

**Ewan Property**  
**New Jersey**  
EPA ID#: NJD980761365

**EPA REGION 2**  
**Congressional District(s): 03**  
Burlington  
Wallingford Way Shamong Township

NPL LISTING HISTORY  
Proposed Date: 9/1/1983  
Final Date: 9/1/1984

## Site Description

The Ewan Property Site consists of 43 heavily wooded acres in Shamong Township. The Site is located within the Central Pine Barrens portion of the New Jersey Pinelands. The property is surrounded by forest, agricultural land, and residential areas. Groundwater within one mile of the site is used for domestic water supply, and for agricultural irrigation. Several residential housing developments containing approximately several hundred single family homes are located within one mile of the site, all of which rely on private wells for potable water. An intermittent stream and extensive wetlands are located immediately adjacent to the Site.

Site investigations revealed that during the early to mid-1970s, between 500 to 8,000 drums containing hazardous industrial wastes were emptied or buried on-Site in trenches and pits which were subsequently backfilled with soil. Soil and groundwater sampling indicated the presence of volatile organic compounds (VOCs), semi-volatiles, and metals in Site soils and groundwater. An extensive network of both on and off-site groundwater monitoring wells indicates that groundwater contamination has not migrated beyond the Site boundaries. Site activities are ongoing.

Site Responsibility: This Site is being addressed through Federal, State and potentially responsible parties' (PRPs) actions.

## Threat and Contaminants

Site soils and groundwater were originally contaminated with a variety of volatile organic compounds (VOCs), including acetone, toluene, xylene and trichloroethylene; semi-volatile compounds (SVOCs), and some heavy metals, including arsenic, chromium and aluminum. EPA has determined that drinking contaminated groundwater could pose a public health threat. Site groundwater also poses a threat to the New Jersey Pinelands which is a sensitive ecosystem and a major groundwater recharge area. However, at present, only residual soils and groundwater contamination remain. No site contaminants have been detected in off-site groundwater, residential or public water supply wells. A fence was installed in 1988, to keep trespassers and children from becoming exposed to Site contaminants. There are two aquifers below the site that are linked. Local groundwater flows in a southerly direction.

## Cleanup Approach

The site is being addressed in two Operable Units (OUs). OU1, which is completed, addressed the removal of buried drums and moderately to heavily contaminated soils. OU2, which is ongoing, currently addresses the cleanup of Site groundwater and residually contaminated soils.

### Response Action Status

Immediate Actions: at EPA's direction, the PRPs installed a security fence in 1988, to keep trespassers and children from becoming exposed to Site contaminants.

OU1 Buried Drums and Soil: In 1988, EPA selected the cleanup methods to be used to remove contaminated soils and buried drums. Construction of an access route to the Site was completed in November 1992. As a result of putting in the access road, a small wetland area had to be destroyed and was created elsewhere on site. During the design phase for drum removal, EPA learned the bulk of soil contamination was closely associated and intermixed with the original drum disposal areas. In July 1994 EPA modified the first cleanup phase to include excavation of drums as well as moderately to highly contaminated soils. EPA also modified the second remedial phase to deal with groundwater cleanup and residually contaminated soils. For OU1, cleanup activities included: excavation of drums and associated soil; evaluation

of wastes to determine proper treatment/disposal methods, and off-Site treatment and/or disposal of all waste material and soil determined to be inappropriate for incineration at permitted facilities. The drums and soils excavation work was completed in July 1995.

OU2 Ground water: In 1989, the cleanup plan covering contaminated groundwater and lesser contaminated soil was selected by EPA. The selected groundwater remedy is to extract, treat, and discharge the treated effluent to the upper sand aquifer at the site, and as part of the remedy, residual soils contamination would be remediated by flushing. The design of the groundwater remedy was completed in late 1998, followed by the construction of the remedial extraction, treatment and recharge system. In September 1999, treatment system operations began, and through approximately June 2006, the system pumped, treated and reinjected approximately 200,000 gallons per day of contaminated groundwater.

In early 2003, the PRPs began evaluating the extraction and treatment system for the purpose of more rapidly achieving the final cleanup goals. To this end, several minor modifications of the extraction and recharge basin flows were implemented. In the spring of 2004, an identified soils hot spot area consisting of approximately 1,000 cubic yards, was excavated for off-site disposal. In the Fall of 2004, the PRP's also implemented a pilot test program for hot spot treatment of soils and groundwater using a technology called dual phase extraction/soil vapor extraction (DPE/SVE). The results of several years of this study indicated that the DPE/SVE technology is effective in treating Site soil hot spots. In June 2006, the pilot study was expanded to remove elevated VOC and SVOC contamination from the identified selected soils hot spots, and the full scale extraction, treatment and recharge system has been turned off during the testing period to monitor the results. The full scale remedial groundwater treatment system remains operational and can be turned on with 48 hours notice. To date, approximately 465,205,526 gallons of contaminated water have been treated.

Site Facts: EPA has identified approximately 30 PRPs. Nineteen parties were ordered by EPA to remove contaminated materials and buried drums. The parties completed the removal of the buried drums and contaminated soil in mid-1995 under the terms a Unilateral Administrative Order. A Unilateral Administrative Order for Operable Unit Two was issued in May 1995, for the design, construction and cleanup phase of work. The PRPs are currently operating the DPE/SVE treatment system, and conducting routine operation and maintenance (O&M) activities, which include environmental and groundwater sampling. The PRPs performed all the above outlined activities under EPA and NJDEP oversight.

## Cleanup Progress

Installation of a security fence has reduced the potential for contact with contaminants while the chosen remedies are being implemented. Approximately 3,800 buried drums and their contents, were excavated and removed for off-Site disposal. In addition, approximately 22,000 cubic yards (or 14,000 tons) of associated moderately to highly contaminated soils were removed. A small on-Site wetland area has been restored. The construction of the groundwater extraction, recharge and treatment system was completed in late 1998. Full scale operation of the system commenced in March 1999. In September 1999, the system entered the long term operation and maintenance phase. It is anticipated that the remedial system will continue to operate for approximately 5 to 6 more years, or until contaminated groundwater is restored to health based levels. In addition, in the spring of 2004, the PRPs excavated one soils hot spot area of approximately 1,000 cubic yards for off-site disposal. Since 1997, the groundwater treatment and DPE/SVE systems have removed over 462,180,273 gallons of groundwater, and removed over 488 pounds of contaminants.

In 2006, the latest round of the existing off-site well sampling program was conducted at select off-site residential wells, including a township ball field well. The results indicated that no site related contaminants were impacting any of the off-site wells sampled. In order to supplement the extensive on-site groundwater monitoring well network, beginning in the early 1990s a limited off-site well sampling program has been implemented on a five (5) years basis, in an area approximately downgradient of the site, to help ensure that site related contaminants do not impact local potable water supplies.

In the Fall of 2004, PRPs began implementing a pilot program to test a DPE/SVE system, involving both liquid and vapor extraction technology, on several selected hot spot areas known to contain higher levels of residual soil contamination. At the same time, as part of the pilot test, the full scale treatment system was turned off to evaluate the efficiency of the DPE/SVE system. The DPE/SVE pilot system continues to operate, removing VOC and SVOC contamination from the targeted soils hot spots. The full scale extraction, treatment, and recharge system batch treats contamination extracted by the DPE/SVE system, and remains in stand-by mode during the pilot testing period. The full scale remedial system remains operational and can be turned on with 48 hours notice.

## Site Repositories

If you have any questions or concerns regarding on-going or future activities at the Ewan Property Site, please contact: Stephen Cipot, Remedial Project Manager USEPA Region 2 290 Broadway New York, NY 10007-1866 (212) 637-4411 (office) (212) 637-4429 (fax)

Public review and information repositories are located at the EPA Region 2 office above, and at the following location near the site: USEPA Region 2 290 Broadway Records Center, 18th Floor New York, NY 10007-1866

Municipal Clerks Office Shamong Township Municipal Building 105 Willow Grove Road Shamong, New Jersey 08088

Additional Links: Record of Decision Abstract