Site Summary for Chevron/Lonestar Facility, 333 23rd Ave., Oakland CA 94606

This site has operated as a Rhodes and Jamieson and is currently a RMC Lonestar cement facility. The site is located in Oakland at the base of the Park Street Bridge, where 23rd Ave. crosses the bridge and becomes Park St. in Alameda. The edge of the property borders the Oakland-Alameda estuary, the most sensitive receptor.

Apparently, a Chevron driver accidently discharged diesel fuel into a monitoring well, therefore, Chevron was held as the responsible party for the release. RMC Lonestar had been monitoring the site after the removal of an underground tank at the time of the accidental discharge of diesel #2 fuel into monitoring well B on August 1985. Specific reports regarding the discharge of diesel fuel are not available, however, a past report by Western Geologic Resources (1989) has been referenced as a source of this information. Reportedly, an underground tank was removed and two monitoring wells, A and B, were installed in the vicinity of the tank. The discharge of approximately 6000 gallons of diesel fuel was into well B, located approximately 160' up-gradient of the estuary.

Reportedly, IT Corporation was contracted and used a vacuum truck to recover approximately 3300 gallons of product. An additional 200 gallons was reportedly removed using an oil skimming system. A groundwater extraction system was then installed and began operation in October 1986. The system utilized two 1-inch diaphragm pumps in recovery wells, R-1 and R-2. Groundwater was passed through an oil water separator and two carbon adsorption vessels prior to discharge to the sanitary sewer. The system recovered approximately 250 gallons of free product before being shut down in March 1987. A second recovery well, R-2, was installed in May 1988, however, the effectiveness of this well was never documented. In 1993, 365 gallons of product was removed from a storage tank from the site and transported to the Chevron refinery. It is assumed this was additional diesel removed from the recovery wells. Therefore, a conservative estimate of the amount of product removed is 3,865 gallons; 3,300 by vacuum truck, 200 gallons by oil skimmers and 365 gallons from the storage tank. The groundwater extraction system was shut down in September 1994 due to limited effectiveness. During the system's operation, approximately 185,000 gallons of water was discharged with an average influent concentration of 4 mg/l. This amounts to less than 1 gallon of diesel product removed. Passive skimmers were installed in MW-1 and R-2 in 1995. After the extraction system was turned off, oxygen releasing compound (ORC) was added to wells MW-1, MW-9 and MW-10 on March 24, 1996. Later ORC was also added to wells 7, 8 and 11.

A total of fourteen (14) wells in addition to the backfill wells (A and B) and the two recovery wells (R-1 and R-2) have been installed at the site. A number of the wells were either abandoned, unable to be located or discontinued monitoring over time. Groundwater monitoring has continued from 1990 to 2001 in most of the wells and show that the diesel release is well defined to an area within 70' around the tank backfill wells A and B. The extraction wells R-1 and R-2, may have drawn the plume westerly during the time groundwater extraction occurred. The gradient has been fairly consistent in a southwesterly direction. Down-gradient wells, MW-11, MW-4 and MW-14 have been consistently less than the RBSL for diesel used at the San Francisco Airport, 670 ppb. It appears that a combination of natural attenuation and contaminant absorption has stabilized the release.

Our office recommends site closure based upon:

- Adequate source removal has occurred. Minimally, 3865 gallons of the 6000 gallons of diesel fuel released at the site was removed shortly after the accidental subsurface discharge. A groundwater extraction system removed more of the dissolved diesel after the other removals and indicated little to no more free product.
- The site has been adequately characterized. A large network of monitoring wells has defined the limits of the dissolved plume to an area near the discharge point, well B.
- The plume does not appear to be migrating. Down-gradient wells have not reported diesel concentrations near the RBSL for TPHd used at the SFIA, 670 ppb.
- No water wells are located near the site. Surface water does not appear impacted from monitoring wells up-gradient of the estuary. The lone utility that could be affected by the release in a sanitary sewer running west-east through the site. However, elevated TPHd has appeared in wells on both sides of the sewer, therefore, it does not likely act as a preferential pathway.
- No risk to human health or the environment is expected. As mentioned, the estuary does not appear impacted from the release.
- ORC socks were added to wells within the plume and have likely enhanced natural bio-remediation.