ATC ASSOCIATES INC.

20 March 1997
61877.0001

Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Attention: Ms. Jennifer Eberle

SUBJECT: WORK PLAN TO CONDUCT ADDITIONAL SUBSURFACE INVESTIGATION AT THE AUTO PARKING PARCEL LOCATED ON THE EAST SIDE OF WEBSTER STREET BETWEEN 17TH AND 19TH STREETS, OAKLAND, CALIFORNIA

Dear Ms. Eberle:

On behalf and at the request of Prentiss Properties Limited, Inc., ATC Associates Inc. (ATC) has prepared this work plan to present the scope and schedule to conduct additional subsurface investigation at the auto parking parcel located on the east side of Webster Street between 17th and 19th Streets in Oakland, California (site; Figure 1).

BACKGROUND

An environmental site assessment (ESA) was prepared for the site by Applied Geosciences Inc. in January 1993. Subsequent work at the site involved a geophysical survey and a subsurface investigation including the collection and analyses of soil and groundwater samples. Elevated concentrations of total petroleum hydrocarbons (TPH) as gasoline (TPHg) and benzene, toluene, ethylbenzene, and xylenes (BTEX) were reported in groundwater samples collected from the site. The highest concentrations of TPHg and BTEX were reported in the groundwater sample collected from HP-1 (200, 18, 24, 2.9, and 13 milligrams per liter {mg/l}, respectively). Lower concentrations of TPHg and BTEX were reported in HP-2 (42, 0.046, 0.90, 2.2, and 5.5 mg/l, respectively). Additional subsurface investigation was conducted at the site to assess the likelihood of an on-site source for the TPHg and BTEX reported in groundwater samples. Four additional soil borings were installed around the previous groundwater sampling location and near an area identified as patched asphalt (that could possibly be the former location of an underground storage tank).

The results of the additional investigation did not, in the judgment of Applied Geosciences Inc., indicate the presence of an on-site source for the constituents reported in the groundwater. Based on the results, it was suspected that the source for the TPHg and BTEX was migration from an off-site source, likely a documented leaking underground storage tank (LUST) located immediately across Webster Street to the east (Douglas Parking site). The most recent investigations of the Douglas Parking site suggest that the shallow groundwater gradient is to the north and that their plume extends to the north and not towards the site. Therefore, the source of the TPHg and BTEX at the site is unknown. The Alameda County Health Care Services Agency (ACHCSA) has requested that additional investigation be conducted at the site.

OBJECTIVE

The objective of the proposed scope of work is to characterize the lateral extent of petroleum hydrocarbon impacted groundwater at the site.

SCOPE OF WORK

The following scope of work has been proposed to meet the objectives:

Task 1. Field Investigation;

Task 2. Laboratory Analyses; and

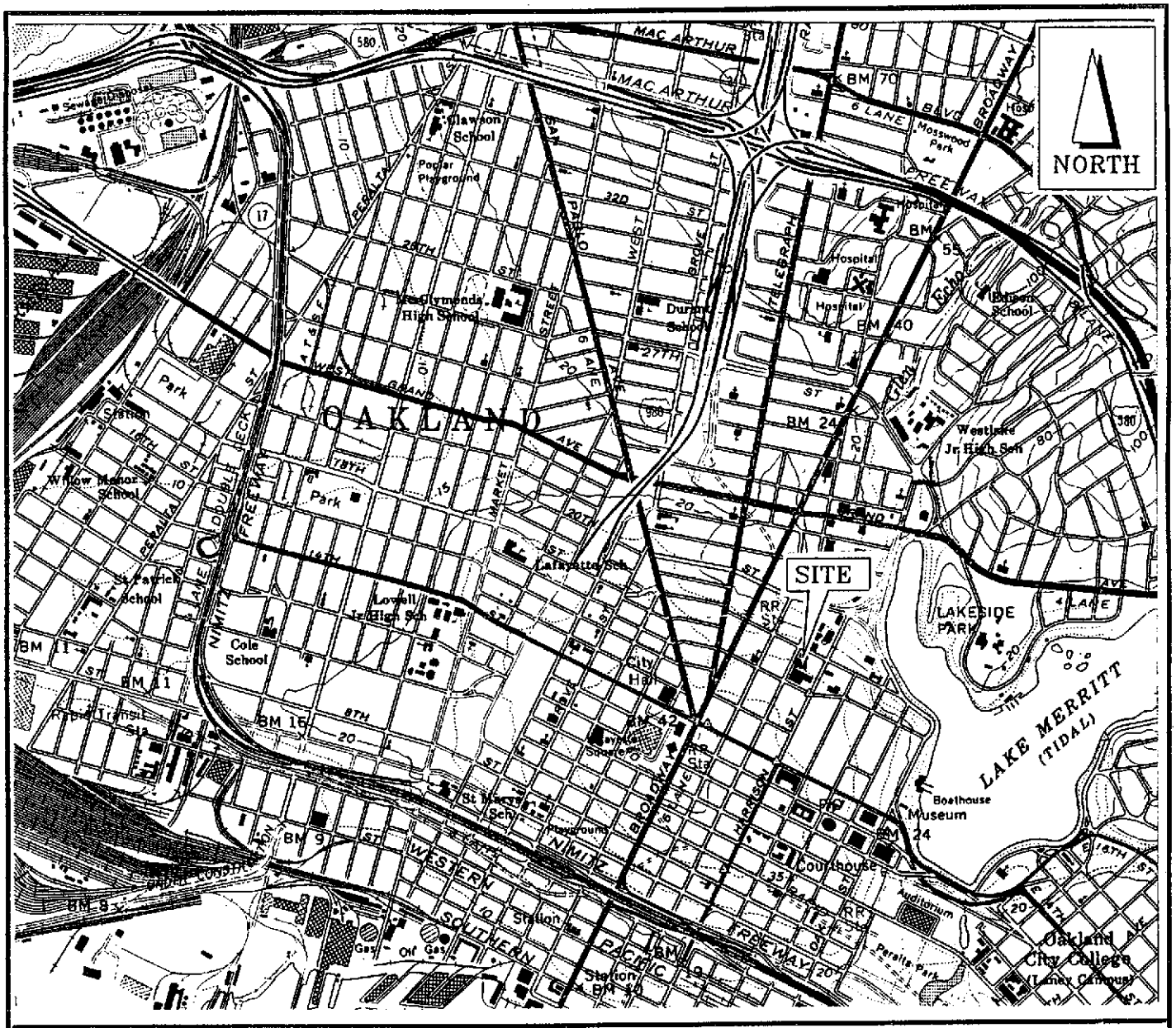
Task 3. Preparation of a Summary Report.

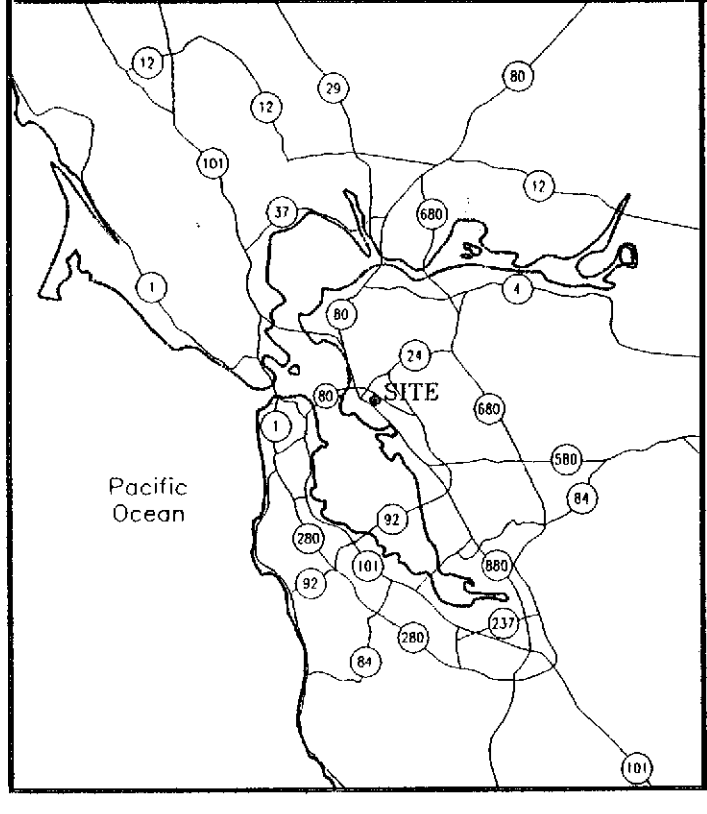
WORK DESCRIPTION

Task 1. Field Investigation

It is proposed that up to ten (10) groundwater sampling probes be installed at the site. The locations of the sampling probes will be based on the location of the former sampling points and the interpreted groundwater flow direction at the site. A northerly shallow groundwater flow direction is reported for the Douglas Parking site. The locations of the proposed sampling probes, along with previous sampling locations, are presented in Figure 2.

Based on previous investigations conducted at the site, groundwater is expected to be present at approximately 20 feet below the ground surface. Difficult drilling conditions have previously been encountered at the site due to a soil zone interpreted to be slightly cemented at a depth of 16 feet below the ground surface. During previous sampling at the site using a hydraulically pushed sampler, the sampler was unable to penetrate this zone at one location. The proposed method of





Notes:

1) All locations and dimensions are approximate.

2) Base map from USGS Oakland West (1959) Quadrangle 7.5 Minute Series Topographic Photorevised in 1980.

0 1/4 1/2 1

SCALE (MILES)

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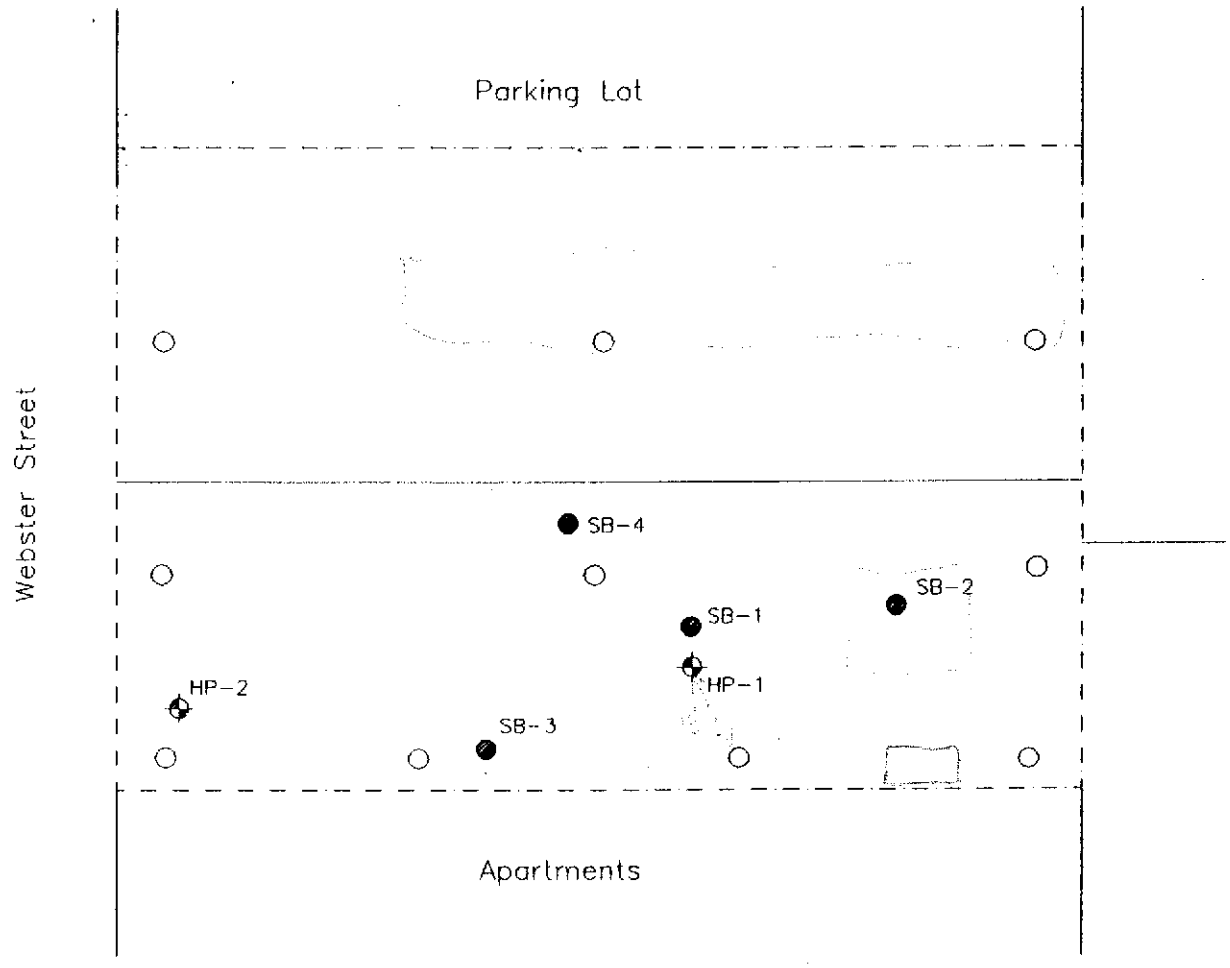
SITE LOCATION MAP

PROJECT NO. 61877.0001 | FIGURE 1

NORTH



asphalt patches

EXPLANATION

○ Proposed GeoProbe soil and groundwater sampling location

HP-1 Previous Hydropunch Location and Designation

SB-1 Previous Soil Boring Location and Designation

NOTES

1) All locations and dimensions are approximate.

0 10 20 30 60

SCALE, FEET

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SITE PLOT PLAN AND PROPOSED SAMPLE LOCATIONS

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