

# Kansas Department of Health and Environment

## Bureau of Environmental Remediation, Remedial Section

### State Water Plan Contamination Remediation Program



## MARCO

### Background:

The Mid-America Refining Company (MARCO) Site is an abandoned former petroleum refinery located on the north side of Chanute, Kansas. The site was a source for both on-site and off-site surface water, groundwater, and soil contamination by crude oil, refined petroleum products, and volatile organic compounds. The MARCO Site included an adjacent property containing a tank bottoms sludge disposal pit (BS pit) which was accessible to the public. The MARCO Site was often used as a playground for neighborhood children, and it has been reported that least one child fell into the BS pit, which was measured to be eight feet deep.

In late 1994 the EPA conducted an Immediate Removal Action at the site when it was discovered that hazardous materials, including trichloroethene, asbestos, and mercury existed onsite and were readily accessible to the public. The Removal Action addressed only the accessible hazardous materials. Numerous attempts by KDHE and the EPA to involve the site property owners in site cleanup and remediation were all unsuccessful. Past operations of the former facility were determined to be defunct or bankrupt. Sampling conducted on the MARCO Site in May 1996 by KDHE personnel indicated continued contamination of ground water by gasoline constituents, and soil samples indicated the presence of PCBs near a former electric transformer stand.



*Bottom sludge pit, this one up to 8 feet deep.*



*Oil stained soil.*



*Storm water collection pits.*

Metal salvage by the refinery property owner was halted in 1996 when KDHE discovered improper disposal of petroleum wastes into a Class II disposal well, and burning of tank contents onsite. Several different salvage contractors operated at the site and onsite waste burning, tank and piping spills, and accidental fires were a continuing problem.

### Solution:

In 1998 the EPA received \$3,000,000 from the US Coast Guard-administered Oil and Petroleum Act to clean up the site. Since the funds were focused entirely on the cleanup, the KDHE State Water Plan Contamination Remediation Program was requested to provide assistance by funding construction of a fence to ensure security at the site and reduce public risk. A chainlink fence was constructed along the west, unfenced, side of the site property, including the BS pit. The cleanup then proceeded with the removal of thousands of tons of contaminated soil, piping, tanks, BS pit contents, and other materials. The property was subsequently purchased by a nearby cement company. Continued groundwater monitoring offsite by KDHE indicates that groundwater contamination remains. The State Water Plan will address this problem in the near future.

### Benefits:

- 189,678 tons of contaminated soil removed.
- Approximately 25 acres of property available for reuse.