R. William Rudolph, Jr., PE
Thomas E. Cundey, PE
Jeriann N. Alexander, PE

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Mr. Jonathan Redding
Fitzgerald, Abbott & Beardsley
1221 Broadway, 21st Floor
Oakland, California 94612-1837

Interim Report Regarding Further Site Characterization
Keep-On-Trucking Diesel Release and
Ninth Avenue Terminal Area
Port of Oakland
Oakland, California

Dear Mr. Redding:

This letter presents Subsurface Consultants, Inc. (SCI) interim report regarding the historic development and uses of the Ninth Avenue terminal area and our identification of potential on-site contamination sources. Our services to date have included 1) conducting a detailed site reconnaissance, 2) reviewing available agency records pertaining to the site, and 3) reviewing historic aerial photographs. Pursuant to your request, our findings and conclusions are summarized herein. Also enclosed are the quarterly groundwater monitoring reports for the previous Keep-On-Trucking Company, Inc. (KOT) tank sites at Building H-107 and former Building H-213.

The terminal area has been developed since the early 1900's. Since this time numerous industrial and commercial businesses have been on-site. Environmental studies of the area have been limited to investigating a 1992 release of diesel fuel into the adjacent Oakland Inner Harbor Estuary and Clinton Basin. The source of the diesel was identified as a leak in a below ground product pipeline leading from an above ground storage tank (AST) containing diesel. The tank was situated within the former Building H-213, which was then occupied by KOT. The diesel fuel apparently entered one or more storm drains near the AST and flowed via the storm drain system to the basin and estuary. Floating diesel has been observed in wells located in the vicinity of the AST, however, the free product plume is currently situated in the area upgradient of the release point and along a storm drain line. This finding suggests that the floating product associated with the diesel

release(s) from KOT at H-213 has already migrated in unsuspected directions, and that it may be distributed to other areas of the Ninth Avenue Terminal through preferential flow along utility corridors and/or abandoned storm drain systems. The extent of hydrocarbon impacts to soil and groundwater have not been fully defined.

Numerous active subsurface utilities exist in the leak area, and extend throughout the terminal. Abandoned utility lines associated with the historical use of the terminal also exist. Subsurface utilities and associated bedding materials may act as potential conduits for contaminant migration to the estuary and basin. Studies to date have not thoroughly investigated the utility lines as potential migration pathways.

In addition to the documented pipeline leak discussed above, several other potential petroleum hydrocarbon sources, which may impact the terminal area, have been identified through our research. These potential sources are summarized below:

- Oil Tanks - West of Building H-232
- 10,000 gallon UST - North of Building H-227
- Suspected UST near former well, circa 1911 - North of Building H-227
- Two UST's - Near former Building H-209/H-229
- Diesel AST - Southwest of Building H-232
- Suspected 1970's surface release of oil at the location of the former American Bitumins and Port Petroleum facilities
- Storm drain and sanitary sewer lines and laterals that extend adjacent to former businesses with suspected petroleum hydrocarbon use
- Storm drain lines that discharge into Clinton Basin

During our site reconnaissance, up to 17 inches of oil was found in a manhole which PORT maps indicate may be connected to a concrete storm drain which extends along Eighth Avenue, and parallel to the former KOT Building H-213. In the vicinity of H-213 this line has been blocked with bricks. Dillard Environmental Services, a certified hazardous materials handler, removed about 750 gallons of oil/water on May 13, 1996. During removal the level of liquid within the manhole remained essentially unchanged. The source of the material is currently unknown.

SCI has also been retained to continue the groundwater monitoring program for two KOT tank areas currently being regulated by the Alameda County Health Care Services Agency (ACHCSA) Local Oversight Program. One well at Building H-107 and six wells at the former H-213 have been monitored by others since 1994 and 1993, respectively. The data from the February 1996 event (see attached reports) indicates that conditions at Building H-213 have not changed significantly since monitoring began in 1993. At H-107, diesel concentrations in February 1996 are approximately 20 times higher (6100 ug/l) than the average of the three previous events (300

ug/l). Although the reason for this increase is not readily apparent, it is possible that the H-213 release(s) have now migrated into this area via utility corridors and/or abandoned storm drain systems.

Based on the foregoing, it is our opinion that further characterization of the Ninth Avenue terminal area is necessary to evaluate impacts from petroleum hydrocarbon releases. The characterization study should be performed in phases. The first phase should include at a minimum a detailed utility survey, subsurface screening in the areas of other potential underground storage tanks, a soil and groundwater sampling program, additional well installation to evaluate gradient, and on-going groundwater monitoring.

If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.

Jeriann N. Alexander, PE, REA
Project Manager
Civil Engineer 40469 (exp. 3/31/99)

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3 copies: Mr. Jonathan Redding
Fitzgerald, Abbott, & Beardsley