



ENVIRONMENTAL  
PROTECTION

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October 29, 1999

Mr. Don Hwang  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway  
Alameda CA, 94502

**Subject: Conduit Survey**  
4045 Broadway  
Oakland, CA 94611  
AEI Project No. 1630

Dear Mr. Hwang:

The follow letter is presented in response to your letter dated August 26, 1999 requesting a conduit survey for the above reference property. The purpose of this survey is to identify whether any preferential pathways for the migration of petroleum hydrocarbon contaminants exist on the property.

AEI is familiar with this site and has performed a number of subsurface investigations and surveys at the site. In preparation of this report, the following resources were reviewed to identify any possible subsurface preferential pathways at the site:

- USGS Oakland East Topographic Map
- Boring logs of well installation and subsurface investigations performed by AEI at the site
- Magnetic and Ground Penetrating Radar (GPR) survey performed by AEI at the site
- Site Inspection performed by AEI on October 28, 1999

The USGS topographic map for the site was reviewed to assess whether any topographic features of the area indicated a stream channel near or beneath the site. No obvious stream channel was observed within 750 feet of the site.

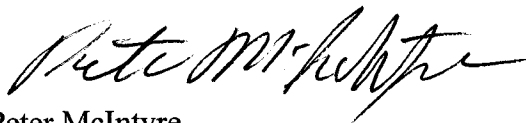
The boring logs for 12 soil borings performed at the site by AEI were reviewed for stratigraphic or depositional evidence of any subsurface stream channels. The water bearing stratum beneath the site generally consisted of sand and silty sand and clay. Minor amounts of gravel were present in one of the borings at approximately 10 feet bgs. No zones of abnormally high conductivity or void spaces were identified which would provide a significant pathway for impacted groundwater.

A magnetic and GPR survey were performed on the site in February 1996. The anomalies observed during this survey were identified as shallow vent pipes and a subsurface hydraulic lift. No evidence of deeper utility conduits was found on the property.

A site inspection of the property was performed by Peter McIntyre of AEI on October 28, 1999 to identify any storm drain paths or other utilities running through or adjacent to the property. Storm drains were not observed adjacent to the property along Broadway or 41<sup>st</sup> Street. No large manholes or subsurface access ways were observed on the property or in the sidewalk adjacent to the property. No other utility boxes indicating deep lateral subsurface conduits were observed on the property.

Based on the information readily available and reviewed, it is concluded that there are no significant subsurface preferential conduits for the migration of any remaining hydrocarbons on the site. The findings of the geophysical survey and subsurface investigations performed by AEI are on file with the ACHCSA. It is our hope that the above information will help your office in the evaluating this site for case closure. If there is any further information we can provide or if you have any questions regarding this site, please call me at (925) 283-6000.

Sincerely,  
AEI Consultants



Peter McIntyre  
Project Geologist

Cc Ms. C.J. Gong  
637 Beacon Street  
Oakland, CA 94610