



Case Study: IL Gas Station

Project Summary

In-situ biological was applied at an active gasoline service station in Western Illinois. The geology consisted predominately of clays, underlain by a sand and gravel aquifer. The bulk of the contamination was sorbed phase material in this layer as well as the aquifer directly underneath. Contaminants including benzene, toluene, ethyl benzene and xylenes (BTEX) were found in the both of these zones as well as outside the property boundaries.

This site utilized a 4-phase in-situ biological injection program. This program targeted the predominant sand between 10-12 feet. IET's liquid petroleum degrader, oxygen sources and nutrient blend were utilized during these phases. This was both to inoculate the site with the necessary pseudomonas as well as to prevent oxygen depletion. These phases were conducted approximately 100 days apart.

Outcome

Over a 2 year period the total BTEX concentrations were reduced from over 3 ppm with a benzene concentration over 2 ppm to closure limits. This remedial action plan was employed during normal business hours without any interruption to the client's business. This site is closed.

“A resource for environmental professionals seeking innovative remedial alternatives.”