

**Emergency Cleanup Actions and Environmental Investigation at the Parklawn Shell  
11800 Parklawn Drive, Rockville, Montgomery County, Maryland  
MDE Case No. 2006-0124-MO1**

The Maryland Department of the Environment (MDE), Oil Control Program (OCP), has been overseeing cleanup activities at Parklawn Shell after an initial report (August 8, 2005) that gasoline product was observed in a below-grade tank top sump while contractors were conducting tests on the underground storage tank (UST) system to comply with Maryland regulations. This leak reportedly occurred from a faulty functional element a device located below ground on the gasoline pump in the tank sump.

After conducting a detailed review of the station's inventory records, MDE-OCP determined that approximately 29,665 gallons of gasoline was released from one of the USTs, which stored regular-grade gasoline. Discrepancies in the inventory records showed that the release began on June 13, 2005 with an average daily loss of 400 gallons over a 58-day period. Although this tank has a 10,000-gallon capacity, gasoline was periodically delivered between the time the release occurred and when it was discovered.

The MDE-OCP directed Shell to begin recovery operations of the gasoline by installing two monitoring wells in the source area of the tank field with two additional wells on the perimeter of the property to assess groundwater migration. In response to this emergency situation, the Montgomery County Fire Department and the Montgomery County Department of Environmental Protection were also mobilized to the site to assist the MDE in monitoring for vapors and gasoline conditions to ensure the protection of human health and the environment. As a precautionary measure, sewer and storm drain manholes were vented, air blowers were placed along strategic points of the sewer lines to prevent vapor buildup, and booms were placed at a storm water outfall. By August 13, 2005, approximately 963 gallons of product had been recovered from the two on-site wells and sheen was periodically being observed in the storm water outfall.

On August 16, 2005, Shell voluntarily closed gasoline retail activities at the station and all remaining petroleum products were pumped from the six fiberglass-reinforced plastic USTs [three 10,000-gallon gasoline (regular-, mid-, premium-grade); a 1,000-gallon heating oil; and a 550-gallon used oil]. During the installation of a third well in the tank field area on August 18, 2005, the sanitary sewer line was damaged and, as a result, Washington Sanitary Suburban Commission responded to the site to make the necessary repairs. Again, emergency crews from both the MDE and Montgomery County were mobilized to the site. Conditions were monitored and determined to be safe for surrounding occupants and for cleanup activities to continue. On August 22, 2005, the MDE approved the installation of eight additional monitoring wells to enhance gasoline recovery and to evaluate hydrogeological conditions.

To date, approximately 14,979 gallons of gasoline has been recovered from the Parklawn Shell site. Using vacuum trucks, 168,000 gallons of fluids has been recovered. The temporary system treated 1,054,655 gallons of fluids until it was replaced by the permanent system in December 2005. Almost 1,000,000 gallons of fluid has been treated by the permanent system as of mid June 2006. Although a slight sheen was observed in the nearby storm water outfall that discharges to Rockville Creek initially, this was not observed after October 6, 2005. Stream sampling conducted on August 30, 2005 and June 26, 2006 continued to show decreasing concentrations of dissolved petroleum constituents at the outfall [benzene from 136 to 1.7 ppb and methyl tertiary-butyl ether (MTBE) from 13,300 to 52 ppb]. During the September 26, and December 2, 2005 stream sampling events, samples collected 1,500 feet downstream showed benzene and MTBE below the Department's regulatory levels. The June 26, 2006 sampling event collected 1,000 feet downstream found benzene at the non-detect level and MTBE at 28 ppb.

The station was closed during the initial stages of gasoline recovery, but reopened in May 2006. Currently, there are eleven (11) monitoring wells on-site and eight (8) off-site. The permanent system received three-phase power hookup from PEPCO in April 2006, which will allow the system to be run at full capacity. At this time, final County permits and equipment issues are slowly being resolved. The MDE-OCP approved the Corrective Action Plan for the site on February 10, 2006. There were a number of questions and comments returned with this approval and Shell submitted a Corrective Action Plan Addendum addressing those issues. The Corrective Action Plan Addendum was approved April 21, 2006. In order to address potential offsite exposure to site contaminants, Shell submitted a Soil Gas Sampling Plan. This Soil Gas Sampling Plan was approved on March 29, 2006 and will involve quarterly sampling of the vapor points located at the down-gradient property boundary, the installation of three more sub-slab points at White Flint Children's House, and indoor and background air sampling. The Soil Gas Sampling Plan was amended in August 2006 and the new Soil Gas Sampling Plan was approved by MDE in September 2006.

When the permanent system has completed the final steps to be run at full capacity, it will be possible to collect information on well and soil vapor capture. This information will be used to prepare a separate report and will be used as a basis for installing additional monitoring wells to define the extent of contamination and to evaluate and refine operation of the system. This information should be ready for submission to the Department in late 2006.

The MDE-OCP continues to supervise cleanup actions at Parklawn Shell with the support of various local jurisdictions. The utility lines and surrounding buildings are regularly monitored for gasoline vapors. Since October 5, 2005, as part of the air monitoring efforts, the nine sanitary/sewer manholes are frequently screened for vapors; and levels have been non-detect. An air blower was running on the storm drain located in front of the station and the emissions receive carbon treatment. This system ran until the permanent system was able to handle this function. Indoor and outdoor air samples collected from nearby buildings on September 1-2, 2005 showed levels close to ambient conditions. In addition, four (4) soil gas points were installed along the property boundary of the service station. Soil gas samples were collected on September 19, 2005 and found very low levels of petroleum constituents in soil gas. Three additional sub-slab points will be installed in White Flint Children's House. Fourth Quarter 2006 samples will be collected and reviewed from the soil gas and sub-slab points as well as indoor and background air quality.

At this time, the Department is not aware of any conditions that would preclude the occupancy of surrounding premises during these cleanup efforts. There is not a threat to drinking water since both the Parklawn Shell property and surrounding properties are served by public water.

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**Disclaimer:**

The intent of this fact sheet is to provide the reader a summary of site events as they are contained within documents available to MDE. To fully understand the site and surrounding environmental conditions, MDE recommends that the reader review the case file that is available at MDE through the Public Information Act. The inclusion of a person or company's name within this fact sheet is for informational purposes only and should not be considered a conclusion by MDE on guilt, involvement in a wrongful act, or contribution to environmental damage.