

Kansas Department of Health and Environment

Bureau of Environmental Remediation/Remedial Section

State Water Plan Contamination Remediation Program



Latimer

Background:

The Latimer Ground Water Contamination Site first came to the attention of the Kansas Department of Health and Environment (KDHE) in 1989 when trichloroethylene (TCE) and carbon tetrachloride were detected in a water sample collected from a private well. A 1996 investigation of the nearby Tri-County Airport site also indicated the presence of TCE contamination in ground water. Twenty-five domestic wells were sampled in 1997 during a KDHE Preliminary Removal Evaluation of the Tri-County Airport site. Carbon tetrachloride was detected in eight of the private wells, all in the Latimer area. Ethylene dibromide (EDB), a contaminant commonly associated with carbon tetrachloride, was found in seven of those eight wells. TCE was detected in all wells sampled in Latimer and the source area was identified as the Tri-County Airport Site. Investigations conducted at the Tri-County Airport site have revealed that both the Department of Defense and Beech Aircraft (currently Raytheon) had operated facilities at the site. The carbon tetrachloride and EDB contamination have been determined to originate from the former Latimer Co-op.

Solution:

As an orphan site with no viable responsible party, the Latimer Ground Water Site was assigned to the KDHE.



Contamination area and drilling operations.



Latimer groundwater contaminant site.

Using Emergency Response funds, bottled water was immediately supplied to all water well users impacted with carbon tetrachloride and EDB until whole-house treatment systems could be designed to remove the volatile organic compounds from the wells. The type of treatment system selected as the most effective to remove these volatile organic compounds was granular activated carbon (GAC) filters. Ultraviolet lights were included in the design for sterilization and bacterial purification, and a meter was installed to track the water usage through the filter. Once the systems were installed KDHE began a year-long, monthly monitoring of the GAC filters to establish their effectiveness. The water meters proved to be essential in estimating the replacement period for the GAC filters. The first filter system began to indicate breakthrough of contaminants in six months after 40,000 gallons of water use. These filters were then replaced by KDHE.

Due to the extent of ground water impacts within the Latimer area, USEPA, KDHE, and Hodgdon Powder dedicated funds to construct a water supply line from Herington to Latimer. The water line will provide a constant source of unpolluted drinking water to Latimer residents and will further reduce the potential for consumption of contaminated well water. Water line construction was completed in the fall of 2005.

Benefits:

- **26 households provided with safe drinking water**