



December 18, 1997

Mr. Brian Oliva
Alameda County Health Care Services
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

**RE: WORK PLAN FOR ADDITIONAL GROUNDWATER CHARACTERIZATION AT
2585 NICHOLSON STREET, SAN LEANDRO, CALIFORNIA (ES# 305582)**

Dear Mr. Oliva;

On behalf of our client, Bank of America, McLaren/Hart is pleased to present this work plan for additional groundwater characterization activities proposed at 2585 Nicholson Street, San Leandro, California (the Site). This work plan was prepared at your request, as specified in an October 7, 1997 letter. The objectives of the proposed activities are to further delineate the extent of petroleum hydrocarbons in groundwater at the Site and address the issues referenced in the October 7, 1997 letter which requested a map depicting the proposed grab groundwater sampling locations, and methodology for determining, in a more reliable manner, the hydraulic gradient.

BACKGROUND

Two underground storage tanks (USTs) were removed from the property by Scott-Broadway in 1991. Soil and groundwater samples collected during the UST removal activities identified total petroleum hydrocarbons (TPH) as diesel and gasoline in both media.

In 1992, Hageman-Aguiar, Incorporated (Hageman-Aguiar) performed an on-Site soil and groundwater investigation which included collecting samples from nineteen soil borings. The results of the investigation identified elevated levels on petroleum apparently migrating in a southerly direction. In addition to the soil and groundwater investigation, Hageman-Aguiar backfilled the Site excavation and installed one monitoring well on-site (MW-1) in 1992. Between 1992 and 1995, ten samples were collected from MW-1, with free floating product being present during some of the sampling events.

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In June 1997, at the direction of Bank of America, McLaren/Hart implemented a work plan prepared by Hageman-Aguilar in 1995. The objectives of the work plan were to provide supplemental on-site data, delineate off-site migration of petroleum hydrocarbons, and determine groundwater flow direction. The scope of work consisted of performing soil and groundwater sampling at eight locations and measuring potentiometric surface elevations from temporary well points at each location. The results of the investigation defined lateral migration of petroleum hydrocarbons in groundwater in the presumed downgradient flow direction from the Site (south/southwest). However, characterization to the southeast and northeast of the Site appears incomplete and the direction of groundwater flow could not be accurately determined from the temporary well points.

GROUNDWATER ASSESSMENT ACTIVITIES

A total of seven sampling locations are proposed for the additional characterization activities (M-9 through M-15). As you requested, a Site plan depicting the proposed grab groundwater sampling locations is presented as Attachment 1. For evaluation purposes, benzene results from groundwater samples collected during the June 1997 soil and groundwater sampling activities (see September 17, 1997 status letter from Bank of America to ACHCSA) are also presented on the Site plan. Rationale for the proposed boring locations are as follows:

- Borings M-9 through M-11 will provide data in the suspected upgradient groundwater flow direction;
- Borings M-12 through M-14 will provide characterization to the east/southeast of the Site. M-12 and M-13 for the anticipated maximum extent of migration and M-14 for anticipated intermediate concentration; and
- M-15 will provide data to the west of the Site and northwest of location M-5.

The boreholes will be advanced in a similar manner as that used during the June 1997 sampling activities. Each borehole will be advanced using a Geoprobe directly to groundwater (approximately seven feet below ground surface (bgs)) and an additional three feet to maximize groundwater recharge. Following reaching total depth, 1-inch PVC with slotted screen will be placed into the borehole and allowed to recharge with groundwater. Samples will be collected with a bailer, placed in specified sample containers and immediately placed on ice. Samples will be shipped following proper chain-of-custody procedures to California Laboratory Services (CLS) for analysis. CLS is a California State certified laboratory.

Groundwater samples will be analyzed for: 1) fuel fingerprint scan by Environmental Protection Agency (EPA) Method 8015 Modified; 2) benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl-Tert-Butylether (MTBE) by EPA Method 8020.

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DETERMINING HYDRAULIC GRADIENT

Attempts to measure groundwater gradient from temporary well points during the June 1997 soil and groundwater sampling activities were inconclusive at providing a groundwater gradient. Regional/local topography along with analytical data from monitoring locations suggests that groundwater flow direction is to the south/southwest. Analytical results from proposed locations M-12 and M-13 should provide fairly conclusive data on chemical migration direction, from which the groundwater flow direction can be inferred. However, since the hydraulic gradient will likely be required to accurately determine chemical fate and transport of the contaminants, monitoring wells will likely be required for the Site.

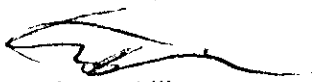
To minimize the number of monitoring wells installed at the Site and to maximize the usability of the data, it is proposed that the chemical data from the upcoming investigation (discussed herein), along with data from previous investigations, be used to evaluate appropriate monitoring well locations. This will allow monitoring wells to be placed at the toe of the plume with a higher degree of accuracy, and consequently provide greater value added data for determining chemical concentration changes overtime. A summary report will be prepared following completion of the additional characterization activities that will present proposed monitoring well locations along with any future activities proposed for the Site.

SCHEDULE

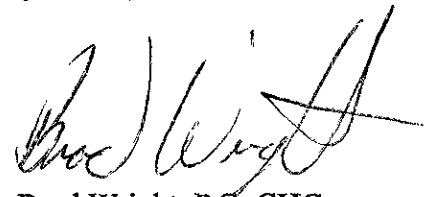
Access agreements with the adjacent property owner (2591 Nicholson) and the City of San Leandro are nearing completion. It is anticipated that access agreements will be completed in December 1997. Implementation of the scope of work described herein will require approximately one month from pre-field activities through reporting. Assuming no difficulties are encountered during access agreement negotiations, a final report will be prepared for submittal to the ACHCSA during the early part of February 1998.

If you have any questions regarding this work plan or the project in general, please do not hesitate to call either of us at (510) 521-5200.

Sincerely,



Scott Allin
Senior Geoscientist

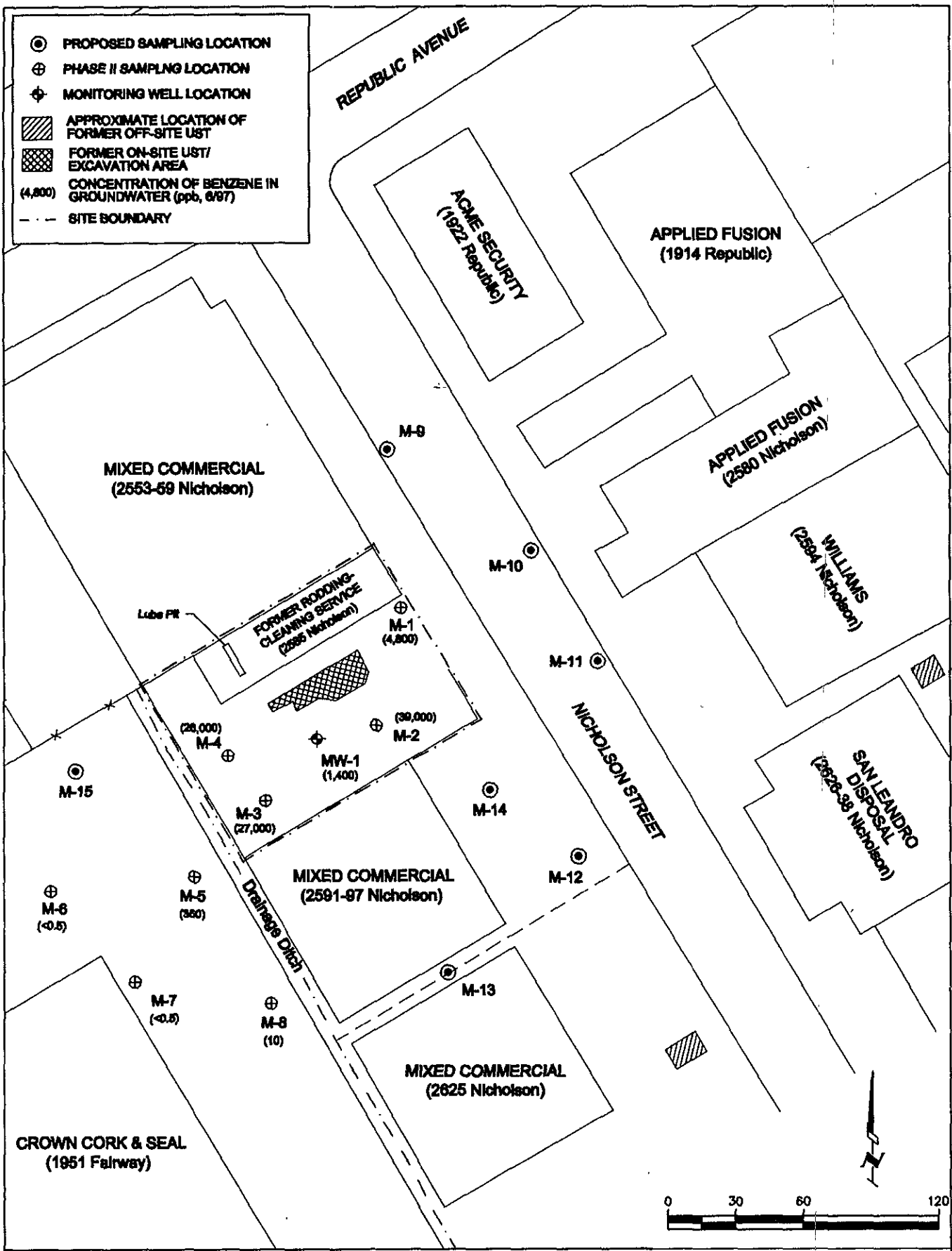


Brad Wright, R.G., CHG
Supervising Geoscientist

cc: John Schovanec (Bank of America)
Joan Uhler (Bank of America)

ATTACHMENT 1

- ⊙ PROPOSED SAMPLING LOCATION
- ⊕ PHASE II SAMPLING LOCATION
- ⊕ MONITORING WELL LOCATION
- ▨ APPROXIMATE LOCATION OF FORMER OFF-SITE UST
- ▩ FORMER ON-SITE UST/ EXCAVATION AREA
- (4,800) CONCENTRATION OF BENZENE IN GROUNDWATER (ppb, 8/97)
- - - SITE BOUNDARY



SITE PLAN

FORMER RODDING-CLEANING SERVICES
 2585 NICHOLSON STREET
 SAN LEANDRO, CALIFORNIA