

July 13, 1994 94 JUL 15 PM 2:14

Mr. Scott Seery
Alameda County Health Care Services Agency
80 Swan Way, Room 200
Oakland, CA 94621

Subject: Request for Site Closure, Fairmont Hospital,
15400 Foothill Boulevard, San Leandro, California;
Versar Project No. 2241-016

Dear Mr. Seery:

Versar, Inc. (Versar), was retained by the County of Alameda, General Services Agency (County) to investigate and evaluate the extent of petroleum hydrocarbons in the soil surrounding a former underground storage tank (UST) at the Fairmont Hospital (site), located at 15400 Foothill Boulevard in San Leandro, California. In July 1993, Environmental Science & Engineering, Inc. removed a 1,000 gallon UST from the site. The UST had previously been used to store diesel fuel for operation of an emergency generator at the hospital. Upon removal of the UST, a small perforation in the tank wall near the bottom of the southwest end of the UST was observed. Results of the laboratory analytical reports indicated that total petroleum hydrocarbons as diesel (TPH-D) was present in the soil beneath the former tank location. In the soil sample collected from the bottom of the southwest end of the excavation, TPH-D was detected at a concentration of 12,000 milligrams per kilogram (mg/kg), and TPH-D was present in the sample collected from the bottom of the northeast end of the excavation at a concentration of 1,100 mg/kg. Benzene, toluene, ethylbenzene, and xylenes (BTEX) were not reported in either of these two samples. Toluene was reported to be present in a sample collected from beneath the product supply lines at a concentration of 0.005 mg/kg, but TPH-D was not detected in this sample.

In April 1994, Versar conducted a limited subsurface soil investigation in the vicinity of the former tank to assess the lateral and vertical extent of the remaining petroleum hydrocarbons in the soil. The results of Versar's investigation were submitted to the Alameda County Health Care Services Agency (ACHCSA) in a report dated May 25, 1994. The investigation consisted of drilling five borings to depths of up to 16.5 feet bgs. Two of the borings were located within approximately 8 feet of the initial, northeast sample locality from the tank removal, and the remaining borings were located within approximately 8 to 10 feet of the initial southwest sample locality. The soils underlying the site generally consisted of silty sands weathered from metamorphic bedrock and less weathered bedrock. Consolidated bedrock occurred at a depth of approximately 16.5 feet, at which point drilling ceased due to

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refusal. Groundwater was not encountered in any of the borings. Field screening of the collected soil samples did not indicate contamination. Laboratory analyses of selected samples indicated that no chemicals of concern were present in the soil samples above their respective laboratory detection limits, with the exception of xylenes. In six of the nine samples analyzed, xylenes were detected at concentrations ranging from 0.010 to 0.028 m/kg.

Based on the information gathered during this investigation, the lateral extent of the petroleum hydrocarbons as diesel that were detected in the soil beneath the former location of the UST appears to be relatively limited. The positions of the borings appear to approximate the maximum lateral extent of the petroleum hydrocarbons in the soil, which is an area approximately 12 feet wide by 22 feet long. The greatest concentrations of petroleum hydrocarbons, however, appear to be restricted to the area beneath the former tank location, an area approximately 8 feet wide by 13 feet long. The vertical extent of the petroleum hydrocarbons in the soil, as approximated by the relatively minor concentrations of xylenes detected in the deepest samples collected, appears to be limited to a depth of approximately 16.5 feet in the soil in the area immediately surrounding the former tank location.

The County had initially proposed remediation of the site through excavation of the remaining petroleum hydrocarbon impacted soils. Based on a re-evaluation of the available data, the County now wishes to petition to close the former tank site. The following evidence suggests that the site may be reasonably closed without additional remediation:

- The lateral extent of the soil impacted by the petroleum hydrocarbons appears to be relatively limited.
- Based on the relatively shallow occurrence of consolidated bedrock (refusal occurred at approximately 16.5 feet bgs), the vertical extent of the hydrocarbon-impacted soil is also believed to be relatively limited.
- The more mobile BTEX compounds were not reported to be present in the two soil samples collected from beneath the former tank location. Only minor concentrations of toluene and xylene were reported from the other soil samples analyzed during the tank removal activities and the subsurface soil investigation.
- Results of the general risk appraisal, as outlined in the State Water Resources Control Board's Leaking Underground Fuel Tank (LUFT) Field Manual, indicate that the

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concentrations of xylenes detected in the soil investigation do not pose a threat to groundwater quality.

- Groundwater was not encountered during the investigation. The main regional aquifer is believed to be located at depths greater than 50 feet bgs.
- The area where the tank was formerly located is currently capped with an impermeable concrete and asphalt apron. Buildings occupy most of the perimeter of this apron. The County intends to continue to occupy the Fairmont Hospital, keeping the concrete/asphalt apron and surrounding buildings in good repair.
- Because of these structures, infiltration of stormwater or other water (such as landscape runoff water) into and through the soil in the vicinity of the former tank location is minimal.
- The leaching potential of the petroleum hydrocarbons in the soil from the infiltration and percolation of surface water is therefore also believed to be minimal, both now and in the future (as long as the overlying surface capping structures are kept in good repair).
- Natural attenuative processes, such as biodegradation, are expected to further lower the concentrations of the petroleum hydrocarbons remaining in the soil through time.

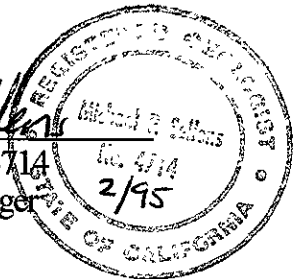
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On behalf of the County, Versar is requesting that this site be closed, with respect to this particular UST, based on the evidence presented in this letter. If you have any additional questions, please do not hesitate to contact our office.

Approved for Release:

John S. Russell
John S. Russell
Geologist
Geosciences Program

Michael P. Sellens
Michael P. Sellens, R.G. #4714
Geosciences Program Manager



Michael P. Sellens
p.p. James R. Frantes, R.G.
Vice President, Pacific Region

STATEMENT OF LIMITATIONS

The data presented and the opinions expressed in this report are qualified as follows:

- The sole purpose of the investigation and of this report is to assess the physical characteristics of the Site with respect to the presence or absence of oil or hazardous materials and substances in the environment as defined in the applicable state and federal environmental laws and regulations and to gather information regarding current and past environmental conditions at the Site.
- Versar derived the data in this report primarily from visual limited inspections and examination of records in the public domain as indicated by the Scope of Services for the Site. Due to site access restrictions, a complete interior building inspection was not included in Versar's Scope of Work. The passage of time, manifestation of latent conditions, or occurrence of future events may require further exploration at the Site, analysis of the data, and reevaluation of the findings, observations, conclusions, and recommendations expressed in the report.
- In preparing this report, Versar has relied upon and presumed accurate certain information (or the absence thereof) about the Site and adjacent properties provided by governmental officials and agencies. Except as otherwise stated in the report, Versar has not attempted to verify the accuracy or completeness of such information.
- The data reported and the findings, observations, conclusions, and recommendations expressed in the report are limited by the Scope of Services. The Scope of Services was defined by the requests of the Client, the time and budgetary constraints imposed by the Client, and the availability of access to the Site.
- Because of the limitations stated above, the findings, observations, conclusions and recommendations expressed by Versar in this report are limited to the information obtained and should not be considered an opinion concerning the compliance of any past or current owner or operator of the Site with any federal, state, or local law or regulation. No warranty or guarantee, whether express or implied, is made with respect to the data reported or findings, observations, conclusions, and recommendations expressed in this report. Further, such data, findings, observations, conclusions, and recommendations are based solely upon Site conditions in existence at the time of investigation.
- This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the Agreement and the provisions thereof.