ALAMEDA COUNTY WATER DISTRICT

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December 30, 2013

Vivian Gomez-Latino
State Water Resources Control Board
1001 I Street
P.O. Box 2231
Sacramento, CA 95814

Dear Ms. Gomez-Latino:

Subject: Comment Letter for the Proposed Case Closure of Circle K #2705760, 34867 Ardenwood Boulevard, Fremont

The Alameda County Water District (ACWD) appreciates the opportunity to provide comments on the proposed underground storage tank (UST) case closure for the Circle K #2705760 site located at 34867 Ardenwood Boulevard, Fremont. ACWD provides water service to approximately 334,600 people in the cities of Fremont, Newark, and Union City in the San Francisco Bay Area. Groundwater annually contributes 30 to 62 percent of the total local water supply. Due to the relative shallow depths of the local drinking water aquifer and its sensitivity to contamination, the strictest allowable standards should be applied before allowing contamination to be left behind, unmonitored, at this site for an unknown period of time. ACWD has reviewed the file for the subject site pursuant to the State Board's Low-Threat Underground Storage Tank Case Closure Policy (Policy) and the State Board's "UST Case Closure Summary" (Summary) dated October 18, 2013. ACWD has determined that this site has not met all the closure criteria specified in the Policy and is not eligible for case closure at this time.

ACWD disagrees with the Summary's statement that "The petroleum release is limited to the shallow soil and groundwater." There has been no data collected to document that deeper groundwater is not impacted. The existing groundwater contamination has migrated hundreds of feet laterally away from the former tank area, but the vertical movement of the plume has never been investigated. The Newark Aquifer, the shallowest aquifer in the Niles Cone Groundwater Basin (the local groundwater basin), is a highly productive drinking water aquifer. Based on nearby well logs, the Newark Aquifer may be just 15-25 feet beneath the contaminated shallow-water bearing zone; however, the Newark Aquifer has never been sampled beneath this site.

The Summary's argument that "Public supply wells are usually constructed with competent sanitary seals and intake screens that are in deeper more protected aquifers" is inappropriate. Throughout ACWD, both public production wells and private water wells pump water directly from the Newark Aquifer. The construction of the wells will not protect them from

contamination in the Newark Aquifer. In addition, some private water wells were constructed decades prior to the enforcement of the current well standards. Both ACWD and DWR have incomplete records of these older private wells. Some older private water wells may have deteriorated seals or are poorly constructed, which will make them also vulnerable to contamination from the shallow water-bearing zone.

For clarification, all groundwater in the Niles Cone Groundwater Basin is recognized in the Basin Plan for the San Francisco Bay Area to have the following beneficial uses: municipal and domestic water supply, industrial process water supply, industrial service water supply, and agricultural water supply. Even though the groundwater in the shallow-water bearing zone is not used directly as a source of drinking water, it does overlie the Newark Aquifer. Water travels from the shallow water-bearing zone into the Newark Aquifer through natural hydrogeologic connections and man-made conduits. Therefore, minimizing contamination in the shallow water-bearing zone is critical in the continual protection of the local drinking water aquifers.

Besides the lack of vertical definition, the contaminant plume is also not adequately defined laterally. Per the Policy, "the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent." The areal extent of the plume is currently unknown. It is unclear if the plume exceeding water quality objectives is present just beneath the neighboring Jack-In-The-Box or whether it has migrated under the adjacent Little Flowers Montessori preschool further down-gradient. Of even greater concern is the high probability that the preschool is unaware that groundwater beneath their property may be impacted. The public notice sent to interested parties refers readers to the State Board's "Proposed Closure of Underground Storage Tank (UST) Cases" web page; however, the Summary does not include any figures to inform interested parties which properties are, or may be, impacted by the contamination. Therefore, we believe it is essential to define the groundwater contaminant plume to water quality objectives, as specified in the Policy, and that affected property owners be made explicitly aware that their properties are impacted. In addition, the confirmation and reporting of off-site groundwater contamination is important since it prevents the free use of the impacted properties and limits ACWD's ability to develop future groundwater sources (e.g., new high capacity municipal wells). Currently, the well documenting the highest methyl tert butyl ether (MTBE) concentration is also the down-gradient most well. Antea Group's (Antea) Site Conceptual Model, dated July 3, 2012, concluded that the groundwater plume "is not fully defined down-gradient to the west, and northwest, up-gradient to the east or vertically." ACWD agrees with the Site Conceptual Model that the plume is not adequately defined laterally and vertically.

Furthermore, Antea's Site Conceptual Model was also unable to identify the exact cause, quantity, and time of the petroleum release(s) resulting in the observed groundwater contamination. No subsurface cleanup was ever conducted at this site. In 2013, Antea provided additional information regarding a failed product pipe tightness test in 2007, which the Summary identified as the source of the groundwater contamination. However, based on the size of the existing plume and the lack of other fuel oxygenates besides MTBE detected in the groundwater samples, it is unlikely that the 2007 release is the sole source of the groundwater contamination. In spite of that, if a release to groundwater is suspected near the identified dispensers and

secondary piping, then secondary source evaluation/cleanup should be proposed for the 2007 release instead of case closure.

The Policy's General Criteria (e) requires "The CSM [Conceptual Site Model] establishes the source and attributes of the unauthorized release, describes all affected media (including soil, groundwater, and soil vapor as appropriate), describes local geology, hydrogeology and other physical site characteristics that affect contaminant environmental transport and fate, and identifies all confirmed and potential contaminant receptors (including water supply wells, surface water bodies, structures and their inhabitants)." Currently the CSM has not properly established the source area(s), defined the lateral and vertical extent of the groundwater contamination, or properly described the hydrologeological relationship between the impacted shallow groundwater and the deeper Newark Aquifer. Based on the existing data gaps, and non-compliance with the Policy, ACWD opposes the closure of this site at this time.

If you have any questions regarding this letter, please contact me at (510) 668-4442 or Eileen Chen at (510) 668-4473.

Sincerely,

Eileen Chen for

Thomas J. Berkins
Groundwater Protection Program Coordinator

ec/ps
cc: Steven Inn, ACWD
Eileen Chen, ACWD
Barbara Sieminski, Regional Water Quality Control Board
Ben Heningburg, State Water Resources Control Board
Jay Swardenski, Fremont Fire Department
Walter Sprague, Pacific Convenience & Fuels LLC
Douglas Umland, Antea Group