GROUNDWATER TECHNOLOGY, INC.

4057 Port Chicago Highway, Concord, CA 94520 (415) 671-2387
FAX: (415) 685-9148

91 JUL -1 AM 11:17

June 25, 1991

Job No. 020301074

Mr. Paul M. Smith
Alameda County Health Care Services
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, CA 94621

Subject: Proposed Monitoring Well Installation Addendum
Chevon Service Station #9-0121
3026 Lakeshore Avenue, Oakland, California.

Dear Mr. Smith:

In response to your letter dated June 10, 1991, addressed to Ms. Nancy Vukelich of Chevron U.S.A. Inc., Groundwater Technology, Inc. has prepared this work plan addendum. Hopefully, the information provided will be sufficient to allow for the approval of the work plan.

1. As the map which was faxed to your attention on June 14, shows (a copy of which is attached to this letter) two of the proposed well locations are directly adjacent to former well locations. When last sampled, the former wells showed that levels of dissolved petroleum hydrocarbons ranged from non detectable to 7,600 parts per billion (ppb). The other two wells proposed to be installed for this site are intended to provide a general picture of the distribution of dissolved hydrocarbons beneath this site. It is expected that well installations, in addition to the four currently proposed, may be required to fully define the extent of the dissolved hydrocarbons.

2. Soil samples will be collected at minimum intervals of one every 5 feet, where there is a significant change in soil stratigraphy, or in areas of obvious hydrocarbon contamination. Due to the existence of shallow groundwater beneath the site, it is likely that very few soil samples will be collected from each borehole. Samples will be selected for analyses based on the criteria listed in Item 3.

3. The proposed soil sampling technique uses steel sampling barrels to collect soil. If required, the sample barrel can be lined with brass sleeves in a manner similar to a split-spoon sampler. Normally, the sampling barrel is left unlined allowing for a visual inspection of the soil. Any sample retained for laboratory analysis is then packed into a brass sample tube in the field. Experience with the method has shown that there is no significant loss of volatiles during repacking, and this methodology has been approved by the Contra Costa County Health Department. If required, brass sample tubes can be used during coring operations.

   Samples for laboratory analyses will be selected based on field observations. These will include any visual signs of adsorbed hydrocarbons, obvious hydrocarbon odors, and field readings of volatile organic vapors detected using a photo-ionization detector. If there are no signs of adsorbed hydrocarbons, the sample collected closest to the water table will be analyzed. If signs of adsorbed hydrocarbons are observed, then additional samples will be analyzed to determine the vertical distribution. Water sampling protocols are discussed in Items 4 and 6.

4. The wells will be purged using a peristaltic pump, but will be sampled either using a stainless-steel bailer or a Teflon® pipet.

5. The wells will be surveyed to an established benchmark to an accuracy of 0.01 foot. Actual water-level data will be expressed with regards to mean sea level.

6. Groundwater sampling will be conducted in accordance to the attached Standard Operating Procedures (SOPs). Sampling rinse blanks and trip blanks will be collected from the site to be analyzed for the presence of total petroleum hydrocarbons (TPH)-as-gasoline/diesel-fuel and benzene, toluene, ethylbenzene and xylenes (BTEX). One of the rinse blanks will be analyzed and if anomalous sample results are reported, additional blanks may be run. All samples will be collected in duplicate.

7. A copy of the Health and Safety Plan for the site is attached.

8. All soil sampling equipment will be decontaminated using a steam cleaner. An effort will be made to decontaminate the water-sampling equipment with non-phosphate detergents.

If you require any additional information, please contact our Concord office at (415) 671-2387.

Sincerely,
GROUNDWATER TECHNOLOGY, INC.

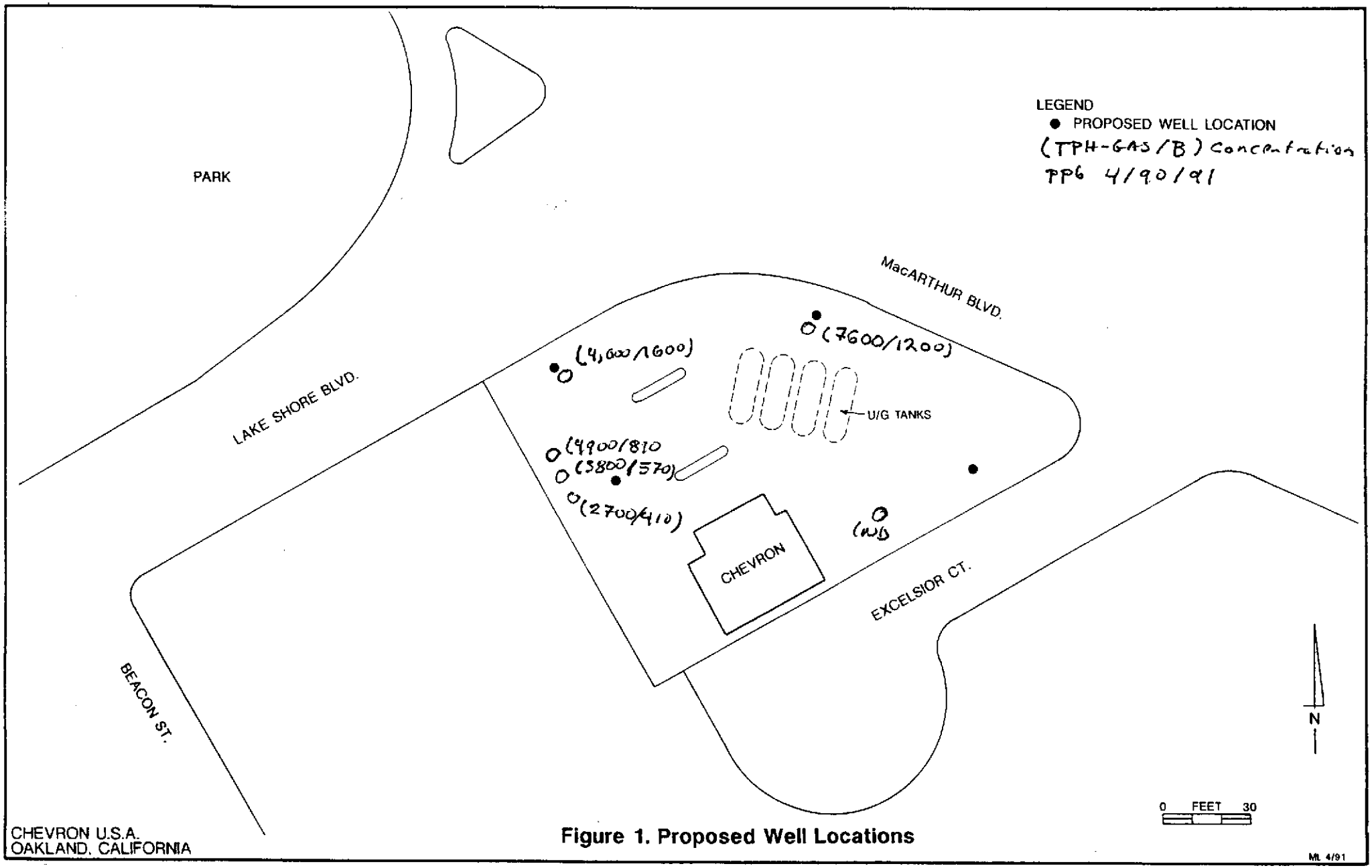
Glen L. Mitchell
Project Hydrogeologist

Sandra L. Lindsey
Project Manager

GLM:SLL:sd

Attachments

C1074A2.GM



CHEVRON U.S.A.
OAKLAND, CALIFORNIA

Figure 1. Proposed Well Locations

ML 4/91