MARINA- ACTIVE UST SITE

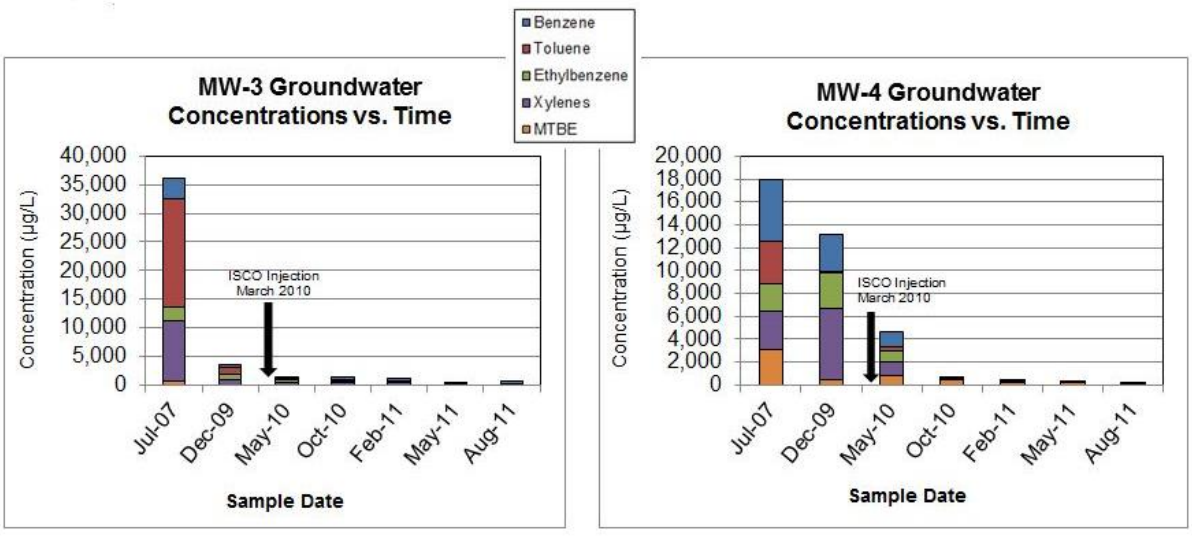
Coastal Area, Chatham County, GA

Contaminants:
BTEX, MTBE

Treatment:
ISCO injection using Klozur CR®

Site Status:
NFA (2011)

- Eden personnel designed a treatability study followed by a source area ISCO treatment at an active UST site located at a marina on the Georgia coast. The site is situated in the coastal plain province immediately adjacent to the Ogeechee River with an approximate depth to water of 5-7 feet with tidal influences.
- A gasoline/petroleum release was discovered during corrective action plan development around the UST system. Due to the close proximity of the active tank system and high salinity of groundwater (10,000+ µS), a treatability study was recommended to identify a non-corrosive oxidant blend suitable for the environment. Treatment goals were at or near In-Stream Water Quality Standards (ISWQS).
- The treatability study evaluated the use of catalyzed hydrogen peroxide (CHP) using a higher pH buffered catalyst/chelator along with alkaline activated sodium persulfate. The results indicated sufficient reduction using both oxidant mixtures; however, in order to meet the stringent treatment goals, Klozur CR® was selected because it offered a "treatment train" approach, combining chemical oxidation and aerobic biostimulation through a follow-up release of oxygen.
- The ISCO injection was performed into 21 points using 180 pounds of Klozur CR® per point. Prior to injection, BTEX was detected in excess of 44,000 µg/L, with benzene detected at 3,280 µg/L. Post injection results showed a significant reduction in dissolved benzene/total BTEX, as shown in the graphs below for MW-3 and MW-4, located 10 feet from the river.
- The total cost of the project was <$33,000, and a No Further Action was received from the Georgia EPD ***after only one injection.***



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