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

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April 15, 2008

Mr. Mohammad Mashhoon
Mash Petroleum Inc.
5725 Thronhill Drive
Oakland, CA 94611

Subject: Fuel Leak Case No. RO0000317 Global ID # T0600102278, Mashhoon Property/Union 76, 5725 Thornhill Drive, Oakland, CA

Dear Mr. Mashhoon:

Alameda County Environmental Health Department (ACEH) staff has reviewed the case file and reports entitled, "Further Site Investigation and Site Closure Request", dated October 18, 2007 and prepared on your behalf by SOMA Environmental Engineering, Inc. In a correspondence dated July 5, 2007 ACEH requested additional offsite investigation to assess soil and groundwater contamination downgradient of the site. The off-site upgradient preferential pathway study and investigation was performed in order to evaluate the potential for underground utilities to act as a preferential pathway and to assess the potential impacts to Temescal Creek.

Based on your correspondence dated February 1, 2008 for "No further Action and Site Closure Request", ACEH does not agree that site closure is warranted at this time. This decision is subject to appeal to the State Water Resources Control Board (SWRCB), pursuant to Section 25299.39(b) of the Health and Safety Code (Thompson-Richter Underground Storage Tank Reform Act - Senate Bill 562). Please contact the SWRCB Underground Storage Tank Program at (916) 341-5851 for information regarding the appeal process.

The recent installation of monitoring well SOMA-5 and the observation of "strong hydrocarbon odor" detected during well installation indicate that contamination is present at this location. Moreover, our review of soil and groundwater analytical data collected during the installation soil boring BH-C suggests that TPHg and TPHd and MtBE is present in groundwater at concentrations of up to 7,300 ppb, 25,000 ppb and 5,300 ppb, respectively. Additionally, MtBE was detected at concentrations of up to 730 ppb in the soil boring BH-E, which is the most distant, downgradient soil boring. Furthermore, groundwater analytical data from monitoring well SOMA-5 indicate that the dissolved phase hydrocarbon plume may be impacting Temescal Creek. Subsequently, ACEH requests that you prepare a work plan that details your proposal to evaluate the potentential impacts to Temescal Creek and define the downgradinent extent of MtBE contamination. Please submit the work plan according to the schedule below.

Based on ACEH staff review of the documents referenced above, we request that you address the following technical comments, perform the proposed work, and send us the reports described below. Please provide 72-hour advance written notification to this office (e-mail preferred to steven.plunkett@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

1. **MtBE in Groundwater.** Dissolved phase MtBE has been detected at high concentrations downgradient of you site. In October 2000, MtBE was detected in groundwater samples collected from soil borings BH-B, BH-C, BH-D and BH-E at concentrations of 4,300 parts per billion (ppb), 5,300 ppb, 16,000 bbp and 730 ppb, respectively. Additional investigation activities conducted in 2005 confirmed the presence of dissolved phase MtBE downgradient of your site at up to 1,100 ppb.

   Soma states that dissolved phase MtBE contamination in the upper water-bearing zone is limited and it does not seem that higher concentrations reported previously are still valid. ACEH does not agree that higher concentrations reported previously are not still valid. It is commonly understood that MtBE is highly soluable, very mobile in groundwater, not readily biodegradable or adsorbed to soil. Considering the mobility of MtBE, it is unlikely that dissolved phase MtBE contamination would remain stationary, rather concentrations of MtBE would vary considerably both temporally and spatially between 2000 and 2005. Soma further asserts that recent groundwater monitoring data indicate the concentrations of MtBE have decreased significantly. However there is no discussion as to the possible mechanism for the decrease of dissolved phase MtBE concentrations. Furthermore, decreasing concentration of dissolved phase MtBE in monitoring wells is more likely a function of plume migration. Please present a scope of work (according to the schedule below) detailing you proposal to evaluate MtBE contamination downgradient of your site.

2. **Impacts to Temescal Creek.** It appears that Temescal Creek is in hydrogeologic connection with groundwater. Review of historic groundwater elevation data suggest the hydraulic gradient is toward Temescal Creek. In addition, our review of historic groundwater analytical data from soil borings HP-10 and BH-C indicate that impacted groundwater may have discharged via subflow into Temescal Creek. Our review of the October 23, 2000, Additional Soil and Groundwater Assessment report, (referenced by Soma in April 2004) recommends that groundwater samples be collected from Temescal Creek. However, ACEH has been unable to locate any water quality data to confirm that sampling of Temescal Creek occurred. Please present any documentation or water quality data to demonstrate that Temescal Creek was sampled as suggested by Soma in April 2004.

3. **Utility Corridor/Preferential Pathway.** Soma performed soil sampling in the utility corridor upgradient of the site to determine if a know upgradient source was impacting the site. Results from the investigation indicate that the site is not impacted from an upgradient source. Soma has demonstrated that the utility corridor is not a souce of contamination migration from an upgradient. However, it is probable that that utility corridor beneath the site may act as potential preferential pathway for downgradient MtBE contamination migration. In the work plan requested below, present a plan to sample the utility corridor downgradient of your site.

4. **Soil Boring Locations.** According to the boring log for soil boring BH-C, strong petroleum hydrocarbon odor and elevated PID readings of 3,620 ppm were detected at 13 to 15 feet bgs; pay particular attention to this interval when collecting soil and groundwater sample. During a the most recent investigation, proposed soil boring CPT-6 could not be installed due to the presence of underground utilities. This boring location is important to confirm the

presence of dissolved phase hydrocarbon contamination at this location. Furthermore, additional borings are necessary to assess the lateral extent of the MtBE plume downgradient of BH-E. Please present a work plan according to the schedule below detailing your proposal to evaluate the MtBE plume downgradient of your site.

5. **Soil Sampling and Analysis**. During soil boring installation, soil samples should be screened with a PID and examined for visible staining and hydrocarbon odor. Any interval where staining, odor, or elevated PID readings occur a soil sample is to be collected and submitted for laboratory analysis. If no staining, odor, or elevated PID readings are observed, soil sample are to be collected from each boring at the capillary fringe, where groundwater is first encountered, changes in lithology, and at the total depth of the boring at least 20 feet below ground surface.

   All soil samples collected during the investigation are to be analyzed for TPHg and TPHd by EPA Method 8015M or 8260, BTEX, EDB, EDC, MtBE, TAME, ETBE, DIPE, TBA and EtOH by EPA Method 8260. Please present the results from the soil sampling in the Soil and Groundwater Investigation Report requested below.

6. **Groundwater Sampling and Analysis.** All groundwater samples collected during the investigation are to be analyzed for TPHg, TPHd by EPA Method 8015M or 8260, BTEX, EDB, EDC, MtBE, TAME, ETBE, DIPE, TBA and EtOH by EPA Method 8260. Please present the results from the soil and groundwater sampling in the Soil and Groundwater Investigation Report requested below.

7. **Environmental Screening Levels**. During our review of the request for closure, ACEH determined that SOMA uses ESLs for a scenario where groundwater is not a current or potential drinking water source. However, currently accepted standards indicate that groundwater is a potential drinking water source. Please use screening levels that indicate groundwater is a potential drinking water source.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Steven Plunkett), according to the following schedule:

- **May 15, 2008** – Work Plan for Soil and Groundwater Investigation

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public

information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including

the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 383-1767.

Sincerely,

Steven Plunkett
Hazardous Materials Specialist

cc: Mansour Sepehr
SOMA Environmental Engineering, Inc.
6620 Owens Drive, Suite A
Pleasanton, CA 94588-3334

Donna Drogos, ACEH
Steven Plunkett, ACEH
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