

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

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## Drinking Water Well Sampling and Environmental Investigation Hillcrest Subdivision (Hampstead) Carroll County, Maryland

Sites:	Location	Case Nos.	Status
Hess Property	4131 Hillcrest Avenue	2004-0519CL	Open
Higgs Molloy Property	1309 Hillcrest Street	2004-1154 CL	Open
Sollers Property	1307 Summit Street	2004-1298CL	Closed
Hillcrest-Hampstead Groundwater Investigation	-----	2005-0261CL	Open
Shell Jiffy Mart	1155 South Main Street	1991-0240CL	Closed
		2005-0272CL	Open

The Maryland Department of the Environment (MDE) is evaluating the impact of methyl tertiary-butyl ether (MTBE) to several domestic wells in the Hillcrest subdivision of Hampstead located in Carroll County. Since September 2003, the Department's Oil Control Program (OCP) has been coordinating this investigation with the Carroll County Health Department (CCHD). Currently there are four open cases for the study area.

The Department currently has four open cases that may be related to petroleum impacts in the Hillcrest subdivision. In September 2004, the MDE-OCP opened its groundwater investigation under *Case No. 2004-0519CL* in response to elevated MTBE levels (290 ppb) at 4131 Hillcrest Avenue and *Case No. 2005-0272CL* for the Shell Jiffy Mart located at 1155 South Main Street. This active gas station has been in operation for over twenty (20) years. At the time of this writing the facility's UST systems were in regulatory compliance. Other potential sources evaluated included an improperly abandoned gasoline tank, an out-of-service heating oil tank and an old active heating oil tank at two residences. The Department was involved in the removal of these tanks, which resulted in two additional cases *Case Nos. 2004-1298CL* and *2004-1154CL*.

MTBE is a fuel additive commonly used to reduce carbon monoxide and ozone levels caused by auto emissions. There is no national regulatory standard for MTBE in drinking water. In 1997, the U.S. Environmental Protection Agency (EPA) issued an advisory for MTBE based on taste and odor of 20 to 40 parts per billion (ppb). Although the EPA has not established a regulated Maximum Contaminant Level (MCL) for MTBE, the MDE has adopted an action level of 20 ppb.

Between September 2003 and June 2007, sixty-six (66) domestic wells have been sampled and 10 residential properties have detected MTBE above the State's action level of 20 ppb. Initially at the start of this investigation the Department maintained granular activated carbon (GAC) treatment systems on nine (9) properties. Since April 2007, the Department has been maintaining six (6) GAC treatment systems in the Hillcrest neighborhood. Due to MTBE concentrations consistently being below the State's action level, the Department has discontinued the maintenance of GAC treatment at three (3) properties. The property owner of 4131 Hillcrest Avenue maintains a GAC treatment system for the rental units.

- Sixty-two (62) private drinking water wells in the Hillcrest-Hampstead community have been sampled as part of the investigation. Below is a summary of the original sampling data.
  - 24 wells - No detectable levels of MTBE
  - 22 wells - Detectable levels of MTBE below 5 ppb
  - 4 wells - Detectable levels of MTBE between 5 and 10 ppb
  - 6 wells - Detectable levels of MTBE between 10 and 20 ppb
  - 10 wells - MTBE detected at or above 20 ppb. Concentrations reported are pre-treatment or raw samples.
    - GAC units currently maintained by MDE-OCP
      - 4127 Hillcrest Ave MTBE at 90.2 ppb (10/31/03); MTBE at 38 ppb (01/31/07)
      - 1302 Taylor Street MTBE at 40 ppb (12/04/03); MTBE at 18 ppb (01/31/07)
      - 1303 Summit Street MTBE at 65.7 ppb (12/04/03); MTBE at 39 ppb (01/31/07)
      - 4138 Hillcrest Ave MTBE at 173 ppb (10/31/03); MTBE at 51 ppb (01/31/07)
      - 1308 Taylor Street MTBE at 31.2 ppb (01/29/04); MTBE at 32 (01/31/07)
      - 1309 Taylor Street MTBE at 33.5 ppb (02/26/04); MTBE at 20 ppb (03/26/07)

- GAC unit maintained by property owner at this rental property
  - 4131 Hillcrest Ave. MTBE at 290 ppb (09/04/03); MTBE at 140 ppb (11/16/06)
- GAC units previously installed and maintained by MDE-OCP
  - 1306 Taylor Street MTBE at 44.3 ppb (01/02/04); MTBE at 6 ppb (03/26/07)
  - 4201 Upper Beckleysville Rd MTBE at 24.4ppb (05/10/04); MTBE at 6ppb (03/26/07)
  - 4203 Upper Beckleysville Rd MTBE at 20.5ppb (03/25/04); MTBE at 5ppb (03/26/07)

**Hess Property – 4131 Hillcrest Avenue (Case No. 2004-0519CL open)**

In June 1984, the property was purchased by Mr. Wayne Hess. This residential home is currently occupied by tenants.

- September 10, 2003: MDE-OCP visited the Hess property (4131 Hillcrest Ave.) in response to a water taste complaint from a tenant to a building inspector of Carroll County. MDE observed a new aboveground storage tank (AST) above an open fill pipe for an underground storage tank (UST). CCHD collected a confirmatory sample from the on-site well.
- September 18, 2003. Notice of Violation issued by Carroll County to Wayne Hess – rental property owner of 4131 Hillcrest Avenue regarding the safety of the water supply at this rental property; requesting that all leaking USTs be removed and defective conditions cited repaired (i.e. plumbing, mold, electrical circuits, damaged floors)
- September 23, 2003. Sampling results for 4131 Hillcrest Ave. property faxed from CCHD to MDE.
  - September 8, 2003. MTBE detected at 290 ppb and tertiary amyl methyl ether (TAME – an unregulated compound) at 2.82 ppb.
- October 1, 2003. Sample results from the Hess property (4131 Hillcrest Ave.) received by MDE-OCP.
- October 3, 2003. MDE-OCP letter to the property owner at 4131 Hillcrest (Hess). Based on domestic well sample results above the MDE action level of 20 ppb, the Department required the following:
  - Property owner to provide acceptable drinking water to tenants;
  - Remove the suspected improperly-abandoned UST within 30 days;
  - Conduct an environmental assessment.
- October 6, 2003. MDE-OCP confirmed UST removal but a representative was not on-site for the tank removal.
  - One (1) post excavation soil sample collected did not detect any TPH-DRO (*data received 10/08/03*).
    - Soil sample non-detect for petroleum constituents.
    - Property owner temporarily provided alternative drinking water source which was a tank trailer containing water (*MDE field confirmed 11/05/03*).
- October 21, 2003. MDE-OCP received a copy of the CCHD letter dated 10/15/2003 notifying tenant at the Hess property (4131 Hillcrest Ave.) about MTBE in the domestic well.
- November 5, 2003. MDE-OCP conducted a reconnaissance of the property.
  - A tanker of potable water was staged on-site to provide water to the tenants
  - The UST was removed and the area regarded.
  - Drinking water sample collected.
- November 25, 2003. MDE-OCP received sample results from the State Lab collected on 11/05/2003.
- December 10, 2003. MDE-OCP and CCHD met on-site with the property owner (4131 Hillcrest Avenue):
  - Owner reported that gasoline UST had been removed when owner had purchased property
  - An aboveground AST currently serve the heating needs to the property
  - Owner contend that property is served by municipal water
  - MDE required the following:
    - Immediately install carbon filtration systems to 4127 and 4138 Hillcrest Avenue;

- Take over sampling of domestic wells from CCHD;
  - Complete site assessment;
  - Pressure test copper lines;
  - Submit results to MDE within 10 working days.
- December 19, 2003. MDE-OCP received CCHD letter to Hess property owner (4131 Hillcrest avenue) dated 12/17/2003 regarding the recent installation of a carbon treatment system at the rental property. CCHD required the following:
    - Monthly sampling of the treatment system;
    - Collect samples before and between the carbon filters;
    - Maintenance schedule for replacement/rotation of carbon tanks.
  - January 7, 2004. MDE-OCP issued a Notice of Violation (NOV-2004-037) to property owner of 4131 Hillcrest Avenue. MDE required the following:
    - MDE will install treatment systems on the two nearby residents (4127 and 4138 Hillcrest Avenue) until a responsible party is identified;
    - Complete an environmental assessment within 30 days;
    - Pressure test copper feed and return lines under the concrete flooring between the furnace and former UST;
    - Continue to provide tenants with potable water from the water treatment system installed on-site.
  - January 23, 2004. MDE-OCP received, via facsimile, soil sampling results for 4131 Hillcrest Ave.
    - 3 soil samples collected beneath the concrete flooring of the former UST line.
    - Soil samples analyzed for TPH/DRO-GRO - non-detect for petroleum constituents (ND)
  - February 12, 2004. MDE-OCP status report for the Hillcrest residence area
  - February 25, 2005. CCHD issued a letter (02/18/2005) to rental property owner - Wayne Hess in response to tenants complaint at 4131 Hillcrest Avenue. One of nine complaints included malfunctioning of the ultraviolet treatment device on the drinking water supply system. CCHD requested to conduct a site inspection by March 1, 2005.
  - October 12, 2005. MDE-OCP conducted a site visit at 4131 Hillcrest Avenue to observe the GAC system in place and to collect a drinking water sample since no samples have been collected from this rental property since 09/2004.
  - October 24, 2005. MDE-OCP received a copy CCHD letter dated 10/18/05 requesting that the property owner – Mr. Wayne Hess arrange for an inspection with CCHD personnel regarding the carbon treatment system.
  - November 1, 2005. MDE-OCP letter to property owner advising of the results of the water samples collected on 10/12/05.
  - January 9, 2006. MDE-OCP personnel on-site with CCHD to observe the collection of a water sample from the drinking water well prior to treatment system.
  - January 10, 2006. MDE-OCP issued a Notice of Violation with Penalty (NOV-2006-207P) to property owner – Wayne Hess requiring the following activities to be completed:
    - The responsibility for properly maintenance of the GAC unit is the responsibility of the rental property owner;
    - Change the carbon tank on the GAC unit because breakthrough had occurred in the mid-filter sample (MTBE – 82 ppb). A copy of the 10/12/2005 drinking water sample collected by MDE was also included and the tenant copied;
    - Submit a *Work Plan* to complete environmental assessment no later than January 23, 2006;
    - Beginning February 13, 2006 sample the drinking water supply well at the rental property;
    - Conduct sample of this drinking water supply monthly.
  - January 20, 2006. Property owner telephoned MDE, he indicated that he would forward all pertinent documentation and will arrange a meeting.

- January 25, 2006. MDE-OCP letter to property owner requiring the submission of any additional documents pertaining to the case and clarifying that the requirements of NV-2006-207P remain in force.
- January 30, 2006. MDE-OCP received from CCHD a copy of the results for the drinking water sample collected on 1/9/06.
- October 2, 2006. MDE-OCP received a copy of the notice from the Carroll County, Bureau of Inspections and Permits indicating the property at 4131 Hillcrest Avenue remains in violation of Carroll County Livability Standards and Construction Codes. Property is required to be inspected by November 1, 2006.
- November 30, 2006. MDE-OCP personnel on-site with property owner and representatives from the CCHD and the Carroll County Department of Permits and Inspections.
  - Property owner required to submit Work Plan within 45 days as stipulated by NV-2006-207P
  - Collect samples from the GAC system (pre-, mid- and post-filtration) on a monthly basis until further notice
- December 21, 2006. MDE-OCP received analytical results for samples collected by private lab at 4131 Hillcrest Ave. on 11/16/06.
  - DW (raw) – MTBE at 140 ppb, TAME at 1.2 ppb
  - DW (post-filter) – non-detect for petroleum constituents

**Higgs/Molloy Property –1309 Hillcrest Street (Case No. 2004-1154CL – open)**

This residential property is served by public water and formerly owned by several private entities.

- December 10, 2003. MDE-OCP personnel on-site to interview property owner at 1309 Hillcrest Street.
  - It is suspected that a gasoline UST may be on the property
  - Test the heating oil tank system
  - Provide documentation that the gasoline UST was removed
- January 7, 2004. MDE-OCP issued a Notice of Violation –NV 2004-036 requiring Higgs and Molloy to implement the following:
  - Remove the gasoline UST located in the front of the garage.
  - Hydrostatically test the heating oil UST system for tightness and submit a copy of the results within 10 days.
- January 29, 2004. MDE-OCP personnel on-site as a follow up to site visit on 12/10/04. No one home at time of site visit.
- February 24, 2004. MDE-OCP received a message that the current property owner has been trying to contact previous property owner to obtain information regarding the ‘properly abandoned UST’.
- March 12, 2004. MDE-OCP on-site in response to a report of an improperly abandoned tank at the property.
- June 21, 2004. MDE-OCP issued Notice of Intent to Higgs/Molloy for assuming control of removal of USTs at 1309 Hillcrest St (*receipt signed 6/24/04*) based on the following rationale:
  - An improperly abandoned UST containing gasoline product was on-site;
  - Petroleum constituents have been detected off-site in close proximity to the subject property;
  - Domestic well impacts have been confirmed in the area.
- September 21, 2004. Realtor for the 1309 Hillcrest Avenue property contacted an MDE representative. Bank foreclosed on the Higgs-Molloy property. Tanks to be addressed as part of the real estate transaction.
- October 4, 2004. MDE-OCP letter to Realtor of the 1309 Hillcrest Street Higgs-Molloy property requiring following:
  - Removal of an improperly abandoned gasoline tank and the tightness test of an active heating oil tank;
  - The collection of samples and the analysis of petroleum constituents

- December 21, 2004. MDE-OCP observed the removal of a 550-gallon improperly abandoned gasoline tank and a 550-gallon heating oil tank from the 1309 Hillcrest Street.
  - The gasoline UST had perforations.
  - Approximately 20 to 40 tons of impacted soils were removed and backfilled with clean material.
- January 24, 2005. MDE-OCP received post-excavation sampling results for the 1309 Hillcrest Street property.
  - Soil samples collected: 3 from the gas tank excavation and 1 from the heating oil tank excavation
    - Gasoline UST: North TPH-DRO - 179 ppm; TPH-GRO 36.1 ppm  
Mid TPH-DRO – 2,250 ppm; TPH-GRO- 411 ppm  
South TPH-DRO/GRO – ND
    - Heating Oil UST: TPH-DRO/GRO – ND; MTBE - 0.225 ppb.
- January 26, 2005. MDE-OCP received a faxed copy of a *Work Plan for Environmental Assessment – January 6, 2005* from Freddie Mac’s contractor for the 1309 Hillcrest Street property.
- January 31, 2005. MDE-OCP received a faxed copy of tank disposal receipt from the contractor for the 1309 Hillcrest Street property.
- February 1-2, 2005. MDE-OCP visited the 1309 Hillcrest Street property to observe tank excavation. Contaminated soils removed from 1309 property and transported to a certified disposal facility.
- February 3, 2005. Telephone discussions between Freddie Mac (holder of the mortgage deed) and MDE concerning the approval of the *Work Plan for Environmental Assessment – January 6, 2005* for the 1309 Hillcrest Street property.
- February 4, 2005. MDE-OCP approved the *Work Plan– January 6, 2005* for the 1309 Hillcrest Street property.
- February 10, 2005. Freddie Mac (mortgage holder) requested clarification on OCP requirements for the property.
  - Fax from Freddie Mac’s contractor with attached letter concerning backfilling the tank excavation.
- March 2, 2005. MDE-OCP issued site status letter to Freddie Mac regarding Higgs/Molloy property (1309 Hillcrest Street) confirming their inculpable person status and clarifying MDE-OCP’s intent to request future access to the property to conduct further site investigation. The approved *Work Plan* for this site was rescinded since the inculpable party did not cause the original release nor did they own or operate the UST systems.
- March 11 & 17, 2005. Copy of email correspondences between Freddie Mac (mortgage holder) and MDE personnel regarding further investigative actions that may occur on the property and liability issues.
- December 9, 2005. MDE-OCP received a letter from the current property owner requesting a closure letter.
  - Settlement on the property occurred on June 16, 2005
- February 6, 2006. MDE-OCP letter responding to the new property owner’s request for case closure.
  - The case will remain open and therefore a closure letter will not be issued at this time;
  - The current property owner is not liable for the past contamination;
  - Additional investigative work may be necessary on the property.

### **Hillcrest-Hampstead Groundwater Investigation (Case No. 2005-0261CL open)**

- October 6, 2003. CCHD faxed sample results for 7 adjacent properties sampled to delineate the scope of the MTBE problem. Lab results mailed by CCHD to property owners on October 10, 2003.
  - September 24, 2003 sample event
- October 15, 2003. MDE-OCP received in the mail the copies of the above sampling results.
- October-November 2003. CCHD resampled several domestic wells and expanded sampling to include an additional property. Lab results mailed by CCHD to property owners on November 17, 2003.
  - October 31- November 30, 2003 sample events
- December 9, 2003 MDE-OCP received copies of sample result letters sent by the CCHD.
- December 23-24 2003. MDE-OCP received faxed lab results from the CCHD for the expanded sampling of domestic wells in the area.
  - December 7-11, 2003 sample event
- December 30, 2003. MDE-OCP initiates action to install carbon treatment systems for two residents with MTBE levels above the Department's action level of 20 ppb.
  - MDE granted the right to assume control for installing a carbon filtration system on both homes.
  - Carbon filtration systems installed at both residence (*circa 01/07-16/04*).
- January 9, 2004. MDE-OCP received faxed lab results from the CCHD for expanding domestic well sampling in the area.
  - December 4-10, 2003 sample event
  - MDE initiated action to install carbon treatment system on two additional residences ( 1302 Taylor & 1303 Summit streets). Treatment systems installed 2/3/04.
- January 12, 2004. MDE-OCP email regarding contamination case evolving in Hampstead.
- January 13, 2004. MDE-OCP received a fax regarding the well at 4138 Hillcrest Ave.
  - Depth 95 ft. pump at 75 ft.
- January 16, 2004. MDE-OCP observed possible UST fill at 1307 & 1311 Summit Street. Site access agreement signed by property owner at 1303 Summit Street.
- January 21, 2004. MDE-OCP faxed results for two municipal wells that serve Hampstead.
- January 21, 2004. Field survey by MDE-OCP staff of UST systems in the area. Visit to the Town of Hampstead to obtain information about well locations. Impromptu meeting with Town manager concerning MDE-OCP investigation into the MTBE problem.
- February 12, 2004. MDE-OCP case status report to date.
- February 19, 2004. MDE-OCP email regarding treatment systems at residential sites.
- February – March 2004. MDE-OCP received Lab results mailed by CCHD to property owners. Lab results faxed to MDE-OCP.
  - January 2-29, 2004 sample events
- April 7, 2004. MDE-OCP received sample results for the USGS well located on Upper Beckleysville Rd.
- April 16, 2004. MDE-OCP received by fax, the results for samples collected by the CCHD in March 2004.

- May 7 and June 10, 2004. MDE-OCP letters to property owners explaining the results of the domestic well water samples collected in April and May 2004 by MDE's contractor.
- July 2004. Lab results mailed by CCHD to property owners. Lab results faxed to MDE-OCP.
  - June 2004 sample event
- July 8, 2004. MDE-OCP letter to property owners explaining the results of the domestic well water samples collected in June 2004 by MDE's contractor.
- August 10, 2004. MDE-OCP letter to property owners explaining the results of the domestic well water samples collected in July 2004 by MDE's contractor.
- August 17, 2004. MDE-OCP letter to property owner explaining the results of the domestic well water sample collected in August 2004 by MDE's contractor.
- August 31, 2004. MDE-OCP received a letter from Hampstead Town Manager regarding water line extension
- September 1, 2004. MDE-OCP received a summary of the results of water samples collected by the CCHD to date.
- September 8, 2004. MDE-OCP received results for water samples collected by the CCHD on 7/28/04.
- September 16 and October 7, 2004. MDE-OCP letters to property owners explaining the results of the domestic well water samples collected in August 2004 and September 2004 by MDE's contractor.
- October 25, 2004. MDE-OCP received results for water samples collected by the CCHD on 9/2/04.
- October 27 and November 12, 2004. MDE-OCP letters to property owners explaining the results of the domestic well water samples collected in October 2004 by MDE's contractor.
- November 29, 2004. MDE-OCP letter to property owner explaining the results of the domestic well water sample collected in November 2004 by MDE's contractor.
- December 3, 2004. MDE-OCP received lab results of 9/23/04 sampling faxed by CCHD.
- January 10, 2005. MDE-OCP letter to property owner explaining the results of the domestic well water sample collected in November 2004 by MDE's contractor.
- January 18, 2005. MDE-OCP letter to property owners explaining the results of the domestic well water samples collected in December 2004 by MDE's contractor.
- January 26, 2005. Public Information meeting with the Hillcrest-Hampstead Communities attended by MDE-OCP and CCHD representatives.
- January 27, 2005. MDE's contractor collected confirmatory drinking water samples prior to the installation of GAC systems on four drinking water wells in the Hillcrest/Hampstead community.
- February 11, 2005. MDE-OCP letter to property owners explaining the results of the domestic well water samples collected in January 2005.
- March 2, 2005. MDE-OCP received the results for a water sample collected by the CCHD on 1/5/05.
- March 16, 2005. MDE-OCP contractor collected water samples to monitor the effectiveness of GAC systems installed on three of the nine private drinking water wells.
  - Samples collected in February 2005.

- April 18, 2005. MDE-OCP issued an update letter to the Town of Hampstead concerning the Hillcrest-Hampstead groundwater investigation.
- May 10 and 17, 2005. MDE-OCP letter to property owners explaining the results of the domestic well water samples.
  - Samples collected in April 2005 by MDE's contractor.
- August 11, 2005. MDE-OCP letter to property owners explaining the results of the domestic well water samples.
  - Samples collected in July 2005 by MDE's contractor.
- August 29, 2005. MDE-OCP received a letter dated 08/25/05 from the Town of Hampstead regarding a September meeting to discuss the annexation of property for the purpose of providing municipal water.
- November 1, 2005. MDE-OCP letter to property owners explaining the results of the domestic well water samples.
  - Samples collected in October 2005 by MDE's contractor.
- November 2, 2005. MDE-OCP update letter to the Town of Hampstead on the status of the groundwater investigation.
  - Continued maintenance of nine GAC systems (plus one at 4131 Hillcrest).
  - Compliance inspection and subsurface investigation at Shell Jiffy Mart.
  - MDE will not consider funding public water connections
- January 3, 2006. MDE-OCP conducted a site investigation of the former Hampstead School property located at 1211 North Main Street. No additional tanks were observed on-site.
  - A 10,000-gallon heating oil tank was removed in August 1995. Case closed under *Case No. 96-0289CL*.
- February 9-15, 2006. MDE-OCP letter to property owners explaining the results of the domestic well water samples.
  - Samples collected in January 2006 by MDE contractor.
- May -2006. MDE-OCP letter to property owners explaining the results of the domestic well water samples.
  - Samples collected in April 2006 by MDE contractor.
- May - June 2006. MDE-OCP received the CCHD letters to property owners with domestic well water sample results.
- June 20, 2006. MDE-OCP letter to property owners explaining the results of the domestic well water samples.
  - Samples collected in June 2006 by MDE contractor.
- August 11, 2006. MDE-OCP letter to property owners explaining the results of the domestic well water samples.
  - Samples collected in July 2006 by MDE contractor. (*see table for results*)
  - Low levels of toluene present in before filter samples collected at 4127 Hillcrest Ave;
- February 22, 2007. MDE-OCP letter to property owners explaining the results of the domestic well water samples.
  - Samples collected in January 2007 by MDE contractor. (*see table for results*)
- April 5, 2007. MDE-OCP letter to new property owner at 4127 Hillcrest Avenue explaining the previous sampling results and a site access agreement.
- April 17, 2007. MDE-OCP letter to property owners explaining the results of the domestic well water samples.
  - Samples collected in March 2007 by MDE contractor. (*see table for results*)
  - Department is no longer maintaining the GAC treatment systems at 3 of the nine properties due to MTBE concentrations below State Action Level – 1306 Taylor Street, 4201 and 4203 Upper Beckleysville Road. Sampling of these three private wells will be completed in six months

- April 17, 2007. MDE-OCP received the signed access agreement from the new property owner at 4127 Hillcrest Avenue.
- April 27, 2007. MDE-OCP received correspondence from the property owner of 4201 and 4203 Upper Beckleysville Road requesting removal of the GAC treatment systems
- May 15, 2007. Town of Hampstead letter requesting an update on the Department's investigation of petroleum impacts in the Hillcrest-Hampstead community.

**Future activities:**

- MDE-OCP site status update letter to the Town of Hampstead pending.
- Semi-annual sampling ongoing for 6 properties with GAC systems installed by the State.

**Contacts:**

Maryland Department of the Environment (MDE)

- Oil Control Program 410-537-3443
- Carroll County Health Department: 443-876-1884

**Future Updates**

- Future updates on this case investigation will be posted at [www.mde.state.md.us](http://www.mde.state.md.us) [at the MDE home page, (select) Land, (select) Program, (select) Oil Control, (select) Remediation Sites].

**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.

## Related Cases

### **Sollers' Property – 1307 Summit Avenue (Case No. 2004-1298CL – closed)**

- January 23, 2004. MDE-OCP visited the 1307 Summit Street property (Sollers residence) to investigate an unused UST and to collect a water sample from the domestic well:
  - An improperly abandoned UST was identified in the driveway; UST contained approximately 32-72 gallons of product.
  - Heating oil needs of the home being supplied by an aboveground storage tank located in the basement.
  - MDE required the following:
    - Immediately remove all liquid product from the UST;
    - Collect soil samples when UST has been removed
- January 29, 2004: MDE-OCP visited the property to oversee the removal of a 550-gallon #2 heating oil UST that was removed from the driveway of the Sollers residence (1307 Summit Ave.); perforations were present in tank. Soils non-detect for petroleum constituents.
- February 6, 2004. MDE-OCP received faxed results from contractor of post-excavation soil samples collected from each end of the former UST.
  - S1 and S2 Non detect for petroleum constituents
- February 11, 2004. MDE-OCP received the results for the water sample collected from the drinking water well on 1/23/04.
- February 20, 2004. MDE-OCP received the results for the water sample collected from the drinking water well on 1/24/04.
- September 10, 2004. MDE-OCP issued Notice of Compliance to property owner of 1307 Summit Avenue for the removal of 550-gallon heating oil UST. *Case No. 2004-1298* related to the Sollers property was closed.
- September 22, 2004. MDE-OCP received copy of the letter from the CCHD notifying the property owner of the results of the water sample collected from the drinking water well on 8/16/04.
- August 15, 2006. MDE-OCP received copy of the letter from the CCHD notifying the property owner of the results of the water sample collected from the drinking water well on 6/28/06.

### **Shell Jiffy Mart located at 1155 South Main Street – Case No. 2005-0272CL**

#### **(This site has been ruled out as a source for the Hillcrest issue)**

Gasoline retail activities have been ongoing at this property for over 20 years, under several business entities, namely Millender Chevron, Hampstead Gulf and Millender Service Center. This active gas station currently operates five (5) underground storage tank systems (one 10,000-gallon gasoline, two 8,000-gallon gasoline; one 6,000-gallon diesel and one 4,000-gallon kerosene). These tanks were installed in January 1991, and registered to Tevis Oil Inc. The USTs are cathodically protected steel tanks with single-walled piping comprising fiberglass reinforced plastic. Prior to October 1990, eleven (11) steel USTs were present at the site.

The site is underlain by the Pretty Boy Schist that demonstrates strong linear geologic features. Groundwater flow is presumed to be in an east southeasterly direction. The site is serviced by municipal water; however, surrounding properties have private drinking water wells. Depth to groundwater is approximately 35 to 38 feet.

- October 11, 1990. Eleven (11) USTs were removed. No quantitative sampling data collected from the tank pit excavation.
  - Five gasoline tanks (two 4,000-gallon; one 3,000-gallon; one 1,000-gallon; and one 550-gallon);
  - Two 550-gallon heating oil tanks;
  - One 4,000-gallon diesel fuel tank;
  - Two kerosene tanks (a 1000-gallon and a 550-gallon); and
  - One 550-gallon used oil tank.

- November 29, 1990. MDE-OCP conducted a site visit to observe the installation of four (4) STIP3 tanks with fiberglass piping.
- November 30, 1991. MDE-OCP on-site to observe precision tests for this new tank installation. Case No. *1991-0240CL* was opened and closed on January 30, 1991.
- January 10, 1995. MDE-OCP compliance inspection. UST systems in operational compliance but fills must be properly coded.
- June, 3, 1996. MDE-OCP compliance inspection. UST systems in operational compliance but housekeeping issues required repairs to a shear valve and the removal of product from the catchment basins.
- June 19, 1996. MDE-OCP follow-up inspection confirmed that housekeeping issues had been addressed.
- March 1, 2004. MDE-OCP compliance inspection.
  - Two (2) tank field monitoring pipes dry therefore no groundwater sample collected;
  - Minor repairs required;
  - Remove diesel product from dispenser sumps;
  - Maintain spill catchment basins.
- July 29, 2004: MDE-OCP conducted compliance inspection. No visible weeping beneath dispensers. Dry tank field monitoring pipes. MDE required the following:
  - Provide copies of cathodic protection test results for the past 6 years prior to 10/23/03;
  - Perform tightness test of fill pipe catchment basins;
  - Repair corrosion protection systems of the UST systems and then re-test.
- August 4, 2004. MDE-OCP received Tevis Oil letter dated 02/08/04 providing information in response to the Department's 07/29/2004 compliance assistance inspection.
- September 1, 2004. MDE-OCP opened Case Nos. *2005-0272CL* for the Shell Jiffy Mart. MDE letter to Tevis Oil Inc. requesting the following:
  - Address the compliance issues identified during the 07/29/04 inspection of the facility.
  - Submit a *Subsurface Investigation Work Plan* no later than Sept. 27, 2004.
  - Submit an *Environmental Assessment Report* no later than November 30, 2004.
- October 11, 2004. MDE-OCP notified via fax that the hydrostatic test failed on the diesel fill during tests conducted on 09/09/2004. On 09/24/04, repairs were made by replacing the catch basin drain valve. Another hydrostatic test was conducted and it passed.
- October 19, 2004. MDE-OCP received faxed information that the hydrostatic test on the spill catchment basin for the diesel tank passed. Testing was conducted on 09/24/2004.
- November 5, 2004. MDE-OCP received Tevis Oil letter dated 11/04/2004 regarding hydrostatic testing.
  - On September 22, 2004 tests conducted on all the spill catchment basins. All passed except the diesel fill.
- December 8, 2004. MDE-OCP received the Shell-Jiffy Mart - *Subsurface Investigation Proposal-December 2, 2004*.
  - Includes the installation of three (3) on-site monitoring wells and one well off-site.
- December 30, 2004. MDE-OCP approved the Shell-Jiffy Mart - *Subsurface Investigation Proposal* that includes the installation of three (3) on-site monitoring wells and one well off-site.
  - The *Shell Jiffy Mart - Environmental Assessment Report* due March 1, 2005.
- January 31, 2005. MDE-OCP received the *Site Assessment Work Plan – January 27, 2005* accompanied by map submitted by Tevis Oil

- Proposed the installation of four (4) 2-inch monitoring wells.
- February 23-25, 2005. MDE-OCP conducted a site visit to observe the drilling of four (4) monitoring wells at the Shell Jiffy Mart gas station.
- April 26, 2005. MDE-OCP received the *Site Assessment Report – April 22, 2005* submitted for the Shell Jiffy Mart station. Groundwater flow direction determined to be east-southeast.
  - Sampling event March 11, 2005. (*see table for results*)
- October 17, 2005. MDE received semi-annual sampling results for the Shell Jiffy Mart station’s monitoring wells pursuant to the emergency regulation requirements.
  - Sampling event September 26, 2005. (*see table for results*)
- April 26, 2006. MDE-OCP conducted a compliance assistance inspection of the active underground storage tank system. No violations noted.
- August 4, 2006. MDE received semi-annual sampling results for the Shell Jiffy Mart station’s monitoring wells pursuant to the emergency regulation requirements.
  - Sampling event May 18, 2006 (*see table for results*)
- February 12, 2007. MDE-OCP received the Semi-annual Monitoring Report-February 5, 2007. Groundwater sampling completed in January 2007. (*see table for results*)

**Future Activities:**

- Shell Jiffy Mart is required to conduct semi-annual sampling of the monitoring well network. The next sampling event is scheduled for July 2007.

**Monitoring Well Sample Results at the Shell Jiffy Mart station located at 1155 South Main Street**

On-site Monitoring Wells at the Shell Jiffy Mart	Sampling Date	Benzene <i>MCL – 5 ppb</i>	MTBE <i>Action Level – 20 ppb</i>	Tertiary butyl alcohol (TBA) is an unregulated comp.	Other Petroleum Constituents of Concern Naphthalene – action level 10 ppb
<b>MW1</b> (Installed 02/2005) Total Depth - 50 ft	03/11/05	Non-detect (ND)	12	Not analyzed (NA)	ND
	09/26/05	ND	3j	NA	ND
	05/18/06	ND	0.6j	NA	ND
	09/18/06	ND	4j	NA	ND
	01/02/07	ND	ND	NA	ND
<b>MW2</b> (Installed 02/2005) Total Depth - 50 ft	03/11/05	ND	1	NA	ND
	09/26/05	ND	1j	NA	ND
	05/18/06	ND	0.8j	NA	ND
	09/18/06	ND	0.7j	NA	ND
	01/02/07	ND	ND	NA	ND
<b>MW3</b> (Installed 02/2005) Total Depth - 50 ft	03/11/05	ND	1400	NA	ND
	09/26/05	ND	390	NA	ND
	05/18/06	ND	410	NA	ND
	09/18/06	ND	380	NA	ND
	01/02/07	ND	500	NA	ND
<b>MW4</b> (Installed 02/2005) Total Depth - 50 ft Off-site	03/11/05	ND	73	NA	Naphthalene 4 ppb
	09/26/05	ND	14	NA	ND
	05/18/06	ND	26	NA	ND
	09/18/06	ND	25	NA	ND
	01/02/07	ND	27	NA	ND
TF1	01/02/07	Dry	Dry	Dry	Dry
TF2	01/02/07	Dry	Dry	Dry	Dry

## Drinking Water Sampling results in the Hillcrest - Hampstead Community

Sample location	Sample dates	Petroleum constituents of Concern		
		MTBE (20 ppb – action level)	Other petroleum constituents (ppb)	Well Depth
4120 Black Rock Rd.	CCHD- 03/25/04	0.63		
4124 Black Rock Rd.	CCHD- 03/25/04	ND		
4134 Black Rock Rd.	CCHD- 02/04/04	ND		
3707 Diane Rd	CCHD- 01/05/05	0.8		
1511 Fairmont Rd.	CCHD- 09/24/04	0.54		
Hampstead Lion Ballfield	CCHD- 09/24/03	ND		
4119 Hillcrest Ave.	CCHD- 01/29/04	1.58		
	CCHD- 04/18/06	1.01		
4120 Hillcrest Ave.	CCHD- 09/24/03	ND		
	CCHD- 10/26/03	1.26		
	CCHD- 04/18/06	ND		
4123 Hillcrest Ave.	CCHD- 09/24/03	ND		90 ft
	CCHD- 10/31/03	5.16		
	CCHD- 04/18/06	1.25		
4125 Hillcrest Ave.	CCHD- 09/24/03	ND		200 ft
	CCHD- 10/31/03	3.53		
	CCHD- 04/18/06	1.41		
4127 Hillcrest Ave.  GAC treatment installed by MDE	CCHD- 09/24/03	1.32 (lab error)	ND	
	CCHD- 10/31/03	90.2	TAME – 0.59	
	Private – 11/19/03	71.8	TAME – 0.86	
	MDE – 05/2004	63 (pre-filter)	TBA - 33 (pre-filter)	
	MDE – 06/2004	80 (pre-filter)	TBA - 42 (pre-filter)	
	MDE – 06/2004	67 (pre-filter)	TBA - 32 (pre-filter)	
	MDE – 07/2004	77 (pre-filter)	TBA - 25 (pre-filter)	
	MDE – 08/2004	70 (pre-filter)	TBA - 36 (pre-filter)	
	MDE – 09/2004	57 (pre-filter)	TBA - 36 (pre-filter)	
	MDE – 10/2004	50 (pre-filter)		
	MDE – 11/2004	59 (pre-filter)	TBA - 25 (pre-filter)	
	MDE – 12/2004	75 (pre-filter)	TBA - 33 (pre-filter)	
	MDE – 01/2005	50 (pre-filter)	TBA - 22 (pre-filter)	
	MDE – 02/2005	44 (pre-filter)		
	MDE – 04/2005	38 (pre-filter)	TBA - 310 (pre-filter) Naphthalene –11 (pre-filter)	
	MDE – 07/2005	43 (pre-filter)	TBA - 25 (pre-filter)	
	MDE – 10/2005	36 (pre-filter)		
	MDE – 01/25/2006	35 (pre-filter)	TBA – 22j (pre-filter)	
	MDE – 04/17/2006	29 (pre-filter)	TBA – 13 (pre-filter)	
	MDE – 07/13/06	38 (pre-filter) 4 (mid-filter) 2 (post-filter)		
	MDE – 01/31/07	38 (pre-filter) ND (mid-filter) ND (post-filter)		
4130 Hillcrest Ave.	CCHD- 09/24/03	ND		
	CCHD – 11/06/03	ND		
	CCHD- 04/18/06	ND		
4131 Hillcrest Avenue  GAC maintained by property owner	CCHD - 09/04/03	290	TAME – 2.82	
	MDE - 09/10/03	ND (? Potable tanker)	TAME – 4.11	
	Private	212 (raw water)		
	MDE - 11/05/03	ND (? Potable tanker)		
	MDE - 10/12/05	140 (pre-filter)	TBA - 61 (pre-filter)	
		82 (mid-filter)	TBA - ND (mid-filter)	
		ND (post-filter)	TBA - ND (post-filter)	
CCHD- 01/9/06	87.5 (estimated) (pre-filter)	TAME – 1.44 (pre-filter)		
4131 Hillcrest Ave.	Private – 11/16/06	140 (pre-filter)	TAME – 1.2 (pre-filter)	
		ND (post-filter)	ND	

## Drinking Water Sampling results in the Hillcrest - Hampstead Community

Sample location	Sample dates	Petroleum constituents of Concern		
		MTBE (20 ppb – action level)	Other petroleum constituents (ppb)	Well Depth
4135 Hillcrest Ave.	CCHD – 11/06/03	1.06		
	CCHD- 04/18/06	0.75		
4138 Hillcrest Ave.  GAC installed by MDE	CCHD- 09/24/03	ND	TAME – 2.91	
	CCHD- 10/31/03	173	ND	
	MDE- 12/10/03	193	ND	
	MDE – 05/2004	110 (pre-filter)	TBA - 57 (pre-filter)	
	MDE – 06/2004	110 (pre-filter)	TBA - 54 (pre-filter)	
	MDE – 06/2004	78 (pre-filter)	TBA - 33 (pre-filter)	
	MDE – 07/2004	120 (pre-filter)		
	MDE – 08/2004	80 (pre-filter)		
	MDE – 09/2004	140 (pre-filter)	TBA - 44 (pre-filter)	
	MDE – 10/2004	89 (pre-filter)	TBA - 42 (pre-filter)	
	MDE – 01/2005	97 (pre-filter)	TBA - 130 (pre-filter)	
	MDE – 04/2005	120 (pre-filter)	TBA - 110 (pre-filter)	
	MDE – 07/2005	81 (pre-filter)	TBA - 41 (pre-filter)	
	MDE – 10/2005	63 (pre-filter)	TBA - 28 (pre-filter)	
	MDE – 01/25/2006	53 (pre-filter)	TBA – 31j (pre-filter)	
	MDE – 04/2006	60 (pre-filter)	TBA – 26 (pre-filter)	
		MDE – 07/13/06	92 (pre-filter) ND (mid-filter) ND (post-filter)	
	MDE – 01/31/07	51 (pre-filter) 2 (mid-filter) ND (post-filter)		
4203 Hillcrest Ave.	CCHD- 03/25/04	4.29		
4206 Hillcrest Ave.	CCHD- 03/18/04	6.13		
	CCHD- 04/18/06	1.17		
4207 Hillcrest Ave.	CCHD- 09/23/04	ND		
4211 Hillcrest Ave.	CCHD- 09/23/04	ND		
4215 Hillcrest Ave.	CCHD- 09/23/04	ND		200 ft
4216 Hillcrest Ave.	CCHD- 09/23/04	ND		
4217 Hillcrest Ave.	CCHD- 09/23/04	ND		
4219 Hillcrest Ave.	CCHD- 09/23/04	ND		
1300 Hillcrest St.	CCHD- 12/7/03	ND		
1304 Hillcrest St.	CCHD- 09/02/04	ND		
1305 Hillcrest St.	CCHD- 12/9/03	ND		
1310 Hillcrest St.	CCHD- 07/28/04	3.66		
	CCHD- 05/30/06	ND		
626 Houcksville Rd	CCHD- 01/05/05	1.78		
720 N. Houcksville Rd	CCHD- 09/08/04	2.09		
2819 Snydersburg Rd.	CCHD- 11/06/00	ND		
2822 Snydersburg Rd.	CCHD- 11/06/00	ND		
1303 Summit Ave  GAC installed by MDE	CCHD – 12/04/03	65.7	TAME – 0.55	
	MDE – 05/2004	59 (pre-filter)	TBA - 25 (pre-filter)	
	MDE – 06/2004	62 (pre-filter)	TBA - 30 (pre-filter)	
	MDE – 06/2004	45 (pre-filter)	TBA - 19 (pre-filter)	
	MDE – 07/2004	47 (pre-filter)		
	MDE – 08/2004	43 (pre-filter)		
	MDE – 09/2004	51 (pre-filter)	TBA - 17 (pre-filter)	
	MDE – 10/2004	32 (pre-filter)		
	MDE – 01/2005	45 (pre-filter)	TBA - 18 (pre-filter)	
	MDE – 04/2005	50 (pre-filter)	TBA - 38 (pre-filter)	
	MDE – 07/2005	26 (pre-filter)		
	MDE – 10/2005	24 (pre-filter)		
	MDE – 01/25/2006	39 (pre-filter)	TBA – 23j (pre-filter)	
	MDE – 04/20/2006	27 (pre-filter)		
	MDE – 07/13/06	28 (pre-filter) ND (mid-filter) ND (post-filter)		
1303 Summit Ave	MDE – 01/31/07	39 (pre-filter) ND (mid-filter) ND (post-filter)		

## Drinking Water Sampling results in the Hillcrest - Hampstead Community

Sample location	Sample dates	Petroleum constituents of Concern		
		MTBE (20 ppb – action level)	Other petroleum constituents (ppb)	Well Depth
1304 Summit Ave.	CCHD- 12/04/03	0.63		
1306 Summit Ave.	CCHD- 04/18/06	1.06		
1307 Summit Ave.	MDE - 01/23/04	8.76		
	MDE - 01/29/04	9.35		
	CCHD- 08/16/04	2.05		
	CCHD- 6/28/06	0.81		
1311 Summit Ave.	CCHD- 01/29/04	1.12		
	CCHD- 04/18/06	0.67		
Town of Hampstead Well#24?/25?	MDE/WSP - 06/02/97	0.5		150 ft
Town of Hampstead Well#24?/25?	MDE/WSP - 10/23/00	8		
Town of Hampstead Well#24?/25?	MDE/WSP - 05/09/01	2.3		
Town of Hampstead Well#24?	MDE/WSP - 09/03/02	2.4		
Town of Hampstead Well#25?	MDE/WSP - 09/03/02	2.2		
Town of Hampstead Well#24	MDE/WSP - 04/16/03	1.4		
Town of Hampstead Well#25	MDE/WSP - 04/16/03	1.3		
1301 Taylor St	CCHD – 0/08/06	ND	Toluene –2.46	
1300 Taylor St	CCHD – 12/04/03	4		
	CCHD- 04/18/06	2.74		
	CCHD – 12/04/03	40		
1302 Taylor St GAC installed by MDE	MDE – 06/2004	56 (pre-filter)	TBA - 21 (pre-filter)	
	MDE – 07/2004	62 (pre-filter)		
	MDE – 09/2004	62 (pre-filter)		
	MDE – 09/2004	48 (pre-filter)		
	MDE – 10/2004	29 (pre-filter)		
	MDE – 11/2004	52 (pre-filter)	TBA - 25 (pre-filter)	
	MDE – 12/2004	62 (pre-filter)	TBA - 25 (pre-filter)	
	MDE – 01/2005	35 (pre-filter)	TBA - 15 (pre-filter)	
	MDE – 02/2005	41 (pre-filter)		
	MDE – 04/2005	42 (pre-filter)		
	MDE – 07/2005	25 (pre-filter)		
	MDE – 10/2005	19 (pre-filter)		
	MDE – 01/2006	21(pre-filter)		
	MDE – 04/2006	26(pre-filter)	TBA – 9j (pre-filter)	
	MDE – 07/13/06	17 (pre-filter) ND (mid-filter) ND (post-filter)	ND ND ND	
	MDE – 01/31/07	18 (pre-filter) 0.7 (mid-filter) ND (post-filter)		
1305 Taylor St.	CCHD – 01/29/04	ND		
1306 Taylor St. GAC installed by MDE and removed in May 2007	CCHD – 01/02/04	44.3		
	CCHD – 02/23/04	27		
	MDE – 05/2004	41 (pre-filter)	TBA - 19 (pre-filter)	
	MDE – 06/2004	40 (pre-filter)		
	MDE – 07/2004	36 (pre-filter)		
	MDE – 08/2004	29 (pre-filter)		
	MDE – 09/2004	35 (pre-filter)		
	MDE – 10/2004	21 (pre-filter)		
	MDE – 01/2005	25 (pre-filter)	TBA - 10 (pre-filter)	
	MDE – 04/2005	19 (pre-filter)		
	MDE – 07/2005	12 (pre-filter)		
	MDE – 07/2005	6(pre-filter)		
	MDE – 01/2006	10(pre-filter)		
	MDE – 05/2006	5j(pre-filter)		
	MDE – 09/26/06	5j(pre-filter)		
1306 Taylor Ave	MDE – 03/26/07	6 (pre-filter)		

## Drinking Water Sampling results in the Hillcrest - Hampstead Community

Sample location	Sample dates	Petroleum constituents of Concern		
		MTBE (20 ppb – action level)	Other petroleum constituents (ppb)	Well Depth
1307 Taylor Ave	CCHD – 02/23/04	ND		
	CCHD- 04/18/06	ND		
1308 Taylor Street GAC installed by MDE	CCHD – 01/29/04	31.2		
	CCHD – 02/26/04	20.8		
	MDE – 05/2004	33 (pre-filter)	TBA - 16 (pre-filter)	
	MDE – 06/2004	14 (pre-filter)		
	MDE – 06/2004	17 (pre-filter)	TBA - 6 (pre-filter)	
	MDE – 07/2004	24 (pre-filter)		
	MDE – 08/2004	21 (pre-filter)		
	MDE – 09/2004	76 (pre-filter)	TBA – 21 (pre-filter)	
	MDE – 10/2004	33 (pre-filter)		
	MDE – 01/2005	59 (pre-filter)	TBA - 26 (pre-filter)	
	MDE – 04/2005	88 (pre-filter)	TBA - 51 (pre-filter)	
	MDE – 07/2005	30 (pre-filter)		
	MDE – 10/2005	63 (pre-filter)	TBA - 29 (pre-filter)	
	MDE – 01//2006	47(pre-filter)	TBA – 25 (pre-filter)	
	MDE – 04/2006	ND	ND	
	MDE-07/13/06	23 (pre-filter) ND (mid-filter) ND (post-filter)	ND ND ND	
MDE – 01/31/07	32 (pre-filter) ND (mid-filter) ND (post-filter)			
1309 Taylor Street GAC installed by MDE	CCHD – 02/26/04	33.5	1,2DCA - 1.01	
	CCHD – 03/18/04	40.7	Benzene – 0.81	
	MDE – 01/2005	28 (pre-filter)	TBA – 21 (pre-filter)	
	MDE – 02/2005	27 (pre-filter)		
	MDE – 04/2005	31 (pre-filter)	TBA - 26 (pre-filter)	
	MDE – 07/2005	21 (pre-filter)		
	MDE – 10/2005	21 (pre-filter)		
	MDE – 01/2006	20 (pre-filter)		
	MDE – 06/2006	23(pre-filter)		
	MDE – 09-26-06	24 (pre-filter)		
MDE – 03/26/07	20 (pre-filter) ND ND			
USGS Wells at Upper Beckleysville	CCHD- 02/04/04	ND		
4142 Upper Beckleysville	CCHD- 06/10/04	ND		
4144 Upper Beckleysville	CCHD- 06/10/04	1.56		
4201 Upper Beckleysville (rental property) GAC installed by MDE and removed in May 2007	CCHD- 05/10/04	24.4		
	MDE – 10/2004	19 (pre-filter)		
	MDE – 01/2005	24 (pre-filter)		
	MDE – 04/2005	17 (pre-filter)		
	MDE – 07/2005	12 (pre-filter)		
	MDE – 10/2005	10 (pre-filter)		
	MDE – 01/2006	11 (pre-filter)		
	MDE – 05/2006	8 (pre-filter)		
	MDE – 09/26/06	6 (pre-filter)		
	MDE – 03/26/07	6 (pre-filter) ND (mid-filter) ND (post-filter)		
4203 Upper Beckleysville GAC installed by MDE and removed in May 2007	CCHD- 03/25/04	20.5		
	CCHD- 05/10/04	15.2		
	MDE – 08/2004	19 (pre-filter)		
	MDE – 10/2004	16 (pre-filter)		
	MDE – 01//2005	21 (pre-filter)		
	MDE – 04/2005	17 (pre-filter)		
	MDE – 07/2005	13 (pre-filter)		
4203 Upper Beckleysville	MDE – 10/2005	9 (pre-filter)		
	MDE – 01/25/2006	11(pre-filter)		
	MDE – 05/04/2006	10(pre-filter) (dup – 8 prefilter)		
	MDE – 09/26/06	9 (pre-filter)		
		ND (mid-filter)		
		ND (post-filter)		
MDE – 03/26/07	5 (pre-filter) ND ND			

## Drinking Water Sampling results in the Hillcrest - Hampstead Community

Sample location	Sample dates	Petroleum constituents of Concern		Well Depth
		MTBE (20 ppb – action level)	Other petroleum constituents (ppb)	
4205 Upper Beckleystville	CCHD- 06/10/04	10.8	1,2DCA – 0.63	
4206 Upper Beckleystville	CCHD- 06/10/04	16.1		
4207 Upper Beckleystville	CCHD- 06/10/04	3.78		
4210 Upper Beckleystville	CCHD- 09/02/04	6.97		
4212 Upper Beckleystville	CCHD- 07/28/04	3.09		
4217 Upper Beckleystville	CCHD- 09/23/04	ND		
4218 Upper Beckleystville	CCHD- 01/05/05	1.54		
4218R Upper Beckleystville	CCHD- 09/23/04	3.39		
4219 Upper Beckleystville	CCHD- 09/23/04	ND		
4222 Upper Beckleystville	CCHD- 01/11/05	0.7		
4222R Upper Beckleystville	CCHD- 01/05/05	1.34		
4224 Upper Beckleystville	CCHD- 03/08/05	ND		
4226 Upper Beckleystville	CCHD- 02/23/05	ND		
4110 Wineberry Dr.	CCHD- 12/20/04	ND		