

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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DRINKING WATER SAMPLING AND ENVIRONMENTAL INVESTIGATION Taylorsville Texaco (former Taylorsville Crown, former Taylorsville Sunoco) 2600 Liberty Road Intersection of MD Route 26 (Liberty Road) and MD Route 27 (Ridge Road) Taylorsville, Maryland Case No. 2003-0686CL

The Maryland Department of the Environment (MDE), Oil Control Program (OCP), continues to evaluate petroleum impacts at the Taylorsville Texaco, formerly known as the Taylorsville Crown and Taylorsville Sunoco, located in Carroll County. Currently the Department is also conducting a groundwater investigation of two other active gasoline retail stations at the intersection of MD Route 26 (Liberty Road) and MD Route 27 (Ridge Road); the Taylorsville Shell (formerly Taylorsville Amoco) located at 2605 Liberty Road (*Case No. 1994-1295CL*) and the Taylorsville 7-Eleven (formerly High's) located at 4213 Ridge Road (*Case No. 1987-0791CL*).

Taylorsville Crown has been an active gasoline retail station since the early-1980s. In August 2005, the MDE-OCP received groundwater sampling results from the three newly installed monitoring wells at the site. Both MTBE and benzene contamination was detected in monitoring wells at 6,800 ppb and 190 ppb, respectively. During the second round of samples collected in February 2006, MTBE levels had reached 2,800 ppb and benzene at 60 ppb. The station's drinking water supply well was recently sampled in March 2007 and remains non-detect for petroleum constituents.

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 of 20 to 40 parts per billion (ppb), based on taste and odor. Although the EPA has not established a regulated Maximum Contaminant Level (MCL) for MTBE, the MDE has adopted an action level of 20 ppb. Benzene is a major component in motor fuels. The established Federal drinking water standard or MCL for benzene is 5 ppb.

Registered operators/owners of the facility included ExxonMobil (1980s – 2002), Taylorsville Service Center Inc (2002 – 2005), and J&P Pizza Liberty Road (2005 – present). Petroleum Marketing Group (PMG) is a business partner with J&P Pizza Liberty Road for the facility. In September 1982 five (5) underground storage tanks (USTs), comprising of fiberglass reinforced plastic with piping of similar material were installed. These first generation tanks included one 10,000-gallon and two 8,000-gallon gasoline tanks, one 1,000-gallon kerosene tank and one 1,000-gallon diesel tank. In November 2002, MDE oversaw the removal of the two small fiberglass USTs. Both 1,000-gallon tanks had no perforations at the time they were excavated.

The gasoline UST systems currently have Stage I and Stage II vapor recovery systems. Three monitoring wells and a transient non-community drinking water supply well are also located on-site.

Chronology:

- October 7, 1994. MDE-OCP conducted a compliance assistance inspection.
- August 30, 1996. MDE-OCP conducted a compliance assistance inspection.
- April 3, 1998. MDE-OCP conducted a compliance assistance inspection. Several outstanding issues identified:
 - Remove product from spill buckets and Stage I recovery system
 - Check all submersible sumps for product
 - Periodically conduct audits to prevent spills from dispensers and fill pipes.

- December 1, 2001. MDE-OCP conducted a compliance assistance inspection. Several outstanding issues were identified, including:
 - Remove product from spill buckets;
 - Provide inventory control records;
 - Provide a status on the out of service kerosene tank; and
 - Confirm method of overfill protection.

- October 28, 2002. MDE-OCP notified by ExxonMobil that the facility was sold to Taylorsville Service Center Inc. on 10/02/2002.

- November 1, 2002. MDE-OCP received, via facsimile, the notification for UST system closure.

- November 22, 2002. MDE-OCP on-site to observe the removal of 1,000-gallon USTs – no problems noted.

- September 7, 2005. MDE-OCP received the *Groundwater Monitoring Well Installation and Sampling Results – August 17-2005*.
 - Three new monitoring wells installed 07/28/2005. Wells installed to depths of 45 ft.
 - Sampling event 08/10/2005
 - MW-1 MTBE - 6800 ppb, benzene – 5.5 ppb
 - MW-2 MTBE - 350 ppb
 - MW-3 MTBE - 2300 ppb, benzene – 190 ppb, naphthalene - 250 ppb
 - PW (untreated) – non-detect for petroleum constituents

- March 17, 2005. Tanks registered to J&P Pizza Liberty Rd.

- October 20, 2005. MDE letter to Petroleum Marketing Group in response to water sampling data.
 - Perform a helium test of the UST system;
 - Test all spill catchment basins and containment sumps;
 - Conduct a self audit of the UST system;
 - Conduct a ½ mile well survey; and
 - Sample all monitoring wells/observation pipes and the on-site supply well every six months.

- November 2005. UST system has been registered to new owner- J&P Pizza.

- November 21, 2005. MDE-OCP received correspondence from Petroleum Marketing Group (PMG) requesting an extension to complete directives in the Department’s 10/20/05 letter.

- November 23, 2005. MDE-OCP granted an extension to PMG.

- November 28, 2005. Carroll County Health Department (CCHD) submitted sampling results of the station’s on-site supply well.
 - Sampling event on 04/05/2005
 - PW (untreated) – non-detect for petroleum constituents.

- December 19, 2005. MDE-OCP received, via facsimile, the well completion report for the station property.
 - PW - Well depth 180 ft.

- December 20, 2005. MDE-OCP received notification that efforts were being made to complete the Well Survey

- January 3, 2006. MDE-OCP received the *Compliance Data – December 29, 2005*
 - UST system helium tested 12/05/2005; repairs made - passed
 - Spill catchment basin testing 10/22/05 – passed
 - Sump testing remained outstanding because no test boots were present
 - Self-audit completed on 11/17/05.

- January 19, 2006. MDE-OCP received the *Well Search Summary – January 18, 2006*.
 - Approximately 70 to 90 private drinking water wells are located within a ½ mile radius of the site.
 - Well depths for off-site private wells ranged between 100 and 250 ft.
- February 22, 2006. MDE-OCP received the *Semi-Annual Sampling Event – January 2006*
 - Sampling event on 02/01/06 (*see table for results*)
- October 12, 2006. MDE-OCP received the *Semi-Annual Sampling Event – September 2006* – Data for MW1 and MW3 reversed – corrected copy of report requested via Email on 10/24/06
- October 27, 2006. MDE-OCP received corrected *Semi-Annual Sampling Event – September 2006* Sampling event on 09/28/06 (*see table for results*)
- January 8, 2007. MDE-OCP directive letter to J& P Pizza Liberty Road to complete the following:
 - Submit an *Interim Corrective Action Plan* designed to evaluate subsurface vapor conditions in the vicinity of the tank field.
 - Submit a *Supplemental Investigation Work Plan* to assess vertical and lateral extent of petroleum contamination.
 - Sample select off-site private wells at located immediately west of the gasoline station.
 - Conduct annual helium testing and testing of all containment sumps and catchment basins
- January 25, 2007. MDE-OCP received, via fax the *Water Well Sampling Access Letter-January 24, 2007*.
- February 7, 2007. MDE-OCP approved the *Water Well Sampling Access Letter-January 24, 2007*.
- February 26, 2007. MDE-OCP received *Interim Corrective Action Plan- February 21, 2007*.
 - Soil vapor extraction (SVE) pilot study to be completed initially
 - SVE conceptual design to be submitted based on the pilot study
- March 19, 2007. MDE-OCP received analytical results for an off-site private well at 4122 Ridge Road (*see table for results*)
- March 26, 2007. MDE-OCP received *Subsurface Investigation Work Plan-March 22, 2007*.
 - Installation of three boring and their conversion to 2-inch monitoring wells
 - Completion of slug tests or bail down tests to determine hydraulic conductivity
- April 9, 2007. MDE-OCP received the *Semi-Annual Sampling Event –March 2007*.
 - Ground water sampling completed on 03/27/07 (*see table for results*)
- June 20, 2007. MDE-OCP received additional information on the approved *Subsurface Investigation Work Plan-March 22, 2007*.
 - Proposed SVE extraction points annotated on site map
 - Three wells to be slug tested identified on site map (MW3 and on two additional wells to be drilled).

Future Updates:

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

Contacts:

- Maryland Department of the Environment (MDE) - Oil Control Program: 410-537-3443
- Carroll County Health Department (CCHD): 410-876-1884

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.

**Monitoring Well Sample Results at the Taylorsville Texaco station located at
2600 W. Liberty Road**

On-site Monitoring Wells at the 6-10 Gas 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
					<i>Naphthalene's action level is 10 ppb DIPE is an unregulated compound TAME is an unregulated compound</i>
MW1 (Installed 07/28/2005) Total Depth - 45 ft	08/10/05	5.5	6800	---	---
	02/01/06	ND	2500	---	TAME – 74 ppb
	09/28/06	ND	1200	---	DIPE – 21 ppb, TAME – 64 ppb
	03/27/07	ND	1400	---	DIPE – 27 ppb, TAME – 53 ppb
	08/10/05	ND	350	---	ND
MW2 (installed 07/28/2005) Total Depth 45 ft	02/01/06	ND	6	---	ND
	09/28/06	ND	31	---	ND
	03/27/07	ND	ND	---	ND
	08/10/05	190	2300	---	Naphthalene – 250 ppb
MW3 (installed 07/28/2005) Total Depth 45 ft	02/01/06	60	300	---	Naphthalene – 170 ppb
	09/28/06	31	830	---	Naphthalene – 130 ppb
	03/27/07	ND	27	---	ND
	08/10/05	190	2300	---	Naphthalene – 250 ppb

Drinking Water Sampling results in the Taylorsville Community

Sample location	Sample dates	Petroleum Constituents of Concern	
		MTBE <i>(20 ppb – action level)</i>	Other petroleum constituents
Transient Non-Community Supply Well			
Texaco station at 2600 W. Liberty Road	04/05/05	ND	ND
	08/10/05	ND	ND
	02/01/06	ND	ND
	09/28/06	ND	ND
	03/27/07	ND	ND
4122 Ridge Road	02/28/07	ND	ND