



Maryland Department of the
Environment

Facts About:

Manor Road Contamination (MD1522)

Site Location:

The Manor Road Well Contamination site is confined to a small geographic area in Baltimore County north of the town of Jacksonville. The area is near the intersection of Turnberry Court and Manor Road, which is a section of Manor Road between Stansbury Mill Road and Jarrettsville Pike.

Site History:

On January 25, 2010 a Manor Road resident contacted the Maryland Department of the Environment (MDE) concerning the detection of carbon tetrachloride in a residential well. The owner sent samples of water from the well to a private laboratory for testing to determine if the gasoline additive methyl tert-butyl ether (MTBE) was present. This action was taken because MTBE was discovered in several nearby wells. The sample results identified the presence of carbon tetrachloride and MTBE at a level of 6.7 parts per billion (ppb) and 1.3 ppb, respectively. The Baltimore County Groundwater Section was alerted to the results and collected confirmation samples to verify the presence of the compounds found in the well. A second well on an adjacent parcel was also tested and found to contain carbon tetrachloride at a level of 7.5 ppb. Carbon tetrachloride is a chlorinated solvent used as a degreasing agent and fire extinguisher fluid several decades ago. Both household and commercial applications used the chemical until it was replaced by safer alternatives. Like other chlorinated solvents, it is heavier than water and only slightly soluble in that medium.

The surrounding area is mainly rural/residential with single family homes intermixed with small woodlots and farms. The only industrial presence in the immediate area is a set of microwave towers belonging to the Baltimore Gas and Electric Company and an adjacent Columbia Gas pipeline station, which is located just north of the two residential wells near the intersection of Turnberry Court. Both of these facilities date to the early 1950s.

Environmental Investigations:

MDE's Controlled Hazardous Substance Enforcement Division (CHS Enforcement Division) coordinated its preliminary investigation with the Oil Control Program (OCP). OCP had completed an investigation in the area in the fall of 2009 related to the presence of MTBE in a residential well several hundred yards west of the impacted homes on Manor Road. The additional samples collected by OCP did not detect the presence of carbon tetrachloride. As a result, the CHS Enforcement Division is focusing its effort on the area immediately surrounding the point of detection. Additional samples collected by MDE on February 4, 2010 determined that one additional well on the east side of Manor Road at the intersection of Turnberry Court contained a trace of carbon tetrachloride at 1.7 ppb. The current Maximum Contaminant Level (MCL) for public drinking water supplies is 5 ppb. In the case of carbon tetrachloride, the safe level for inhalation from showering is 3.24 ppb, which in this case is less than the MCL. Both levels assume a risk based on a lifetime exposure.

In response to the detection of contaminants in groundwater in excess of the MCL, MDE has installed



carbon filtration units at the affected homes and is continuing to check additional wells in the area. Currently, the problem appears to be confined to just the small area near the intersection.

Current Status:

MDE has continued to maintain the carbon treatment units installed in the two affected homes and periodically checks surrounding wells to ensure that they remain safe. Since the discovery of the carbon tetrachloride in 2010, levels in the affected homes have decreased by more than half. The Department will continue to monitor this situation until levels remain below any level of concern.

