MEETING SUMMARY ALAMEDA COUNTY ENVIRONMENTAL HEALTH DEPARTMENT OFFICE DECEMBER 8, 2011 VALLEY GAS/B&C GAS MINI MART 2008 FIRST STREET, LIVERMORE, CALIFORNIA

ATTENDEES:

Balaji Angle, B&C Gas Mini Mart Jerry Wickham, Alameda County Environmental Health Department Gowri Kowtha, Stratus Environmental, Inc. Scott Bittinger, Stratus Environmental, Inc.

DISCUSSION

Prior to arriving at the ACEHD office on December 8th, 2011, Stratus personnel prepared a packet of information pertaining to environmental issues on the subject property. Information regarding an environmental case at 57/59 L Street (former Groth Brothers Oldsmobile, downgradient of the site) and also at 1771 First Street (former Unocal), were also included in this packet of information. Mr. Angle was provided a draft copy of this information two days in advance of the meeting.

Upon beginning the meeting, Mr. Wickham indicated that he had reviewed some of the case files and was familiar with the site's environmental issues. Mr. Kowtha indicated his concern for Mr. Angle's liability for the site, given the amount of money already spent from the UST Cleanup Fund to perform work to date (about \$1.2 million). Mr. Kowtha indicated that his goal for the project was to develop a pathway to closure for the site's environmental case using the remaining \$300,000 available to Mr. Angle from the UST Cleanup Fund.

Mr. Kowtha inquired about ACEHD's position regarding a draft environmental site closure policy distributed by the State Water Resources Control Board. Mr. Wickham indicated that ACEHD was not following the draft document, and that many parties (government agencies, private parties, industry groups, etc.) have had significant comments and that changes to the document would likely be made if the closure guidelines were to be refined in the future.

The group skipped through much of the project background data included in the materials packet, and began discussing the current status of the project. Discussions regarding use of the ozone injection system were conducted. Mr. Kowtha inquired about the goals of the current remedial approach, as the ozone system is only treating a very small area of the plume. Mr. Kowtha inquired about what remedial approaches would be necessary in order to obtain closure. Mr. Wickham acknowledged that treating the entire plume was impractical, but expressed concern about the lack of data downgradient of the L Street monitoring wells (data gap on Groth Brothers property).

Mr. Angle indicated that the Groth Brothers property could potentially be redeveloped with residential housing. Apparently, Mr. Angle has attended several public hearings regarding the issue. Mr. Wickham indicated that much of the environmental work done on the Groth Brothers property was initiated by the property redevelopment issue. Mr. Wickham indicated that ACEHD closed an environmental case on the Groth Brothers property relating to a waste oil UST, but a separate environmental case relating to a gasoline UST was transferred to the RWQCB for oversight. Mr. Bittinger inquired as to whether or not the entire Groth Brothers property was scheduled for redevelopment, or if it was to be subdivided; none of the parties in attendance knew this answer.

Mr. Kowtha inquired to Mr. Wickham as to what was known regarding a downgradient water well about ½ mile west-northwest (downgradient) of the site. Mr. Wickham believed that the well was screened/constructed below a fine grained soil layer, which should retard downward migration of fuel contaminants. The exact construction details of the well were not provided to Stratus, or requested at the meeting. Mr. Wickham indicated that this project was considered ACEHD's top priority project until information regarding the construction of the water supply well and the 'deeper' local geology was obtained.

The meeting topic was switched back to 'current project status'. Stratus inquired as to whether or not two offsite injection well clusters had been connected to the ozone injection system by lateral conveyance piping. Neither Mr. Angle nor Mr. Wickham knew the answer to this question. It was agreed that expanding the ozone injection system to include these offsite well locations might be necessary. Mr. Bittinger mentioned that it might be necessary to disconnect some of the onsite ozone sparge wells from the system in enough injection ports were not available to cycle through all of the onsite and offsite wells simultaneously. Mr. Kowtha indicated that a more thorough inspection of the injection system was necessary. Responding to an inquiry from Mr. Angle, Mr. Kowtha provided a limited technical explanation regarding how the system operates, and how 'newer' injection systems operate in a different manner.

Mr. Bittinger expressed concern regarding the historical detections of total petroleum hydrocarbons as diesel and motor oil (TPHD/TPH-MO) in groundwater within the plume limits, as the presence of these heavier hydrocarbons might not be effectively remediated by ozone. Mr. Angle indicated that the service station has dispensed diesel fuel since 1996, but that no diesel fuel was stored to his knowledge prior to this date (environmental case dates back to the 1980's). Historical soil data was evaluated from the Groth Brothers data set and TPHD/TPHMO soil contaminants had been detected in borings near the former waste oil UST and car wash/clarifier, but not near the gasoline UST (which is near the center of the known groundwater plume).

A geological cross section illustrating the approximate depths of the offsite sparge wells was briefly reviewed. Also discussed was the report of a 2 to 4 foot per day

groundwater velocity; no one at the meeting knew how this value was obtained (seems potentially on the high side).

In summary, ACEHD indicated that the site is not currently a closure candidate and ACHED is not using the draft low risk criteria to assess sites. Remedial action is necessary to pursue closure. Remediation should expand across L Street from the site, but treatment of the 'toe of the plume' was not suggested by any party. Additional groundwater monitoring well(s) might be necessary on the Groth Brothers property to provide current data on plume conditions downgradient of L Street and well MW-5. Stratus agreed to complete a more thorough inspection of the ozone system and the offsite injection well clusters.