

**Jeffrey D. Spruit, Michigan Dept. of Environmental Quality, John Valkenburg, and Hans A. Johannes, Malcolm Pirnie Inc.**

### **A Multi-Agency Clean-Up of an Abandoned Crude Oil Pipeline Along an Urban to Rural Corridor in Kalamazoo County, Michigan**

The 17-mile long 6-inch conduit originates from a bulk storage facility in rural southeastern Kalamazoo County and ends at a former crude oil refining facility in the City of Kalamazoo. The pipeline was left abandoned still containing crude oil, posing a threat to several environmentally sensitive areas it crosses. Increasing development pressure along the entire length of the predominantly rural pipeline increased the threat of unfortunate, potentially release-causing encounters with the pipeline. Michigan environmental law considered the pipeline an abandoned container that posed a threat to the environment. The Michigan Department of Environmental Quality (MDEQ) made the commitment to address that threat using both state and federal funding. After draining and cleaning using conventional techniques, over 97% of the pipeline length was grouted in situ to protect environmentally sensitive areas. Less than 1% was left ungrouted while approximately 2% of the pipeline was physically removed. Approximately 80,000 gallons of crude oil were recovered from the pipeline and recycled. The field work was accomplished with a minimal number of releases to the environment. Project success can be attributed to 1.) focused strategic public relations planning; 2.) vigorous project management assistance and oversight performed by MDEQ's consultant; 3.) interagency cooperation between USEPA, MDEQ and local units of government; and 4.) stringent contractor qualification requirements. Property transactions and increased development can now occur in the area without fear of causing a release of crude oil to the environment.