

## History

The Charlie Burch site history dates back to the 1950s. In the 1960s an independent hauler used the site to bury wastes collected from several manufacturers including Rohm and Haas Texas Inc. (Rohm and Haas). The site was closed according to regulations in 1983. In 1996, after several years of study, Rohm and Haas enrolled the site in the Texas Voluntary Cleanup Program. Since then, Rohm and Haas has worked closely with the state to move toward final groundwater cleanup.

## What's the problem?

Investigations have revealed that groundwater moving south-east from the site (see Figure 1) contained a compound called 1,2-dichloroethane (DCA). DCA is found in a narrow band between approximately 25 feet and 65 feet beneath the surface.

DCA does not pose any risk to people in the area. Extensive testing shows that there is no DCA either at the surface or within about 25 feet of the surface. Drinking water is provided by public utilities from outside the area and is extensively tested, or comes from domestic wells several hundred feet deeper than where the DCA is located.

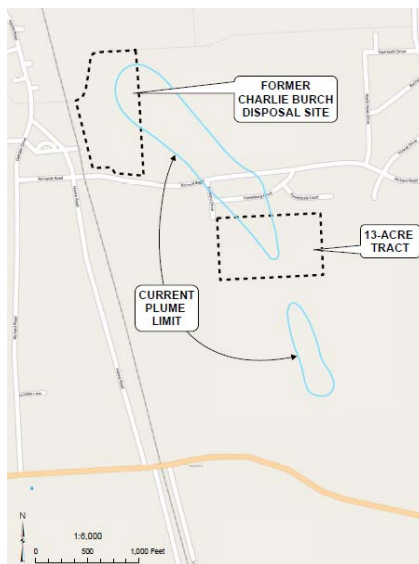


Figure 1  
Location of Site and Plume (Aug 2010)

## What's been done?

In 1999, approximately 91,000 cubic yards of material were excavated and hauled away to licensed secure disposal sites. The excavated area was backfilled with clean clay-rich fill, graded, and capped with low permeability soils.

Rohm and Haas constructed two pump-and-treat (P&T) systems to remove DCA-containing groundwater from the underlying aquifer. The P&T systems limit the further migration of DCA in the aquifer. One system is located at the Former Disposal Site, and the other is located on a 13-Acre Tract south of Forestburg Drive. Since start-up of the Former Disposal Site system in 2001 and the 13-Acre Tract system in 2006, the combined P&T systems have removed and cleaned over 170 million gallons of groundwater (see Figure 2).

## What's next?

The existing P&T system in the Former Disposal Site consists of five pumping wells installed in the uppermost groundwater-bearing sand located at depths of 65-feet below surface and one pumping well installed in the next deeper sand. A review of the existing system operations indicated on-going maintenance issues with the recovery pumps. During the first half of 2011, the recovery system was re-designed to use a different type of groundwater recovery pump. Subsurface investigations that have occurred since installation of the original recovery wells have provided additional information on the local geology (e.g., permeability, sand thickness). This information was used to determine placement of new recovery wells in the uppermost sand unit to improve system performance. These replacement recovery wells were moved closer to the eastern property boundary of the Former Disposal Site where groundwater would naturally flow away from the site. Computer modeling of the new P&T system indicates that the capture of the on-site DCA groundwater plume will be enhanced, thereby further limiting off-site movement of DCA-containing groundwater.

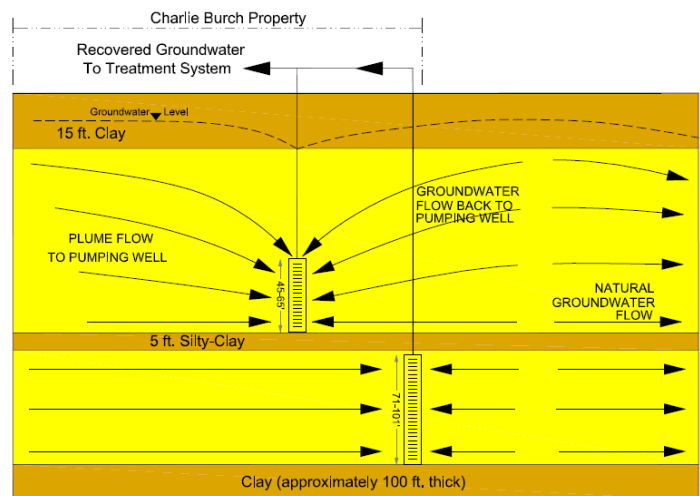


Figure 2  
Schematic of Groundwater Pump-and-Treat Process

The current schedule is to install the replacement P&T system by the end of 2011. The new P&T system in the Former Disposal Site, along with continued use of the 13-Acre Tract system are key components of response actions intended to expedite clean up of the DCA plume. For other portions of the plume not addressed by P&T systems, implementation of enhanced anaerobic bio-remediation (EAB) is planned (discussed in Fact Sheet No. 1).

## Additional Information

More information on the Charlie Burch site can be obtained online at <http://www.charlieburchproject.com/>.