

December 6, 1999

Amir Gholami
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: Workplan
3635 13th Avenue
Oakland, California
AEI Project No. 3407

*Site
11/21*

Response to 12/16/99

Dear Mr. Gohlami:

Enclosed is the workplan prepared by AEI for a further groundwater investigation at the above referenced site.

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

Sincerely,



Peter McIntyre
Project Geologist

01:41 PM 8--03066

PROTECTION ENVIRONMENTAL



September 9, 2002

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

Re: **Workplan**
3635 13th Avenue
Oakland, California
AEI Project No. 3575

*Revisions 3
RESP-NO COPY
11/4/02*

Alameda County

SEP 12 2002

Environmental Health

✓ RO 159

STIN 1121

Dear Mr. Gholami:

This letter has been prepared to amend the scope of work presented in AEI's December 3, 1999 Workplan for the required groundwater investigation at the above referenced property.

Briefly, that **workplan** outlined the installation of an additional two groundwater monitoring wells at the above referenced property. One of the proposed wells, MW-5, was to be placed in the City right-of-way, along the 13th Avenue. City of Oakland permitting requirements for the installation of a monitoring well in the street requires insurance from the property owner, covering the City. Mr. Williamson has made numerous attempts to obtain the required insurance, and has been unable.

In an effort to expedite the investigation, AEI is proposing, on behalf of Mr. Williams, to amend the approved scope of work. The amendments will include the advancement of an additional six (6) soil borings (labeled SB-10 through SB-15), off-site along both sides of 13th Avenue. The goal of these additional borings is to better define the down-gradient extent of the dissolved phase plume and assess the need for additional investigation and/or corrective action.

The attached **Figure 1** shows the locations of the proposed borings. This Figure should be reviewed with the *Workplan*, which contains a detailed site history. Drilling will be performed with a direct push drilling system, resulting in 2" diameter temporary borings advanced to several feet below the water table to allow for groundwater sample collection. Soil and groundwater samples will be analyzed for TPH as gasoline, TPH as diesel, and BTEX and MTBE, as outlined in the *Workplan*. AEI is recommending that quarterly monitoring of the existing wells be reinitiated as the proposed investigation is performed.

We look forward to working with your office to mitigate this release. Please call me at (925) 283-6000, ext. 104 if you have any questions or would like any additional information.

Sincerely,

Peter McIntyre
Project Manager, Geologist

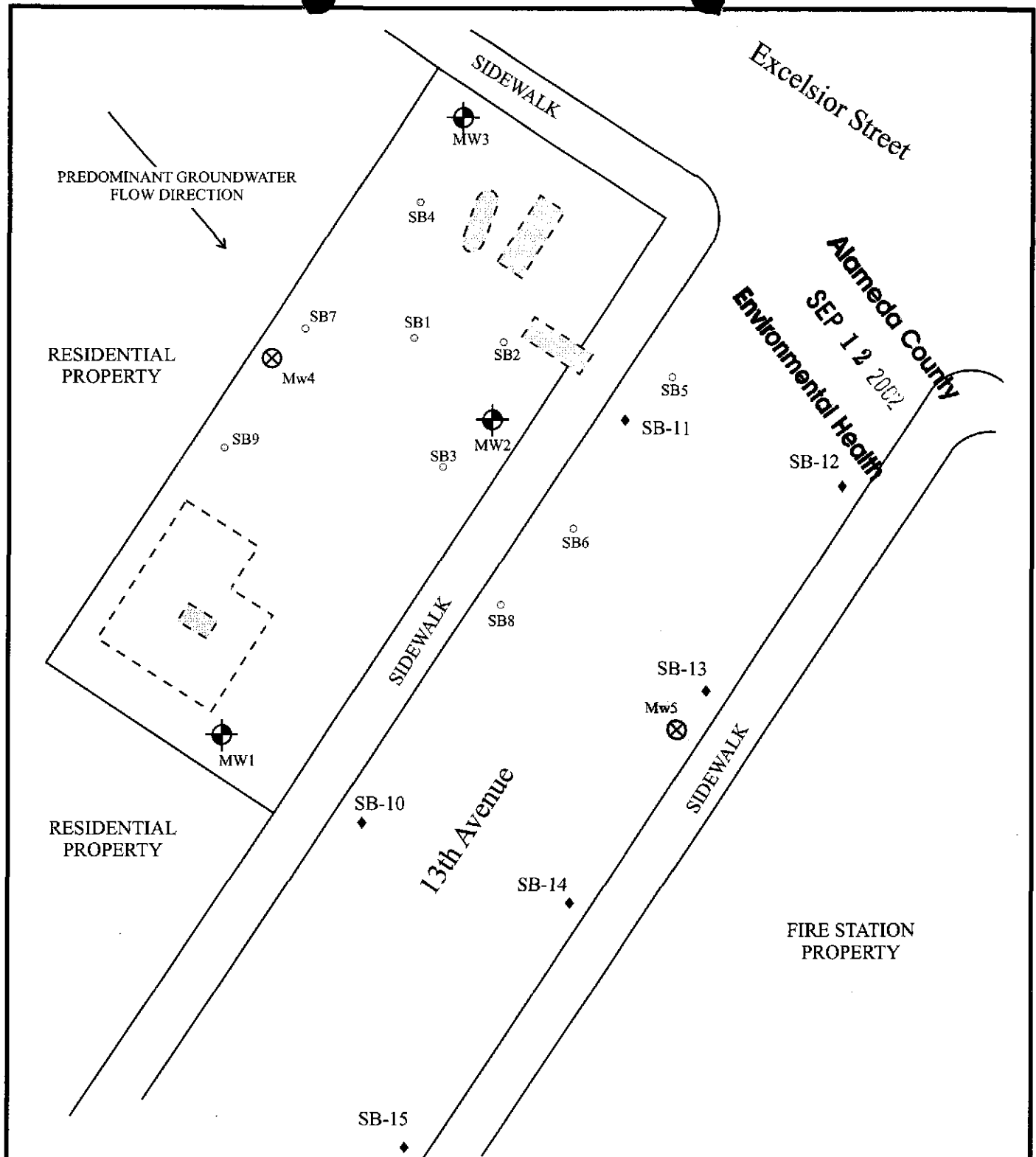
cc: Mr. John Williamson
1511 Wellington Street
Oakland, CA 94602

AEI CONSULTANTS
Environmental & Civil Engineering Services

PETER McINTYRE
Project Geologist

3210 Old Tunnel Road, Ste. B
Lafayette, CA 94549-4157
pmcintyre@aeiconsultants.com

(925) 283-6000
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PREDOMINANT GROUNDWATER FLOW DIRECTION

RESIDENTIAL PROPERTY

RESIDENTIAL PROPERTY

FIRE STATION PROPERTY

Alameda County
 Environmental Health
 SEP 12 2002



0 20
 Scale, feet

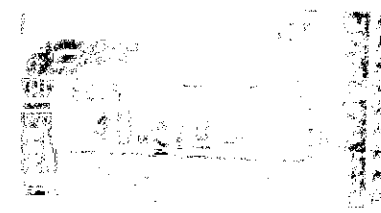
- ⊗ Existing Monitoring Well
- Soil Boring Location
- ⊗ Well Locations Proposed in 1999 Workplan
- ◆ Proposed Temporary Borings

| | |
|--|---------------------------------------|
| AEI CONSULTANTS 3210 OLD TUNNEL ROAD, STE B, LAFAYETTE, CA | |
| PROPOSED BORING LOCATIONS (Revised 9/9/02) | |
| 3635 13th Avenue Oakland, California | Figure 1 AEI Project # 4575 |

AEI CONSULTANTS

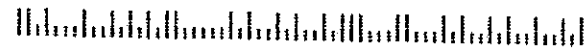
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Mr. Amir Gholami
Alameda Cty Health Care Services
1131 Harbor Bay Pkwy, ste 250
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94502+2200 33



December 3, 1999

WORKPLAN

3635 13TH Avenue
Oakland, California

*STUD
11/21*

RESPONDED to 12/16/99

Project No. 3407

Prepared For

Mr. John Williamson
1511 Wellington Street
Oakland, CA 94602

Prepared By

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(800) 801-3224

AEI

December 3, 1999

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

Re: Workplan
3635 13th Avenue
Oakland, California
AEI Project No. 3407

Dear Mr. Gholami:

AEI Consultants (AEI) is pleased to present this workplan for an additional groundwater investigation at the above referenced site (Figure 1 for site location). This workplan was prepared to summarize the site history and outline a scope of work to assess the extent of impacted groundwater. AEI is providing environmental engineering, consulting, and construction services to Mr. John Williamson, the owner of the property, and is submitting this letter on their behalf.

Site Description and Background

The site is located in a largely residential zone of Oakland approximately 100 yards east of Highway 580, at the west corner of 13th Avenue and Excelsior Avenue. The property slopes gently toward the southeast and is currently paved with asphalt. The nearest significant surface water is the Central Reservoir, located approximately ½ -mile to the southeast.

In December 1992, three underground storage tanks (one 250-gallon waste oil, one 500-gallon gasoline, and one 1,000-gallon gasoline) were removed from the site by Aqua Science Engineers, Inc. of San Ramon. The waste oil tank was located in a former building on the southern half of the property, and the gasoline tanks were located on the northern end of the property. Refer to Figure 2 for the former locations of the tanks. Soil samples collected beneath the former waste oil tank showed concentrations of 8,200 mg/kg Total Oil and Grease (TOG), 290 mg/kg Total Petroleum Hydrocarbons (TPH) as gasoline, and 225 mg/kg total lead. Soil samples collected from beneath the 1,000-gallon gasoline tank indicated maximum concentrations of 27 mg/kg TPH as gasoline and 5.5 mg/kg benzene. Only minor concentrations of TPH as gasoline and benzene, toluene, ethylbenzene, and total xylenes (BTEX) were found in samples collected beneath the 500-gallon gasoline tank (Ref. # 1).

Corporate Headquarters

Los Angeles
(310) 798-4255

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New York
(212) 279-7770

In September 1993, AEI removed and disposed of approximately 360 cubic yards of contaminated soil in the vicinity of the former waste oil tank. Sidewall samples collected from this excavation indicated that only minor contaminant concentrations remained in the soil. Therefore the former 250-gallon waste oil tank was not considered to pose a significant threat to the soil or groundwater at the site (Ref. # 2).

Three monitoring wells (MW-1 through MW-3) were installed on the site in March 1994 (Ref. # 3). Soil samples analyzed during the well installations contained only minor concentration of petroleum hydrocarbons. The wells were monitored on a quarterly basis from November 1994 to August 1995, when the ACHCSA approved a change in monitoring frequency to a biannual schedule.

On November 16, 1995, AEI advanced a soil boring at each end of the former dispenser island to depths of 4.5 feet bgs on the west end, and 10 feet bgs on the east. Soil samples were collected beneath the former dispensers at the request of the ACHCSA. Analysis of soil samples collected from the two borings indicated that concentrations of TPH as gasoline and BTEX were below laboratory detection limits (Ref. # 4).

During the most recent groundwater monitoring and sampling episode in June 1997, maximum contaminant concentrations of 26,000 µg/L TPH(g) and 5,300 µg/l benzene were recorded in Well MW-2. Well MW-1 contained 630 µg/L TPH(g) and 25 µg/L benzene (Semi-Annual Groundwater Monitoring and Sampling Report, July 24, 1997). Please refer to Tables 1 & 2 for historical groundwater elevation and sampling data for the wells and to Figure 3 for the most recently calculated groundwater flow direction.

At the request of the ACHCSA, AEI prepared a workplan outlining a scope of work to further define the extent of impacted soil and groundwater beneath the site (Ref. # 5). This workplan was approved by Kevin Tinsley of the ACHCSA on July 11, 1997. This investigation was performed between August 1997 and January 1998. A total of nine soil borings were advanced on the property and downgradient of the former gasoline UST locations (Ref. # 6). Please refer to Figure 2 for the locations of the borings and to Tables 3 & 4 for the soil and groundwater sample analytical results of this investigation.

Groundwater samples analyzed during this investigation indicated significant concentration of TPH as gasoline and benzene in the groundwater along the western portion of the property. This investigation also revealed significant concentrations of these hydrocarbons have spread off-site to the southeast, toward 13th Avenue.

Geologic Setting

Based on the logs of borings performed, the native soils at the site generally consist of silty and sandy clay with occasional layers of silty sand, up to 4 feet thick.

Groundwater was encountered between 15 and 25 feet bgs during the advancement of the nine soil borings. Historically, groundwater monitoring shows that the average depth to groundwater at the site is between approximately 11 to 13 feet bgs.

According to groundwater monitoring data, groundwater flow is to the southeast, at an average gradient of 0.08 feet per foot, suggesting that the plume of groundwater contamination may be flowing off-site. Please refer to Figure 3 and Table 1 for the most recent groundwater contours, monitoring well locations, and groundwater elevation data.

Scope of Work

AEI proposes to install two additional groundwater monitoring wells at the site. The proposed locations of the wells are shown in Figure 5. The proposed well MW-4, along the northwestern boundary of the property, will provide data to confirm the presence of petroleum hydrocarbons detected in the groundwater sample collected from soil boring SB7. The proposed well MW-5 will provide information on the lateral extent of hydrocarbons in the down-gradient direction. These wells will be used in conjunction with the three wells currently on-site to confirm groundwater flow direction and gradient at the site.

Initial groundwater sampling

Since the wells have not been sampled since June 1997, prior to the installation of the fourth well, AEI will perform one episode of groundwater monitoring and sampling of the three on-site wells. The data obtained during this episode of monitoring and sampling will confirm the groundwater flow direction and gradient at the site as well as provide current groundwater quality data.

The wells will be purged before the samples are collected by removing a minimum of three well volumes of water from each well. The samples will be collected from each well using a clean, disposable bailer. The three groundwater samples will be analyzed at a state certified laboratory for TPH as gasoline (by EPA method 5030/8015), TPH as diesel (by EPA method 3510/8015) and for benzene, toluene, ethyl-benzene and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) (by EPA method 5030/8020).

Well Installation

AEI proposes to advance two soil borings at the site. The borings will be converted to 2-inch groundwater monitoring wells. Please refer to Figure 5 for proposed location of the wells. Prior to the installation of the wells, AEI will obtain the necessary permit from the Alameda County Public Works Department and the City of Oakland.

A Mobile B-57 or CME 75 hydraulic rotary drill with 6.25" I.D. by 10.5" O.D. hollow stem augers will be used to drill the borings. The borings will be drilled to first encountered groundwater plus at least 10 feet, corresponding to a maximum depth of approximately 35 feet bgs.

The borings will be logged on-site by an AEI geologist using the Unified Soil Classification System. Undisturbed soil samples will be collected at 5-foot intervals and the apparent capillary fringe for visual classification and chemical analysis. Up to two soil samples from each of the borings will be analyzed at a state certified laboratory as determined by the on-site geologist. The soil samples will be sealed with teflon tape and caps. Soil samples obtained during drilling will be screened in the field using a portable organic vapor meter.

All samples will be put on ice and transported, under chain of custody procedures to McCampbell Analytical, Inc. of Pacheco, California. Selected soil samples will be analyzed for TPH as gasoline (EPA method 5030/8015), TPH as diesel (EPA method 3510/8015), benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) (EPA method 5030/8020). The remaining soil samples will be placed on hold at the laboratory.

All sampling equipment will be cleaned in buckets with brushes with a TSP or Alconox solution, then rinsed twice with tap water. The drilling augers will be steam cleaned prior to drilling. Rinsate will be contained on-site in sealed, labeled drums.

Cuttings generated during drilling will be stored on-site in 55 gallon drums. The soil will be sampled, analyzed and disposed of in a local landfill unless deemed suitable for re-use on-site.

The monitoring wells will be constructed of 2" flush threaded Schedule 40 PVC casing, with up to 20 feet of .01" or .02" factory-slotted well screen. The top of the well screen will extend up to 10 feet above the encountered groundwater level to account for seasonal fluctuations. The well casing will be inserted through the augers to a point a few inches above the borehole terminus where it will be suspended until the well is secured within the sand pack. Sand (#2 or #3) will be poured through the augers in one- to two-foot lifts up to two feet above the top of the perforated casing. Two feet of bentonite pellets will be placed above the sand and activated with tap water. The seal will be finished up to the surface with cement/bentonite grout. A locking top cap and a flush-mounted watertight well cover will be installed.

The wells will be developed by pumping water into a DOT 17H drum until the water appears to be reasonably clear with a minimum of 10 well volumes removed. Well development will take place no less than 72 hours after installation of the wells.

The new wells along with the three existing wells will be surveyed to Mean Sea Level by a licensed land surveyor, with an accuracy of 0.01 foot for calculation of groundwater flow direction and gradient.

Continual Sampling

Following the installation of the two additional wells, the five wells will be sampled on a quarterly basis, unless after several episodes, the ACHCSA approves reduction of the sampling frequency to a semi-annual basis.

Prior to obtaining water samples from the five monitoring wells, the wells will be purged by removing a minimum of three volumes of water will be bailed from the wells. Groundwater will be checked for sheen and free product prior to purging and sampling. Samples will be obtained in a clean disposable bailer, secured in 40 milliliter volatile organic analysis vials and amber liter bottles, placed in a cooler with wet ice and transported, under chain of custody procedures to the laboratory. Water samples will be analyzed for TPH as gasoline, TPH as diesel, BTEX and MTBE. Following each episode of sampling, a technical report will be prepared summarizing the activities and results of the sampling.

Site Evaluation

Following a minimum of two episodes of collection and analysis of groundwater samples from the five wells, AEI will evaluate the data collected from the groundwater monitoring wells and the subsurface investigations.

If after several episodes of sampling, the hydrocarbon plume appears to be stable and confined to beneath the site, the site may be evaluated by Risk Based Corrective Action criteria and may be eligible for case closure based on Regional Board Guidelines for Low Risk Petroleum Release Sites. If, however, the hydrocarbon plume is moving significantly off-site, and appears to be unstable and/or undefined in extent, further investigation may be required, and active site remediation may have to be considered.

Site Safety

Prior to commencement of field activities, a site safety meeting will be held. Emergency procedures will be outlined at this meeting. Also, the hazards of the known or suspected chemicals of interest will be explained. Level D personal protection equipment is the anticipated maximum amount of protection needed. A site safety plan conforming to Part 1910.120 (i) (2) of 29 CFR will be reviewed by all workers and remain on site at all times during the field activities.

A working area will be established with barricades and warning tape to delineate the zone where hard hats and steel-toed shoes must be worn, and where unauthorized personnel will not be allowed. If, during drilling or well sampling activities, fuel product odors are deemed to be substantial, half-face respirators with organic vapor cartridges will be worn.

A nearby hospital will be designated in the site safety plan as the emergency medical facility of first choice. A map with a course plotted to the hospital will be on-site.

Estimated Schedule

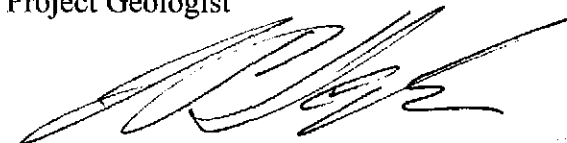
AEI will collect groundwater samples from the three on-site wells within two weeks of approval of this workplan by the ACHCSA. AEI will permit and install the off-site well once the groundwater analytical and flow direction data have been received. The ACHCSA will be given adequate notification of the scheduled day of drilling to schedule a field inspection if desired. Laboratory analytical results will be obtained within two weeks of sample collection. The final report will be prepared promptly, and copies will be delivered to the client and the ACHCSA.

AEI requests your approval to proceed with this project. AEI looks forward to beginning this project. Please let me know if you need additional information and please do not hesitate to call me at (925) 283-6000 if you have any questions.

Sincerely,



Peter McIntyre
Project Geologist



Joseph P. Derhake, PE
Principal



Figures

- | | |
|----------|--------------------------------|
| Figure 1 | Site Location Map |
| Figure 2 | Soil Boring and Well Locations |
| Figure 3 | Analytical Results |
| Figure 4 | Groundwater Gradient Map |
| Figure 5 | Proposed Well Location |

3635 13th Avenue, Oakland

December 3, 1999

Project No. 3407

Page 7

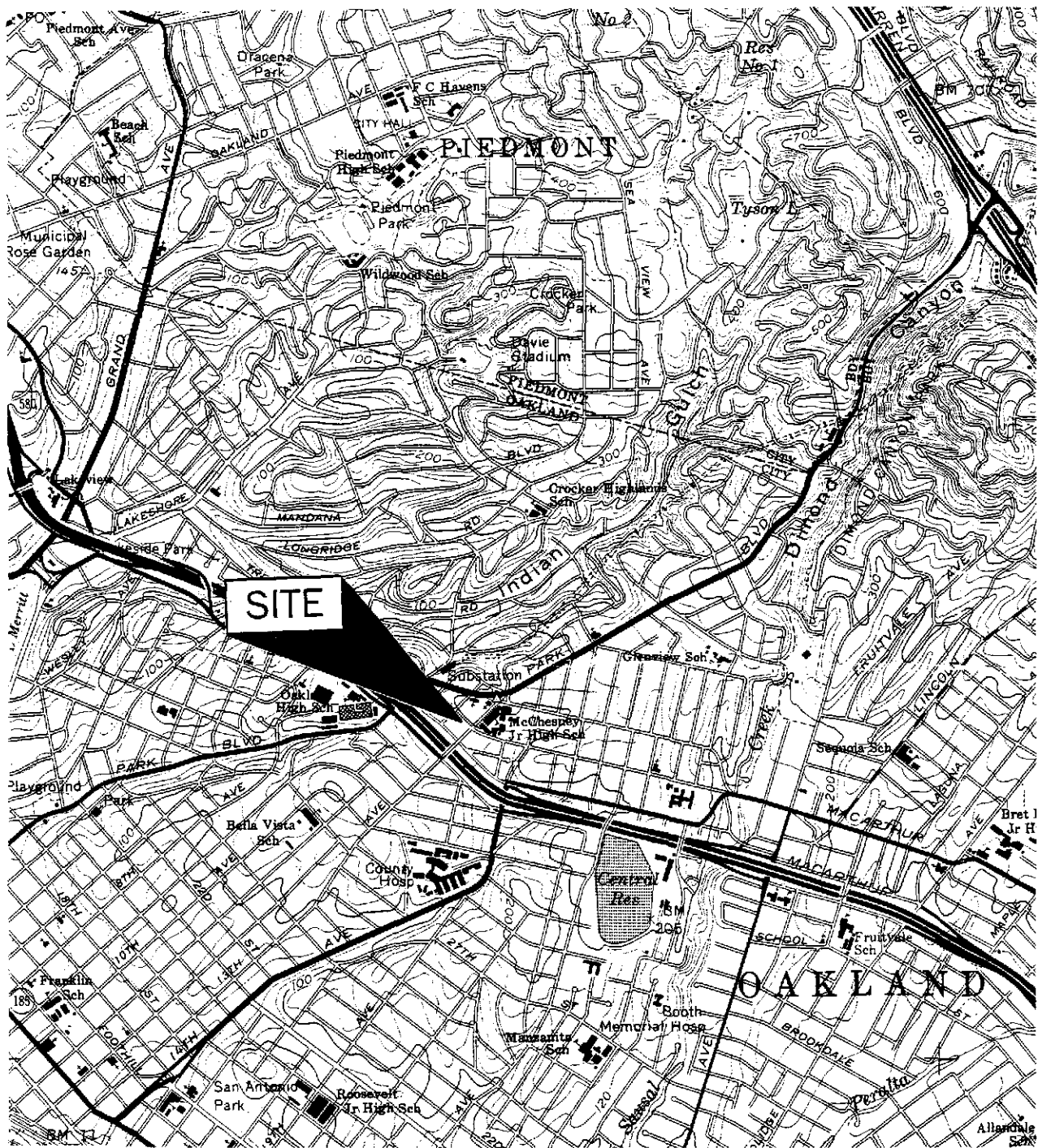
Tables

| | |
|---------|---|
| Table 1 | Historic Groundwater Elevation Data |
| Table 2 | Historic Groundwater Quality Data |
| Table 3 | Soil Boring Soil Sample Analytical Results |
| Table 4 | Soil Boring Groundwater Sample Analytical Results |

cc: Mr. John Williamson
1511 Wellington Street
Oakland, CA 94602

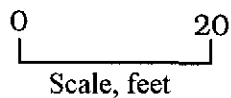
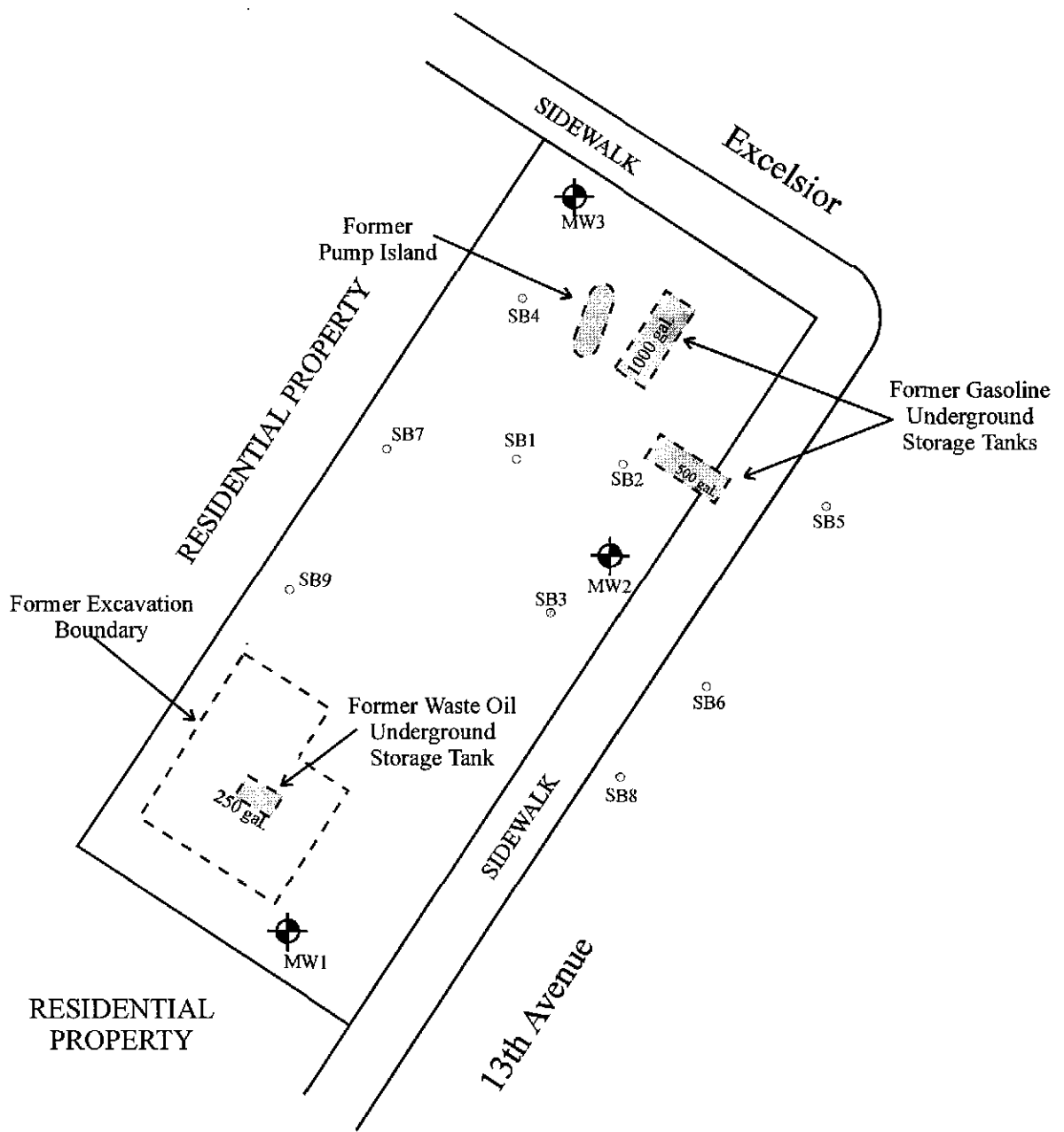
References

1. Underground Storage Tank Removal Final Report, January 20, 1993 – Aqua Science Engineers, Inc.
2. Contaminated Soil Over-excavation Final Report, November 18, 1999 – All Environmental, Inc.
3. Soil Boring and Monitoring Well Installation Report, December 14, 1994 – All Environmental, Inc.
4. Phase II Limited Subsurface Investigation, December 11, 1995 – All Environmental, Inc.
5. Phase II Subsurface Investigation Workplan, June 5, 1997 – All Environmental, Inc.
6. Phase II Subsurface Investigation Report, January 20, 1999 – All Environmental, Inc.



SOURCE:
 USGS OAKLAND EAST QUADRANGLE
 SCALE: 1 IN = 2,000 FT

| | |
|--|-------------------------------------|
| AEI CONSULTANTS 3210 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA | |
| SITE LOCATION MAP | |
| 3635 13 th AVENUE OAKLAND, CALIFORNIA | FIGURE 1 PROJECT NO. 3407 |



○ Soil Boring Location ⊕ Existing Monitoring Well

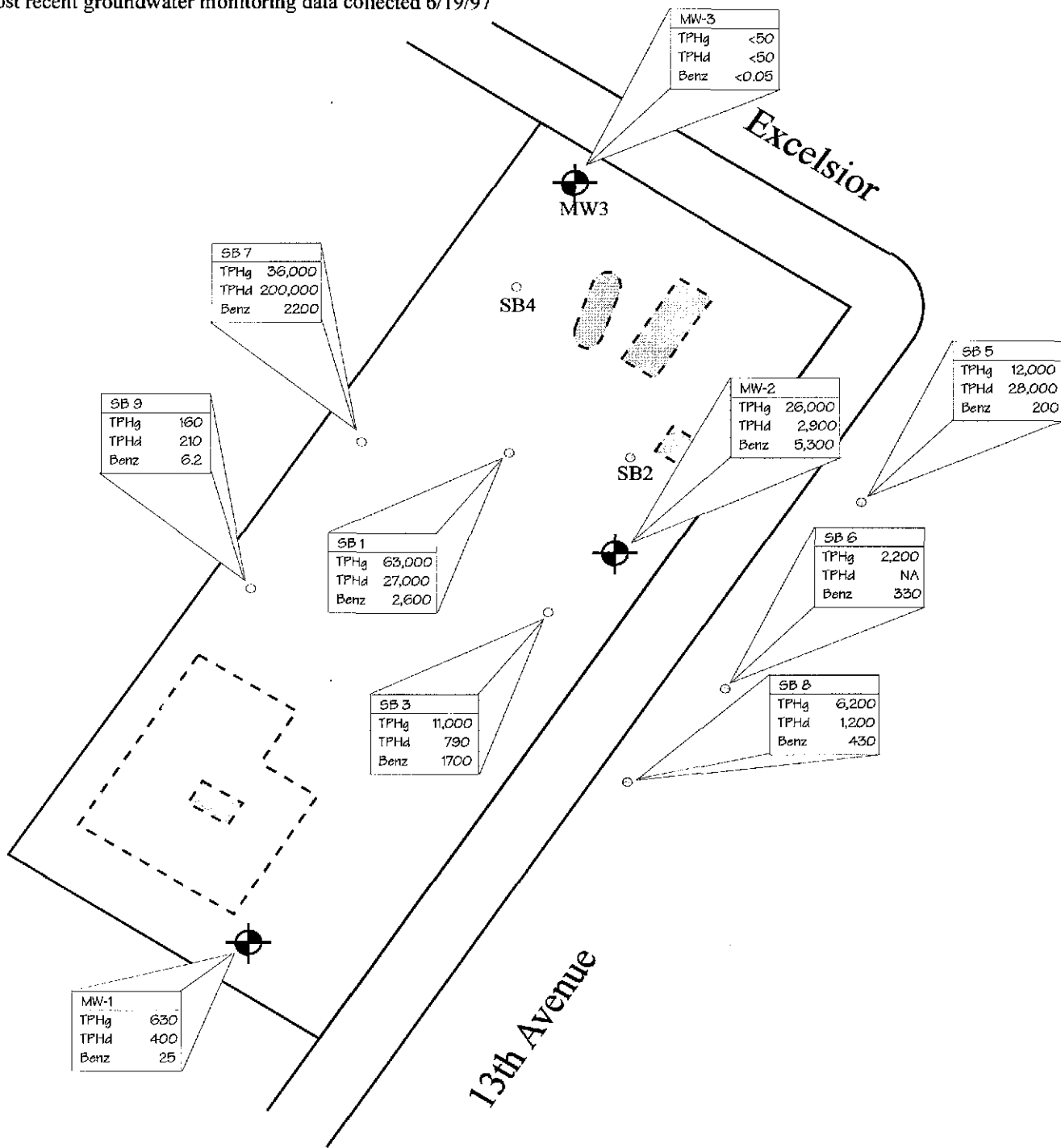
AEI CONSULTANTS
901 MORAGA RD., SUITE C, LAFAYETTE, CALIFORNIA

SOIL BORING AND WELL LOCATIONS

3635 13th Avenue, Oakland

FIGURE 2

Data from borings SB1, 2, 3, 4, 7, and 9 collected 1/21/98
 Data from borings SB5, 6 and 8 collected 8/15/97
 Most recent groundwater monitoring data collected 6/19/97



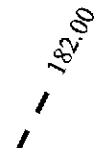
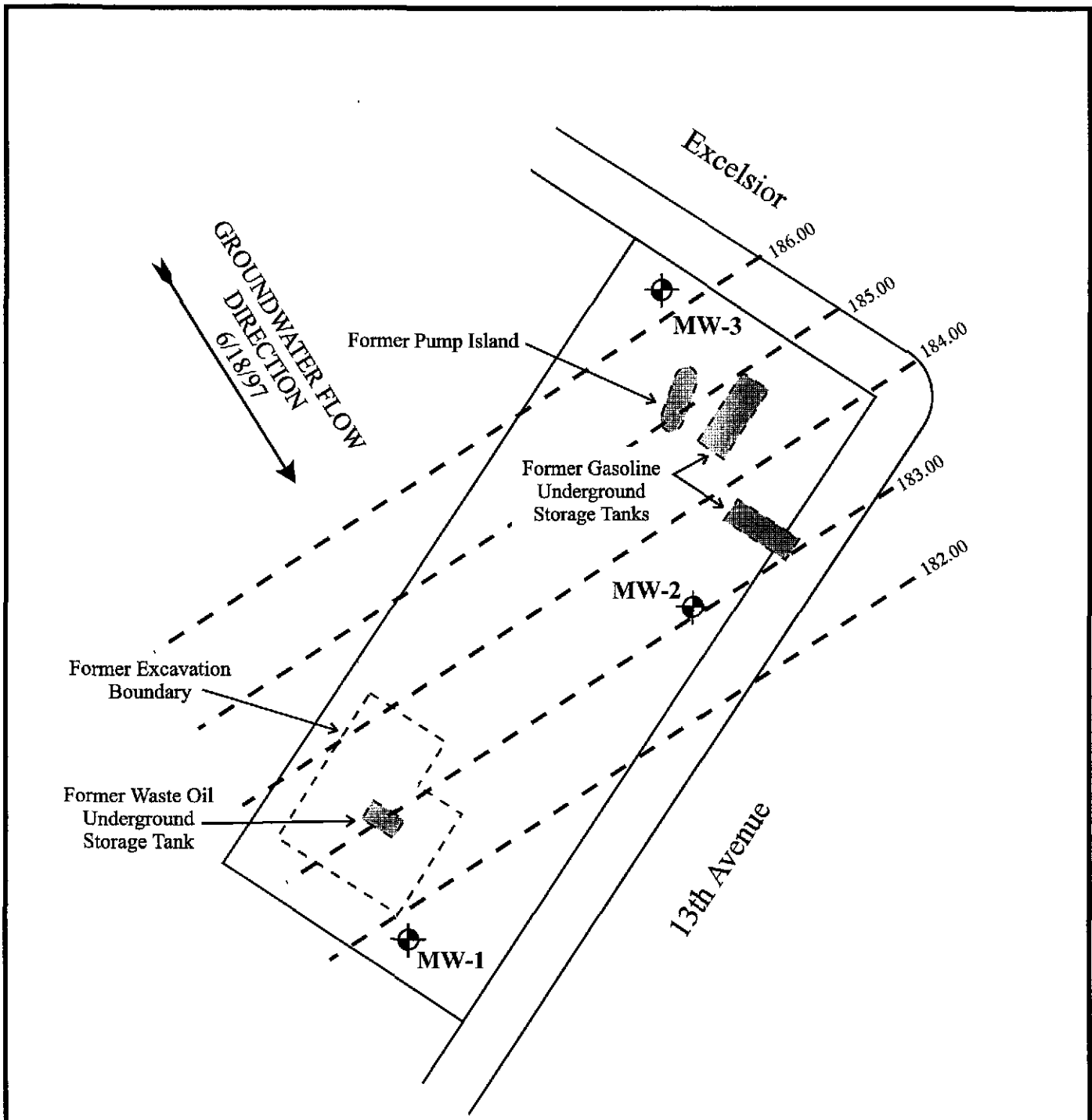
○ Soil Boring Location ⊕ Existing Monitoring Well
TPH(g) Total Petroleum Hydrocarbons as Gasoline
TPH(d) Total Petroleum Hydrocarbons as Diesel
BENZ. Benzene
 All concentrations are for groundwater, expressed in µg/L

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 901 MORAGA RD., SUITE C, LAFAYETTE, CALIFORNIA

ANALYTICAL DATA

3635 13th Avenue, Oakland

FIGURE 3



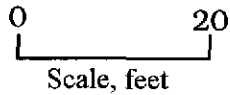
Line of Equal Groundwater Elevation (feet)

MW-1



Groundwater Monitoring Well (Inst. 3/24/94)

Note: Well locations and property boundaries surveyed accurately, tank locations approximate.

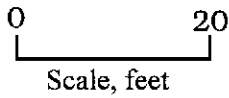
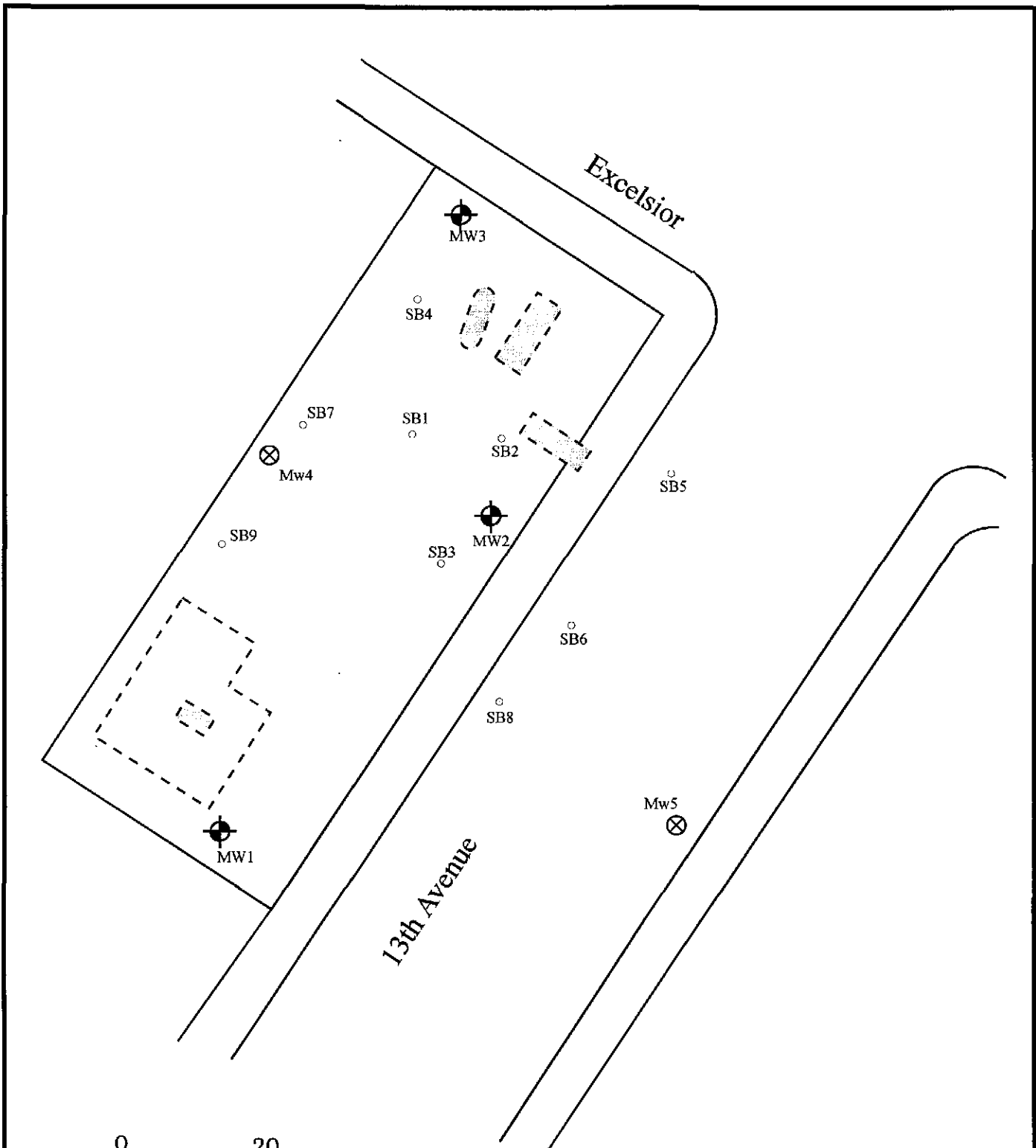


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GROUNDWATER GRADIENT MAP

3635 13th Avenue, Oakland

FIGURE 4



- ⊕ Existing Monitoring Well
- Soil Boring Location
- ⊗ Proposed Well Locations

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PROPOSED WELL LOCATIONS

3635 13th Avenue, Oakland

FIGURE 5

**Table 1
Groundwater Levels**

| Well ID | Date | Well Elevation (ft msl) | Depth to Water (ft) | Groundwater Elevation (ft msl) |
|---------|----------|-------------------------|---------------------|--------------------------------|
| MW-1 | 11/22/94 | 194.75 | 10.92 | 183.83 |
| | 2/23/95 | 194.75 | 10.58 | 184.17 |
| | 5/24/95 | 194.75 | 10.94 | 183.81 |
| | 8/18/95 | 194.75 | 14.52 | 180.23 |
| | 2/7/96 | 194.75 | 4.43 | 190.32 |
| | 9/9/96 | 194.75 | 13.60 | 181.15 |
| | 6/18/97 | 194.75 | 13.07 | 181.68 |
| MW-2 | 11/22/94 | 196.44 | 12.54 | 183.90 |
| | 2/23/95 | 196.44 | 12.35 | 184.09 |
| | 5/24/95 | 196.44 | 12.11 | 184.33 |
| | 8/18/95 | 196.44 | 16.25 | 180.19 |
| | 2/7/96 | 196.44 | 9.34 | 187.10 |
| | 9/9/96 | 196.44 | 15.22 | 181.22 |
| | 6/18/97 | 196.44 | 13.33 | 183.11 |
| MW-3 | 11/22/94 | 198.93 | 11.53 | 187.40 |
| | 2/23/95 | 198.93 | 11.89 | 187.04 |
| | 5/24/95 | 198.93 | 12.71 | 186.22 |
| | 8/18/95 | 198.93 | 16.14 | 182.79 |
| | 2/7/96 | 198.93 | 6.22 | 192.71 |
| | 9/9/96 | 198.93 | 13.51 | 185.42 |
| | 6/18/97 | 198.93 | 12.46 | 186.47 |

Notes: All well elevations are measured from the top of casing.
ft msl = feet above mean sea level

Table 2
Groundwater Sample Analytical Data

| Well ID | Date | Consultant/ Lab | TPHg (ug/l) | MTBE (ug/l) | Benzene (ug/l) | Toluene (ug/l) | Ethyl- Benzene (ug/l) | Xylenes (ug/l) | TPHd (ug/l) | TOG (mg/l) |
|---------|----------|--------------------|----------------|----------------|-------------------|-------------------|-----------------------------|-------------------|----------------|---------------|
| MW - 1 | 11/22/94 | AEI/PEL | 210 | NA | <0.5 | <0.5 | <0.5 | 2.3 | <50 | <0.5 |
| | 2/23/95 | AEI/PEL | 140 | NA | <0.5 | <0.5 | 0.6 | 1.5 | <50 | 1.2 |
| | 5/24/95 | AEI/PEL | <50 | NA | <0.5 | <0.5 | <0.5 | <0.5 | <50 | <0.5 |
| | 8/18/95 | AEI/PEL | 2800 | NA | 25 | 6.2 | 22 | 30 | <50 | <0.5 |
| | 2/7/96 | AEI/PEL | <50 | NA | <0.5 | <0.5 | <0.5 | <0.5 | <50 | <0.5 |
| | 9/6/96 | AEI/MAI | <50 | <0.05 | <0.005 | <0.005 | <0.005 | <0.005 | <50 | <5.0 |
| | 6/19/97 | AEI/MAI | 630 | 15 | 25 | 9.7 | 100 | 14 | 400 | <5.0 |
| MW - 2 | 11/22/94 | AEI/PEL | 11000 | NA | 35 | 21 | 7.2 | 50 | <50 | <0.5 |
| | 2/23/95 | AEI/PEL | 4000 | NA | <0.5 | <0.5 | 2.5 | 5.7 | <50 | 1.6 |
| | 5/24/95 | AEI/PEL | 8600 | NA | 95 | 37 | 37 | 70 | <50 | <0.5 |
| | 8/18/95 | AEI/PEL | 7200 | NA | 43 | 21 | 21 | 71 | <50 | <0.5 |
| | 2/7/96 | AEI/PEL | 11000 | NA | 17 | 9.3 | 9.3 | 25 | <50 | 0.6 |
| | 9/6/96 | AEI/MAI | 15000 | ND | 4300 | 920 | 460 | 1600 | 1900 | <5.0 |
| | 6/19/97 | AEI/MAI | 26000 | <200 | 5300 | 1500 | 910 | 3200 | 2900 | <5.0 |
| MW - 3 | 11/22/94 | AEI/PEL | 200 | NA | <0.5 | <0.5 | <0.5 | 2 | <50 | 3 |
| | 2/23/95 | AEI/PEL | 1500 | NA | 6.6 | 6.4 | 4.2 | 13 | <50 | 0.9 |
| | 5/24/95 | AEI/PEL | 710 | NA | 2.5 | 3.2 | 3.1 | 16 | <50 | <0.5 |
| | 8/18/95 | AEI/PEL | 310 | NA | 3.1 | 2.1 | 2.2 | 11 | <50 | <0.5 |
| | 2/7/96 | AEI/PEL | 400 | NA | 1.4 | 2.5 | 2.2 | 7 | <50 | 2.2 |
| | 9/6/96 | AEI/MAI | <50 | <0.05 | <0.005 | <0.005 | <0.005 | <0.005 | <50 | <5.0 |
| | 6/19/97 | AEI/MAI | <50 | <0.05 | <0.005 | <0.005 | <0.005 | <0.005 | <50 | <5.0 |

Notes: MTBE Methyl Tertiary Butyl Ether
 TPHg Total Petroleum Hydrocarbons as gasoline
 TPHd Total Petroleum Hydrocarbons as diesel
 TOG Total Oil and Grease
 AEI All Environmental, Inc.
 PEL Priority Environmental Labs
 MAI McCampbell Analytical Inc., Pacheco, California
 ug/l Micrograms per liter
 mg/l Miligrams per liter
 NA Not Analyzed

Table 3
Soil Boring Soil Sample Analytical Results

| Sample ID | TPH as gasoline mg/kg | TPH as diesel mg/kg | MTBE mg/kg | Benzene mg/kg | Toluene mg/kg | Ethyl-benzene mg/kg | Xylenes mg/kg |
|-----------|-----------------------|---------------------|------------|---------------|---------------|---------------------|---------------|
| SB1-10' | 8.2 | 15 | <2.0 | 0.17 | 0.031 | 0.097 | 0.069 |
| SB2-10' | 1.3 | <1.0 | <0.05 | 0.061 | 0.016 | 0.03 | 0.014 |
| SB3-5' | 1.6 | NA | <0.05 | 0.048 | 0.044 | 0.016 | 0.046 |
| SB3-10' | 590 | 160 | <6.0 | 8.6 | 15 | 10 | 48 |
| SB3-15' | 1,000 | NA | <10 | 8.3 | 8.8 | 15 | 52 |
| SB3-20' | <1.0 | NA | <0.05 | 0.006 | 0.009 | <0.005 | 0.017 |
| SB3-25' | <1.0 | NA | <0.05 | <0.005 | <0.005 | <0.005 | <0.005 |
| SB4-10' | <1.0 | <1.0 | <0.05 | <0.005 | <0.005 | <0.005 | <0.005 |
| SB5-15' | 2.0 | 4.9 | <0.05 | 0.08 | <0.005 | 0.045 | 0.012 |
| SB6-15' | 2.2 | <1.0 | <0.05 | 0.058 | 0.008 | 0.007 | 0.073 |
| SB7-15' | 7.9 | 2.3 | <0.05 | <0.005 | 0.016 | <0.005 | 0.073 |
| SB8-10' | 33 | 11 | <0.23 | 0.25 | 0.089 | 0.30 | 0.29 |
| SB9-10' | <1.0 | <1.0 | <0.05 | <0.005 | <0.005 | <0.005 | <0.005 |
| MDL | 1.0 | | 0.05 | 0.005 | 0.005 | 0.005 | 0.005 |

MDL = Method Detection Limit

ND = Not detected above the Method Detection Limit (unless otherwise noted)

ug/kg = micrograms per kilogram (ppb)

mg/kg = milligrams per kilogram (ppm)

* = This soil sample was reanalyzed by EPA method 8260. Tert-Butanol was also detected in this sample at 0.210 mg/kg

Table 4
Soil Boring Groundwater Sample Analytical Results

| Sample ID | TPH as gasoline µg/L | TPH as diesel µg/L | MTBE µg/L | Benzene µg/L | Toluene µg/L | Ethylbenzene µg/L | Xylenes µg/L |
|-----------|-------------------------|-----------------------|--------------|-----------------|-----------------|----------------------|-----------------|
| SB1 | 63,000 | 27,000 | <200 | 2,600 | 1,100 | 1,700 | 3,600 |
| SB3 | 11,000 | 790 | <100 | 1,700 | 840 | 330 | 1,100 |
| SB5 | 12,000 | 28,000 | <330 | 200 | 14 | 280 | 28 |
| SB6 | 2,200 | NA | <28 | 330 | 4.7 | 49 | 14 |
| SB7 | 36,000 | 200,000 | <1100 | 2,200 | 550 | 850 | 1,700 |
| SB8 | 6,200 | 1,200 | <92 | 430 | 22 | 150 | 170 |
| SB9 | 160 | 210 | 22 | 6.2 | 8.1 | 4.2 | 17 |
| MDL | 50 | | 5 | 0.5 | 0.5 | 0.5 | 0.5 |

MDL = Method Detection Limit

ND = Not detected above the Method Detection Limit (unless otherwise noted)

µg/L = micrograms per liter (ppb)

mg/L = milligrams per liter (ppm)

* = This sample was reanalyzed by EPA method 8260 for fuel oxygenates