

R02739

February 14, 2005

Mr. Nat Piazza
7613 Peppertree Road
Dublin, California 94568-3343

Re: Workplan for Preliminary Site Assessment
20957 Baker Road
Castro Valley, California 94546
AEI Project # 10509

Alameda County
FEB 16 2005
Environmental Health

The following workplan has been prepared on behalf of Mr. Nat Piazza, owner of the above referenced property. AEI Consultants (AEI) has been retained by Mr. Nat Piazza to provide environmental engineering and consulting services associated with a previously removed underground storage tank (UST) on the property. This workplan has been prepared in response request by the Alameda County Health Care Services (ACHCSA). ACHCSA has requested a work plan for an investigation to determine the extent of soil contamination and its impact on groundwater resulting from the hydrocarbon release from the former USTs.

SITE DESCRIPTION AND BACKGROUND

The subject property (hereafter referred to as the "site" or "property") is located at 20957 Baker Road in Castro Valley, California (Figure 1: Site Location Map). The site is located in a mixed residential and commercial/light-industrial area of Castro Valley. The site is approximately 160 by 300 feet and is undeveloped. The remainder of the site is partial covered with asphalt surfacing and concrete slabs utilized for parking.

On April 21, 2004, AEI two 1,000 gallon tanks under from the site. The removal was performed under permit from the ACDEH. The tank removal was observed by Robert Weston, Inspector, ACHCSA. Two soil samples were collected from underneath each UST and analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g), Benzene, toluene, ethylbenzene, xylenes (BTEX) and Methyl ter- butyl ether (MTBE) by EPA Method 8021B/8015Cm. Fuel oxygenates and 1,2 Dibromoethane (EDB) and 1,2 Dichloroethane (1,2 DCA) were analyzed by EPA Method 8260. Total Petroleum Hydrocarbons as diesel (TPH-d) was analyzed by EPA Method 8015C and total lead by EPA method 7010. Hydrocarbons were detected in all the soil samples, TPH-g at concentrations ranging from 160 mg/Kg (T1W-EB8') to 1,400 mg/Kg (T2W-EB8') and TPH-d at concentrations ranging from 1,400 mg/Kg (T2E-EB8') to 10,000 mg/Kg (T1E-EB8'). Total xylenes were reported in two samples at 8.4 mg/Kg (T2W-E8') and 0.25 mg/kg (T2E-EB8'). No

fuel oxygenates, EDB, or DCA were detected in the samples. Total lead was reported at concentrations ranging from 6.1 mg/Kg to 24 mg/Kg (stockpile sample STKP1-4).

ENVIRONMENTAL SETTING

The site is located at approximately 180 feet above mean sea level (msl). The site is relatively flat and the local topography slopes very gently to south-southwest toward the nearest stream (Figure 1).

According to logs of geotechnical borings drilled in 1986, the surface sediments in the area of the tank generally consist of 1 to 2 feet of gravelly clay (Fill) underlain by silty clay to a depth of 7 to 8 feet below ground surface (bgs). The silty clay is in turn underlain by 4 to 5 feet of clayey and or silt, which is in turn underlain by, weathered shale of claystone. Refusal was typically encountered within 2-3 feet of the top of the weathered shale or claystone. Groundwater, where present, was encountered at depths of 9 to 11 feet bgs.

The nearest surface water body to the site is small creek, located approximately 500 feet southwest of the site.

SCOPE OF WORK

Based on the results of soil analyses from the UST removal, the ACDEH has requested a scope of work to define the extent of the dissolved phase plume.

AEI proposes to drill six (6) temporary soil borings (labeled SB-1 through BS-4), as shown on Figure 2. The locations of the borings were chosen to further assess the extent of the impact to soil and groundwater in the area around the former tank hold.

Presented below is a summary of the rationale for the proposed boring locations.

Proposed Boring Summary

<i>Boring IDs</i>	<i>Rationale</i>
SB-1	15 feet north, upgradient of former UST
SB-2	West (cross gradient) of Tank hold
SB-3	Through the center of the former UST tank hold
SB-4	East (cross gradient) of Tank hold
SB-5	Southwest (down gradient) of UST
SB-6	South (down gradient) of UST

The temporary borings will be advanced with a Geoprobe™ direct-push drilling rig by a California C57 licensed drilling contractor. A drilling permit will be obtained from Alameda County Public Works Department (ACPWD). The borings will be advanced into groundwater or to a maximum depth of 20 feet bgs or refusal in each boring, as needed to collect groundwater samples from the water table aquifer.

Soil will be continuously collected from each boring in 2" diameter acrylic liners. Soil samples will be cut from the liners at selected depths based on field observations and organic vapor measurements collected in the field.

Groundwater samples will be collected from each boring using a drop tube inserted through the direct push rods. If groundwater cannot be collected by this method, temporary slotted PVC casing will be installed to allow for groundwater recharge. Following collection of samples, all drilling equipment and temporary casing material will be removed from the boreholes and each boring will be backfilled with neat cement grout under the direction of a ACPWD inspector.

It is anticipated that one soil sample and one groundwater sample will be analyzed from each boring. In addition, vapor samples will be collected and analyzed from selected borings. All selected samples will be analyzed for TPH-g (EPA method 8015M), benzene, toluene, ethylbenzene, and xylenes (BTEX) and MTBE (EPA method 8021M). Soil and groundwater samples will also be analyzed for TPH-d (EPA method 8015M).

Drill cuttings will be stored in 55-gallon drums, pending the results of sample analyses. On-site treatment or off-site disposal of cuttings is not included in this scope of work. Equipment rinse water and well purge water will be stored in 55-gallon drums. It is likely that waste materials will be transported from the site under appropriate manifest to an approved disposal facility.

REPORTING

The report will detail the methods and findings of the first phase of temporary borings and installation and sampling of additional wells. Following receipt of all analytical and well survey data, a technical report will be prepared. The final report will include figures, data tables, logs of borings and well construction details, and interpretation of the contaminant distributions. Recommendations may be made for further assessment necessary for the preparation of a closure report or in anticipation of the corrective action planning. Quarterly monitoring reports will be submitted within approximately one month of monitoring and sample collection activities.

SITE SAFETY

Prior to commencement of field activities, a site safety meeting will be held at a designated command post near the working area. Emergency procedures will be outlined at this meeting, including an explanation of the hazards of the known or suspected chemicals of interest. All site personnel will be in Level D personal protection equipment, which is the anticipated maximum

amount of protection needed. 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. A site safety plan conforming to Part 1910.120 (i) (2) of 29 CFR will be on site at all times during the project.

ESTIMATED SCHEDULE


Once a scope of work has been agreed upon by the ACDEH, project permitting will begin. Drilling will be scheduled upon approval of permits. Reports will be available within approximately 1 month of receipt of all necessary data.

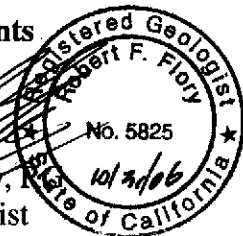
REFERENCED REPORTS

1. *Geotechnical Exploration and Engineering Study, Proposed Baker Road Apartments*, December 3, 1986, prepared by JMK Environmental Solutions, Inc.
2. *Underground Storage Tank removal Final Report*, May 19, 2004, prepared by AEI Consultants

AEI requests your comments and approval to proceed with this project. Please contact Mr. McIntyre at (925) 283-6000, extension 104, if you have any questions or need any additional information.

Sincerely,
AEI Consultants


Robert F. Flory, RG
Project Geologist



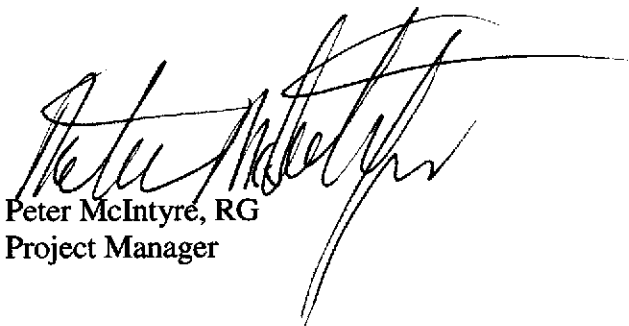
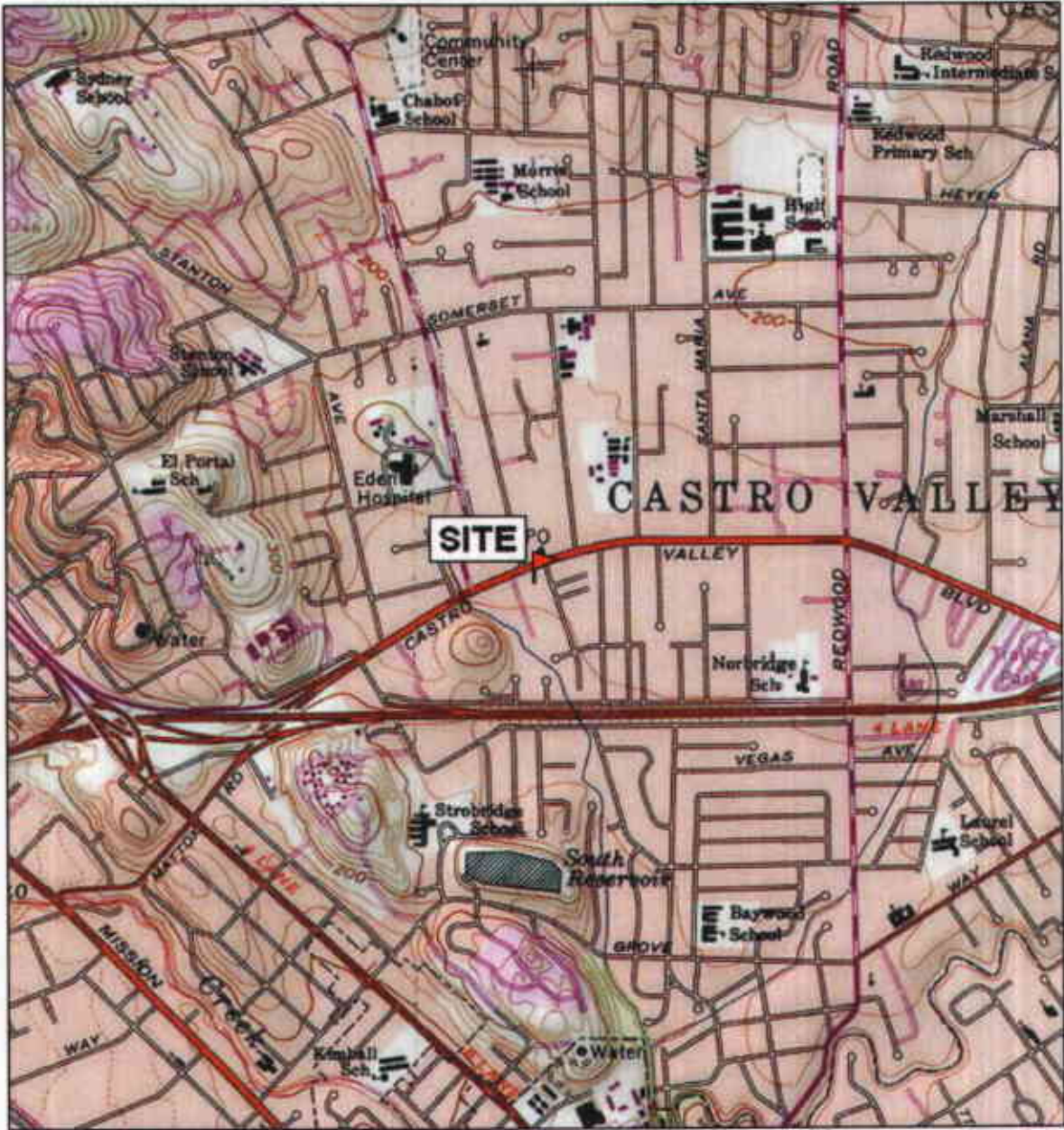

Peter McIntyre, RG
Project Manager

Figure 1 – Site Location Map

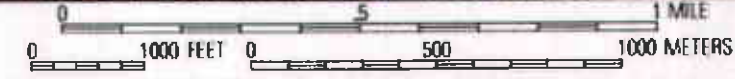
Figure 2 – Site Map

Distribution:

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Alameda, California 94502-6577

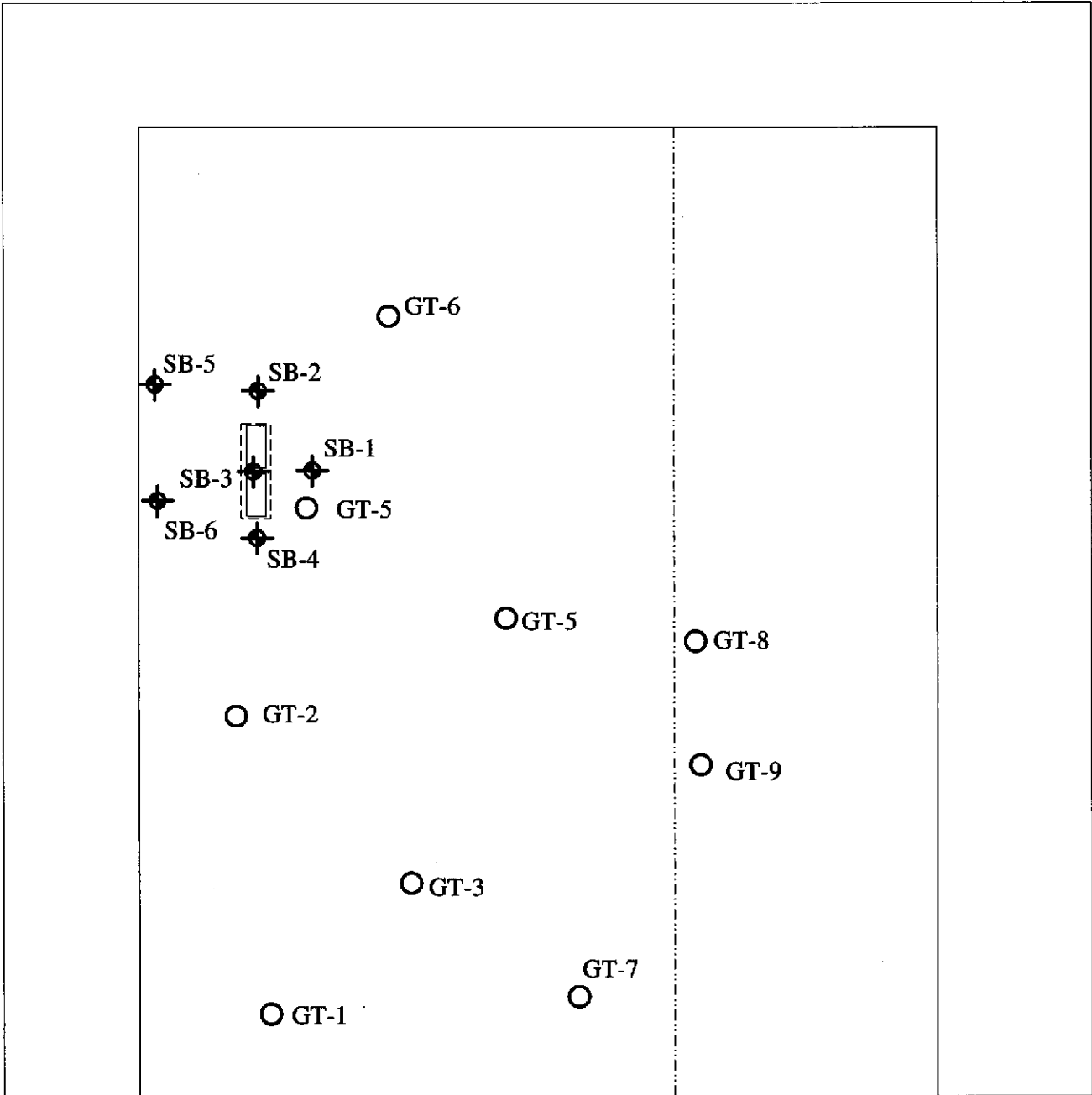


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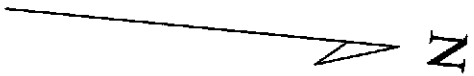
AEI CONSULTANTS	
SITE LOCATION MAP	
20957 BAKER ROAD CASTRO VALLEY, CALIFORNIA	FIGURE 1 PROJECT NO. 10905



Baker Road

○ GT-1 Geotechnical Boring - 1986

◆ SB-1 Proposed Soil Borings



SCALE 1inch = 50 feet

AEI CONSULTANTS 2500 CAMINO DIABLO, SUITE 100 WALNUT CREEK, CA	
SITE MAP	
20957 BAKER ROAD CASTRO VALLEY, CA	FIGURE 2 Project No. 10509