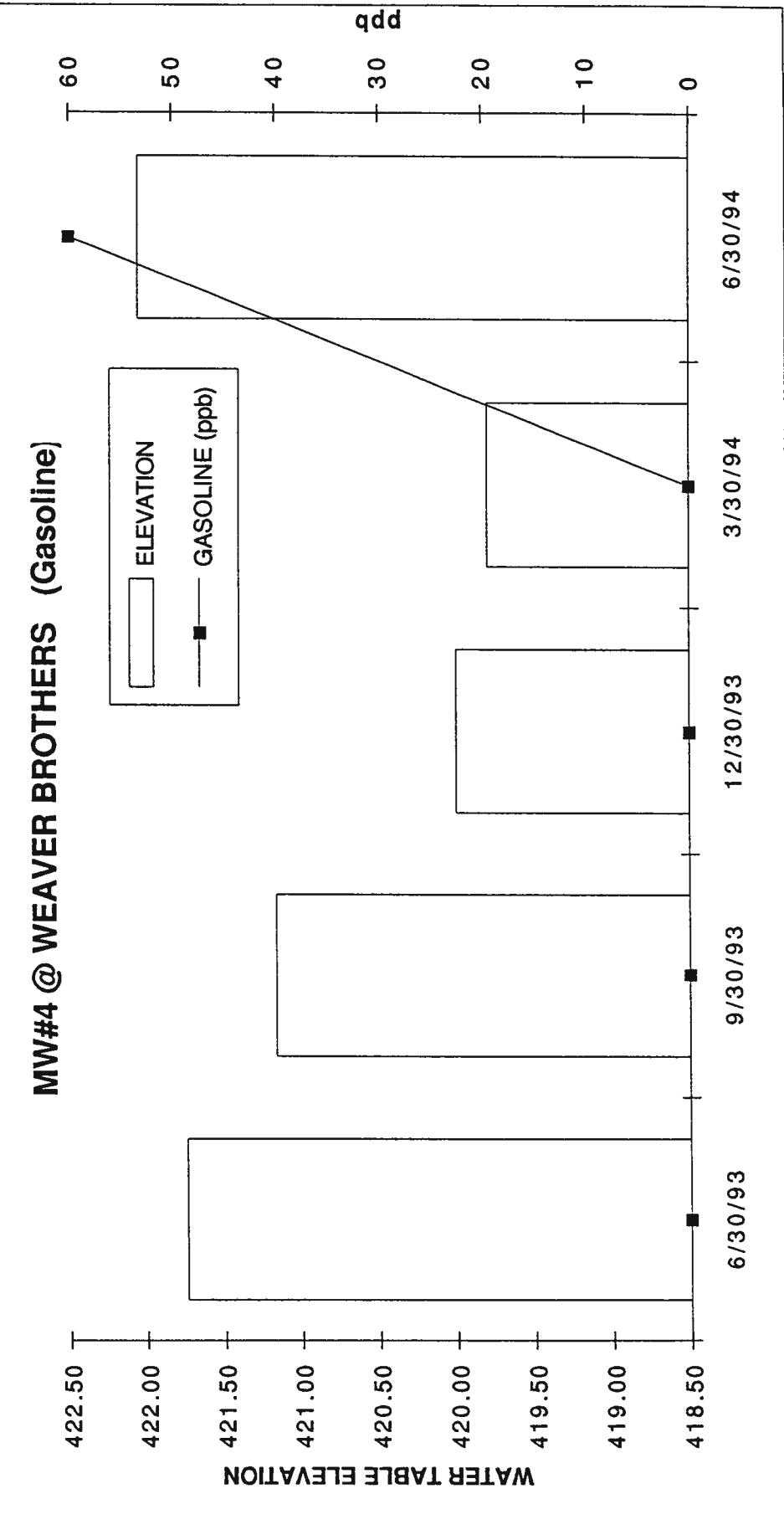
**Water Elevations and Gasoline Levels  
MW #3 at Weaver Brothers Bldg.**

SAMPLE DATE	ELEVATION	GASOLINE (ppb)
6/30/93	420.44	130
9/30/93	420.79	350
12/30/93	418.50	99
3/30/94	416.41	110
6/30/94	421.60	ND



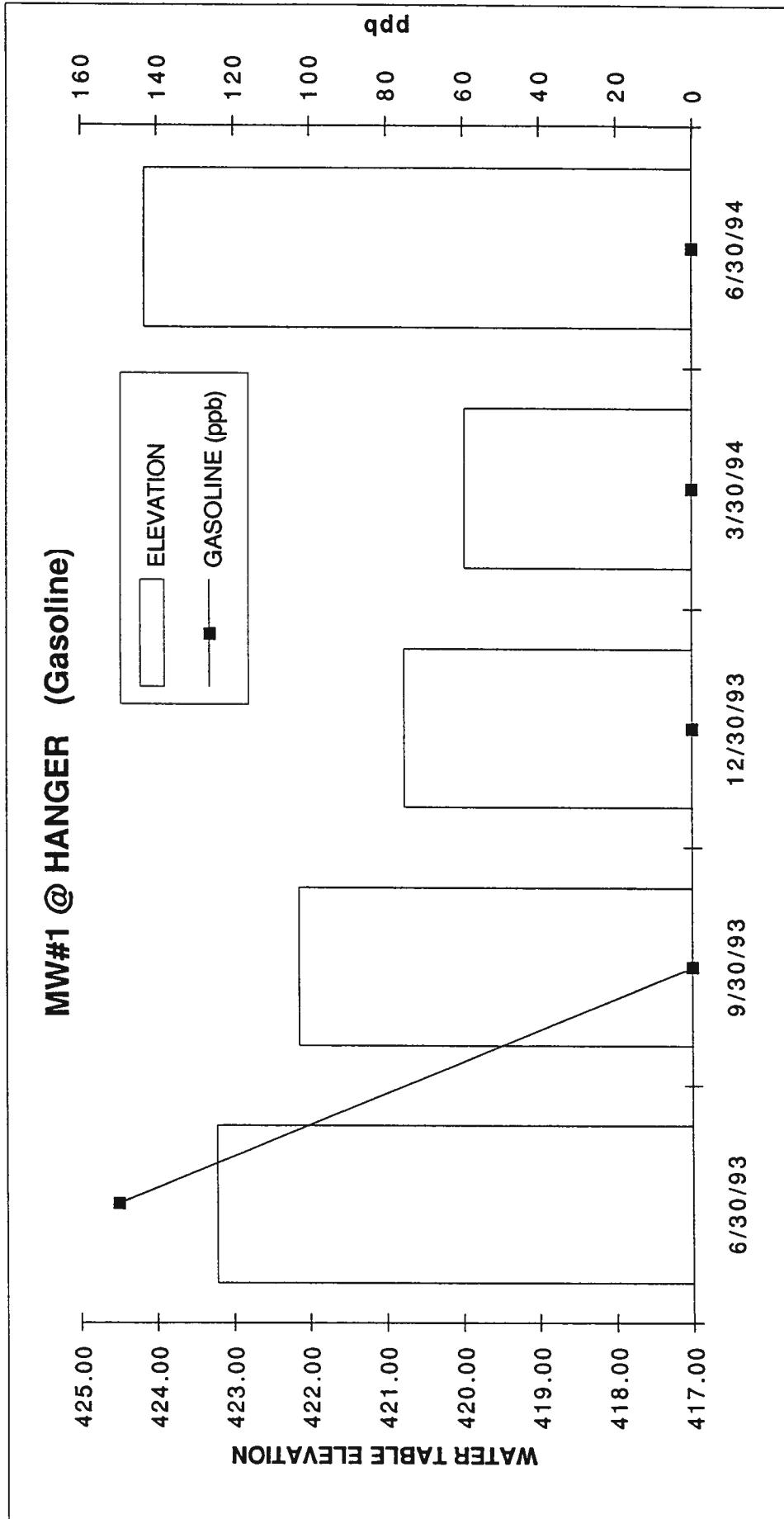
**Water Elevations and Gasoline Levels  
MW #4 at Weaver Brothers Bldg.**

SAMPLE DATE	ELEVATION	GASOLINE (ppb)
6/30/93	421.74	ND
9/30/93	421.16	ND
12/30/93	420.00	ND
3/30/94	419.80	ND
6/30/94	422.05	60



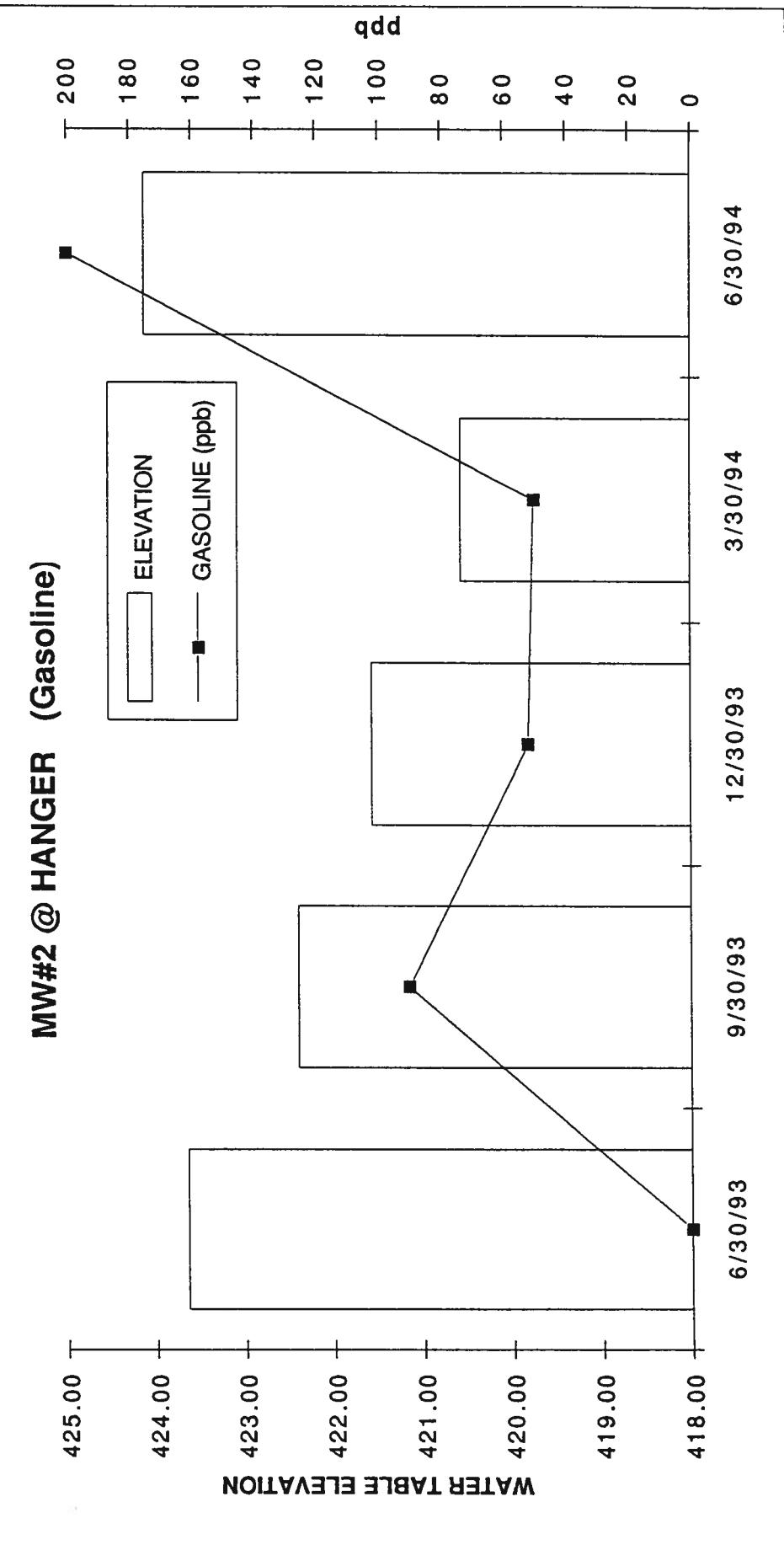
## Water Elevations and Gasoline Levels MW #1 at Hanger

SAMPLE DATE	ELEVATION	GASOLINE (ppb)
6/30/93	423.22	150
9/30/93	422.14	ND
12/30/93	420.76	ND
3/30/94	419.97	ND
6/30/94	424.16	ND



**Water Elevations and Gasoline Levels  
MW #2 at Hanger**

SAMPLE DATE	ELEVATION	GASOLINE (ppb)
6/30/93	423.65	ND
9/30/93	422.40	90
12/30/93	421.57	52
3/30/94	420.57	50
6/30/94	424.13	200



**Table #4**  
**Summary of Analytical Monitoring Well Water Samples for PCBs**  
**Samples Collected on June 30, 1993 thru June 30, 1994**

Well ID	Sample ID#	PCBs(6/30/93) 3550/8080(ppb)	PCBs(9/30/93) 3550/8080(ppb)	PCBs(12/30/93) 3550/8080(ppb)	PCBs(3/30/94) 3550/8080(ppb)	PCBs(6/30/94) 3550/8080(ppb)
MW#1 @ WB	6277W4	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)
Duplicate	6277W5	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)
MW#2 @ WB	6277W3	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)
MW#3 @ WB	6277W2	NA	NA	NA	NA	NA
MW#4 @ WB	6277W1	NA	NA	NA	NA	NA
MW#1 @ H	6277W10	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)
MW#2 @ H	6277W9	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)
MW#3 @ H	6277W8	NA	NA	ND (0.1 ppb)	ND (0.1 ppb)	ND (0.1 ppb)
MW#4 @ H	6277W7	NA	NA	NA	NA	NA
MW#5 @ H	6277W6	NA	NA	NA	NA	NA

**LEGEND:** WB = Weaver Brothers Bldg.

Duplicate = Duplicate of MW#1

H = Hanger

PCB's = Polychlorinated Biphenyls

ND ( ) = Not Detected (Detection Limit)

ppb = parts per billion

NA = Not Analyzed

**Table #5**  
**Summary of Analytical Monitoring Well Water Samples for TPH**  
**Samples collected on June 30, 1993 through June 30, 1994**

Well ID	Sample ID#	TPH 418.1 (ppm)	TPH (6/30/93) 418.1 (ppm)	TPH (9/30/93) 418.1 (ppm)	TPH (12/30/93) 418.1 (ppm)	TPH (3/30/94) 418.1 (ppm)	TPH (6/30/94) 418.1 (ppm)
MW#1 @ WB	6277W4	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)
Duplicate	6277W5	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)
MW#2 @ WB	6277W3	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)
MW#3 @ WB	6277W2	NA	NA	NA	NA	NA	NA
MW#4 @ WB	6277W1	NA	NA	NA	NA	NA	NA
MW#1 @ H	6277W10	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)
MW#2 @ H	6277W9	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)	ND (1 ppm)
MW#3 @ H	6277W8	NA	NA	NA	NA	NA	NA
MW#4 @ H	6277W7	NA	NA	NA	NA	NA	NA
MW#5 @ H	6277W6	NA	NA	NA	NA	NA	NA

**LEGEND:** WB = Weaver Brothers Bldg.

Duplicate = Duplicate of MW#1

H = Hanger

TPH = Total Range Petroleum Hydrocarbons

ND ( ) = Not Detected (Detection Limit)

ppm = parts per million

NA = Not Analyzed

**Table #6**  
**Summary of Analytical Monitoring Well Water Samples for VCS**  
**Samples Collected on June 30, 1993 Thru March 30, 1994**

Well ID	Sample ID#	VCS (6/30/93) 5030/601 (ppb)	VCS (9/30/93) 5030/601 (ppb)	VCS (12/30/93) 5030/601 (ppb)	VCS (3/30/94) 5030/601 (ppb)	VCS (6/30/94) 5030/601 (ppb)
MW#1 @ WB	6277-04	ND (1.0 ppb)	ND (0.5 ppb)*	ND (0.5 ppb)*	ND (0.5 ppb)*	†
Duplicate	6277-05	ND (1.0 ppb)	ND (0.5 ppb)*	ND (0.5 ppb)*	ND (0.5 ppb)*	†
MW#2 @ WB	6277-03	ND (1.0 ppb)	†	†	†	†
MW#3 @ WB	6277-02	NA	NA	NA	NA	NA
MW#4 @ WB	6277-01	NA	NA	NA	NA	NA
MW#1 @ H	6277-10	ND (1.0 ppb)	ND (0.5 ppb)*	ND (0.5 ppb)*	ND (0.5 ppb)**	ND (0.5 ppb)**
MW#2 @ H	6277-09	† <b>a</b>	† <b>b</b>	† <b>c</b>	† <b>d</b>	† <b>e</b>
MW#3 @ H	6277-08	NA	NA	NA	NA	NA
MW#4 @ H	6277-07	NA	NA	NA	NA	NA
MW#5 @ H	6277-06	NA	NA	NA	NA	NA

**LEGEND:** WB = Weaver Brothers Bldg.

Duplicate = Duplicate of MW#1

H = Hanger

VCS = Volatile Chlorinated Solvents

ND ( ) = Not Detected (Detection Limit)

\* Detection Limit for all compounds except for  
Vinyl Chloride which is 1.0 ppb

\*\* Detection Limit for all compounds varies  
from 0.2 ppb to 0.5 ppb

\*\*\* Detection Limit for all compounds except for  
Dichloromethane which is 1.0 ppb

ppb = parts per billion

NA = Not Analyzed

**Notes:** a Trichloroethylene ( Trichloroethylene ) - 20 ppb

b Trichloroethylene - 28 ppb

c Trichloroethylene - 37 ppb

d Trichloroethylene ( Trichloroethylene ) - 19.5 ppb

e Trichloroethylene - 11 ppb  
† All detected contaminants below their Maximum  
Contaminant Level

**Table #7**  
**Summary of Analytical Monitoring Well Water Samples for Benzene**  
**Samples Collected on June 30, 1993 Thru June 30, 1994**

Well ID	Sample ID#	Ben(6/30/93) 5030/602 (ppb)	Ben(9/30/93) 5030/602 (ppb)	Ben(12/30/93) 5030/602 (ppb)	Ben(3/30/94) 5030/602 (ppb)	Ben(6/30/94) 5030/602 (ppb)
MW#1 @ WB	6277W4	ND (1 ppb)	†	ND (0.5 ppb)	†	†
Duplicate	6277W5	ND (1 ppb)	†	ND (0.5 ppb)	†	†
MW#2 @ WB	6277W3	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#3 @ WB	6277W2	52	240	70	60	13
MW#4 @ WB	6277W1	†	6.1	12	8.9	5.4
MW#1 @ H	6277W10	16	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#2 @ H	6277W9	ND (1 ppb)	†	13	8.6	†
MW#3 @ H	6277W8	†	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#4 @ H	6277W7	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	†
MW#5 @ H	6277W6	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	†

**LEGEND:** WB = Weaver Brothers Bldg.

Duplicate = Duplicate of MW#1

H = Hanger

ND ( ) = Not Detected (Detection limit)

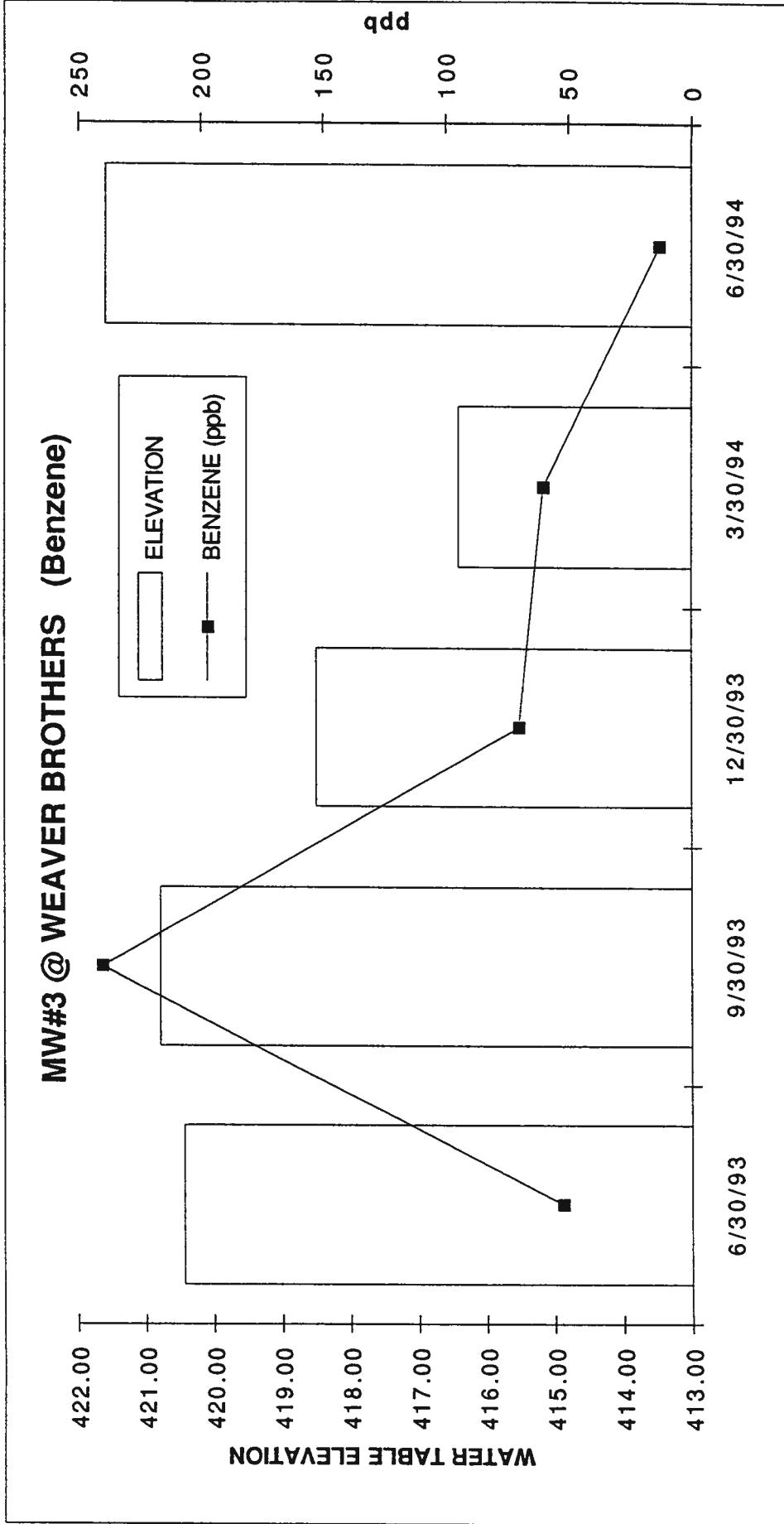
ppb = parts per billion

Ben = Benzene

† = below maximum contaminant level of 5.0 ppb

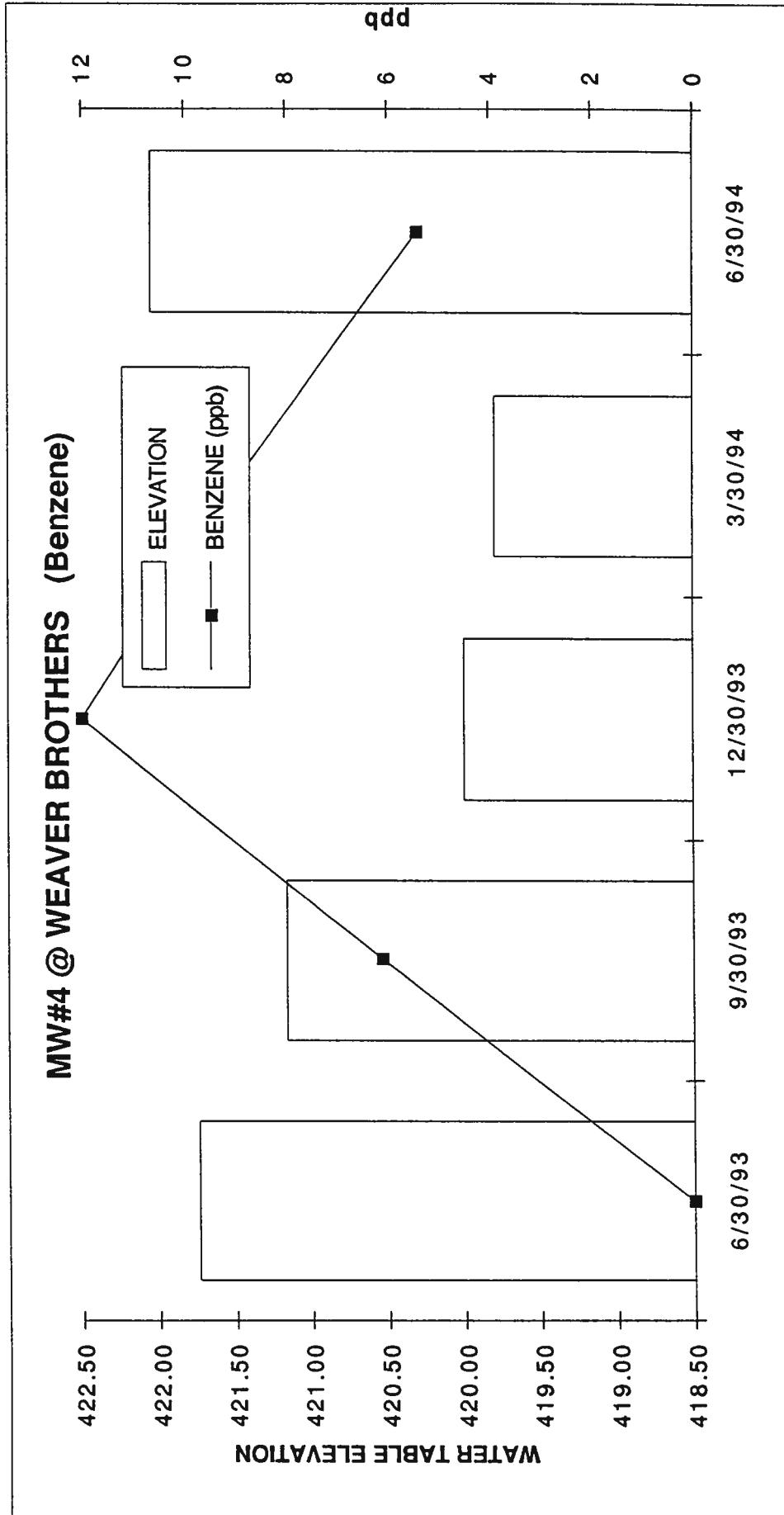
Water Elevations and Benzene Levels  
MW #3 at Weaver Brothers Bldg.

SAMPLE DATE	ELEVATION	BENZENE (ppb)
6/30/93	420.44	52
9/30/93	420.79	240
12/30/93	418.50	70
3/30/94	416.41	60
6/30/94	421.60	13



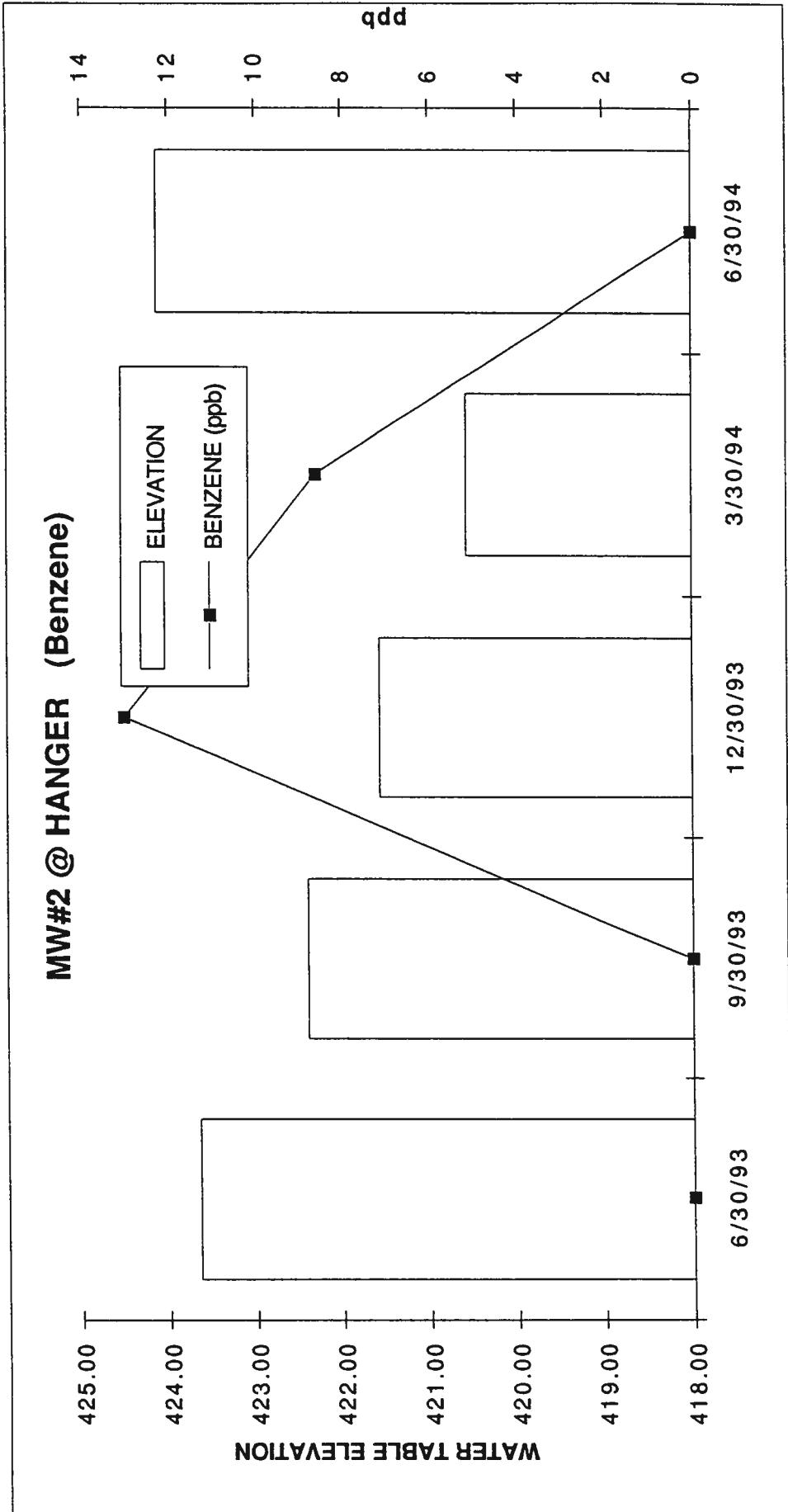
**Water Elevations and Benzene Levels  
MW #4 at Weaver Brothers Bldg.**

SAMPLE DATE	ELEVATION	BENZENE (ppb)
6/30/93	421.74	<5.0
9/30/93	421.16	6.1
12/30/93	420.00	12
3/30/94	419.80	8.9
6/30/94	422.05	5.4



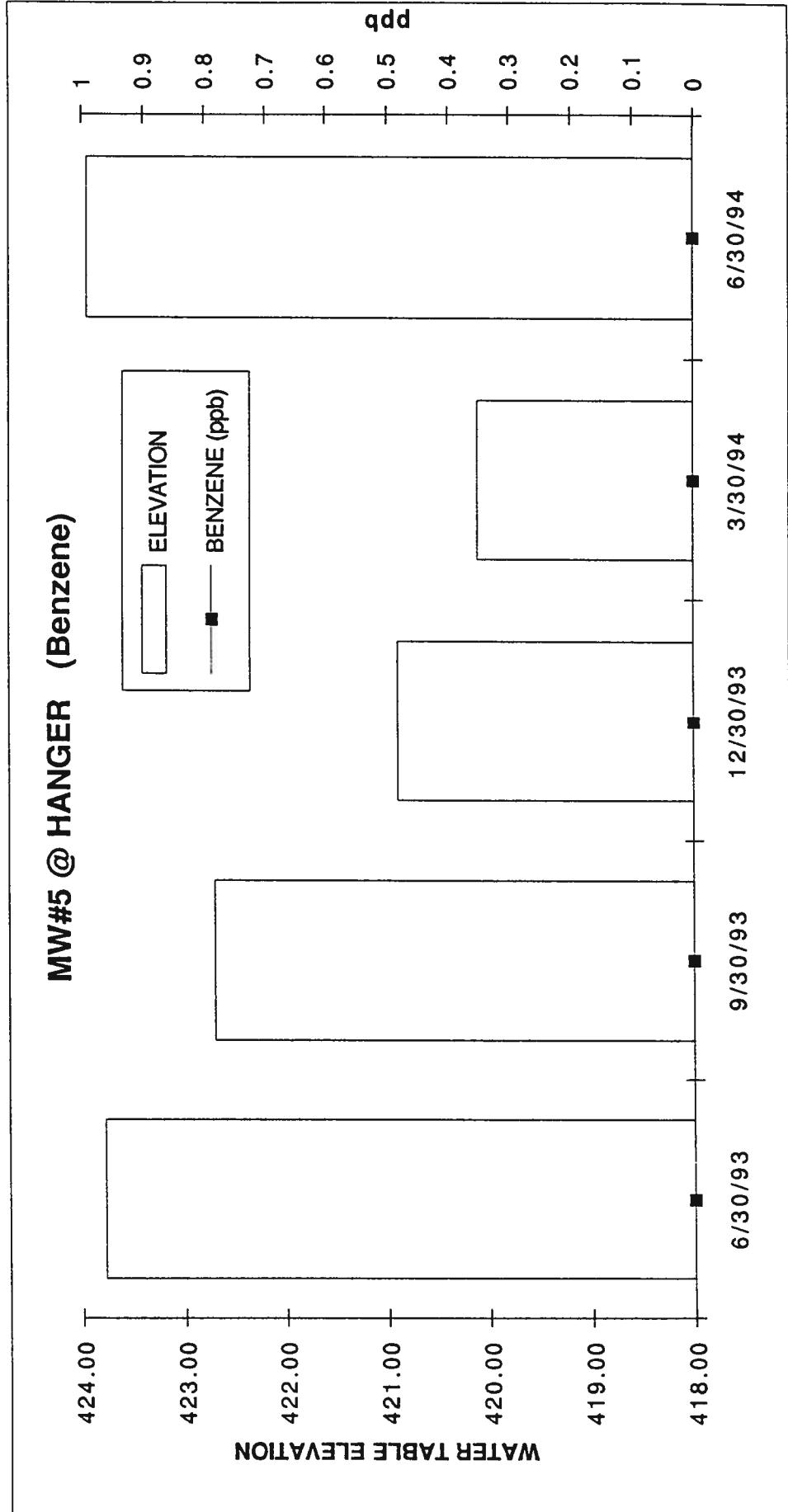
**Water Elevations and Benzene Levels  
MW #2 at Hanger**

SAMPLE DATE	ELEVATION	BENZENE (ppb)
6/30/93	423.65	ND
9/30/93	422.40	<5.0
12/30/93	421.57	13
3/30/94	420.57	8.6
6/30/94	424.13	<5.0



**Water Elevations and Benzene Levels  
MW #5 at Hanger**

SAMPLE DATE	ELEVATION	BENZENE (ppb)
6/30/93	423.78	ND
9/30/93	422.70	ND
12/30/93	420.90	ND
3/30/94	420.11	<5.0
6/30/94	423.95	<5.0



**Table #8**  
**Summary of Analytical Monitoring Well Water Samples for Ethyl Benzene**  
**Samples Collected on June 30, 1993 Thru June 30, 1994**

Well ID	Sample ID#	EB(6/30/93) 5030/602 (ppb)	EB(9/30/93) 5030/602 (ppb)	EB(12/30/93) 5030/602 (ppb)	EB(3/30/94) 5030/602 (ppb)	EB(6/30/94) 5030/602 (ppb)
MW#1 @ WB	6240-04	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
Duplicate	6240-05	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#2 @ WB	6240-03	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#3 @ WB	6240-02	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#4 @ WB	6240-01	ND (1 ppb)	†	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#1 @ H	6240-09	†	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#2 @ H	6240-08	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#3 @ H	6240-07	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#4 @ H	6240-06	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#5 @ H	6240-10	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)

**LEGEND:** WB = Weaver Brothers Bldg.

Duplicate = Duplicate of MW#1

H = Hanger

ND ( ) = Not Detected (Detection limit)

ppb = parts per billion

EB = Ethyl Benzene

† = Below maximum contaminant level of 0.7 ppm

**Table #9**  
**Summary of Analytical Monitoring Well Water Samples for Toluene**  
**Samples Collected on June 30, 1993 Thru June 30, 1994**

Well ID	Sample ID#	Tol(6/30/93) 5030/602 (ppb)	Tol(9/30/93) 5030/602 (ppb)	Tol(12/30/93) 5030/602 (ppb)	Tol(3/30/94) 5030/602 (ppb)	Tol(6/30/94) 5030/602 (ppb)
MW#1 @ WB	6277W4	†	†	†	†	ND (0.5 ppb)
Duplicate	6277W5	†	†	†	†	†
MW#2 @ WB	6277W3	†	†	†	†	ND (0.5 ppb)
MW#3 @ WB	6277W2	†	†	†	†	†
MW#4 @ WB	6277W1	†	†	†	†	†
MW#1 @ H	6277W10	†	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#2 @ H	6277W9	†	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#3 @ H	6277W8	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#4 @ H	6277W7	ND (1 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#5 @ H	6277W6	†	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)

**LEGEND:** WB = Weaver Brothers Bldg.

Duplicate = Duplicate of MW#1

H = Hanger

ND ( ) = Not Detected (Detection limit)

ppb = parts per billion

Tol = Toluene

† = Below maximum contaminant level of 1.0 ppm

**Table #10**  
**Summary of Analytical Monitoring Well Water Samples for Xylenes**  
**Samples Collected on June 30, 1993 Thru June 30, 1994**

Well ID	Sample ID#	Xyl(6/30/93) 5030/602 (ppb)	Xyl(9/30/93) 5030/602 (ppb)	Xyl(12/30/93) 5030/602 (ppb)	Xyl(3/30/94) 5030/602 (ppb)	Xyl(6/30/94) 5030/602 (ppb)
MW#1 @ WB	6277W4	ND (3 ppb)	ND (1.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
Duplicate	6277W5	ND (3 ppb)	ND (1.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#2 @ WB	6277W3	ND (3 ppb)	ND (1.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#3 @ WB	6277W2	†	ND (1.5 ppb)	†	ND (0.5 ppb)	†
MW#4 @ WB	6277W1	ND (3 ppb)	†	ND (0.5 ppb)	†	†
MW#1 @ H	6277W10	†	ND (1.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	†
MW#2 @ H	6277W9	†	†	†	†	†
MW#3 @ H	6277W8	ND (3 ppb)	ND (1.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#4 @ H	6277W7	ND (3 ppb)	ND (1.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)
MW#5 @ H	6277W6	ND (3 ppb)	ND (1.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)	ND (0.5 ppb)

**LEGEND:** WB = Weaver Brothers Bldg.

Duplicate = Duplicate of MW#1

H = Hanger

ND ( ) = Not Detected (Detection limit)

ppb = parts per billion

Xyl = Xylenes

† = Below maximum contaminant level of 10.0 ppm

**Table #11**  
**Summary of Analytical Monitoring Well Water Samples for Arsenic**  
**Samples Collected on June 30, 1993 Thru July 5, 1994**

Well ID	Sample ID#	As (6/30/93) 3020/7060 (ppm)	As (9/30/93) 3020/7060 (ppm)	As (12/30/93) 3020/7060 (ppm)	As (3/30/94) 3020/7060 (ppm)	As (6/30/94) 3020/7060 (ppm)
MW#1 @ WB	6277W4	ND (0.01ppm)	ND (0.01ppm)	†	†	†
Duplicate	6277W5	ND (0.01ppm)	†	†	†	†
MW#2 @ WB	6277W3	†	†	†	†	†
MW#3 @ WB	6277W2	NA	NA	NA	NA	NA
MW#4 @ WB	6277W1	NA	NA	NA	NA	NA
MW#1 @ H	6277W10	†	†	ND(0.01ppm)	†	†
MW#2 @ H	6277W9	†	†	†	†	†
MW#3 @ H	6277W8	NA	NA	ND(0.01ppm)	†	†
MW#4 @ H	6277W7	NA	NA	NA	NA	NA
MW#5 @ H	6277W6	NA	NA	NA	NA	NA

**LEGEND:** WB = Weaver Brothers Bldg.

Duplicate = Duplicate of WB #1

H = Hanger

ND ( ) = Not Detected (Detection Limit)

ppm = parts per million

As = Arsenic

NA = Not Analyzed

† = Below maximum contaminant level of 0.05 ppm

**Table #12**  
**Summary of Analytical Monitoring Well Water Samples for Cadmium**  
**Samples Collected on June 30, 1993 Thru June 30, 1994**

Well ID	Sample ID#	Cd (6/30/93) 3010/6010 (ppm)	Cd (9/30/93) 3010/6010 (ppm)	Cd(12/30/93) 3010/6010 (ppm)	Cd(3/30/94) 3010/6010 (ppm)	Cd (6/30/94) 3010/6010 (ppm)
MW#1 @ WB	6277W4	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)
Duplicate	6277W5	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)
MW#2 @ WB	6277W3	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)
MW#3 @ WB	6277W2	NA	NA	NA	NA	NA
MW#4 @ WB	6277W1	NA	NA	NA	NA	NA
MW#1 @ H	6277W10	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)
MW#2 @ H	6277W9	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)
MW#3 @ H	6277W8	NA	NA	ND (0.01ppm)	ND (0.01ppm)	ND (0.01ppm)
MW#4 @ H	6277W7	NA	NA	NA	NA	NA
MW#5 @ H	6277W6	NA	NA	NA	NA	NA

**LEGEND:** WB = Weaver Brothers Bldg.

Duplicate = Duplicate of WB #1

H = Hanger

ND ( ) = Not Detected (Detection Limit)

ppm = parts per million

Cd = Cadmium

NA = Not Analyzed

**Table #13**  
**Summary of Analytical Monitoring Well Water Samples for Chromium**  
**Samples Collected on June 30, 1993 Thru June 30, 1994**

Well ID	Sample ID#	Cr(6/30/93) 3010/6010 (ppm)	Cr(9/30/93) 3010/6010 (ppm)	Cr(12/30/93) 3010/6010 (ppm)	Cr(3/30/94) 3010/6010 (ppm)	Cr(6/30/94) 3010/6010 (ppm)
MW#1 @ WB	6277W4	ND (0.05 ppm)	ND (0.05 ppm)	ND (0.05 ppm)	ND (0.02 ppm)	ND (0.02 ppm)
Duplicate	6277W5	ND (0.05 ppm)	ND (0.05 ppm)	ND (0.05 ppm)	ND (0.02 ppm)	ND (0.02 ppm)
MW#2 @ WB	6277W3	ND (0.05 ppm)	ND (0.05 ppm)	ND (0.05 ppm)	ND (0.02 ppm)	ND (0.02 ppm)
MW#3 @ WB	6277W2	NA	NA	NA	NA	NA
MW#4 @ WB	6277W1	NA	NA	NA	NA	NA
MW#1 @ H	6277W10	ND (0.05 ppm)	ND (0.05 ppm)	ND (0.05 ppm)	†	ND (0.02 ppm)
MW#2 @ H	6277W9	ND (0.05 ppm)	ND (0.05 ppm)	ND (0.05 ppm)	†	ND (0.02 ppm)
MW#3 @ H	6277W8	NA	NA	ND (0.05 ppm)	ND (0.02 ppm)	ND (0.02 ppm)
MW#4 @ H	6277W7	NA	NA	NA	NA	NA
MW#5 @ H	6277W6	NA	NA	NA	NA	NA

**LEGEND:** WB = Weaver Brothers Bldg.

Duplicate = Duplicate of WB #1

H = Hanger

ND ( ) = Not Detected (Detection Limit)

ppm = parts per million

Cr = Chromium

NA = Not Analyzed

† = Below maximum contaminant level of 0.1 ppm

**Table #14**  
**Summary of Analytical Monitoring Well Water Samples for Lead**  
**Samples Collected on June 30, 1993 Thru June 30, 1994**

Well ID	Sample ID#	Pb(6/30/93) 3020/7421 (ppm)	Pb(9/30/93) 3020/7421 (ppm)	Pb(12/30/93) 3020/7421 (ppm)	Pb(3/30/94) 3020/7421 (ppm)	Pb(6/30/94) 3020/7421 (ppm)
MW#1 @ WB	6277W4	†	ND (0.005 ppm)	ND (0.1 ppm)	ND (0.005 ppm)	ND (0.005 ppm)
Duplicate	6277W5	†	ND (0.005 ppm)	ND (0.1 ppm)	ND (0.005 ppm)	ND (0.005 ppm)
MW#2 @ WB	6277W3	†	†	ND (0.1 ppm)	ND (0.005 ppm)	ND (0.005 ppm)
MW#3 @ WB	6277W2	NA	NA	NA	NA	NA
MW#4 @WB	6277W1	NA	NA	NA	NA	NA
MW#1 @ H	6277W10	†	ND (0.005 ppm)	ND (0.1 ppm)	†	ND (0.005 ppm)
MW#2 @ H	6277W9	†	†	ND (0.1 ppm)	†	ND (0.005 ppm)
MW#3 @ H	6277W8	NA	NA	ND (0.1 ppm)	†	ND (0.005 ppm)
MW#4 @ H	6277W7	NA	NA	NA	NA	NA
MW#5 @ H	6277W6	NA	NA	NA	NA	NA

**LEGEND:** WB = Weaver Brothers Bldg.

Duplicate = Duplicate of WB #1

H = Hanger

ND ( ) = Not Detected (Detection Limit)

ppm = parts per million

Pb = Lead

NA = Not Analyzed

† = Below maximum contaminant level of 0.05 ppm

**Table #15**  
**Summary of Field Analysis of Monitoring Well Water**  
**Samples Collected on June 30 1993 & September 30,1993**

Well ID	June 30 1993				September 30 1993			
	Temp degrees C (F)	pH	Cond. uS	D.O. %	Temp degrees C (F)	pH	Cond. uS	D.O. %
MW#1 @ WB	4.5 (40)	6.41	380	R	4.5 (40)	†	360	44.2
MW#2 @ WB	5.0 (41)	†	370	R	4.5 (40)	†	390	42.1
MW#3 @ WB	5.5 (42)	†	410	R	5.0 (41)	†	390	38
MW#4 @ WB	5.0 (41)	†	380	R	4.5 (40)	†	400	38.5
MW#1 @ H	3.5 (38)	†	340	R	3.5 (38)	†	360	44.5
MW#2 @ H	3.5 (38)	†	400	R	3.5 (38)	†	390	42.3
MW#3 @ H	4.0 (39)	†	400	R	4.0 (39)	†	400	44.1
MW#4 @ H	3.5 (38)	†	360	R	3.5 (38)	†	370	45.3
MW#5 @ H	3.5 (38)	†	390	R	3.5 (38)	†	400	38.7

**LEGEND:** WB = Weaver Bros.

H = Hanger

uS = micro Siemans

ppm = parts per million

Cond. = Conductivity

D.O. = Dissolved Oxygen

R = Results were rejected

† = Within maximum contaminant level range of 6.5 to 8.5

**Table #16**  
**Summary of Field Analysis of Monitoring Well Water**  
**Samples Collected on December 30, 1993 & March 30, 1994**

Well ID	December 30 1993			March 30 1994			Temp degrees C (F)	Cond. µS	D.O. ppm	Temp degrees C (F)	Cond. µS	D.O. ppm
	Temp degrees C (F)	pH	Cond. µS	D.O. %	Temp degrees C (F)	pH						
MW#1 @ WB	3.9 (39.0)	†	365	44.5	4.7 (40.5)	†	287	6.0	R	†	R	S
MW#2 @ WB	3.8 (38.8)	†	350	44.1	4.7 (40.5)	†	400	5.6	R	†	R	S
MW#3 @ WB	3.9 (39.0)	†	390	36.3	4.7 (40.5)	†	493	5.5	R	†	R	S
MW#4 @ WB	4.1 (39.4)	6.49	380	36.0	4.8 (40.6)	†	188	3.0	R	†	R	S
MW#1 @ H	3.7 (38.7)	†	320	45.6	2.8 (37.0)	†	310	3.0	R	†	R	S
MW#2 @ H	4.3 (39.7)	6.37	370	40.2	3.3 (37.9)	†	258	2.8	R	†	R	S
MW#3 @ H	3.7 (38.7)	6.22	375	47.4	3.4 (38.1)	†	238	3.6	R	†	R	S
MW#4 @ H	3.8 (38.8)	6.38	340	47.4	2.9 (37.2)	†	215	4.6	R	†	R	S
MW#5 @ H	3.8 (38.8)	6.46	375	36.0	3.1 (37.6)	†						

**LEGEND:** WB = Weaver Bros.

H = Hanger

µS = micro Siemans

ppm = parts per million

Cond. = Conductivity

D.O. = Dissolved Oxygen

R = Results were rejected

† = Within maximum contaminant level range of 6.5 to 8.5

S = Instrument shipping problems

**Table #17**  
**Laboratory and Field Precision**

QC Designation	Tolerance +/-	Results for this Project +/-
<b>Laboratory Precision</b>		
8100M,DRPH,water	30%	7%
8015M,GRPH,water	30%	11%
418.1,TPH,water	30%	5%
8020,BTEX,water	30%	1% - 2%
8010,HVO,water	30%	0% - 3%
8080,PCBs,water	30%	2%- 3%
7060,Arsenic,water	20%	1%
6010,Cadmium,water	20%	1%
6010,Chromium,water	20%	0%
7421,Lead,water	20%	1%
<b>Field Precision</b>		
8100M,DRPH,water	30%	0%
8015M,GRPH,water	30%	0%
418.1,TPH,water	30%	0%
8020,BTEX,water	30%	11.8%
8010,HVO,water	30%	14.6%
8080,PCBs,water	30%	0%
7060,Arsenic,water	20%	13.3%
6010,Cadmium,water	20%	0%
6010,Chromium,water	20%	0%
7421,Lead,water	20%	0%

**Table #18**  
**Holding Times and Surrogate Recovery**

QC DESIGNATION	TOLERANCE	RESULTS FOR THIS PROJECT
<b>Holding Times</b>		
8100M,DRPH,water	extraction 14 days max. analysis 40 days max.	< 14 days < 14 days
8015M,GRPH,water	analysis 14 days max.	< 14 days
418.1,TPH,water	extraction 14 days max. analysis 40 days max.	< 14 days < 14 days
8020,BTEX,water	analysis 14 days max.	< 14 days
8010,HVO,water	analysis 14 days max.	< 14 days
8080,PCBs,water	extraction 14 days max. analysis 40 days max.	< 14 days < 14 days
7060,Arsenic,water	analysis 6 months max.	< 14 days
6010,Cadmium,water	analysis 6 months max.	< 14 days
6010,Chromium,water	analysis 6 months max.	< 14 days
7421,Lead,water	analysis 6 months max.	< 14 days

**Table #19**  
**Laboratory Accuracy and Completeness**

QC Designation	Tolerance	Results for this Project
<b>Laboratory Accuracy</b>		
8100M, DRPH, water	60% - 130%	103% - 110%
8015M, GRPH, water	60% - 130%	75% - 84%
418.1, TPH, water	60% - 130%	106%-111%
8020, BTEX, water	60% - 130%	122% - 129%
8010, HVO, water	40% - 130%	69% - 119%
8080, PCBs, water	60% - 140%	87% - 101%
7060, Arsenic, water	80% - 120%	101% - 102%
6010, Cadmium, water	80% - 120%	98% - 99%
6010, Chromium, water	80% - 120%	95%
7421, Lead, water	80% - 120%	103% - 104%
<b>Completeness</b>		
8100M, DRPH, water	85% min.	100%
8015M, GRPH, water	85% min.	100%
418.1, TPH, water	85% min.	100%
8020, BTEX, water	85% min.	100%
8010, HVO, water	85% min.	100%
8080, PCBs, water	85% min.	100%
7060, Arsenic, water	85% min.	100%
6010, Cadmium, water	85% min.	100%
6010, Chromium, water	85% min.	100%
7421, Lead, water	85% min.	100%

**APPENDIX D**

**LABORATORY RESULTS**



# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

ENVIRONMENTAL MANAGEMENT INC  
Attn: STAN DOLLOFF

Project 6277  
Reported 12-July-1994

DIESEL RANGE ORGANICS by EPA Method 8100 Modified.  
Diesel range quantitated as all compounds from C10 to C28.

Identification	Sampled	Received	Extracted	Analyzed	Run #	Laboratory Number 92001
6277W1	06/30/94	07/05/94	07/06/94	07/08/94		1
6277W2	06/30/94	07/05/94	07/06/94	07/08/94		2
6277W3	06/30/94	07/05/94	07/06/94	07/08/94		3
6277W4	06/30/94	07/05/94	07/06/94	07/08/94		4
6277W5	06/30/94	07/05/94	07/06/94	07/08/94		5
6277W6	06/30/94	07/05/94	07/06/94	07/08/94		6
6277W7	06/30/94	07/05/94	07/06/94	07/08/94		7
6277W8	06/30/94	07/05/94	07/06/94	07/08/94		8
6277W9	06/30/94	07/05/94	07/06/94	07/09/94		9
6277W10	06/30/94	07/05/94	07/06/94	07/09/94		10



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Project 6277  
Reported 12-July-1994

DIESEL RANGE ORGANICS by EPA Method 8100 Modified.

Laboratory Number	Sample Identification	Matrix
92001- 1	6277W1	Water
92001- 2	6277W2	Water
92001- 3	6277W3	Water
92001- 4	6277W4	Water
92001- 5	6277W5	Water
92001- 6	6277W6	Water
92001- 7	6277W7	Water
92001- 8	6277W8	Water
92001- 9	6277W9	Water
92001-10	6277W10	Water

#### RESULTS OF ANALYSIS

Laboratory Number: 92001- 1 92001- 2 92001- 3 92001- 4 92001- 5

Diesel: \*1800 ND<100 ND<100 ND<100 ND<100

Concentration: ug/L ug/L ug/L ug/L ug/L

-- Surrogate % Recoveries --  
Tetracosane Recovery: 100 99 99 98 100

Laboratory Number: 92001- 6 92001- 7 92001- 8 92001- 9 92001-10

Diesel: \*200 ND<100 ND<100 \*1100 \*130

Concentration: ug/L ug/L ug/L ug/L ug/L

-- Surrogate % Recoveries --  
Tetracosane Recovery: 98 98 99 99 98

\* The chromatogram shows single peak in the diesel range.

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# Superior Precision Analytical, Inc.

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DIESEL RANGE ORGANICS by EPA Method 8100 Modified.  
Quality Assurance and Control Data - Water

Laboratory Number 92001

Compound	Method Blank (ug/L)	RL (ug/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Diesel:	ND<100	100	110/103	64-144	7%

Definitions:

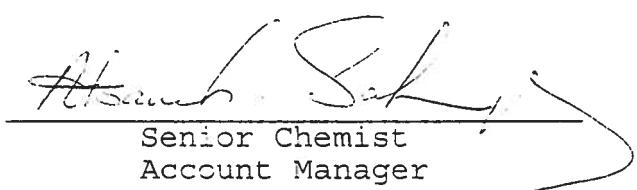
ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

ug/L = Parts per billion (ppb)

QC File No. 92001

  
Senior Chemist  
Account Manager

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# Superior Precision Analytical, Inc.

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ENVIRONMENTAL MANAGEMENT INC  
Attn: STAN DOLLOFF

Project 6277  
Reported 12-July-1994

## VOLATILE PETROLEUM HYDROCARBONS

Sample preparation by Purge and Trap (EPA SW-846 method 5030). Gasoline analysis by SW-846 method 8015 modified. Gasoline range quantified as all compounds between C6 and C10. Benzene, Toluene, Ethyl Benzene, and Xylenes analyses by EPA SW-846 method 8020.

### Chronology

Laboratory Number 92001

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
6277W1	06/30/94	07/05/94	07/07/94	07/07/94		1
6277W2	06/30/94	07/05/94	07/07/94	07/07/94		2
6277W3	06/30/94	07/05/94	07/07/94	07/07/94		3
6277W4	06/30/94	07/05/94	07/07/94	07/07/94		4
6277W5	06/30/94	07/05/94	07/07/94	07/07/94		5
6277W6	06/30/94	07/05/94	07/07/94	07/07/94		6
6277W7	06/30/94	07/05/94	07/07/94	07/07/94		7
6277W8	06/30/94	07/05/94	07/07/94	07/07/94		8
6277W9	06/30/94	07/05/94	07/07/94	07/07/94		9
6277W10	06/30/94	07/05/94	07/07/94	07/07/94		10

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Project 6277  
Reported 12-July-1994

## VOLATILE PETROLEUM HYDROCARBONS

Laboratory Number	Sample Identification	Matrix
92001- 1	6277W1	Water
92001- 2	6277W2	Water
92001- 3	6277W3	Water
92001- 4	6277W4	Water
92001- 5	6277W5	Water
92001- 6	6277W6	Water
92001- 7	6277W7	Water
92001- 8	6277W8	Water
92001- 9	6277W9	Water
92001-10	6277W10	Water

## RESULTS OF ANALYSIS

Laboratory Number: 92001- 1 92001- 2 92001- 3 92001- 4 92001- 5

Gasoline:	60	ND<50	ND<50	ND<50	ND<50
Benzene:	5.4	13	ND<0.5	0.8	0.9
Toluene:	4.9	1.3	0.5	0.5	0.5
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Total Xylenes:	3.1	0.9	ND<0.5	ND<0.5	ND<0.5

Concentration: ug/L ug/L ug/L ug/L ug/L

-- Surrogate % Recoveries --

Trifluorotoluene (SS): 81 82 80 81 81

Laboratory Number: 92001- 6 92001- 7 92001- 8 92001- 9 92001-10

Gasoline:	ND<50	ND<50	ND<50	200	ND<50
Benzene:	0.5	1.2	ND<0.5	1.5	ND<0.5
Toluene:	0.8	0.7	0.6	0.9	0.8
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Total Xylenes:	ND<0.5	ND<0.5	ND<0.5	3.8	0.5

Concentration: ug/L ug/L ug/L ug/L ug/L

-- Surrogate % Recoveries --

Trifluorotoluene (SS): 82 77 78 57 76



# Superior Precision Analytical, Inc.

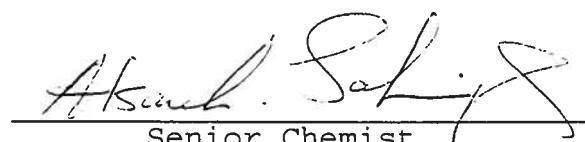
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## VOLATILE PETROLEUM HYDROCARBONS Quality Assurance and Control Data - Water

Laboratory Number 92001

Compound	Method Blank (ug/L)	RL (ug/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Gasoline:	ND<50	50	75/84	70-130	11%
Benzene:	ND<0.5	0.5	123/120	70-130	2%
Toluene:	ND<0.5	0.5	128/129	70-130	1%
Ethyl Benzene:	ND<0.5	0.5	122/124	70-130	2%
Total Xylenes:	ND<0.5	0.5	122/124	70-130	2%

Definitions:  
ND = Not Detected  
RPD = Relative Percent Difference  
RL = Reporting Limit  
ug/L = Parts per billion (ppb)  
QC File No. 92001

  
Arnold Salas  
Senior Chemist  
Account Manager

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Attn: STAN DOLLOFF

Project 6277  
Reported 07-July-1994

## Polychlorinated Biphenyls by EPA Method 8080

Identification	Sampled	Received	Extracted	Analyzed	Run #	Laboratory Number 92001	Lab #
6277W3	06/30/94	07/02/94	07/06/94	07/06/94			3
6277W4	06/30/94	07/02/94	07/06/94	07/07/94			4
6277W5	06/30/94	07/02/94	07/06/94	07/07/94			5
6277W8	06/30/94	07/02/94	07/06/94	07/07/94			8
6277W9	06/30/94	07/02/94	07/06/94	07/07/94			9
6277W10	06/30/94	07/02/94	07/06/94	07/07/94			10



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Attn: STAN DOLLOFF

Project 6277  
Reported 07-July-1994

## Polychlorinated Biphenyls by EPA Method 8080

Laboratory Number	Sample Identification	Matrix
92001- 3	6277W3	Water
92001- 4	6277W4	Water
92001- 5	6277W5	Water
92001- 8	6277W8	Water
92001- 9	6277W9	Water

### RESULTS OF ANALYSIS

Laboratory Number: 92001- 3 92001- 4 92001- 5 92001- 8 92001- 9

AROCLOR 1016:	ND<1	ND<1	ND<1	ND<1	ND<1
AROCLOR 1221:	ND<1	ND<1	ND<1	ND<1	ND<1
AROCLOR 1232:	ND<1	ND<1	ND<1	ND<1	ND<1
AROCLOR 1242:	ND<1	ND<1	ND<1	ND<1	ND<1
AROCLOR 1248:	ND<1	ND<1	ND<1	ND<1	ND<1
AROCLOR 1254:	ND<1	ND<1	ND<1	ND<1	ND<1
AROCLOR 1260:	ND<1	ND<1	ND<1	ND<1	ND<1

Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L
----------------	------	------	------	------	------

-- Surrogate % Recoveries --

Tetrachloro-m-xylene:	73	75	73	80	66
Decachlorobiphenyl:	84	84	82	86	86



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Project 6277  
Reported 07-July-1994

## Polychlorinated Biphenyls by EPA Method 8080

Laboratory Number	Sample Identification	Matrix
-------------------	-----------------------	--------

92001-10	6277W10	Water
----------	---------	-------

### RESULTS OF ANALYSIS

Laboratory Number: 92001-10

AROCOLOR 1016:	ND<1
AROCOLOR 1221:	ND<1
AROCOLOR 1232:	ND<1
AROCOLOR 1242:	ND<1
AROCOLOR 1248:	ND<1
AROCOLOR 1254:	ND<1
AROCOLOR 1260:	ND<1

Concentration:  $\mu\text{g/L}$

-- Surrogate % Recoveries --  
Tetrachloro-m-xylene: 76  
Decachlorobiphenyl: 80



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## Polychlorinated Biphenyls by EPA Method 8080 Quality Assurance and Control Data - Water

Laboratory Number 92001

Compound	Method	Blank (ug/L)	RL (ug/L)	Spike Recovery (%)	Limits (%)	RPD (%)
AROCLOR 1016:	ND<1	1				
AROCLOR 1221:	ND<1	1				
AROCLOR 1232:	ND<1	1				
AROCLOR 1242:	ND<1	1				
AROCLOR 1248:	ND<1	1				
AROCLOR 1254:	ND<1	1	101/99	60-145	2%	
AROCLOR 1260:	ND<1	1				
Tetrachloro-m-xylene:	94		90/93	60-129	3%	
Decachlorobiphenyl:	91		87/90	60-150	3%	

### Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

ug/L = Parts per billion (ppb)

QC File No. 92001

Senior Chemist  
Account Manager



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ENVIRONMENTAL MANAGEMENT INC  
Attn: STAN DOLLOFF

Project 6277  
Reported 03-July-1994

## TOTAL RECOVERABLE HYDROCARBONS by EPA Method 418.1

Identification	Sampled	Received	Extracted	Analyzed	Run #	Laboratory Number 92001
6277W3	06/30/94	07/05/94	07/05/94	07/05/94		3
6277W4	06/30/94	07/05/94	07/05/94	07/05/94		4
6277W5	06/30/94	07/05/94	07/05/94	07/05/94		5
6277W8	06/30/94	07/05/94	07/05/94	07/05/94		8
6277W9	06/30/94	07/05/94	07/05/94	07/05/94		9
6277W10	06/30/94	07/05/94	07/05/94	07/05/94		10



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Project 6277  
Reported 03-July-1994

## TOTAL RECOVERABLE HYDROCARBONS by EPA Method 418.1

Laboratory Number	Sample Identification	Matrix
92001- 3	6277W3	Water
92001- 4	6277W4	Water
92001- 5	6277W5	Water
92001- 8	6277W8	Water
92001- 9	6277W9	Water
92001-10	6277W10	Water

### RESULTS OF ANALYSIS

Laboratory Number: 92001- 3 92001- 4 92001- 5 92001- 8 92001- 9

PETROLEUM HYDROCARBONS:ND<1	ND<1	NA	ND<1	2
Concentration:	mg/L	mg/L	mg/L	mg/L

Laboratory Number: 92001-10

PETROLEUM HYDROCARBONS:ND<1

Concentration: mg/L

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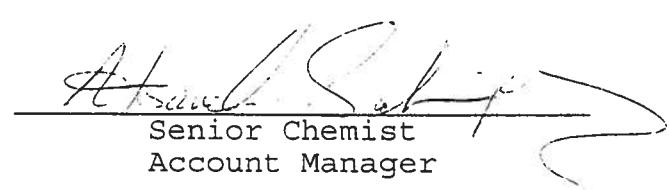
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TOTAL RECOVERABLE HYDROCARBONS by EPA Method 418.1  
Quality Assurance and Control Data - Water

Laboratory Number 92001

Compound	Method Blank (mg/L)	RL (mg/L)	Spike Recovery (%)	Limits (%)	RPD (%)
PETROLEUM HYDROCARBONS:	ND<1	1	106/111	75-125	5%

Definitions:  
ND = Not Detected  
RPD = Relative Percent Difference  
RL = Reporting Limit  
mg/L = Parts per million (ppm)  
QC File No. 92001



H. J. Schaefer  
Senior Chemist  
Account Manager

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Attn: STAN DOLLOFF

Project 6277  
Reported 12-July-1994

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

## Chronology

Laboratory Number 92001

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
6277W3	06/30/94	07/05/94	/ /	07/07/94		3
6277W4	06/30/94	07/05/94	/ /	07/07/94		4
6277W5	06/30/94	07/05/94	/ /	07/07/94		5
6277W8	06/30/94	07/05/94	/ /	07/07/94		8
6277W9	06/30/94	07/05/94	/ /	07/07/94		9
6277W10	06/30/94	07/05/94	/ /	07/07/94		10



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Attn: STAN DOLLOFF

Project 6277  
Reported 12-July-1994

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

Laboratory Number	Sample Identification	Matrix
92001- 3	6277W3	Water
92001- 4	6277W4	Water
92001- 5	6277W5	Water
92001- 8	6277W8	Water
92001- 9	6277W9	Water

## RESULTS OF ANALYSIS

Laboratory Number:	92001- 3	92001- 4	92001- 5	92001- 8	92001- 9
Chloromethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Vinyl Chloride:	0.6	ND<0.5	1.2	ND<0.5	ND<0.5
Bromomethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Chloroethane:	ND<0.5	1.9	2.2	1.6	ND<0.5
Trichlorofluoromethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,1-Dichloroethene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Dichloromethane:	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
t-1,2-Dichloroethene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,1-Dichloroethane:	ND<0.5	ND<0.5	ND<0.5	1.4	58
c-1,2-Dichloroethene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.2
Chloroform:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
*1,1,1-Trichloroethane:	ND<0.5	ND<0.5	ND<0.5	0.7	160
Carbon tetrachloride:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,2-Dichloroethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Trichloroethene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11
c-1,3-Dichloropropene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,2-Dichloropropane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
t-1,3-Dichloropropene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Bromodichloromethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,1,2-Trichloroethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Tetrachloroethene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Dibromochloromethane:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Chlorobenzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Bromoform:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,1,2,2-Tetrachloroethene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,3-Dichlorobenzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,2-Dichlorobenzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,4-Dichlorobenzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

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ENVIRONMENTAL MANAGEMENT INC  
Attn: STAN DOLLOFF

Project 6277  
Reported 12-July-1994

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.

Laboratory Number	Sample Identification	Matrix
92001-10	6277W10	Water

## RESULTS OF ANALYSIS

Laboratory Number: 92001-10

Chloromethane:	ND<0.5
Vinyl Chloride:	ND<0.5
Bromomethane:	ND<0.5
Chloroethane:	ND<0.5
Trichlorofluoromethane:	ND<0.5
1,1-Dichloroethene:	ND<0.5
Dichloromethane:	ND<1.0
t-1,2-Dichloroethene:	ND<0.5
1,1-Dichloroethane:	ND<0.5
c-1,2-Dichloroethene:	ND<0.5
Chloroform:	ND<0.5
1,1,1-Trichloroethane:	ND<0.5
Carbon tetrachloride:	ND<0.5
1,2-Dichloroethane:	ND<0.5
Trichloroethene:	ND<0.5
c-1,3-Dichloropropene:	ND<0.5
1,2-Dichloropropane:	ND<0.5
t-1,3-Dichloropropene:	ND<0.5
Bromodichloromethane:	ND<0.5
1,1,2-Trichloroethane:	ND<0.5
Tetrachloroethene:	ND<0.5
Dibromochloromethane:	ND<0.5
Chlorobenzene:	ND<0.5
Bromoform:	ND<0.5
1,1,2,2-Tetrachloroeth:	ND<0.5
1,3-Dichlorobenzene:	ND<0.5
1,2-Dichlorobenzene:	ND<0.5
1,4-Dichlorobenzene:	ND<0.5
Concentration:	ug/L

Page 3 of 4

Certified Laboratories

825 Arnold Dr., Suite 114 • Martinez, California 94553 • (510) 313-0850 / fax (510) 229-1526



# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

HALOGENATED VOLATILE ORGANICS by EPA SW-846 Methods 5030/8010.  
Quality Assurance and Control Data - Water

Laboratory Number 92001

Compound	Method Blank (ug/L)	RL (ug/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Chloromethane:	ND<0.5	0.5			
Vinyl Chloride:	ND<0.5	0.5			
Bromomethane:	ND<0.5	0.5			
Chloroethane:	ND<0.5	0.5			
Trichlorofluoromethane:	ND<0.5	0.5			
1,1-Dichloroethene:	ND<0.5	0.5	119/116	50-189	3%
Dichloromethane:	ND<1.0	1.0			
t-1,2-Dichloroethene:	ND<0.5	0.5			
1,1-Dichloroethane:	ND<0.5	0.5			
c-1,2-Dichloroethene:	ND<0.5	0.5			
Chloroform:	ND<0.5	0.5			
1,1,1-Trichloroethane:	ND<0.5	0.5			
Carbon tetrachloride:	ND<0.5	0.5			
1,2-Dichloroethane:	ND<0.5	0.5			
Trichloroethene:	ND<0.5	0.5	70/69	53-161	1%
c-1,3-Dichloropropene:	ND<0.5	0.5			
1,2-Dichloropropane:	ND<0.5	0.5			
t-1,3-Dichloropropene:	ND<0.5	0.5			
Bromodichloromethane:	ND<0.5	0.5			
1,1,2-Trichloroethane:	ND<0.5	0.5			
Tetrachloroethene:	ND<0.5	0.5			
Dibromochloromethane:	ND<0.5	0.5			
Chlorobenzene:	ND<0.5	0.5	78/78	57-171	0%
Bromoform:	ND<0.5	0.5			
1,1,2,2-Tetrachloroeth:	ND<0.5	0.5			
1,3-Dichlorobenzene:	ND<0.5	0.5			
1,2-Dichlorobenzene:	ND<0.5	0.5			
1,4-Dichlorobenzene:	ND<0.5	0.5			

Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

ug/L = Parts per billion (ppb)

QC File No. 92001

H. Samuel Salpi  
Senior Chemist  
Account Manager

Page 4 of 4

Certified Laboratories

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# Superior Precision Analytical, Inc.

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ENVIRONMENTAL MANAGEMENT INC  
Attn: STAN DOLLOFF

Project 6277  
Reported 08-July-1994

ANALYSIS FOR ARSENIC, CADMIUM, CHROMIUM, LEAD  
by EPA Method SW-846 6010 & 7000 Series

Chronology

Laboratory Number 92001

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
6277W3	06/30/94	07/05/94	07/06/94	07/08/94		3
6277W4	06/30/94	07/05/94	07/06/94	07/08/94		4
6277W5	06/30/94	07/05/94	07/06/94	07/08/94		5
6277W8	06/30/94	07/05/94	07/06/94	07/08/94		8
6277W9	06/30/94	07/05/94	07/06/94	07/08/94		9
6277W10	06/30/94	07/05/94	07/06/94	07/08/94		10



# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

ENVIRONMENTAL MANAGEMENT INC  
Attn: STAN DOLLOFF

Project 6277  
Reported 08-July-1994

## ANALYSIS FOR ARSENIC, CADMIUM, CHROMIUM, LEAD

Laboratory Number	Sample Identification	Matrix
92001- 3	6277W3	Water
92001- 4	6277W4	Water
92001- 5	6277W5	Water
92001- 8	6277W8	Water
92001- 9	6277W9	Water
92001-10	6277W10	Water

### RESULTS OF ANALYSIS

Laboratory Number: 92001- 3 92001- 4 92001- 5 92001- 8 92001- 9

Arsenic	(As) :	0.008	0.007	0.008	0.007	0.008
Cadmium	(Cd) :	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01
Chromium	(Cr) :	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02
Lead	(Pb) :	ND<.005	ND<.005	ND<.005	ND<.005	ND<.005

Concentration: mg/L mg/L mg/L mg/L mg/L

Laboratory Number: 92001-10

Arsenic	(As) :	ND<.005
Cadmium	(Cd) :	ND<0.01
Chromium	(Cr) :	ND<0.02
Lead	(Pb) :	ND<.005

Concentration: mg/L



# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

## ANALYSIS FOR ARSENIC, CADMIUM, CHROMIUM, LEAD Quality Assurance and Control Data - Water

Laboratory Number 92001

Compound	Method	Blank (mg/L)	RL (mg/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Arsenic	(As) :	ND<.005	.005	102/101	75-125	1%
Cadmium	(Cd) :	ND<0.01	0.01	99/98	75-125	1%
Chromium	(Cr) :	ND<0.02	0.02	95/95	75-125	0%
Lead	(Pb) :	ND<.005	.005	103/104	75-125	1%

### Definitions:

ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

mg/L = Parts per million (ppm)

QC File No. 92001

H. T. Smith  
Senior Chemist  
Account Manager

## **Chain of Custody and Analysis Request**

**Environmental Management, Inc.**  
206 East Fireweed Lane, Suite 201  
Anchorage, AK 99503      Fax: (907) 272-4159  
Phone: (907) 272-9336      Project Manager: *Stacy Delfiff*  
Alternate Contact: *John S. Sorenson*  
Project No.: 62-7-1      P.O. No.: 3228

<b>TURN AROUND TIME</b>	
(circle one)	
Same Day	72 Hrs.
24 Hrs.	48 Hrs.
	<u>Normal 5 Day</u>

## Section II: Analysis Request

Section II: Analysis Request		Sampler: <u>John Delfiff</u>		Regulatory Agency: <u>ADEC</u>		Sampling Remarks	
Sample Identification	Matrix	S = Soil A = Air W = Water	Bioremediation	UST Monitoring	Recent Contamination	Unknown Compounds	
PCBs 8080							
VCs 601							
TPH 418.1							
SDI/SDM 602	DE-PPH						
SDI/SDM 603	DE-PPH						
6 2 7 7 1 1 1 1 0	W	✓	✓				
6 2 7 7 1 1 1 2	W	✓	✓				
6 2 7 7 1 1 3	W	✓	✓	✓			
6 2 7 7 1 1 4	W	✓	✓	✓			
6 2 7 7 1 1 5	W	✓	✓	✓			
6 2 7 7 1 1 6	W	✓	✓	✓			
6 2 7 7 1 1 7	W	✓	✓	✓			
6 2 7 7 1 1 8	W	✓	✓	✓			
6 2 7 7 1 1 9	W	✓	✓	✓			
6 2 7 7 1 1 0	W	✓	✓	✓			
11							
12							
Relinquished By: <u>John Delfiff</u>	Date/Time: <u>7-11-01</u>	Received By: Organization: <u>EPA</u>	Date/Time: <u>7-11-01</u>	Relinquished By: <u>John Delfiff</u>	Date/Time: <u>7-11-01</u>	Comments: <u>Lab: Please initial the following: A-A-C</u>	
Relinquished By: <u>John Delfiff</u>	Date/Time: <u>7-11-01</u>	Received By: Organization: <u>EPA</u>	Date/Time: <u>7-11-01</u>	Relinquished By: <u>John Delfiff</u>	Date/Time: <u>7-11-01</u>	Comments: <u>Samples Stored in ice: ✓</u>	
Relinquished By: <u>John Delfiff</u>	Date/Time: <u>7-11-01</u>	Received By: Organization: <u>EPA</u>	Date/Time: <u>7-11-01</u>	Relinquished By: <u>John Delfiff</u>	Date/Time: <u>7-11-01</u>	Comments: <u>Appropriate Containers: ✓</u>	
Relinquished By: <u>John Delfiff</u>	Date/Time: <u>7-11-01</u>	Received By: Organization: <u>EPA</u>	Date/Time: <u>7-11-01</u>	Relinquished By: <u>John Delfiff</u>	Date/Time: <u>7-11-01</u>	Comments: <u>Samples Preserved: ✓</u>	
Relinquished By: <u>John Delfiff</u>	Date/Time: <u>7-11-01</u>	Received By: Organization: <u>EPA</u>	Date/Time: <u>7-11-01</u>	Relinquished By: <u>John Delfiff</u>	Date/Time: <u>7-11-01</u>	Comments: <u>VOAs without headspace: ✓</u>	
Relinquished By: <u>John Delfiff</u>	Date/Time: <u>7-11-01</u>	Received By: Organization: <u>EPA</u>	Date/Time: <u>7-11-01</u>	Relinquished By: <u>John Delfiff</u>	Date/Time: <u>7-11-01</u>	Comments: <u>Comments: ✓</u>	