SEMCO/HK2, Inc.
1751 LESLIE STREET • SAN MATEO, CA 94402 • (415) 572-8033 • (415) 572-9734 FAX
GENERAL ENGINEERING & ENVIRONMENTAL CONTRACTORS LICENSE NO. 719103 (A, B, C57, C61-D40, HAZ, ASB

May 21, 1997

Ms. Juliet Shin
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency (ACHCSA)
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Work Plan for Preliminary Site Assessment at Scooter Wilson's Auto Repair, 3600 MacArthur Boulevard, Oakland, California (SEMCO Project 97-0187)

Dear Ms. Shin:

This is a work plan to assess the hydrocarbons encountered during tank removal activities at Scooter Wilson's Auto Repair, 3600 MacArthur Boulevard in Oakland, California. The site location is shown in Figure 1. Figure 2 is a site plan. This work plan was requested in your letter dated June 3, 1994 (copy attached).

BACKGROUND

In March 1994 SEMCO removed two 8,000-gallon underground gasoline storage tanks, one 6,000-gallon underground diesel storage tank, and one 100 gallon underground waste oil tank from the subject site (Figure 2). Soil samples collected from the perimeter of the fuel tank cavity at approximately 7 feet below grade (fbg) contained up to 5,000 mg/kg total petroleum hydrocarbons (TPH) as gasoline (TPH-G), 330 mg/kg TPH as diesel (TPH-D), and 1.19 mg/kg benzene. A soil sample collected from the perimeter of the waste oil tank cavity at approximately 5 fbg (the depth groundwater was observed at) contained 1.4 mg/kg TPH-G and 69 mg/kg TPH-D; the benzene concentration in this sample was below the laboratory reporting limit. Groundwater samples collected from the fuel and waste oil tank cavities contained 2,000 ug/l TPH-G, 75,000 ug/l TPH-D, and 16 ug/l benzene, and 600 ug/l TPH-G, 69,000 ug/l TPH-D, and 0.6 ug/l benzene, respectively. The halogenated volatile organic compound and semi-volatile organic compound concentrations in soil and groundwater samples collected from the waste oil tank cavity were below the laboratory reporting limit. Additional details are in the SEMCO report June 3, 1994.

Based on the concentrations of petroleum hydrocarbons encountered during tank removal activities, ACHCSA requested that a Preliminary Site Assessment be performed to assess the lateral and vertical extent of the contamination (refer to enclosed letter). In addition, ACHCSA requested that any

product piping remaining in the ground be removed and that the soil placed back into the waste oil tank cavity (former tank cavity backfill) be transported to a disposal facility.

PLANNED WORK

Preliminary Site Assessment

To assess the extent of hydrocarbons encountered during tank removal activities, SEMCO plans to collect and analyze soil and groundwater samples collected from five hollow-stem auger borings converted to groundwater monitoring wells. The location of each boring is shown in Figure 2 (Proposed Borings PB-1 through PB-5). The first boring will be drilled to approximately 20 fbg based on the groundwater levels observed in the excavation when the tanks were removed. While drilling the second boring, the first boring will be monitored for groundwater recharge. If groundwater is not observed in the first boring within two hours, the first boring, and all subsequent borings, will be drilled to approximately 45 fbg based on the depth to groundwater measured in monitoring wells approximately 600 feet west of the site (approximately 30 fbg; Exxon Station RAS 7-0234).

Soil samples will be collected at approximately 5 and 7 fbg and every five feet thereafter and at observed changes in lithology. The soil samples will be collected with a split-spoon sampler driven by a 140-pound hammer. The samples will be described using the Unified Soil Classification System and submitted to a state-certified laboratory. Up to three soil samples from each boring will be analyzed for TPH-G (Modified EPA Method 8015), TPH-D (Modified EPA Method 8015), benzene, toluene, ethylbenzene, and total xylenes (BTEX; EPA Method 8020), and methyl tertiary butyl ether (MTBE; EPA Method 8020). In addition, up to two soil samples from PB-5 will be analyzed for TPH as motor oil (TPH-MO; EPA Method 8015), the soil sample containing the highest TPH-D concentration will also be analyzed for polycyclic aromatic hydrocarbons (PAHs; EPA Method 8100), and two soil samples representative of site lithology will be analyzed for bulk density, vadose zone water content, and fraction organic carbon.

The borings will be converted to 2-inch-diameter PVC monitoring wells. Well design will be based on field conditions, but will be in accordance with ACHCSA and Zone 7 Water Agency guidelines (e.g. depth to the top of the screened interval will be less than depth to groundwater, depth to the top of the filter pack (No. 2/12 sand) will be 1 to 2 feet less than the depth to the top of the screened interval, a bentonite/neat cement seal will be placed above the filter pack).

The wells will be developed with a surge block prior to placing the bentonite/neat cement seal and up to 3 borehole volumes of water will be removed from each well after it is developed. Depth to groundwater will be measured with an electronic probe and a disposable bailer will be used to collect groundwater samples from each well. The groundwater samples will be submitted to a state-certified laboratory for analysis of TPH-G, TPH-D, BTEX, and MTBE. One sample will also be analyzed for total dissolved solids.

Product Piping Removal

SEMCO will use a metal detector and attempt to obtain building plans to locate any product lines remaining below grade. The lines will be removed with a backhoe, rinsed with a steam cleaner, and transported to a disposal facility acceptable to ACHCSA. A hand auger or a hollow-stem auger drilling rig will be used to drill one boring beneath the former dispenser island (PB-6; see Figure 2) and a soil sample will be collected from approximately 3 and 6 fbg. At least one of these soil samples will be submitted to a state-certified laboratory and analyzed for TPH-G, TPH-D, BTEX, and MTBE.

The piping trench will be backfilled with the excavated soil because site assessment has not been completed. Future remediation of this soil, if necessary after reviewing soil sample analytical data, will be included in the Remedial Action Plan prepared to address the other hydrocarbon-affected portions of the site.

Waste Oil Tank Cavity Backfill

At this time we do not plan to re-excavate and dispose of the soil backfilled into the waste oil tank cavity because the concentration of contaminants measured in the soil stockpile sample collected during tank removal activities indicate this soil may be acceptable for onsite use (2.5 mg/kg TPH-G, 4 mg/kg TPH-D, and below the laboratory reporting limit for benzene, halogenated volatile organic compounds, and semivolatile organic compounds). The stockpile sample did contain a 177 mg/kg total oil and grease (TOG; Standard Method 5520 F), but we feel this is an inappropriate analysis because TOG does not quantify motor oil components and can give a false positive if pieces of asphalt were in the soil stockpile sample. Therefore, to characterize the suitability of this soil for fill, we plan to collect one soil sample from PB-5 at approximately 3.5 fbg and analyze the sample for TPH-MO.

Permitting, Decontamination, Waste Disposal, and Reporting

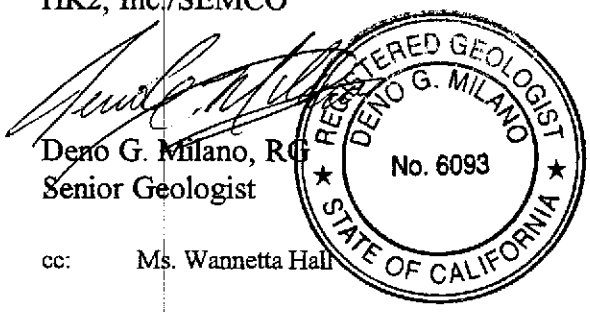
Boring and excavation locations will be permitted and cleared by utility markout before they are drilled. Drilling augers and product piping will be steamed cleaned and soil and groundwater sampling equipment will be cleaned with a phosphate free TSP solution and rinsed with water before each boring is drilled or sample collected. New factory sealed casing will be used for the monitoring wells.

Soil cuttings will be temporarily stockpiled onsite in a roll-off bin and transported to a disposal facility acceptable to ACHCSA following receipt of soil stockpile analytical results. Wash, rinse, and well purge water will be temporarily stored onsite in 55 gallon drums and transported to an appropriate disposal facility following receipt of the groundwater sample laboratory results. The soil borings will be drilled within 60 days of ACHCSA approval of the work plan. A report summarizing the activities will be submitted to ACHCSA within 45 days of the date the borings are drilled.

Please call if you have any questions.

Sincerely,

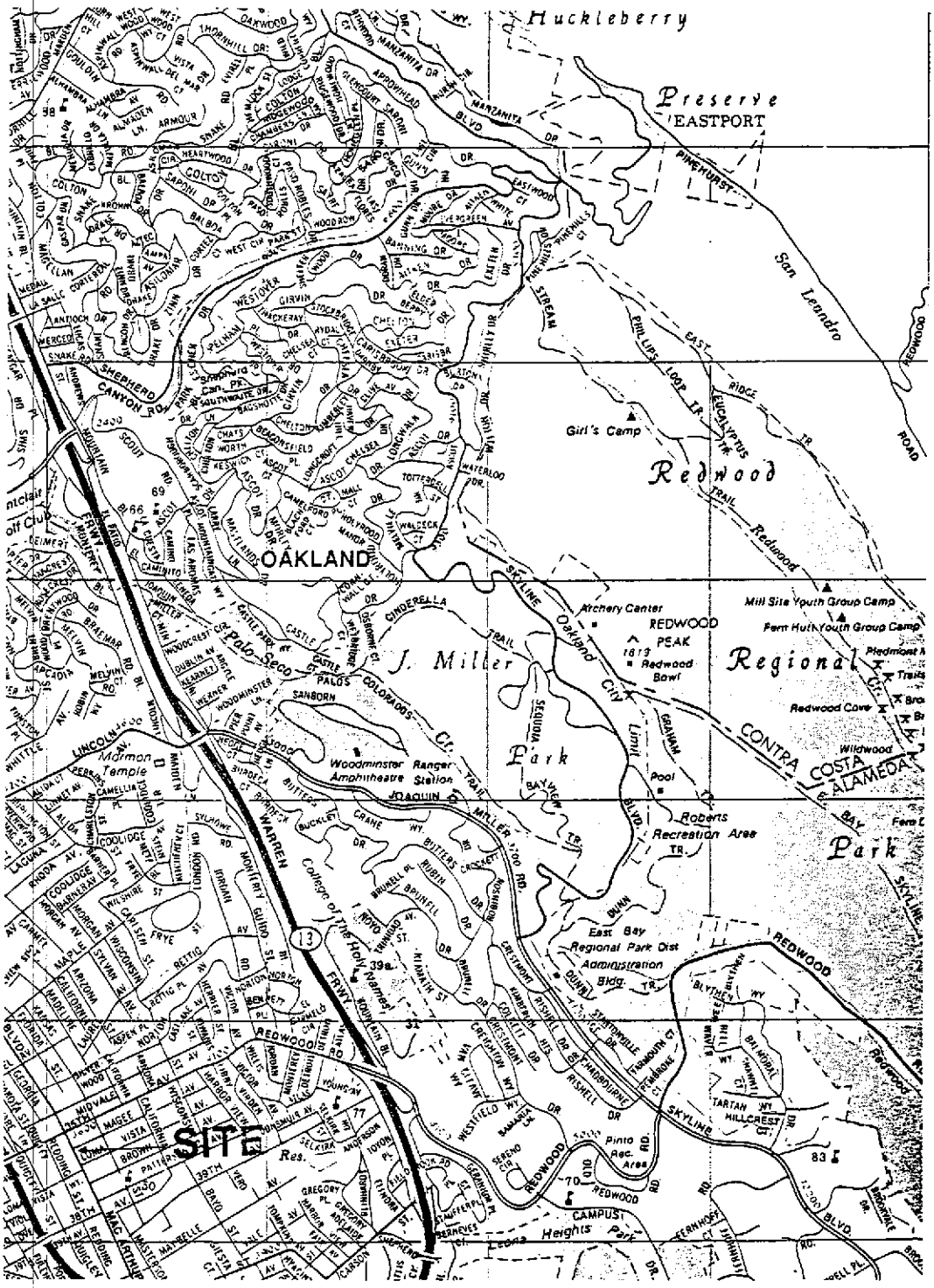
HK2, Inc./SEMCO



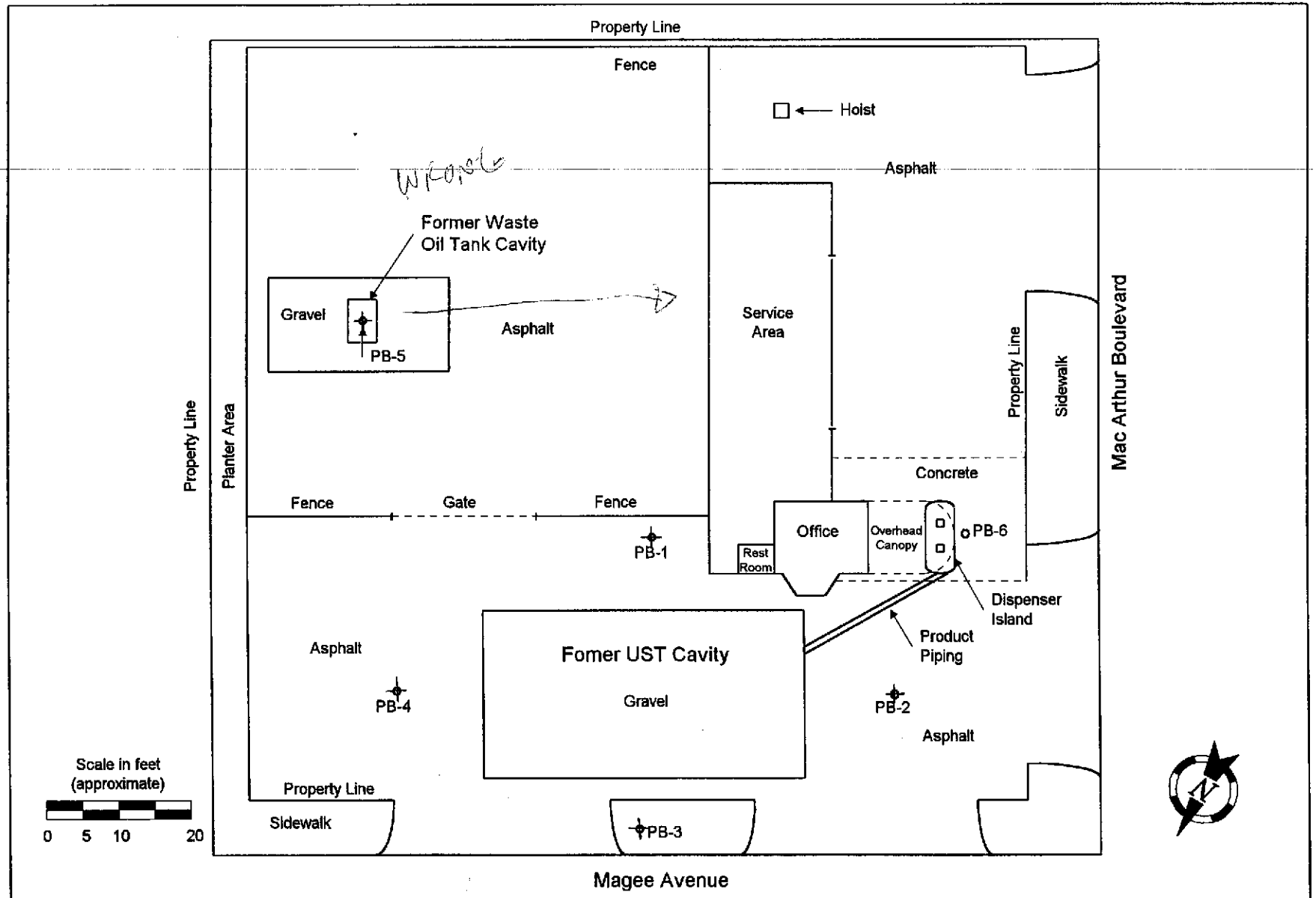
Deno G. Milano, RG
Senior Geologist

cc: Ms. Wannetta Hall

97-0187.WP



HK2, Inc./SEMCO 1751 Leslie Street San Mateo, CA 94402	Legend N	**Site Location** Scooter Wilson's Auto Repair 3600 Mac Arthur Boulevard Oakland, CA
Project No. 97-0187		**Figure 1**



HK2, Inc./SEMCO 1751 Leslie Street San Mateo, CA 94402 Project No. 97-0187	Legend PB2 Proposed Boring Converted to Well PB-6 Proposed Boring	**Site Plan** Scooter Wilson's Auto Repair 3600 Mac Arthur Boulevard Oakland, California **Figure 2**

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 4

To Dena Milano	From Juliet Shin
Co. SEMCO/HKZ	Co. Alameda County
Dept.	Phone # 510-567-6763
Fax # 415-572-9734	Fax # 510-337-9335

State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

June 3, 1994

Ms. Wannetta Hall
Scooter Wilson's Auto Repair
3600 MacArthur Blvd.
Oakland, CA 94619

STID 1289

Re: Required investigations at 3600 MacArthur Blvd., Oakland, California

Dear Ms. Hall,

On March 31, 1994, four underground storage tanks (USTs) were removed from the above site: two 8,000-gallon gasoline USTs, one 6,000-gallon diesel UST, and one 100-gallon waste oil UST. Soil and ground water samples were collected from the tank pits. Analysis of samples identified up to 5,000 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline (TPHg) and 330 ppm Total Petroleum Hydrocarbons as diesel (TPHd) in the tank pit soil samples, and up to 2,000 parts per billion (ppb) TPHg in the ground water samples.

Guidelines established by the California Regional Water Quality Control Board (RWQCB) require that soil and ground water investigations be conducted when there is evidence to indicate that a release has impacted the ground water.

You are required to conduct a **Preliminary Site Assessment (PSA)** to determine the lateral and vertical extent and severity of **both soil and ground water** contamination resulting from the release at the site. The information gathered by the PSA will be used to determine an appropriate course of action to remediate the site, if deemed necessary. The PSA must be conducted in accordance with the RWQCB's Staff Recommendations for the Initial Evaluation and Investigation of Underground Tanks, and be consistent with requirements set forth in Article 11 of Title 23, California Code of Regulations. The major elements of such an investigation are summarized in the attached **Appendix A**. The major elements of the guidelines include, but are not limited to, the following:

- At least one ground water monitoring well must be installed within 10 feet of the observed soil contamination, oriented in the confirmed downgradient direction relative to ground water flow. In the absence of neighboring monitoring wells located within 100 feet of the site, or any other data identifying the confirmed downgradient direction, a minimum of three wells will be required to verify gradient

direction. During the installation of these wells, soil samples are to be collected at five-foot-depth intervals and any significant changes in lithology.

- Subsequent to the installation of the monitoring wells, these wells must be surveyed to an established benchmark, (i.e., Mean Sea Level) with an accuracy of 0.01 foot. Ground water samples are to be collected and analyzed quarterly, and water level measurements are to be collected monthly for the first three months, and then quarterly thereafter. If the initial ground water elevation contours indicate that ground water flow directions vary greatly than you will be required to continue monthly water level measurements until the ground water gradient behavior is known. Both soil and ground water samples must be analyzed for TPHg, TPHd, TOG, and BTEX.

This Department will oversee the assessment and remediation of your site. Our oversight will include the review of and comment on work proposals and technical guidance on appropriate investigative approaches and monitoring schedules. The issuance of well drilling permits, however, will be through the Alameda County Flood Control and Water Conservation District, Zone 7, in Pleasanton. The RWQCB may choose to take over as lead agency if it is determined, following the completion of the initial assessment, that there has been a substantial impact to ground water.

In order to properly conduct a site investigation, you are required to obtain professional services of a reputable environmental consultant. All reports and proposals must be submitted under seal of a California-Registered Geologist, -Certified Engineering Geologist, or -Registered Civil Engineer.

The PSA proposal is due within 60 days of the date of this letter. Once the proposal is approved, field work should commence within 60 days. A report must be submitted within 45 days after the completion of this phase of work at the site. Subsequent reports are to be submitted quarterly until this site qualifies for final RWQCB "sign-off". Such quarterly reports are due the first day of the second month of each subsequent quarter.

The referenced initial and quarterly reports must describe the status of the investigation and must include, among others, the following elements:

- Details and results of all work performed during the designated period of time: records of field observations and data, boring and well construction logs, water level data, chain-of-custody forms, laboratory results for all samples collected and analyzed, tabulations of free product thicknesses and dissolved fractions, etc.
- Status of ground water contamination characterization.
- Interpretations of results: water level contour maps showing gradients, free and dissolved product plume definition maps for each target component, geologic cross sections, etc.
- Recommendations or plans for additional investigative work or remediation.

Please be advised that this is a formal request for a work plan pursuant to **Section 2722 (c)(d) of Title 23 California Code of Regulations.** Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by either this agency or RWQCB.

Lastly, it is the understanding of this office that the product piping at the site has not yet been removed. You are required to remove this piping and collect samples beneath this piping (one sample per every 20 feet of piping). Additionally, unacceptable contaminant levels were identified in the excavated soil from the waste oil tank pit. You are required to properly dispose of this soil at a certified facility and remove the piping **within 45 days** of the date of this letter. You must notify this office **at least one week in advance** of this work so that a County representative can be present at the site to observe this work.

The State Water Resources Control Board has a Petroleum Underground Storage Tank Cleanup Fund available to sites to assist in investigations and cleanup. This office encourages you to look into applying to this fund. The address and phone number of the trust fund is:

State Water Resources Control Board
Division of Clean Water Programs
UST Cleanup Fund Program
2014 T Street, Ste 130
P.O. Box 944212
Sacramento, CA 94244-2120
(916) 227-4307

If you have any questions about the fund, you can contact Blessy Torres at (916) 227-4535. Any other questions can be directed to me at (510) 271-4530.

Sincerely,

Juliet Shin
Hazardous Materials Specialist

cc: Terry Hamilton
SEMCO
1741 Leslie St.
San Mateo, CA 94402

Edgar Howell-File(JS)