

6.0 DISCUSSION OF FINDINGS AND RECOMMENDATIONS

6.1 DISCUSSION OF FINDINGS

The ground water monitoring conducted April 22, 2009, revealed the following findings:

- Ground water beneath the Site was measured at depths from 19.55 feet bgs in well MW-4 to 21.67 feet bgs in well MW-3, with a westerly ground water flow direction and an average hydraulic gradient of 0.007 ft/ft. The depths to ground water, ground water flow direction, and hydraulic gradient are consistent with historical data for the Site.
- Dissolved-phase petroleum hydrocarbons remain beneath the Site. The highest concentrations of petroleum hydrocarbons were reported in well MW-3, located approximately 30 feet west of the former UST. Concentrations of TPHg and benzene were within historical values for the Site.
- The dissolved-phase TPHg results were analyzed by the laboratory past the EPA holding time. The results indicate that the missed holding time for TPHg did not affect the consistency with the historical trends. The situation was communicated to SAM.
- MTBE was detected in wells MW-1 and MW-3 at concentrations of 1.8 µg/l and 3.7 µg/l, respectively, which are below the California MCL in drinking water of 13 µg/l.
- None of the petroleum hydrocarbons or fuel oxygenate constituents analyzed for were detected in samples from on-site well MW-2 and off-site wells MW-4 and MW-5.
- The measured water quality parameters support that biodegradation is occurring within the ground water impacted by petroleum hydrocarbons.

6.2 RECOMMENDATIONS

Based on the conclusions listed above, E2 recommends continuing quarterly ground water monitoring. Monitoring should include analysis for petroleum hydrocarbons on a quarterly basis and for natural attenuation parameters annually during the third quarter monitoring event.

TABLES

FIGURES

GRAPHS

Second Quarter 2009 Ground Water Monitoring Report

Former San Marcos Forest Fire Station
San Marcos, California

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If you have any questions regarding this information, please do not hesitate to contact the undersigned at 949-453-8085.

Respectfully submitted,

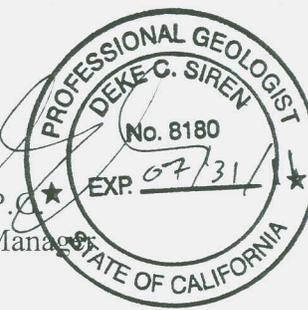
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TABLES

FIGURES

GRAPHS