

TCE/PCE Case History

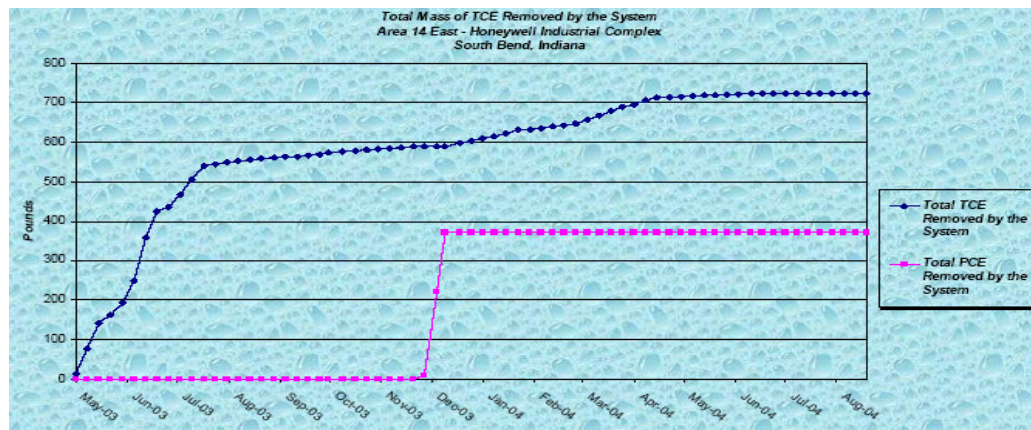
Indiana

Accelerated Remediation Technologies, LLC (ART) was secured by an aerospace electronics systems manufacturer to provide the ART Technology at a site in Indiana. ART worked closely with the client's consultant, MACTEC Engineering & Consulting, Inc. to configure and install the ART Technology.

Contaminant(s) of concern: Trichloroethene (TCE) Tetrachloroethene (PCE)

Site Description: The site is located in South Bend, Indiana and was part of the voluntary cleanup program. The facility includes 26 primary buildings on 110 acres and has been used for a vast array of manufacturing and industrial processes over the last 90 years. Groundwater is encountered at depths varying from 15 feet below grade. In general, the geology at the site consists primarily of sands that exhibited hydraulic conductivity of 10^{-2} cm/sec. An underlying confining clay layer is present in the area at a depth of 21 feet below grade. TCE is present in unsaturated soils ranging in concentrations from 0.48 mg/kg to 58 mg/kg. Shallow groundwater in the focused treatment area exhibits concentrations ranging from 0.01 mg/l to 340 mg/l.

Site Remediation History: The consultant conducted an evaluation to screen potential methods of achieving cleanup goals for the site and the ART Technology was selected to address VOCs in soil and shallow groundwater. The ART System was selected as the final remedy and installed in the TCE source area of highest contamination, which was estimated to be approximately 350 pounds. Based on results from previous soil vapor extraction pilot testing performed in the area, the consultant's design team along with ART determined that seven treatment wells would be required to achieve project objectives. This approach was far less intrusive than conventional AS/SVE, which would have required as many as 36 sparge wells in addition to 7 SVE wells.



Summary: The ART system's actual radius of influence (ROI) exceeded the SVE pilot study's ROI by approximately 50%, including contaminant reduction. The ART System removed over 450 pounds of TCE after only 34 days. To date, over 1200 pounds of total VOCs have been removed including 375 pounds of PCE that had not been identified as source area contaminant of concern! Removal rate from a pump & treat system at a nearby area, which has been operating for several years was only 13 pounds a year.

For additional information about the ART Technology please contact us at 913-436-4384 or visit our website www.artinwell.com

