



3315 Almaden Expressway, Suite 34
San Jose, CA 95118
Phone: (408) 264-7723
FAX: (408) 264-2435

Recd 3/2/93

**LETTER REPORT
QUARTERLY GROUNDWATER MONITORING
Fourth Quarter 1992
at
Exxon Station 7-3006
720 High Street
Oakland, California**

87042.11

2/1/93

3315 Almaden Expressway, Suite 34
San Jose, CA 95118
Phone: (408) 264-7723
FAX: (408) 264-2435

February 1, 1993
0908MGUE
87042.11

Ms. Marla D. Guensler
Exxon Company U.S.A.
2300 Clayton Road, Suite 1250
P.O. Box 4032
Concord, California 94520

Subject: Letter Report on Fourth Quarter 1992 Groundwater Monitoring at Exxon
Station 7-3006, 720 High Street, Oakland, California

Ms. Guensler:

As requested by Exxon Company U.S.A. (Exxon), this letter report summarizes the methods and results of the fourth quarter 1992 groundwater monitoring performed by RESNA Industries Inc. (RESNA) at the above subject site. The site is located at 720 High Street, in a predominantly industrial area of Oakland, California (Plate 1, Site Vicinity Map). It is bound on the northwest by High Street, on the southwest by Coliseum Way, on the northeast by a former dry-cleaning facility, on the south by Alameda Avenue, and on the southeast by a vacant lot, as shown on Plate 2, Generalized Site Plan.

The objectives of this quarterly monitoring are to evaluate trends in the groundwater flow direction and gradient, and trends in concentrations of gasoline and diesel hydrocarbons in the local groundwater associated with a former used-oil and three former gasoline underground storage tanks (USTs) at the site.

Prior to the present monitoring, RESNA (formerly Applied GeoSystems [AGS]) performed an environmental investigation related to the removal of four USTs in April 1987 (AGS, May 13, 1987, July 10, 1987, and October 16, 1989), and an environmental investigation between September 1987 and May 1988 that included drilling nine boreholes (B-1 through B-9) around the former UST locations and installing groundwater monitoring wells MW-1 through MW-9 in the boreholes (AGS, August 5, 1988). AGS performed a Supplemental Subsurface Investigation that included; drilling of eleven boreholes (B-10 through B-20) and installing groundwater monitoring wells MW-10 through MW-13 in boreholes B-10 through B-13 in November 1989 (AGS, January 30, 1990), and drilling of boreholes B-21 through B-32 and installing groundwater monitoring wells MW-14 and MW-15 in boreholes B-31 and

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

B-32 in November 1990 (AGS, May 21, 1991). Quarterly monitoring was initiated by AGS in the second quarter of 1989 (AGS, October 16, 1989) and is ongoing. The locations of the borings, wells, and pertinent site facilities are shown on the Generalized Site Plan, (Plate 2). The results of these investigations are presented in the reports listed in the references section.

Groundwater Sampling and Gradient Evaluation

For the latest quarterly groundwater monitoring, RESNA personnel collected groundwater monitoring data from the one offsite monitoring well (MW-1) and thirteen onsite monitoring wells (MW-2 through MW-4, and MW-6 through MW-15) on December 8 and 9, 1992, and monthly monitoring of groundwater elevations on October 14, November 16, and December 8, 1992. Monitoring well MW-5 was destroyed in July 1989. Field work during this quarter consisted of measuring depth to water (DTW) levels, subjectively analyzing water from the wells for the presence of floating product, removal of any floating product encountered, and purging and sampling the groundwater from monitoring wells MW-1, MW-7, MW-9, MW-10, MW-11, MW-14, and MW-15 for laboratory analysis. Monitoring wells MW-2 through MW-4, MW-6, MW-8, MW-12, and MW-13 were not sampled due to the presence of floating product or a product sheen observed during subjective analysis of the wells. Field methods used by RESNA personnel are described in Appendix A, Groundwater Sampling Protocol.

RESNA calculated groundwater elevations for each well by subtracting the measured DTW, including corrections for product thickness when necessary, from the elevation of the wellhead. The measured DTW levels, product thickness, wellhead elevations, and groundwater elevations for this and previous monitorings at the site are summarized in Table 1, Cumulative Groundwater Monitoring Data. Data from Table 1 were used to produce hydrographs which show fluctuations in local groundwater elevations. Hydrographs for the fourteen monitoring wells are included in Appendix B. Based on the December 8, 1992 groundwater elevation data, the interpreted local groundwater gradient and flow direction is approximately 0.05 toward the west-southwest. Groundwater Gradient Map (Plate 3) is RESNA's interpretation of the local groundwater gradient for this quarter. This groundwater gradient is generally consistent with those previously interpreted.

Groundwater samples were collected from one offsite well (MW-1) and the thirteen onsite monitoring wells (MW-2 through MW-4, and MW-6 through MW-15) for subjective analysis before the monitoring wells were purged and sampled. No evidence of floating product or noticeable hydrocarbon vapor was observed in the water samples collected from wells MW-1, MW-7, MW-9, MW-10, MW-11, MW-14, and MW-15 for laboratory analysis. A sheen or floating product was observed in the groundwater samples collected from MW-2 through

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

MW-4, MW-6, MW-8, MW-12, and MW-13. These subjective analyses are summarized in Table 1.

The one offsite monitoring well and six onsite monitoring wells were purged and sampled in accordance with the enclosed groundwater sampling protocol (Appendix A). Well purge data sheets and stabilization graphs for the monitored parameters temperature, turbidity, pH, and conductivity for the seven monitoring wells are included in Appendix A.

Results of Laboratory Analysis

Groundwater samples from the monitoring wells were analyzed by Pace Incorporated laboratories (PACE) (California State Certification Number 1282) in Novato, California for gasoline constituents benzene, toluene, ethylbenzene, and total xylenes (BTEX), and total petroleum hydrocarbons as gasoline (TPHg) using modified Environmental Protection Agency (EPA) Methods 5030/8015/8020, and for total petroleum hydrocarbons as diesel (TPHd) using modified EPA Methods 3510/8015. The Chain of Custody Record and Laboratory Analysis Reports for the monitoring wells are included in Appendix C.

The chemical analytical results of this, and previous, quarterly monitoring are summarized in Table 2, Cumulative Results of Laboratory Analyses of Groundwater Samples. Graphic distributions of TPHg, benzene, and TPHd concentrations in the local groundwater for this quarterly monitoring are shown on Plate 4, TPHg Concentrations in Groundwater, Plate 5, Benzene Concentrations in Groundwater, and Plate 6, TPHd Concentrations in Groundwater. Chemical analyses data from Table 2 were used to produce histograms which show fluctuations in TPHg concentrations over time. Histograms for MW-1 through MW-4, and MW-6 through MW-15 are included on the hydrographs in Appendix B.

Results of this quarter's laboratory analyses of groundwater samples from wells MW-1, MW-7, MW-9, MW-10, MW-11, MW-14, and MW-15 indicate that:

- o concentrations of TPHg and BTEX were nondetectable in wells MW-9, MW-10, and MW-11, except for 0.0009 ppm total xylenes detected in MW-10.
- o concentrations of TPHd were nondetectable in wells MW-9 and MW-10.
- o concentrations of TPHg were detected in wells MW-1, MW-7, MW-14, and MW-15 and ranged from 0.170 parts per million (ppm) in MW-1 to 17 ppm in MW-7.

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

- o concentrations of TPHd were detected in wells MW-1, MW-7, MW-11, MW-14, and MW-15 and ranged from 0.051 ppm in MW-1 to 0.54 ppm in MW-7.
- o Benzene was detected at concentrations of 0.0025 ppm in MW-14, 0.010 ppm in MW-1, 0.043 ppm in well MW-15, and 1.1 ppm in MW-7; which are greater than the California Department of Health Services (CDHS) Maximum Contaminant Level (MCL) of 0.001 ppm benzene in drinking water.
- o Toluene was detected at concentrations of 0.0010 ppm in MW-14, 0.0016 ppm in well MW-15, and 0.035 ppm in MW-7; which are less than the CDHS recommended Drinking Water Action Level (DWAL) of 0.100 ppm toluene in drinking water. Toluene was not detected in the water sample from well MW-1.
- o Ethylbenzene was detected at concentrations of 0.0015 ppm in MW-14, 0.077 ppm in well MW-7, and 0.170 ppm in MW-15; which are less than the CDHS MCL of 0.680 ppm ethylbenzene in drinking water. Ethylbenzene was not detected in the water sample from well MW-1.
- o Total xylenes were detected at concentrations of 0.0006 ppm in well MW-1, 0.0081 ppm in MW-14, 0.046 ppm in well MW-7, and 0.023 ppm in MW-15; which are less than the CDHS MCL of 1.750 ppm total xylenes in drinking water.

Copies of this report should be forwarded to:

Mr. Lester Feldman
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Mr. Barney M. Chan
Hazardous Materials Specialist
Alameda County Department of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

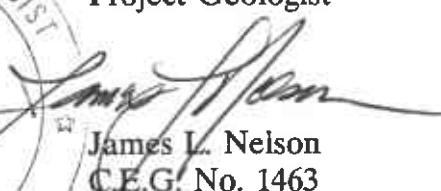
February 1, 1993
87042.11

If you have any questions or comments, please call us at (408) 264-7723.

Sincerely,
RESNA Industries Inc.



Marc A. Briggs
Project Geologist



James L. Nelson
C.E.G. No. 1463

Enclosures: References

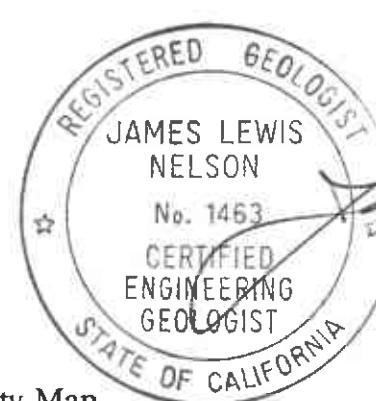
- 
- Plate 1, Site Vicinity Map
 - Plate 2, Generalized Site Plan
 - Plate 3, Groundwater Gradient Map (December 8, 1992)
 - Plate 4, TPHg Concentrations in Groundwater
 - Plate 5, Benzene Concentrations in Groundwater
 - Plate 6, TPHd Concentrations in Groundwater

Table 1, Cumulative Groundwater Monitoring Data
Table 2, Cumulative Results of Laboratory Analyses of Groundwater Samples

Appendix A: Groundwater Sampling Protocol, Well Purge Data Sheets, and Stabilization Graphs
Appendix B: Hydrograph and TPHg Graphs
Appendix C: Chain of Custody Records and Laboratory Analysis Reports

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

REFERENCES

Applied GeoSystems. May 13, 1987. Letter Report for First Phase Soil Contamination Investigation, Exxon Station No. 7-3006, Oakland, California. Job No. 87042-1.

Applied GeoSystems. July 10, 1987. Report of Excavation, Aeration, and Removal of Contaminated Soil Including Soil Sampling and Analyses, Exxon Station No. 7-3006, Oakland, California. Job No. 87042-2.

Applied GeoSystems. August 5, 1988. Report of Subsurface Environmental Investigation, Exxon Station No. 7-3006, Oakland, California. Job No. 87042-5.

Applied GeoSystems. July 8, 1989. Site Safety Plan, Exxon Station No. 7-3006, 720 High Street, Oakland, California. Job No. 87042-6S.

Applied GeoSystems. October 16, 1989. Report on Subsurface Environmental Investigation, Exxon Station No. 7-3006, 720 High Street, Oakland, California. Job No. 87042-6.

Applied GeoSystems. January 30, 1990. Report on Limited Environmental Investigation, Exxon Station 7-3006, 720 High Street, Oakland, California. Job No. 87042-6R.

Applied GeoSystems. January 30, 1991. Letter Report on Ground-Water Monitoring for Fourth Quarter 1990, Exxon Station No. 7-3006, 720 High Street, Oakland, California. Job No. 87042-9.

Applied GeoSystems. May 21, 1991. Report on Supplemental Subsurface Environmental Investigation, Exxon Station No. 7-3006, 720 High Street, Oakland, California. Job No. 87042-9R.

Applied GeoSystems. October 10, 1991. Interim Groundwater Remediation Work Plan, Exxon Station No. 7-3006, 720 High Street, Oakland, California. Job No. 87042-9RAP.

RESNA Industries, Inc. June 15, 1992. Letter Report on Groundwater Monitoring for First Quarter 1992, Exxon Station No. 7-3006, 720 High Street, Oakland, California. Job No. 87042-11.

RESNA Industries, Inc. October 21, 1992. Letter Report on Groundwater Monitoring for Second Quarter 1992, Exxon Station No. 7-3006, 720 High Street, Oakland, California. Job No. 87042-11.

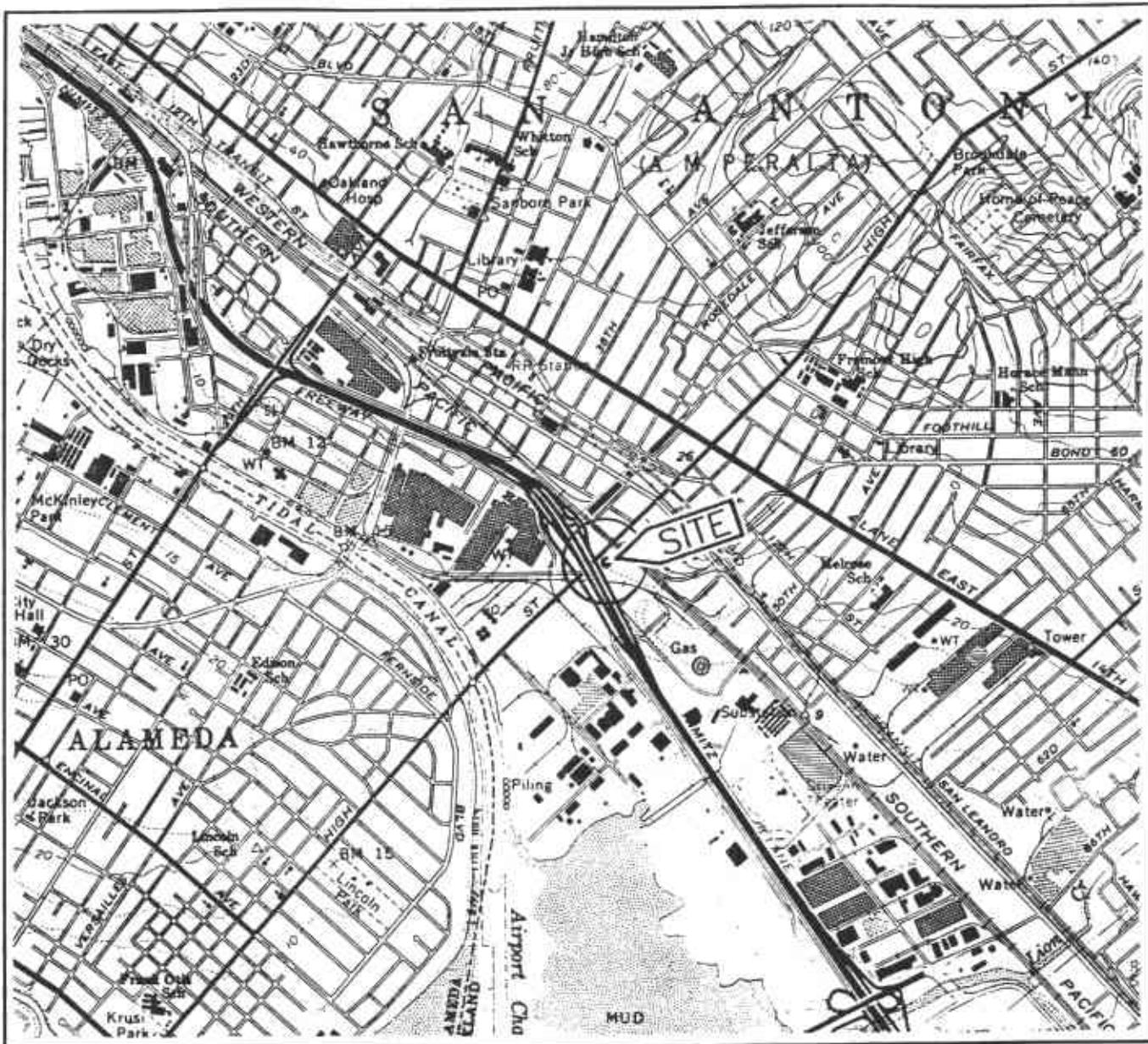
Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

REFERENCES
(continued)

RESNA Industries, Inc. November 9, 1992. Letter Report on Groundwater Monitoring for Third Quarter 1992, Exxon Station No. 7-3006, 720 High Street, Oakland, California. Job No. 87042-11.

RESNA Industries, Inc. December 2, 1992. Addendum One to the Interim Ground Water Remediation Work Plan, Former Exxon Station No. 7-3006, 720 High Street, Oakland, California. Job No. 62034.01.



Base: U.S. Geological Survey
7.5-Minute Quadrangles
Oakland East, California.
Photorevised 1980

LEGEND

(●) = Site Location

Approximate Scale



RESNA
Working to Restore Nature

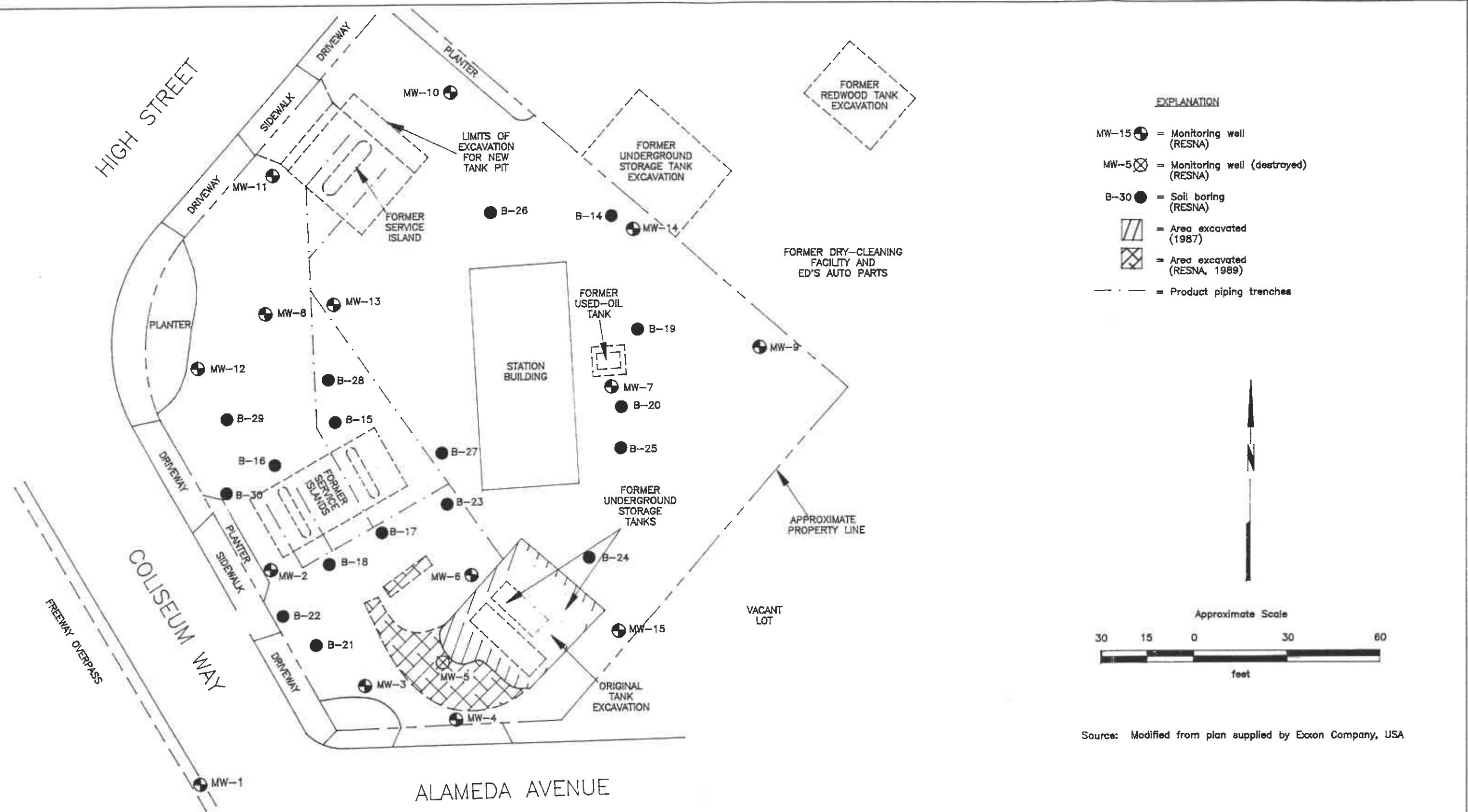
SITE VICINITY MAP
Exxon Station 7-3006
720 High Street
Oakland, California

PLATE

1

PROJECT

87042.11



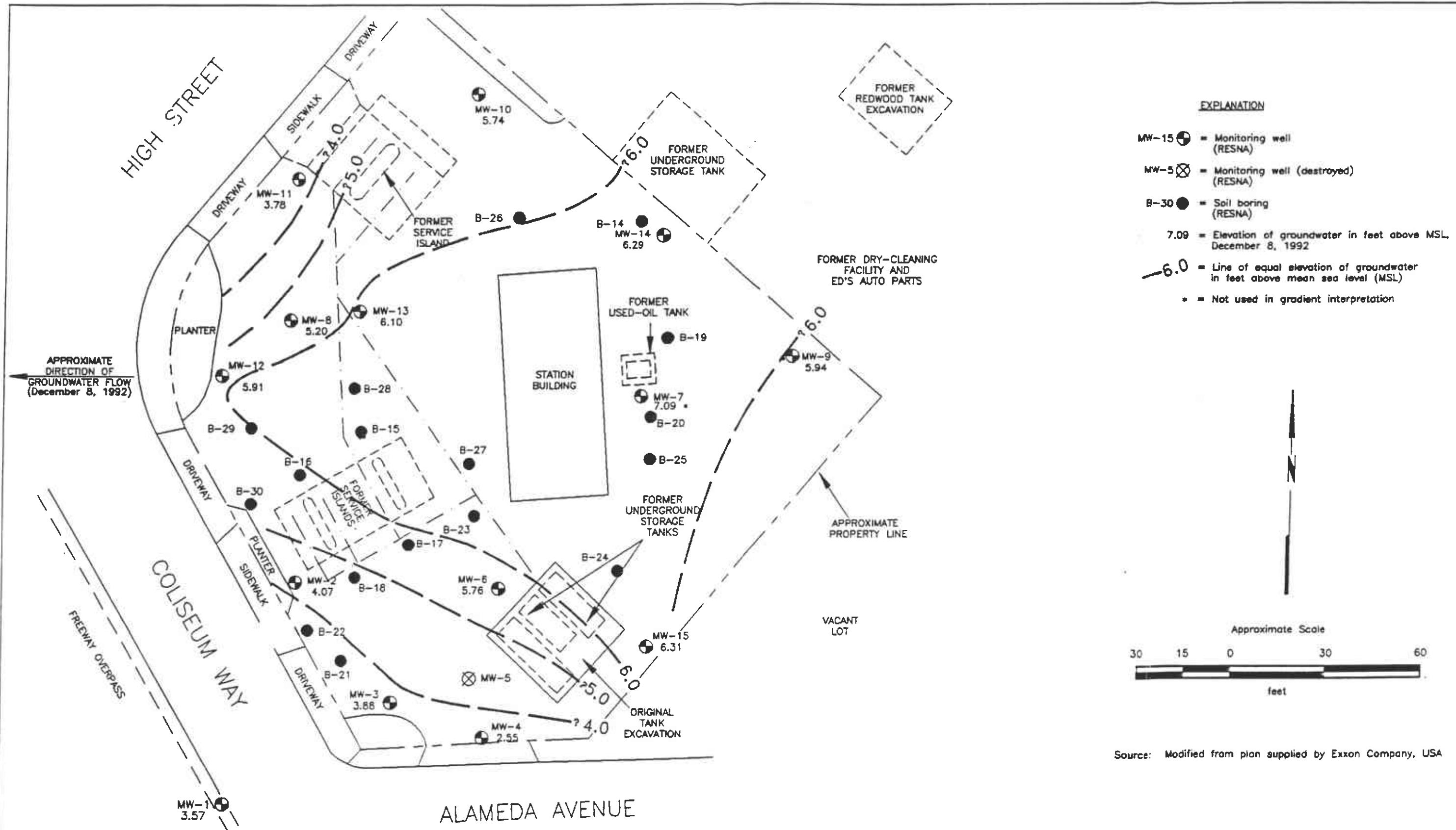
RESNA
Working to Restore Nature

PROJECT

87042.11

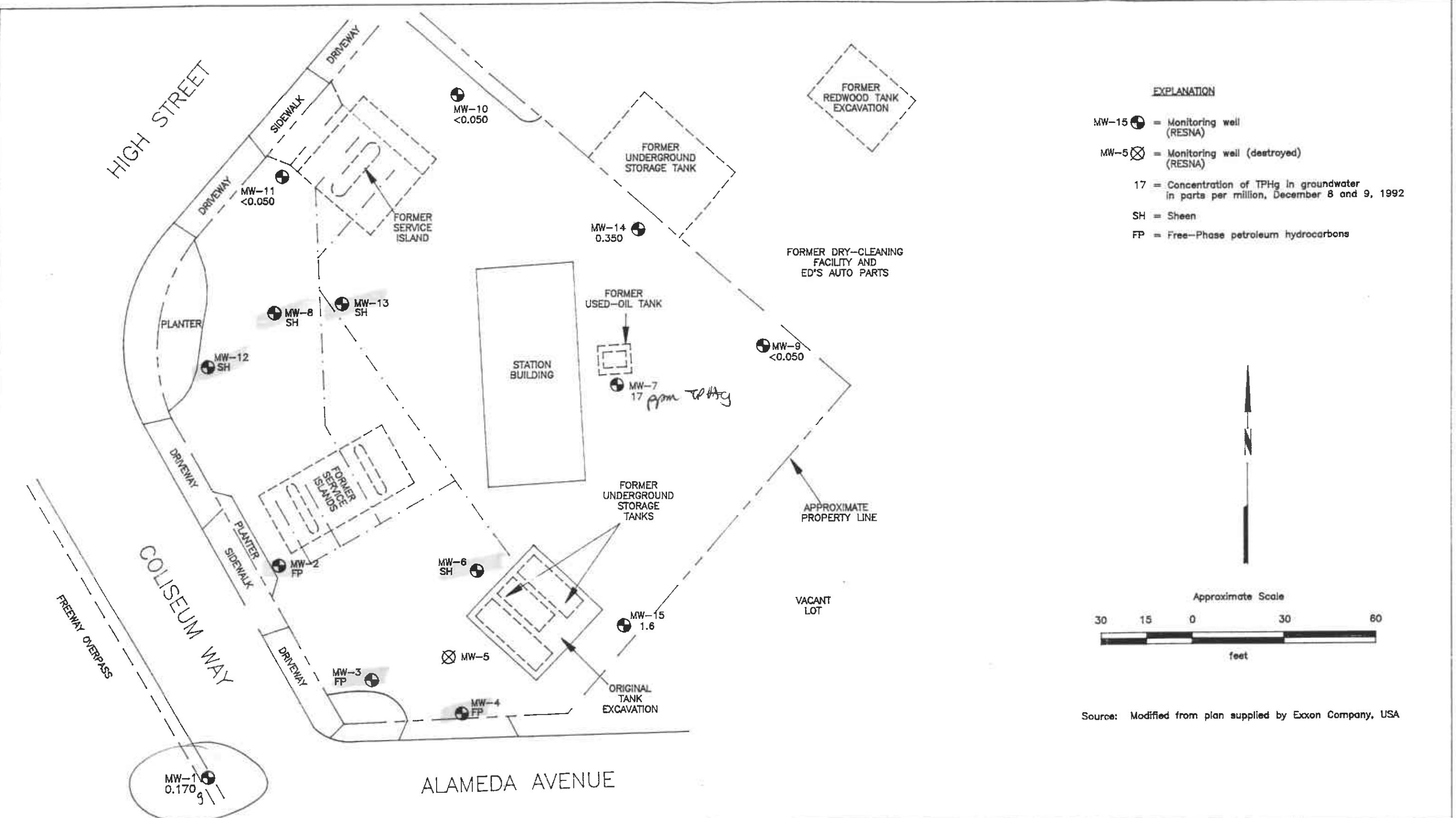
GENERALIZED SITE PLAN
Exxon Station 7-3006
720 High Street
Oakland, California

PLATE
2



RESNA
Working to Restore Nature

GROUNDWATER GRADIENT MAP
Exxon Station 7-3006
720 High Street
Oakland, California



RESNA
Working to Restore Nature

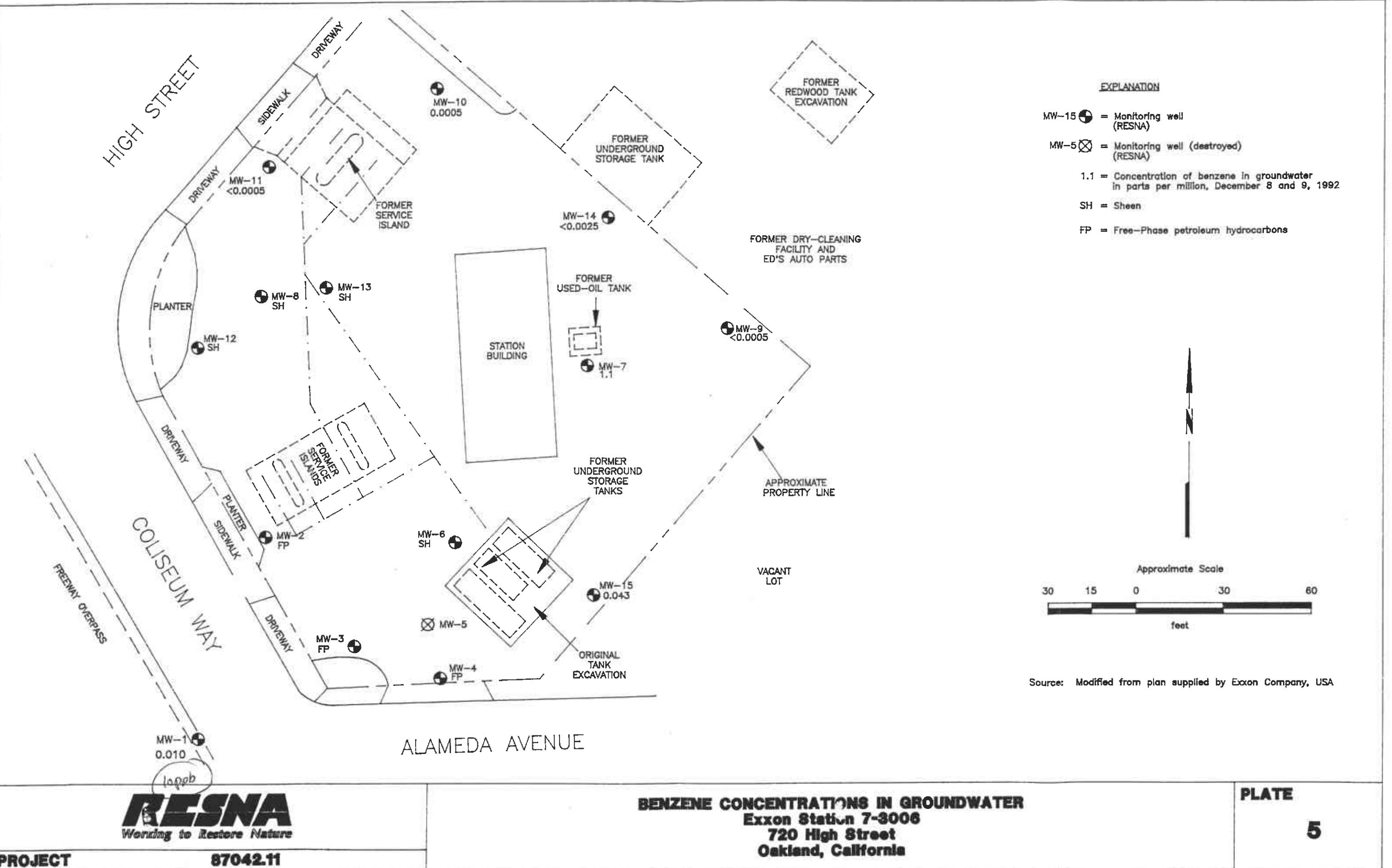
PROJECT

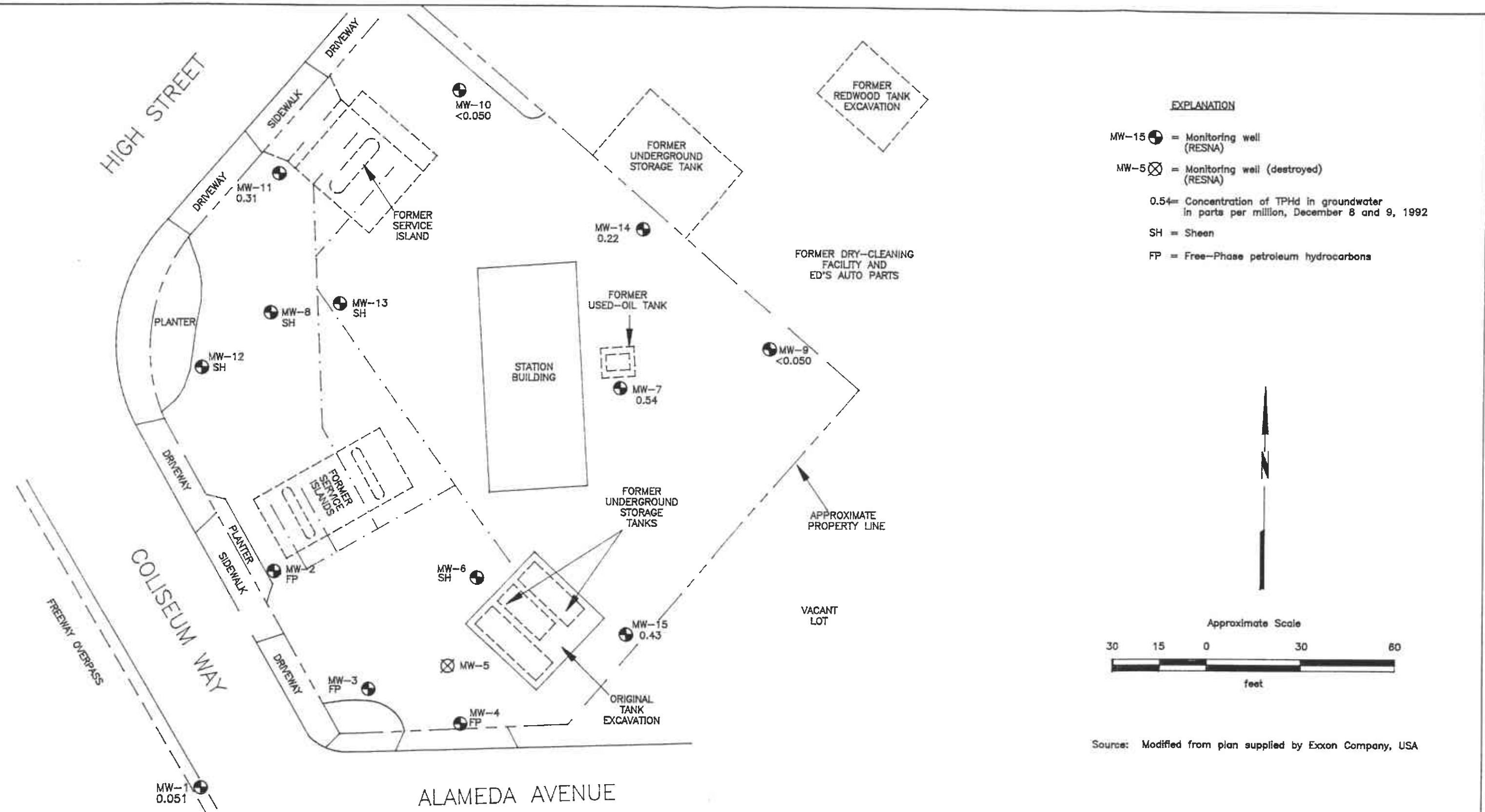
87042.11

TPH_g CONCENTRATIONS IN GROUNDWATER
Exxon Station 7-3006
720 High Street
Oakland, California

PLATE

4





RESNA
Working to Restore Nature

PROJECT

87042.11

TPHd CONCENTRATIONS IN GROUNDWATER
Exxon Station 7-3003
720 High Street
Oakland, California

PLATE
6

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 1 of 10)

Well Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product	Product Removed
MW-1					
04/25/89	12.87	7.55	5.32	NONE	NONE
04/27/89		10.16	2.71	SHEEN	NONE
09/06/89		10.88	1.99	SHEEN	NONE
09/22/89		11.06	1.81	NONE	NONE
11/01/89		10.82	2.05	NONE	NONE
11/15/89		11.07	1.80	NONE	NONE
12/06/89		10.33	2.54	NONE	NONE
02/20/90		8.81	4.06	NONE	NONE
04/19/90		9.33	3.54	NONE	NONE
07/03/90		8.44	4.43	NONE	NONE
07/26/90		8.99	3.88	NONE	NONE
08/20/90		9.50	3.37	NONE	NONE
09/19/90		9.99	2.88	NONE	NONE
11/27/90		10.62	2.25	NONE	NONE
01/17/91		10.31	2.56	NONE	NONE
03/26/91		7.97	4.90	NONE	NONE
05/02/91		8.88	3.99	NONE	NONE
06/20/91		9.62	3.25	NONE	NONE
08/07/91		10.20	2.67	NONE	NONE
09/17/91		10.40	2.47	NONE	NONE
11/13/91		10.20	2.67	NONE	NONE
12/10/91		10.23	2.64	NONE	NONE
01/21/92		9.32	3.55	NONE	NONE
03/25/92		9.30	3.52	NONE	NONE
06/22/92		8.46	4.41	NONE	NONE
09/24/92		9.61	3.26	NONE	NONE
10/14/92		9.85	3.02	NONE	NONE
11/16/92		9.65	3.22	NONE	NONE
12/08/92		9.30	3.57	NONE	NONE
MW-2					
04/25/89	12.98	9.27 (7.54)	5.44	2.16	N/A
07/19/89		10.81 (9.56)	3.42	1.56	N/A
07/27/89		10.18 (10.08)	2.90	0.13	N/A
09/06/89		10.89 (10.82)	2.16	0.09	N/A
09/22/89		11.56 (11.11)	1.87	0.56	N/A
11/01/89		10.85 (10.78)	2.20	0.09	N/A
11/15/89		11.05 (10.96)	2.02	0.07	N/A
12/06/89		10.23 (10.13)	2.85	0.13	N/A
02/20/90		8.86 (8.66)	4.32	0.29	N/A
04/19/90		9.09 (9.09)	3.97	0.10	N/A

See notes on page 10 of 10

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Exxon Station 7-3006.
720 High Street
Oakland, California
(Page 2 of 10)

Well Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product	Product Removed
MW-2 (cont.)					
07/03/90		8.75 (8.71)	4.27	0.05	N/A
07/26/90		8.71 (8.63)	4.35	0.10	N/A
08/20/90		9.25 (9.23)	3.75	0.02	N/A
09/19/90		9.79 (9.77)	3.21	0.02	N/A
11/27/90		10.40 (10.34)	2.64	0.07	N/A
01/17/91		10.03 (9.99)	2.95	0.05	N/A
03/26/91		8.98 (8.92)	4.06	0.08	N/A
05/02/91		8.73 (8.71)	4.27	0.02	N/A
06/20/91		9.11 (9.09)	3.89	0.02	N/A
08/07/91		10.00 (9.97)	3.01	0.04	N/A
09/17/91		10.11 (10.09)	2.89	0.02	N/A
11/13/91		9.88 (9.86)	3.12	0.02	N/A
12/10/91		9.02 (9.00)	3.98	0.03	N/A
01/21/92		9.08 (9.06)	3.92	0.03	N/A
03/25/92		6.00 (5.98)	7.00	0.03	N/A
06/22/92		8.46 (8.45)	4.53	0.01	(bailed ½ cup)
09/24/92		9.08	3.90	SHEEN	N/A
10/14/92		9.34 (9.32)	3.70	0.02	(bailed ½ cup)
11/16/92		9.16 (9.14)	3.84	0.02	(bailed ½ cup)
12/08/92		8.93 (8.91)	4.07	0.02	(bailed ½ cup)
MW-3					
04/25/89	12.94	7.57 (7.51)	5.43	0.08	N/A
07/19/89		10.33 (9.80)	3.14	0.66	N/A
07/27/89		covered by soil			
09/06/89		11.22 (11.16)	1.78	0.07	N/A
09/22/89		11.38 (11.16)	1.78	0.28	N/A
11/01/89		10.90 (10.89)	2.05	0.01	N/A
11/15/89		11.18 (11.04)	1.90	0.11	N/A
12/06/89		10.29	2.65	SHEEN	NONE
02/20/90		8.73 (8.70)	4.24	0.04	N/A
04/19/90		9.20 (9.13)	3.81	0.09	N/A
07/03/90		8.50 (8.48)	4.46	0.03	N/A
07/26/90		8.58 (8.55)	4.39	0.04	N/A
08/20/90		9.21 (9.20)	3.74	0.01	N/A
09/19/90		10.02 (9.74)	3.24	0.35	N/A
11/27/90		10.72 (10.38)	2.60	0.42	N/A
01/17/91		10.05 (9.97)	2.97	0.10	N/A
03/26/91		7.65 (7.57)	5.37	0.10	N/A
05/02/91		8.54 (8.52)	4.42	0.03	N/A
06/20/91		8.89 (8.87)	4.07	0.03	N/A
08/07/91		9.99 (9.97)	2.97	0.03	N/A

See notes on page 10 of 10

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 3 of 10)

Well Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product	Product Removed
MW-3 (cont.)					
09/17/91		10.32 (10.14)	2.80	0.22	N/A
11/13/91		10.14 (9.95)	2.99	0.24	N/A
12/10/91		10.10 (10.01)	2.93	0.11	N/A
01/21/92		9.07 (9.02)	3.92	0.06	N/A
03/25/92		5.96 (5.93)	7.01	0.04	N/A
06/22/92		8.07 (8.05)	4.89	0.02	(bailed ½ cup)
09/24/92		9.29	3.65	SHEEN	N/A
10/14/92		9.49 (9.47)	3.47	0.02	(bailed ½ cup)
11/16/92		9.29 (9.27)	3.67	0.02	(bailed ½ cup)
12/08/92		9.08 (9.06)	3.88	0.02	(bailed ½ cup)
MW-4					
04/25/89	12.77	7.26 (7.13)	5.64	0.16	N/A
07/19/89		10.32 (9.74)	3.03	0.72	N/A
07/27/89		covered by soil			
09/06/89		11.40 (11.34)	1.43	0.07	N/A
09/22/89		11.64 (11.49)	1.28	0.19	N/A
11/01/89		11.00	1.77	SHEEN	NONE
11/15/89		11.18 (11.10)	1.67	0.10	N/A
12/06/89		10.25	2.52	SHEEN	NONE
02/20/90		8.40	4.37	NONE	NONE
04/19/90		9.04 (9.02)	3.75	0.03	N/A
07/03/90		8.00	4.77	SHEEN	NONE
07/26/90		8.57 (8.54)	4.23	0.04	N/A
08/20/90		9.08 (9.07)	3.70	0.01	N/A
09/19/90		9.76 (9.74)	3.03	0.03	N/A
11/27/90		10.83 (10.76)	2.01	0.09	N/A
01/17/91		9.96 (9.80)	2.97	0.20	N/A
03/26/91		6.20 (6.13)	6.64	0.09	N/A
05/02/91		7.50 (7.47)	5.30	0.04	N/A
06/20/91		7.79 (7.76)	5.01	0.04	N/A
08/07/91		9.81 (9.77)	3.00	0.05	N/A
09/17/91		10.02 (9.94)	2.83	0.10	N/A
11/13/91		9.90 (9.80)	2.97	0.12	N/A
12/10/91		9.92 (9.84)	2.93	0.10	N/A
01/21/92		9.50 (9.44)	3.33	0.08	N/A
03/25/92		5.01 (4.99)	7.78	0.03	N/A
06/22/92		7.34 (7.32)	5.45	0.02	(bailed ½ cup)
09/24/92		9.03	3.74	SHEEN	N/A
10/14/92		9.27 (9.25)	3.52	0.02	(bailed ½ cup)
11/16/92		9.09 (9.07)	3.70	0.02	(bailed ½ cup)
12/08/92		10.24 (10.22)	2.55	0.02	(bailed ½ cup)

See notes on page 10 of 10

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 4 of 10)

Well Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product	Product Removed
MW-5					
04/25/89		8.06	0.32	NONE	NONE
07/18/89			well destroyed		
MW-6					
04/25/89	14.27	8.02	6.25	NONE	NONE
09/06/89		13.64 (13.58)	0.69	0.08	N/A
09/22/89		13.79 (13.73)	0.54	0.07	N/A
11/01/89		12.78	1.49	SHEEN	NONE
11/15/89		12.91	1.36	SHEEN	NONE
12/06/89		11.84	2.43	NONE	NONE
02/20/90		9.08	5.19	NONE	NONE
04/19/90		9.72	4.55	NONE	NONE
07/03/90		8.00	6.27	NONE	NONE
07/26/90		8.70	5.57	NONE	NONE
08/20/90		9.62	4.65	NONE	NONE
09/19/90		10.25	4.02	SHEEN	NONE
11/27/90		10.82	3.45	SHEEN	NONE
01/17/91		9.93	4.34	NONE	NONE
03/26/91		8.45	5.82	NONE	NONE
05/02/91		8.90	5.37	NONE	NONE
06/20/91		9.47	4.80	SHEEN	NONE
08/07/91		10.10	4.17	SHEEN	NONE
09/17/91		10.21	4.06	SHEEN	NONE
11/13/91		9.62	4.65	SHEEN	NONE
12/10/91		9.59	4.68	SHEEN	NONE
01/21/92		9.25	5.02	SHEEN	NONE
03/25/92		6.88	7.39	NONE	NONE
06/22/92		7.38	6.89	NONE	NONE
09/24/92		8.70	5.57	NONE	NONE
10/14/92		8.91	5.36	SHEEN	NONE
11/16/92		8.75	5.52	NONE	NONE
12/08/92		8.51	5.76	SHEEN	NONE
MW-7					
04/25/89	14.84	8.66	6.18	NONE	NONE
09/06/89		11.72	3.12	SHEEN	NONE
09/22/89		11.89	2.95	NONE	NONE
12/06/89		10.46	4.38	NONE	NONE
02/20/90		8.44	6.40	NONE	NONE
04/19/90		9.54	5.30	NONE	NONE
07/03/90		7.45	7.39	NONE	NONE
07/26/90		8.08	6.76	NONE	NONE

See notes on page 10 of 10

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 5 of 10)

Well Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product	Product Removed
<u>MW-7 (cont.)</u>					
08/20/90		8.82	6.02	NONE	NONE
09/19/90		9.01	5.83	NONE	NONE
11/27/90		9.54	5.30	NONE	NONE
01/17/91		8.50	6.34	NONE	NONE
03/26/91		5.92	8.92	NONE	NONE
05/02/91		7.72	7.12	NONE	NONE
06/20/91		8.19	6.65	NONE	NONE
08/07/91		8.70	6.14	NONE	NONE
09/17/91		8.77	6.07	NONE	NONE
11/13/91		8.51	6.33	NONE	NONE
12/10/91		8.58	6.26	NONE	NONE
01/21/92		8.32	8.52	NONE	NONE
03/25/92		9.27	5.57	NONE	NONE
06/22/92		6.97	7.87	NONE	NONE
09/24/92		8.00	6.84	NONE	NONE
10/14/92		8.15	6.69	NONE	NONE
11/16/92		7.92	6.92	NONE	NONE
12/08/92		7.75	7.09	NONE	NONE
<u>MW-8</u>					
04/25/89	13.45	8.31 (7.78)	5.67	0.66	N/A
07/19/89		10.97 (9.97)	3.58	1.25	N/A
07/27/89		10.34 (10.28)	3.17	0.08	N/A
09/06/89		11.09 (10.95)	2.50	0.17	N/A
09/22/89		11.58 (11.29)	2.16	0.36	N/A
11/01/89		11.03	2.42	NONE	NONE
11/15/89		11.25 (11.24)	2.21	0.01	N/A
12/06/89		10.30	3.15	SHEEN	NONE
02/20/90		8.00 (7.99)	5.46	0.01	N/A
04/19/90		8.50	4.95	NONE	NONE
07/03/90		7.55	5.90	NONE	NONE
07/26/90		7.86	5.59	NONE	NONE
08/20/90		8.92	4.53	NONE	NONE
09/19/90		9.55	3.90	NONE	NONE
11/27/90		10.29 (10.28)	3.17	0.01	N/A
01/17/91		9.97	3.48	SHEEN	NONE
03/26/91		8.45	5.00	SHEEN	NONE
05/02/91		8.85	9.60	SHEEN	NONE
06/20/91		9.45	4.00	SHEEN	NONE
08/07/91		10.00	3.45	SHEEN	NONE
09/17/91		10.11	3.34	SHEEN	NONE
11/13/91		9.63	3.82	SHEEN	NONE

See notes on page 10 of 10

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 6 of 10)

Well Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product	Product Removed
MW-8 (cont.)					
12/10/91		9.66	3.79	SHEEN	NONE
01/21/92		9.35	4.10	SHEEN	NONE
03/25/92		8.02	5.43	SHEEN	NONE
06/22/92		7.01	6.44	SHEEN	NONE
09/24/92		8.33	5.12	SHEEN	NONE
10/14/92		8.65	4.80	SHEEN	NONE
11/16/92		8.27	5.18	SHEEN	NONE
12/08/92		8.25	5.20	SHEEN	NONE
MW-9					
04/25/89	14.64	8.25	6.39	NONE	NONE
09/06/89			covered by soil		
09/22/89			covered by soil		
12/06/89		10.12	4.52	NONE	NONE
02/20/90		9.38	5.26	NONE	NONE
04/19/90		9.40	5.24	NONE	NONE
07/03/90		8.79	5.85	NONE	NONE
07/26/90		8.70	5.94	NONE	NONE
08/20/90		9.09	5.55	NONE	NONE
09/19/90		9.52	5.12	NONE	NONE
11/27/90		9.89	4.75	NONE	NONE
01/17/91			covered by soil		
03/26/91			covered by soil		
05/02/91		9.10	5.54	NONE	NONE
06/20/91		8.76	5.88	NONE	NONE
08/07/91		9.37	5.27	NONE	NONE
09/17/91		9.57	5.07	NONE	NONE
11/13/91		9.46	5.18	NONE	NONE
12/10/91		9.30	5.34	NONE	NONE
01/21/92		9.68	4.96	NONE	NONE
03/25/92		8.93	5.71	NONE	NONE
06/22/92		7.45	7.19	NONE	NONE
09/24/92		8.69	5.95	NONE	NONE
10/14/92		8.83	5.81	NONE	NONE
11/16/92		8.80	5.84	NONE	NONE
12/08/92		8.70	5.94	NONE	NONE
MW-10					
12/06/89	14.05	10.46	3.59	NONE	NONE
02/20/90		8.12	5.93	NONE	NONE
04/19/90		8.54	5.51	NONE	NONE
07/03/90		7.88	6.17	NONE	NONE

See notes on page 10 of 10

Quarterly Groundwater Monitoring
 Exxon 7-3006, Oakland, California

 February 1, 1993
 87042.11

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING DATA
 Exxon Station 7-3006
 720 High Street
 Oakland, California
 (Page 7 of 10)

Well Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product	Product Removed
<u>MW-10 (cont.)</u>					
07/26/90		8.19	5.86	NONE	NONE
08/20/90		10.33	3.72	NONE	NONE
09/19/90		9.49	4.56	NONE	NONE
11/27/90		9.89	4.16	NONE	NONE
01/17/91		9.19	4.86	NONE	NONE
03/26/91		7.48	6.57	NONE	NONE
05/02/91		8.16	5.84	NONE	NONE
06/20/91		8.75	5.30	NONE	NONE
08/07/91		9.53	4.52	NONE	NONE
09/17/91		9.72	4.33	NONE	NONE
11/13/91		10.02	4.03	NONE	NONE
12/10/91		9.12	4.93	NONE	NONE
01/21/92		8.31	5.74	NONE	NONE
03/25/92		5.70	8.35	NONE	NONE
06/22/92		7.50	6.55	NONE	NONE
09/24/92		8.68	5.37	NONE	NONE
10/14/92		8.88	5.17	NONE	NONE
11/16/92		8.70	5.35	NONE	NONE
12/08/92		8.31	5.74	NONE	NONE
<u>MW-11</u>					
12/06/89	13.55	10.62	2.93	NONE	NONE
02/20/90		9.20	4.35	NONE	NONE
04/19/90		9.80	3.75	NONE	NONE
07/03/90		8.90	4.65	NONE	NONE
07/26/90		9.36	4.19	NONE	NONE
08/20/90		9.90	3.65	NONE	NONE
09/19/90		10.39	3.16	NONE	NONE
11/27/90		10.97	2.58	NONE	NONE
01/17/91		10.76	2.79	NONE	NONE
03/26/91		8.80	4.75	NONE	NONE
05/02/91		9.38	4.17	NONE	NONE
06/20/91		10.16	3.39	NONE	NONE
08/07/91		10.69	2.86	NONE	NONE
09/17/91		10.80	2.75	NONE	NONE
11/13/91		10.44	3.11	NONE	NONE
12/10/91		10.48	3.07	NONE	NONE
01/21/92		10.10	3.45	NONE	NONE
03/25/92		7.30	6.25	NONE	NONE
06/22/92		9.02	4.53	NONE	NONE

See notes on page 10 of 10

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE I
CUMULATIVE GROUNDWATER MONITORING DATA
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 8 of 10)

<u>Well</u> Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product	Product Removed
MW-11 (cont)					
09/24/92		9.91	3.64	NONE	NONE
10/14/92		10.11	3.44	NONE	NONE
11/16/92		9.79	3.76	NONE	NONE
12/08/92		9.77	3.78	NONE	NONE
MW-12					
12/06/89	12.61	8.00	4.61	NONE	NONE
02/20/90		6.33	6.28	NONE	NONE
04/19/90		7.18	5.43	NONE	NONE
07/03/90		7.41	5.20	NONE	NONE
07/26/90		6.54	6.07	NONE	NONE
08/20/90		7.23	5.28	NONE	NONE
09/19/90		7.77	4.84	NONE	NONE
11/27/90		8.15	4.46	NONE	NONE
01/17/91		8.06	4.55	NONE	NONE
03/26/91		7.21	5.40	NONE	NONE
05/02/91		7.60	5.01	SHEEN	NONE
06/20/91		8.02	4.59	SHEEN	NONE
08/07/91		8.25	4.36	SHEEN	NONE
09/17/91		8.20	4.41	SHEEN	NONE
11/13/91		7.77	4.84	SHEEN	NONE
12/10/91		7.75	4.86	SHEEN	NONE
01/21/92		7.08	5.53	SHEEN	NONE
03/25/92		4.93	7.68	SHEEN	NONE
06/22/92		6.04	6.57	SHEEN	NONE
09/24/92		6.94	5.67	NONE	NONE
10/14/92		7.21	5.40	SHEEN	NONE
11/16/92		7.00	5.61	SHEEN	NONE
12/08/92		6.70	5.91	SHEEN	NONE
MW-13					
12/06/89	14.20	9.35	4.86	NONE	NONE
02/20/90		7.73	6.47	NONE	NONE
04/19/90		8.68	5.52	NONE	NONE
07/03/90		8.00	6.20	NONE	NONE
07/26/90		7.95	6.25	NONE	NONE
08/20/90		8.66	5.54	NONE	NONE
09/19/90		9.13	5.07	NONE	NONE
11/27/90		9.49	4.71	NONE	NONE
01/17/91		9.61	4.59	NONE	NONE
03/26/91		9.25	4.95	NONE	NONE
05/02/91		9.31	4.89	NONE	NONE

See notes on page 10 of 10

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 9 of 10)

Well Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product	Product Removed
MW-13 (cont)					
06/20/91		9.73	4.47	NONE	NONE
08/07/91	well not accessible				
09/17/91		9.72	4.48	NONE	NONE
11/13/91		9.06	5.14	NONE	NONE
12/10/91		9.04	5.16	NONE	NONE
01/21/91		8.41	5.79	NONE	NONE
03/25/92		5.72	8.48	SHEEN	NONE
06/22/92		7.31	6.89	SHEEN	NONE
09/24/92		8.30	5.90	NONE	NONE
10/14/92		8.56	5.64	SHEEN	NONE
11/16/92		8.36	5.84	SHEEN	NONE
12/08/92		8.10	6.10	SHEEN	NONE
MW-14					
11/27/90	15.18	9.88	5.30	NONE	NONE
01/17/91		9.13	6.05	NONE	NONE
03/26/91		8.51	6.67	NONE	NONE
05/02/91		8.45	6.73	NONE	NONE
06/20/91		8.38	6.80	NONE	NONE
08/07/91		9.04	6.14	NONE	NONE
09/17/91		9.14	6.04	NONE	NONE
11/13/91		8.83	6.35	NONE	NONE
12/10/91		8.90	6.28	NONE	NONE
01/21/92		8.58	6.60	NONE	NONE
03/25/92		6.15	9.03	NONE	NONE
06/22/92		7.70	7.48	NONE	NONE
09/24/92		9.34	5.84	NONE	NONE
10/14/92		9.40	5.78	NONE	NONE
11/16/92		9.17	6.01	NONE	NONE
12/08/92		8.89	6.29	NONE	NONE
MW-15					
11/27/90	13.73	8.67	5.06	NONE	NONE
01/17/91		8.03	5.70	NONE	NONE
03/26/91		covered by soil			
05/02/91		7.09	6.64	NONE	NONE
06/20/91		7.06	6.67	NONE	NONE
08/07/91		7.59	6.14	NONE	NONE
09/17/91		7.89	5.84	NONE	NONE
11/13/91		9.07	4.66	NONE	NONE
12/10/91		8.60	5.13	NONE	NONE
01/21/92		9.15	4.58	NONE	NONE

See notes on page 10 of 10

Quarterly Groundwater Monitoring
 Exxon 7-3006, Oakland, California

 February 1, 1993
 87042.11

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING DATA
 Exxon Station 7-3006
 720 High Street
 Oakland, California
 (Page 10 of 10)

<u>Well</u>	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product	Product Removed
<u>MW-15 (cont)</u>					
03/25/92		8.10	5.63	NONE	NONE
06/22/92		5.80	7.93	NONE	NONE
09/24/92		7.21	6.52	NONE	NONE
10/14/92		7.40	6.33	NONE	NONE
11/16/92		7.55	6.18	NONE	NONE
12/08/92		7.42	6.31	NONE	NONE

Measurements in feet.

N/A : Not applicable.

Casing elevations were surveyed by a certified surveyor, Ron Archer, to mean sea level.

* : Data not used in Groundwater Elevation Map.

(5.87) : Adjusted DTW for Floating Product

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 1 of 10)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
MW-1									
05/88	W-11-MW1*	0.240	0.090	0.005	0.015	0.025	--	--	ND
12/89	W-11-MW1	0.63	0.012	0.0056	0.0037	0.025	0.24	--	--
04/90	W-09-MW1	<0.020	<0.0005	<0.00050	<0.00050	<0.00050	<0.10	--	--
07/90	W-11-MW1	0.13	0.006	<0.00050	<0.00050	<0.00050	0.16	--	--
11/90	W-10-MW1	<0.050	0.0007	<0.00050	<0.00050	<0.00050	<0.10	--	--
03/91	W-07-MW1	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
06/91	W-10-MW1	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
09/91	W-10-MW1	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--
12/91	W-10-MW1	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.050	--	--
03/92	W-9.3-MW1	<0.050	0.0015	<0.0005	<0.0005	<0.0005	<0.050	--	--
06/92	W-8.5-MW1	0.110	0.0049	0.0079	0.0037	0.021	0.075	--	--
09/92	W-10-MW1	<0.050	<0.0005	0.0006	<0.0005	<0.0005	<0.050	--	--
12/92	W-9-MW1	0.170	0.010	<0.0005	<0.0005	0.0006	0.051	--	--
MW-2									
09/87	W-25-MW2	1.445	0.233	0.81	0.056	0.209	--	--	--
05/88	free product								
12/89	free product								
04/90	free product								
07/90	free product								
11/90	free product								
03/91	free product								
06/91	free product								

See notes on page 10 of 10.

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 2 of 10)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
MW-2 (cont)									
09/91	free product								
12/91	free product								
03/92	free product								
06/92	free product								
09/92	Sheen								
12/92	free product								
MW-3									
09/87	W-25-MW3	2.101	0.360	1.062	0.068	0.298	0.66	—	—
05/88	W-14-MW3	8.7	3.98	0.28	0.24	0.6	—	—	—
12/89	free product								
04/90	free product								
07/90	free product								
11/90	free product								
03/91	free product								
06/91	free product								
09/91	free product								
12/91	free product								
03/92	free product								
06/92	free product								
09/92	Sheen								
12/92	free product								

See notes on page 10 of 10.

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 3 of 10)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
MW-4									
09/87	W-25-MW4	0.925	0.070	0.007	0.010	0.016	0.74	--	--
05/88	free product								
12/89	free product								
04/90	free product								
07/90	emulsion								
11/90	free product								
03/91	free product								
06/91	free product								
09/91	free product								
12/91	free product								
03/92	free product								
06/92	free product								
09/92	Sheen								
12/92	free product								
MW-5									
09/87	W-25-MW5	26.66	0.56	1.71	1.58	7.15	37.22	--	--
05/88	free product								
07/89	well destroyed								

See notes on page 10 of 10.

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 4 of 10)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
MW-6									
05/88	W-15-MW6	29.3	12.82	0.55	1.44	5.50	—	—	—
12/89	W-18-MW6	9.0	0.37	0.013	0.0026	0.43	4.8	—	—
04/90	W-30-MW6	27	3.0	0.12	0.49	2.1	26	—	—
07/90	W-30-MW6	30	5.5	1.4	1.2	3.1	13	—	—
11/90	W-10-MW6	15	4.4	0.12	0.8	2.3	7.6	—	—
03/91	W-08-MW6	55	10	0.38	1.6	6.9	<0.10	—	—
06/91	sheen								
09/91	W-10-MW6	17	4.5	0.16	0.89	3.1	—	—	—
12/91	W-09-MW6	32.0	6.0	0.29	1.4	4.7	1.2	—	—
03/92	W-6.8-MW6	21.0	8.0	0.25	1.7	5.0	2.7	—	—
06/92	W-7.5-MW6	43.000	11.000	0.150	2.100	5.000	1.7	—	—
09/92	W-31-MW6	45.000	9.800	0.270	1.700	3.600	2.0	—	—
12/92	sheen								
MW-7									
09/87	W-25-MW7	1.531	0.258	0.002	<0.002	0.042	2.79	—	ND
05/88	W-15-MW7	—	0.300**	<0.010**	<0.010**	<0.010**	0.190	—	ND
12/89	W-11-MW7	1.70	0.22	0.0053	0.0050	0.0086	2.5	<5	ND
04/90	W-10-MW7	2.7	0.22	0.0086	0.0070	0.020	3.5	—	ND
07/90	W-17-MW7	2.5	0.38	0.013	0.016	0.035	0.91	—	ND
11/90	W-09-MW7	2.3	0.63	0.016	0.032	0.029	1.3	—	0.0024**
03/91	W-06-MW7	3.5	0.42	0.018	0.017	0.027	<0.10	—	ND

See notes on page 10 of 10.

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 5 of 10)

Date	Sample No.	TPIIg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
MW-7 (cont)									
06/91	W-08-MW7	3.1	0.27	0.0088	0.033	0.019	<0.10	--	--
09/91	W-09-MW7	2.4	0.39	0.01	0.015	0.018	--	--	--
12/91	W-08-MW7	1.7	0.29	0.0053	0.0071	<0.0005	0.53	--	--
03/92	W-9.2-MW-7	1.5	0.32	0.0072	0.016	0.019	0.76	--	--
06/92	W-7.0-MW7	3.100	0.260	0.0058	0.021	0.027	0.83	--	--
09/92	W-8-MW7	3.900	0.160	0.0046	0.0037	0.013	0.66	--	--
12/92	W-8.0-MW7	17.000	1.100	0.035	0.077	0.046	0.54	--	--
MW-8									
09/87	W-25-MW8	1.325	0.081	0.074	0.042	0.182	--	--	--
05/88	free product								
12/89	W-11-MW8	42	2.6	0.63	0.21	3.7	34	--	--
04/90	W-14-MW8	49	2.1	0.82	1.1	4.8	53	--	--
07/90	W-23-MW8	44	4.0	1.5	2.0	6.3	32	--	--
11/90	free product								
03/91	sheen								
06/91	sheen								
09/91	W-10-MW8	57	14	7.8	3.1	12	--	--	--
12/91	W-09-MW8	66	9.5	5.0	3.1	12	1.4	--	--
03/92	sheen								
06/92	sheen								
09/92	sheen								
12/92	sheen								

See notes on page 10 of 10.

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 6 of 10)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
<u>MW-9</u>									
05/88	W-14-MW9	<0.05	<0.0005	0.001	<0.001	<0.001	--	--	ND
12/89	W-14-MW9	0.1	0.0018	0.0037	0.0014	0.0088	0.11	<5	ND
04/90	W-10-MW9	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.10	--	ND
07/90	W-10-MW9	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.10	--	ND
11/90	W-09-MW9	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	ND
03/91	covered by soil								
06/91	W-09-MW9	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
09/91	W-10-MW9	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--
12/91	W-09-MW9	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	0.052	--	--
03/92	W-8.9-MW9	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.050	--	--
06/92	W-7.5-MW9	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.050	--	--
09/92	W-9-MW9	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.050	--	--
12/92	W-9.0-MW9	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.050	--	--
<u>MW-10</u>									
12/89	W-12-MW10	0.32	0.0037	0.014	0.0056	0.032	<0.10	--	--
04/90	W-09-MW10	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.10	--	ND
07/90	W-11-MW10	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.10	--	--
11/90	W-09-MW10	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
03/91	W-07-MW10	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
06/91	W-09-MW10	<0.050	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--

See notes on page 10 of 10.

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 7 of 10)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
<u>MW-10 (cont)</u>									
09/91	W-10-MW10	< 0.050	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.10	—	—
12/91	W-9-MW10	< 0.050	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.050	—	—
03/92	W-5.7-MW10	< 0.050	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.050	—	—
06/92	W-7.5-MW10	< 0.050	< 0.0005	0.0006	< 0.0005	0.0008	< 0.050	—	—
09/92	W-8-MW10	< 0.050	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.050	—	—
12/92	W-8.5-MW10	< 0.050	< 0.0005	< 0.0005	< 0.0005	0.0009	< 0.050	—	—
<u>MW-11</u>									
12/89	W-11-MW11	0.078	0.0059	0.00063	< 0.0005	48	< 0.10	—	—
04/90	W-12-MW11	< 0.020	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.10	—	—
07/90	W-12-MW11	< 0.020	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.10	—	—
11/90	W-10-MW11	< 0.050	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.10	—	—
03/91	W-08-MW11	< 0.050	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.10	—	—
06/91	W-10-MW11	< 0.050	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.10	—	—
09/91	W-11-MW11	< 0.050	< 0.0005	0.0007	< 0.0005	< 0.0005	< 0.10	—	—
12/91	W-10-MW11	< 0.050	0.0007	< 0.0005	< 0.0005	< 0.0005	< 0.050	—	—
03/92	W-7.3-MW11	< 0.050	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.050	—	—
06/92	W-9.0-MW11	0.084	0.0015	0.0031	0.0014	0.0096	0.057	—	—
09/92	W-10-MW11	< 0.050	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.050	—	—
12/92	W-10.0-MW11	< 0.050	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.31	—	—

See notes on page 10 of 10.

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 8 of 10)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
MW-12									
12/89	W-08-MW12	85	6.7	6.3	1.8	7.8	40	--	--
04/90	W-07-MW12	110	6.6	7.4	1.8	11	97	--	--
07/90	W-08-MW12	92	11	11	3.1	13	50	--	--
11/90	W-08-MW12	69	11	10	3.1	12	31	--	--
03/91	W-08-MW12	100	15	16	2.4	11	<0.10	--	--
06/91	sheen								
09/91	W-08-MW12	82	22	18	3.9	16	--	--	--
12/91	W-07-MW12	99	18	16	3	11	1.7	--	--
03/92	sheen								
06/92	sheen								
09/92	W-7-MW12	570.000	62.000	46.000	15.000	57.000	3.1	--	--
12/92	sheen								
MW-13									
12/89	W-10-MW13	52	2.1	2.0	1.4	6.1	31	--	--
04/90	W-09-MW13	59	1.8	1.5	1.4	7.2	54	--	--
07/90	W-10-MW13	53	4.5	3.1	2.2	7.8	26	--	--
11/90	W-09-MW13	20	4.5	1.1	0.88	3.3	1.6	--	--
03/91	W-09-MW13	72	10	8.3	1.7	6.9	<0.10	--	--
06/91	W-10-MW13	44	5.6	3.1	0.75	2.6	<0.10	--	--
09/91	W-10-MW13	40	11	6.5	2.4	8.1	--	--	--
12/91	W-09-MW13	72	11	7.4	2.5	9.4	3.7	--	--

See notes on page 10 of 10.

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 9 of 10)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
<u>MW-13 (cont)</u>									
03/92	sheen								
06/92	sheen								
09/92	W-8-MW13	86.000	9.5	6.1	2.4	10.0	2.9	--	--
12/92	sheen								
<u>MW-14</u>									
11/90	W-09-MW14	0.39	<0.0005	<0.0005	0.0036	0.0037	0.12	--	--
03/91	W-07-MW14	0.20	<0.0005	0.0015	0.0008	0.0036	<0.10	--	--
06/91	W-08-MW14	0.11	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	--	--
09/91	W-09-MW14	0.45	<0.0005	<0.0005	0.0032	0.0023	--	--	--
12/91	W-08-MW14	0.071	0.0005	<0.0005	<0.0005	<0.0005	0.28	--	--
03/92	W-6.1-MW14	0.061	<0.0005	<0.0005	<0.0011	<0.0005	0.64	--	--
06/92	W-7.5-MW14	0.140	<0.0005	<0.0005	0.0006	0.0020	0.35	--	--
09/92	W-10-MW14	0.075	<0.0005	<0.0005	<0.0005	<0.0005	0.30	--	--
12/92	W-9.0-MW14	0.350	0.0025	0.0010	0.0015	0.0081	0.22	--	--
<u>MW-15</u>									
11/90	W-08-MW15	2.7	0.21	0.0055	0.6	0.25	0.34	--	--
03/91	covered by soil								
06/91	W-07-MW15	0.38	<0.0005	<0.0005	<0.0005	0.0013	<0.10	--	--
09/91	W-08-MW15	0.49	0.0029	0.0017	0.033	0.0013	--	--	--
12/91	W-08-MW15	1.6	0.014	0.0011	0.066	0.0098	0.30	--	--

See notes on page 10 of 10.

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES
Exxon Station 7-3006
720 High Street
Oakland, California
(Page 10 of 10)

Date	Sample No.	TPHg ppm	B ppm	T ppm	E ppm	X ppm	TPHd ppm	TOG ppm	VOC ppm
MW-15 (cont)									
03/92	W-8.1-MW15	3.4	0.15	0.013	0.69	0.25	1.4	--	--
06/92	W-6.0-MW15	6.6	0.099	<0.0005	0.670	0.180	0.86	--	--
09/92	W-11-MW15	3.600	0.120	0.007	0.480	0.047	0.74	--	--
12/92	W-9.5-MW15	1.600	0.043	0.0016	0.170	0.023	0.43	--	--
MCLs:		--	0.001	--	0.680	1.750	--	--	--
DWALs:		--	--	0.100	--	--	--	--	--

< : Less than the laboratory detection limit

() : BTEX from EPA Method 624

B: Benzene, T: Toluene, E: Ethylbenzene, X: Total Xylene isomers

BTEX : Analyzed by EPA method 5030/8020

TPHg : Total petroleum hydrocarbons as gasoline by EPA method 5030/8015

TPHd : Total petroleum hydrocarbons as diesel by EPA method 3510/8015

TOG : Total Oil and Grease by Standard Method 5520 B/F

MCL : Adopted Maximum Contaminant Levels in Drinking Water, CDHS (October 1990)

DWAL : Recommended Drinking Water Action Levels, CDHS (October 1990)

ND : No VOC detected other than BTEX

■ : Chloromethane

* : W-08-MW15 = water sample - depth - well number

** : Analyzed by Environmental Protection Agency Method 624 (volatile organic compounds)



APPENDIX A

GROUNDWATER SAMPLING PROTOCOL, WELL PURGE DATA SHEETS, AND STABILIZATION GRAPHS

Quarterly Groundwater Monitoring
Exxon 7-3006, Oakland, California

February 1, 1993
87042.11

GROUNDWATER SAMPLING PROTOCOL

The static water level in each well that contained groundwater was measured with a Solinst® water-level indicator; this instrument is accurate to the nearest 0.01 foot. To calculate the differences in groundwater elevations, these groundwater depths were subtracted from wellhead elevations measured initially on December 13, 1989, by licensed land surveyor Ron Archer, Civil Engineer, Inc., of Pleasanton, California.

Groundwater samples collected for subjective evaluation were collected by gently lowering approximately half the length of a clean Teflon® bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples were checked for measurable floating hydrocarbon product.

Before water samples were collected from the groundwater monitoring wells, the wells were purged until stabilization of the temperature, pH, and conductivity was obtained. Approximately three to four well casing volumes were purged before those characteristics stabilized. The quantity of water purged from the wells was calculated as follows:

$$1 \text{ well casing volume} = \pi r^2 h (7.48) \text{ where:}$$

- r = radius of the well casing in feet.
h = column of water in the well in feet (well depth - DTW)
7.48 = conversion constant from cubic feet to gallons

gallons of water purged/gallons in 1 well casing volume = well casing volumes removed.

After purging, each well was allowed to recharge to the approximate initial water level. Groundwater samples were then collected with an EPA approved Teflon® sampler which had been cleaned with Alconox® and deionized water. The water samples were carefully poured into 40-milliliter glass vials, which were filled so as to produce a positive meniscus. Each sample container was preserved with hydrochloric acid, sealed with a cap containing a Teflon® septum, and subsequently examined for air bubbles to avoid headspace which would allow volatilization to occur. The samples were promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain of Custody Record, to a California-certified laboratory.

WELL PURGE DATA SHEET

 Project Name: Exxon 3006

 Job No. 87042.11

 Date: December 8, 1992

 Page 1 of 1

 Well No. MW-1

 Time Started 10:00

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)	TURBIDITY					
10:00	Start purging MW-1									
10:00	0	61.5	7.38	880	cloudy					
10:04	13	62.8	7.30	890	clear					
10:08	26	63.5	7.25	890	clear					
10:12	39	63.1	7.18	890	clear					
10:16	51.5	62.9	7.17	890	clear					
	Stop purging MW-1									
Notes:										
Well Diameter (inches) : 4"										
Depth to Bottom (feet) : 28.80										
Depth to Water - initial (feet) : 9.30										
Depth to Water - final (feet) : 9.30										
% recovery : 100.0%										
Time Sampled : 3:45										
Gallons per Well Casing Volume : 12.73										
Gallons Purged : 51.5										
Well Casing Volume Purged : 4.05										
Approximate Pumping Rate (gpm) : 3.22										

WELL PURGE DATA SHEET

Project Name: Exxon 3006

Job No. 87042.11

Date: December 9, 1992

Page 1 of 1

Well No. MW-7

Time Started 12:00

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)	TURBIDITY					
12:00	Start purging MW-7									
12:00	0	65.9	7.52	490	clear					
12:06	17.7	67.7	7.40	450	clear					
12:12	35.4	66.7	7.38	470	clear					
	37	Dry								
12:48	53.05	67.4	7.34	440	clear					
12:50	59	63.4	7.35	420	clear					
	Stop purging MW-7									
Notes:										
Well Diameter (inches) : 4"										
Depth to Bottom (feet) : 34.5										
Depth to Water - initial (feet) : 7.75 12/8										
Depth to Water - final (feet) : 7.75										
% recovery : 100.0%										
Time Sampled : 2:30										
Gallons per Well Casing Volume : 17.46										
Gallons Purged : 59.0										
Well Casing Volume Purged : 3.38										
Approximate Pumping Rate (gpm) : 1.18										

WELL PURGE DATA SHEET

Project Name: Exxon 3006

Job No. 87042.11

Date: December 8, 1992

Page 1 of 1

Well No. MW-9

Time Started 11:00

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)	TURBIDITY
11:00	Start purging MW-9				
11:00	0	60.1	7.53	790	cloudy
11:05	15	63.3	7.67	910	cloudy
11:10	30	63.5	7.66	910	cloudy
11:12	35	DRY			
11:42	35	61.7	7.72	830	cloudy
11:45	45	61.9	7.72	840	cloudy
	Stop purging MW-9				

Notes:

Well Diameter (inches) : 4"
 Depth to Bottom (feet) : 31.35
 Depth to Water - initial (feet) : 8.70
 Depth to Water - final (feet) : 11.90
 % recovery : 85.9%
 Time Sampled : 2:45
 Gallons per Well Casing Volume : 14.78
 Gallons Purged : 45.0
 Well Casing Volume Purged : 3.04
 Approximate Pumping Rate (gpm) : 0.98

WELL PURGE DATA SHEET

 Project Name: Exxon 3006

 Job No. 87042.11

 Date: December 8, 1992

 Page 1 of 1

 Well No. MW-10

 Time Started 12:15

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)	TURBIDITY
12:15	Start purging MW-10				
12:15	0	59.4	7.70	600	clear
12:19	11	63.6	7.71	590	clear
12:23	22	62.5	7.68	590	clear
12:24	Dry				
12:54	22	59.9	7.64	570	clear
12:58	33	61.8	7.63	580	clear
12:59	34				
	Stop purging MW-14				
Notes: Well Diameter (inches) : 4" Depth to Bottom (feet) : 24.8 Depth to Water - initial (feet) : 8.31 Depth to Water - final (feet) : 10.10 % recovery : 89.1% Time Sampled : 3:15 Gallons per Well Casing Volume : 10.76 Gallons Purged : 34.0 Well Casing Volume Purged : 3.16 Approximate Pumping Rate (gpm) : 0.77					

WELL PURGE DATA SHEET

Project Name: Exxon 3006

Job No. 87042.11

Date: December 8, 1992

Page 1 of 1

Well No. MW-11

Time Started 1:30

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)	TURBIDITY					
1:30	Start purging MW-11									
1:30	0	60.2	7.52	800	clear					
1:34	13.35	64.5	7.46	850	cloudy					
1:38	26.7	64.4	7.44	840	clear					
1:39	30	Dry								
2:10	30	64.2	7.45	840	clear					
2:14	40.05	64.3	7.44	840	clear					
2:15	42.0									
	Stop purging MW-11									
Notes:										
Well Diameter (inches) : 4"										
Depth to Bottom (feet) : 30.00										
Depth to Water - initial (feet) : 9.77										
Depth to Water - final (feet) : 11.50										
% recovery : 91.4%										
Time Sampled : 4:30										
Gallons per Well Casing Volume : 13.21										
Gallons Purged : 42.0										
Well Casing Volume Purged : 3.18										
Approximate Pumping Rate (gpm) : 0.93										

WELL PURGE DATA SHEET

 Project Name: Exxon 3006

 Job No. 87042.11

 Date: December 9, 1992

 Page 1 of 1

 Well No. MW-14

 Time Started 10:00

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)	TURBIDITY					
10:00	Start purging MW-14									
10:00	0	63.1	7.23	730	clear					
10:03	5.5	65.3	7.14	700	clear					
10:06	11	66.5	7.10	750	clear					
	12	DRY								
10:40	16.5	65.8	7.16	730	clear					
10:41	18									
	Stop purging MW-14									
Notes:										
Well Diameter (inches) : 4"										
Depth to Bottom (feet) : 17.25										
Depth to Water - initial (feet) : 8.89										
Depth to Water - final (feet) : 8.89 12/8										
% recovery : 100.0%										
Time Sampled : 12:30										
Gallons per Well Casing Volume : 5.46										
Gallons Purged : 18.0										
Well Casing Volume Purged : 3.30										
Approximate Pumping Rate (gpm) : 0.44										

WELL PURGE DATA SHEET

Project Name: Exxon 3006

Job No. 87042.11

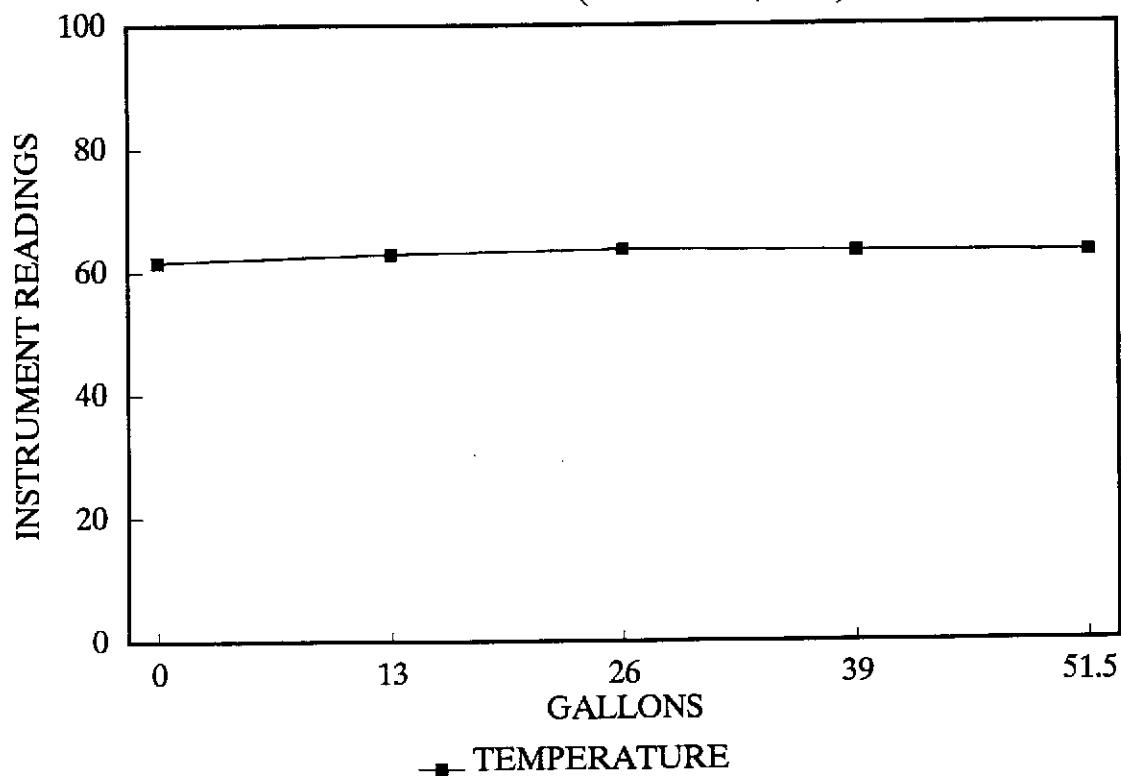
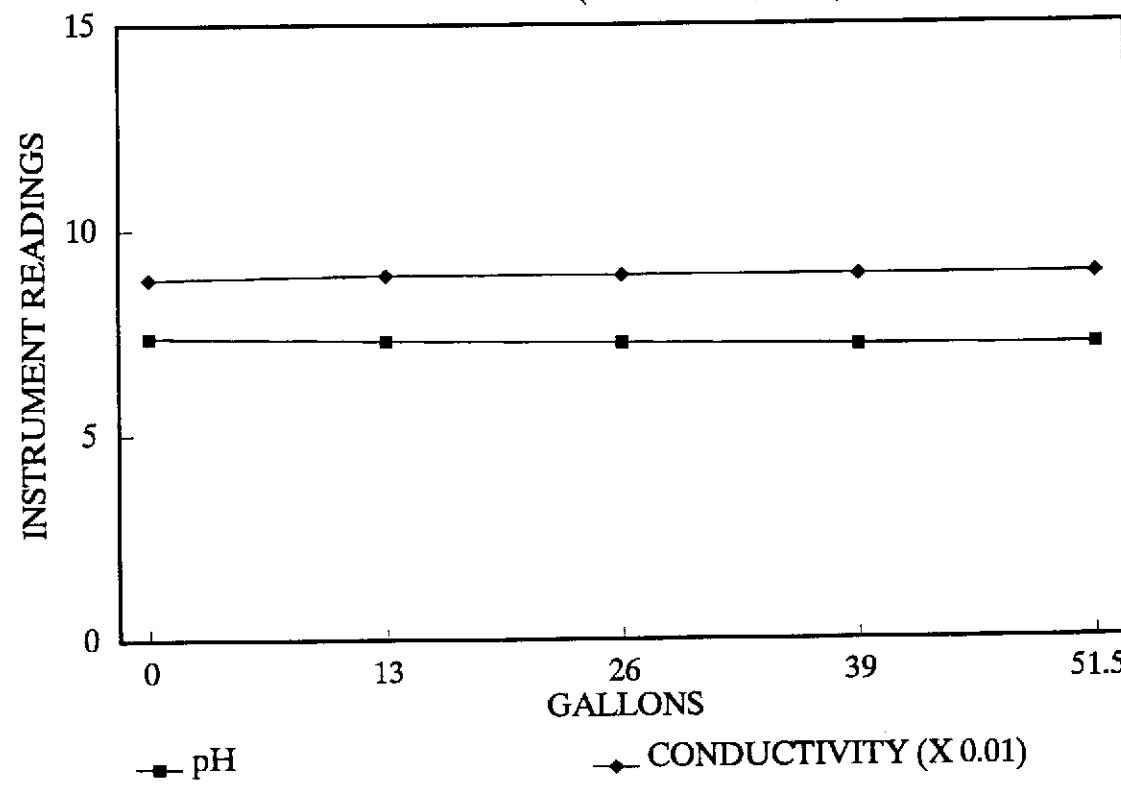
Date: December 9, 1992

Page 1 of 1

Well No. MW-15

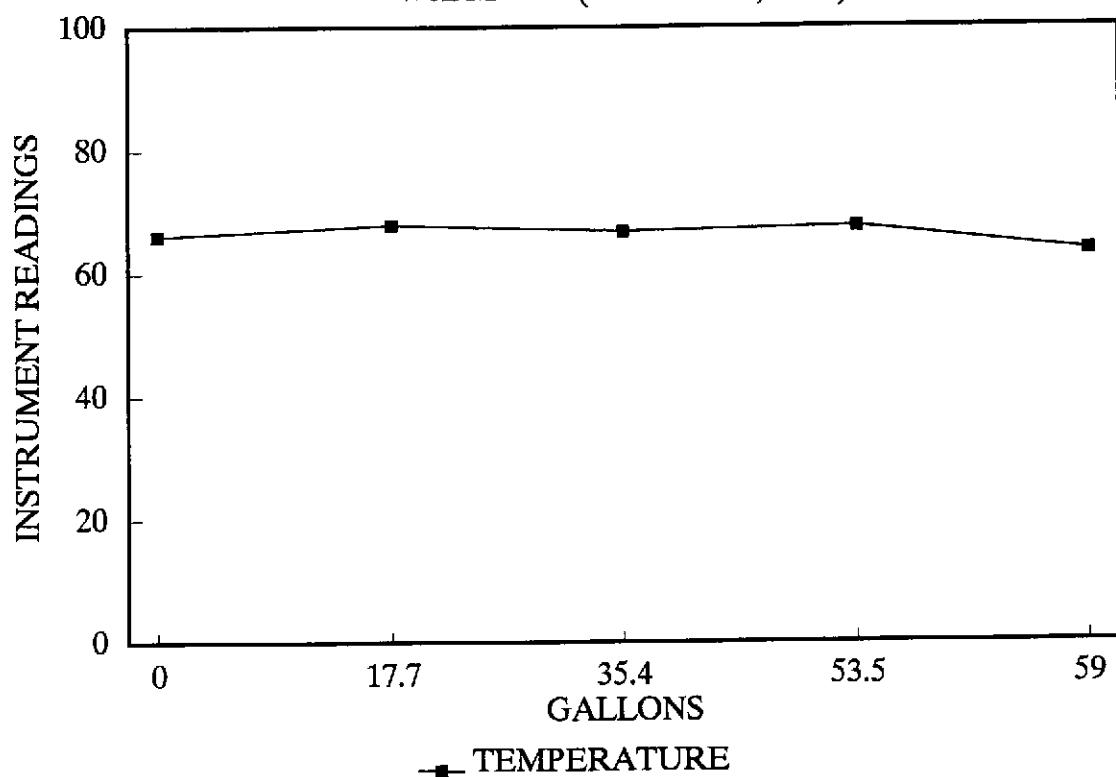
Time Started 11:00

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)	TURBIDITY					
11:00	Start purging MW-15									
11:00	0	65.2	6.91	1310	clear					
11:03	6.1	66.0	6.90	1290	clear					
11:06	12.2	66.1	6.89	1280	clear					
11:07	13	DRY								
11:40	18.3	66.3	7.21	1320	clear					
	Stop purging MW-15									
Notes:										
Well Diameter (inches) : 4"										
Depth to Bottom (feet) : 16.65										
Depth to Water - initial (feet) : 7.42										
Depth to Water - final (feet) : 7.42										
% recovery : 100.0%										
Time Sampled : 1:30										
Gallons per Well Casing Volume : 6.02										
Gallons Purged : 18.3										
Well Casing Volume Purged : 3.04										
Approximate Pumping Rate (gpm) : 0.45										

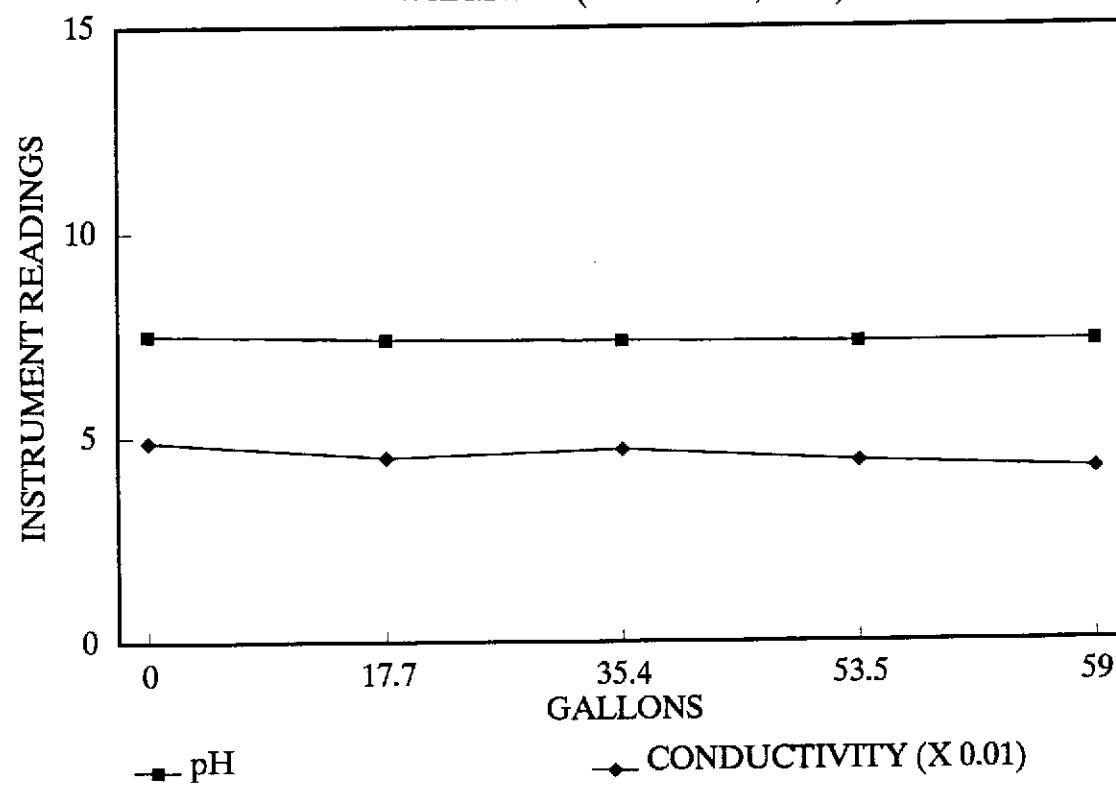
EXXON STATION 3006 STABILIZATION GRAPH
Well MW-1 (December 8, 1992)**EXXON STATION 3006 STABILIZATION GRAPH**
Well MW-1 (December 8, 1992)

EXXON STATION 3006 STABILIZATION GRAPH

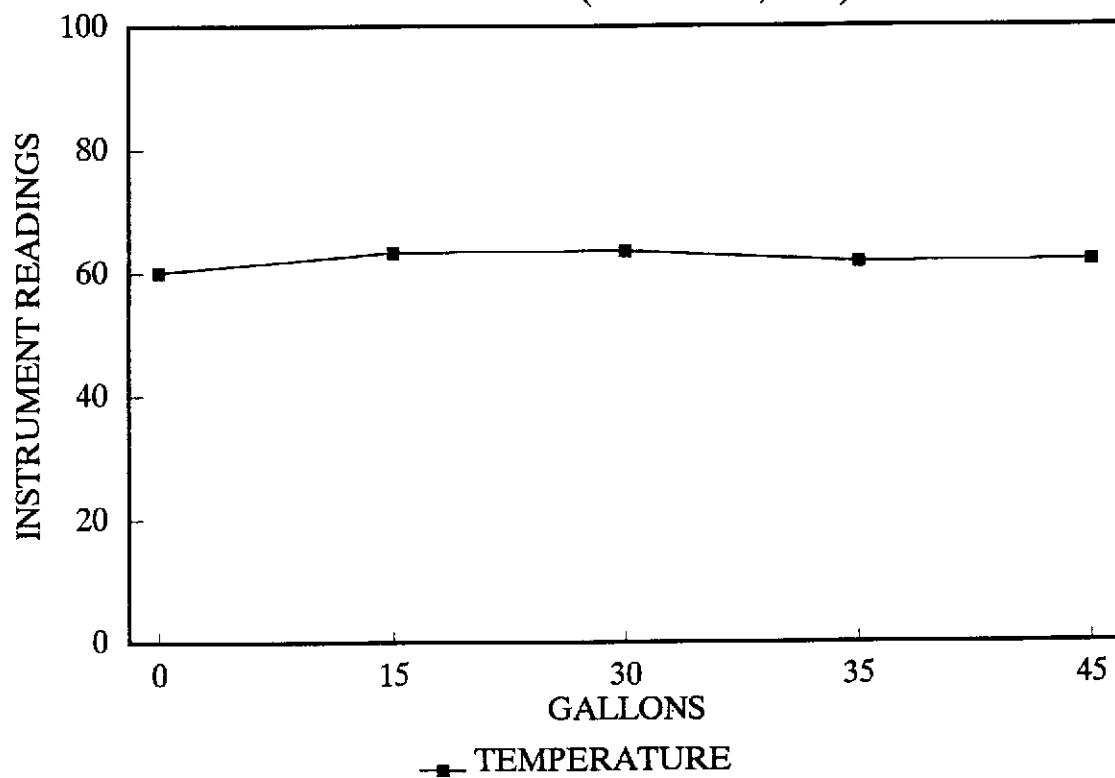
Well MW-7 (December 9, 1992)

**EXXON STATION 3006 STABILIZATION GRAPH**

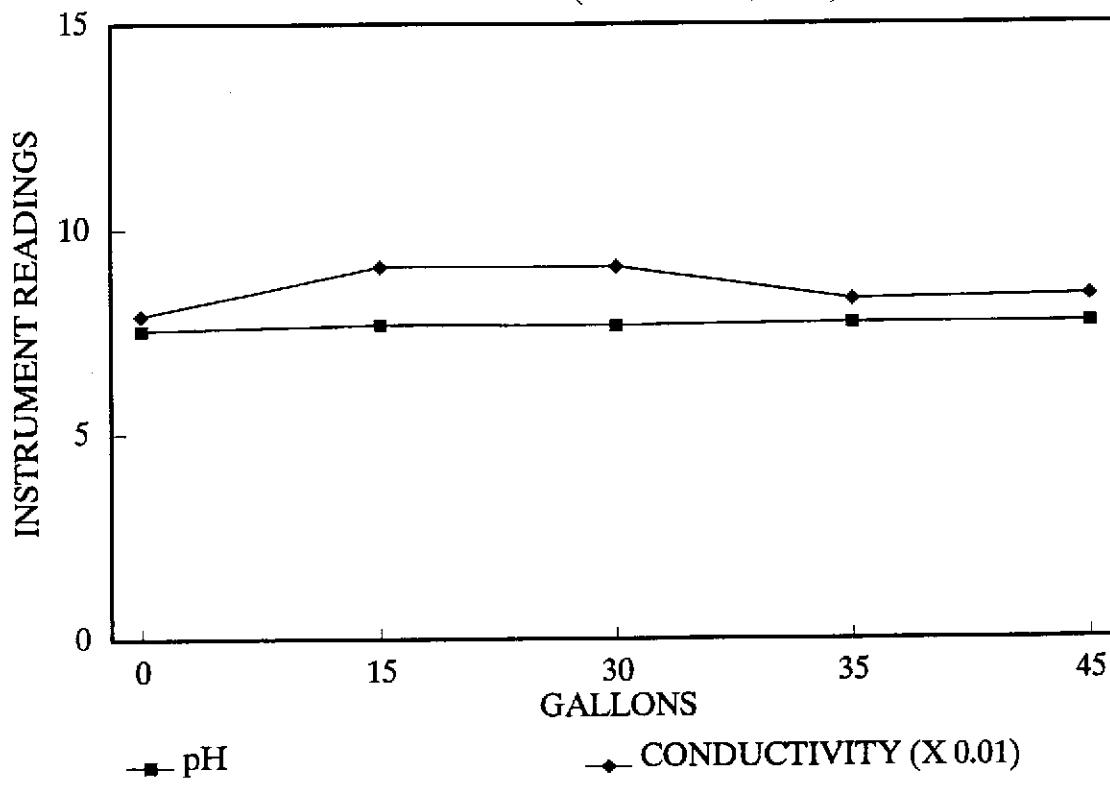
Well MW-7 (December 9, 1992)

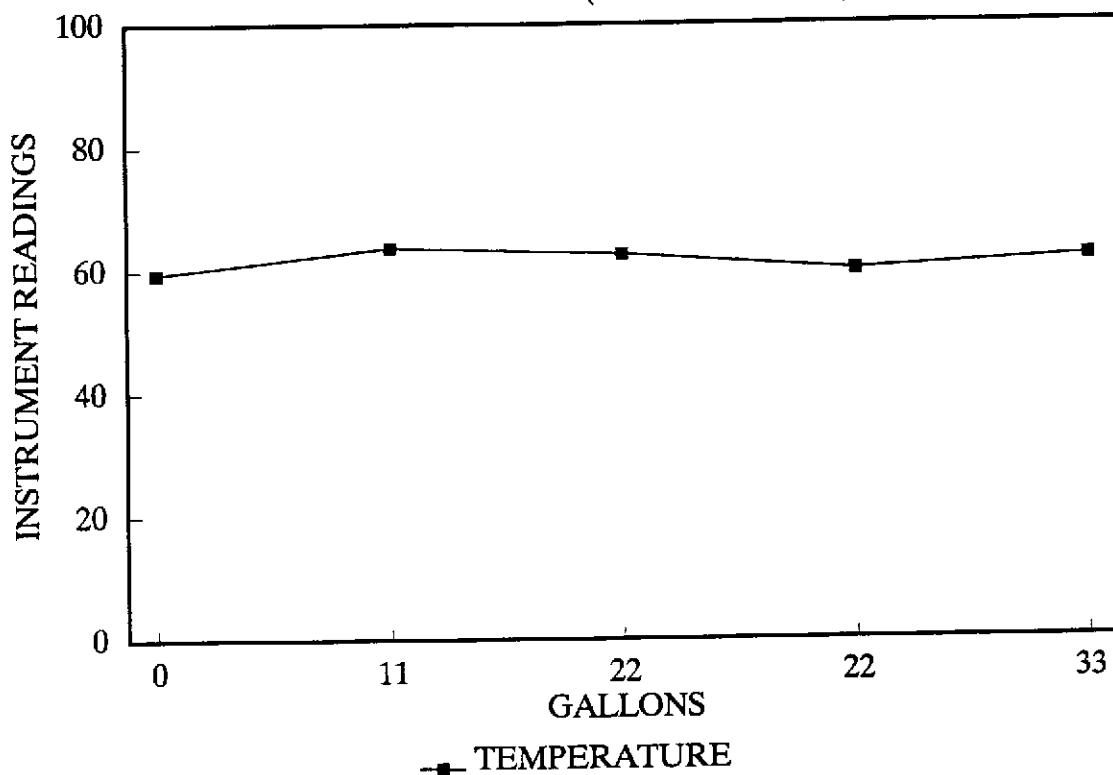
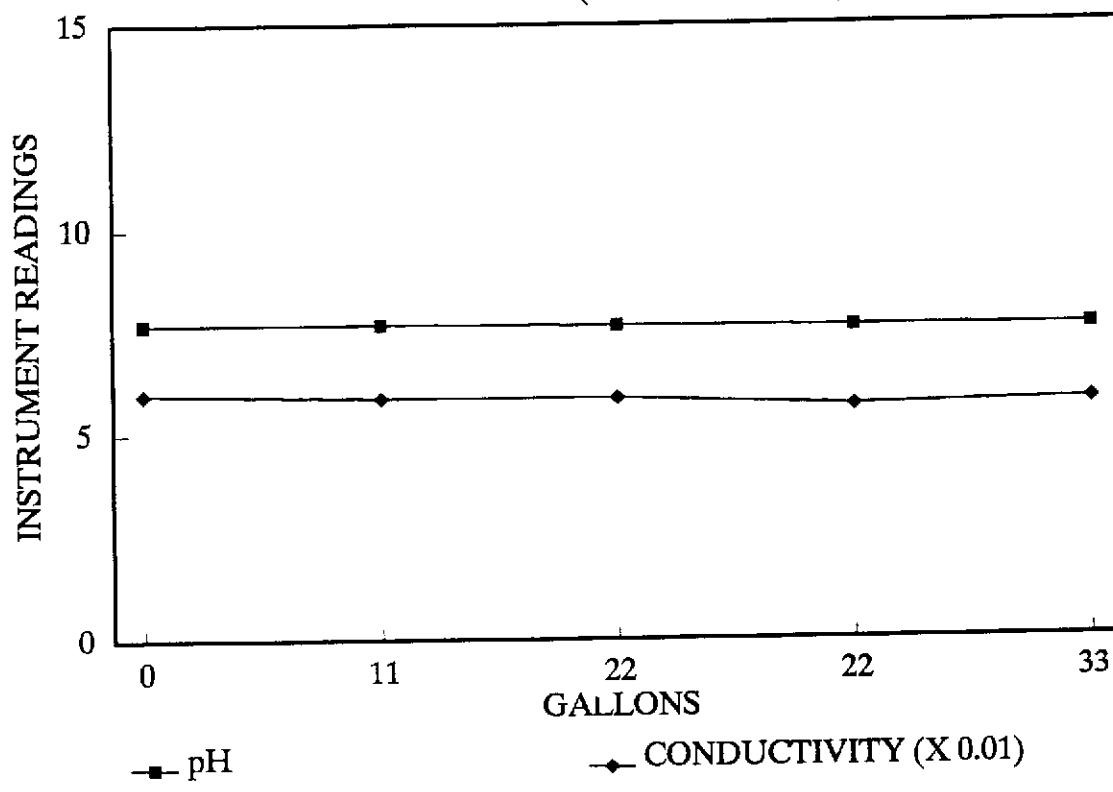


EXXON STATION 3006 STABILIZATION GRAPH
Well MW-9 (December 8, 1992)



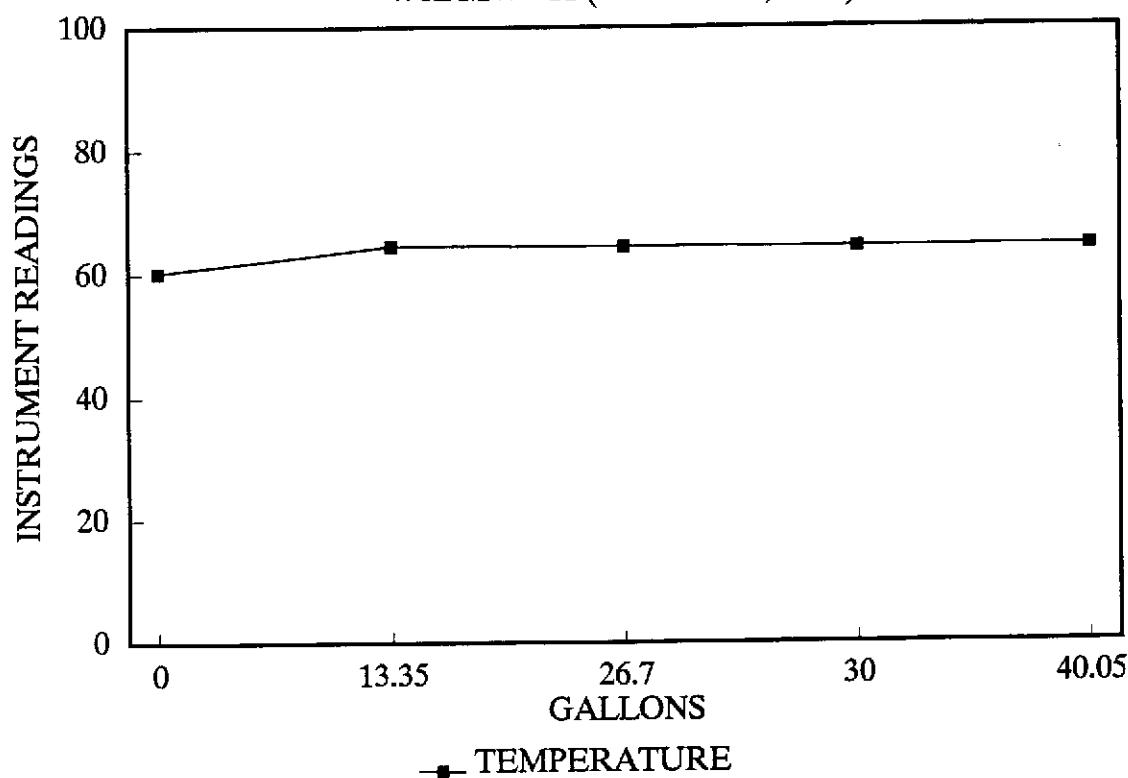
EXXON STATION 3006 STABILIZATION GRAPH
Well MW-9 (December 8, 1992)



EXXON STATION 3006 STABILIZATION GRAPH
Well MW-10 (December 8, 1992)**EXXON STATION 3006 STABILIZATION GRAPH**
Well MW-10 (December 8, 1992)

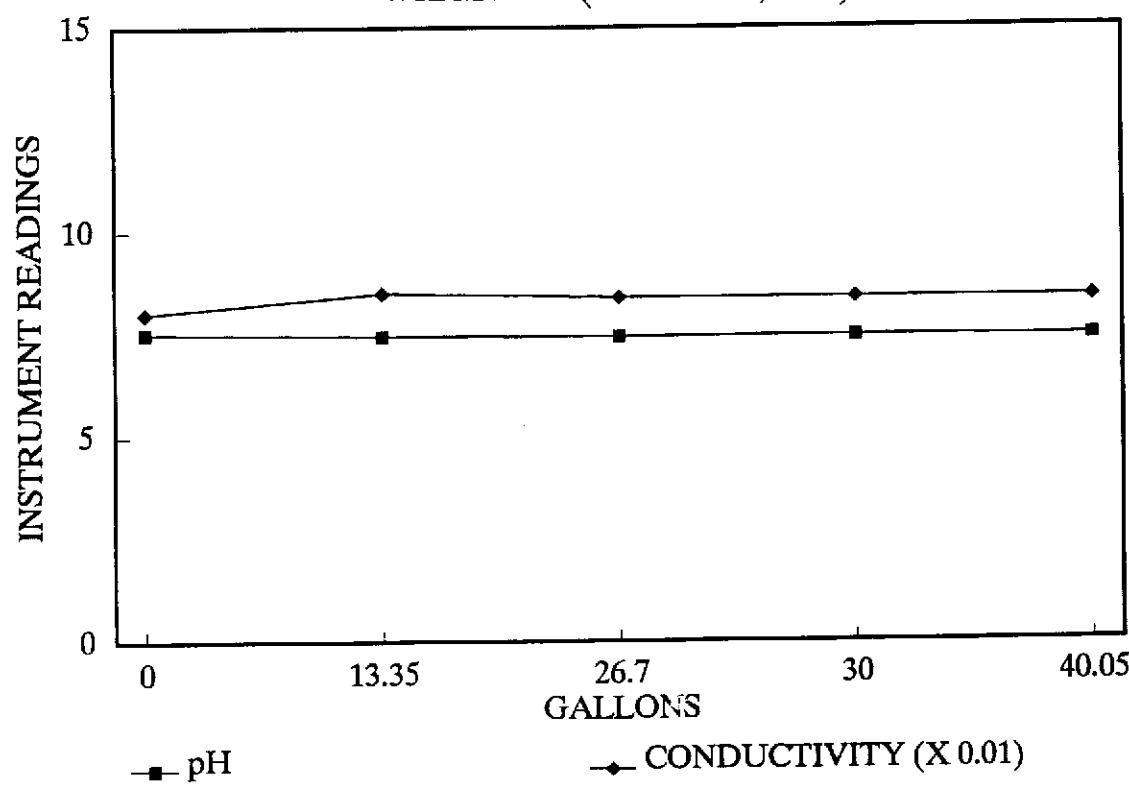
EXXON STATION 3006 STABILIZATION GRAPH

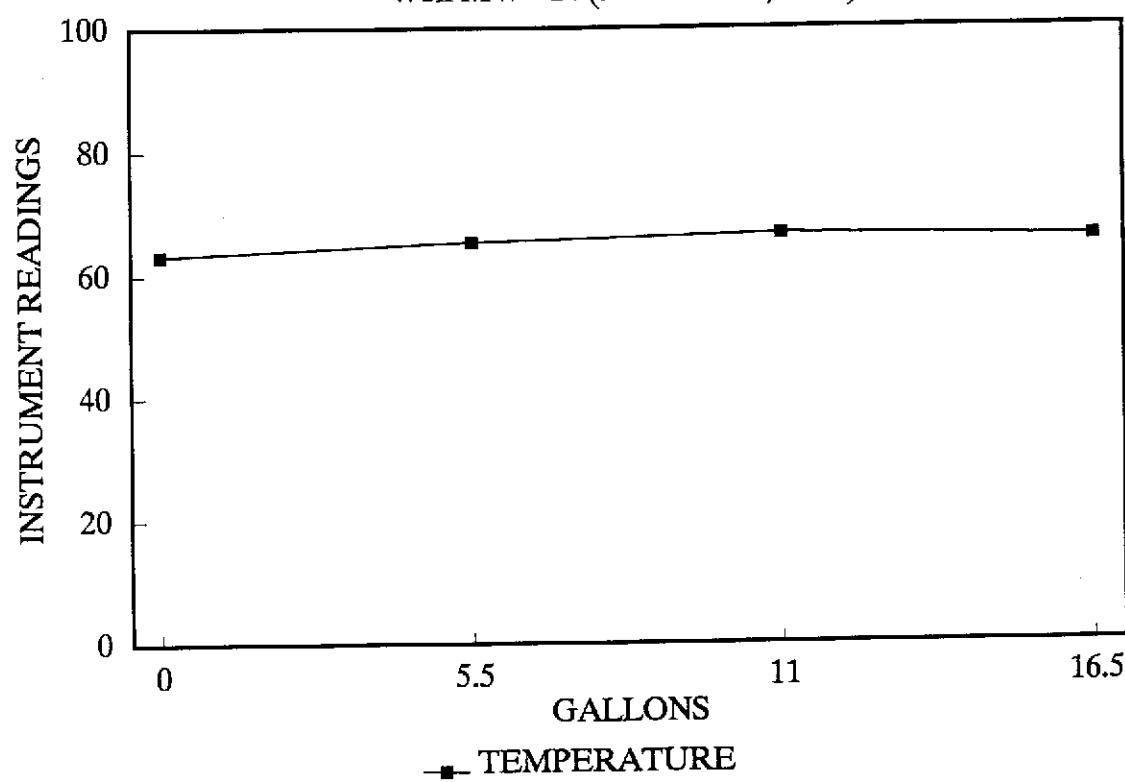
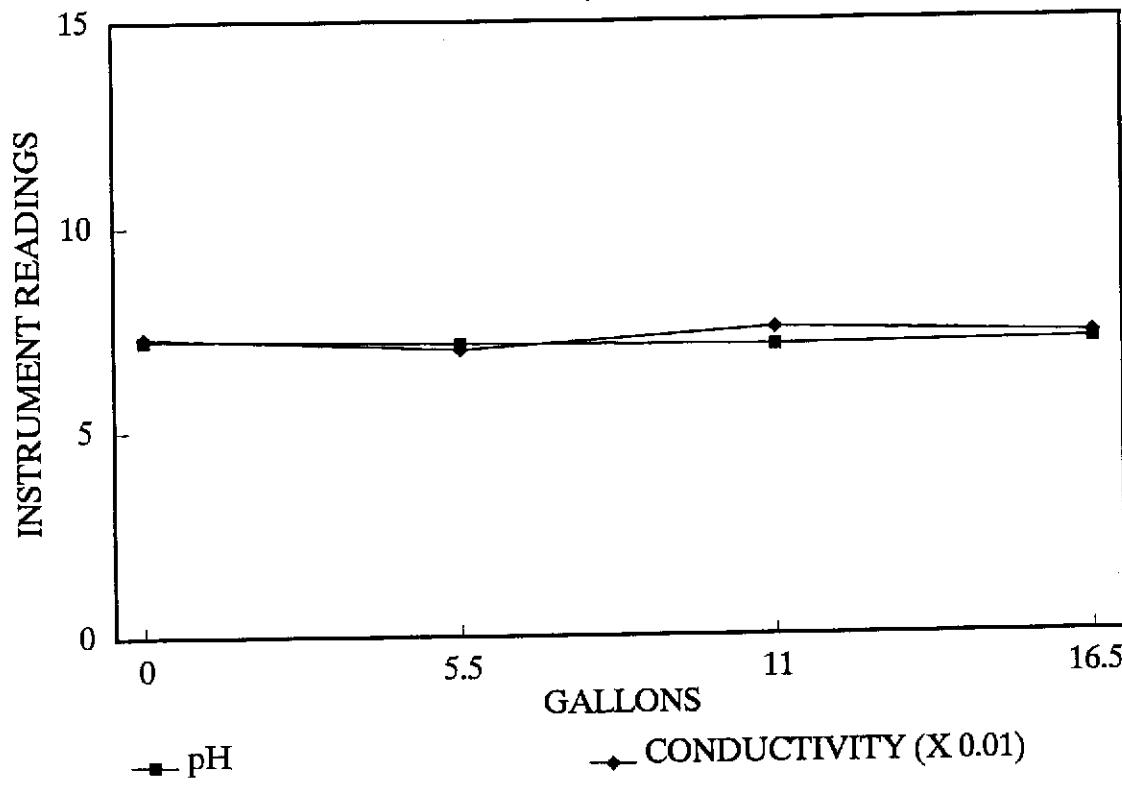
Well MW-11 (December 8, 1992)



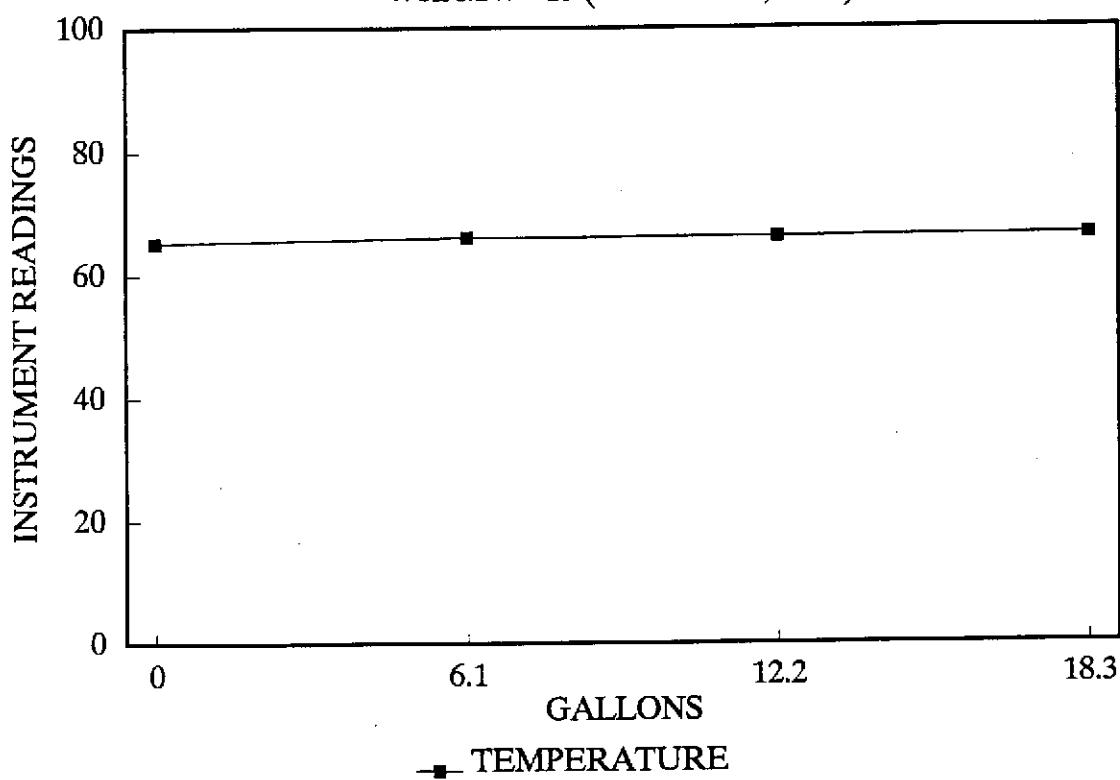
EXXON STATION 3006 STABILIZATION GRAPH

Well MW-11 (December 8, 1992)

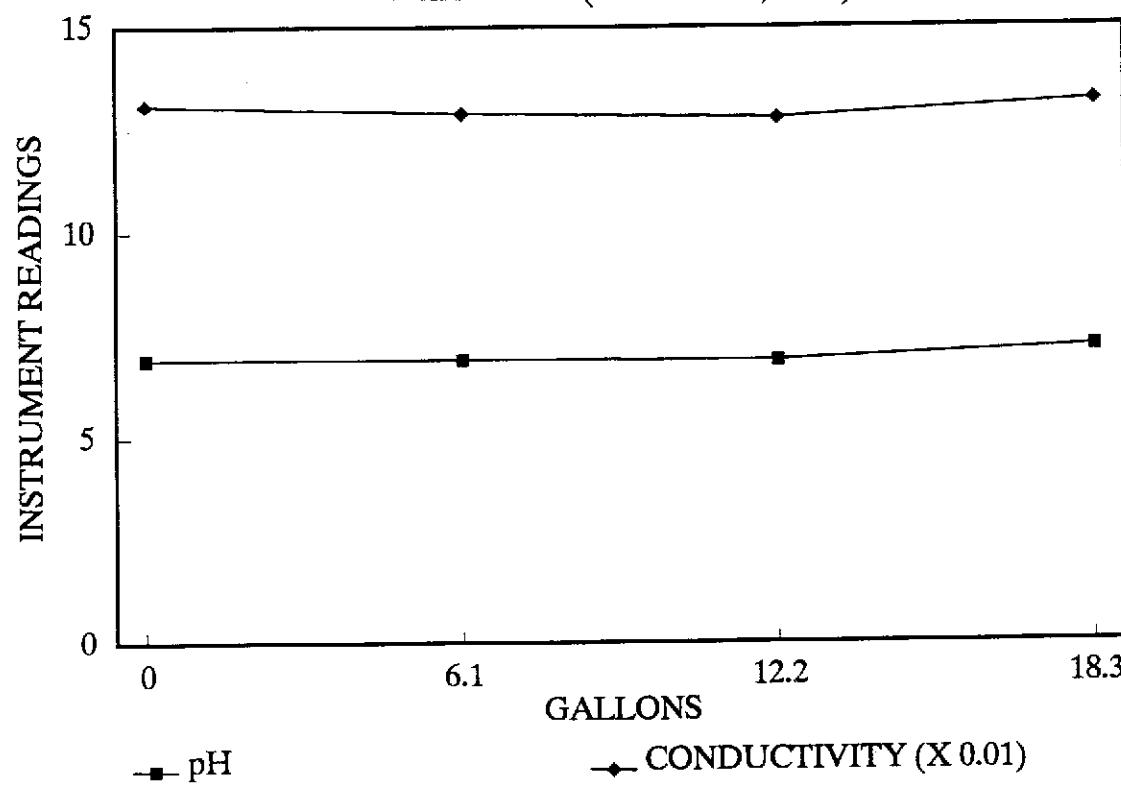


EXXON STATION 3006 STABILIZATION GRAPH
Well MW-14 (December 9, 1992)**EXXON STATION 3006 STABILIZATION GRAPH**
Well MW-14 (December 9, 1992)

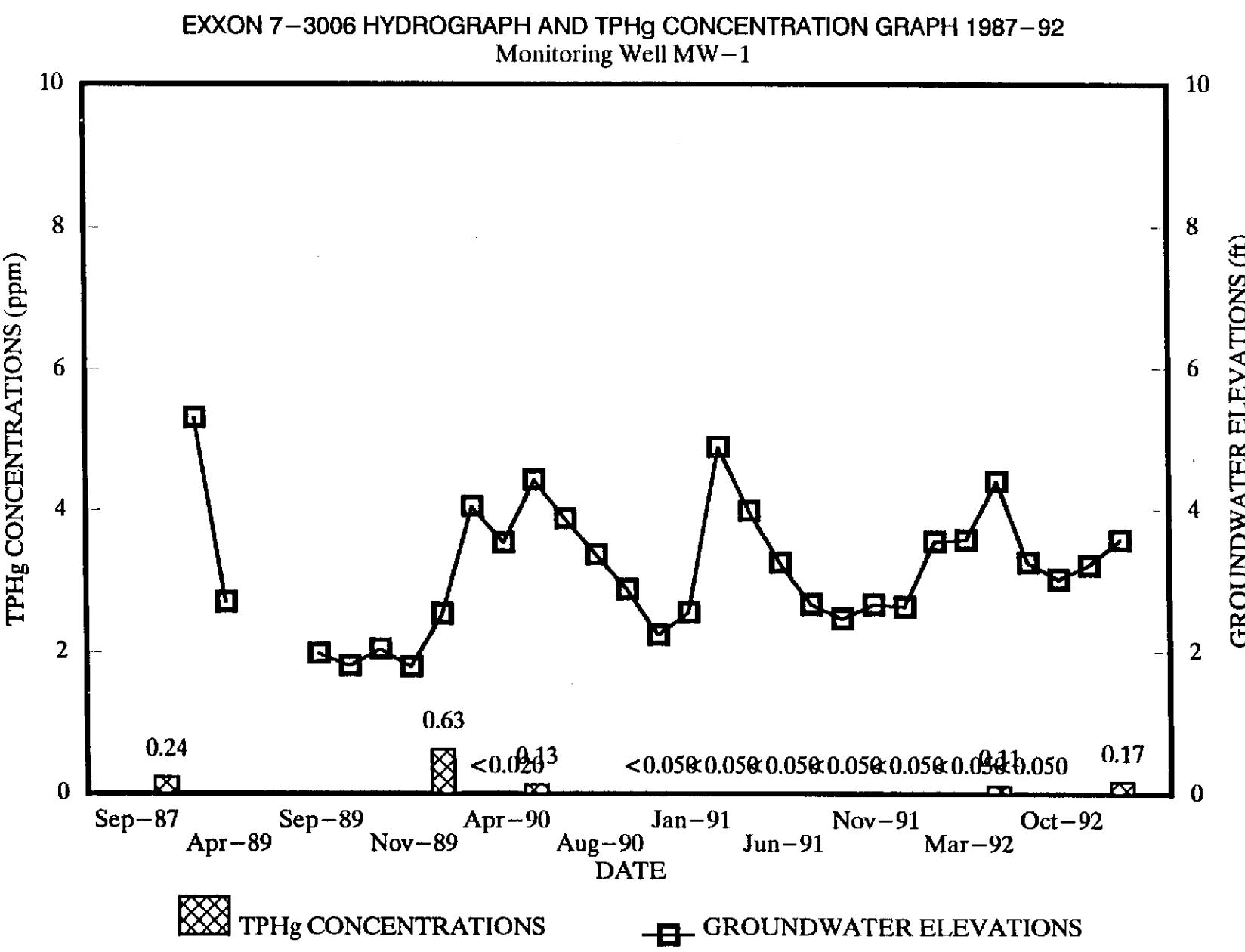
EXXON STATION 3006 STABILIZATION GRAPH
Well MW-15 (December 9, 1992)



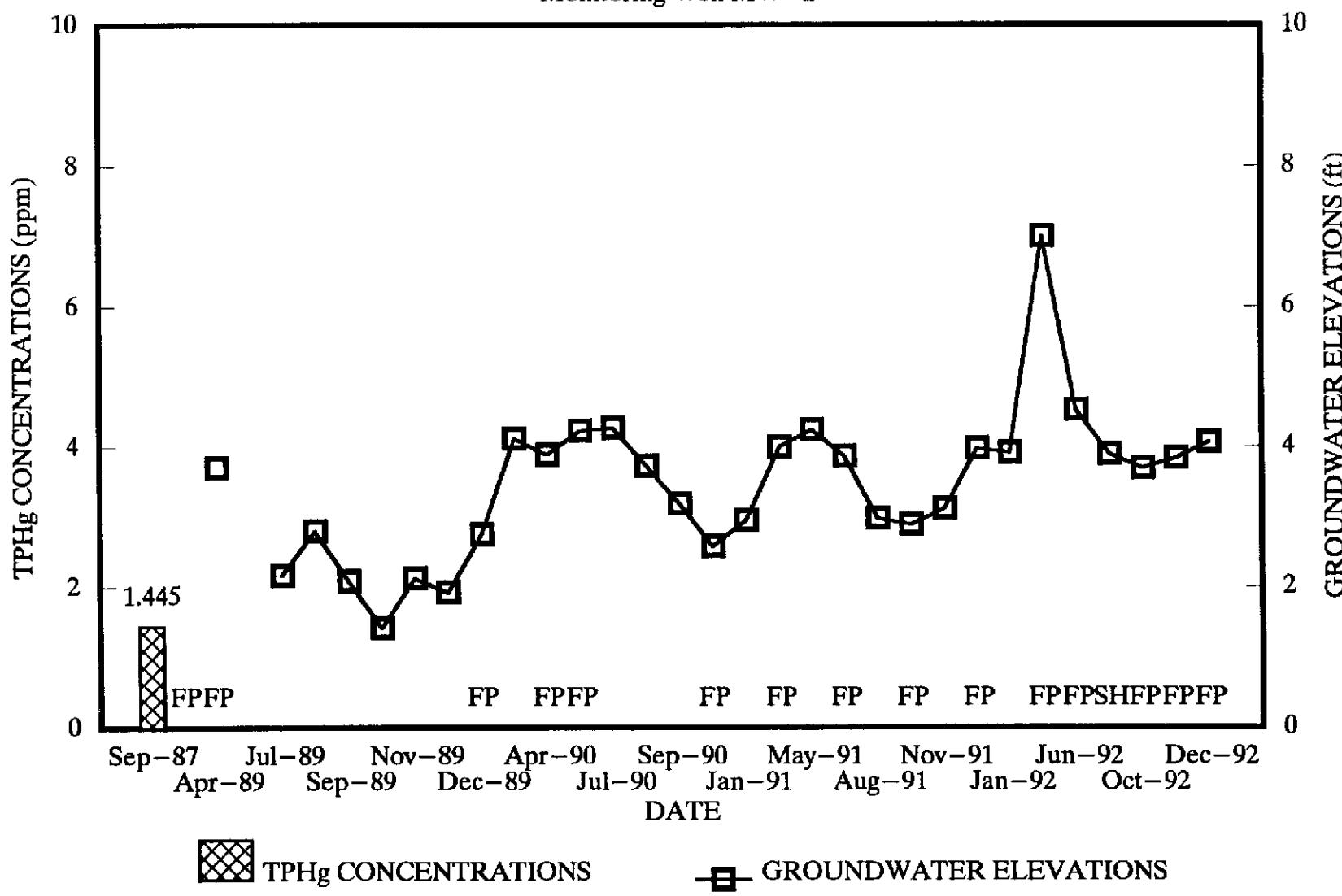
EXXON STATION 3006 STABILIZATION GRAPH
Well MW-15 (December 9, 1992)



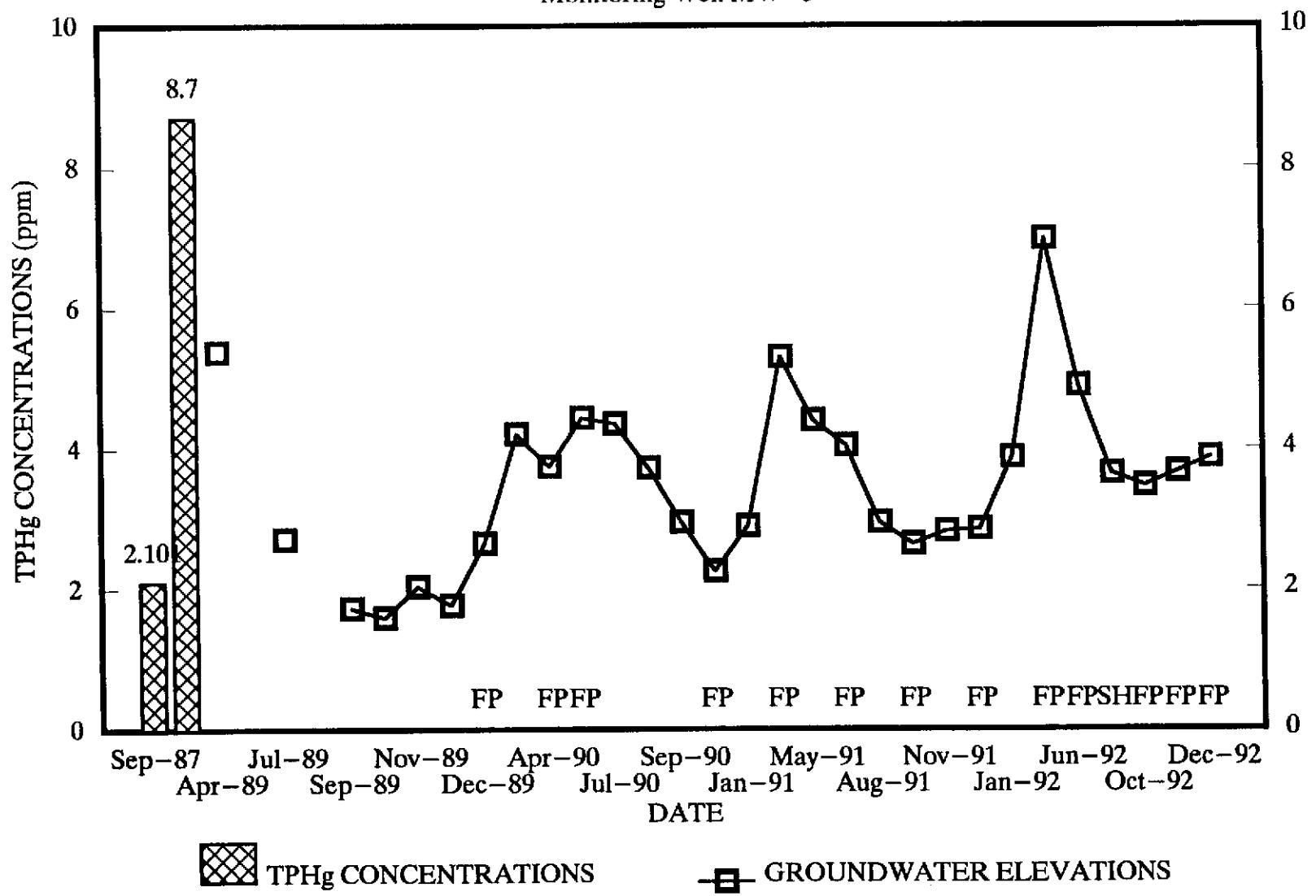
APPENDIX B
HYDROGRAPH AND TPHg GRAPHS



EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1987-92
Monitoring Well MW-2

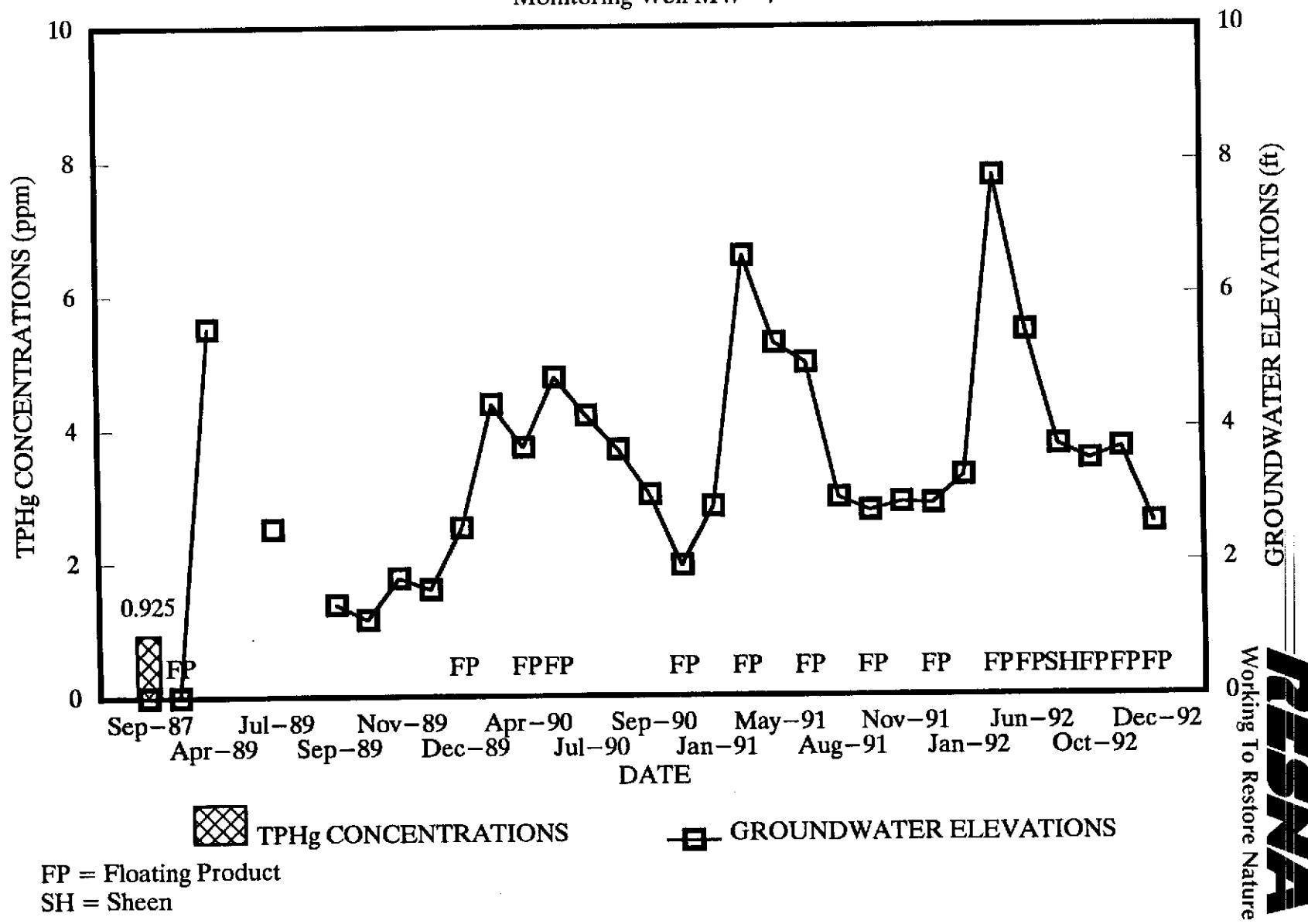


EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1987-92
Monitoring Well MW-3

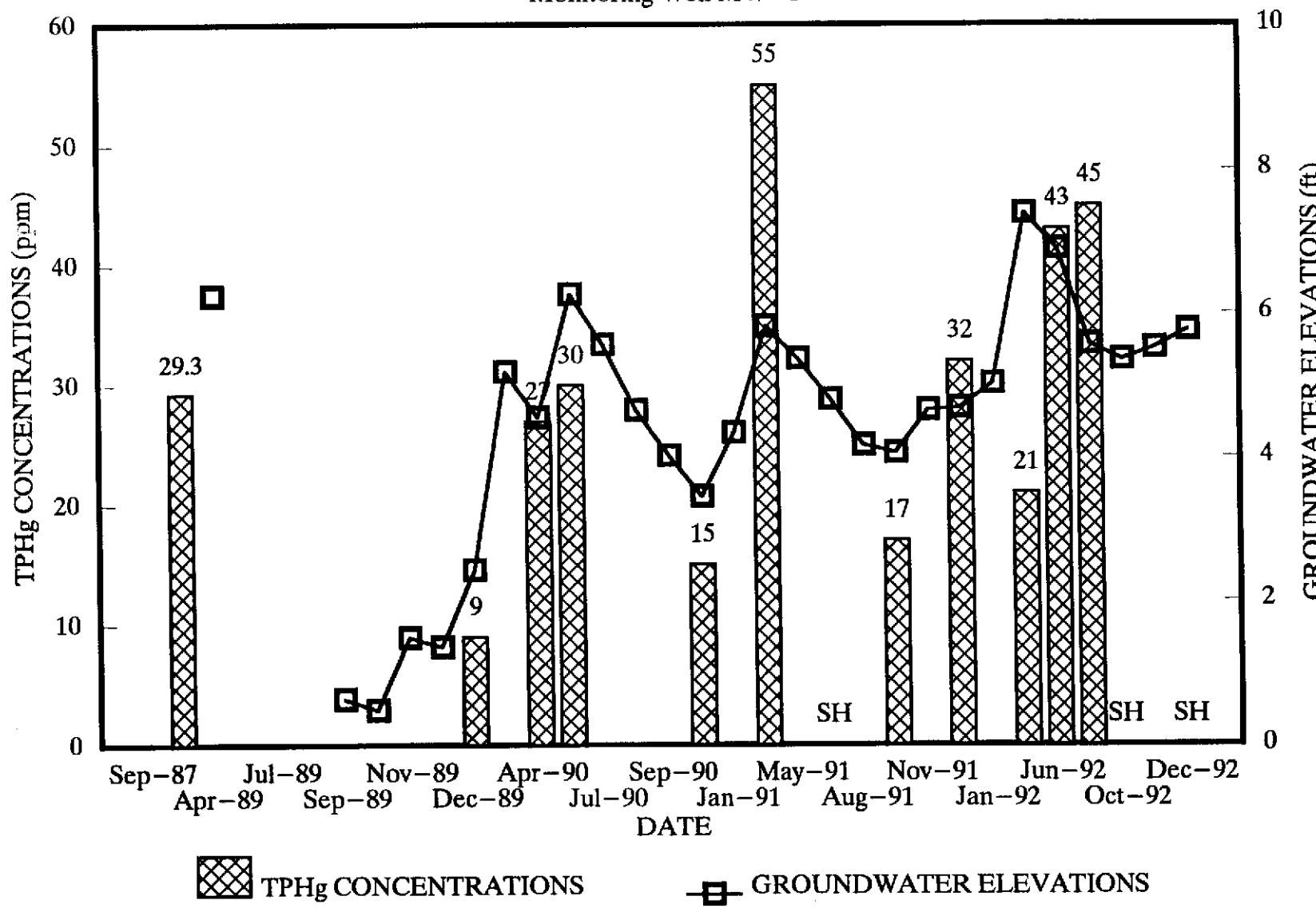


FP = Floating Product
SH = Sheen

EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1987-92
Monitoring Well MW-4

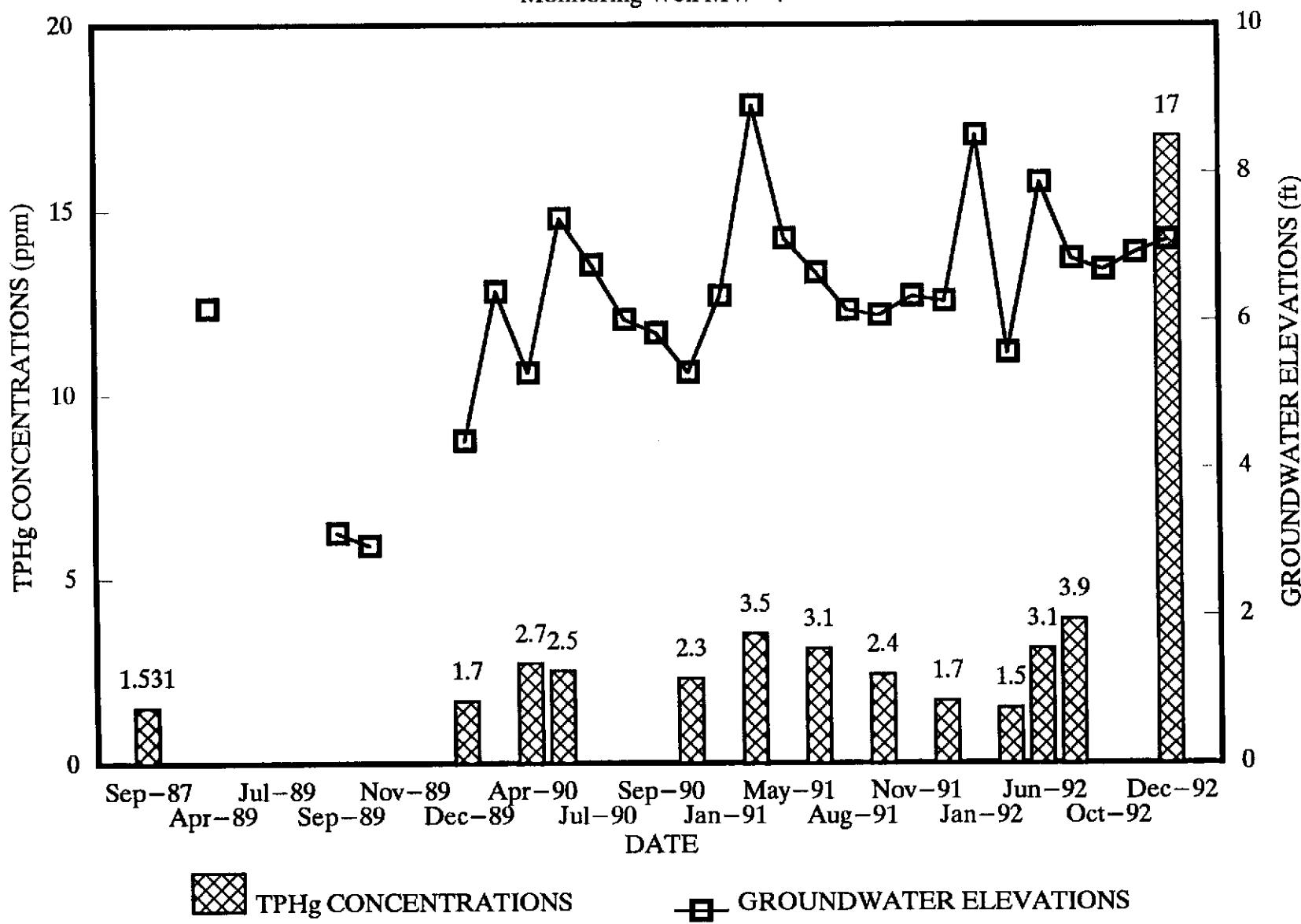


EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1987-92
Monitoring Well MW-6

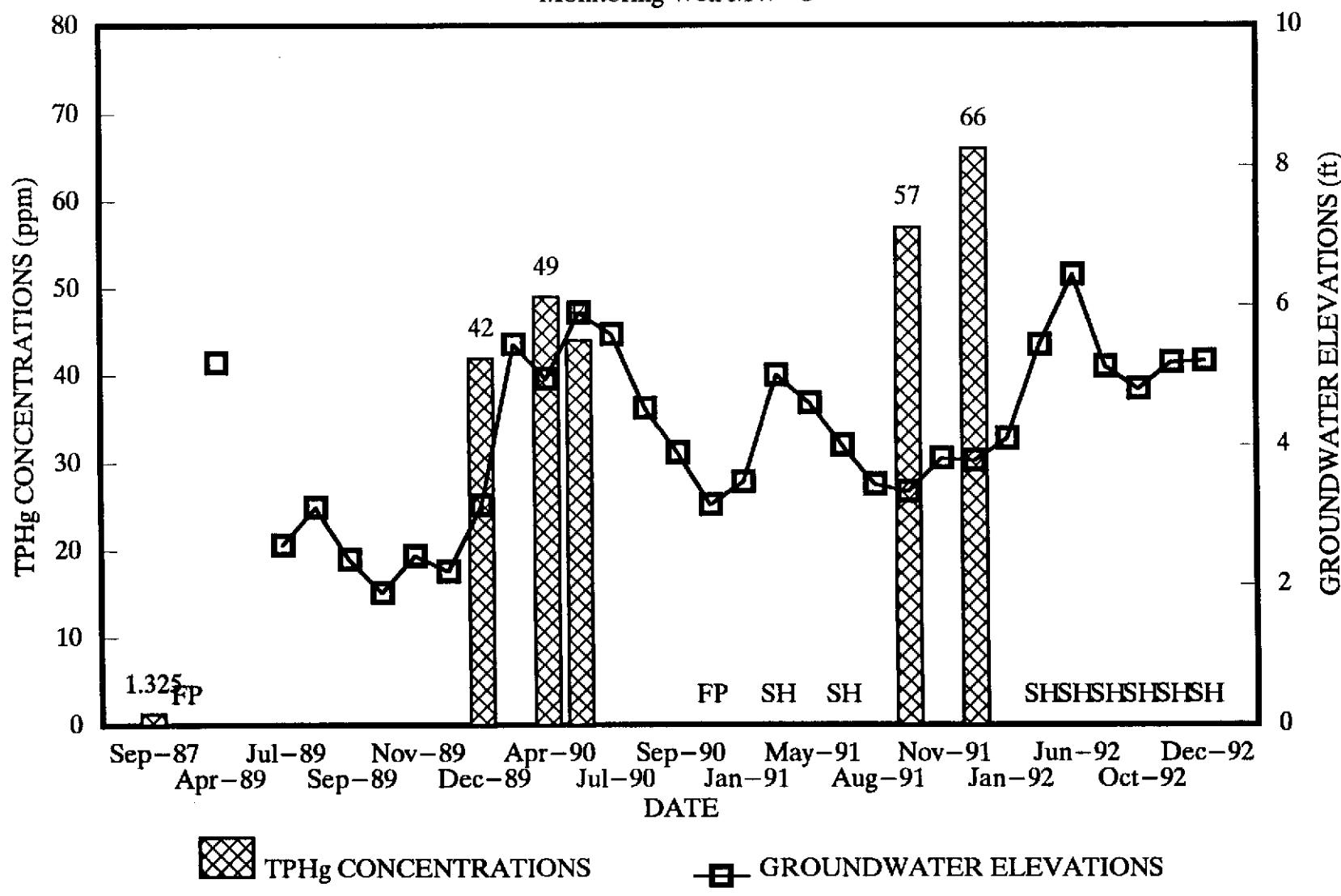


SH = Sheen

EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1987-92
Monitoring Well MW-7

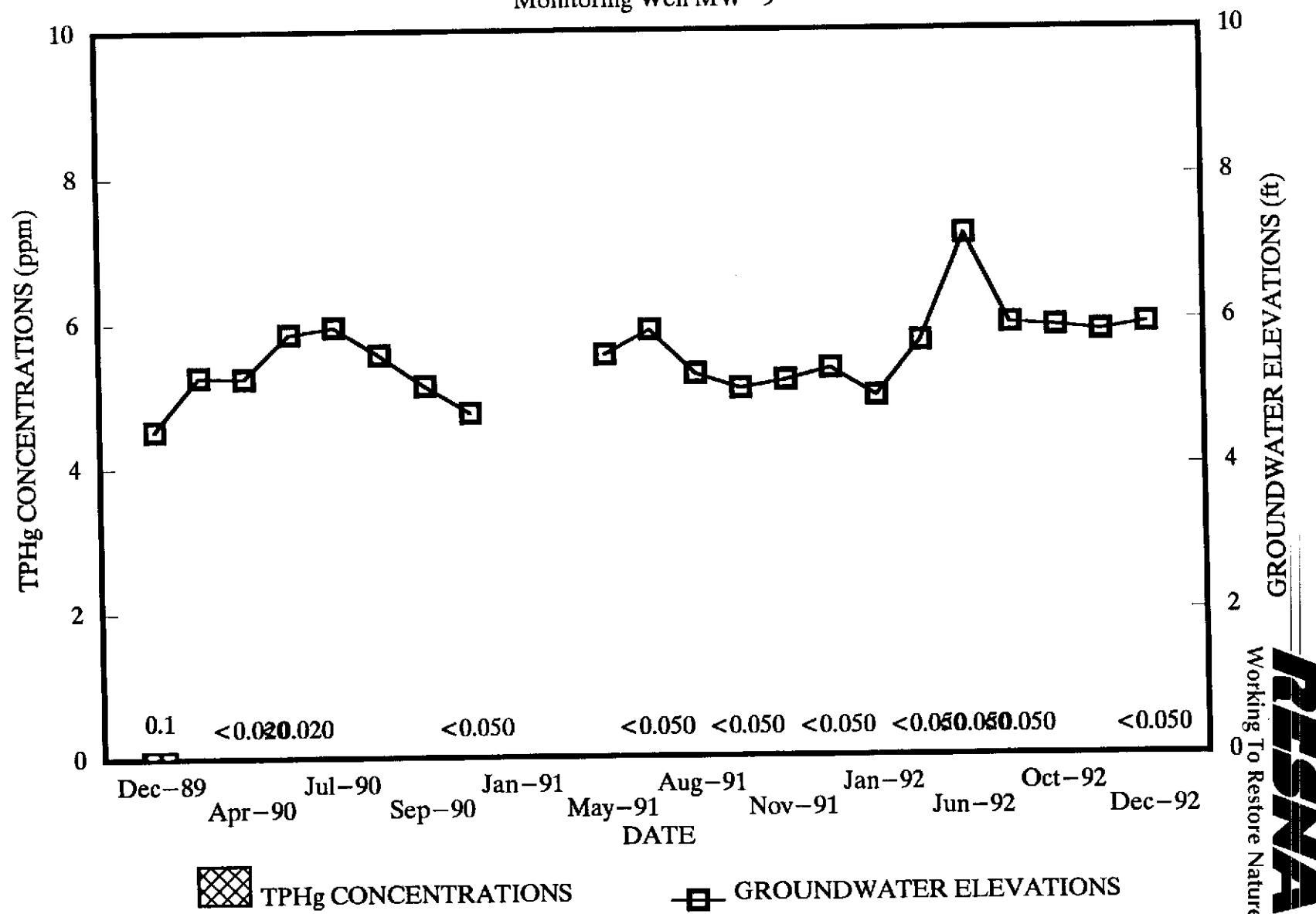


EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1987-92
Monitoring Well MW-8

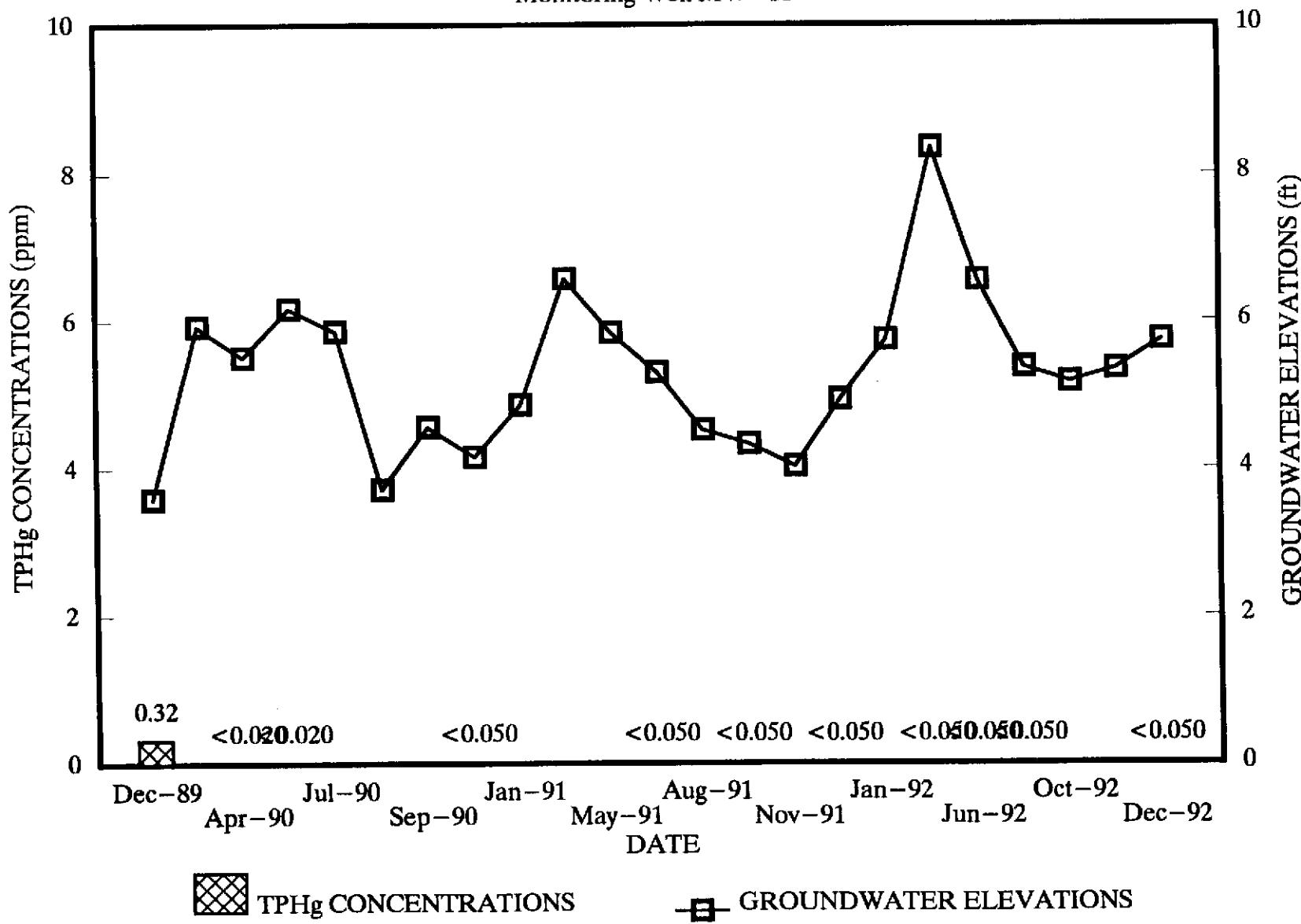


FP = Floating Product
SH = Sheen

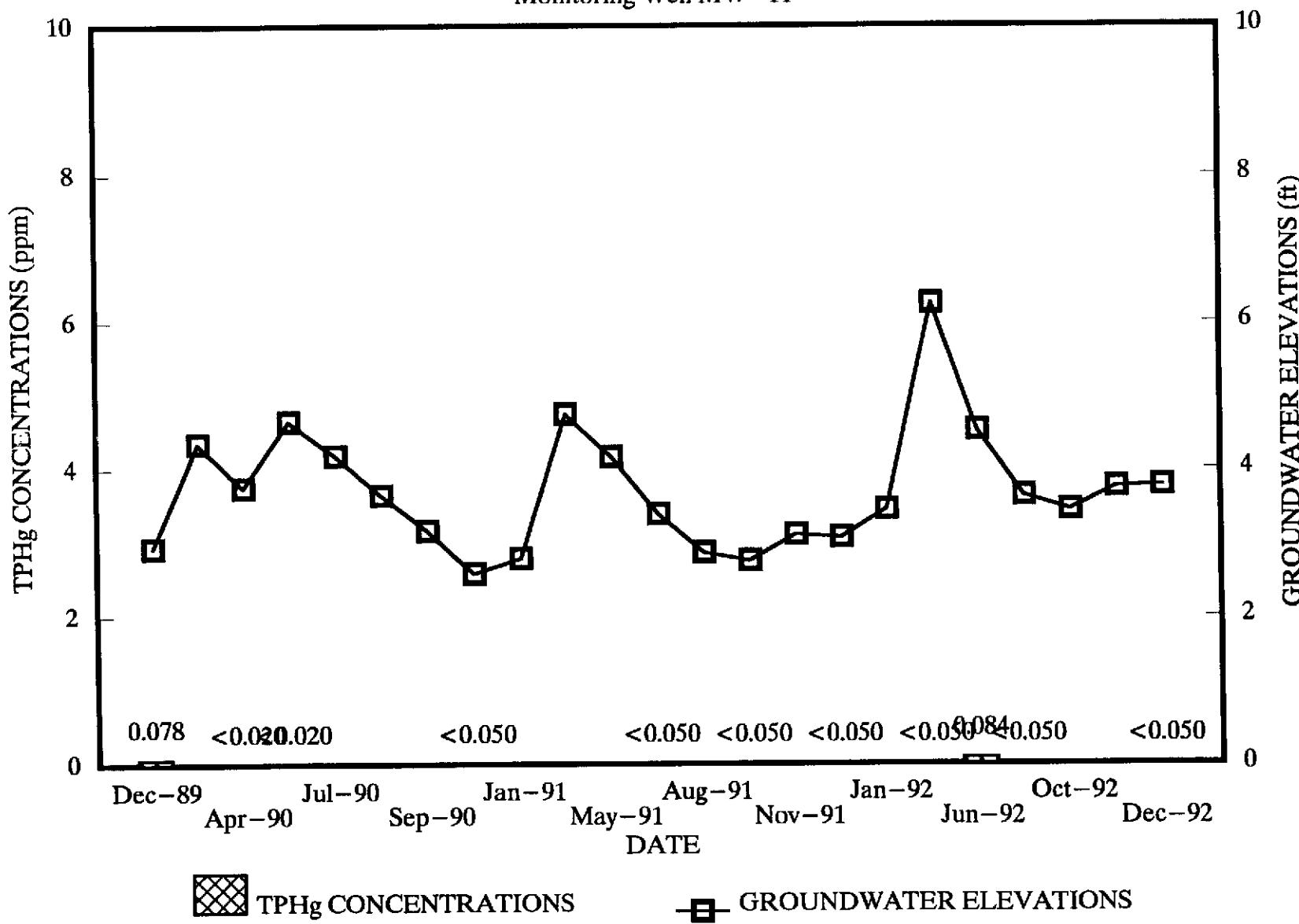
EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1989-92
Monitoring Well MW-9



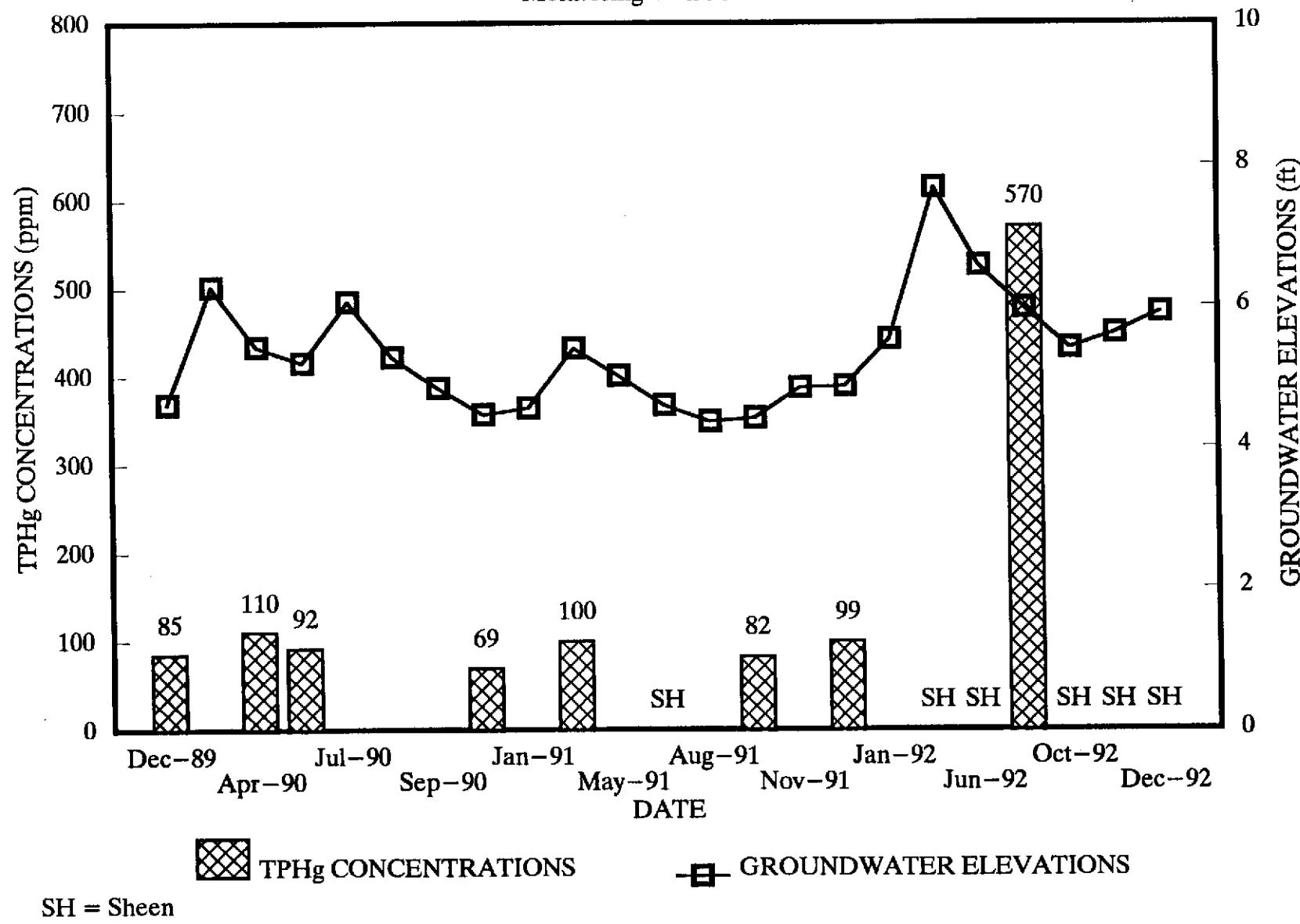
EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1987-92
Monitoring Well MW-10



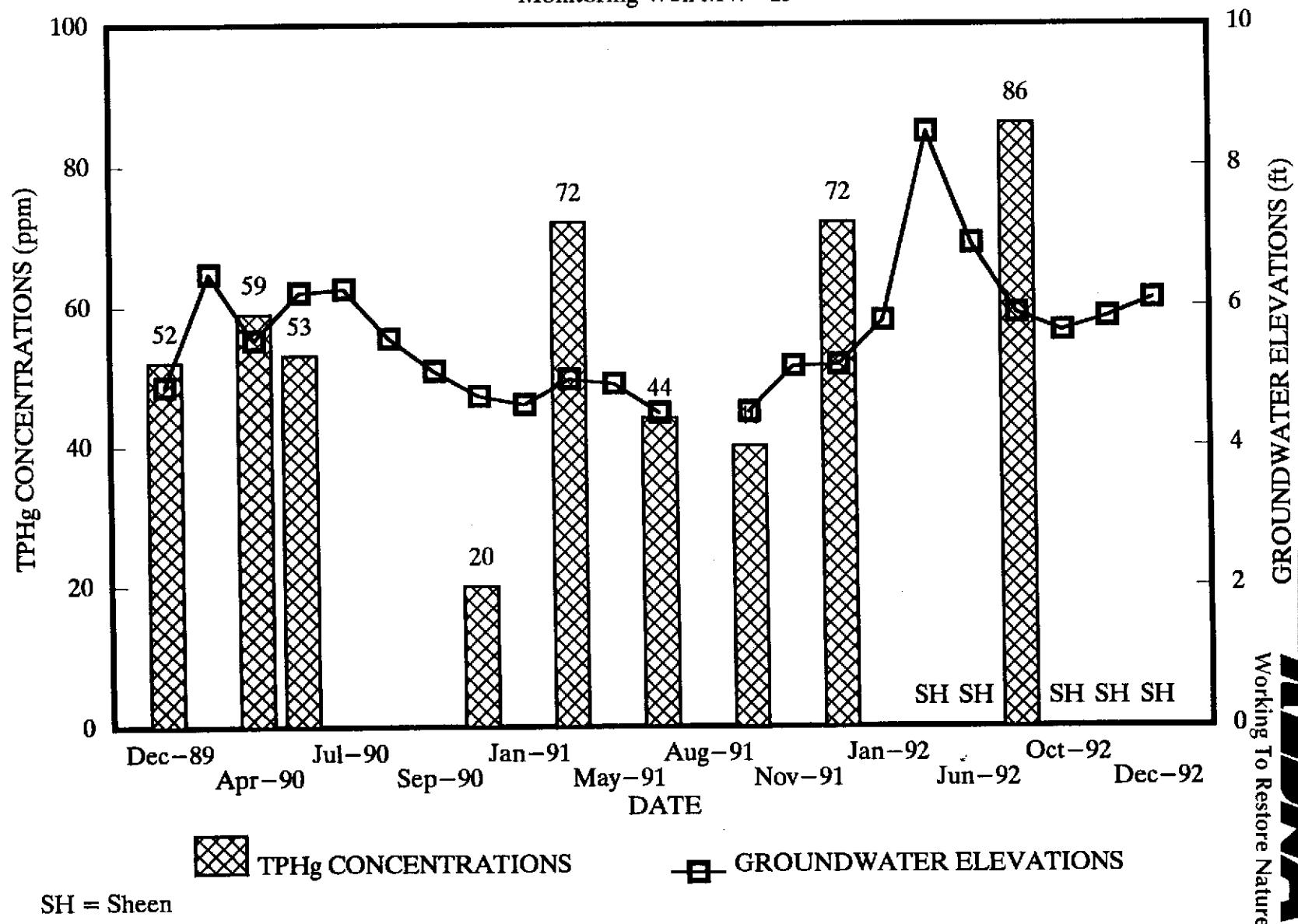
EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1989-92
Monitoring Well MW-11



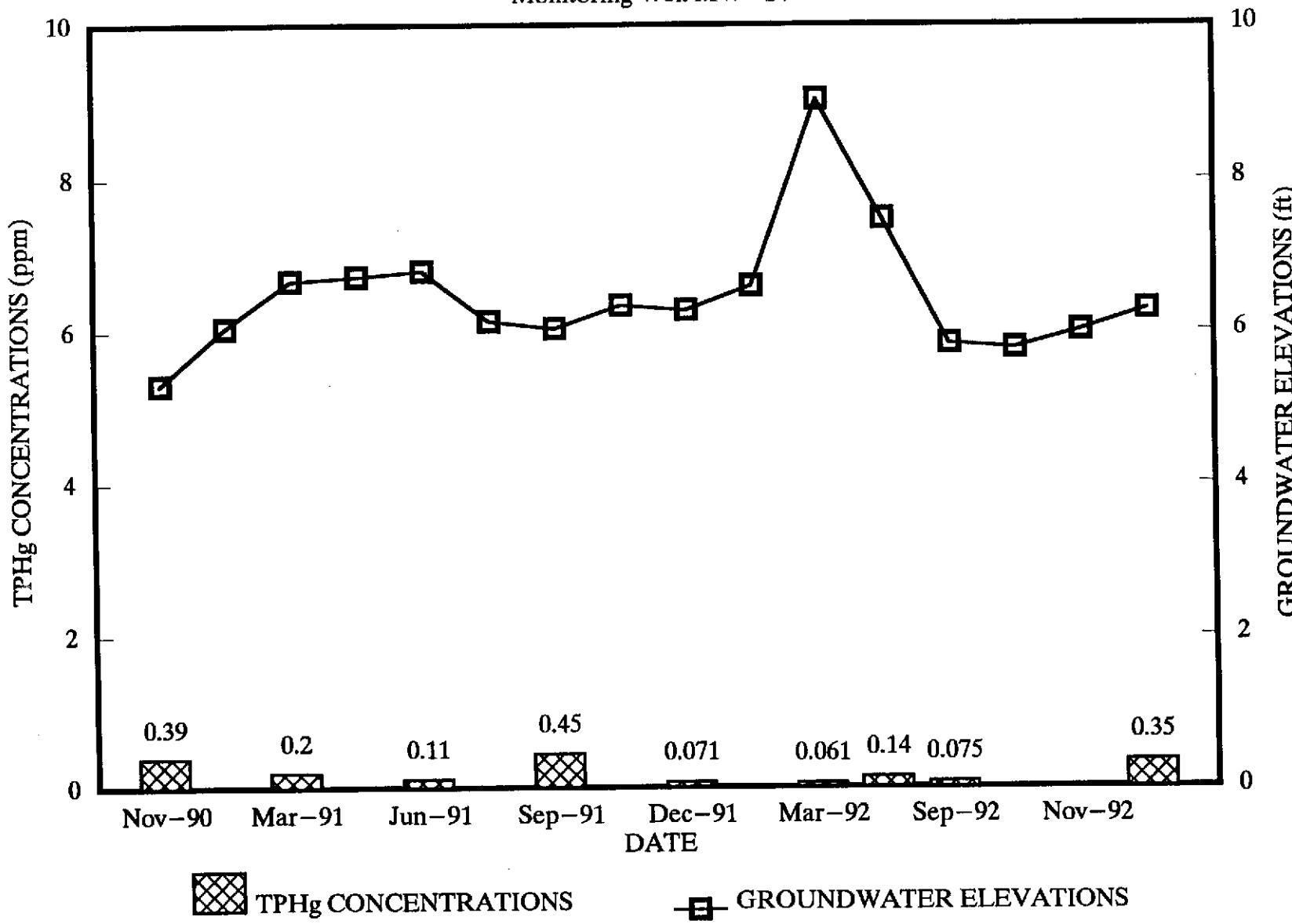
EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1989-92
 Monitoring Well MW-12



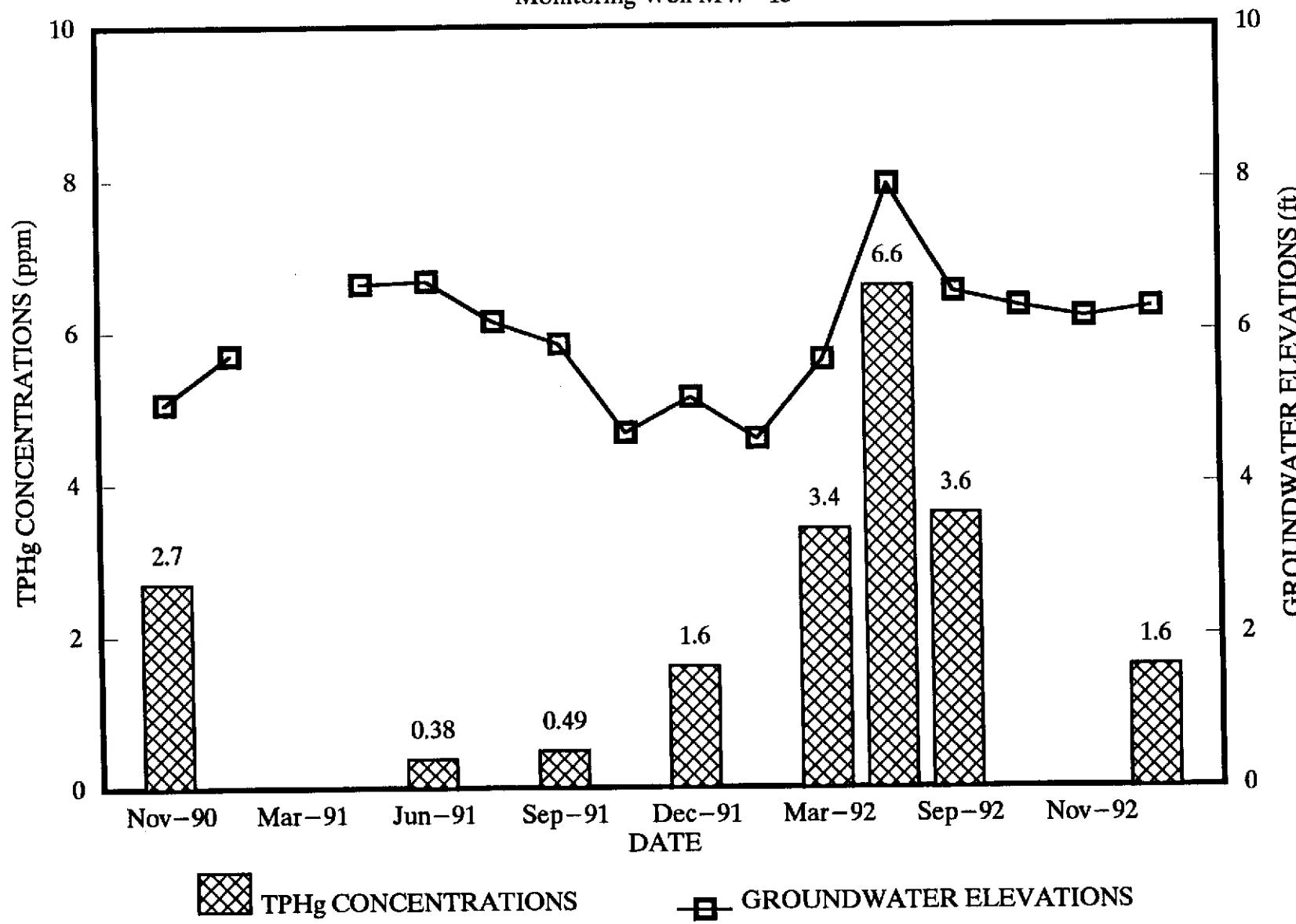
EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1989-92
Monitoring Well MW-13



EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1990-92
Monitoring Well MW-14



EXXON 7-3006 HYDROGRAPH AND TPHg CONCENTRATION GRAPH 1990-92
Monitoring Well MW-15



APPENDIX C

**CHAIN OF CUSTODY RECORDS AND
LABORATORY ANALYSIS REPORTS**



REPORT OF LABORATORY ANALYSIS

87042.11

December 18, 1992

DEC 18 1992

Mr. Marc Briggs
Resna/Applied Geosystems
3315 Almaden Expressway Suite 34
San Jose, CA 95118

RE: PACE Project No. 421210.516
Client Reference: Exxon 7-3006 (EE)

Dear Mr. Briggs:

Enclosed is the report of laboratory analyses for samples received December 10, 1992.

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

A handwritten signature in cursive ink that reads "Stephanie Matzo".

Stephanie Matzo
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Resna/Applied Geosystems
3315 Almaden Expressway Suite 34
San Jose, CA 95118

December 18, 1992
PACE Project Number: 421210516

Attn: Mr. Marc Briggs

Client Reference: Exxon 7-3006 (EE)

PACE Sample Number:	70 0262925
Date Collected:	12/08/92
Date Received:	12/10/92
	W-9.0-MW1

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
------------------	--------------	------------	----------------------

ORGANIC ANALYSIS

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel	mg/L	0.050	0.051	12/17/92
Date Extracted			12/15/92	

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	170	12/17/92
------------------------------------------	------	----	-----	----------

PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	12/17/92
------------------------------------------	--	--	---	----------

Benzene	ug/L	0.5	10	12/17/92
---------	------	-----	----	----------

Toluene	ug/L	0.5	ND	12/17/92
---------	------	-----	----	----------

Ethylbenzene	ug/L	0.5	ND	12/17/92
--------------	------	-----	----	----------

Xylenes, Total	ug/L	0.5	0.6	12/17/92
----------------	------	-----	-----	----------

REPORT OF LABORATORY ANALYSIS

Mr. Marc Briggs
Page 2

December 18, 1992
PACE Project Number: 421210516

Client Reference: Exxon 7-3006 (EE)

PACE Sample Number:

70 0262933

Date Collected:

12/09/92

Date Received:

12/10/92

Client Sample ID:

W-8.0-MW7

Parameter

Units MDL DATE ANALYZED

ORGANIC ANALYSIS

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel

mg/L 0.050 0.54 12/16/92

Date Extracted

12/15/92

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015M) ug/L 500 17000 12/17/92

PURGEABLE AROMATICS (BTXE BY EPA 8020M):

Benzene ug/L 5.0 1100 12/17/92

Toluene ug/L 5.0 35 12/17/92

Ethylbenzene ug/L 5.0 77 12/17/92

Xylenes, Total ug/L 5.0 46 12/17/92

REPORT OF LABORATORY ANALYSIS

Mr. Marc Briggs
Page 3

December 18, 1992
PACE Project Number: 421210516

Client Reference: Exxon 7-3006 (EE)

PACE Sample Number:

70 0262941

Date Collected:

12/08/92

Date Received:

12/10/92

Client Sample ID:

W-9.0-MW9

Parameter

Units

MDL

DATE ANALYZED

ORGANIC ANALYSIS

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel
Date Extracted

mg/L

0.050

ND

12/16/92

12/15/92

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015M) ug/L

50

ND

12/17/92

12/17/92

PURGEABLE AROMATICS (BTXE BY EPA 8020M):

Benzene

ug/L

0.5

ND

12/17/92

Toluene

ug/L

0.5

ND

12/17/92

Ethylbenzene

ug/L

0.5

ND

12/17/92

Xylenes, Total

ug/L

0.5

ND

12/17/92

REPORT OF LABORATORY ANALYSIS

Mr. Marc Briggs
Page 4

December 18, 1992
PACE Project Number: 421210516

Client Reference: Exxon 7-3006 (EE)

PACE Sample Number: 70 0262950
 Date Collected: 12/08/92
 Date Received: 12/10/92
 Client Sample ID: W-8.5-MW10

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
------------------	--------------	------------	----------------------

ORGANIC ANALYSIS

EXTRACTABLE FUELS EPA 3510/8015				
Extractable Fuels, as Diesel	mg/L	0.050	ND	12/16/92
Date Extracted			12/15/92	
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):				
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	12/17/92
PURGEABLE AROMATICS (BTXE BY EPA 8020M):				
Benzene	ug/L	0.5	ND	12/17/92
Toluene	ug/L	0.5	ND	12/17/92
Ethylbenzene	ug/L	0.5	ND	12/17/92
Xylenes, Total	ug/L	0.5	0.9	12/17/92

REPORT OF LABORATORY ANALYSIS

Mr. Marc Briggs
Page 5

December 18, 1992
PACE Project Number: 421210516

Client Reference: Exxon 7-3006 (EE)

PACE Sample Number:

70 0262968

Date Collected:

12/09/92

Date Received:

12/10/92

Client Sample ID:

W-10.0-

Parameter

Units MDL MW11 DATE ANALYZED

ORGANIC ANALYSIS

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel	mg/L	0.050	0.31	12/16/92
Date Extracted			12/15/92	

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	12/17/92
------------------------------------------	------	----	----	----------

PURGEABLE AROMATICS (BTXE BY EPA 8020M):

Benzene	ug/L	0.5	ND	12/17/92
---------	------	-----	----	----------

Toluene	ug/L	0.5	ND	12/17/92
---------	------	-----	----	----------

Ethylbenzene	ug/L	0.5	ND	12/17/92
--------------	------	-----	----	----------

Xylenes, Total	ug/L	0.5	ND	12/17/92
----------------	------	-----	----	----------

REPORT OF LABORATORY ANALYSIS

Mr. Marc Briggs
 Page 6

December 18, 1992
 PACE Project Number: 421210516

Client Reference: Exxon 7-3006 (EE)

PACE Sample Number: 70 0262976
 Date Collected: 12/09/92
 Date Received: 12/10/92
 Client Sample ID: W-9.0-MW14

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
------------------	--------------	------------	----------------------

ORGANIC ANALYSIS

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel	mg/L	0.050	0.22	12/16/92
Date Extracted			12/15/92	

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	350	12/17/92
------------------------------------------	------	----	-----	----------

PURGEABLE AROMATICS (BTXE BY EPA 8020M):

Benzene	ug/L	0.5	2.5	12/17/92
---------	------	-----	-----	----------

Toluene	ug/L	0.5	1.0	12/17/92
---------	------	-----	-----	----------

Ethylbenzene	ug/L	0.5	1.5	12/17/92
--------------	------	-----	-----	----------

Xylenes, Total	ug/L	0.5	8.1	12/17/92
----------------	------	-----	-----	----------

REPORT OF LABORATORY ANALYSIS

Mr. Marc Briggs
Page 7

December 18, 1992
PACE Project Number: 421210516

Client Reference: Exxon 7-3006 (EE)

PACE Sample Number: 70 0262984
 Date Collected: 12/09/92
 Date Received: 12/10/92
 Client Sample ID: W-9.5-MW15

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
------------------	--------------	------------	----------------------

ORGANIC ANALYSIS

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel	mg/L	0.050	0.43	12/16/92
Date Extracted			12/15/92	

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	1600	12/17/92
------------------------------------------	------	----	------	----------

PURGEABLE AROMATICS (BTXE BY EPA 8020M):

Benzene	ug/L	0.5	43	12/17/92
---------	------	-----	----	----------

Toluene	ug/L	0.5	1.6	12/17/92
---------	------	-----	-----	----------

Ethylbenzene	ug/L	0.5	170	12/17/92
--------------	------	-----	-----	----------

Xylenes, Total	ug/L	0.5	23	12/17/92
----------------	------	-----	----	----------

These data have been reviewed and are approved for release.

Darrell C. Cain

Darrell C. Cain
Regional Director

Mr. Marc Briggs
Page 8

FOOTNOTES
for pages 1 through 7

December 18, 1992
PACE Project Number: 421210516

Client Reference: Exxon 7-3006 (EE)

MDL Method Detection Limit
ND Not detected at or above the MDL.

REPORT OF LABORATORY ANALYSIS

Mr. Marc Briggs
Page 9

QUALITY CONTROL DATA

December 18, 1992
PACE Project Number: 421210516

Client Reference: Exxon 7-3006 (EE)

EXTRACTABLE FUELS EPA 3510/8015

Batch: 70 17605

Samples: 70 0262925, 70 0262933, 70 0262941, 70 0262950, 70 0262968
70 0262976, 70 0262984

METHOD BLANK:

Parameter	Units	MDL	Method
Extractable Fuels, as Diesel	mg/L	0.050	Blank
			ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv 100%	Dupl Recv 91%	RPD 9%
Extractable Fuels, as Diesel	mg/L	0.050	1.00	100%	91%	9%

Mr. Marc Briggs
 Page 10

QUALITY CONTROL DATA

December 18, 1992
 PACE Project Number: 421210516

Client Reference: Exxon 7-3006 (EE)

PURGEABLE FUELS AND AROMATICS

Batch: 70 17648

Samples: 70 0262925, 70 0262933, 70 0262941, 70 0262950, 70 0262968
 70 0262976, 70 0262984

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020M)			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	308	94%	92%	2%
Benzene	ug/L	0.5	40.0	98%	93%	5%
Toluene	ug/L	0.5	40.0	102%	103%	0%
Ethylbenzene	ug/L	0.5	40.0	104%	105%	0%
Xylenes, Total	ug/L	0.5	80.0	104%	104%	0%

Mr. Marc Briggs
Page 11

FOOTNOTES
for pages 9 through 10

December 18, 1992
PACE Project Number: 421210516

Client Reference: Exxon 7-3006 (EE)

MDL Method Detection Limit
ND Not detected at or above the MDL.
RPD Relative Percent Difference

Novato, CA
11 Digital Drive, 94949
(415) 883-6100

Irvine, CA
Alton Business Park
30 Hughes St., Suite 206, 92718
(714) 380-9559

Consultant Name:

Kesma

Address:

42501 Alvar st. Fremont, CA.

Project Contact:

Marcia Briggs

Project #:

87042.11

Phone #:

1-800-926-8815

Fax #:

408-264-2435

Consultant Work Release #:

90041965 - CO #4

Exxon Contact:

Marcia Gunster

Phone #:

Site RAS #:

7-3006

Site Location:

820 High St., Oakland CA.

Laboratory Work Release #:

Sampled by (please print)					SOIL		WATER		TPH	Total Oil & Grease	Remarks
Sampler Signature	Collection Date/Time	Matrix	Prsv.	# of Cont.	TPH/GAS/BTEX EPA 8015/6020	TPH/Diesel EPA 8015	Organic Lead DHS Method	TPH/GAS/BTEX EPA 8015/602			
Robin A-Adair	12-8-92 2:40	HCL	2		X	X		X	X		Hold 26289.5
W-9.0-MW1	12-8-92 3:45	HCL	2	1							92.5
W-5.0-MW7	12-9-92 2:30	HCL	2	1							93.3
W-9.0-MW9	12-8-92 2:45	HCL	2	1							94.1
W-5.5-MW10	12-8-92 3:15	HCL	2	1							95.0
W-10.0-MW11	12-9-92 1:30	HCL	2	1							96.8
W-9.0-MW14	12-9-92 12:30	HCL	2	1							97.6
W-7.5-MW15	12-9-92 1:30	HCL	2	1							98.4
Cooler No.	Relinquished by/Affiliation				Accepted by/Affiliation				Date	Time	
Cooler Seal Intact									12-10-92 8:00AM	14:35	
<input type="checkbox"/> Yes									12/10/92	1747	
<input type="checkbox"/> No											
Turnaround Time (circle choice)											
24 hr.											
48 hr.											
72 hr.											
96 hr.											
5 workday (standard)											
Shipment Method	Additional Comments:										
Shipment Date											
Distribution:	White - Original	Yellow - Exxon	Pink - Lab	Goldenrod - Consultant Field Staff							