

November 19, 1996

7-309

Ms. Juliet Shin
Alameda County
Department of Environmental Health
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577

Subject: Workplan for Limited Subsurface Investigation at Barnhill Construction,
2394 Mariner Square Drive, Alameda, California

Dear Mr. Chan:

Hydro-Environmental Technologies, Inc. (HETI) is pleased to provide this workplan for a limited subsurface investigation of soil and ground water at Barnhill Construction, located in Alameda, California (Figure 1). This workplan is in response to the Alameda County Environmental Health Services (ACEHS) request letters dated July 19, 1996 and October 17, 1995.

Background

Previous environmental activities reported at the site have included:

- Removal of underground storage tanks (USTs) previously used for gasoline and diesel.
- Sampling of side walls at approximately 4 feet below ground surface from the former tank excavation and ground water grab sample. Both diesel and gasoline were detected in the ground water sample.
- Backfilling of the excavation area.
- Ground water was reportedly encountered in the bottom of the tank pit at approximately 5 feet, and is tidally influenced.

In order to meet Regional Water Quality Control Board (RWQCB) and ACEHS requirements, additional steps leading to closure are needed. The approach will evaluate the presence of hydrocarbons in soil and ground water adjacent to the former tank excavation. One geoprobe point will be installed ten feet downgradient of the excavation (Figure 2). Two other points will be placed to evaluate the extent of hydrocarbons towards the south and west.

Proposed Scope of Work

HETI proposes to conduct the work in activities which will fulfill Regional Board and ACDEH requirements as follows:

Task 1: Project Plans

A site specific health and safety plan will be prepared. This activity includes application for and acquisition of Zone 7 permits for geoprobe installation. A permit application will be submitted to Caltrans for drilling over the Posey Tube.

Task 2: Drilling, Soil Sampling, and Well Installation

After the permit applications have been approved, we will drill three geoprobe soil boring to 15 feet, and convert the borings into a 1 inch diameter temporary well points. During drilling, soil samples will be obtained every five feet of boring, or at change of soil type. These samples will be screened with a field organic vapor meter. A minimum of one sample in the boring will be analyzed in a State of California laboratory for Total Petroleum Hydrocarbons as gasoline (TPHg), Total Petroleum Hydrocarbons as diesel (TPHd), and Benzene, Toluene, Ethyl benzene and Total Xylenes (BTEX).

Geoprobe drilling and ground water sampling will take place over a one day period during which time traffic on site will be restricted but not prohibited entirely.

Ground water samples will be taken from each temporary casing and analyzed for TPHg, TPHd, and BTEX. Prior to sampling, the depth to ground water will be measured in the well and the presence of free phase floating hydrocarbons, if any will be noted.

Task 3: Limited Subsurface Investigation Report


Data obtained from the soil and ground water analyses will be evaluated and discussed in a Limited Subsurface Investigation Report. This report will describe the techniques used for assessment, sampling, and analyses, analytical results, and interpretation of the results in terms of potential risk and need for further assessment, if any. If the need for additional assessment is indicated, an outline of further recommended work will be provided.

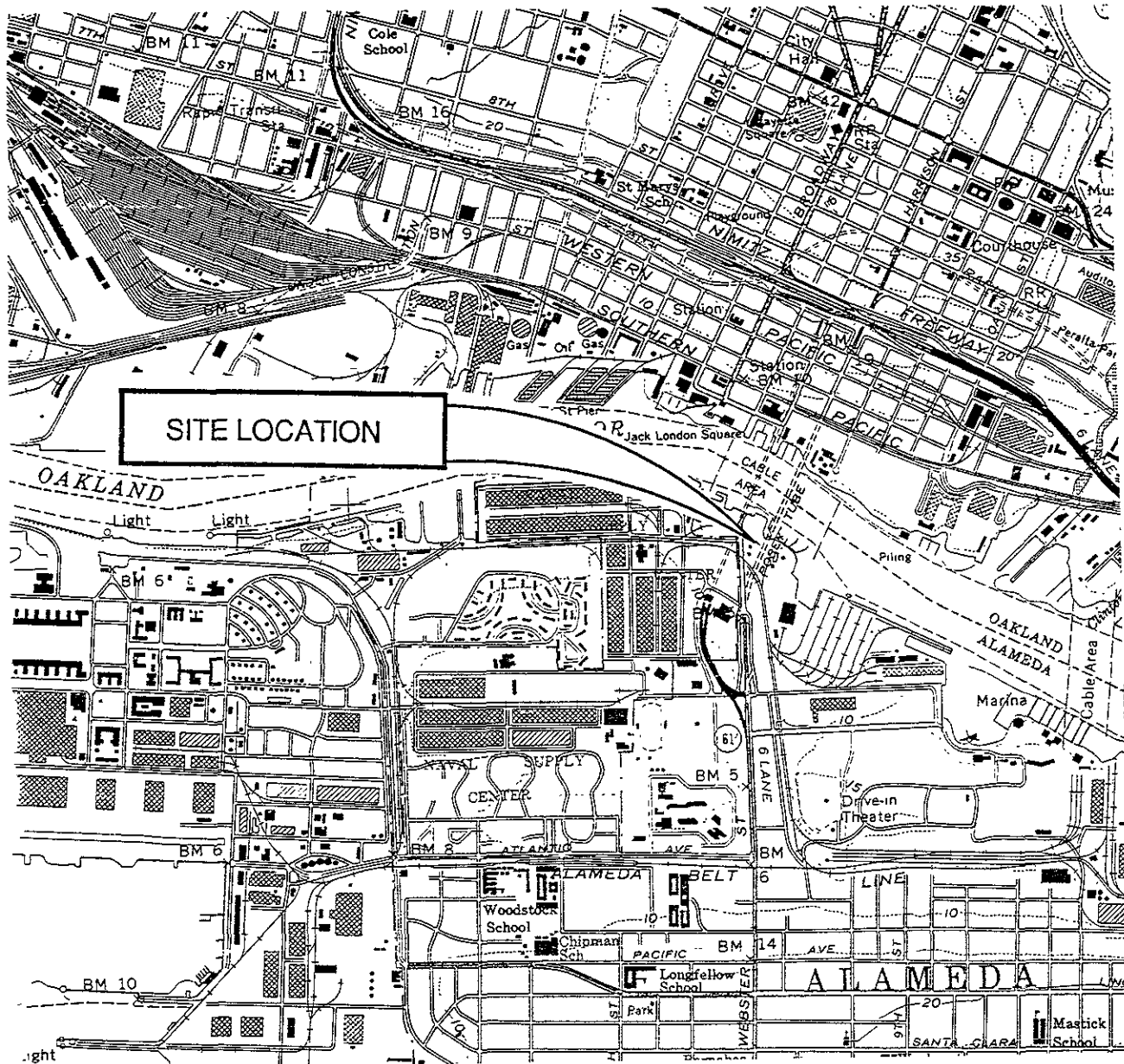
Estimated Schedule

Field work will commence within 10 days of approval of the workplan by ACEHS. The schedule includes preparation and approval of the permits, geoprobe placement, soil and ground water sampling, and report preparation. The ACEHS will be notified 72 hours prior to commencing work at the site.

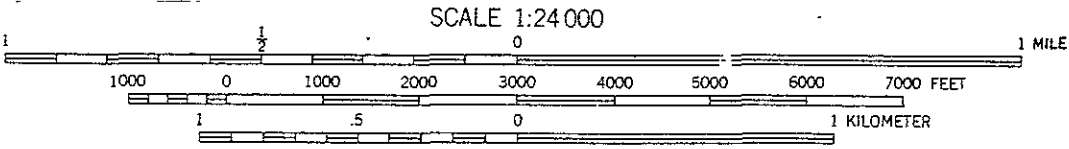
If you have any questions, please call the undersigned at (510) 521-2684.

Sincerely,
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.


Gary Pischke, C.E.G.
Senior Geologist



SITE LOCATION



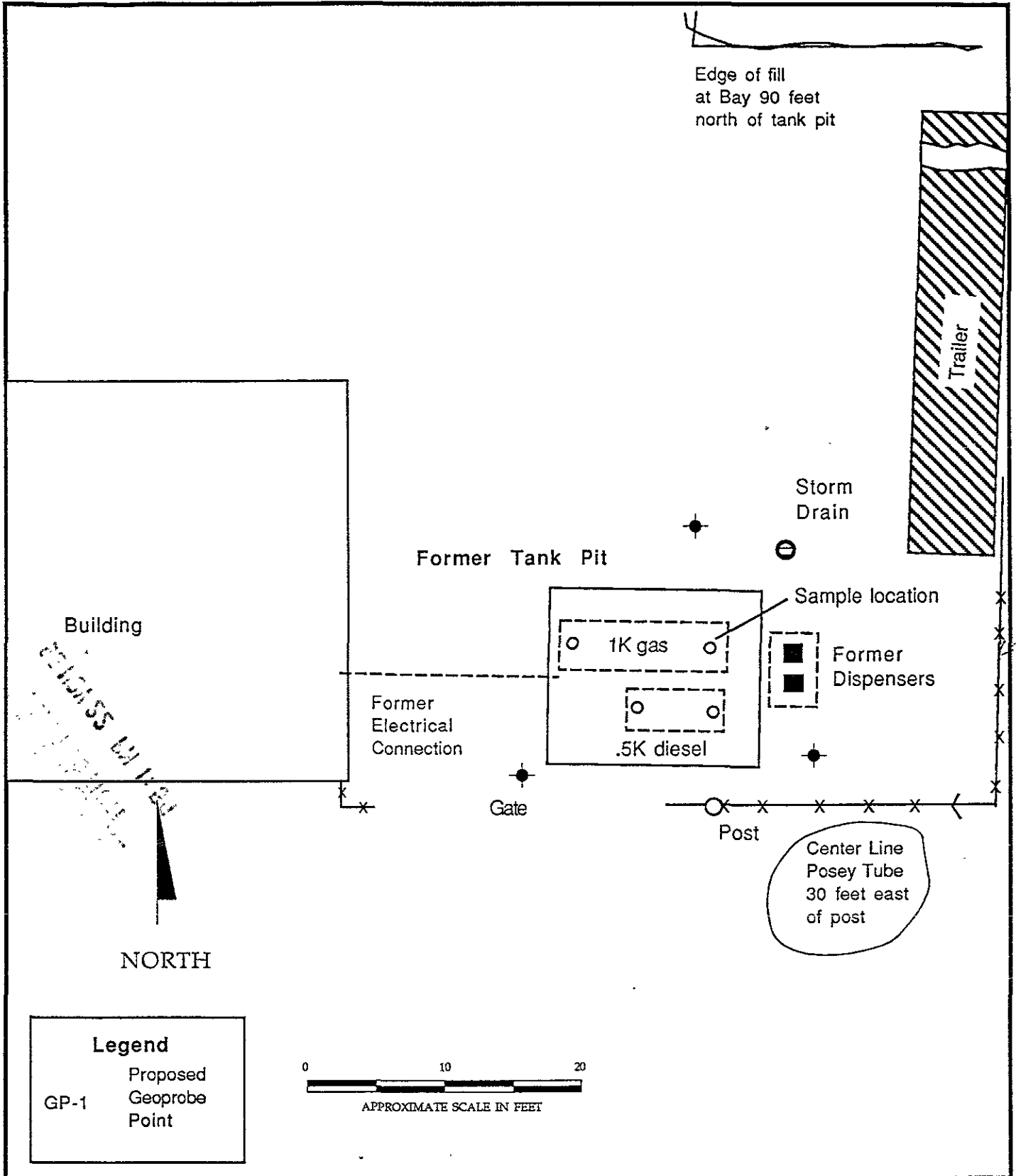
SOURCE: USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)
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SITE LOCATION MAP
 Barnhill Construction
 2394 Mariner Square Drive
 Alameda, CA

Figure
1
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SITE PLAN
 Barnhill Construction
 2394 Mariner Square Drive
 Alameda, California

Figure
2

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