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Alameda County
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March 7, 2008

WORK PLAN FOR PILOT STUDY

10700 MacArthur Boulevard
Oakland, California

AEI Project No. 261829
Toxics Case No. RO0002580

Prepared For

Jay-Phares Corporation
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AEI

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INTRODUCTION

This workplan describes the proposed pilot study activities for the property located at 10700 MacArthur Boulevard, Oakland, California (Figure 1: Site Location Map). This workplan was required by the Alameda County Health Care Services (ACHCS) in a letter dated January 10, 2008 relating to the release of tetrachloroethylene (PCE) from historical dry-cleaning activities at the former Young's Cleaners location on the subject property. The ACHCS is providing regulatory oversight for the investigation and mitigation of the release.

It should be noted that the January 10, 2008 letter from the ACHCS was prepared in response to the Site Mitigation Plan dated November 20, 2007. The original plan, as outlined in the Site Mitigation Plan, was to achieve regulatory approval for sensitive land use at the site (child day care center). Following receipt of the January 10, 2008 letter, the developer has decided to move the day care center and use the area and surrounding spaces for general commercial use. Based on the changed proposed land use, several of the proposed previously more conservative proposed mitigation measures are no longer anticipated to be necessary. The purpose of this work plan is to propose a pilot study to determine a feasible approach to eliminate, to the extent reasonably possible, any potential for vapor intrusion into the site buildings to allow for commercial use of the building areas prior to achieving formal case closure. This work plan has been prepared in conjunction with the Site Mitigation Plan.

As discussed below, extensive site assessment and source removal was conducted in the 1990s. However, during recent soil vapor investigation activities, residual impact was discovered that may present a potential for vapor intrusion. The shopping center buildings are being refurbished during which time remedial installations will be completed. In summary, this report includes the following:

- Modifications to the proposed activities as outlined in the Site Mitigation Plan.
- Response to requested information from the ACHCS in the letter dated January 10, 2008.
- Further details for the proposed subslab venting and vapor extraction system pilot study designed to create a negative pressure beneath the building slab, thereby eliminating the vapor intrusion pathway and removing residual volatile organics.

1.0 SITE DESCRIPTION AND HISTORY

The subject property (hereinafter referred to as the site or property) is located at 10700 MacArthur Boulevard (Figure 1). The site is approximately 13.5 acres in size and is currently developed with the Foothill Square Shopping Center. The shopping center consists of five buildings, together totaling approximately 155,600 square feet. The are of concern is the former Youngs Cleaners, located on the north side of the property.

The site is situated in a mixed commercial and residential area of Oakland. The site is bound by MacArthur Boulevard to the west, Foothill Boulevard to the east, and 108th Avenue to the south. An ARCO gasoline station is located adjacent to the northwest and residences to the north. Refer to Figure 2 for a site plan of the western section of the Foothill Square Shopping Center property.

Construction of the shopping center began in the early 1960s. Additions to the original center continued through the 1970s, including the construction of a gas station at the southeastern corner in 1970. This gas station was operated by USA Petroleum which ceased operations and was eventually demolished in 1994. A current open leaking underground storage tank (LUST) case exists for this former gas station, the responsibility for which is with USA.

Between 1984 and 1995, Young's Cleaners, a dry-cleaning business, operated in one of the units of the shopping center, located at the southwestern end of the northern building (Figure 2). A release of PCE was discovered as part of an offsite investigation, which was later traced to Young's Cleaners. Below is a chronology of discovery, investigation, and mitigation of the release.

1.1 Preliminary Investigations

In August 1988, Kaldveer Associates performed a Preliminary Soil and Groundwater Quality Testing Program at the site. Fifteen soil borings were drilled to depths of 11.5 to 36.5 below ground surface (bgs) around the perimeter of the site. The investigation focused on past use of the site as a truck manufacturing facility, the then operating USA Gasoline Station on the southeast corner of the site, and an ARCO service station adjacent to the north west corner of the site. The result of the analytical program indicated the presence of hydrocarbons in the soil and groundwater in the northwest corner of the site, adjacent to the ARCO station.

WGR installed 5 groundwater monitoring wells (WGR-MW-1 to WGR-MW-5) on the shopping center property in January, 1989. Soil and groundwater samples confirmed the presence of petroleum hydrocarbons in the northwest corner of the site. Groundwater samples from well WGR-MW-2 and WGR-MW-3, contained low concentrations of 1,1-trichloroethane. Wells WGR-MW-1 through WGR-MW-3 and WGR-MW-5 were installed in what was described as the "shallow" groundwater, described as between 20 to 35 feet bgs. Well WGR-MW-4 was installed in what was described as the "deeper" groundwater zone, with the well slots from 25 to 45 feet bgs.

RESNA conducted several investigations of the ARCO service station between 1991 and 1993 to define the extent of the petroleum hydrocarbon release that occurred on that property. During their investigations, RESNA detected chlorinated volatile organic compounds (CVOCs) in several of their borings and wells. On March 23, 1993, the ACHCS requested that the vertical and lateral extent of PCE contamination, discovered on the shopping center by ARCO while investigating its release, be investigated by the shopping center owners.

1.2 Exploratory Excavation - 1994

In May 1994, Augeas performed an exploratory excavation within the Young's Cleaners location. Approximately 8 cubic yards of soil were removed from site of the coin operated dry cleaning machines. An area approximately 1.5 feet deep and 6 feet by 8 feet was excavated by the south wall of the facility. Augeas collected 4 soil samples (SB-1 through

SB-4) from the floor and sidewalls of the shallow excavation which were analyzed by EPA method 8240. PCE was detected in these samples at concentrations ranging from 890 milligrams per kilogram (mg/kg) (SB-1) to 9,100 mg/kg (SB-2). Sample SB-2 was located about three feet directly below a floor drain that was shown by Augeas to be connected to the sanitary sewer.

In July 1994, the existing excavation was extended four feet to the west and deepened to about 4 feet bgs. On August 29, 1994, Augeas collected eight additional soil samples (H-1 through H-8) from floor and sidewalls of the excavation. PCE was reported at concentrations ranging from 1.4 mg/kg (H-2) to 5.0 mg/kg (H-3).

1.3 Site Characterization – 1994 to 1995

Between September and November 1994, Augeas drilled seven soil borings and three groundwater monitoring wells on the site. Boring B-1 was drilled to a depth of 5 feet bgs and borings B-2 through B-7 to depths of 21 to 25 feet bgs. One well AMW-1 was drilled near the back of Young's Dry Cleaners and two (AMW-2 and AMW-3) near the front of the facility.

Augeas reported PCE soil contamination in 5 of the soil borings (B-3 through B-7) and monitoring wells AMW-2 and AMW-3 at concentrations ranging from 0.012 mg/kg (B-3) to 90 mg/kg (AMW-2).

PCE was detected in groundwater samples from soil borings B-4 through B-6 at concentrations ranging from 870 micrograms per liter (µg/L) to 11,000 µg/L. No chlorinated solvents were detected in the groundwater sample from well AMW-1. The groundwater sample from well AMW-2, located in front of the drycleaners, adjacent to the sanitary sewer line was reported to contain PCE, trichloroethylene (TCE), cis & trans-1,2-dichloroethylene (c-1,2-DCE), (t-1,2 –DCE), 1,1-DCE and c-1,3-DCP at concentrations of 35,000 µg/L, 320 µg/L, 110 µg/L, 50 µg/L, 8 µg/L and 4.2 µg/L, respectively. Total petroleum hydrocarbons as Stoddard solvent (TPHs) was also reported in the groundwater sample from AMW-2.

In March 1995, Augeas installed two additional wells, AMW-4 and MW-5. Wells AMW-6 through AMW-9 were installed in July through August 1995. Based on the investigations, Augeas concluded that the PCE contamination centered on the Young's Cleaners, and was caused by a release of solvents from the drycleaner and associated sanitary sewer line in front of the facility. They also concluded that the extent of soil contamination was not wide spread. Augeas recommended that the PCE affected soil be excavated, thereby removing the source. Augeas expected this to result in reduction of PCE and other contaminant concentrations in the groundwater over time.

1.4 Source Excavation – 1995 to 1996

Between October 1995 and January 1996, AEI excavated PCE contaminated soil from beneath the Young's Cleaners and adjacent tenant spaces and around the sanitary sewer. Upon removal, the excavation was backfilled with clean imported fill. The lateral and vertical extent of the contamination was found to be greater than initially estimated by Augeas. Augeas initially recommended removal of soil with PCE concentrations in excess of 1.0 mg/kg. During excavation, PCE dechlorination products were identified for the first time in soil and the clean-up goal was revised to a total VOC concentration of 1.0 mg/kg. The resulting excavation extended into adjacent tenant spaces and required the removal of approximately 2,500 cubic yards of affected soil. During excavation activities, wells AMW-2 and AMW-3 were properly abandoned and destroyed.

This action was successful in removing a significant volume of highly impacted soil from the source area. However, several areas with residual total VOC concentrations above the 1.0 mg/kg goal remained at the final extent of excavation: 1) The northwest corner of the Young's Cleaners space, where total VOCs were 1.8 mg/kg and 1.9 mg/kg at depths of 4 and 8 feet respectively; 2) beneath the breezeway west of the former cleaners where total VOCs were 2.5 mg/kg at a depth of 5 feet; and 3) beneath the breezeway, in front of and east of the former location of Young's Cleaners (near AMW-3), where total VOC of 1.4 mg/kg were reported in the boring at a depth of 25.5 feet bgs (outside of the extent of the excavation).

The excavated soil was spread over the southeaster corner of the property. In February 1996, ten soil samples were collected by AEI from the stockpile and analyzed for VOCs to evaluate baseline concentrations in the stockpile. PCE was detected in these samples at concentrations ranging from ND<5.0 µg/kg to 380 µg/kg. TCE was detected in three samples at concentrations ranging from 11 µg/kg to 38 µg/kg. No other VOCs were detected in the stockpile.

The soil stockpile was tilled between February 1996 and January 1997. In January 1997 and again in May 1999, stockpile sampling occurred. During the May 1999 sampling, PCE was only detected in one of eight samples, at 28 µg/kg. Based on the sampling data, limited reuse of the soil was approved.

1.5 Additional Groundwater Investigation and Risk Evaluation

To assess potential offsite migration of PCE in the groundwater, PES Environmental performed a preliminary investigation consisting of a CPT survey and HydroPunch ™ sampling of the groundwater. The survey consisted of obtaining CPT measurements at nine locations (HP-1 through HP-9), to depths of up to 60 feet. Following the collection of the CPT data, water samples were collected from HydroPunch ™ borings located within several feet of the CPT locations.

In the "shallow" zone, groundwater samples could not be collected from drilling locations HP-1, HP-3, HP-5 HP-6 and HP-9. Although, the CPT logs indicated that the silts of the "shallow" aquifer were saturated and monitoring wells in this interval are productive, the low transmissivity of the silts and clays prevented groundwater sample collection in this shallow zone using this sampling technique. PCE was only detected in groundwater at location HP-7, at 230 µg/L. No PCE has been detected in the "shallow" zone in offsite borings.

In the "deep" groundwater zone, PCE was detected in borings HP-0, HP-1, HP-6 and HP-9 at concentrations of 440 µg/l, 20 µg/L, 40 µg/L, and 25 µg/L, respectively. This data indicated that although PCE had been detected at the ARCO station at concentrations up to 2,600 µg/L, only low concentrations of PCE were present in the "deep" groundwater zone west of MacArthur Boulevard and west toward 106th Avenue.

PES concluded that the PCE plume had not migrated substantially off site and was stable. They attributed the stability of the plume primarily to natural attenuation. PCE dechlorination products were observed, including TCE and cis- and trans- 1,2-DCE.

An evaluation of risk to human health via migration of contaminant vapors into the occupied building spaces was documented in the February 15, 1996 report prepared by PES. The numerical evaluation modeled the indoor concentrations of the site contaminants (PCE, TCE, 1,1-DCE, 1,2-DCE, cis- and trans-) using residual contaminant concentrations in soil. The modeled indoor air contaminant concentrations were below their respective Preliminary Remediation Goals (PRGs) (US EPA Region IX, 1995) and, therefore, it was concluded that the concentrations of remaining contaminants in the soil did not pose a significant threat to human health. This finding was concurred with by the ACHCS and Regional Water Quality Control Board (RWQCB) in letters dated March 26, 1996 and March 21, 1996, respectively.

Based on the findings of the groundwater investigation, PES recommended that two additional down gradient "sentry" wells be installed to monitor the down gradient edge of the groundwater plume. In July 1997, these two wells (FHS-MW-10 and FHS-MW-11) were drilled and installed at depths of 54.5 and 62.5 feet bgs, respectively. Sampling of these wells began in September 1997. During subsequent groundwater monitoring, PCE was detected in well FHS-MW-10 and FHS-MW-11 at maximum concentrations of 18 µg/L and 12 µg/L, respectively. Monitoring continued on a roughly semi-annual basis through the present.

1.6 Additional Investigation – 2006 & 2007

On October 11 through October 13, 2006, two soil borings (SB-1 and SB-2) and a total of seventeen (17) soil gas probes (VB-1 through VB-17), each with a shallow boring as well as a deep boring, were advanced by AEI. The investigation was performed at the request of the ACHCS to evaluate the presence of vapor phase contaminants within and around the release area and the possibility of contaminant vapor intrusion. In addition, a groundwater

monitoring and sampling event for the existing monitoring well network was performed at this time.

Results of soil vapor sample analyses indicate the presence of subsurface vapor phase contaminants, include PCE, TCE, cis-1,2 DCE, and vinyl chloride. The highest concentrations detected were in the area of the former excavation of impacted soil, likely the result of low concentrations of residual contaminants that remained upon completion of the excavation activities. Vapor phase contaminant concentrations decrease significantly away from the former release area. The data suggests that vapor phase migration along the onsite utility corridor has not occurred.

Following review of this 2006 report by ACHCS, it was agreed the additional soil vapor investigation was needed to further characterize the extent of vapor phase impact prior to finalization of remedial approach for the residual impact. Subsequently on June 25, 2007, AEI performed the additional soil vapor investigation to further define the extent of the PCE release from the former Young's Cleaners. A total of eight soil gas samples were collected from five additional probe locations to the northeast of the former release area, where previous investigations had been limited. Based on the analyses of the eight additional soil gas samples, it was determined that PCE and related contaminants (TCE, c-1,2 DCE, t-1,2 DCE, and VC) have not spread northwest of the release area beneath the existing building. Therefore it was determined that the extent of the contamination is confined to non-detectable concentrations to the east, north, and northwest of the former Young's Cleaners.

Locations of monitoring wells, previous soil borings, and soil vapor sampling locations are presented on Figure 2. Historical soil data is included on Table 1, and historical soil vapor data is included on Table 2 and Figure 3. Historical groundwater monitoring and sample analytical data is presented in Tables 3 and 4.

2.0 GEOLOGY AND HYDROGEOLOGY

The subject site is located on the eastern edge of the East Bay, a broad, gently westward sloping area produced by coalescing alluvial fans and bay margin plains along the eastern shore of San Francisco Bay. In the site vicinity the sediments underlying the surface are mapped as Holocene aged alluvium, consisting of weakly consolidated, slightly weathered poorly sorted, irregularly bedded clay, silt, sand and gravel, interpreted to be primarily alluvial fan and fluvial deposits. These alluvial fan deposits extend westward over the Late Pleistocene Alameda formation, the major basin-filling unit in the area.

On the eastern portion of the site in the vicinity of the former USA station, the alluvial sediments are underlain at depths ranging from 12 to 25 feet bgs by deeply weathered highly fractured silty sandstone, siltstone, claystone and chert. These units are interpreted as bedrock and may be part of the Cretaceous aged Novato Quarry terrain sandstones similar to what is exposed to the north of the northwest of the site along the west side of the Hayward Fault. On the eastern edge of the site, the

Hayward fault separates the sediments of the East Bay Plain from the igneous rocks that comprise the western portion of the adjacent San Leandro Hills.

During the 2006 site investigation, soil borings SB-1 and SB-2 revealed the presence of silty clay to the maximum depth explored (18 feet bgs). The silty clay contained varying amounts of sand with a maximum of up to approximately 25% sand content. During the June 2007 soil vapor probe installation, two probes out of five encountered refusal at a depth of 6 feet bgs, northeast of the release area.

2.1 Hydrology

Historically the groundwater had been classified as "shallow" or "deep" aquifers or "zones". The shallow water table has been reported at depths ranging from approximately 10 feet bgs to 24 feet bgs and the deep at depths ranging from approximately 14 feet bgs to 45 feet bgs. AEI interprets the underlying groundwater to represent a single complex aquifer that consists of highly variable sediments ranging from high transmissivity gravel to low transmissivity silt. Wells are completed with well screens of varying lengths installed at varying depths based on were sands, if any, were encountered. Refer to Table 3 for well construction details, where known. This combination of variable screens and sediments results in highly variable groundwater elevation data in the wells. Examination of the CPT and well logs show that few if any sands are continuous across the site and that the silts between the sands are apparently water saturated. With this taken into account, the following hydrologic generalizations can be made. Based on the available data, the gradient across the ARCO site appears to be generally to the south. The gradient between the ARCO site and the former Young's dry cleaners appears generally to be to the southwest. The reported gradients at the USA site have been in all directions, both radial internal and external (at times influenced by remedial efforts); however, a southeasterly direction is predominant. These gradients are consistent with the general topography which shows a slight southwesterly swale along the north side of the site and a slight southwesterly nose through the former USA station. These topographic features are likely are reflective of the underlying bedrock topography and would effect shallow groundwater flow. Actual groundwater movement would also preferentially follow higher transmissivity sediments of variable orientations.

Groundwater in the shallow wells has historically flowed towards the west and that in the deeper wells towards the west/southwest.

3.0 RESPONSE TO ACHCS LETTER

The ACHCS response letter to the November 10, 2007 Site Mitigation Plan contained 4 technical comments. AEI's response to each of these comments is included below:

1. Site Characterization
Due to the changed proposed land use from sensitive to general commercial, AEI does not concur that additional characterization is necessary at this time. Based on recent assessments, the primary

potentially complete exposure pathway for building occupants is possible vapor intrusion. Characterization for vapor intrusion potential determined that elevated concentrations of HVOCs are present beneath the former dry cleaner (VB-11). In a letter dated May 23, 2007, the ACHCS approved AEI's workplan to delineate the extent of the vapor phase contaminates. Subsequently the vapor phase contaminates were defined to non-detect based on the absence of HVOCs in borings VB-18 to VB-22. In addition, AEI plans to install several soil vapor monitoring probes in conjunction with system installation activities (Figure 4). These vapor monitoring probes will be periodically sampled to further evaluate vapor phase contaminates beneath the building.

2. Soil Sampling and Contingency Source Excavation
The ACHCS has requested that AEI provide justification for cleanup levels based on proposed soil excavation activities. Modifications to the originally proposed remediation plan have been made which include no longer removing the concrete slab and performing excavation activities. Therefore this comment is no longer applicable. The remediation modifications are discussed in more detail in Section 5.0.

3. Iso-concentration Maps
Iso-concentrations maps have been prepared as requested by the ACHCS for shallow and deep groundwater, as well as shallow and deep soil vapor. The requested iso-concentration maps are included as Figures 5 to 8.

4.Pilot Test
AEI concurs that it would be prudent to perform a pilot test prior to selecting a remedial alternative. Details of the proposed pilot test with AEI's assumptions are included below.

4.0 REVISED PROPOSED REMEDIAL ACTIVITIES

The goal of the proposed remedial action is to remove residual volatile contaminates from the former release area and to eliminate the possibility of vapor intrusion by applying a vacuum beneath the building slab. This pilot test is proposed to demonstrate the feasibility of this method so that the building can be occupied and used for commercial purposes.

Due to the change in land use from sensitive to commercial land use, several of the more conservative proposed remedial actions in the Site Mitigation Plan have been removed. Previously proposed remedial including the removal of potentially impacted soil and installation of a vapor barrier membrane were proposed to prepare the site for the use as a day care facility. As the day car locations has been moved, these conservative measures are no longer anticipated to be necessary. AEI currently plans to install the sub-slab and vapor extraction system as a pilot test as described in the Site Mitigation Report. However, AEI plans to remove the concrete only where system trenching will be; subsequently, AEI no longer proposes to remove the entire concrete slab over the formally proposed day care expansion. Due to the fact that the concrete slab will not be removed, AEI does not plan on installing the sub grade vapor membrane as it is not anticipated that the extra precautionary measure is necessary. In addition, by not removing the entire concrete slab, excavation beyond the system piping trenching will not take place. Finally, as the purpose of this

was to define possible soil remediation that is no longer being considered, AEI does not plan to complete the grid soil sampling activities at the site.

However, as previously mentioned, AEI plans to install and operate the sub-slab and vapor extraction system as a pilot test for remedial alternatives at the site. The system and vapor probes will be installed as described in the Site Mitigation Report. The system will then operate as a pilot study for a period of one week during which time readings will be collected to determine the effectiveness of the remedial approach. It is anticipated that a radius of influence directly beneath the concrete slab anywhere from 30 to 100 feet may be observed. Based on the expected radius of influence, AEI expects that sufficient vacuum beneath the entire southwestern portion of the building will be achieved (area with elevated soil vapor concentrations). A subslab induced vacuum of -0.025 to -0.035 inches of water is generally considered minimum to eliminate vapor intrusion potential (ASTM 2003). Vacuum readings will be collected from vapor points VM-1 through VM-6 to verify the actual radius of influence beneath the building. However, if field readings do not indicate a radius of influence of at least 65 feet directly beneath the concrete slab, additional vapor extraction points may be necessary and can be installed at a later time. Following the collection of necessary data from the pilot study activities, AEI plans to continue running the system as an interim corrective measure until a long term mitigation plan has been agreed upon and a corrective action plan approved.

During the pilot testing activities, daily field inspections and measurements will be made to optimize system performance and operation. Measurements of induced vacuum will be measured from both depths of each soil gas probe, manifold vacuum recorded, and combined influent and effluent samples collected in accordance with anticipated BAAQMD minimum permit requirements.

Probes will be sampled before and after the pilot test in accordance with the *Advisory – Active Soil Gas Investigation*, dated January 28, 2005, issued by the Department of Toxic Substances Control (DTSC) and Los Angeles RWQCB. Samples will be analyzed for PCE, TCE, c-1,2 DCE, t-1,2 DCE, VC, and an appropriate leak check by EPA method TO-15 at a fixed laboratory.

5.0 REPORTING

Within one month of pilot testing activities completion, AEI will submit a pilot test report as requested by the ACHCS which will include details from the pilot testing activities. Following pilot study activities, AEI will also begin working on the required corrective action plan (CAP) which will propose the remedial option selected and justification for the selection of that alternative versus other remedial alternatives. The CAP will also establish cleanup goals for the site and include information requested by the ACHCS in Technical Point No. 5 of their January 10, 2008 letter.

6.0 HEALTH AND SAFETY PLAN

AEI will prepare a site specific Health and Safety Plan (HSP) conforming to Part 1910.120 (i) (2) of 29 CFR. The HSP will designate a site safety office, will include a hazard assessment associated

with the required tasks, and outline specific appropriate monitoring criteria and work practices. Prior to commencement of each day's field activities for installation of remedial equipment, a site safety meeting will be held at a designated command post near the working area. The HSP will be reviewed with all personnel performing work on these tasks and emergency procedures will be outlined at this meeting, including an explanation of the hazards of the known or suspected chemicals of interest. The HSP will outline required levels of personal protective equipment (PPE) and criteria for changing levels of PPE. A working area will be established to delineate the zone where required PPE must be worn, and where unauthorized personnel will not be allowed. The HSP will be on site at all times during the project. An operation manual for remedial equipment will be onsite at all times once installed and operation. The manual will outline safety features of the equipment, emergency shutdown procedures, and 24-hour emergency contact information for the manager of the property, AEI primary project personnel, and local emergency services. Key site personnel, including the facility manager, will be provided with necessary safety and contact information.

7.0 WASTE HANDLING

Spoils from the remedial installations and work within the former release area will be stored temporarily onsite. Any stockpiled soil will be placed over plastic sheeting, surrounded by runoff control waddles, and covered with plastic sheeting to limit potential contact and prevent runoff. Soils will be sampled and profiled for disposal and upon acceptance, transported under appropriate waste manifest to the approved landfill.

8.0 SCHEDULE

Renovation activities for the portions of the shopping center building are underway, with work in the area of the former Young's Cleaners to begin shortly. Several of the tenant spaces are currently vacant; once the remainder of the spaces is vacated, field installation will be begin. BAAQMD permit applications will be submitted once a detailed renovation schedule has been established. Formal startup of the venting system will occur following permit approval. ACHCS staff will be provided with a detailed schedule of field activities once established to perform field inspections, as necessary.

9.0 REFERENCES

ASTM, 2003. *Standard Practice for Installing Radon Mitigation Systems in Existing Low-Rise Residential Buildings*, February 10.

Alameda County Health Care Services Agency (ACHCS), 2005. *Toxics Case No. RO0002580, Young's Cleaners, 10700 MacArthur Blvd., Oakland, CA 94605*, August 22.

ACHCS, 2007. *Toxics Case No. RO0002580, Young's Cleaners, 10700 MacArthur Blvd., Oakland, CA 94605*, May 24.

All Environment, Inc (AEI), 1996. *Soil Remedial Investigation and Excavation Project Summary, Young's Cleaners, Foothill Shopping Center,* 10700 MacArthur Boulevard, Oakland, CA, 94065.

AEI, 2006. *Additional Site Investigation Report,* 10700 MacArthur Boulevard, Oakland, CA, 94065, November 30.

AEI, 2007. *Work Plan – Additional Soil Vapor Investigation,* 10700 MacArthur Boulevard, Oakland, CA, 94065, April 25.

AEI, 2007. *Supplemental Soil Vapor Investigation Report*, 10700 MacArthur Boulevard, Oakland, CA, 94065, July 30.

AEI, 2007. *Site Mitigation Plan*, 10700 MacArthur Boulevard, Oakland, CA, 94065, November 20.

Augeas Corporation, 1995. *Report of Subsurface Investigation, Young's Cleaners, Foothill Shopping Center*, 10700 MacArthur Boulevard, Oakland, California. December.

DTSC, 2005, *Advisory – Active Soil Gas Investigation*, January 28, 2005.

ETIC Engineering, 2006. *Subsurface Investigation and Risk Assessment Report*, 10605 Foothill Boulevard, Oakland, California, July 31.

Folks and Kurz, *Efficacy of Sub-Slab Depressurization for Mitigation of Vapor Intrusion of Chlorinated Organic Compounds*, 2002.

PES Environmental, Inc, 1997. *Results of Additional Groundwater Investigation and Risk Evaluation*, Former Youngs's Cleaners, Foothill Square Shopping Center, Oakland, California. March 24.

RESNA, 1991 to 1993. Investigations for ARCO (multiple and partial reports)

SFB RWQCB, 2005. *Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater* (February 2005), http://www.waterboards.ca.gov/sanfranciscobay/esl.htm

10.0 CLOSING AND SIGNATURES

This document has been prepared by AEI Consultants for the property located at 10700 Foothill Boulevard, Oakland, Alameda County, California, and presents information from previous investigation, summary of conditions and plans and presents a scope of work relating to the historical release of hazardous materials on the property. Portions of this report rely on previous field investigations, laboratory testing of material samples, and evaluations performed by AEI and others. AEI is not responsible for the accuracy or quality of work performed by others, information not available or provided to AEI, and other data or information gaps. This report does not reflect subsurface variations that may exist between sampling points. These variations cannot be anticipated, nor could they be entirely accounted for, in spite of exhaustive additional testing. This report should not be regarded as a guarantee that no further contamination, beyond that which could have been detected within the scope of past investigations, is present beneath the property or that all contamination present at the site would be identified, treated, or removed. Undocumented, unauthorized releases of hazardous material(s) and petroleum products, the remains of which are not readily identifiable by visual inspection and/or are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation and may or may not become apparent at a later time. All specified work was performed in accordance with generally accepted practices in environmental engineering, geology, and hydrogeology which existed at the time and location of the work.

If you have any questions regarding our investigation, please do not hesitate to contact the undersigned at (925) 944-2899.

Sincerely,
AEI Consultants

Jeremy Smith
Project Manager

Peter J. McIntyre, PG, REA
Senior Project Manager

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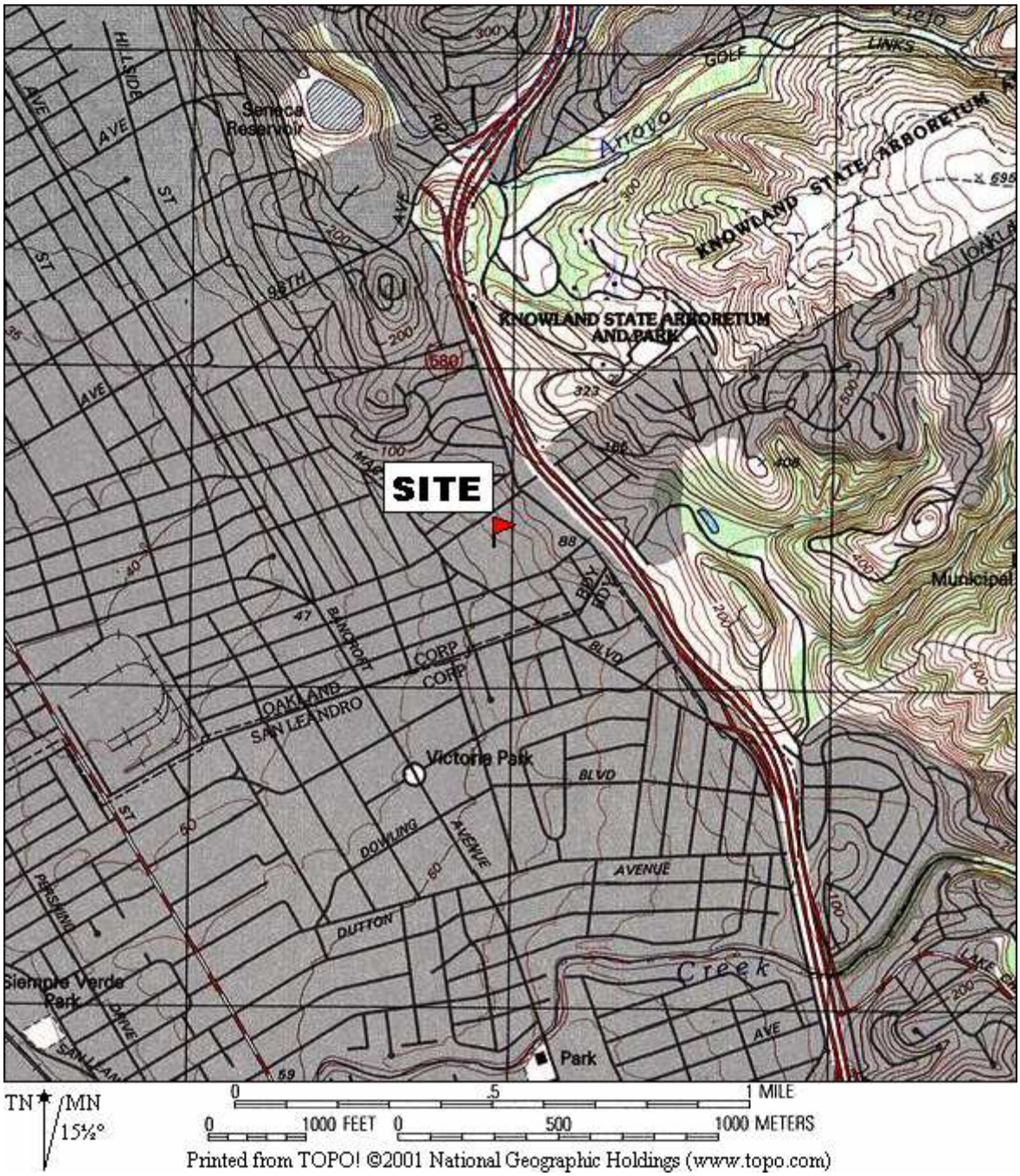
GeoTracker Database

FIGURES



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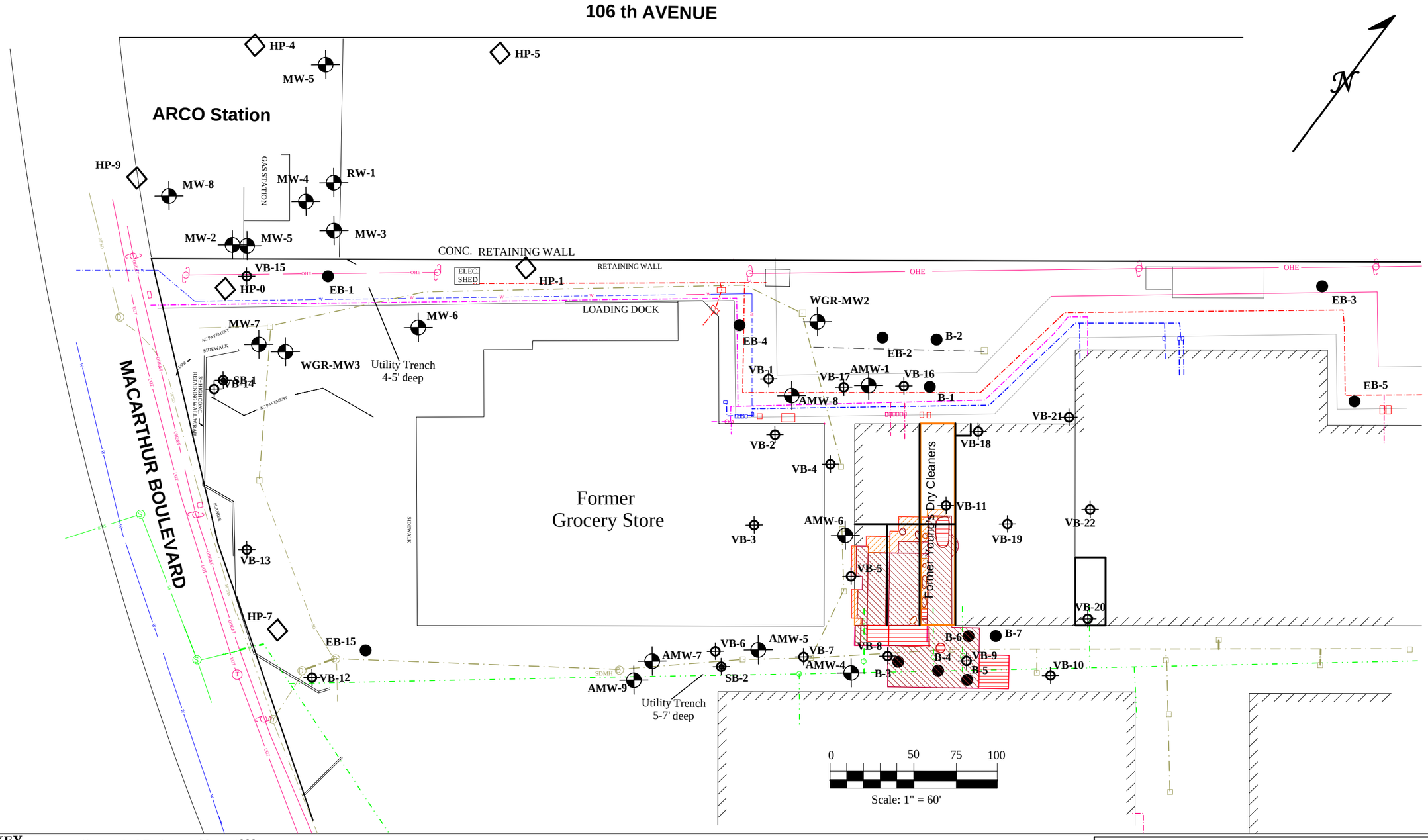
SITE LOCATION MAP

10700 MACARTHUR BLVD OAKLAND, CALIFORNIA	**FIGURE 1** PROJECT NO. 261829



KEY

EB-1	Soil Boring - Kaldveer 1988
B-1	Soil Boring - Augeas 1994
HP-8	CPT Boring/HydroPunch Sample - PES 1997
MW4	Groundwater Monitoring Well
	Soil Vapor Sample
	Soil Boring - AEI 2006

Drafted 6/30/05 - RFF on Dirk Slooten base
Revised 10/19/07 by J.SMITH

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2500 CAMINO DIABLO, WALNUT CREEK, CA

SITE PLAN

10700 MACARTHUR BLVD.
OAKLAND, CALIFORNIA

FIGURE 2
PROJECT NO. 261829

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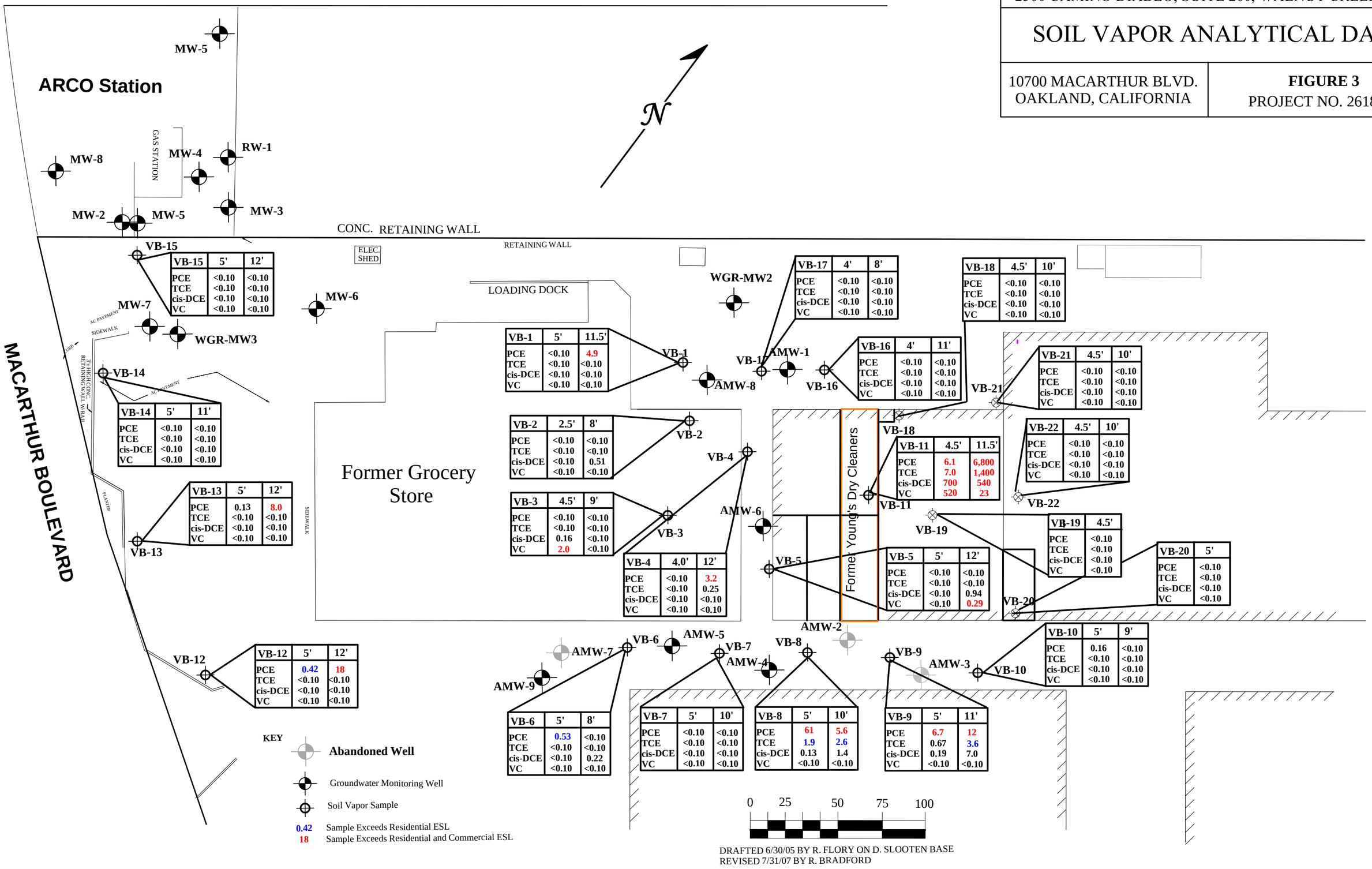
2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK, CA

SOIL VAPOR ANALYTICAL DATA

10700 MACARTHUR BLVD.
OAKLAND, CALIFORNIA

FIGURE 3
PROJECT NO. 261829



VB-15	5'	12'
PCE	<0.10	<0.10
TCE	<0.10	<0.10
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

VB-14	5'	11'
PCE	<0.10	<0.10
TCE	<0.10	<0.10
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

VB-13	5'	12'
PCE	0.13	8.0
TCE	<0.10	<0.10
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

VB-12	5'	12'
PCE	0.42	18
TCE	<0.10	<0.10
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

VB-1	5'	11.5'
PCE	<0.10	4.9
TCE	<0.10	<0.10
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

VB-2	2.5'	8'
PCE	<0.10	<0.10
TCE	<0.10	<0.10
cis-DCE	<0.10	0.51
VC	<0.10	<0.10

VB-3	4.5'	9'
PCE	<0.10	<0.10
TCE	<0.10	<0.10
cis-DCE	0.16	<0.10
VC	2.0	<0.10

VB-4	4.0'	12'
PCE	<0.10	3.2
TCE	<0.10	0.25
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

VB-17	4'	8'
PCE	<0.10	<0.10
TCE	<0.10	<0.10
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

VB-16	4'	11'
PCE	<0.10	<0.10
TCE	<0.10	<0.10
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

VB-18	4.5'	10'
PCE	<0.10	<0.10
TCE	<0.10	<0.10
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

VB-21	4.5'	10'
PCE	<0.10	<0.10
TCE	<0.10	<0.10
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

VB-11	4.5'	11.5'
PCE	6.1	6,800
TCE	7.0	1,400
cis-DCE	700	540
VC	520	23

VB-22	4.5'	10'
PCE	<0.10	<0.10
TCE	<0.10	<0.10
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

VB-19	4.5'
PCE	<0.10
TCE	<0.10
cis-DCE	<0.10
VC	<0.10

VB-5	5'	12'
PCE	<0.10	<0.10
TCE	<0.10	<0.10
cis-DCE	<0.10	0.94
VC	<0.10	0.29

VB-20	5'
PCE	<0.10
TCE	<0.10
cis-DCE	<0.10
VC	<0.10

VB-10	5'	9'
PCE	0.16	<0.10
TCE	<0.10	<0.10
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

VB-6	5'	8'
PCE	0.53	<0.10
TCE	<0.10	<0.10
cis-DCE	<0.10	0.22
VC	<0.10	<0.10

VB-7	5'	10'
PCE	<0.10	<0.10
TCE	<0.10	<0.10
cis-DCE	<0.10	<0.10
VC	<0.10	<0.10

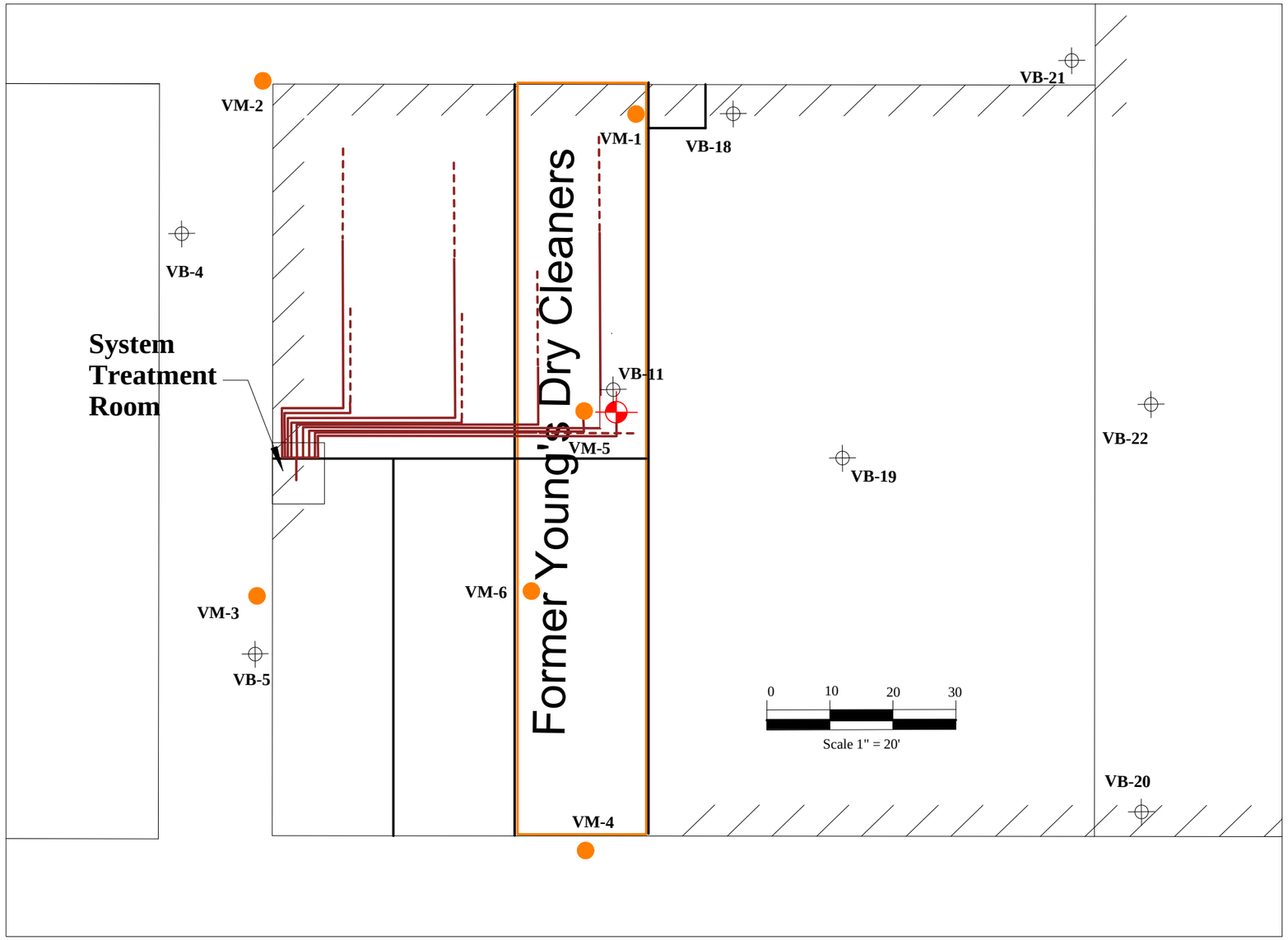
VB-8	5'	10'
PCE	61	5.6
TCE	1.9	2.6
cis-DCE	0.13	1.4
VC	<0.10	<0.10

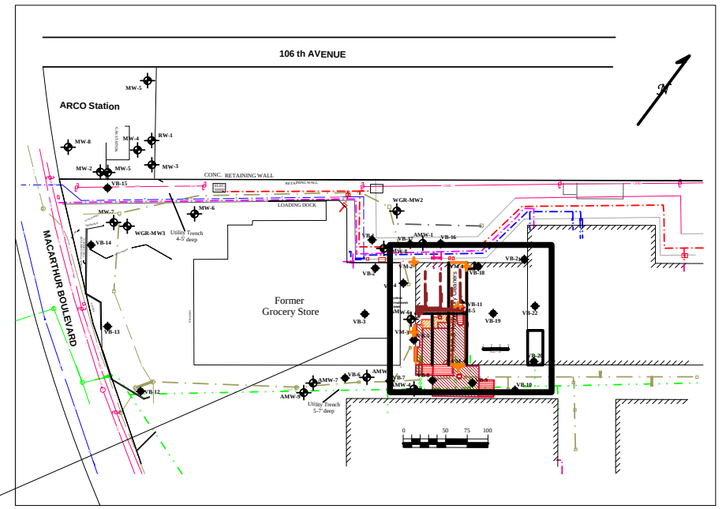
VB-9	5'	11'
PCE	6.7	12
TCE	0.67	3.6
cis-DCE	0.19	7.0
VC	<0.10	<0.10

KEY

- Abandoned Well
- Groundwater Monitoring Well
- Soil Vapor Sample
- 0.42 Sample Exceeds Residential ESL
- 18 Sample Exceeds Residential and Commercial ESL

DRAFTED 6/30/05 BY R. FLORY ON D. SLOOTEN BASE
REVISED 7/31/07 BY R. BRADFORD





Soil Vapor Monitoring Point

Vapor Extraction Well

Previous Soil Vapor Probe

Extraction Line (PVC Blank)

Extraction Line (PVC Screen)

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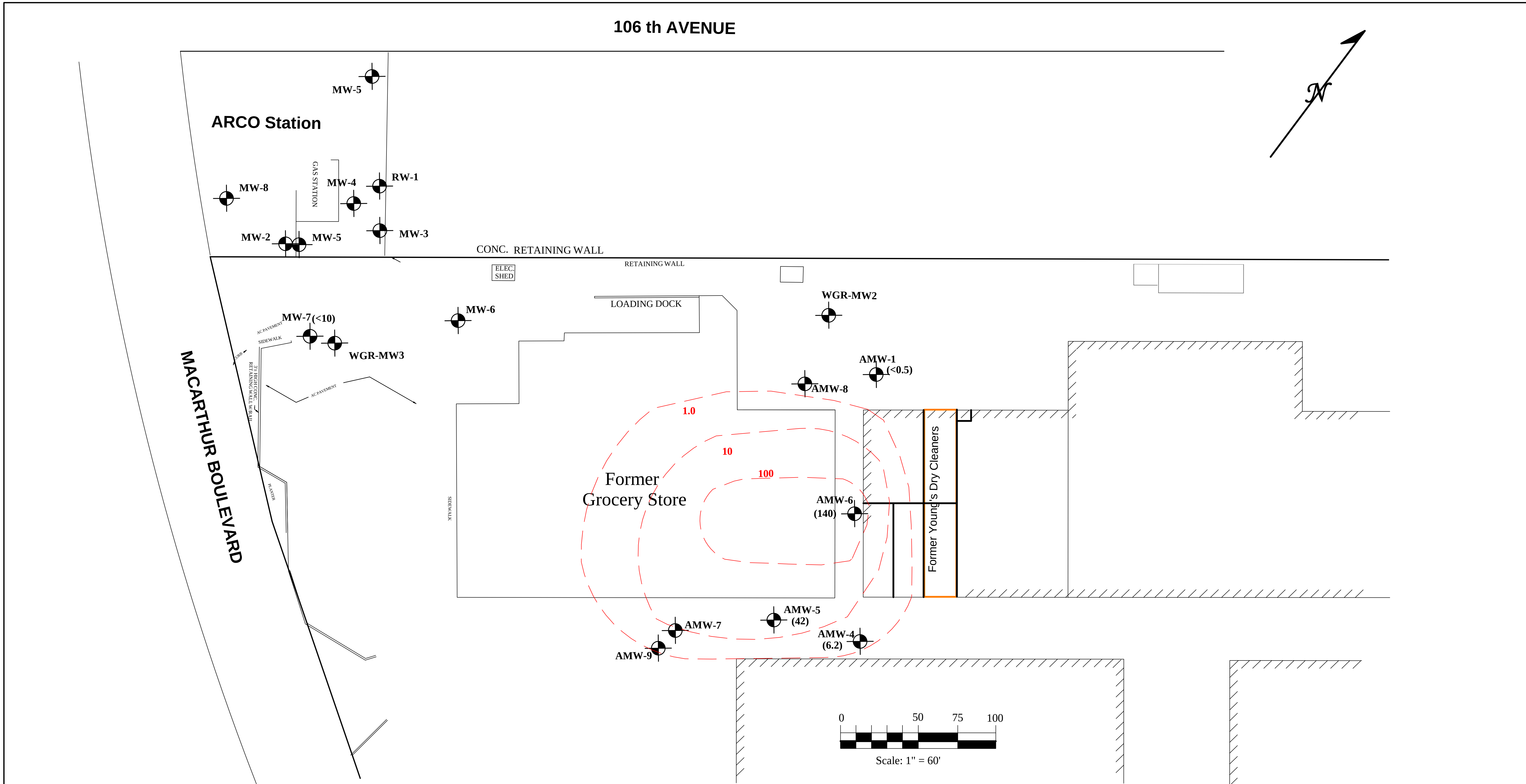
2500 CAMINO DIABLO, WALNUT CREEK, CA

PROPOSED VENTING SYSTEM, BARRIER, AND MONITORING POINTS

10700 MACARTHUR BLVD.
OAKLAND, CALIFORNIA

FIGURE 4
PROJECT NO. 261829



KEY

Groundwater Monitoring Well

(61) = PCE Result in micrograms per liter

PCE = Tetrachloroethene

Groundwater analytical from October 17, 2007 Sampling Event.

AEI CONSULTANTS

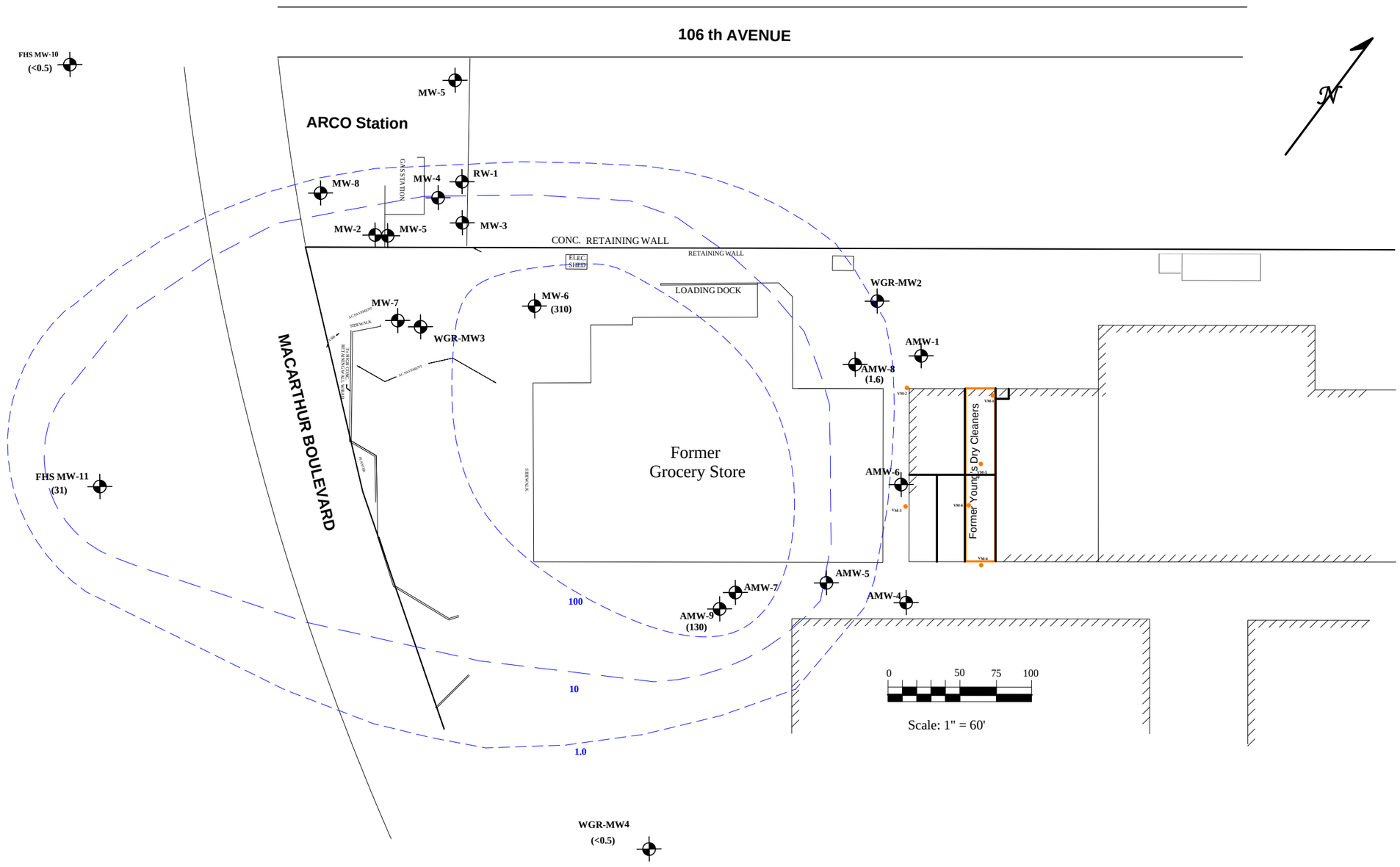
2500 CAMINO DIABLO, WALNUT CREEK, CA

PCE Groundwater Concentrations (Shallow Wells)

10700 MACARTHUR BLVD.
OAKLAND, CALIFORNIA

FIGURE 5

PROJECT NO. 261829



KEY

Groundwater Monitoring Well

(61) = PCE Result in micrograms per liter

PCE = Tetrachloroethene

Groundwater analytical from October 17, 2007 Sampling Event.

AEI CONSULTANTS

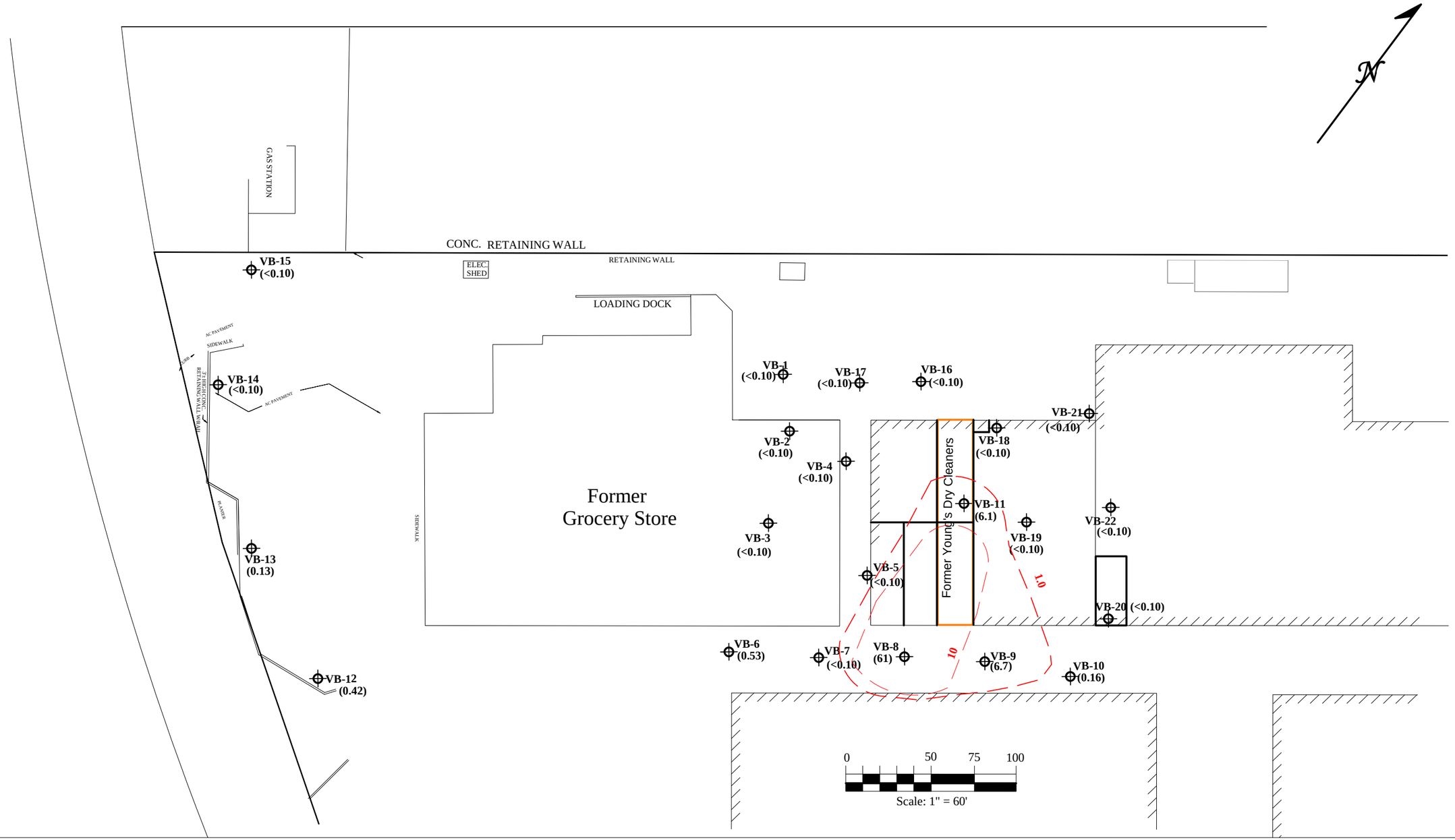
2500 CAMINO DIABLO, WALNUT CREEK, CA

PCE Groundwater Concentrations (Deep Wells)

10700 MACARTHUR BLVD.
OAKLAND, CALIFORNIA

FIGURE 6

PROJECT NO. 261829



KEY

⊕ Soil Vapor Sample

(61) = PCE Result in micrograms per liter

PCE = Tetrachloroethene

Soil vapor analytical from all available historical data

AEI CONSULTANTS

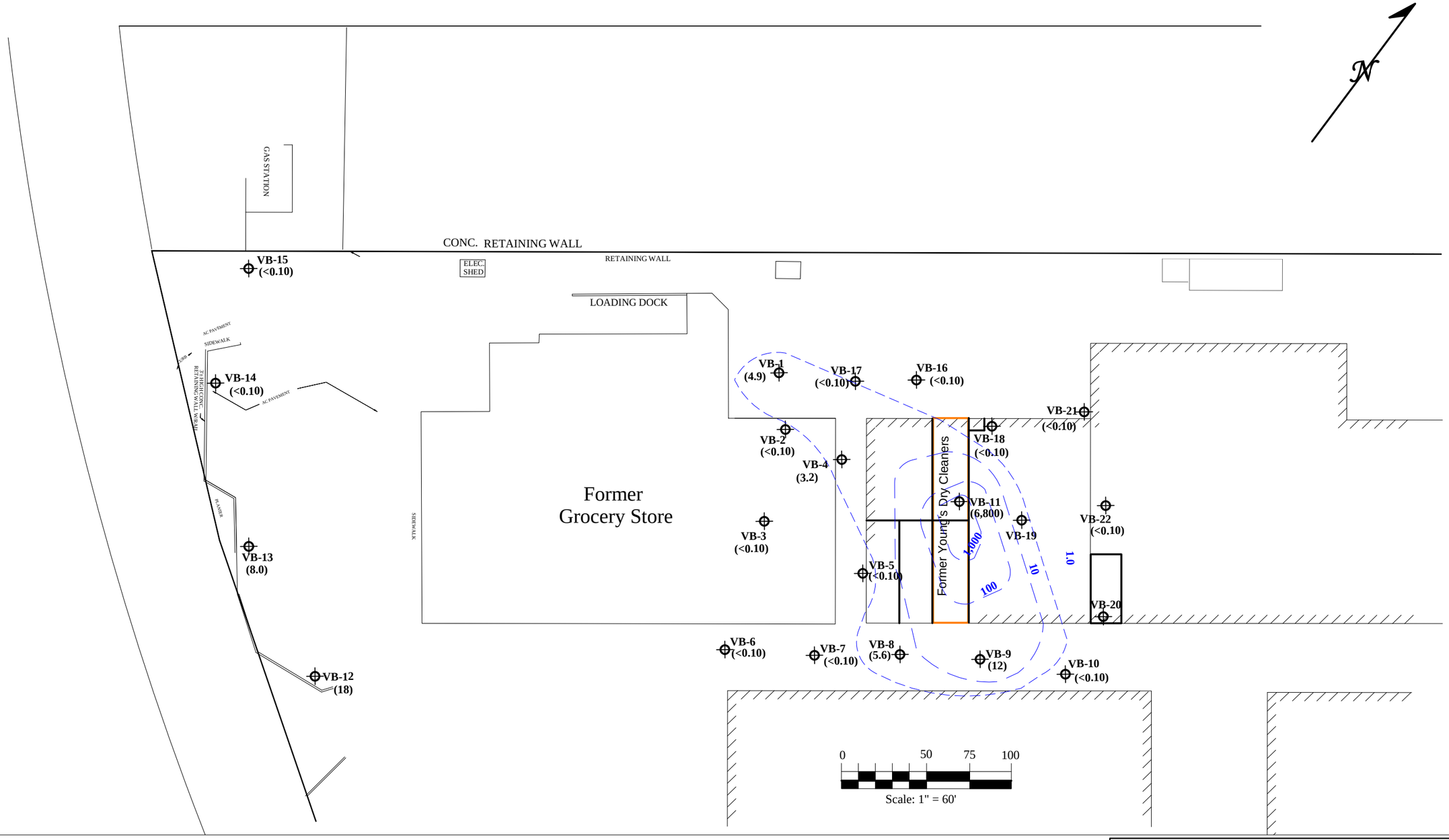
2500 CAMINO DIABLO, WALNUT CREEK, CA

Shallow (<5' BGS) PCE Soil Vapor Concentrations

10700 MACARTHUR BLVD.
OAKLAND, CALIFORNIA

FIGURE 7

PROJECT NO. 261829



KEY

⊕ Soil Vapor Sample

(61) = PCE Result in micrograms per liter

PCE = Tetrachloroethene

Soil vapor analytical from all available historical data

AEI CONSULTANTS

2500 CAMINO DIABLO, WALNUT CREEK, CA

Deep (5'-12' BGS) PCE Soil Vapor Concentrations

10700 MACARTHUR BLVD.
OAKLAND, CALIFORNIA

FIGURE 8

PROJECT NO. 261829

TABLES

Table 1

Summary of Historical Analytical Results for Soil

Foothill Square Shopping Center, 10700 MacArthur Blvd., Oakland, California

Sample Location	Sampled By	Depth (ft bgs)	Date Sampled	Concentrations reported in micrograms per kilogram (µg/kg)							Comments
				PCE	TCE	c-1,2-DCE	t-1,2-DCE	1,1-DCE	1 ,1,1- TCA	VC	
WGR MW-1	WGR	20	12/5/1988	<5	<5	<5	<5	<5	<5	<5	
		31.5	12/5/1988	<1	<1	<1	<1	<1	<1	<1	
WGR MW-2	WGR	20	12/5/1988	<1	<1	<1	<1	<1	<1	<1	
		40.5	12/5/1988	<1	<1	<1	<1	<1	<1	<1	
WGR MW-3	WGR	18	12/6/1988	<1	<1	<1	<1	<1	<1	<1	
		38.5	12/6/1988	<2	<2	<2	<2	<2	<2	<2	
WGRMW-4	WGR	14.5	12/7/1988	<1	<1	<1	<1	<1	<1	<1	
		49	12/7/1988	<1	<1	<1	<1	<1	<1	<1	
WGRMW-4	WGR	14.5	12/8/1988	<5	<5	<5	<5	<5	<5	<5	
B-2	Augeus	6	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		11	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		16	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		21	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		24	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
B-3	Augeus	6	10/7/1994	**15**	<8	<5	<6	<12	<12	<20	Soil Excavated
		13	10/7/1994	<10	<8	<5	<6	<12	<12	<20	
		16	10/7/1994	**12**	<8	<5	<6	<12	<12	<20	
		21	10/7/1994	**27**	<8	<5	<6	<12	<12	<20	
B-4	Augeus	5.5	10/7/1994	**1,600**	**150**	**120**	<6	<12	<12	<20	Soil Excavated
		11	10/7/1994	**70**	<8	**22**	<6	<12	<12	<20	Soil Excavated
		16	10/7/1994	**100**	<8	**9**	<6	<12	<12	<20	
		21	10/7/1994	**30**	<8	<5	<6	<12	<12	<20	
B-5	Augeus	6.5	11/3/1994	**1,600**	<5	<5	<5	<5	<5	<10	Soil Excavated
		11	11/3/1994	**450**	<5	<5	<5	<5	<5	<10	Soil Excavated
		16	11/3/1994	**440**	<5	<5	<5	<5	<5	<10	
		21	11/3/1994	<5	<5	<5	<5	<5	<5	<10	
		26	11/3/1994	<5	<5	<5	<5	<5	<5	<10	
B-6	Augeus	11	11/3/1994	**5,000**	<5	<5	<5	<5	<5	<10	Soil Excavated
		15.5	11/3/1994	**590**	<5	<5	<5	<5	<5	<10	
		21	11/3/1994	<5	<5	<5	<5	<5	<5	<10	
		26	11/3/1994	<5	<5	<5	<5	<5	<5	<10	
B-7	Augeus	10.5	11/23/1994	**38**	<5	<5	<5	<5	<5	<10	
		15.5	11/23/1994	**60**	<5	<5	<5	<5	<5	<10	
		20.5	11/23/1994	<5	<5	<5	<5	<5	<5	<10	
		25.5	11/23/1994	<5	<5	<5	<5	<5	<5	<10	

Table 1

Summary of Historical Analytical Results for Soil

Foothill Square Shopping Center, 10700 MacArthur Blvd., Oakland, California

Sample Location	Sampled By	Depth (ft bgs)	Date Sampled	Concentrations reported in micrograms per kilogram (µg/kg)							Comments
				PCE	TCE	c-1,2-DCE	t-1,2-DCE	1,1-DCE	1 ,1,1- TCA	VC	
B-8	Augeus	6	3/23/1995	<0.5	<0.5	-	<0.5	-	<0.5	<1.0	
AMW-1	Augeus	4	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		6	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		11	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		16	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		21	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		26	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		31	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
		34	9/12/1994	<5	<5	<5	<5	<5	<5	<5	
AMW-2	Augeus	10	9/30/1994	**22,000**	**50**	**250**	<6	<12	<12	<20	Soil Excavated
		15	9/30/1994	**90,000**	**600**	**210**	<6	<12	<12	<20	Soil Excavated
		20	9/30/1994	**400**	**20**	**30**	<6	<12	<12	<20	
		25	9/30/1994	**30**	<8	<5	<6	<12	<12	<20	
AMW-3	Augeus	5.5	11/18/1994	**6**	<5	<5	<5	<5	<5	<10	Soil Excavated
		10	11/18/1994	**390**	<5	<5	<5	<5	<5	<10	Soil Excavated
		15.5	11/18/1994	**59**	<5	<5	<5	<5	<5	<10	Soil Excavated
		20.5	11/18/1994	**820**	<5	<5	<5	<5	<5	<10	
		25.5	11/18/1994	**1,400**	<5	<5	<5	<5	<5	<10	
		30	11/18/1994	**210**	<5	<5	<5	<5	<5	<10	
AMW-4	Augeus	6	3/22/1995	**870**	<5	-	<5	-	<5	<10	
		11	3/22/1995	**13**	<0.5	-	<0.5	-	<0.5	<1.0	
		16	3/22/1995	**7.5**	<0.5	-	<0.5	-	<0.5	<1.0	
		21	3/22/1995	**5.3**	<0.5	-	<0.5	-	<0.5	<1.0	
		26	3/22/1995	<0.5	21	-	<0.5	-	<0.5	<1.0	
AMW-5	Augeus	6	3/22/1995	**1.1**	<0.5	-	<0.5	-	<0.5	<10	
		11	3/22/1995	<0.5	<0.5	-	<0.5	-	<0.5	<1.0	
		16	3/22/1995	<0.5	<0.5	-	<0.5	-	<0.5	<1.0	
		21	3/22/1995	<0.5	<0.5	-	<0.5	-	<0.5	<1.0	
		26	3/22/1995	<0.5	<0.5	-	<0.5	-	<0.5	<1.0	
		31	3/22/1995	<0.5	<0.5	-	<0.5	-	<0.5	<1.0	
AMW-6	Augeus	6	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	
		11	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		16.5	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		21	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		26	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	

Table 1

Summary of Historical Analytical Results for Soil

Foothill Square Shopping Center, 10700 MacArthur Blvd., Oakland, California

Sample Location	Sampled By	Depth (ft bgs)	Date Sampled	Concentrations reported in micrograms per kilogram (µg/kg)							Comments
				PCE	TCE	c-1,2-DCE	t-1,2-DCE	1,1-DCE	1 ,1,1- TCA	VC	
AMW-7	Augeus	6	8/2/1998	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	
		11.5	8/2/1998	**33**	**14**	<0.5	<0.5	<0.5	<0.5	<1.0	
		16	8/2/1998	**60**	**10**	<0.5	<0.5	<0.5	<0.5	<1.0	
		21	8/2/1998	**85**	**11**	<0.5	<0.5	<0.5	<0.5	<1.0	
		26	8/2/1998	**210**	**39**	<0.5	<0.5	<0.5	<0.5	<1.0	
AMW-8	Augeus	6	2/28/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	
		11	2/28/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		16.5	2/28/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		21	2/28/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		26	2/28/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		31.5	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		36.5	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		41	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		46	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		51.5	8/1/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
AMW-9	Augeus	5	7/31/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		9.5	7/31/1995	**29**	**17**	<0.5	<0.5	<0.5	<0.5	<1.0	
		14.5	7/31/1995	**120**	**31**	<0.5	<0.5	<0.5	<0.5	<1.0	
		19.5	7/31/1995	**27**	**7.7**	<0.5	<0.5	<0.5	<0.5	<1.0	
		24.5	7/31/1995	**110**	**2.1**	<0.5	<0.5	<0.5	<0.5	<1.0	
		31	8/2/1995	**30**	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		36	8/2/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		41	8/2/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		45	8/2/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		51	8/2/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	
		54.5	8/2/1995	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	

Table 2:
Historical \Soil Vapor Analytical Results
10700 MacArthur Blvd., Oakland, California

Sample ID	Date	Depth (feet bgs)	PCE µg/L	TCE µg/L	cis-1,2-DCE µg/L	trans-1,2 DCE µg/L	Vinyl Chloride µg/L
October 2006 Investigation							
VB-1-5	10/12/2006	5	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-1-11.5	10/12/2006	11.5	**4.9**	**0.44**	ND<0.10	ND<0.10	ND<0.10
VB-2-2.5	10/12/2006	2.5	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-2-8	10/12/2006	8	ND<0.10	ND<0.10	**0.51**	ND<0.10	ND<0.10
VB-3-4.5	10/12/2006	4.5	ND<0.10	ND<0.10	**0.16**	ND<0.10	**2.0**
VB-3-9	10/12/2006	9	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-4-4	10/13/2006	4	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-4-12	10/13/2006	12	**3.2**	**0.25**	ND<0.10	ND<0.10	ND<0.10
VB-5-5	10/13/2006	5	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-5-12 [1]	10/13/2006	12	ND<0.10	ND<0.10	**0.94**	**0.13**	**0.29**
VB-6-5 [2]	10/11/2006	5	**0.53**	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-6-8 [1]	10/11/2006	8	ND<0.10	ND<0.10	**0.22**	ND<0.10	ND<0.10
VB-7-5	10/12/2006	5	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-7-10	10/12/2006	10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-8-5	10/12/2006	5	**61**	**1.9**	**0.13**	ND<0.10	ND<0.10
VB-8-10	10/12/2006	10	**5.6**	**2.6**	**1.4**	ND<0.10	ND<0.10
VB-9-5 [1]	10/12/2006	5	**6.7**	**0.67**	**0.19**	ND<0.10	ND<0.10
VB-9-11	10/12/2006	11	**12**	**3.6**	**7.0**	ND<0.10	ND<0.10
VB-10-5	10/13/2006	5	**0.16**	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-10-9	10/13/2006	9	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-11-4.5	10/13/2006	4.5	**6.1**	**7.0**	**700**	**170**	**520**
VB-11-11.5	10/13/2006	11.5	**6,800**	**1,400**	**540**	**64**	**23**
VB-12-5	10/11/2006	5	**0.42**	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-12-12	10/11/2006	12	**18**	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-13-5	10/11/2006	5	**0.13**	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-13-12	10/11/2006	12	**8.0**	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-14-5	10/11/2006	5	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-14-11	10/11/2006	11	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-15-5	10/11/2006	5	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-15-12	10/11/2006	12	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10

Sample ID	Date	Depth (feet bgs)	PCE µg/L	TCE µg/L	cis-1,2-DCE µg/L	trans-1,2 DCE µg/L	Vinyl Chloride µg/L
VB-16-4	10/13/2006	4	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-16-11	10/13/2006	11	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-17-4	10/13/2006	4	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-17-8	10/13/2006	8	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
June 2007 Investigation							
VB-18-4.5	6/25/2007	4.5	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-18-10	6/25/2007	10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-19-4.5	6/25/2007	4.5	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-20-5.0	6/25/2007	5	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-21-4.5	6/25/2007	4.5	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-21-10	6/25/2007	10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-22-4.5	6/25/2007	4.5	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
VB-22-10	6/25/2007	10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10
Residential Land Use ESL		--	**0.4**	**1.2**	**7.3**	**15**	**0.032**
Commercial Land Use ESL		--	**1.4**	**4.1**	**20**	**41**	**0.11**

Notes:

PCE = Tetrachloroethene

TCE = Trichloroethene

c-1,2-DCE = cis-1,2-Dichloroethene

trans-1,2-DCE = trans-1,2-Dichloroethene

µg/L = micrograms per liter (ppb)

bgs = below ground surface

[1] = Duplicate analysis performed on this sample. Highest results reported on table.

[2] = Purge volume test performed on this sample. Sample reported after 3 purge volumes for all samples.

ESL's = Environmental Screening Level for shallow soil gas screening levels.

Table 3
Groundwater Level Data
10700 MacArthur Blvd., Oakland, California

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
AMW-1	1/29/1999	24-34	64.51	23.01	41.50
(Shallow)	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
	8/29/2001		64.51	24.38	40.13
	3/12/2002		64.51	21.29	43.22
	9/27/2002		64.51	23.62	40.89
	3/25/2003		64.51	22.45	42.06
	10/2/2003		64.51	24.31	40.20
	10/17/2006		64.51	22.91	41.60
	5/3/2007		64.51	18.61	45.90
	10/17/2007		**64.51**	**23.97**	**40.54**
AMW-4	1/29/1999	15-25	64.79	11.51	53.28
(Shallow)	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
	8/29/2001		64.79	12.40	52.39
	3/12/2002		64.79	10.13	54.66
	9/27/2002		64.79	12.14	52.65
	3/25/2003		64.79	11.03	53.76
	10/2/2003		64.79	12.33	52.46
	10/17/2006		64.79	12.76	52.03
	5/3/2007		64.79	11.11	53.68
	10/17/2007		**64.79**	**12.64**	**52.15**
AMW-5	1/29/1999	20-30	64.97	13.87	51.10
(Shallow)	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
	8/29/2001		64.97	14.72	50.25
	3/12/2002		64.97	13.12	51.85
	9/27/2002		64.97	14.62	50.35
	3/25/2003		64.97	13.45	51.52
	10/2/2003		64.97	14.74	50.23
	10/17/2006		64.97	14.15	50.82
	5/3/2007		64.97	13.92	51.05
	10/17/2007		**64.97**	**15.06**	**49.91**
AMW-6	1/29/1999	Unknown	65.10	12.74	52.36
(Shallow)	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
	8/29/2001		65.10	13.65	51.45
	3/12/2002		65.10	11.41	53.69
	9/27/2002		65.10	13.25	51.85
	3/25/2003		65.10	12.22	52.88
	10/2/2003		65.10	14.74	50.36
	10/17/2006		65.10	11.46	53.64
	5/3/2007		65.10	13.04	52.06
	10/17/2007		**65.10**	**13.87**	**51.23**
AMW-7	1/29/1999	Unknown	64.24	14.91	49.33
(Shallow)	5/5/1999		Well Covered during consturction		
AMW-8	1/29/1999	Unknown	64.55	16.86	47.69
(Deep)	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
	8/29/2001		64.55	18.30	46.25
	3/12/2002		64.55	16.03	48.52
	9/27/2002		64.55	18.03	46.52
	3/25/2003		64.55	17.31	47.24
	10/2/2003		64.55	21.54	43.01
	10/17/2006		64.55	16.05	48.5
	5/3/2007		64.55	23.01	41.54
	10/17/2007		**64.55**	**18.34**	**46.21**

Table 3: Continued

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
AMW-9	1/29/1999	Unknown	63.48	23.22	40.26
(Deep)	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
	8/29/2001		63.48	22.59	40.89
	3/12/2002		63.48	21.94	41.54
	9/27/2002		63.48	24.16	39.32
	3/25/2003		63.48	23.00	40.48
	10/2/2003		63.48	23.80	39.68
	10/17/2006		63.48	23.07	40.41
	5/3/2007		63.48	23.17	40.31
	10/17/2007		**63.48**	**24.97**	**38.51**
WGR MW-2	1/29/1999	23-28	63.18	23.41	39.77
(Shallow)	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
	8/29/2001		63.18	25.09	38.09
	3/12/2002		63.18	21.86	41.32
	9/27/2002		63.18	24.69	38.49
	3/25/2003		63.18	23.71	39.47
	10/2/2003		63.18	25.13	38.05
	10/17/2006		63.18	23.91	39.27
	5/3/2007		63.18	24.11	39.07
	10/17/2007		**63.18**	**NA**	**NA**
WGR MW-3	1/29/1999	22-27	58.34	15.81	42.53
(Shallow)	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
	8/29/2001		58.34	21.22	37.12
	3/12/2002		58.34	14.80	43.54
	9/27/2002		58.34	22.32	36.02
	3/25/2003		58.34	18.07	40.27
	10/2/2003		58.34	22.22	36.12
	10/17/2006		58.34	21.85	36.49
	5/3/2007		58.34	18.37	39.97
	10/17/2007		**58.34**	**NA**	**NA**
WGR MW-4	1/29/1999	23-45	60.02	26.23	33.79
(Deep)	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
	8/29/2001		60.02	27.14	32.88
	3/12/2002		60.02	24.90	35.12
	9/27/2002		60.02	27.09	32.93
	3/25/2003		60.02	25.75	34.27
	10/2/2003		60.02	27.41	32.61
	10/17/2006		60.02	26.31	33.71
	5/3/2007		60.02	26.13	33.89
	10/17/2007		**60.02**	**28.33**	**31.69**
FHS MW-10	1/29/1999	42-52	52.34	23.91	28.43
(Deep)	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
	8/29/2001		52.34	26.11	26.23
	3/12/2002		52.34	23.94	28.40
	9/27/2003		52.34	25.86	26.48
	3/25/2003		52.34	23.20	29.14
	10/6/2003		52.34	26.39	25.95
	10/17/2006		52.34	24.35	27.99
	5/3/2007		52.34	23.97	28.37
	10/17/2007		**52.34**	**27.71**	**24.63**

Table 3: Continued

Well ID (Aquifer zone)	Date	Screen Interval (ft bgs)	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
FHS MW-11	1/29/1999	59-64	54.06	26.38	27.68
(Deep)	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
	8/29/2001		54.06	28.28	25.78
	3/12/2002		54.06	21.61	32.45
	9/27/2002		54.06	27.93	26.13
	3/25/2003		54.06	45.21	8.85
	10/2/2003			Well Inaccessible	
	10/17/2006		54.06	26.54	27.52
	5/3/2007		54.06	26.25	27.81
	10/17/2007		**54.06**	**29.88**	**24.18**
MW-6	1/29/1999	37.5-56	61.78	32.87	28.91
(Deep)	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
	8/29/2001		61.78	34.98	26.80
	3/12/2002		61.78	30.72	31.06
	9/27/2002		61.78	34.50	27.28
	3/25/2003		61.78	32.08	29.70
	10/2/2003		61.78	34.86	26.92
	10/17/2006		61.78	32.58	29.20
	5/3/2007		61.78	32.54	29.24
	10/17/2007		**61.78**	**36.20**	**25.58**
MW-7	1/20/2000	17.5-37.5	58.64	20.32	38.32
(Shallow)	8/8/2000		58.64	20.50	38.14
	2/15/2001		58.64	16.95	41.69
	8/29/2001		58.64	21.61	37.03
	3/12/2002		58.64	17.03	41.61
	9/27/2002		58.64	22.73	35.91
	3/25/2003		58.64	19.09	39.55
	10/2/2003		58.64	22.46	36.18
	10/17/2006		58.64	22.19	36.45
	5/3/2007		58.64	19.52	39.12
	10/17/2007		**58.64**	**21.49**	**37.15**

Notes: All well elevations are measured from the top of casing not from the ground surface.
ft msl = feet above mean sea level

Table 4
Groundwater Sample Analytical Data
10700 MacArthur Blvd., Oakland, California

Well (aguifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCs* µg/L
AMW-1	3/23/95	Augeus	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5
(shallow - 29)	6/21/95	Augeus	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/11/95	Augeus	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	4/16/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	7/17/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/23/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/29/97	PES	NS	NS	NS	NS	NS
	1/20/00	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	ND<0.5	ND<0.5	1.8	ND<0.5	ND<0.5
	10/2/03	AEI	NS	NS	NS	NS	NS
	10/17/06	AEI	ND<0.5	ND<0.5	2.2	ND<0.5	ND<RL
	5/2/07	AEI	ND<0.5	ND<0.5	ND<0.5	0.69	ND<RL
	10/17/07	**AEI**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<RL**
AMW-4	5/15/95	Augeus	NR	ND<50	2400	ND<50	NR
(shallow - 25)	6/21/95	Augeus	NR	ND<50	2500	ND<50	NR
	9/13/95	Augeus	NR	ND<25	1100	ND<25	NR
	4/16/96	PES	ND<10	ND<10	1200	10	NR
	7/17/96	PES	ND<10	ND<10	860	ND<10	NR
	10/23/96	PES	ND<0.5	ND<0.5	22	0.5	NR
	9/29/97	PES	ND<3	ND<3	340	3	NR
	1/29/99	AEI	ND<3	ND<3	100	ND<3	ND<3
	5/5/99	AEI	ND<5	ND<5	210	ND<5	ND<5
	9/10/99	AEI	10	ND<5	240	18	ND<5
	1/20/00	AEI	46	ND<2.5	97	6.2	ND<2.5
	8/8/00	AEI	ND<5	ND<5	440	8	ND<5
	2/15/01	AEI	ND<2.5	ND<2.5	81	2.6	ND<2.5
	8/29/01	AEI	ND<2.5	ND<2.5	230	4.6	ND<2.5
	3/12/02	AEI	ND<5.0	ND<5.0	190	ND<5.0	ND<5.0
	9/27/02	AEI	ND<5.0	ND<5.0	220	ND<5.0	10***
	3/25/03	AEI	1.2	ND<1.0	22	1.9	ND<1.0
	10/2/03	AEI	2.8	ND<0.5	50	2.8	ND<0.5
	10/17/06	AEI	9.9	ND<0.5	6.5	ND<0.5	ND<RL
	5/3/07	AEI	2.7	ND<0.5	5.1	1.2	ND<RL**
	10/17/07	**AEI**	**4.0**	**ND<0.5**	**6.2**	**ND<0.5**	**ND<RL**
AMW-5	5/15/95	Augeus	NR	ND<0.5	1.2	ND<0.5	NR
(shallow - 30)	6/21/95	Augeus	NR	ND<0.5	ND<0.5	ND<0.5	NR
	9/13/95	Augeus	NR	ND<0.5	ND<0.5	ND<0.5	NR
	4/16/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR
	7/17/96	PES	ND<0.5	ND<0.5	0.6	ND<0.5	NR
	10/23/96	PES	ND<0.5	ND<0.5	0.8	ND<0.5	NR
	9/29/97	PES	ND<0.5	ND<0.5	13	ND<0.5	NR
	1/29/99	AEI	NA	NA	NA	NA	NA
	5/5/99	AEI	ND<1	ND<1	36	ND<1	ND<1
	9/10/99	AEI	ND<1	ND<1	35	ND<1	ND<1
	1/20/00	AEI	ND<1	ND<1	36	ND<1	ND<1
	8/8/00	AEI	ND<0.5	ND<0.5	50	0.72	ND<0.5
	2/15/01	AEI	ND<0.5	ND<0.5	26	0.76	ND<0.5
	8/29/01	AEI	ND<0.5	ND<0.5	28	0.87	ND<0.5
	3/12/02	AEI	ND<0.5	ND<0.5	25	0.75	ND<0.5
	9/27/02	AEI	ND<0.5	ND<0.5	17	ND<0.5	ND<0.5
	3/25/03	AEI	ND<1.0	ND<1.0	23	ND<1.0	ND<1.0
	10/2/03	AEI	ND<0.5	ND<0.5	20	0.58	ND<0.5
	10/17/06	AEI	0.68	ND<0.5	22	0.88	ND<RL
	5/3/07	AEI	0.91	ND<0.5	42	2.0	ND<RL
	10/17/07	**AEI**	**1.2**	**ND<0.5**	**42**	**2.0**	**ND<RL**

Well (aguifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCs* µg/L
AMW-6	9/13/95	Augeus	NR	ND<25	930	ND<25	NR
(shallow - 25)	4/16/96	PES	20	ND<10	1900	110	NR
	7/17/96	PES	ND<30	ND<30	3300	280	NR
	10/23/96	PES	ND<30	ND<30	2900	140	NR
	9/29/97	PES	220	70	4600	580	NR
	1/29/99	AEI	270	77	2400	390	ND<63
	5/5/99	AEI	370	110	2700	470	ND<71
	9/10/99	AEI	190	49	1400	250	ND<36
	1/20/00	AEI	210	ND<35	1600	270	ND<35
	8/8/00	AEI	150	56	1100	180	ND<25
	2/15/01	AEI	190	40	930	200	ND<25
	8/29/01	AEI	77	17	780	110	ND<10
	3/12/02	AEI	150	37	1300	170	ND<25
	9/27/02	AEI	67	ND<17	490	91	ND<17
	3/25/2003	AEI	94	ND<33	740	110	ND<33
	10/2/2003	AEI	66	13	440	60	ND<10
	10/17/2006	AEI	32	4.9	98	14	ND<RL
	5/3/2007	AEI	32	ND<5.0	120	22	ND<RL
	10/17/2007	**AEI**	**48**	**8.4**	**140**	**27**	**ND<RL** [2]
AMW-7	9/13/95	Augeus	NR	ND<25	2350	340	NR
(shallow)	4/16/96	PES	2200	60	2300	500	NR
	7/17/96	PES	2100	ND<30	2400	530	NR
	10/23/96	PES	3100	50	3400	610	NR
	9/29/97	PES	33	20	520	100	NR
	1/29/99	AEI	22	ND<3	95	12	ND<3
	5/5/99	AEI	Well Covered During Construction				
AMW-8	9/13/95	Augeus	-	ND<25	95	ND<25	ND<25
(deep - 45)	4/16/96	PES	ND<0.5	ND<0.5	0.8	ND<0.5	ND<0.5
	7/17/96	PES	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5
	10/23/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/29/97	PES	ND<0.5	ND<0.5	0.7	ND<0.5	ND<0.5
	1/20/00	AEI	ND<0.5	ND<0.5	0.73	ND<0.5	ND<0.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	ND<0.5	ND<0.5	1.7	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	7.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/2/03	AEI	NS	NS	NS	NS	NS
	10/17/06	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	5/3/07	AEI	NS	NS	NS	NS	NS
	10/17/07	**AEI**	**ND<0.5**	**ND<0.5**	**1.6**	**ND<0.5**	**ND<RL**
AMW-9	9/13/95	Augeus	NR	ND<25	170	ND<25	NR
(deep - 54)	4/16/96	PES	7	ND<3	170	4	NR
	7/17/96	PES	ND<3	ND<3	190	4	NR
	10/23/96	PES	ND<3	ND<3	190	ND<3	NR
	9/29/97	PES	ND<3	ND<3	110	ND<3	NR
	1/29/99	AEI	ND<4	ND<4	90	ND<4	ND<4
	5/5/99	AEI	ND<2.5	ND<2.5	94	ND<2.5	ND<2.5
	9/10/99	AEI	ND<2.1	ND<2.1	99	ND<2.1	ND<2.1
	1/20/00	AEI	ND<0.5	ND<0.5	100	ND<0.5	ND<0.5
	8/8/00	AEI	ND<2.5	ND<2.5	130	ND<2.5	ND<2.5
	2/15/01	AEI	ND<1.0	ND<1.0	69	ND<1.0	ND<1.0
	8/29/01	AEI	ND<2.5	ND<2.5	98	ND<2.5	ND<2.5
	3/12/02	AEI	ND<2.5	ND<2.5	100	ND<2.5	ND<2.5
	9/27/02	AEI	ND<5.0	ND<5.0	80	ND<5.0	ND<5.0
	3/25/03	AEI	4.1	ND<2.5	48	ND<2.5	ND<2.5
	10/2/03	AEI	4.8	<0.5	36	1.1	ND<0.5
	10/17/06	AEI	ND<1.7	ND<1.7	73	ND<1.7	ND<RL
	5/3/07	AEI	ND<2.5	ND<2.5	86	ND<2.5	ND<RL
	10/17/07	**AEI**	**ND<2.5**	**ND<2.5**	**130**	**ND<2.5**	**ND<RL**

Well (aguifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCs* µg/L
FHS MW-10	10/9/97	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NR
(deep - 52)	1/29/99	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/5/99	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/10/99	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	1/20/00	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	1.7	ND<1.0	18	2.5	5.0**
	10/6/03	AEI	ND<0.5	ND<0.5	1.4	ND<0.5	1.0**
	10/17/06	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	5/3/2007 [1]	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
	10/17/07	**AEI**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<RL**
FHS MW-11	9/29/97	PES	ND<0.5	ND<0.5	4	ND<0.5	NR
(deep 64.5)	1/29/99	AEI	ND<0.5	ND<0.5	7	ND<0.5	ND<0.5
	5/5/99	AEI	ND<0.5	ND<0.5	7.1	ND<0.5	ND<0.5
	9/10/99	AEI	ND<0.5	ND<0.5	7.5	ND<0.5	ND<0.5
	1/20/00	AEI	ND<0.5	ND<0.5	7.5	ND<0.5	ND<0.5
	8/8/00	AEI	ND<0.5	ND<0.5	38	ND<0.5	ND<0.5
	2/15/01	AEI	ND<0.5	ND<0.5	18	ND<0.5	ND<0.5
	8/29/01	AEI	ND<0.5	ND<0.5	16	ND<0.5	ND<0.5
	3/12/02	AEI	ND<0.5	ND<0.5	13	ND<0.5	0.77**
	9/27/02	AEI	ND<1	ND<1	13	ND<1	6.4** 1.1***
	3/25/03	AEI	0.78	ND<0.5	12	0.88	4.0** 1.0****
	10/2/03			Well Inaccessible			
	10/17/06	AEI	ND<0.5	ND<0.5	20	ND<0.5	ND<RL
	5/3/2007 [1]	AEI	ND<0.5	ND<0.5	25	1.1	ND<RL
	10/17/07	**AEI**	**ND<0.5**	**ND<0.5**	**31**	**0.71**	**ND<RL**
MW-6	3/11/95	EMCON	ND<20	ND<0.5	1300	ND<20	NR
(deep 48.69)	6/5/95	EMCON	ND<20	ND<20	2000	ND<20	NR
	8/29/95	EMCON	ND<20	ND<20	1300	ND<20	NR
	9/11/95	Augeus	NR	ND<50	2000	ND<50	NR
	11/16/95	EMCON	ND<20	ND<20	1300	ND<20	NR
	2/28/96	EMCON	ND<20	ND<20	960	ND<20	NR
	4/16/96	PES	10	10	1400	10	NR
	5/28/96	EMCON	ND<20	ND<20	970	ND<20	NR
	7/17/96	PES	ND<5	ND<5	590	ND<5	NR
	8/19/96	EMCON	ND<20	ND<20	820	ND<20	NR
	10/23/96	PES	ND<5	ND<5	680	ND<5	NR
	11/21/96	EMCON	ND<20	ND<20	680	ND<20	NR
	3/26/97	EMCON	ND<40	ND<40	830	ND<40	NR
	5/20/97	EMCON	ND<5	ND<5	270	ND<5	NR
	9/29/97	PES	ND<10	ND<10	670	ND<10	NR
	1/29/99	AEI	1.4	ND<1.3	49	3	ND<1.3
	5/5/99	AEI	19	ND<11	530	38	ND<11
	9/10/99	AEI	27	ND<12	560	53	ND<12
	1/20/00	AEI	18	ND<8.5	660	31	ND<8.5
	8/8/00	AEI	98	16	1700	170	ND<5
	2/15/01	AEI	64	ND<10	650	87	ND<10
	8/29/01	AEI	19	ND<5.0	550	38	ND<5.0
	3/12/02	AEI	61	ND<20	1200	99	ND<20
	9/27/02	AEI	ND<12	ND<12	300	27	ND<12
	3/25/03	AEI	2.6	ND<2.5	49	3.8	ND<2.5
	10/2/03	AEI	13	ND<5.0	340	21	ND<5.0
	10/17/06	AEI	16	ND<5.0	320	18	ND<RL
	5/3/07	AEI	0.92	ND<0.5	39	2.1	ND<RL
	10/17/07	**AEI**	**10**	**ND<5.0**	**310**	**18**	**ND<RL**

Well (aguifer zone)	Date	Consultant	cis 1,2 DCE µg/L	trans 1,2 DCE µg/L	PCE µg/L	TCE µg/L	VHCs* µg/L
MW-7	3/11/95	EMCON	NS	NS	NS	NS	NS
(shallow - 38)	6/5/95	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	8/29/95	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	9/11/95	Augeus	85	ND<50	-	ND<50	ND<50
	11/16/95	EMCON	ND<20	ND<20	ND<20	ND<20	ND<20
	2/28/96	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	4/16/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/28/96	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	7/17/96	PES	0.6	ND<0.5	ND<0.5	0.6	ND<0.5
	8/19/96	EMCON	ND<1	ND<1	ND<1	ND<1	ND<1
	10/23/96	PES	0.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/21/96	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	3/26/97	EMCON	ND<20	ND<20	ND<20	ND<20	ND<20
	5/20/97	EMCON	ND<10	ND<10	ND<10	ND<10	ND<10
	9/29/97	PES	ND<10	ND<10	ND<10	ND<10	ND<10
	1/20/00	AEI	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5
	8/8/00	AEI	NS	NS	NS	NS	NS
	2/15/01	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/2/03	AEI	NS	NS	NS	NS	NS
	10/17/06	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL*****
	5/3/07	AEI	NS	NS	NS	NS	NS
	10/17/07	**AEI**	**ND<10**	**ND<10**	**ND<10**	**ND<10**	**ND<RL**
WGR MW-2	10/17/06	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
(Shallow)	5/3/07	AEI	NS	NS	NS	NS	NS
	10/17/07	**AEI**	**NS**	**NS**	**NS**	**NS**	**NS**
WGR MW-3	10/17/06	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<RL
(Shallow)	5/3/07	AEI	NS	NS	NS	NS	NS
	10/17/07	**AEI**	**NS**	**NS**	**NS**	**NS**	**NS**
WGR MW-4	4/16/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
(deep)	7/17/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/23/96	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/29/97	PES	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	2/15/01	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/01	AEI	NS	NS	NS	NS	NS
	3/12/02	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/27/02	AEI	NS	NS	NS	NS	NS
	3/25/03	AEI	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/2/03	AEI	NS	NS	NS	NS	NS
	10/17/06	AEI	ND<0.5	ND<0.5	0.62	ND<0.5	ND<RL
	5/3/07	AEI	NS	NS	NS	NS	NS
	10/17/07	**AEI**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<RL**

Table 2 Notes:

Please refer to the Laboratory Analytical Data for further detailed lab information including Reporting Limits and Dilution Factors

*VHCs = All other chemicals by EPA method 601/8010 or 8260

** Chloroform (trichloromethane)

*** Dibromochloromethane

**** Methylene Chloride

***** bromodichloromethane

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

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

[1] = Reported by laboratroy without letters FHS as prefix

[2] = Vinyl Chloride detected at a concentration of 1.9 ug/L

* Available data from AMW-7 is presented although this well was covered during 1999 construction activities

RL = Reporting Limit

NS = Well not sampled

NR = Not Reported

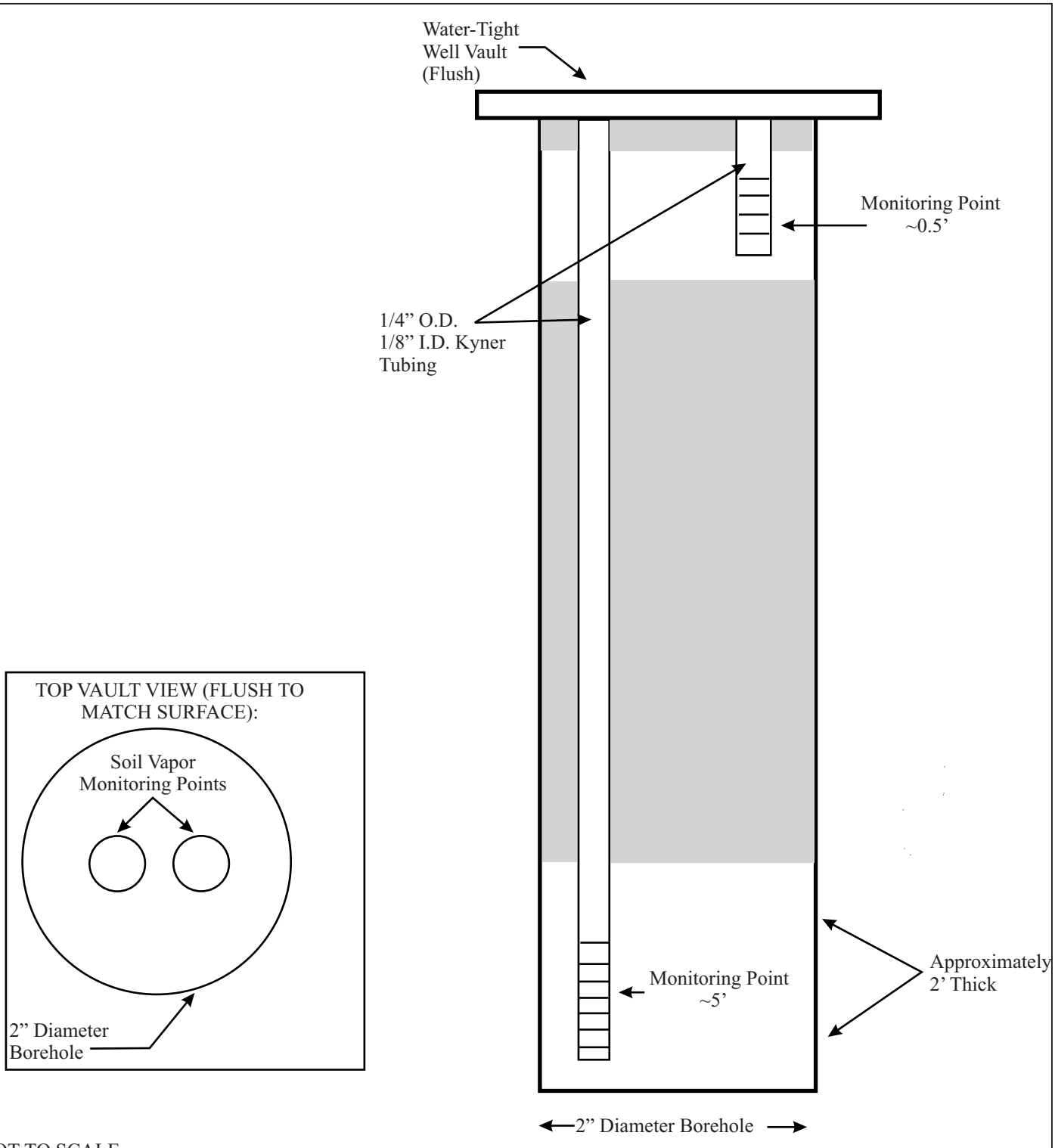
µg/L = micrograms per liter (parts per billion)

Tetrachloroethene (PCE)

Trichloroethene (TCE)

APPENDIX A

NESTED SOIL GAS PROBE



NOT TO SCALE

LEGEND

- Bentonite Seal
- Sand Filter Pack
- Monitoring Point

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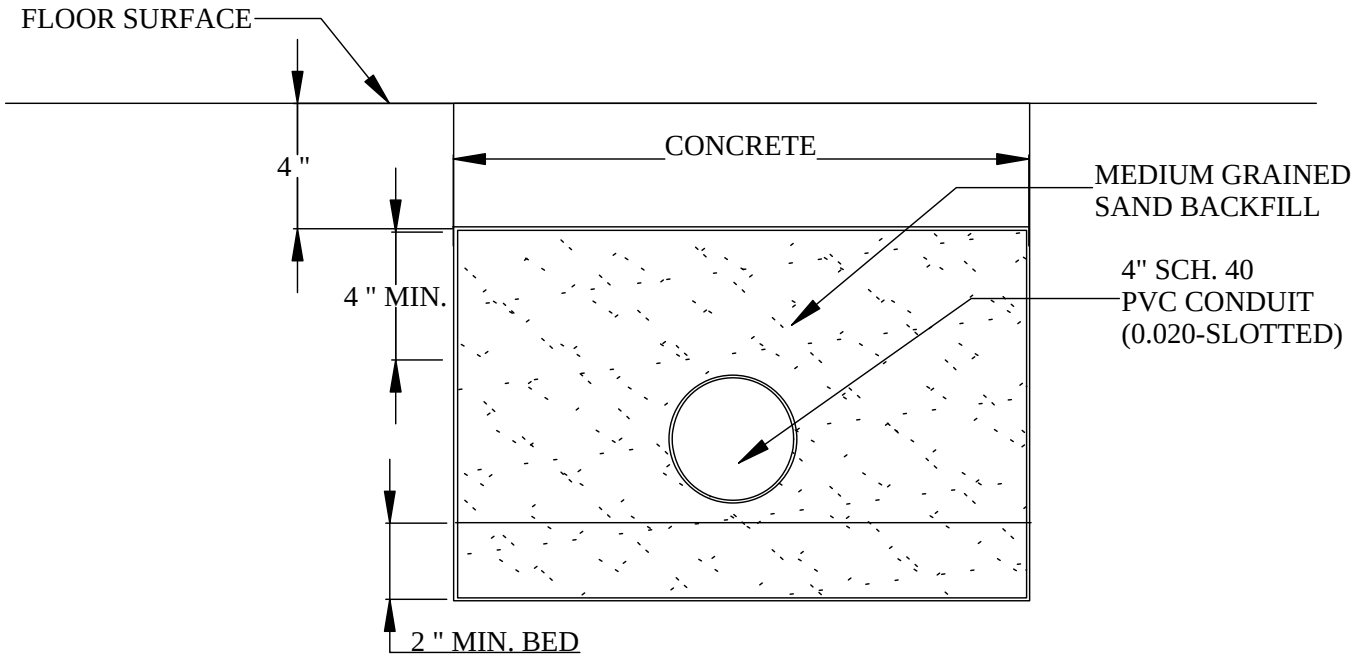
2500 CAMINO DIABLO, WALNUT CREEK, CA

TYPICAL NESTED SOIL VAPOR MONITORING POINT DETAIL

APPENDIX B

VAPOR EXTRACTION VENT SYSTEM DIAGRAM

ACTIVE VAPOR SYSTSEM
CROSS SECTION



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2500 CAMINO DIABLO BLVD, WALNUT CREEK, CA

ACTIVE SUBSLAB VENTING DETAILS - TYPICAL