EXOTECH, INC.
Environmental Remediation and Chemical Oxidation

Office: 770-564-1444/Fax: 770-923-1166

Case Study: Atlanta, Fulton County, Georgia

Updated: July 3, 2008

Description:
Municipal Waste Water Treatment Plant. Petroleum constituents in the soil and groundwater. Plume size was approximately 20,800 square feet.

Geology of Study Area: Piedmont saprolite (sandy silts, silty-sands, heterogenous). Approximately 15-20 feet of fill soil present. Depth to groundwater ranged from 40-50 feet below ground surface.

Contaminant: Benzene max. contamination 6,100 µg/L in groundwater.

Treatment goal:
To reduce BTEX constituents in groundwater for the known area of contamination down gradient of the source area.

Treatment approach:
Inject 10,930 lbs of activated sodium persulfate with sodium hydroxide as an activator. Our oxidant was chosen based on a Treatability Study and offered the following advantages: fast reaction time, minimal likelihood of daylighting, minimal heat generation in the subsurface, minimal gas generation, long life in the subsurface, and minimal oxidant migration. In addition, sodium hydroxide was chosen to prevent creating a corrosive environment due to the close proximity of underground piping at the plant.

Injection dates: 2/11/2008 - 2/19/2008

Total number of wells injected: 25

Sampling schedule:
The first post-injection sampling event occurred approximately three months after the injection and revealed an overall reduction in BTEX constituents in groundwater.

Site Status:
Based on the reduction achieved, EPD approved monitoring only.

Project cost: $103,830

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