Maryland Department
of the Environment

FACTS ABOUT:
SHEETZ #177

ENVIRONMENTAL INVESTIGATION
SHEETZ # 177
3281 MAIN STREET, MANCHESTER
CARROLL COUNTY, MARYLAND
MDE CASE NO. 2006-0056CL (OPEN)

SITE LOCATION

The Maryland Department of the Environment (MDE), Oil Control Program, in coordination with the Carroll County Health Department, is evaluating the impact of dissolved phase petroleum contamination in groundwater at Sheetz #177. The Sheetz #177 store has been an active gasoline retail facility since December 1990 when the underground storage tank system was installed. The system is comprised of four cathodically protected tanks including: one 12,000-gallon gasoline; one 10,000-gallon gasoline; one 6,000-gallon gasoline; and one 6,000-gallon kerosene. The storage tanks utilize Stage I and Stage II vapor recovery systems. Sheetz #177 is located in a designated wellhead protection area.

SITE HISTORY

In August 2005, Sheetz completed a Limited Phase II Site Assessment and identified an environmental problem at the station following the receipt of groundwater sampling results from the three newly installed groundwater monitoring wells. Both methyl tertiary-butyl ether (MTBE) and benzene were detected in the monitoring wells at concentrations up to 58,000 and 36 parts per billion (ppb), respectively. Although the site and surrounding commercial and residential properties are served by municipal water, the well field for the Town of Manchester is located within a half-mile of Sheetz #177. In February 2007, the MDE-OCP was notified of a private drinking water well impact at a nearby residential property (3017 Walnut Street). The home was retrofitted with a granular activated carbon filtration system. In June 2007, the property at 3017 Walnut Street was connected to municipal water and the filtration system was removed. The former private drinking water well at 3017 Walnut Street continues to be used as a groundwater monitoring point. One other private drinking water well located nearby was sampled on a regular basis and determined not to be impacted by the petroleum contamination. Over the course of this groundwater investigation, Sheetz also collected samples from four of the nearby municipal supply wells and confirmed that they remain non-detect for petroleum constituents. MTBE has been identified as the contaminant of concern. In May 2008, groundwater samples collected from the monitoring well network detected MTBE at a maximum concentration of 190,000 ppb. In August 2011, the MDE and Sheetz signed an Administrative Consent Order to ensure timely cleanup of the site and the protection of State groundwater.

ENVIRONMENTAL INVESTIGATIONS AND ACTIONS

There are 37 monitoring wells located at the site for the purpose of evaluating the extent of the dissolved phase contaminant plume. Since December 2010, the revised Corrective Action Plan has involved the extraction and treatment of petroleum impacted groundwater. To date, more than 16.4 million gallons of groundwater has been treated through the remediation system. A significant quantity of the treated water has been discharged back into the subsurface via one of two infiltration galleries constructed specifically to conserve the groundwater resource during remedial activities. Subsequent quarterly groundwater sampling events have documented a decreasing trend in dissolved phase petroleum contaminants. In December 2013, groundwater sampling results detected a maximum MTBE concentration of 1,470 ppb in the on-site monitoring well network and confirmed that further migration of petroleum contamination is not occurring. The town's municipal supply wells remain non-detect for petroleum constituents.

CURRENT STATUS

In March 2014, after review of the time series groundwater data, the MDE approved temporary deactivation of the groundwater remediation system and implementation of four quarters of post remediation sampling to monitor for rebounding contaminant concentrations. The inactive remediation system will remain on-site until MDE determines it is no longer needed for remedial activities. Sheetz will continue regularly scheduled sampling of the monitoring well network and the four nearby municipal supply wells as part of post-remedial monitoring. Progress reports will be submitted to MDE and the remediation system will be reactivated as necessary.

FUTURE UPDATES

- Postings on www.mde.maryland.gov
- File available at the MDE Headquarters

CONTACTS

- Maryland Department of the Environment – Oil Control Program: 410-537-3442
- Carroll County Health Department: 410-876-1884
- Sheetz: 1-800-487-3444

DISCLAIMER

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