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January 3, 2002

Ms. Eva Chew
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

JAN 0 7 2002

Subject: **Sensitive Receptor and Conduit Survey**
924 Grand Street
Alameda, California
AEI Project No. 4481

Dear Ms. Chew:

A sensitive receptor survey and preferential pathway survey has been preformed by AEI at the above referenced property. This research was requested by your office as part of the investigation of the release of fuel from the former underground heating oil tank at the property. The receptor survey included the review of area maps, a site reconnaissance, and a review of nearby well information provided by the California Department of Water Resources (DWR). According to review of the USGS Oakland West topographic map and area reconnaissance, the nearest surface water to the site is the lagoon associated with the beachfront development in southwestern Alameda. The nearest arm of the lagoon is approximately 750 feet to the southwest of the site. The San Francisco Bay, located past the lagoon, is approximately 3,000 feet from the site. The nearest surface water to the north and east is the Oakland Inner Harbor, located over 1 mile away.

At the request of AEI, the DWR performed a search of all documented wells within a 2,000-foot radius of the subject site. A summary of the well search is presented below.

Exhibit 1: Well Locations

Distance (ft) / Direction from site*	Well Use	DTW / TD (ft)	Address of Well
150 / north	Irrigation	14 / 70	1000 Grand Street
250 / north	Irrigation	9 / 19	1012 Grand Street
350 / north	Irrigation	11 / 62	1016 Grand Street
500 / East	Irrigation	7.5 / 19	1820 San Antonio Avenue
800 / Southwest	Irrigation	8 / 45	1622 Dayton Avenue
1,600 / Northeast	Irrigation	12 / 68	1810 Central Avenue
1,700 North	Irrigation	10 / 70	1401 Cottage Avenue
2,000 Northeast	Irrigation	10 / 19	1538 Lafayette Street
3,500 West	Irrigation	18 / 70	920 Centennial Avenue

*Distances from site are approximate, and based upon data provided by DWR and map review
TD = Total depth (of borehole) DTW = Reported depth to water in completed well

A total of nine wells were identified during the survey, three of which are located within approximately 400 feet of the release area. All wells are reportedly used for irrigation. Current status and pumping rates are not known. Based on the depth to water reported with the well reports, each is fed by the water table aquifer, the top of which is approximately 10 feet below ground surface.

A review of known utility locations and a site inspection were performed to make an assessment as to whether any underground utilities may be acting as a preferential conduit for contaminant migration. During the tank removal activities, water, natural gas, and sewer lines were encountered around the excavation. These were located at shallower depths than groundwater and are therefore not expected to effect contaminant migration. A storm drain system was observed in the area, apparently running down either side of Grand Street toward the southwest and along the center of San Jose Avenue. The depth of the storm drain system could not be ascertained.

Total Petroleum Hydrocarbons (TPH) as diesel and toluene were the only contaminants of concern detected during the recent investigation, up to 77 µg/l and 0.64 µg/l, respectively. Although a drinking water standard for TPH as diesel has not been established, the maximum contaminant level (MCL) for toluene in drinking water is 150 µg/l, significantly higher than the concentrations recently found at the site.

Groundwater flow direction beneath the site is not definitively known, however based on the topography of this area of Alameda Island, groundwater is expected to flow to the south/southwest, away from the nearest wells. Although the storm drains may be set in the water-bearing deposits, they are farther away from the release area than the recently advanced borings, in which no significantly impacted groundwater was identified.

Based on the additional research performed, the release does not appear to pose a significant threat to nearby wells or surface waters.

Please call me at (925) 283-6000 if you have any questions or need any additional information.

Sincerely,

Peter McIntyre
Project Manager, Geologist

Attachment: DWR Well Reports

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

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WELL COMPLETION REPORT
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