



Demonstration Project BADCAT

(Bay Area Defense
Conversion Action Team)



Project Name: Former Mare Island Naval Shipyard

Project Location: Vallejo, California

Owner: United States Navy

Time Frame: September - December 1997

Site Information: A 500 square foot area adjacent to a former electric shop located within the Mare Island Naval Complex.

Contaminants: Soils at the Thermal Well Demonstration area were impacted with Polychlorinated Biphenyl (PCB) Aroclors 1254 and 1260. Samples collected within the demonstration area during the Remedial Investigation exhibited a maximum concentration of 2,200 mg/kg.

Groundwater: Groundwater was below the target zone of treatment. The RI report suggests that groundwater fluctuated seasonally from 15 to 25 feet below ground surface (bgs).

Project Goals: The successful demonstration of In Situ Thermal Desorption (ISTD) to remove and destroy PCBs from soils in situ. The cleanup goal was 2 ppm as prescribed by USEPA regulations at 40 CFR Part 761. Site-specific objectives had been set by the Remediation Advisory Board (RAB) at less than 1.0 ppm.

Project Approach: The Thermal Well demonstration was conducted using a network of 12 wells drilled to a depth of 14 feet. After reaching an in-situ soil temperature of 600°F over a treatment period of 37 days, all post-treatment soil samples collected exhibited non-detectable Total PCB concentrations (less than 0.033 mg/kg).

The Thermal Blanket test was conducted using two adjacent 8 foot by 20 foot heating units, and treated soils to a depth of 12 inches over a period of 7 days. Again, all post-treatment soil samples exhibited non-detectable Total PCB concentrations (less than 0.033 mg/kg).

Project Time Line: TESI mobilized to the site in July 1997. Site construction was performed from July 1997 through September 1997. Thermal treatment was started in September 1997 and was completed in November 1997. Demobilization was completed by mid-December 1997.