Joint U.S./Germany In-Situ Bioremediation Demonstration

Cleanup
CU-99

RESEARCH CATEGORY: 6.3 Advanced Development

LEAD AGENCY: U.S. Air Force

LAB: Air Force Research Laboratory - Tyndall Air Force Base, FL

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FY 1997 COMPLETED PROJECT

OBJECTIVE: The goal of this project was to conduct a field demonstration of bioventing and natural attenuation of a Petroleum, Oil, Lubricants (POL) storage area contamination site at Rhein-Mein Air Base, Germany. The results generated from this field project will assist in successfully transferring these technologies to the German regulatory authorities and the German environmental consulting firms working on U.S. military base clean-up activities in Germany.

BENEFIT: These low-cost technologies are expected to save the U.S. and German governments millions of dollars per contaminated site over conventional cleanup technology. The key outcome of this demo will be performance and cost information to prove to the German attenuation are viable treatment options for hydrocarbon-contaminated aquifer material at U.S. bases in Germany.

ACCOMPLISHMENTS: Field demonstrations of bioventing and natural attenuation were conducted in FY96 so that these strategies will be accepted as proven technologies by German regulatory agencies and may be subsequently implemented to clean up fuel spills at Department of Defense (DoD) installations in Germany. Performance monitoring of the two systems continued in FY97.

TRANSITION: The project's experimental plan has provided enough flexibility to allow for collaborations with a German contractor. The technology that has been gained from the field demonstration will transfer to U.S. Armed Forces Europe Headquarters / Civil Engineer and contractors performing site cleanups at Air Force installations in Europe.