

July 2, 2002

Mr. Leroy Griffin
Oakland Fire Services Agency
1605 Martin Luther King Jr. Way, 2nd Floor
Oakland, CA 94612

Subject: Workplan
2201 West Street
Oakland, CA 94612
AEI Project No. 5251

Dear Mr. Griffin:

The following workplan has been prepared on behalf of Santilli and Forster Construction, and outlines the proposed removal of contaminated soil at the above referenced property. AEI Consultants (AEI) has been retained by the property owner to provide environmental engineering and consulting services associated with the release of fuel hydrocarbons at the property. This workplan outlines a proposed scope of work to excavate and dispose of the contaminated soil at the property.

Site Description and Background

The subject property (hereafter referred to as the "site" or "property") is located at 2201 West Street in Oakland, CA. The property is located in a residential area of Oakland. A photo lab currently occupies the property. The following information chronicles the investigations performed at the site to date. Please refer to the attached Figures 1 and 2 for sample locations.

AEI was contracted to remove a 300-gallon fuel oil underground storage tank (UST). The tank was removed on June 19, 2002. Prior to removal 75 gallons of waste liquid were removed from the tank. During excavation of the tank, soil staining and hydrocarbon odor were detected.

A single soil sample was collected from the bottom of the excavation and a four-point composite sample was taken from the stockpiled soil. Stockpiled soil contained trace amounts of ethylbenzene and xylenes, and Total Petroleum Hydrocarbons as diesel [TPH(d)] of 160 mg/Kg. The sample collected from the excavation bottom contained TPH(d) of 660 mg/Kg

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TABLE 1 - Soil Sample Analyses

	EB-9	STKP 1-4
TPH-GASOLINE (mg/kg)	<1.0	<1.0
TPH-DIESEL (mg/kg)	660	160
MTBE (mg/kg)	<5.0	<0.5
BENZENE (mg/kg)	1.5	<0.05
TOLUENE (mg/kg)	3.1	<0.05
ETHYL BENZENE (mg/kg)	20	0.098
TOTAL XYLENES (mg/kg)	63	0.32
ISOPROPYLBENZENE (mg/kg)	4.2	ND<0.1
NAPTHELENE (mg/kg)	10	ND<0.1
1,2,4-TRIMETHYLBENZENE (mg/kg)	43	ND<0.1
4-ISOPROPYL TOLUENE (mg/kg)	5.2	ND<0.1
n-PROPYL BENZENE (mg/kg)	8.5	ND<0.1
1,3,5-TRIMETHYLBENZENE (mg/kg)	19	ND<0.1

Please refer the attached Figures for complete analytical data and sample locations.

Geologic Conditions

The site is located approximately 17 feet above mean sea level and is relatively flat. The near surface native soil encountered during the boring advancement consisted of silty clays. Ground water elevation and flow direction are likely to be tidally influenced due to the site's proximity to the Oakland Estuary.

Scope of Work

AEI proposes to remove as much contaminated soil from the site as possible. Several conditions exist at the site that limit the amount the current excavation can be increased. The excavation created during tank removal activities will be expanded approximately one foot toward the building on the northeast, four feet to the property line on the northwest, and as far to the southeast as necessary to encounter clean soil. The excavation cannot be expanded to the southwest since the excavation boundary is currently at the property line. The depth of the excavation will be increased to 17 feet or until clean soil is reached. The over excavation currently being proposed is the maximum amount of soil which can be removed due to the restrictions discussed above. For this reason AEI does not propose to advance soil borings. The excavation of contaminated soil will be guided by visual observations and previous soil sample results. AEI estimates that approximately 78 tons of soil will be generated by the excavation activities. Please refer to Figure 2 for the location of the excavation.

A total of four (4) confirmation soil samples will be collected from the sidewalls of the excavation and one (1) sample from the bottom of the excavation. A four-point composite sample will be taken from the stockpiled material in order to profile soil for disposal at an authorized landfill.

Groundwater is anticipated between 16 to 18 feet bgs. If encountered, groundwater will be purged from the excavation and allowed to recharge. After the groundwater recharges, one grab groundwater sample will be collected. If groundwater is not encountered, AEI will collect soil samples from the bottom of the excavation at the direction of the oversight agency representative and AEI's project manager.

The groundwater sample will be collected in into 40-ml VOA vials and 1-liter amber bottles. All soil samples will be collected in brass tubes driven into the soil until completely full and sealed with Teflon tape and plastic caps. The secured samples will be placed into a cooler with ice and transported under chain of custody documentation to McCampbell Analytical, Inc. in Pacheco, California (State Certification No. 1644). The samples will be analyzed for TPH(d) by EPA Method 8015M, and for volatile organics including MTBE, benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8260B.

Following the excavation activities, the excavation will be backfilled with clean imported fill material.

Site Safety

Prior to commencement of field activities, a site safety meeting will be held at a designated area. 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 on site at all times during the project.

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 excavation 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

Work will commence promptly after approval of this workplan by the Oakland Fire Services Agency (OFSA). The OFSA will be given adequate notification of the scheduled day of excavation to schedule field inspectors if desired. AEI anticipates a maximum of two days in the field, one day for the excavation activities and one day for the off-haul of soil. Upon receipt of the analytical results and disposal documentation, the final report will be prepared promptly, and copies will be delivered to the client and the OFSA.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Nathan Garfield', written in a cursive style.

Nathan Garfield
Staff Geologist

cc: Santilli and Forster Construction, 111 Myrtle Street #201-B, Oakland, CA, 94607.