

R02580

SLIC



3210 Old Tunnel Road, Suite B, Lafayette, CA 94549-4567

Phone: (925) 283-6000 Fax: (925) 283-6121

March 20, 2001

Mr. Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: Groundwater Monitoring Report
Foothill Square Shopping Center
10700 MacArthur Boulevard
Oakland, California
Project No. 3067

MAR 22 2001

Dear Mr. Chan:

Enclosed is a copy of the report summarizing the two most recent episodes of monitoring and sampling of groundwater at the former Young's Cleaners. A copy of this report has also been sent to Betty Graham of the RWQCB.

Please contact me at (925) 283-6000 if you have any questions.

Sincerely,
AEI CONSULTANTS,

Peter McIntyre
Project Geologist

Corporate Headquarters

Los Angeles
(310) 798-4255

Phoenix
(602) 240-5990

San Francisco
(800) 801-3224

Seattle
(425) 401-8500

New York
(212) 279-7770

www.aeiconsultants.com

March 19, 2001

**GROUNDWATER MONITORING
REPORT**
August 2000 & February 2001

10700 MacArthur Boulevard
Oakland, California

Project No. 3067

Prepared For

Jay-Phares Corporation
10700 MacArthur Boulevard, Suite 200
Oakland, CA 94506

Prepared By

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

AEI



March 19, 2000

Messrs. Ken Phares & John Jay
Jay-Phares Corporation
10700 MacArthur Boulevard, Suite 200
Oakland, CA 94605

RE: Groundwater Monitoring Report
Foothill Square Shopping Center
10700 MacArthur Boulevard
Oakland, California
Project No. 3067

Dear John Jay & Ken Phares:

AEI Consultants (AEI) has prepared this groundwater monitoring report on behalf of The Jay-Phares Corporation, the owner and managers of the Foothill Square Shopping Center (Figure 1: Site Location Map). The documentation of groundwater quality beneath and around the site is performed to monitor the extent and stability of the chlorinated hydrocarbon plume released from a former dry-cleaning business at the site.

This reporting is performed in accordance with the requirements of the Alameda County Health Care Services Agency (ACHCSA) and the Regional Water Quality Control Board (RWQCB). This report presents the findings of the two most recent semi-annual episodes of monitoring and sampling of the wells.

Site Description and Background

The site is located in a mixed commercial and residential area of Oakland, California. The property is currently developed with the Foothill Square Shopping Center (FSSC). Refer to Figure 1: Site Location Map. One of the former tenants of the FSSC was Young's Cleaners, which operated from approximately 1984 through 1995.

Between 1989 and 1997, several phases of investigations took place into the extent of a release of chlorinated solvents from the former dry-cleaners. A total of 17 monitoring wells have been installed. In 1996, AEI removed and treated approximately 2,400 cubic yards of impacted soil.

During the excavation and subsequent paving and improvement activities, five of the wells, WGR-MW1, WGR-MW5, AMW-2, AMW-3, and AMW-7 were closed, damaged, or covered over. Please refer to Figure 2 for locations of the remaining wells.

Corporate Headquarters

Los Angeles
(310) 798-4255

Phoenix
(602) 240-5990

San Francisco
(800) 801-3224

Seattle
(425) 401-8500

New York
(212) 279-7770

This report summarizes the activities and results of the August 2000 and February 2001 well monitoring and sampling activities.

Summary of Activities

A total of fourteen wells remain at the site. During both episodes, each well was opened and water levels were obtained with an electric water level indicator. The elevations of the top of the well casings were obtained from a previous groundwater monitoring report prepared by PES. The wells were purged using a battery powered submersible pump or manual bailing, and a groundwater sample was collected from the appropriate wells using clean disposable Teflon bailers.

Although well screen interval data are not currently available for all of the wells, in general, wells identified as deep are screened from approximately 40 to 56 feet bgs and wells identified as shallow are screened from 20 to 30 feet bgs.

Temperature, pH, and specific conductivity (total dissolved solids) were measured during the purging of the wells. At least 3 well volumes of water were removed prior to the collection of samples from each well. Once monitoring parameters stabilized and groundwater had recharged to at least 90% of its original volume, a water sample was collected.

Water was poured from bailers into 40-ml VOA vials and the vials were capped so that no head space or air bubbles were visible within the sample containers. Samples were shipped on ice under proper chain of custody protocol to McCampbell Analytical, Inc. of Pacheco, California (State Certification #1644). All groundwater samples were analyzed for chlorinated volatile organic compounds by EPA method 601/8010.

Field Results

Water levels in the shallow, unconfined aquifer ranged from 37.94 to 53.05 feet above mean sea level (msl) in August 2000 and between 37.46 and 52.47 feet above msl in February 2001. The average water table elevation was 0.55 feet higher in February 2001 than in August 2000. During both episodes, the groundwater flow direction was determined to be to the northwest, which is consistent with previous episodes.

Water level elevations in the deeper aquifer ranged from 27.95 to 47.85 feet above msl in August 2000 and from between 27.63 and 47.24 feet above msl in February 2001. The average elevations of the piezometric level in this aquifer were 0.06 feet lower in February 2001 than in August 2000. During monitoring events, the groundwater flow direction was calculated to be to southwest, which is also consistent with previous findings.

Groundwater elevation data are summarized in Table 1. The water level elevation contours are shown in Figures 3 through 6. Refer to Appendix A for the Groundwater Monitoring Well Field Sampling Forms.

Groundwater Quality

Concentrations of PCE, TCE, cis 1,2 DCE, and trans 1,2 DCE were detected in the shallow water samples taken from AMW-6. Concentrations of PCE and TCE up to 650 µg/L and 87 µg/L, respectively, were also detected in deep water samples taken from MW-6, west of the former dry-cleaners. PCE was detected at 38 µg/L in August 2000 and 18 µg/L in February 2001 in well FHS MW-11, east of the property, across MacArthur Boulevard.

A summary of groundwater quality data, including historical results, is presented in Table 2. Laboratory results and chain of custody documents are included in Appendix B. Refer to Figures 11 through 13 for visual descriptions of concentrations over time in selected wells.

Conclusions and Recommendations

Evidence of degradation of PCE is found in samples collected from near the source area. In general, the plume appears to remain beneath the shopping center, although concentrations of PCE have appeared off-site in well FHSA MW-11.

Recharge of the deeper aquifer appears to be occurring as evidenced by comparison of PCE concentrations in wells AMW-6 and MW-6. Both dilution and degradation of PCE are occurring in the deeper aquifer, as evidenced by the relatively lower PCE concentrations in MW-6 as compared to AMW-6 and the presence of TCE and DCE in MW-6.

Monitoring and sampling will continue on a semi-annual basis, as performed over the last two episodes. The next episode is scheduled for August 2001.

References

- Augeas Corporation. *Report of Subsurface Investigation, Young's Cleaners, 10700 MacArthur Boulevard, Oakland, California, December 1995*
- AEI Consultants Soil Remediation and Excavation Project Summary, *February 7, 1996*
- PES Environmental, Inc. *Groundwater Monitoring Well Installation, Foothill Square Shopping Center, 10700 MacArthur Boulevard, Oakland, California, February 3, 1997*
- PES Environmental, Inc. *Results of Additional Groundwater Investigation and Risk Evaluation, Former Young's Cleaners, Foothill Square Shopping Center, 10700 MacArthur Boulevard, Oakland, California, March 24, 1997*
- PES Environmental, Inc. *Quarterly Monitoring and Well Installation Report, Former Young's Cleaners, Foothill Square Shopping Center, 10700 MacArthur Boulevard, Oakland, California, January 22, 1998*
- AEI Consultants Quarterly Groundwater Monitoring Report, *Young's Cleaners, Foothill Shopping Center, 10700 MacArthur Boulevard, Oakland, California, April 20, 1999*
- AEI Consultants Quarterly Groundwater Monitoring Report, *Young's Cleaners, Foothill Shopping Center, 10700 MacArthur Boulevard, Oakland, California, May 25, 1999*
- AEI Consultants Quarterly Groundwater Monitoring Report, *Young's Cleaners, Foothill Shopping Center, 10700 MacArthur Boulevard, Oakland, California, October 25, 1999*
- AEI Consultants Quarterly Groundwater Monitoring Report, *Young's Cleaners, Foothill Shopping Center, 10700 MacArthur Boulevard, Oakland, California, March 21, 2000*

Report Limitations and Signatures

This report presents a summary of work completed by AEI Consultants, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses, observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices in the environmental engineering and construction field which existed at the time and location of the work.

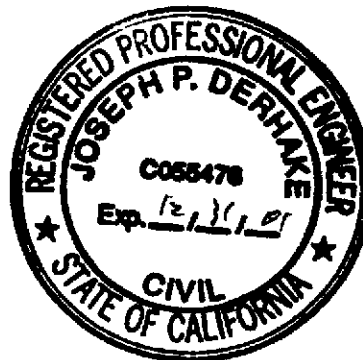
Sincerely,
AEI Consultants



Peter McIntyre
Project Geologist



J. P. Derhake, PE
Principal



Figures

- | | |
|-----------|--|
| Figure 1 | Site Location Map |
| Figure 2 | Site Plan |
| Figure 3 | Water Table Contours – Deep Zone (8/00) |
| Figure 4 | Water Table Contours – Deep Zone (2/01) |
| Figure 5 | Water Table Contours – Shallow Zone (8/00) |
| Figure 6 | Water Table Contours – Shallow Zone (2/01) |
| Figure 7 | PCE Concentrations – Shallow Zone (8/00) |
| Figure 8 | PCE Concentrations – Shallow Zone (2/01) |
| Figure 9 | PCE Concentrations – Deep Zone (8/00) |
| Figure 10 | PCE Concentrations – Deep Zone (2/01) |
| Figure 11 | PCE vs. Time – Selected Shallow Wells |
| Figure 12 | PCE vs. Time – Deep Shallow Wells |
| Figure 13 | Concentrations vs. Time – AMW-6 |

Tables

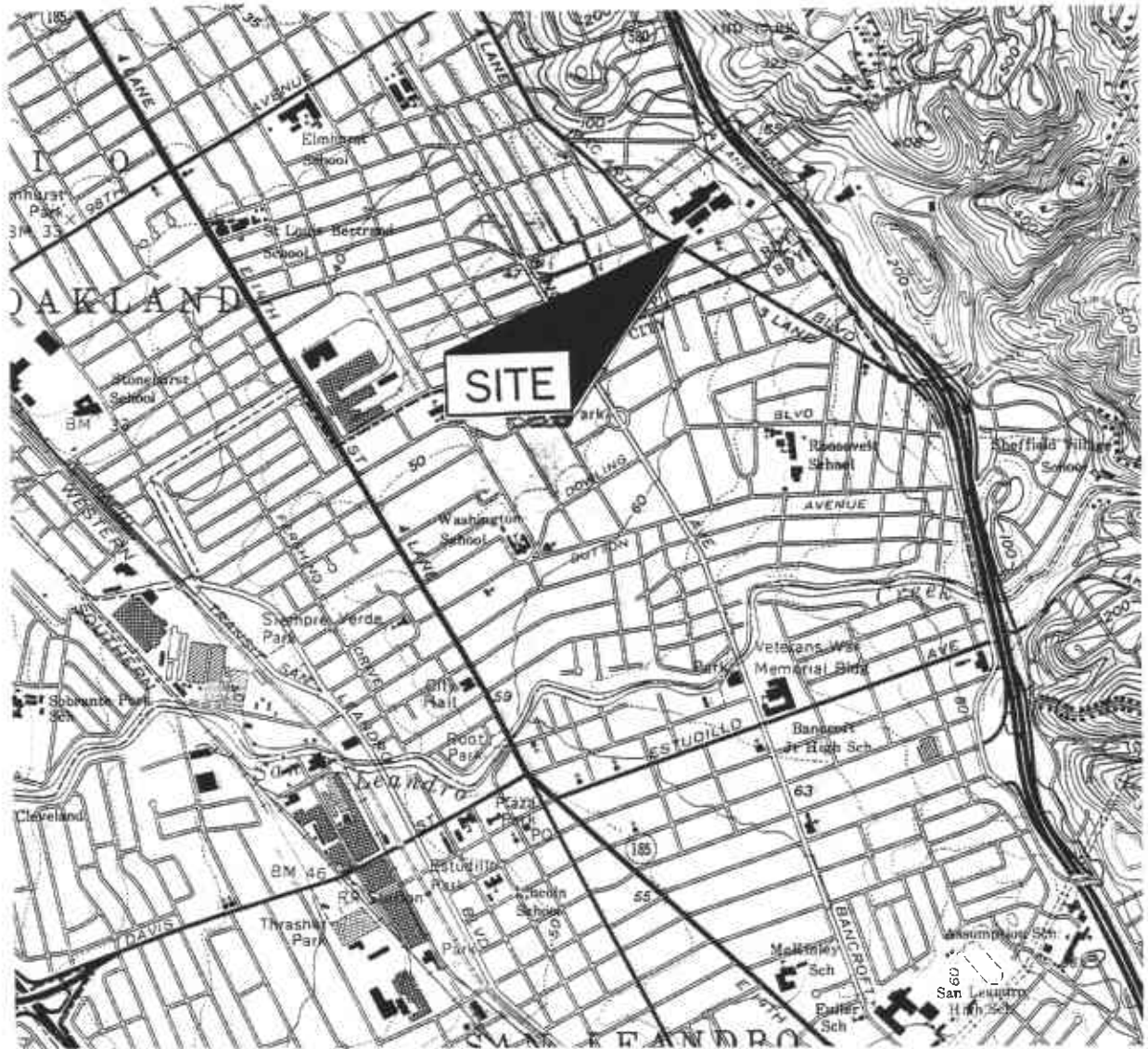
| | |
|---------|---------------------------------------|
| Table 1 | Groundwater Levels |
| Table 2 | Groundwater Sample Analytical Results |

Appendices

| | |
|------------|--|
| Appendix A | Groundwater Monitoring Well Field Sampling Forms – 2 Episodes |
| Appendix B | Laboratory Analyses With Chain of Custody Documentation – 2 Episodes |

cc: Barney Chan, Alameda County Health Care Services Agency

Ms. Betty Graham, Regional Water Quality Control Board



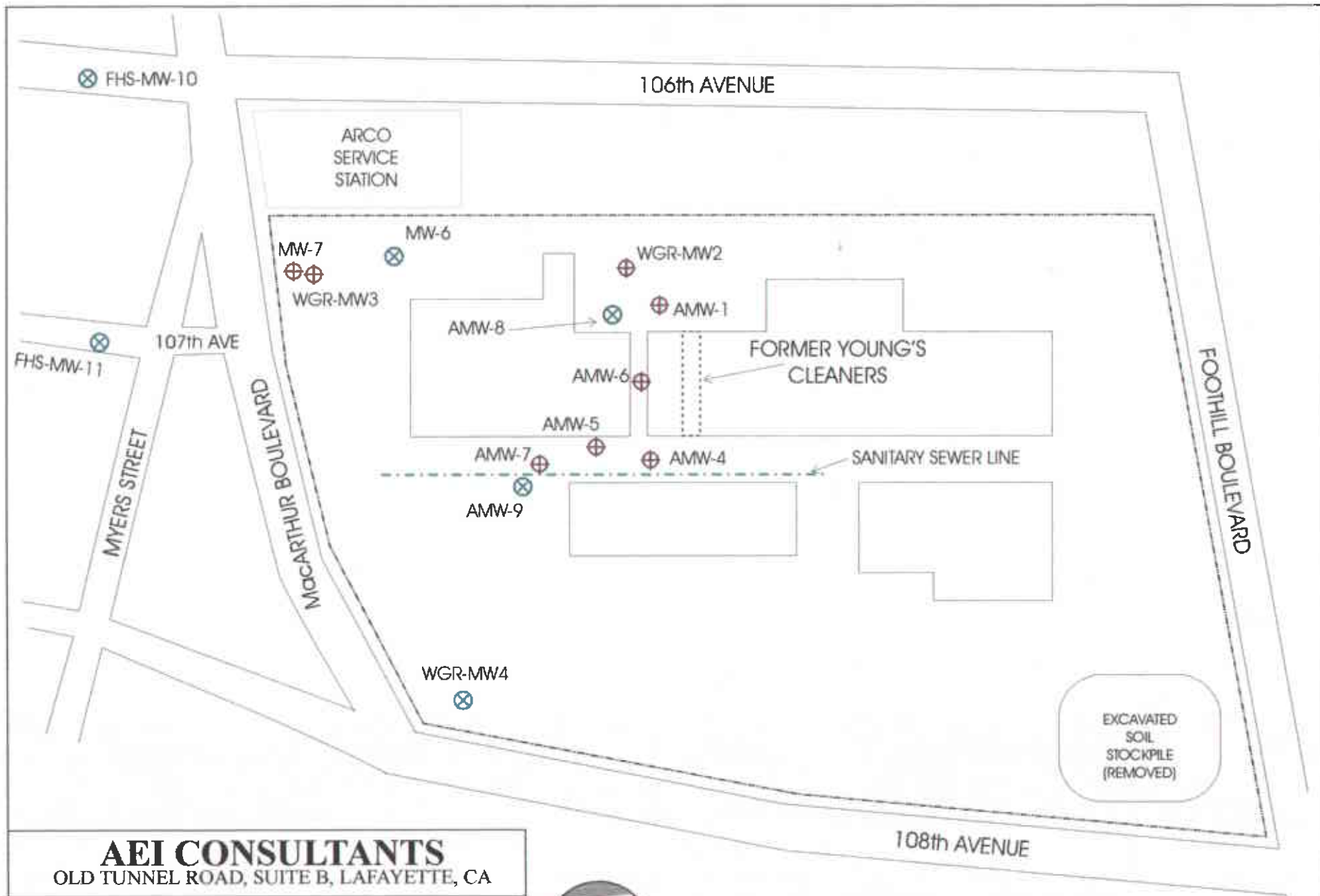
SOURCE:
USGS SAN LEANDRO QUAD
SCALE: 1: 24,000

AEI CONSULTANTS
3210 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

SITE LOCATION MAP

10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

FIGURE 1
PROJECT NO. 3067



AEI CONSULTANTS
 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

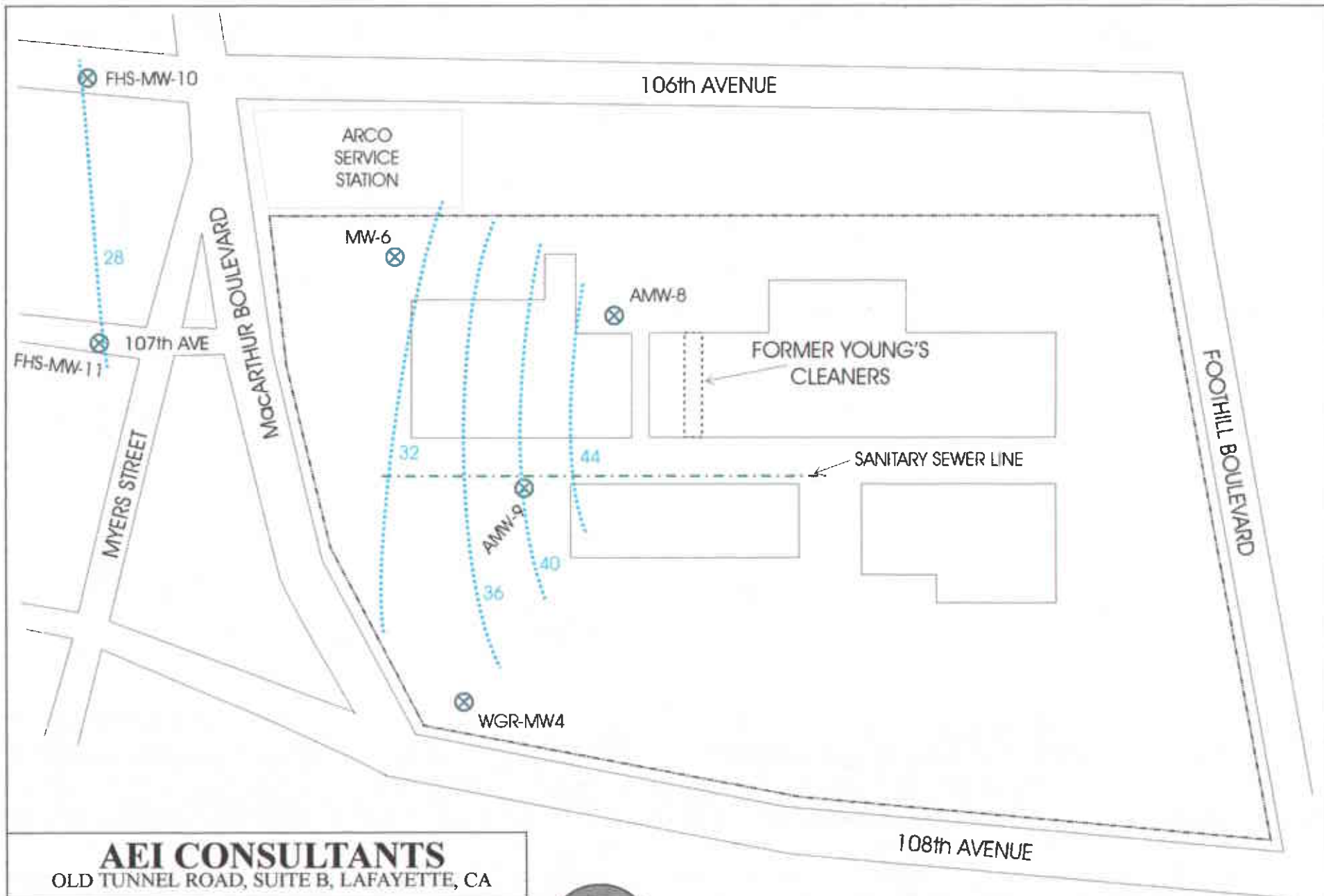
SITE PLAN

10700 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA

FIGURE 2



- ⊕ SHALLOW GROUNDWATER ZONE WELL
- ⊗ DEEP GROUNDWATER ZONE WELL



AEI CONSULTANTS
 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

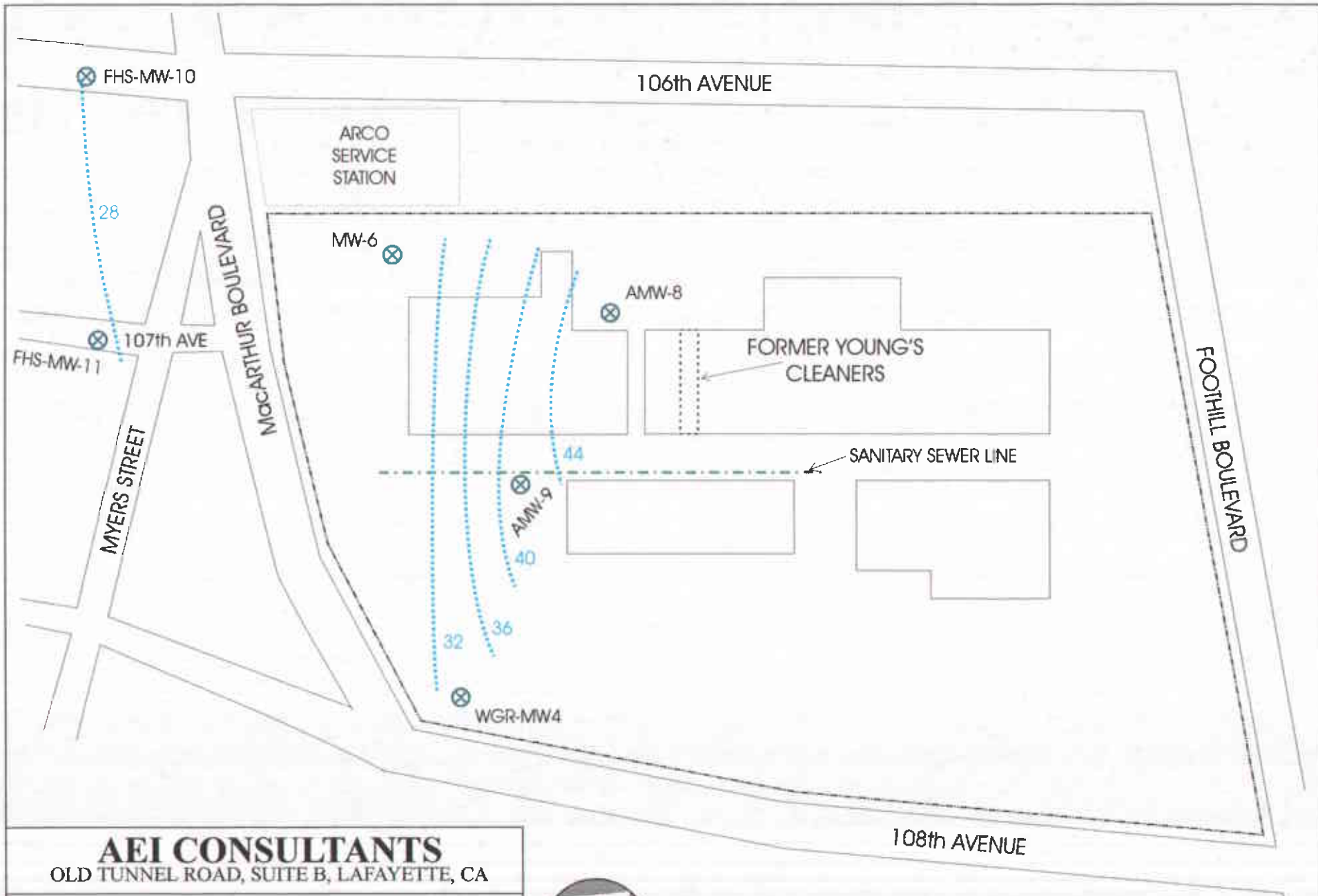
WATER TABLE CONTOURS - DEEP ZONE (8/00)

10700 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA

FIGURE 3



- ⊗ DEEP GROUNDWATER ZONE WELL
- DEEP ZONE GROUNDWATER CONTOUR (POTENTIAL)
 IN FEET ABOVE MEAN SEA LEVEL - 8/8/2000



AEI CONSULTANTS
 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

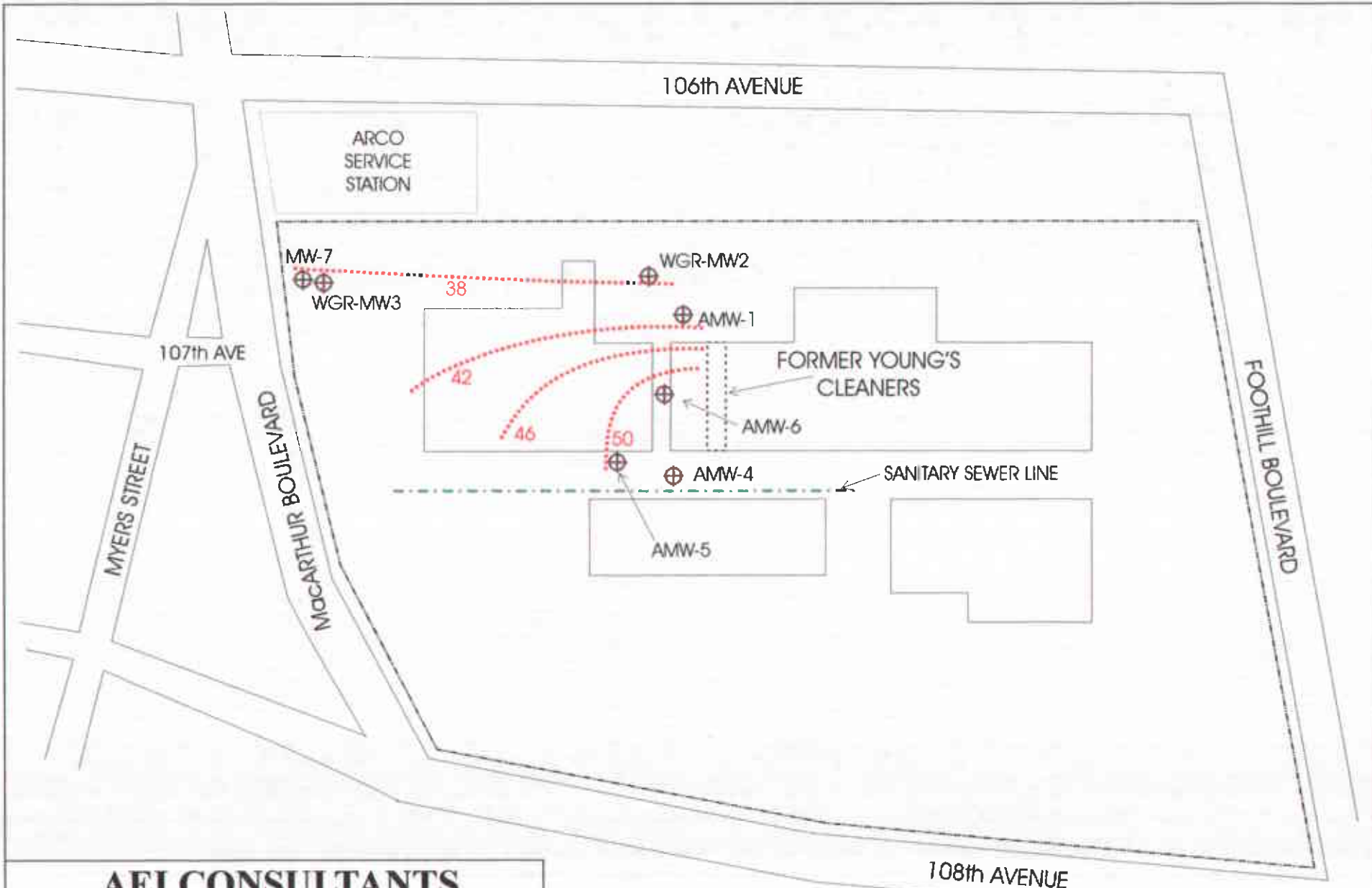
WATER TABLE CONTOURS - DEEP ZONE (2/01)

10700 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA

FIGURE 4





- ⊗ DEEP GROUNDWATER ZONE WELL
- DEEP ZONE GROUNDWATER CONTOUR (POTENTIAL)
 IN FEET ABOVE MEAN SEA LEVEL - 2/15/2001

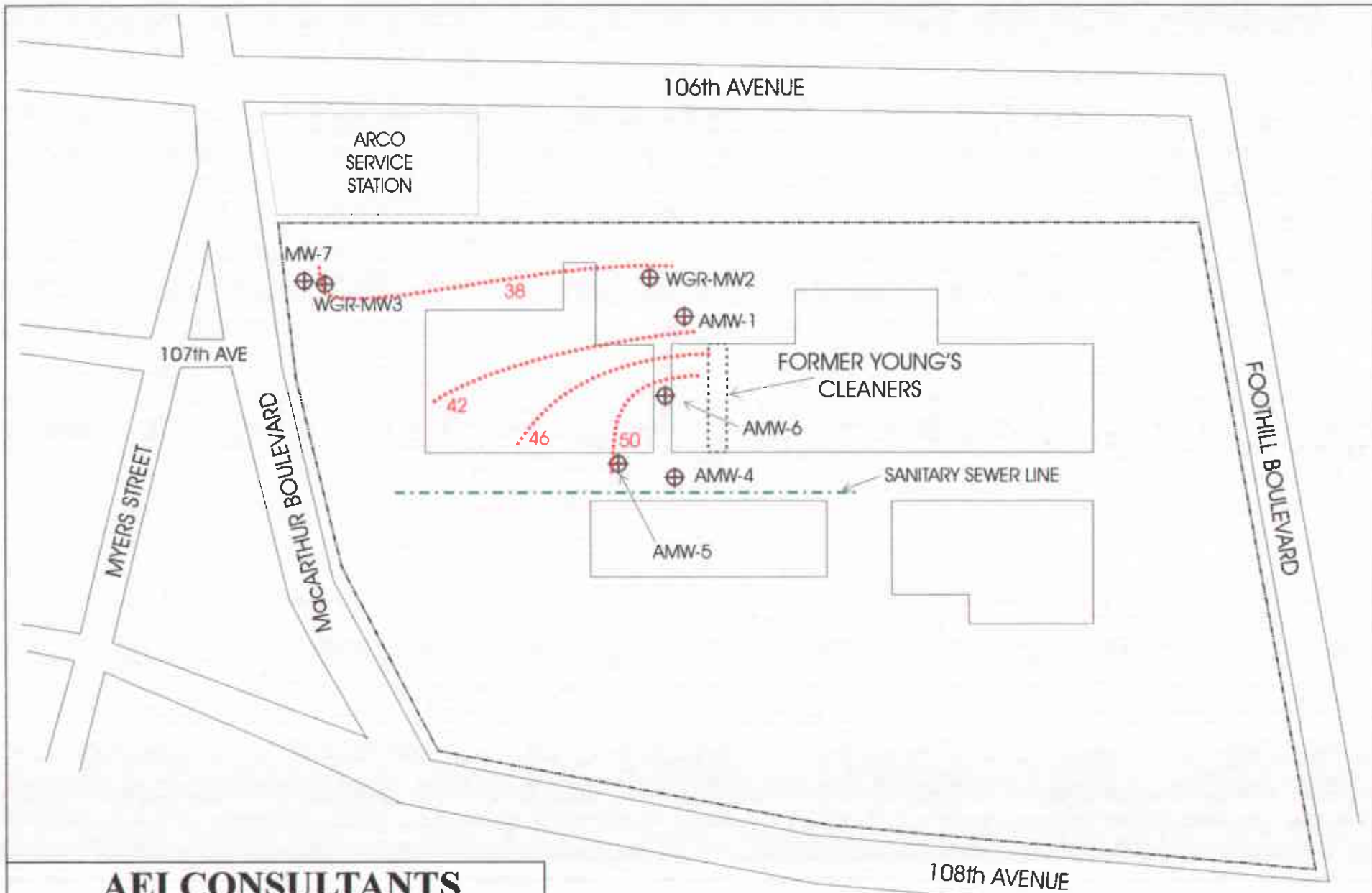


AEI CONSULTANTS
 3210 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA
WATER TABLE CONTOURS - SHALLOW ZONE
 (8/00)
 10700 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA

FIGURE 5



-  SHALLOW GROUNDWATER ZONE WELL
-  SHALLOW ZONE GROUNDWATER CONTOUR (POTENTIAL) IN FEET ABOVE MEAN SEA LEVEL

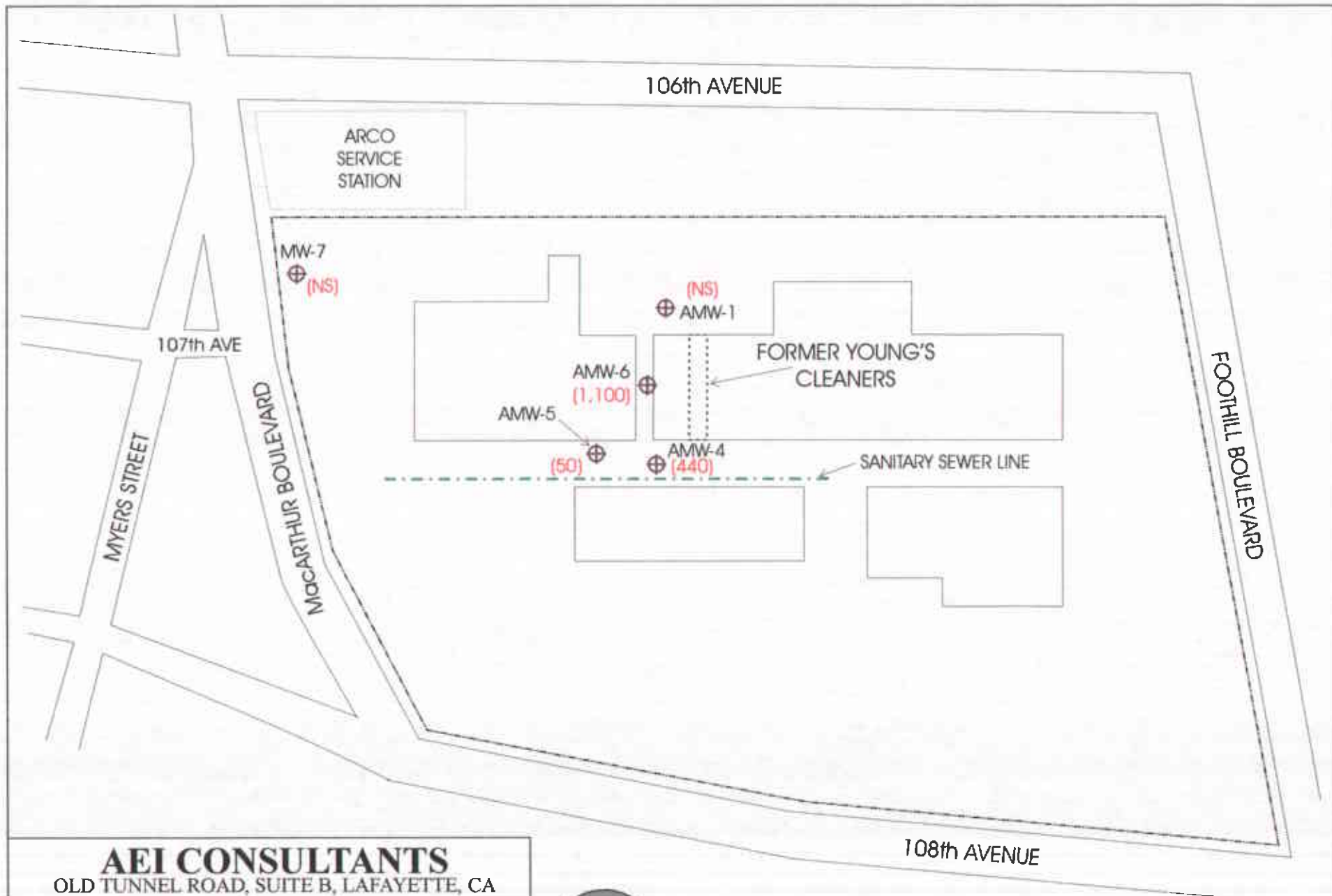


AEI CONSULTANTS
 3210 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA
WATER TABLE CONTOURS - SHALLOW ZONE
 (2/01)
 10700 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA

FIGURE 6



- ⊕ SHALLOW GROUNDWATER ZONE WELL
- 44 --- SHALLOW ZONE GROUNDWATER CONTOUR (POTENTIAL) IN FEET ABOVE MEAN SEA LEVEL



AEI CONSULTANTS
 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

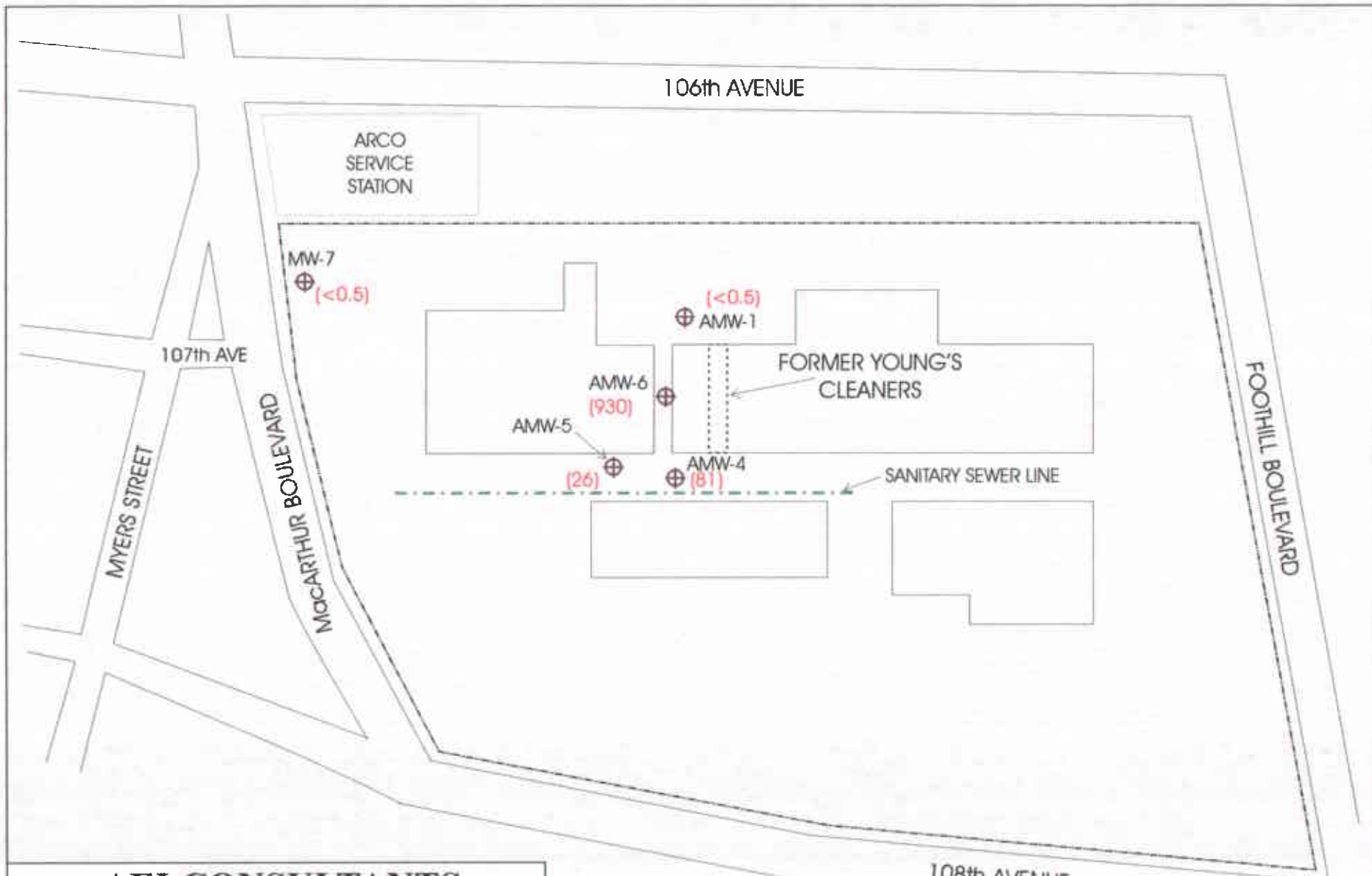
PCE CONC. - SHALLOW ZONE (8/00)

10700 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA

FIGURE 7



⊕ SHALLOW GROUNDWATER ZONE WELL
 (100) CONCENTRATIONS OF PCE IN $\mu\text{g/L}$
 IN SHALLOW GROUNDWATER ZONE



AEI CONSULTANTS
 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

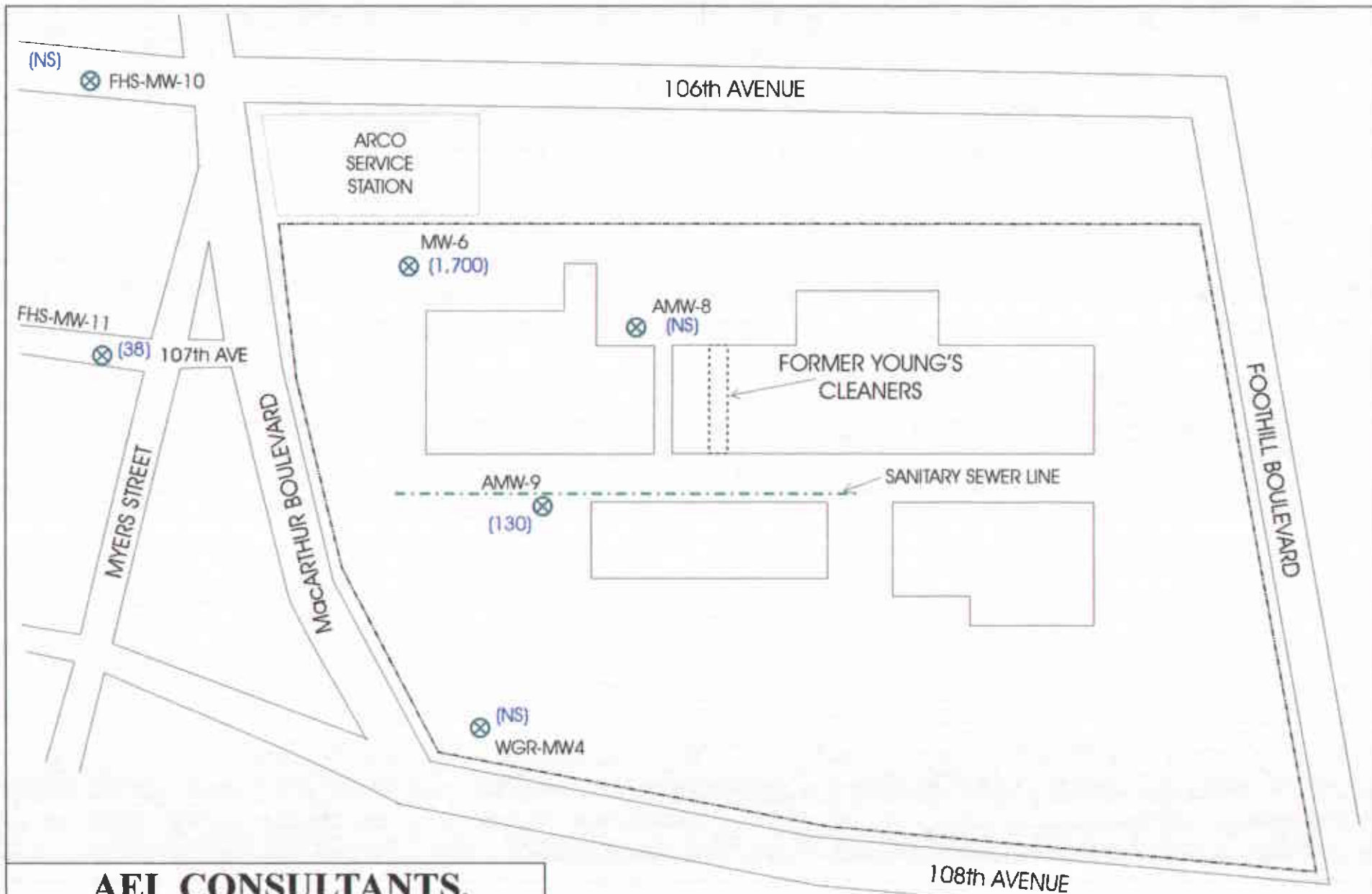
PCE CONC. - SHALLOW ZONE (2/01)

10700 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA

FIGURE 8



⊕ SHALLOW GROUNDWATER ZONE WELL
 (100) CONCENTRATIONS OF PCE IN µg/L
 IN SHALLOW GROUNDWATER ZONE



AEI CONSULTANTS.
 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

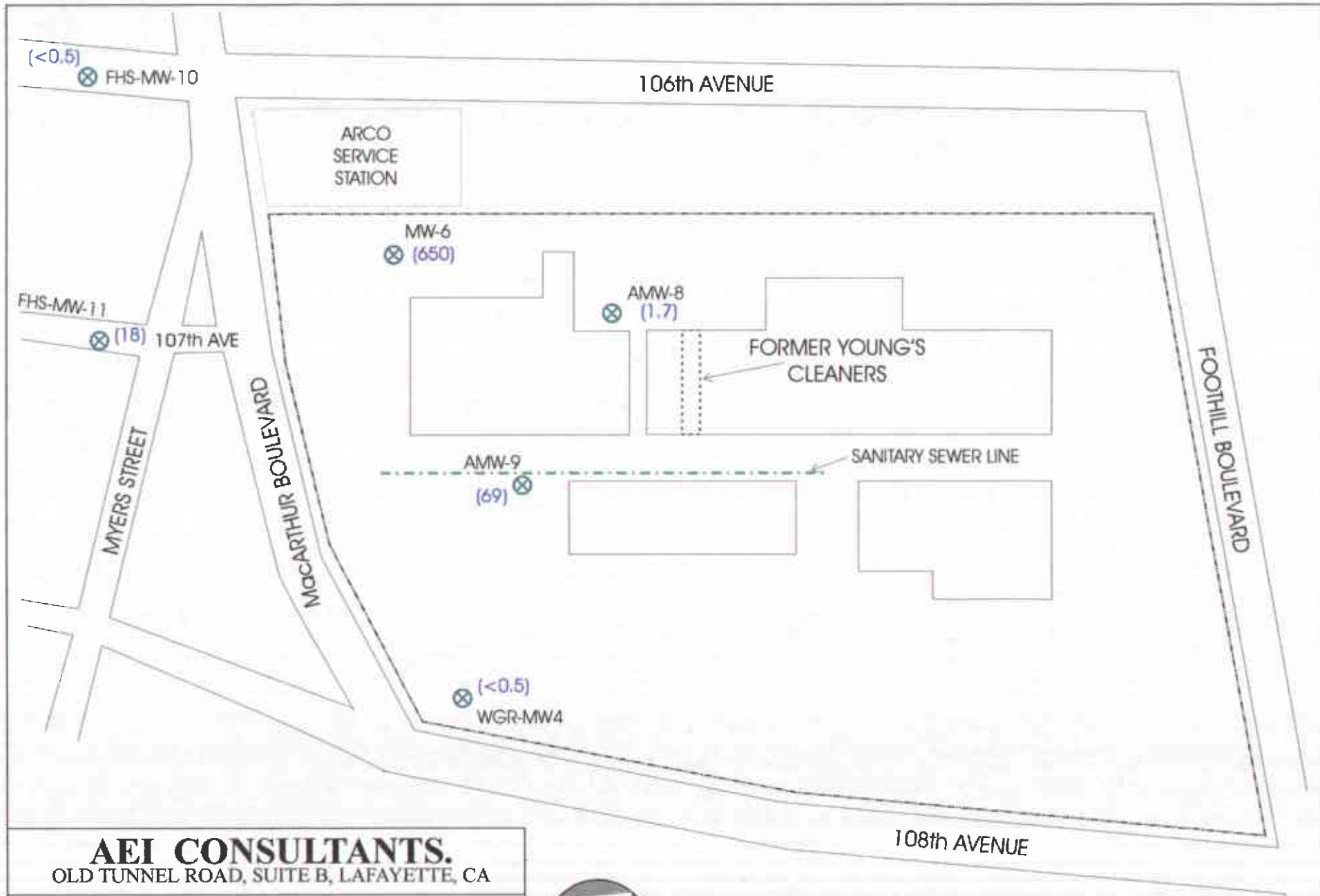
PCE CONC. - DEEP ZONE (8/00)

10700 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA

FIGURE 9



⊗ DEEP GROUNDWATER ZONE WELL
 (100) CONCENTRATIONS OF PCE IN $\mu\text{g/L}$
 IN DEEP GROUNDWATER ZONE



AEI CONSULTANTS.
 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

PCE CONC. - DEEP ZONE (2/01)

10700 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA

FIGURE 10



⊗ DEEP GROUNDWATER ZONE WELL
 (100) CONCENTRATIONS OF PCE IN $\mu\text{g/L}$
 IN DEEP GROUNDWATER ZONE

FIGURE 11

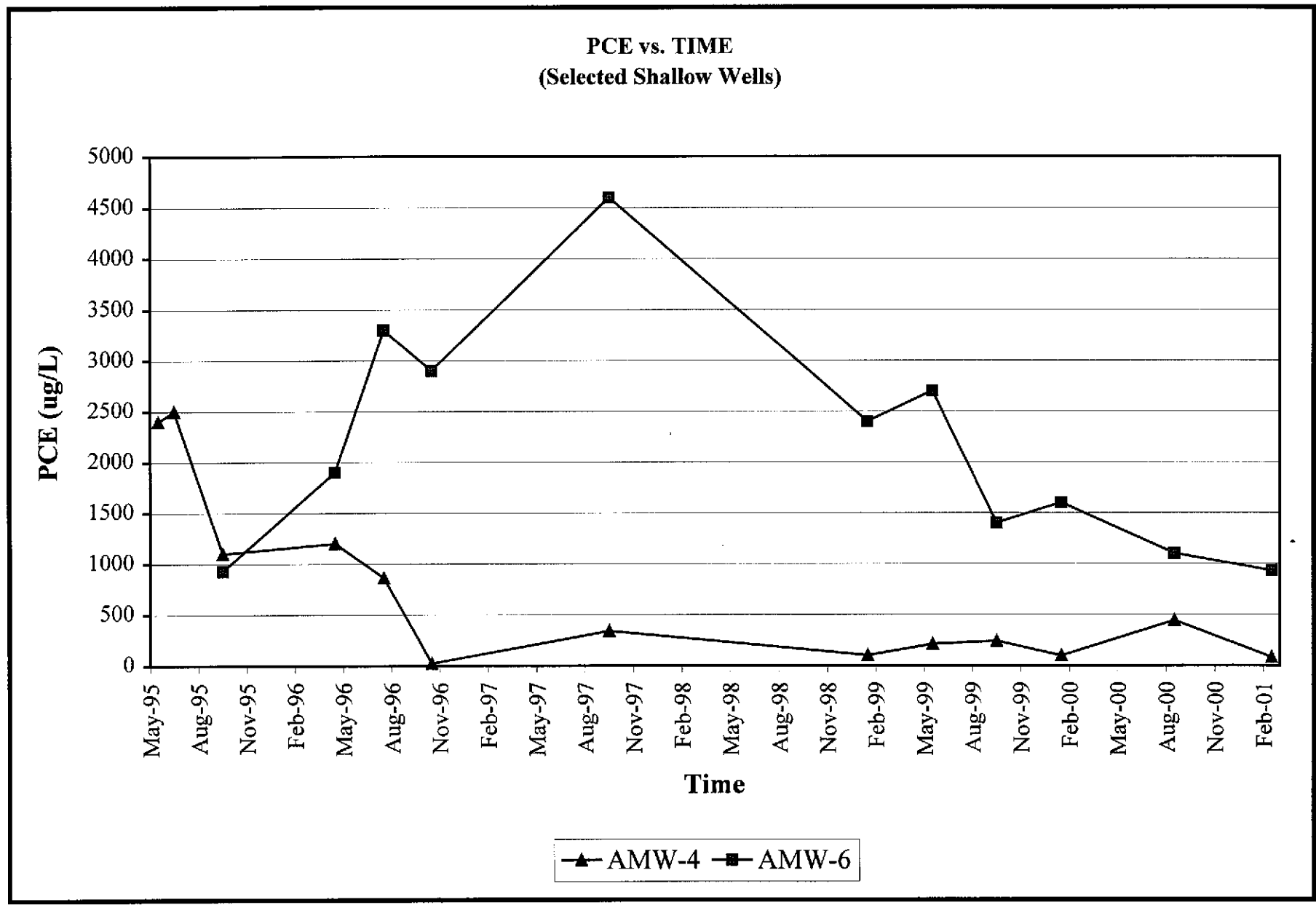


FIGURE 12

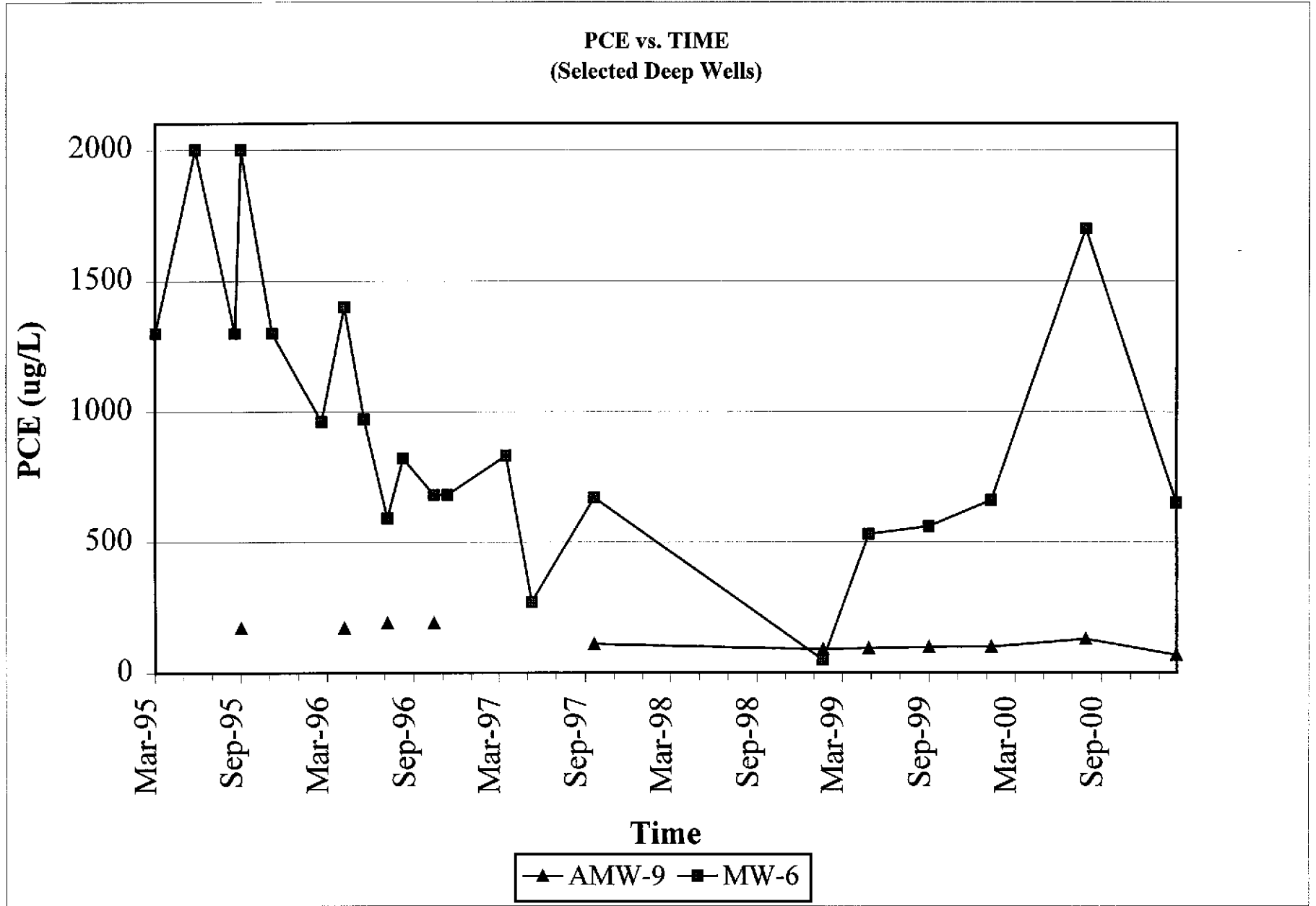
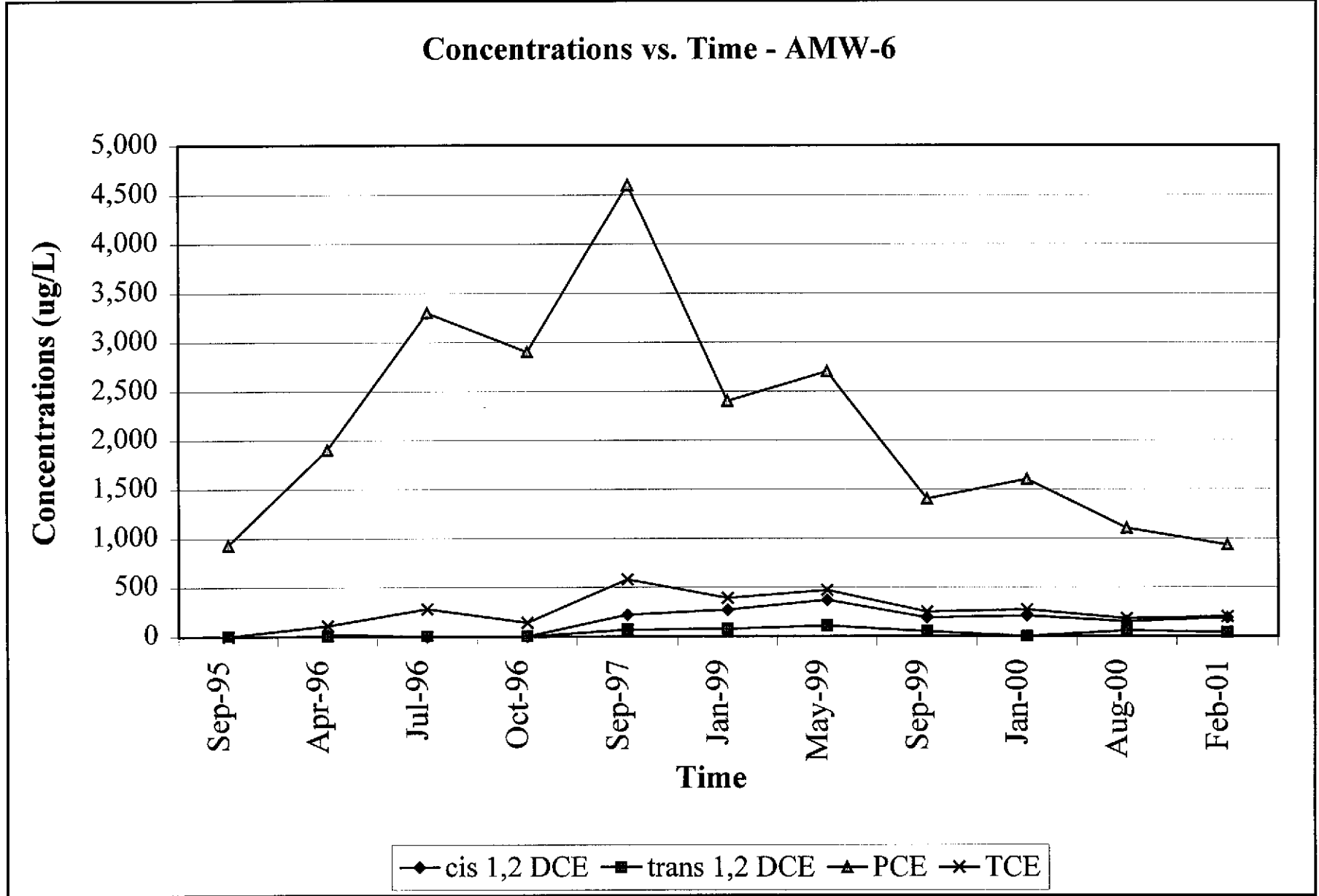


FIGURE 13



**Table 1
Groundwater Levels**

| Well ID (Aquifer zone) | Date | Well Elevation (ft msl) | Depth to Water (ft) | Groundwater Elevation (Potential) (ft msl) |
|---------------------------|-----------|-------------------------------|---------------------------|--|
| AMW-1 (Shallow) | 1/29/1999 | 64.51 | 23.01 | 41.50 |
| | 5/5/1999 | 64.51 | 21.25 | 43.26 |
| | 10/9/1999 | 64.51 | 24.14 | 40.37 |
| | 1/20/2000 | 64.51 | 24.66 | 39.85 |
| | 8/8/2000 | 64.51 | 23.30 | 41.21 |
| | 2/15/2001 | 64.51 | 23.22 | 41.29 |
| AMW-4 (Shallow) | 1/29/1999 | 64.79 | 11.51 | 53.28 |
| | 5/5/1999 | 64.79 | 10.14 | 54.65 |
| | 10/9/1999 | 64.79 | 12.04 | 52.75 |
| | 1/20/2000 | 64.79 | 13.50 | 51.29 |
| | 8/8/2000 | 64.79 | 11.74 | 53.05 |
| | 2/15/2001 | 64.79 | 12.32 | 52.47 |
| AMW-5 (Shallow) | 1/29/1999 | 64.97 | 13.87 | 51.10 |
| | 5/5/1999 | 64.97 | 12.83 | 52.14 |
| | 10/9/1999 | 64.97 | 14.25 | 50.72 |
| | 1/20/2000 | 64.97 | 14.91 | 50.06 |
| | 8/8/2000 | 64.97 | 14.14 | 50.83 |
| | 2/15/2001 | 64.97 | 14.32 | 50.65 |
| AMW-6 (Shallow) | 1/29/1999 | 65.10 | 12.74 | 52.36 |
| | 5/5/1999 | 65.10 | 11.30 | 53.80 |
| | 10/9/1999 | 65.10 | 13.29 | 51.81 |
| | 1/20/2000 | 65.10 | 14.21 | 50.89 |
| | 8/8/2000 | 65.10 | 12.95 | 52.15 |
| | 2/15/2001 | 65.10 | 12.64 | 52.46 |
| AMW-7 (Shallow) | 1/29/1999 | 64.24 | 14.91 | 49.33 |
| | 5/5/1999 | 64.24 | * | |
| AMW-8 (Deep) | 1/29/1999 | 64.55 | 16.86 | 47.69 |
| | 5/5/1999 | 64.55 | 14.46 | 50.09 |
| | 10/9/1999 | 64.55 | 17.10 | 47.45 |
| | 1/20/2000 | 64.55 | 18.51 | 46.04 |
| | 8/8/2000 | 64.55 | 16.71 | 47.84 |
| | 2/15/2001 | 64.55 | 17.31 | 47.24 |
| AMW-9 (Deep) | 1/29/1999 | 63.48 | 23.22 | 40.26 |
| | 5/5/1999 | 63.48 | 21.40 | 42.08 |
| | 10/9/1999 | 63.48 | 23.74 | 39.74 |
| | 1/20/2000 | 63.48 | 24.92 | 38.56 |
| | 8/8/2000 | 63.48 | 23.01 | 40.47 |
| | 2/15/2001 | 63.48 | 21.20 | 42.28 |

Table 1: Continued

| Well ID (Aquifer zone) | Date | Well Elevation (ft msl) | Depth to Water (ft) | Groundwater Elevation (Potential) (ft msl) |
|---------------------------|-----------|-------------------------------|---------------------------|--|
| WGR MW-2 (Shallow) | 1/29/1999 | 63.18 | 23.41 | 39.77 |
| | 5/5/1999 | 63.18 | 21.41 | 41.77 |
| | 10/9/1999 | 63.18 | 24.62 | 38.56 |
| | 1/20/2000 | 63.18 | 25.24 | 37.94 |
| | 8/8/2000 | 63.18 | 23.41 | 39.77 |
| WGR MW-3 (Shallow) | 1/29/1999 | 58.34 | 15.81 | 42.53 |
| | 5/5/1999 | 58.34 | 18.43 | 39.91 |
| | 10/9/1999 | 58.34 | 21.38 | 36.96 |
| | 1/20/2000 | 58.34 | 19.76 | 38.58 |
| | 8/8/2000 | 58.34 | 20.88 | 37.46 |
| WGR MW-4 (Deep) | 1/29/1999 | 60.02 | 26.23 | 33.79 |
| | 5/5/1999 | 60.02 | 23.80 | 36.22 |
| | 10/9/1999 | 60.02 | 27.73 | 32.29 |
| | 1/20/2000 | 60.02 | 27.97 | 32.05 |
| | 8/8/2000 | 60.02 | 26.00 | 34.02 |
| | 2/15/2001 | 60.02 | 26.55 | 33.47 |
| FHS MW-10 (Deep) | 1/29/1999 | 52.34 | 23.91 | 28.43 |
| | 5/5/1999 | 52.34 | 20.55 | 31.79 |
| | 10/9/1999 | 52.34 | 25.00 | 27.34 |
| | 1/20/2000 | 52.34 | 27.23 | 25.11 |
| | 8/8/2000 | 52.34 | 24.06 | 28.28 |
| | 2/15/2001 | 52.34 | 24.16 | 28.18 |
| FHS MW-11 (Deep) | 1/29/1999 | 54.06 | 26.38 | 27.68 |
| | 5/5/1999 | 54.06 | 22.72 | 31.34 |
| | 10/9/1999 | 54.06 | 27.42 | 26.64 |
| | 1/20/2000 | 54.06 | 29.31 | 24.75 |
| | 8/8/2000 | 54.06 | 26.11 | 27.95 |
| | 2/15/2001 | 54.06 | 26.43 | 27.63 |
| MW-6 (Deep) | 1/29/1999 | 61.78 | 32.87 | 28.91 |
| | 5/5/1999 | 61.78 | 29.41 | 32.37 |
| | 9/10/1999 | 61.78 | 33.98 | 27.80 |
| | 1/20/2000 | 61.78 | 36.02 | 25.76 |
| | 8/8/2000 | 61.78 | 32.73 | 29.05 |
| | 2/15/2001 | 61.78 | 33.34 | 28.44 |
| MW-7 (Shallow) | 1/20/2000 | 58.64 | 20.32 | 38.32 |
| | 8/8/2000 | 58.64 | 20.50 | 38.14 |
| | 2/15/2001 | 58.64 | 16.95 | 41.69 |

Notes: All well elevations are measured from the top of casing not from the ground surface.
ft msl = feet above mean sea level
* AMW-7 was opened during construction activities, with top soil being introduced to the well, water level and samples were not collected from this well

Table 2
Groundwater Sample Analytical Data

| Well (aquifer zone) | Date | Consultant | cis 1,2 DCE | trans 1,2 DCE | PCE | TCE | VHCs* |
|------------------------|------------|------------|-------------|---------------|------|------|-------|
| | | | µg/L | µg/L | µg/L | µg/L | µg/L |
| AMW-1 (shallow) | 3/23/1995 | Augeus | - | <0.5 | <0.5 | <0.5 | <0.5 |
| | 6/21/1995 | Augeus | - | <0.5 | <0.5 | <0.5 | <0.5 |
| | 9/11/1995 | Augeus | - | <0.5 | <0.5 | <0.5 | <0.5 |
| | 4/16/1996 | PES | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 7/17/1996 | PES | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 10/23/1996 | PES | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 9/29/1997 | PES | NS | NS | NS | NS | NS |
| | 1/20/2000 | AEI | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 8/8/2000 | AEI | NS | NS | NS | NS | NS |
| 2/15/2001 | AEI | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | |
| AMW-4 (shallow) | 5/15/1995 | Augeus | NR | <50 | 2400 | <50 | NR |
| | 6/21/1995 | Augeus | NR | <50 | 2500 | <50 | NR |
| | 9/13/1995 | Augeus | NR | <25 | 1100 | <25 | NR |
| | 4/16/1996 | PES | <10 | <10 | 1200 | 10 | NR |
| | 7/17/1996 | PES | <10 | <10 | 860 | <10 | NR |
| | 10/23/1996 | PES | <0.5 | <0.5 | 22 | 0.5 | NR |
| | 9/29/1997 | PES | <3 | <3 | 340 | 3 | NR |
| | 1/29/1999 | AEI | <3 | <3 | 100 | <3 | <3 |
| | 5/5/1999 | AEI | <5 | <5 | 210 | <5 | <5 |
| | 9/10/1999 | AEI | 10 | <5 | 240 | 18 | <5 |
| | 1/20/2000 | AEI | 46 | <2.5 | 97 | 6.2 | <2.5 |
| | 8/8/2000 | AEI | <5 | <5 | 440 | 8 | <5 |
| | 2/15/2001 | AEI | <2.5 | <2.5 | 81 | 2.6 | <2.5 |
| AMW-5 (shallow) | 5/15/1995 | Augeus | NR | <0.5 | 1.2 | <0.5 | NR |
| | 6/21/1995 | Augeus | NR | <0.5 | <0.5 | <0.5 | NR |
| | 9/13/1995 | Augeus | NR | <0.5 | <0.5 | <0.5 | NR |
| | 4/16/1996 | PES | <0.5 | <0.5 | <0.5 | <0.5 | NR |
| | 7/17/1996 | PES | <0.5 | <0.5 | 0.6 | <0.5 | NR |
| | 10/23/1996 | PES | <0.5 | <0.5 | 0.8 | <0.5 | NR |
| | 9/29/1997 | PES | <0.5 | <0.5 | 13 | <0.5 | NR |
| | 1/29/1999 | AEI | NA | NA | NA | NA | NA |
| | 5/5/1999 | AEI | <1 | <1 | 36 | <1 | <1 |
| | 9/10/1999 | AEI | <1 | <1 | 35 | <1 | <1 |
| | 1/20/2000 | AEI | <1 | <1 | 36 | <1 | <1 |
| | 8/8/2000 | AEI | <0.5 | <0.5 | 50 | 0.72 | <0.5 |
| | 2/15/2001 | AEI | <0.5 | <0.5 | 26 | 0.76 | <0.5 |
| AMW-6 (shallow) | 9/13/1995 | Augeus | NR | <25 | 930 | <25 | NR |
| | 4/16/1996 | PES | 20 | <10 | 1900 | 110 | NR |
| | 7/17/1996 | PES | <30 | <30 | 3300 | 280 | NR |
| | 10/23/1996 | PES | <30 | <30 | 2900 | 140 | NR |
| | 9/29/1997 | PES | 220 | 70 | 4600 | 580 | NR |
| | 1/29/1999 | AEI | 270 | 77 | 2400 | 390 | <63 |
| | 5/5/1999 | AEI | 370 | 110 | 2700 | 470 | <71 |
| | 9/10/1999 | AEI | 190 | 49 | 1400 | 250 | <36 |
| | 1/20/2000 | AEI | 210 | <35 | 1600 | 270 | <35 |
| | 8/8/2000 | AEI | 150 | 56 | 1100 | 180 | <25 |
| | 2/15/2001 | AEI | 190 | 40 | 930 | 200 | <25 |

Table 2 Continued

| Well (aquifer zone) | Date | Consultant | cis 1,2 DCE | trans 1,2 DCE | PCE | TCE | VHCs* |
|------------------------|-----------------|------------|-------------|---------------|------|------|-------|
| | | | µg/L | µg/L | µg/L | µg/L | µg/L |
| AMW-7 (shallow) | 9/13/1995 | Augeus | NR | <25 | 2350 | 340 | NR |
| | 4/16/1996 | PES | 2200 | 60 | 2300 | 500 | NR |
| | 7/17/1996 | PES | 2100 | <30 | 2400 | 530 | NR |
| | 10/23/1996 | PES | 3100 | 50 | 3400 | 610 | NR |
| | 9/29/1997 | PES | 33 | 20 | 520 | 100 | NR |
| | 1/29/1999 | AEI | 22 | <3 | 95 | 12 | <3 |
| | 5/5/1999 | AEI | NA | NA | NA | NA | NA |
| | 9/10/1999 | AEI | NA | NA | NA | NA | NA |
| | 1/20/2000 | AEI | NA | NA | NA | NA | NA |
| | 8/8/2000 | AEI | NA | NA | NA | NA | NA |
| | 2/15/2001 | AEI | NA | NA | NA | NA | NA |
| AMW-8 (deep) | 9/13/1995 | Augeus | - | <25 | 95 | <25 | <25 |
| | 4/16/1996 | PES | <0.5 | <0.5 | 0.8 | <0.5 | <0.5 |
| | 7/17/1996 | PES | <0.5 | <0.5 | 1.6 | <0.5 | <0.5 |
| | 10/23/1996 | PES | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 9/29/1997 | PES | <0.5 | <0.5 | 0.7 | <0.5 | <0.5 |
| | 1/20/2000 | AEI | <0.5 | <0.5 | 0.73 | <0.5 | <0.5 |
| | 8/8/2000 | AEI | NS | NS | NS | NS | NS |
| | 2/15/2001 | AEI | <0.5 | <0.5 | 1.7 | <0.5 | <0.5 |
| | AMW-9 (deep) | 9/13/1995 | Augeus | NR | <25 | 170 | <25 |
| 4/16/1996 | | PES | 7 | <3 | 170 | 4 | NR |
| 7/17/1996 | | PES | <3 | <3 | 190 | 4 | NR |
| 10/23/1996 | | PES | <3 | <3 | 190 | <3 | NR |
| 9/29/1997 | | PES | <3 | <3 | 110 | <3 | NR |
| 1/29/1999 | | AEI | <4 | <4 | 90 | <4 | <4 |
| 5/5/1999 | | AEI | <2.5 | <2.5 | 94 | <2.5 | <2.5 |
| 9/10/1999 | | AEI | <2.1 | <2.1 | 99 | <2.1 | <2.1 |
| 1/20/2000 | | AEI | <0.5 | <0.5 | 100 | <0.5 | <0.5 |
| 8/8/2000 | | AEI | <2.5 | <2.5 | 130 | <2.5 | <2.5 |
| 2/15/2001 | | AEI | <1.0 | <1.0 | 69 | <1.0 | <1.0 |
| FHS MW-10 (deep) | 10/9/1997 | PES | <0.5 | <0.5 | <0.5 | <0.5 | NR |
| | 1/29/1999 | AEI | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 5/5/1999 | AEI | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 9/10/1999 | AEI | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 1/20/2000 | AEI | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 8/8/2000 | AEI | NS | NS | NS | NS | NS |
| | 2/15/2001 | AEI | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| FHS MW-11 (deep) | 9/29/1997 | PES | <0.5 | <0.5 | 4 | <0.5 | NR |
| | 1/29/1999 | AEI | <0.5 | <0.5 | 7 | <0.5 | <0.5 |
| | 5/5/1999 | AEI | <0.5 | <0.5 | 7.1 | <0.5 | <0.5 |
| | 9/10/1999 | AEI | <0.5 | <0.5 | 7.5 | <0.5 | <0.5 |
| | 1/20/2000 | AEI | <0.5 | <0.5 | 7.5 | <0.5 | <0.5 |
| | 8/8/2000 | AEI | <0.5 | <0.5 | 38 | <0.5 | <0.5 |
| | 2/15/2001 | AEI | <0.5 | <0.5 | 18 | <0.5 | <0.5 |

Table 2 Continued

| Well (aquifer zone) | Date | Consultant | cis 1,2 DCE | trans 1,2 DCE | PCE | TCE | VHCs* |
|------------------------|------------|------------|-------------|---------------|------|------|-------|
| | | | µg/L | µg/L | µg/L | µg/L | µg/L |
| MW-6 (deep) | 3/11/1995 | EMCON | <20 | <0.5 | 1300 | <20 | NR |
| | 6/5/1995 | EMCON | <20 | <20 | 2000 | <20 | NR |
| | 8/29/1995 | EMCON | <20 | <20 | 1300 | <20 | NR |
| | 9/11/1995 | Augeus | NR | <50 | 2000 | <50 | NR |
| | 11/16/1995 | EMCON | <20 | <20 | 1300 | <20 | NR |
| | 2/28/1996 | EMCON | <20 | <20 | 960 | <20 | NR |
| | 4/16/1996 | PES | 10 | 10 | 1400 | 10 | NR |
| | 5/28/1996 | EMCON | <20 | <20 | 970 | <20 | NR |
| | 7/17/1996 | PES | <5 | <5 | 590 | <5 | NR |
| | 8/19/1996 | EMCON | <20 | <20 | 820 | <20 | NR |
| | 10/23/1996 | PES | <5 | <5 | 680 | <5 | NR |
| | 11/21/1996 | EMCON | <20 | <20 | 680 | <20 | NR |
| | 3/26/1997 | EMCON | <40 | <40 | 830 | <40 | NR |
| | 5/20/1997 | EMCON | <5 | <5 | 270 | <5 | NR |
| | 9/29/1997 | PES | <10 | <10 | 670 | <10 | NR |
| | 1/29/1999 | AEI | 1.4 | <1.3 | 49 | 3 | <1.3 |
| | 5/5/1999 | AEI | 19 | <11 | 530 | 38 | <11 |
| | 9/10/1999 | AEI | 27 | <12 | 560 | 53 | <12 |
| | 1/20/2000 | AEI | 18 | <8.5 | 660 | 31 | <8.5 |
| | 8/8/2000 | AEI | 98 | 16 | 1700 | 170 | <5 |
| 2/15/2001 | AEI | 64 | <10 | 650 | 87 | <10 | |
| MW-7 (shallow) | 3/11/1995 | EMCON | NS | NS | NS | NS | NS |
| | 6/5/1995 | EMCON | <10 | <10 | <10 | <10 | <10 |
| | 8/29/1995 | EMCON | <10 | <10 | <10 | <10 | <10 |
| | 9/11/1995 | Augeus | 85 | <50 | - | <50 | <50 |
| | 11/16/1995 | EMCON | <20 | <20 | <20 | <20 | <20 |
| | 2/28/1996 | EMCON | <10 | <10 | <10 | <10 | <10 |
| | 4/16/1996 | PES | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 5/28/1996 | EMCON | <10 | <10 | <10 | <10 | <10 |
| | 7/17/1996 | PES | 0.6 | <0.5 | <0.5 | 0.6 | <0.5 |
| | 8/19/1996 | EMCON | <1 | <1 | <1 | <1 | <1 |
| | 10/23/1996 | PES | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 11/21/1996 | EMCON | <10 | <10 | <10 | <10 | <10 |
| | 3/26/1997 | EMCON | <20 | <20 | <20 | <20 | <20 |
| | 5/20/1997 | EMCON | <10 | <10 | <10 | <10 | <10 |
| | 9/29/1997 | PES | <10 | <10 | <10 | <10 | <10 |
| | 1/20/2000 | AEI | <6.5 | <6.5 | <6.5 | <6.5 | <6.5 |
| | 8/8/2000 | AEI | NS | NS | NS | NS | NS |
| 2/15/2001 | AEI | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | |
| WGR MW-4 (deep) | 4/16/1996 | PES | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 7/17/1996 | PES | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 10/23/1996 | PES | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 9/29/1997 | PES | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| | 2/15/2001 | AEI | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| M.C.L.s | | 6 | 10 | 5 | 5 | | |

M.C.L.s = Maximum Contaminant Levels, listed for detected chemicals only

NS = Well not sampled

NR = Not Reported

cis 1,2-Dichloroethene (cis 1,2 DCE)

trans 1,2-Dichloroethene (trans 1,2 DCE)

Tetrachloroethene (PCE)

Trichloroethene (TCE)

VHCs = All other chemicals by EPA method 601/8010

APPENDIX A

WELL FIELD SAMPLING FORMS

**AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD
SAMPLING FORM**

Monitoring Well Number: AMW-1 (shallow)

| | |
|---|---------------------------|
| Project Name: Drake Builders | Date of Sampling: 2/15/01 |
| Job Number: 3067 | Name of Sampler: OA / JO |
| Project Address: 10700 MacArthur Boulevard, Oakland | |

MONITORING WELL DATA

| | |
|-------------------------------------|-------------------------|
| Well Casing Diameter (2"/4"/6") | 2" |
| Seal at Grade -- Type and Condition | Cement / Good |
| Well Cap & Lock -- OK/Replace | OK |
| Elevation of Top of Casing | 64.51 |
| Depth of Well | 34 |
| Depth to Water | 23.22 |
| Water Elevation | 41.29 |
| Three Well Volumes (gallons)* | |
| 2" casing: (TD - DTW)(0.16)(3) | 5.17 |
| 4" casing: (TD - DTW)(0.65)(3) | |
| 6" casing: (TD - DTW)(1.44)(3) | |
| Actual Volume Purged (gallons) | 5.5 |
| Appearance of Purge Water | Slightly turbid, clears |

GROUNDWATER SAMPLES

| | |
|----------------------------------|--------------|
| Number of Samples/Container Size | 2 40 ml VOAs |
|----------------------------------|--------------|

| Time | Vol Remvd (gal) | Temp (deg C) | pH | TDS (ppm) | Comments |
|------|-----------------|--------------|------|-----------|----------|
| | 2 | 18.5 | 7.15 | 783 | |
| | 4 | 18.7 | 7.14 | 791 | |
| | 5 | 18.9 | 7.13 | 804 | |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

**AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD
SAMPLING FORM**

Monitoring Well Number: AMW-4 (shallow)

| | |
|---|---------------------------|
| Project Name: Drake Builders | Date of Sampling: 2/15/01 |
| Job Number: 3067 | Name of Sampler: OA / JO |
| Project Address: 10700 MacArthur Boulevard, Oakland | |

MONITORING WELL DATA

| | |
|-------------------------------------|---------------|
| Well Casing Diameter (2"/4"/6") | 2" |
| Seal at Grade -- Type and Condition | Cement / Good |
| Well Cap & Lock -- OK/Replace | OK |
| Elevation of Top of Casing | 64.79 |
| Depth of Well | 25 |
| Depth to Water | 12.32 |
| Water Elevation | 52.47 |
| Three Well Volumes (gallons)* | |
| 2" casing: (TD - DTW)(0.16)(3) | 6.09 |
| 4" casing: (TD - DTW)(0.65)(3) | |
| 6" casing: (TD - DTW)(1.44)(3) | |
| Actual Volume Purged (gallons) | 7 |
| Appearance of Purge Water | Clear |

GROUNDWATER SAMPLES

| | |
|----------------------------------|--------|
| Number of Samples/Container Size | 2 VOAs |
|----------------------------------|--------|

| Time | Vol Remvd (gal) | Temp (deg C) | pH | TDS (ppm) | Comments |
|------|-----------------|--------------|------|-----------|----------|
| | 2 | 18.7 | 7.14 | 465 | |
| | 4 | 18.6 | 7.03 | 645 | |
| | 6 | 18.9 | 7.02 | 654 | |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|---|-----------------|--------------|---------------------------|-----------|----------|
| Monitoring Well Number: AMW-5 (shallow) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 2/15/01 | | |
| Job Number: 3067 | | | Name of Sampler: OA / JO | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 2" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 64.97 | | |
| Depth of Well | | | 30 | | |
| Depth to Water | | | 14.32 | | |
| Water Elevation | | | 50.65 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | 7.53 | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | 8 | | |
| Appearance of Purge Water | | | Slightly turbid, clears | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | 2 VOAs | | |
| Time | Vol Remvd (gal) | Temp (deg C) | pH | TDS (ppm) | Comments |
| | 2 | 18.5 | 7.08 | 957 | |
| | 4 | 17.9 | 7.08 | 950 | |
| | 7 | 18.1 | 7.01 | 967 | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| No solvent odor | | | | | |

TD - Total Depth of Well
 DTW - Depth To Water

**AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD
SAMPLING FORM**

Monitoring Well Number: AMW-6 (shallow)

| | |
|---|---------------------------|
| Project Name: Drake Builders | Date of Sampling: 2/15/01 |
| Job Number: 3067 | Name of Sampler: OA / JO |
| Project Address: 10700 MacArthur Boulevard, Oakland | |

MONITORING WELL DATA

| | |
|-------------------------------------|---------------|
| Well Casing Diameter (2"/4"/6") | 2" |
| Seal at Grade -- Type and Condition | Cement / Good |
| Well Cap & Lock -- OK/Replace | OK |
| Elevation of Top of Casing | 65.10 |
| Depth of Well | 25 |
| Depth to Water | 12.64 |
| Water Elevation | 52.46 |
| Three Well Volumes (gallons)* | |
| 2" casing: (TD - DTW)(0.16)(3) | 5.93 |
| 4" casing: (TD - DTW)(0.65)(3) | |
| 6" casing: (TD - DTW)(1.44)(3) | |
| Actual Volume Purged (gallons) | 6 |
| Appearance of Purge Water | Turbid |

GROUNDWATER SAMPLES

| | |
|----------------------------------|--------|
| Number of Samples/Container Size | 2 VOAs |
|----------------------------------|--------|

| Time | Vol Remvd (gal) | Temp (deg C) | PH | TDS (ppm) | Comments |
|------|-----------------|--------------|------|-----------|----------|
| | 2 | 17.5 | 6.96 | 869 | |
| | 4 | 17.8 | 6.97 | 903 | |
| | 6 | 17.4 | 6.97 | 941 | |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

**AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD
SAMPLING FORM**

Monitoring Well Number: AMW-8 (deep)

| | |
|---|---------------------------|
| Project Name: Drake Builders | Date of Sampling: 2/15/01 |
| Job Number: 3067 | Name of Sampler: OA / JO |
| Project Address: 10700 MacArthur Boulevard, Oakland | |

MONITORING WELL DATA

| | |
|-------------------------------------|-----------------|
| Well Casing Diameter (2"/4"/6") | 2" |
| Seal at Grade -- Type and Condition | Cement / Good |
| Well Cap & Lock -- OK/Replace | OK |
| Elevation of Top of Casing | 64.55 |
| Depth of Well | 45 |
| Depth to Water | 17.31 |
| Water Elevation | 47.24 |
| Three Well Volumes (gallons)* | |
| 2" casing: (TD - DTW)(0.16)(3) | 13.3 |
| 4" casing: (TD - DTW)(0.65)(3) | |
| 6" casing: (TD - DTW)(1.44)(3) | |
| Actual Volume Purged (gallons) | 14 |
| Appearance of Purge Water | Slightly turbid |

GROUNDWATER SAMPLES

| | |
|----------------------------------|--------|
| Number of Samples/Container Size | 2 VOAs |
|----------------------------------|--------|

| Time | Vol Remvd (gal) | Temp (deg C) | pH | TDS (ppm) | Comments |
|------|-----------------|--------------|------|-----------|----------|
| | 4 | 18.6 | 8.18 | 165 | |
| | 8 | 18.1 | 8.71 | 166 | |
| | 11 | 18.5 | 8.22 | 165 | |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

**AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD
SAMPLING FORM**

Monitoring Well Number: AMW-9 (deep)

| | |
|------------------------------|---------------------------|
| Project Name: Drake Builders | Date of Sampling: 2/15/01 |
|------------------------------|---------------------------|

| | |
|------------------|--------------------------|
| Job Number: 3067 | Name of Sampler: OA / JO |
|------------------|--------------------------|

Project Address: 10700 MacArthur Boulevard, Oakland

MONITORING WELL DATA

| | |
|---------------------------------|----|
| Well Casing Diameter (2"/4"/6") | 2" |
|---------------------------------|----|

| | |
|-------------------------------------|---------------|
| Seal at Grade -- Type and Condition | Cement / Good |
|-------------------------------------|---------------|

| | |
|-------------------------------|----|
| Well Cap & Lock -- OK/Replace | OK |
|-------------------------------|----|

| | |
|----------------------------|-------|
| Elevation of Top of Casing | 63.48 |
|----------------------------|-------|

| | |
|---------------|------|
| Depth of Well | 54.3 |
|---------------|------|

| | |
|----------------|-------|
| Depth to Water | 21.20 |
|----------------|-------|

| | |
|-----------------|-------|
| Water Elevation | 42.28 |
|-----------------|-------|

| | |
|-------------------------------|--|
| Three Well Volumes (gallons)* | |
|-------------------------------|--|

| | |
|--------------------------------|-------|
| 2" casing: (TD - DTW)(0.16)(3) | 15.89 |
|--------------------------------|-------|

| | |
|--------------------------------|--|
| 4" casing: (TD - DTW)(0.65)(3) | |
|--------------------------------|--|

| | |
|--------------------------------|--|
| 6" casing: (TD - DTW)(1.44)(3) | |
|--------------------------------|--|

| | |
|--------------------------------|----|
| Actual Volume Purged (gallons) | 16 |
|--------------------------------|----|

| | |
|---------------------------|----------------|
| Appearance of Purge Water | Turbid, clears |
|---------------------------|----------------|

GROUNDWATER SAMPLES

| | |
|----------------------------------|--------|
| Number of Samples/Container Size | 2 VOAs |
|----------------------------------|--------|

| Time | Vol Remvd (gal) | Temp (deg C) | pH | TDS (ppm) | Comments |
|------|-----------------|--------------|------|-----------|----------|
| | 5 | 20.7 | 7.03 | 871 | |
| | 10 | 21.1 | 7.04 | 938 | |
| | 15 | 21.0 | 7.01 | 941 | |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Slow recharge

TD - Total Depth of Well
DTW - Depth To Water

**AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD
SAMPLING FORM**

Monitoring Well Number: WGR MW-4 (deep)

| | |
|---|---------------------------|
| Project Name: Drake Builders | Date of Sampling: 2/15/01 |
| Job Number: 3067 | Name of Sampler: OA / JO |
| Project Address: 10700 MacArthur Boulevard, Oakland | |

MONITORING WELL DATA

| | |
|-------------------------------------|--------------------------|
| Well Casing Diameter (2"/4"/6") | 4" |
| Seal at Grade -- Type and Condition | Cement / Good |
| Well Cap & Lock -- OK/Replace | OK |
| Elevation of Top of Casing | 60.02 |
| Depth of Well | 44.96 |
| Depth to Water | 26.55 |
| Water Elevation | 33.47 |
| Three Well Volumes (gallons)* | |
| 2" casing: (TD - DTW)(0.16)(3) | |
| 4" casing: (TD - DTW)(0.65)(3) | 35.9 |
| 6" casing: (TD - DTW)(1.44)(3) | |
| Actual Volume Purged (gallons) | 36 |
| Appearance of Purge Water | Dark, turbid then clears |

GROUNDWATER SAMPLES

Number of Samples/Container Size

| Time | Vol Remvd (gal) | Temp (deg C) | pH | TDS (ppm) | Comments |
|------|-----------------|--------------|------|-----------|----------|
| | 5 | 20.9 | 6.15 | 450 | |
| | 13 | 22.0 | 6.13 | 434 | |
| | 20 | 21.7 | 6.19 | 453 | |
| | 25 | 21.4 | 6.17 | 484 | |
| | 33 | 21.5 | 6.16 | 566 | |
| | | | | | |

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|---|-----------------|--------------|---------------------------|-----------|-----------------|
| Monitoring Well Number: FHS MW-10 (deep) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 2/15/01 | | |
| Job Number: 3067 | | | Name of Sampler: OA / JO | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 2" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 52.34 | | |
| Depth of Well | | | 51.94 | | |
| Depth to Water | | | 24.16 | | |
| Water Elevation | | | 28.18 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | 13.33 | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | 15 | | |
| Appearance of Purge Water | | | Clear | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | 2 VOAs | | |
| Time | Vol Remvd (gal) | Temp (deg C) | pH | TDS (ppm) | Comments |
| | 3 | 17.5 | 6.81 | 269 | Slightly turbid |
| | 7 | 18.2 | 6.70 | 269 | |
| | 11 | 18.2 | 6.67 | 269 | Clear |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| | | | | | |
| | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|--|-----------------|--------------|---------------------------|-----------|----------|
| Monitoring Well Number: FHS MW-11 (deep) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 2/15/01 | | |
| Job Number: 3067 | | | Name of Sampler: OA / JO | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 2" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 54.06 | | |
| Depth of Well | | | 64.07 | | |
| Depth to Water | | | 26.43 | | |
| Water Elevation | | | 27.63 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | 18.07 | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | 20 | | |
| Appearance of Purge Water | | | Clear | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | 2 VOAs | | |
| Time | Vol Remvd (gal) | Temp (deg C) | pH | TDS (ppm) | Comments |
| | 5 | 18.7 | 6.85 | 357 | |
| | 10 | 17.6 | 6.74 | 389 | |
| | 15 | 17.7 | 6.78 | 386 | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| | | | | | |
| | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|---|-----------------|--------------|---------------------------|-----------|----------|
| Monitoring Well Number: MW-6 (deep) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 2/15/01 | | |
| Job Number: 3067 | | | Name of Sampler: OA / JO | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 2" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 61.78 | | |
| Depth of Well | | | 48.69 | | |
| Depth to Water | | | 33.34 | | |
| Water Elevation | | | 28.44 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | 7.37 | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | 8 | | |
| Appearance of Purge Water | | | Turbid, clears | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | 2 VOAs | | |
| Time | Vol Remvd (gal) | Temp (deg C) | pH | TDS (ppm) | Comments |
| | 1 | 18.3 | 6.97 | 417 | |
| | 2.5 | 18.3 | 6.93 | 669 | |
| | 7 | 18.5 | 6.91 | 795 | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| | | | | | |
| | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

**AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD
SAMPLING FORM**

Monitoring Well Number: MW-7 (shallow)

| | |
|---|---------------------------|
| Project Name: Drake Builders | Date of Sampling: 2/15/01 |
| Job Number: 3067 | Name of Sampler: OA / JO |
| Project Address: 10700 MacArthur Boulevard, Oakland | |

MONITORING WELL DATA

| | |
|--------------------------------------|---------------|
| Well Casing Diameter (2"/4"/6") | 2" |
| Seal at Grade -- Type and Condition | Cement / Good |
| Well Cap & Lock -- OK/Replace | OK |
| Elevation of Top of Casing | 58.64 |
| Depth of Well | 38 |
| Depth to Water | 16.95 |
| Water Elevation | 41.69 |
| Three Well Volumes (gallons)* | |
| 2" casing: (TD - DTW)(0.16)(3) | 10.1 |
| 4" casing: (TD - DTW)(0.65)(3) | |
| 6" casing: (TD - DTW)(1.44)(3) | |
| Actual Volume Purged (gallons) | 11 |
| Appearance of Purge Water | Turbid |

GROUNDWATER SAMPLES

| | |
|----------------------------------|--------------|
| Number of Samples/Container Size | 2 40 ml VOAs |
|----------------------------------|--------------|

| Time | Vol Remvd (gal) | Temp (deg C) | pH | TDS (ppm) | Comments |
|------|-----------------|--------------|------|-----------|----------|
| | 2 | 19.4 | 6.41 | 221 | Turbid |
| | 5 | 19.2 | 6.33 | 222 | |
| | 8 | 19.6 | 6.35 | 226 | |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Strong hydrocarbon (gasoline) odor and visible sheen present during purging / sampling

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|---|-----------------|--------------|---------------------------|-----------|----------|
| Monitoring Well Number: AMW-1 (shallow) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 8/8/00 | | |
| Job Number: 3067 | | | Name of Sampler: PJM / OA | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 2" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 64.51 | | |
| Depth of Well | | | 34 | | |
| Depth to Water | | | 23.30 | | |
| Water Elevation | | | 41.21 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | 5.14 | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | | | |
| Appearance of Purge Water | | | | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | | | |
| Time | Vol Remvd (gal) | Temp (deg C) | PH | Cond (mS) | Comments |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| Well not sampled | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

**AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD
SAMPLING FORM**

Monitoring Well Number: AMW-4 (shallow)

| | |
|---|---------------------------|
| Project Name: Drake Builders | Date of Sampling: 8/8/00 |
| Job Number: 3067 | Name of Sampler: PJM / OA |
| Project Address: 10700 MacArthur Boulevard, Oakland | |

MONITORING WELL DATA

| | |
|-------------------------------------|---------------|
| Well Casing Diameter (2"/4"/6") | 2" |
| Seal at Grade -- Type and Condition | Cement / Good |
| Well Cap & Lock -- OK/Replace | OK |
| Elevation of Top of Casing | 64.79 |
| Depth of Well | 25 |
| Depth to Water | 11.74 |
| Water Elevation | 53.05 |
| Three Well Volumes (gallons)* | |
| 2" casing: (TD - DTW)(0.16)(3) | 6.36 |
| 4" casing: (TD - DTW)(0.65)(3) | |
| 6" casing: (TD - DTW)(1.44)(3) | |
| Actual Volume Purged (gallons) | 7 |
| Appearance of Purge Water | Clear |

GROUNDWATER SAMPLES

| | |
|----------------------------------|--------|
| Number of Samples/Container Size | 2 VOAs |
|----------------------------------|--------|

| Time | Vol Remvd (gal) | Temp (deg F) | PH | Cond (mS) | Comments |
|------|-----------------|--------------|------|-----------|----------|
| | 2 | 69.8 | 7.32 | 1400 | |
| | 5 | 68.7 | 7.03 | 1626 | |
| | 6.5 | 69.3 | 7.13 | 1623 | |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

No solvent odor

TD - Total Depth of Well
DTW - Depth To Water

**AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD
SAMPLING FORM**

Monitoring Well Number: AMW-5 (shallow)

| | |
|---|---------------------------|
| Project Name: Drake Builders | Date of Sampling: 8/8/00 |
| Job Number: 3067 | Name of Sampler: PJM / OA |
| Project Address: 10700 MacArthur Boulevard, Oakland | |

MONITORING WELL DATA

| | |
|--------------------------------------|-----------------|
| Well Casing Diameter (2"/4"/6") | 2" |
| Seal at Grade -- Type and Condition | Cement / Good |
| Well Cap & Lock -- OK/Replace | OK |
| Elevation of Top of Casing | 64.97 |
| Depth of Well | 30 |
| Depth to Water | 14.14 |
| Water Elevation | 50.83 |
| Three Well Volumes (gallons)* | |
| 2" casing: (TD - DTW)(0.16)(3) | 7.61 |
| 4" casing: (TD - DTW)(0.65)(3) | |
| 6" casing: (TD - DTW)(1.44)(3) | |
| Actual Volume Purged (gallons) | 8 |
| Appearance of Purge Water | Slightly turbid |

GROUNDWATER SAMPLES

| | |
|----------------------------------|--------|
| Number of Samples/Container Size | 2 VOAs |
|----------------------------------|--------|

| Time | Vol Remvd (gal) | Temp (deg F) | PH | Cond (mS) | Comments |
|------|-----------------|--------------|------|-----------|----------|
| | 2 | 71.4 | 8.00 | 1732 | |
| | 5 | 68.3 | 7.13 | 1682 | |
| | 7 | 69.7 | 7.39 | 1670 | |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

No solvent odor

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|---|-----------------|--------------|---------------------------|-----------|----------|
| Monitoring Well Number: AMW-6 (shallow) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 8/8/00 | | |
| Job Number: 3067 | | | Name of Sampler: PJM / OA | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 2" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 65.10 | | |
| Depth of Well | | | 25 | | |
| Depth to Water | | | 12.95 | | |
| Water Elevation | | | 52.15 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | 5.78 | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | 6 | | |
| Appearance of Purge Water | | | Slightly turbid | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | 2 VOAs | | |
| Time | Vol Remvd (gal) | Temp (deg C) | PH | Cond (mS) | Comments |
| | 2 | 72.0 | 8.74 | 1050 | |
| | 5 | 69.8 | 7.53 | 1450 | |
| | 6 | 67.8 | 8.42 | 1610 | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| No solvent odor | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|---|-----------------|--------------|---------------------------|-----------|----------|
| Monitoring Well Number: AMW-8 (deep) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 8/8/00 | | |
| Job Number: 3067 | | | Name of Sampler: PJM / OA | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 2" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 64.55 | | |
| Depth of Well | | | 45 | | |
| Depth to Water | | | 16.71 | | |
| Water Elevation | | | 47.84 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | | | |
| Appearance of Purge Water | | | | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | 2 VOAs | | |
| Time | Vol Remvd (gal) | Temp (deg C) | pH | Cond (mS) | Comments |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| | | | | | |
| | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|---|-----------------|--------------|---------------------------|-----------|--------------|
| Monitoring Well Number: AMW-9 (deep) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 8/8/00 | | |
| Job Number: 3067 | | | Name of Sampler: PJM / OA | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 2" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 63.48 | | |
| Depth of Well | | | 54.3 | | |
| Depth to Water | | | 23.01 | | |
| Water Elevation | | | 40.47 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | 15.02 | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | 15 | | |
| Appearance of Purge Water | | | Slightly turbid, clears | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | 2 VOAs | | |
| Time | Vol Remvd (gal) | Temp (deg F) | PH | Cond (mS) | Comments |
| | 5 | 70.0 | 7.26 | 1371 | |
| | 10 | | | | Battery died |
| | 15 | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| No solvent odor | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|---|-----------------|--------------|---------------------------|-----------|----------|
| Monitoring Well Number: WGR MW-2 (shallow) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 8/8/00 | | |
| Job Number: 3067 | | | Name of Sampler: PJM / OA | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 4" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | Replace | | |
| Elevation of Top of Casing | | | 63.18 | | |
| Depth of Well | | | 28 | | |
| Depth to Water | | | 23.41 | | |
| Water Elevation | | | 39.77 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | | | |
| Appearance of Purge Water | | | | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | | | |
| Time | Vol Remvd (gal) | Temp (deg C) | pH | Cond (mS) | Comments |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| | | | | | |
| | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|--|-----------------|--------------|---------------------------|-----------|----------|
| Monitoring Well Number: WGR MW-3 (shallow) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 8/8/00 | | |
| Job Number: 3067 | | | Name of Sampler: PJM / OA | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 4" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 58.34 | | |
| Depth of Well | | | 26.94 | | |
| Depth to Water | | | 20.88 | | |
| Water Elevation | | | 37.46 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | | | |
| Appearance of Purge Water | | | | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | | | |
| Time | Vol Remvd (gal) | Temp (deg C) | PH | Cond (mS) | Comments |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| | | | | | |
| | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|---|-----------------|--------------|---------------------------|-----------|----------|
| Monitoring Well Number: WGR MW-4 (deep) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 8/8/00 | | |
| Job Number: 3067 | | | Name of Sampler: PJM / OA | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 4" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 60.02 | | |
| Depth of Well | | | 44.96 | | |
| Depth to Water | | | 26.00 | | |
| Water Elevation | | | 34.02 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | | | |
| Appearance of Purge Water | | | | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | | | |
| Time | Vol Remvd (gal) | Temp (deg C) | pH | Cond (mS) | Comments |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| | | | | | |
| | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS -- GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|--|-----------------|--------------|---------------------------|-----------|----------|
| Monitoring Well Number: FHS MW-10 (deep) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 8/8/00 | | |
| Job Number: 3067 | | | Name of Sampler: PJM / OA | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 2" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 52.34 | | |
| Depth of Well | | | 51.94 | | |
| Depth to Water | | | 24.06 | | |
| Water Elevation | | | 28.28 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | 11.86 | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | 14 | | |
| Appearance of Purge Water | | | Clear | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | 2 VOAs | | |
| Time | Vol Remvd (gal) | Temp (deg C) | PH | Cond (mS) | Comments |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| No solvent odor | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|---|-----------------|--------------|---------------------------|-----------|----------|
| Monitoring Well Number: FHS MW-11 (deep) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 8/8/00 | | |
| Job Number: 3067 | | | Name of Sampler: PJM / OA | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 2" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 54.06 | | |
| Depth of Well | | | 64.07 | | |
| Depth to Water | | | 26.11 | | |
| Water Elevation | | | 27.95 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | 18.22 | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | 19 | | |
| Appearance of Purge Water | | | Clear | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | 2 VOAs | | |
| Time | Vol Remvd (gal) | Temp (deg C) | PH | Cond (mS) | Comments |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| No solvent odor | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

| AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM | | | | | |
|---|-----------------|--------------|---------------------------|-----------|----------|
| Monitoring Well Number: MW-6 (deep) | | | | | |
| Project Name: Drake Builders | | | Date of Sampling: 8/8/00 | | |
| Job Number: 3067 | | | Name of Sampler: PJM / OA | | |
| Project Address: 10700 MacArthur Boulevard, Oakland | | | | | |
| MONITORING WELL DATA | | | | | |
| Well Casing Diameter (2"/4"/6") | | | 2" | | |
| Seal at Grade -- Type and Condition | | | Cement / Good | | |
| Well Cap & Lock -- OK/Replace | | | OK | | |
| Elevation of Top of Casing | | | 61.78 | | |
| Depth of Well | | | 48.69 | | |
| Depth to Water | | | 32.73 | | |
| Water Elevation | | | 29.05 | | |
| Three Well Volumes (gallons)* | | | | | |
| 2" casing: (TD - DTW)(0.16)(3) | | | 7.66 | | |
| 4" casing: (TD - DTW)(0.65)(3) | | | | | |
| 6" casing: (TD - DTW)(1.44)(3) | | | | | |
| Actual Volume Purged (gallons) | | | 8 | | |
| Appearance of Purge Water | | | Turbid, clears | | |
| GROUNDWATER SAMPLES | | | | | |
| Number of Samples/Container Size | | | 2 VOAs | | |
| Time | Vol Remvd (gal) | Temp (deg F) | PH | Cond (mS) | Comments |
| | 2 | 77.2 | 7.36 | 1410 | |
| | 5 | 76.8 | 7.25 | 1380 | |
| | 7 | 77.1 | 7.37 | 1390 | |
| | | | | | |
| | | | | | |
| | | | | | |
| COMMENTS (i.e., sample odor, well recharge time & percent, etc.) | | | | | |
| | | | | | |
| | | | | | |

TD - Total Depth of Well
DTW - Depth To Water

**AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD
SAMPLING FORM**

Monitoring Well Number: MW-7 (shallow)

| | |
|---|---------------------------|
| Project Name: Drake Builders | Date of Sampling: 8/8/00 |
| Job Number: 3067 | Name of Sampler: PJM / OA |
| Project Address: 10700 MacArthur Boulevard, Oakland | |

MONITORING WELL DATA

| | |
|-------------------------------------|-------|
| Well Casing Diameter (2"/4"/6") | |
| Seal at Grade -- Type and Condition | |
| Well Cap & Lock -- OK/Replace | |
| Elevation of Top of Casing | 58.64 |
| Depth of Well | 38 |
| Depth to Water | 20.50 |
| Water Elevation | 38.14 |
| Three Well Volumes (gallons)* | |
| 2" casing: (TD - DTW)(0.16)(3) | 8.64 |
| 4" casing: (TD - DTW)(0.65)(3) | |
| 6" casing: (TD - DTW)(1.44)(3) | |
| Actual Volume Purged (gallons) | |
| Appearance of Purge Water | |

GROUNDWATER SAMPLES

Number of Samples/Container Size

| Time | Vol Remvd (gal) | Temp (deg C) | PH | Cond (mS) | Comments |
|------|--------------------|-----------------|----|--------------|----------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Strong hydrocarbon (gasoline) odor and visible sheen present during purging / sampling

TD - Total Depth of Well
DTW - Depth To Water

APPENDIX B

**LABORATORY ANALYTICAL AND
CHAIN OF CUSTODY DOCUMENTATION**



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

| | | |
|--|---------------------------------------|--------------------------|
| All Environmental, Inc. 3210 Old Tunnel Road, Suite B Lafayette, CA 94549-4157 | Client Project ID: #3067; Foothill SC | Date Sampled: 08/08/00 |
| | | Date Received: 08/08/00 |
| | Client Contact: Peter McIntyre | Date Extracted: 08/08/00 |
| | Client P.O: | Date Analyzed: 08/08/00 |

08/15/00

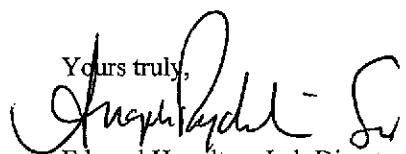
Dear Peter:

Enclosed are:

- 1). the results of 61 samples from your #3067; Foothill SC project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

| | | |
|--|---------------------------------------|--------------------------------|
| All Environmental, Inc. 3210 Old Tunnel Road, Suite B Lafayette, CA 94549-4157 | Client Project ID: #3067; Foothill SC | Date Sampled: 08/08/00 |
| | Client Contact: Peter McIntyre | Date Received: 08/08/00 |
| | Client P.O: | Date Extracted: 08/08-08/15/00 |
| | | Date Analyzed: 08/08-08/15/00 |

Volatile Halocarbons

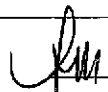
EPA method 601 or 8010

| Lab ID | 44685 | 44686 | 44687 | 44688 |
|--|---------------|-------|-------|--------|
| Client ID | AMW-4 | AMW-5 | AMW-6 | AMW-9 |
| Matrix | W | W | W | W |
| Compound | Concentration | | | |
| Bromodichloromethane | ND<5 | ND | ND<25 | ND<2.5 |
| Bromoform ^(b) | ND<5 | ND | ND<25 | ND<2.5 |
| Bromomethane | ND<5 | ND | ND<25 | ND<2.5 |
| Carbon Tetrachloride ^(c) | ND<5 | ND | ND<25 | ND<2.5 |
| Chlorobenzene | ND<5 | ND | ND<25 | ND<2.5 |
| Chloroethane | ND<5 | ND | ND<25 | ND<2.5 |
| 2-Chloroethyl Vinyl Ether ^(d) | ND<5 | ND | ND<25 | ND<2.5 |
| Chloroform ^(e) | ND<5 | ND | ND<25 | ND<2.5 |
| Chloromethane | ND<5 | ND | ND<25 | ND<2.5 |
| Dibromochloromethane | ND<5 | ND | ND<25 | ND<2.5 |
| 1,2-Dichlorobenzene | ND<5 | ND | ND<25 | ND<2.5 |
| 1,3-Dichlorobenzene | ND<5 | ND | ND<25 | ND<2.5 |
| 1,4-Dichlorobenzene | ND<5 | ND | ND<25 | ND<2.5 |
| Dichlorodifluoromethane | ND<5 | ND | ND<25 | ND<2.5 |
| 1,1-Dichloroethane | ND<5 | ND | ND<25 | ND<2.5 |
| 1,2-Dichloroethane | ND<5 | ND | ND<25 | ND<2.5 |
| 1,1-Dichloroethene | ND<5 | ND | ND<25 | ND<2.5 |
| cis 1,2-Dichloroethene | ND<5 | ND | 150 | ND<2.5 |
| trans 1,2-Dichloroethene | ND<5 | ND | 56 | ND<2.5 |
| 1,2-Dichloropropane | ND<5 | ND | ND<25 | ND<2.5 |
| cis 1,3-Dichloropropene | ND<5 | ND | ND<25 | ND<2.5 |
| trans 1,3-Dichloropropene | ND<5 | ND | ND<25 | ND<2.5 |
| Methylene Chloride ^(f) | ND<5 | ND | ND<30 | ND<2.5 |
| 1,1,2,2-Tetrachloroethane | ND<5 | ND | ND<25 | ND<2.5 |
| Tetrachloroethene | 440 | 50 | 1100 | 130 |
| 1,1,1-Trichloroethane | ND<5 | ND | ND<25 | ND<2.5 |
| 1,1,2-Trichloroethane | ND<5 | ND | ND<25 | ND<2.5 |
| Trichloroethene | 8.0 | 0.72 | 180 | ND<2.5 |
| Trichlorofluoromethane | ND<5 | ND | ND<25 | ND<2.5 |
| Vinyl Chloride ^(g) | ND<5 | ND | ND<25 | ND<2.5 |
| % Recovery Surrogate | 98 | 95 | 104 | 91 |
| Comments | | | | |

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

| | | |
|--|---------------------------------------|--------------------------------|
| All Environmental, Inc. 3210 Old Tunnel Road, Suite B Lafayette, CA 94549-4157 | Client Project ID: #3067; Foothill SC | Date Sampled: 08/08/00 |
| | | Date Received: 08/08/00 |
| | Client Contact: Peter McIntyre | Date Extracted: 08/08-08/15/00 |
| | Client P.O: | Date Analyzed: 08/08-08/15/00 |

Volatile Halocarbons

EPA method 601 or 8010

| Lab ID | 44689 | 44690 | | |
|--|---------------|-------|--|--|
| Client ID | FHS-MW-11 | MW-6 | | |
| Matrix | W | W | | |
| Compound | Concentration | | | |
| Bromodichloromethane | ND | ND<5 | | |
| Bromoform ^(b) | ND | ND<5 | | |
| Bromomethane | ND | ND<5 | | |
| Carbon Tetrachloride ^(c) | ND | ND<5 | | |
| Chlorobenzene | ND | ND<5 | | |
| Chloroethane | ND | ND<5 | | |
| 2-Chloroethyl Vinyl Ether ^(d) | ND | ND<5 | | |
| Chloroform ^(e) | ND | ND<5 | | |
| Chloromethane | ND | ND<5 | | |
| Dibromochloromethane | ND | ND<5 | | |
| 1,2-Dichlorobenzene | ND | ND<5 | | |
| 1,3-Dichlorobenzene | ND | ND<5 | | |
| 1,4-Dichlorobenzene | ND | ND<5 | | |
| Dichlorodifluoromethane | ND | ND<5 | | |
| 1,1-Dichloroethane | ND | ND<5 | | |
| 1,2-Dichloroethane | ND | ND<5 | | |
| 1,1-Dichloroethene | ND | ND<5 | | |
| cis 1,2-Dichloroethene | ND | 98 | | |
| trans 1,2-Dichloroethene | ND | 16 | | |
| 1,2-Dichloropropane | ND | ND<5 | | |
| cis 1,3-Dichloropropene | ND | ND<5 | | |
| trans 1,3-Dichloropropene | ND | ND<5 | | |
| Methylene Chloride ^(f) | ND | ND<5 | | |
| 1,1,2,2-Tetrachloroethane | ND | ND<5 | | |
| Tetrachloroethene | 38 | 1700 | | |
| 1,1,1-Trichloroethane | ND | ND<5 | | |
| 1,1,2-Trichloroethane | ND | ND<5 | | |
| Trichloroethene | ND | 170 | | |
| Trichlorofluoromethane | ND | ND<5 | | |
| Vinyl Chloride ^(g) | ND | ND<5 | | |
| % Recovery Surrogate | 91 | 93 | | |
| Comments | | | | |

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

QC REPORT

EPA 8010/8020/EDB

Date: 08/08/00-08/09/00 Matrix: Water

Extraction: N/A

| Compound | Concentration: ug/L | | | | %Recovery | | RPD |
|----------|---------------------|----|-----|---------------|-----------|-----|-----|
| | Sample | MS | MSD | Amount Spiked | MS | MSD | |

SampleID: 81000

Instrument: GC-1

| | | | | | | | |
|-----------------|-------|-------|------|--------|-----|----|-----|
| Surrogate1 | 0.000 | 90.0 | 89.0 | 100.00 | 90 | 89 | 1.1 |
| Chlorobenzene | 0.000 | 96.0 | 96.0 | 100.00 | 96 | 96 | 0.0 |
| Trichloroethane | 0.000 | 96.0 | 88.0 | 100.00 | 96 | 88 | 8.7 |
| 1,1-DCE | 0.000 | 102.0 | 96.0 | 100.00 | 102 | 96 | 6.1 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

| | | |
|--|--|--------------------------|
| All Environmental, Inc. 3210 Old Tunnel Road, Suite B Lafayette, CA 94549-4157 | Client Project ID: #3067; Drake Builders | Date Sampled: 02/15/01 |
| | | Date Received: 02/16/01 |
| | Client Contact: Peter McIntyre | Date Extracted: 02/16/01 |
| | Client P.O: | Date Analyzed: 02/16/01 |


02/26/01

Dear Peter:

Enclosed are:

- 1). the results of 11 samples from your #3067; **Drake Builders** project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

| | | |
|--|--|--------------------------------|
| All Environmental, Inc. 3210 Old Tunnel Road, Suite B Lafayette, CA 94549-4157 | Client Project ID: #3067; Drake Builders | Date Sampled: 02/15/01 |
| | | Date Received: 02/16/01 |
| | Client Contact: Peter McIntyre | Date Extracted: 02/16-02/22/01 |
| | Client P.O: | Date Analyzed: 02/16-02/22/01 |

Volatile Halocarbons

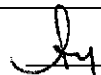
EPA method 601 or 8010

| Lab ID | 60320 | 60321 | 60322 | 60323 |
|--|---------------|--------|--------|--------|
| Client ID | AMW-1 | AMW-4 | AMW-5 | AMW-6 |
| Matrix | W | W | W | W |
| Compound | Concentration | | | |
| Bromodichloromethane | ND | ND<2.5 | ND | ND<2.5 |
| Bromoform ^(b) | ND | ND<2.5 | ND | ND<2.5 |
| Bromomethane | ND | ND<2.5 | ND | ND<2.5 |
| Carbon Tetrachloride ^(c) | ND | ND<2.5 | ND | ND<2.5 |
| Chlorobenzene | ND | ND<2.5 | ND | ND<2.5 |
| Chloroethane | ND | ND<2.5 | ND | ND<2.5 |
| 2-Chloroethyl Vinyl Ether ^(d) | ND | ND<2.5 | ND | ND<2.5 |
| Chloroform ^(e) | ND | ND<2.5 | ND | ND<2.5 |
| Chloromethane | ND | ND<2.5 | ND | ND<2.5 |
| Dibromochloromethane | ND | ND<2.5 | ND | ND<2.5 |
| 1,2-Dichlorobenzene | ND | ND<2.5 | ND | ND<2.5 |
| 1,3-Dichlorobenzene | ND | ND<2.5 | ND | ND<2.5 |
| 1,4-Dichlorobenzene | ND | ND<2.5 | ND | ND<2.5 |
| Dichlorodifluoromethane | ND | ND<2.5 | ND | ND<2.5 |
| 1,1-Dichloroethane | ND | ND<2.5 | ND | ND<2.5 |
| 1,2-Dichloroethane | ND | ND<2.5 | ND | ND<2.5 |
| 1,1-Dichloroethene | ND | ND<2.5 | ND | ND<2.5 |
| cis 1,2-Dichloroethene | ND | ND<2.5 | ND | 190 |
| trans 1,2-Dichloroethene | ND | ND<2.5 | ND | 40 |
| 1,2-Dichloropropane | ND | ND<2.5 | ND | ND<2.5 |
| cis 1,3-Dichloropropene | ND | ND<2.5 | ND | ND<2.5 |
| trans 1,3-Dichloropropene | ND | ND<2.5 | ND | ND<2.5 |
| Methylene Chloride ^(f) | ND<2.0 | ND<2.5 | ND<2.0 | ND<3.5 |
| 1,1,2,2-Tetrachloroethane | ND | ND<2.5 | ND | ND<2.5 |
| Tetrachloroethene | ND | 81 | 26 | 930 |
| 1,1,1-Trichloroethane | ND | ND<2.5 | ND | ND<2.5 |
| 1,1,2-Trichloroethane | ND | ND<2.5 | ND | ND<2.5 |
| Trichloroethene | ND | 2.6 | 0.76 | 200 |
| Trichlorofluoromethane | ND | ND<2.5 | ND | ND<2.5 |
| Vinyl Chloride ^(g) | ND | ND<2.5 | ND | ND<2.5 |
| % Recovery Surrogate | 108 | 102 | 98 | 96 |
| Comments | | | | |

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

| | | |
|--|--|--------------------------------|
| All Environmental, Inc. 3210 Old Tunnel Road, Suite B Lafayette, CA 94549-4157 | Client Project ID: #3067; Drake Builders | Date Sampled: 02/15/01 |
| | | Date Received: 02/16/01 |
| | Client Contact: Peter McIntyre | Date Extracted: 02/16-02/22/01 |
| | Client P.O: | Date Analyzed: 02/16-02/22/01 |


Volatile Halocarbons

| EPA method 601 or 8010 | | | | |
|--|---------------|--------|-----------|-----------|
| Lab ID | 60324 | 60325 | 60326 | 60327 |
| Client ID | AMW-8 | AMW-9 | FHS MW-10 | FHS MW-11 |
| Matrix | W | W | W | W |
| Compound | Concentration | | | |
| Bromodichloromethane | ND | ND<1.0 | ND | ND |
| Bromoform ^(b) | ND | ND<1.0 | ND | ND |
| Bromomethane | ND | ND<1.0 | ND | ND |
| Carbon Tetrachloride ^(c) | ND | ND<1.0 | ND | ND |
| Chlorobenzene | ND | ND<1.0 | ND | ND |
| Chloroethane | ND | ND<1.0 | ND | ND |
| 2-Chloroethyl Vinyl Ether ^(d) | ND | ND<1.0 | ND | ND |
| Chloroform ^(e) | ND | ND<1.0 | ND | ND |
| Chloromethane | ND | ND<1.0 | ND | ND |
| Dibromochloromethane | ND | ND<1.0 | ND | ND |
| 1,2-Dichlorobenzene | ND | ND<1.0 | ND | ND |
| 1,3-Dichlorobenzene | ND | ND<1.0 | ND | ND |
| 1,4-Dichlorobenzene | ND | ND<1.0 | ND | ND |
| Dichlorodifluoromethane | ND | ND<1.0 | ND | ND |
| 1,1-Dichloroethane | ND | ND<1.0 | ND | ND |
| 1,2-Dichloroethane | ND | ND<1.0 | ND | ND |
| 1,1-Dichloroethene | ND | ND<1.0 | ND | ND |
| cis 1,2-Dichloroethene | ND | ND<1.0 | ND | ND |
| trans 1,2-Dichloroethene | ND | ND<1.0 | ND | ND |
| 1,2-Dichloropropane | ND | ND<1.0 | ND | ND |
| cis 1,3-Dichloropropene | ND | ND<1.0 | ND | ND |
| trans 1,3-Dichloropropene | ND | ND<1.0 | ND | ND |
| Methylene Chloride ^(f) | ND<2.0 | ND<2.0 | ND<2.0 | ND<2.0 |
| 1,1,2,2-Tetrachloroethane | ND | ND<1.0 | ND | ND |
| Tetrachloroethene | 1.7 | 69 | ND | 18 |
| 1,1,1-Trichloroethane | ND | ND<1.0 | ND | ND |
| 1,1,2-Trichloroethane | ND | ND<1.0 | ND | ND |
| Trichloroethene | ND | ND<1.0 | ND | ND |
| Trichlorofluoromethane | ND | ND<1.0 | ND | ND |
| Vinyl Chloride ^(g) | ND | ND<1.0 | ND | ND |
| % Recovery Surrogate | 98 | 103 | 95 | 104 |
| Comments | | | | |

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

| | | |
|--|--|--------------------------------|
| All Environmental, Inc. 3210 Old Tunnel Road, Suite B Lafayette, CA 94549-4157 | Client Project ID: #3067; Drake Builders | Date Sampled: 02/15/01 |
| | | Date Received: 02/16/01 |
| | Client Contact: Peter McIntyre | Date Extracted: 02/16-02/22/01 |
| | Client P.O: | Date Analyzed: 02/16-02/22/01 |

Volatile Halocarbons

EPA method 601 or 8010

| Lab ID | 60328 | 60329 | 60330 |
|--|---------------|-------|--------|
| Client ID | WGR MW-14 | MW-6 | MW-7 |
| Matrix | W | W | W |
| Compound | Concentration | | |
| Bromodichloromethane | ND | ND<10 | ND |
| Bromoform ^(b) | ND | ND<10 | ND |
| Bromomethane | ND | ND<10 | ND |
| Carbon Tetrachloride ^(c) | ND | ND<10 | ND |
| Chlorobenzene | ND | ND<10 | ND |
| Chloroethane | ND | ND<10 | ND |
| 2-Chloroethyl Vinyl Ether ^(d) | ND | ND<10 | ND |
| Chloroform ^(e) | ND | ND<10 | ND |
| Chloromethane | ND | ND<10 | ND |
| Dibromochloromethane | ND | ND<10 | ND |
| 1,2-Dichlorobenzene | ND | ND<10 | ND |
| 1,3-Dichlorobenzene | ND | ND<10 | ND |
| 1,4-Dichlorobenzene | ND | ND<10 | ND |
| Dichlorodifluoromethane | ND | ND<10 | ND |
| 1,1-Dichloroethane | ND | ND<10 | ND |
| 1,2-Dichloroethane | ND | ND<10 | ND |
| 1,1-Dichloroethene | ND | ND<10 | ND |
| cis 1,2-Dichloroethene | ND | 64 | ND |
| trans 1,2-Dichloroethene | ND | ND<10 | ND |
| 1,2-Dichloropropane | ND | ND<10 | ND |
| cis 1,3-Dichloropropene | ND | ND<10 | ND |
| trans 1,3-Dichloropropene | ND | ND<10 | ND |
| Methylene Chloride ^(f) | ND<2.0 | ND<15 | ND<2.0 |
| 1,1,2,2-Tetrachloroethane | ND | ND<10 | ND |
| Tetrachloroethene | ND | 650 | ND |
| 1,1,1-Trichloroethane | ND | ND<10 | ND |
| 1,1,2-Trichloroethane | ND | ND<10 | ND |
| Trichloroethene | ND | 87 | ND |
| Trichlorofluoromethane | ND | ND<10 | ND |
| Vinyl Chloride ^(g) | ND | ND<10 | ND |
| % Recovery Surrogate | 106 | 95 | 104 |
| Comments | | | |

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.



McCAMPBELL ANALYTICAL INC.

110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

QC REPORT

EPA 8010/8020/EDB

Date: 02/15/01-02/16/01 Matrix: Water

Extraction: N/A

| Compound | Concentration: ug/L | | | %Recovery | | RPD |
|----------|---------------------|----|-----|---------------|----|-----|
| | Sample | MS | MSD | Amount Spiked | MS | |

SampleID: 21601

Instrument: GC-1

| | | | | | | | |
|-----------------|-------|------|------|--------|----|----|-----|
| Surrogate1 | 0.000 | 98.0 | 96.0 | 100.00 | 98 | 96 | 2.1 |
| Chlorobenzene | 0.000 | 84.0 | 83.0 | 100.00 | 84 | 83 | 1.2 |
| Trichloroethane | 0.000 | 87.0 | 85.0 | 100.00 | 87 | 85 | 2.3 |
| 1,1-DCE | 0.000 | 77.0 | 74.0 | 100.00 | 77 | 74 | 4.0 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2100$$

RPD means Relative Percent Deviation



AEI CONSULTANTS
 Environmental Engineering & Construction
 3210 Old Tunnel Road, Suite B
 Lafayette, CA 94549
 (925) 283-6000 Fax: (925) 283-6121

CHAIN OF CUSTODY

PAGE / OF /

TAT: RUSH / 24 hr / 48 hr / 5 day / other

AEI PROJECT MANAGER *Peter McIntyre*
 PROJECT NAME *Drake Builders*
 PROJECT NUMBER *3067*
 TOTAL # OF CONTAINERS *22*
 RCVD. GOOD CONDITION/COLD Y N

TPH(S), BTEX, MTBE
 SOIL: EPA 8030/8015M, 8020
 WATER: EPA 8030/8015m, 802
TPH(d)
 SOIL: EPA 8030/8015M
 WATER: EPA 8030/8015M
BTEX, MTBE
 SOIL: EPA 8020
 WATER: EPA 802
TOTAL OIL & GREASE
 SOIL: EPA 415.1 or STD 5520 D/ENF
 WATER: STD 5520 HCF
VOLATILE HALOCARBONS
 SOIL: EPA 8010
 WATER: EPA 801
VOCs
 SOIL: EPA 8210
 WATER: EPA 821
SEMI-VOLATILE ORGANICS
 SOIL: EPA 8270/8550
 WATER: EPA 825/8510
TOTAL LEAD (TLLC)
 SOIL: 6010 (ICP)
 WATER: 2302 (AA)
LUFT 5 METALS
 SOIL: EPA 7130, 7140, 7120, 7230, 7150
 WATER:

OF CONTAINERS

| SAMPLE ID | DATE | TIME | MATRIX | TPH(S), BTEX, MTBE | TPH(d) | BTEX, MTBE | TOTAL OIL & GREASE | VOLATILE HALOCARBONS | VOCs | SEMI-VOLATILE ORGANICS | TOTAL LEAD (TLLC) | LUFT 5 METALS | # OF CONTAINERS | |
|-------------|---------|------|--------|--------------------|--------|------------|--------------------|----------------------|------|------------------------|-------------------|---------------|-----------------|---|
| + AMW-1 | 2/15/01 | | Water | | | | | X | | | | | 60320 | 2 |
| + AMW-4 | | | | | | | | X | | | | | 60321 | 2 |
| + AMW-5 | | | | | | | | X | | | | | 60322 | 2 |
| + AMW-6 | | | | | | | | X | | | | | 60323 | 2 |
| + AMW-8 | | | | | | | | X | | | | | 60324 | 2 |
| + AMW-9 | | | | | | | | X | | | | | 60325 | 2 |
| + FHS MW-10 | | | | | | | | X | | | | | 60326 | 2 |
| + FHS MW-11 | | | | | | | | X | | | | | 60327 | 2 |
| + WGR MW-4 | | | | | | | | X | | | | | 60328 | 2 |
| + MW-6 | | | | | | | | X | | | | | 60329 | 2 |
| + MW-7 | | | | | | | | X | | | | | 60330 | 2 |

COMMENTS / INSTRUCTIONS

ANALYTICAL LABORATORY *McCampbell Analytical*
 ADDRESS

PHONE () FAX ()

RELINQUISHED BY
John Ormrod
 SIGNATURE
 JOHN ORMROD
 PRINTED NAME
 AEI
 COMPANY
 DATE *2/16/01* TIME *12:30*

RECEIVED BY
Busa Venegas
 SIGNATURE
 BUSA VENEGAS
 PRINTED NAME
 MAI
 COMPANY
 DATE *2/16* TIME *12:30*

RELINQUISHED BY
 SIGNATURE
 PRINTED NAME
 COMPANY
 DATE TIME

RECEIVED BY
 SIGNATURE
 PRINTED NAME
 COMPANY
 DATE TIME