



July 19, 2000

546.002.01.001

Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California

Attention: Mr. Larry Seto

**WORKPLAN
SUBSURFACE INVESTIGATION
UTILITY BODY FACILITY
1530 WOOD STREET
OAKLAND, CALIFORNIA**

00 JUL 24 PM 4:24
PROFESSIONAL

Dear Mr. Seto:

PES Environmental, Inc. (PES) has prepared this workplan on behalf of Podlesak Trust for performing a subsurface investigation at the Utility Body facility located at 1530 Wood Street in Oakland, California (Plate 1). The purpose of the workplan is to describe the methods and procedures to be utilized during soil and groundwater sampling. PES understands that a 550-gallon underground diesel fuel storage tank (UST) was removed from the subject property in December 1989. One soil sample was collected from beneath the fill pipe of the UST and low levels of total petroleum hydrocarbons quantified as gasoline (TPHg) (360 milligrams per kilogram [mg/kg]) and toluene (560 micrograms per kilogram [μ g/kg]) were detected. No further investigation was conducted at the site. Based on the chemical results of the one soil sample collected from the excavation bottom following removal of the 550-gallon UST in 1989, Alameda County Environmental Health Services (ACEHS) requested a work plan be prepared to characterize subsurface conditions in the vicinity of the former UST. PES has prepared this workplan pursuant to ACEHS' request.

SCOPE OF WORK

Based on the results of the previous sampling, the scope of work will focus on:
(1) groundwater conditions up- and down-gradient of the former UST location with respect to the inferred direction of regional groundwater flow; and (2) soil conditions beneath the excavation backfill at the former UST location. Groundwater is inferred to flow in a west to northwest direction based on the site location with respect to San Francisco Bay.

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The proposed scope of work includes:

- Sampling soil and groundwater from one soil borehole within the former tank excavation; and
- Sampling groundwater from two soil boreholes. One soil borehole will be located up-gradient and one soil borehole will be located down-gradient of the former UST location with respect to the inferred regional groundwater flow direction.

The subsurface investigation will include the tasks described below.

Field Preparation Activities

Following approval of this work plan by ACEHS, permit applications to the Alameda County Department of Public Works (ACDPW) and the City of Oakland, for implementation of the scope of work presented below, will be prepared and submitted. PES will prepare a site specific Health & Safety Plan (HSP) to address work activities in accordance with applicable regulations. All field activities will be conducted in accordance with the procedures detailed in the HSP. Additionally, before starting subsurface activities, Underground Service Alert (USA) will be contacted and a private utility locator service retained to survey the proposed borehole locations for the presence of underground utility features that may interfere with subsurface work activities.

Subsurface Investigation

Three soil boreholes will be drilled using a hydraulically powered "direct push" drill rig at the locations shown on Plate 2. The soil boreholes will be drilled to a maximum depth of 25 feet below ground surface (bgs).

One soil sample will be collected from the soil borehole drilled at the former UST location. The soil sample will be collected from native soil beneath the excavation backfill material to further characterize soil conditions at the former UST location. A relatively undisturbed soil sample for laboratory chemical analysis will be collected from the boring using a closed piston soil sampler that contains 1½-inch diameter clear poly vinyl chloride (PVC) sample tubes. Sample collection depth will be determined in the field based on inspection of soil recovered in the sample tubes.

Groundwater samples will be collected from each of the three soil boreholes using a Hydropunch™ or equivalent sampling technique. A Hydropunch™ sampler consists of a 1.25-inch diameter cylinder inside an outer 2-inch diameter stainless steel 5-foot long retractable cylinder. The bottom 3 feet of the inner cylinder is screened to allow water to enter the screened sampling chamber when the outer cylinder is retracted. Groundwater samples

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will be collected through the hollow stem of the sampling rods from the inner cylinder with a 1-inch stainless steel bailer and decanted laboratory supplied glass sample containers.

Soil and groundwater sampling equipment used during the subsurface investigation will be cleaned between each borehole using a high pressure, hot water sprayer or washed in a non-phosphate detergent solution, then rinsed with both tap water and distilled water between each sampling interval.

In accordance with ACDPW guidelines, each borehole will be sealed to the ground surface with bentonite cement grout following the groundwater sampling. The surface of each grouted borehole will be completed to match surrounding conditions. Solid and liquid waste materials and liquids generated during drilling, sampling and decontamination procedures will be placed in Department of Transportation (DOT)-approved containers pending characterization for offsite disposal or recycling.

Chemical Analyses

The one soil sample and three grab groundwater samples will be analyzed for: (1) TPH quantified as gasoline and diesel using U.S. Environmental Protection Agency (EPA) Test Method 8015-Modified; and (2) benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl-tertiary butyl ether (MTBE) using U.S. EPA Test Method 8020.

Waste Characterization and Disposal

Analytical results for the soil and groundwater samples will be used to characterize the investigation derived wastes for offsite disposal or recycling. Pending receipt of soil and groundwater analytical results, wastes generated during the subsurface investigation will be transported offsite to an appropriate disposal or recycling facility.

Report Preparation

Following completion of field activities and receipt of laboratory analytical results, PES will prepare a report to document the performance and results of activities described in this workplan. The report will include: (1) descriptions of all field activities; (2) procedures and methodologies for each performed task; (3) data collected in performing each task; (4) scaled maps that identify sample locations; (5) laboratory analytical reports; and (6) chain-of-custody forms and other field activity forms. The report will also include a discussion of the investigation results and provide recommendations, as appropriate.

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We trust this is the information you require at this time. If you have any questions or comments regarding this workplan please call either of the undersigned at (415) 899-1600.

Very truly yours,

PES ENVIRONMENTAL, INC.



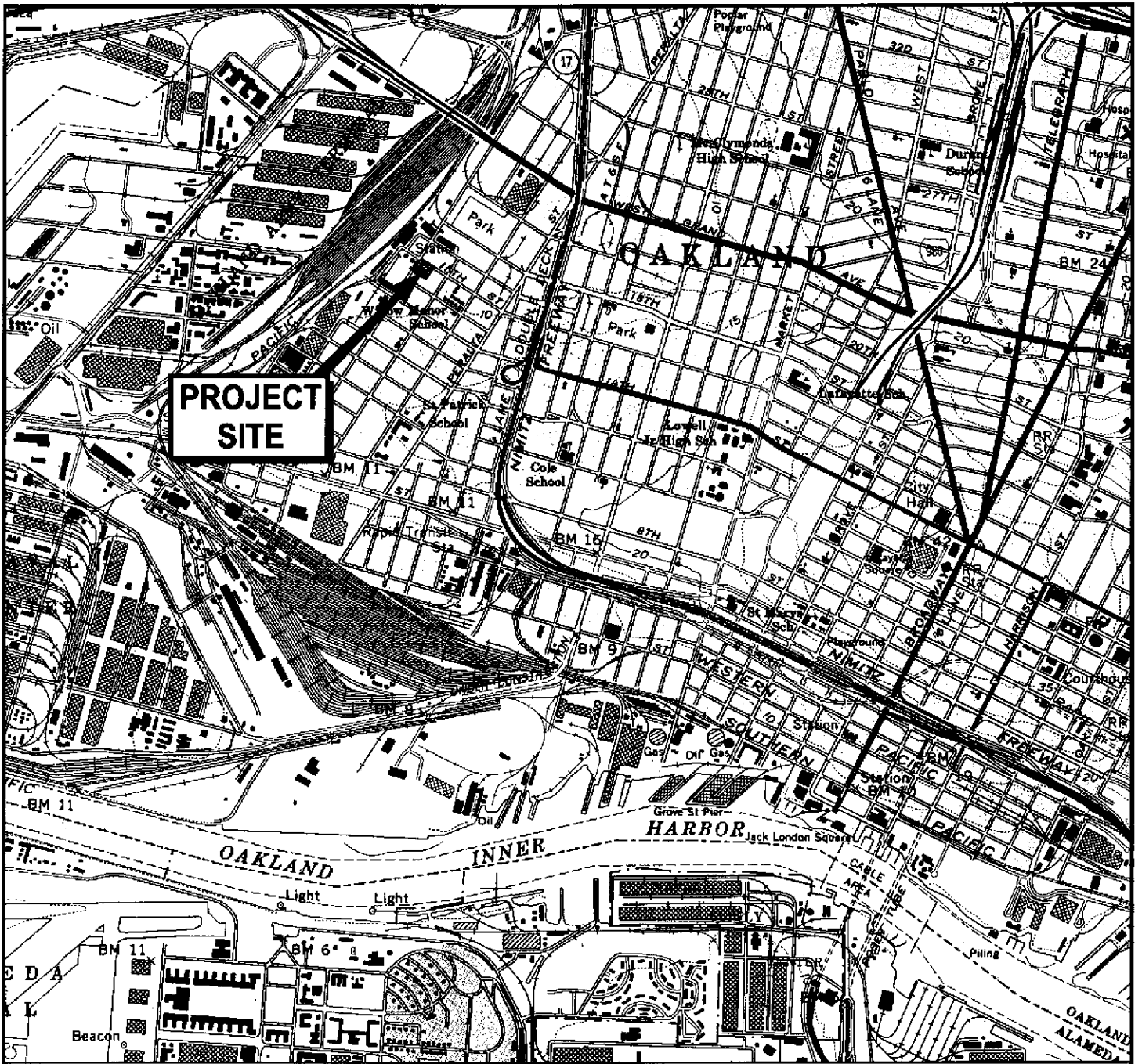
Donald Seymour
Project Engineer



Kyle S. Flory, R.G.
Associate Geologist

cc: Bill Thomas

Attachments: Plate 1 - Site Vicinity Map
Plate 2 - Site Plan with Proposed Sample Locations



U.S.G.S. Topo Map - Oakland West, California, 7.5-minute quadrangle. 1959 photorevised 1980.



Site Location Map
 Utility Body Facility
 1530 Wood Street
 Oakland, California

PLATE
1

546-00201-001 546-002_0700 *djs*
 JOB NUMBER DRAWING NUMBER REVIEWED BY

07/00
 DATE

