



E-REDOX[®] CASE STUDY: *IN SITU* GROUNDWATER BENZENE BIODEGRADATION ENHANCEMENT AT FORMER PETROLEUM BULK PLANT IN LAFAYETTE, CO

Location: Former petroleum bulk plant (contaminant area currently in residential area) in Lafayette, CO

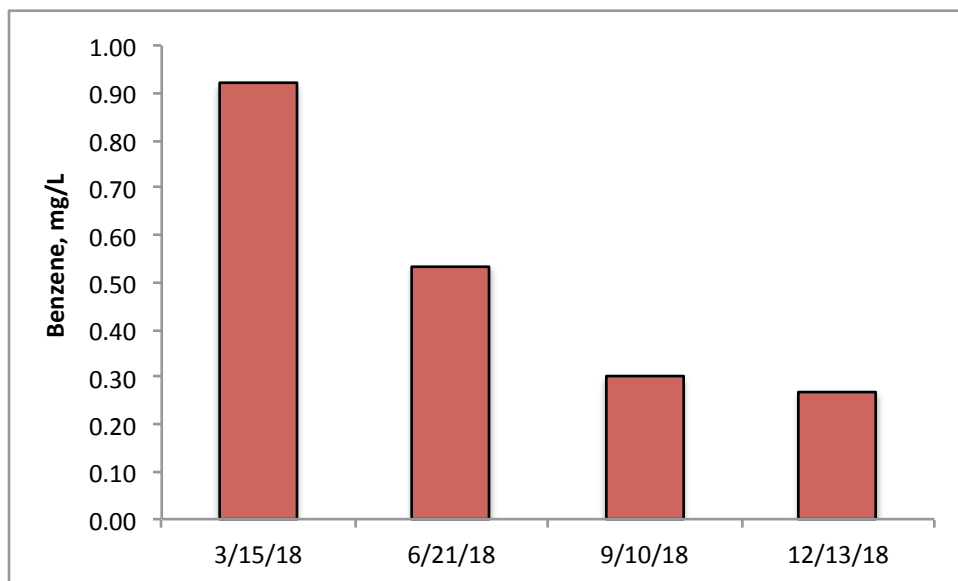
Contaminated Matrix: Groundwater

Primary Contaminants of Concern: Benzene

Project Objective: Enhancement of *in situ* contaminant degradation by a full-scale implementation of E-Redox[®] technology

Case Study: E-Redox[®] units were installed in groundwater wells within a residential area that had a contaminated area of 6000 ft². The units were installed in an array throughout the contaminant plume and operated with zero energy input. After 9 months of operation, approximately 71% benzene mass removal was observed at the site (see figure below). Voltage was generated by all E-Redox[®] units, which ranged from 30 to 293 mV. The voltage profiles serve as a convenient tool for monitoring the E-Redox[®] units' performance and groundwater quality in general without groundwater sampling.

Overall, the full-scale implementation of E-Redox[®] technology at this site has resulted in a substantial reduction of overall benzene concentrations in the groundwater.



Overall benzene concentrations