
Comprehensive environmental evaluation of former landfill within North Hollywood Operable Unit of San Fernando Valley Superfund Site (Sun Valley, California)

Lindmark Engineering was retained to conduct an investigation at a former landfill presently used as an auto salvage yard. The owner of the property had been named a responsible party by the United States Environmental Protection Agency (EPA) in regard to alleged trichloroethylene (TCE) releases and associated groundwater contamination. Two 350-foot-deep groundwater monitoring wells, which were intended to serve as up- and downgradient monitoring points, had been installed in 1988 as part of a solid waste assessment testing program. However, we determined that the orientation of the wells was not aligned to the regional groundwater flow direction. We evaluated historical groundwater elevation data from on- and off-site wells in order to determine the correct groundwater flow direction. This evaluation revealed a large number of potential upgradient source areas that had not yet been considered.

Based on our evaluation of the groundwater flow regime, we conducted file reviews at public agencies in order to determine past hazardous materials use from properties located upgradient of the site. Based on a comprehensive evaluation of properties, we prepared a map of “sites of interest,” which illustrated possible off-site source areas based on the groundwater flow conditions in the site vicinity.

We also conducted BIOCHLOR dissolved solvent models, simulating a potential TCE plume migrating toward a downgradient production well field. We calculated horizontal and vertical groundwater and chemical flow velocities as part of the fate and transport model. Model results and other findings indicated that contamination by volatile organic compound detected in the well field could not have originated from the subject site.

We presented our findings and conclusions in a report submitted to the EPA, and met with the EPA to present our findings and conclusions. The owner was able to sell the property and the new owner assumed responsibility for groundwater monitoring.

For more information on this project, please contact Lindmark Engineering at (818) 707-6100 or ulf.lindmark@efiglobal.com.