



E-REDOX[®] CASE STUDY: *IN SITU* REDUCTION OF TETRACHLOROETHENE (PCE) IN GROUNDWATER

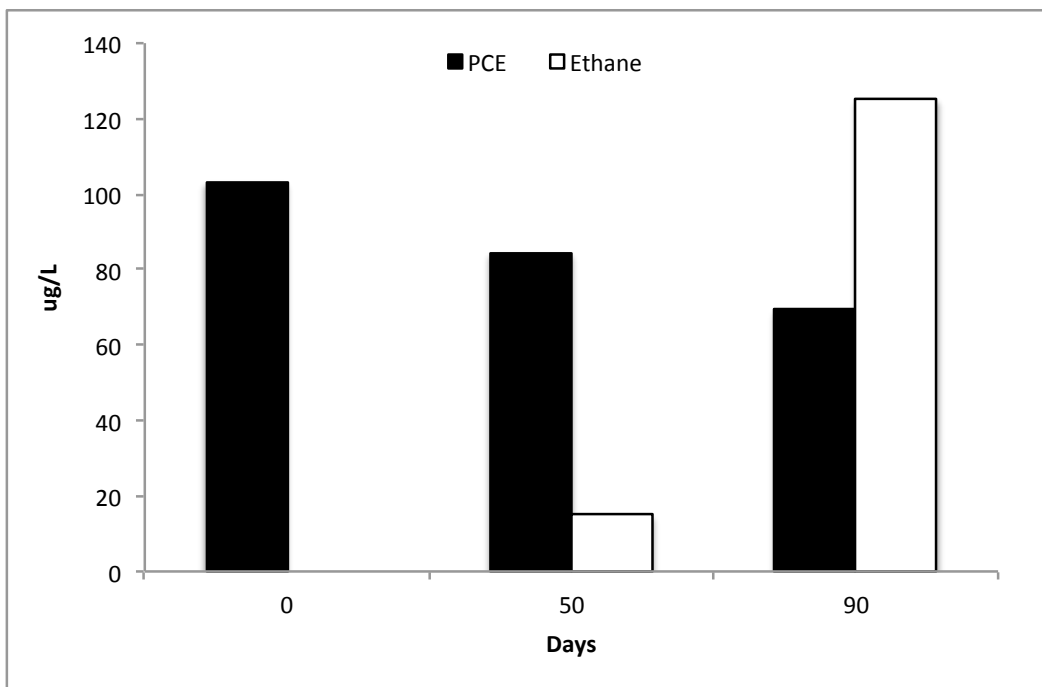
Location: Former dry cleaner in Wheat Ridge, Colorado

Contaminated Matrix: Groundwater

Primary Contaminants of Concern: Tetrachloroethene (PCE)

Project Objective: Demonstrate enhanced *in situ* contaminant reduction in groundwater using E-Redox[®] technology

Case Study Description & Results: An E-Redox[®] field pilot test was conducted at a brownfields site that was originally a dry cleaner site in Wheat Ridge, CO. The primary persistent groundwater contaminant is tetrachloroethene (PCE). A multiple-electrode E-Redox[®] demonstration system was implemented at the site and was powered using a municipal electrical source. The figure below shows PCE concentration changes and the ethane production. Ethane is the final product of complete PCE reduction and no other “daughter” products are detected. The increase in ethane concentration, coinciding with the decrease in PCE concentration (33% within 4 months) indicated that the E-Redox[®] system was enhancing *in situ* PCE reduction. A full-scale implementation of E-Redox[®] technology has been recently completed to treat the whole site.



PCE and ethane concentrations from the monitoring well used to evaluate the performance of the E-Redox[®] system