

**2009 Water Quality Report
PWS # 1090128**

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

Dear Customer:

The Doylestown Township Municipal Authority (DTMA) owns and operates a public water system for the benefit of Doylestown Township residents. It also owns and operates the public water systems of the Cross Keys Place Shopping Center in Plumstead Township and the Fountainville Center in New Britain Township. This report is to apprise you of efforts to provide our customers with water that meets or exceeds water quality standards under the Safe Drinking Water Act (SDWA). This report will be sent to all customers on an annual basis no later than July of the ensuing year. The report contains information regarding the water system operation, water sources, treatment, and monitoring results for contaminant testing as required by permit under the Federal Safe Drinking Water Act; the Pennsylvania Department of Environmental Protection and the Delaware River Basin Commission.

The Authority routinely monitors for over seventy contaminants as required by permit under state and federal laws. The results of the water-monitoring program are presented in the attached report. The report will show results from the period January 1, 2009 through December 31, 2009. Should you have any questions regarding this report, please call Water Superintendent, Scott Miele at 215-348-9915 or attend the Authority meeting which is held

at 425 Wells Road, Doylestown PA on the third Thursday of the month.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants do not necessarily pose a health risk. Locally, DTMA distributes groundwater pumped from 13 wells within Doylestown Township and one well in Plumstead Township and may receive groundwater via an interconnection with Doylestown Borough (DBWD) and a blend of surface and groundwater via an interconnection with North Penn Water Authority (NPWA). For 2009, North Penn Water Authority provided less than 1% of source water distributed by DTMA and Doylestown Borough provided 12% of source water distributed by DTMA.

All sources of drinking water are subject to potential contaminants that are naturally occurring or man-made. More information about contaminants and potential health effects can be obtained by calling the:

Environmental Protection Agency's Safe Drinking Water Hotline @ 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons with cancer, undergoing chemotherapy, persons who have undergone organ transplants, people with the HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the SAFE DRINKING WATER HOTLINE (800) 426-4791 or by visiting the EPA web site at: www.epa.gov/safewater/dwhealth.

The sources of drinking water, including bottles and tap water, lakes, rivers, streams, ponds, reservoirs, springs and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive materials and can pick-up substances resulting from the presence of animal or human activity. Contaminants that may be present in source water may include:

- **Microbial contaminants:** Such as viruses and bacteria which may come from sewage treatment plants, septic systems, agriculture/livestock operations and wildlife.
- **Pesticides and herbicides:** Which may come from a variety of sources such as agriculture, urban storm water runoff and residential use.
- **Alpha emitters:** Certain minerals are radioactive and may emit a form of radiation. Some people who drink water containing alpha emitters in excess of the MCL, over many years may have an increased risk of getting cancer.
- **Organic Chemical Contaminants:** Including synthetic or volatile organic chemicals, which are byproducts of industrial processes, petroleum production or mining activities.
- **Nitrate:** Nitrate in drinking water at levels above 10ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agriculture activities. If you are caring for an infant, you should ask for advice from your health care provider.
- **Inorganic contaminants:** Such as salts and metals, which can be naturally occurring or result from urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Arsenic:** Some people who drink water containing arsenic in excess of the MCL over many years, could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

In list below, you will find terms and abbreviations you may not be familiar with. To help you better understand these terms, we've provided the following definitions:

- **N/A:** Not Applicable
- **Parts per million (ppm) or milligrams per liter (mg/L):** One part per million corresponds to a single penny in \$10,000.
- **Parts per billion (ppb) or micrograms per liter (ug/L):** One part per billion corresponds to a single penny in \$10,000,000.
- **NTU:** Nephelometric turbidity is a measure of the clarity of water.
- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCL's are set close to the MCLG's as feasible using the best available treatment technology.
- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminant.
- **Picocurie per liter (pCi/L):** A measure of radioactivity in water.
- **Variations & Exemptions (V/E):** State or EPA permission not to meet an MCL or Treatment technique under certain conditions.

WATER QUALITY TABLE						
*Doylestown Borough Water Department= DBWD * North Penn Water Authority = NPWA						
Contaminants Units	Violation Yes / No	Level Detected	Range Detected	MCL in CCR Unit	MCLG	Major Sources in Drinking Water
INORGANIC CONTAMINANTS (Regulated at Water Source)						
Arsenic (ppb) 2009	No	5.5	0 – 7.7* *(NPWA)	10	0	Erosion of natural deposits, runoff from glass and electronics production.
Barium (ppm) 2009	No	0.480	0 – 0.480	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium (ppb) 2009	No	ND	0-2.8* *(NPWA)	100	100	Discharge from steel and pulp mills; erosion of natural deposits.
Fluoride (ppm) 2009	No	ND	ND	2	2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (ppm) 2009	No	5.74	0.6 – 5.74	10	10	Runoff from fertilizer use: leaching from septic tanks, sewage; erosion of natural deposits.
Nickel (ppb) 2006/2009	No	ND	0.7-2.3* *(NPWA)	100	100	Erosion of natural deposits, by-product of various industrial processes.
VOLATILE ORGANIC CONTAMINANTS (Regulated at Water Source)						
Carbon Tetrachloride (ppb) 2009	No	N/D	0 – 1.32* *(DBWD)	5	0	Discharge from chemical factories.
1,1-Dichloroethylene (ppb) 2009	No	N/D	0 – 2.40* *(DBWD)	7	7	Discharge from chemical factories.
Cis-1,2 Dichloroethylene (ppb) 2009	No	N/D	0 – 0.6* *(NPWA)	70	70	Discharge from chemical factories.
Trichloroethylene (ppb) 2009	No	N/D	0 - .89* *(DBWD)	5	0	Discharge from metal degreasing sites and other factories.
Ethylbenzene (ppb) 2009	No	4.9	N/A	700	700	Discharge from petroleum refineries.
Tetrachloroethylene (ppb) 2009	YES	6.4	0 – 6.4	5	0	Discharge from factories and dry cleaners.
Toluene (ppm) 2009	No	0.0014	0.00058 0.0014	1	1	Discharge from petroleum factories.
1,1,1-Trichloroethane (ppb) 2009	No	N/D	0 – 1.09* *(DBWD)	200	200	Discharge from metal degreasing sites and other factories.
Xylenes (ppm) 2009	No	0.00203	0.0203	10	10	Discharge from petroleum factories and chemical factories.
DISINFECTION BYPRODUCTS (DBP's), BYPRODUCTS PRECURSORS AND DISINFECTANT RESIDUAL						
Total Trihalomethanes (ppb) 2008/2009	No	16	0 – 64.4* *(NPWA)2009	80	0	Byproduct of drinking water disinfection.
Haloacetic Acids (ppb) 2008/2009	No	4.3	0 – 13.0* *(NPWA)2009	60	0	By product of drinking water disinfection.
Chlorine (ppm) 2009	No	0.28	0.20 – 1.31	MRDL=4	MRDLG =4	Water additive used to control microbes.
LEAD AND COPPER RULE (REGULATED AT CUSTOMER'S TAP)						
Copper (ppm) 2007(DTMA) *DBWD 2009	No	1.13 ₁	No sample exceeded the action level (AL)	AL= 1.3	1.3	Corrosion of household plumbing systems; leaching from wood preservatives.
	No	.582*				
Lead (ppb) 2007(DTMA) *DBWD 2009	No	4.5 ₁	No sample exceeded the action level. (AL)	AL= 15	0	Corrosion of household plumbing systems; erosion of natural deposits.
	No	4.10*				

¹Lead and copper are samples at the customer's tap. The detected values indicate the 90th percentile of homes sampled in accordance with the federal regulations. In 2007, none of the 20 homes monitored exceeded the Action Level. (AL)

WATER QUALITY TABLE						
Contaminants Units	Violation Yes / No	Level Detected	Range Detected	MCL in CCR Units	MCLG	Major Sources in Drinking Water
MICROBIOLOGICAL CONTAMINANTS (REGULATED IN DISTRIBUTION SYSTEM)						
Total Coliform Bacteria (ppm) 2009	No	0	N/A	² see footnote below	0	Naturally present in the environment.
Fecal coliform and E.coli 2009	No	0	N/A	² 0	0	Human and animal fecal waste.
RADIOACTIVE CONTAMINANTS						
Gross Alpha (pCi/L) 2006/2008	No	8.35	0.4-13.9* *(NPWA)	15	0	Erosion of natural deposits.
Uranium (ppb) 2006/2008	No	2.97	2.97-12.3* *(NPWA)	30	0	Erosion of natural deposits.
Radium 228 (pCi/L) 2006	No	1.37	N/A	5	0	Erosion of natural deposits.

²The MCL, water systems that collect >40 samples a month, 5% of monthly samples are positive; water systems that collect <40 a month, 1 positive monthly sample.

North Penn Water Authority (NPWA) provides DTMA with less than 1% of water that is used in DTMA system. This water, which is surface water, may contain disease causing organisms such as Giardia and Cryptosporidium. NPWA monitors its source water (before treatment) at the Forest Park Water Treatment Plant (FPW). Monthly monitoring in 2009 detected Giardia in nine out of twelve samples. Monitoring for Cryptosporidium detected five out of twelve samples. FPW treatment processes are designed to remove or inactivate Giardia and Cryptosporidium with a high level of certainty. Current available test methods do not allow FPW to determine if the organisms are dead or if they are incapable of causing disease. Generally, healthy individuals can in a few weeks overcome any infection; however, immune-compromised individuals are at greater risk of developing a life threatening illness and should consult their doctor regarding appropriate precautions to take to avoid infection.

While your drinking water meets EPA's standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds or more before using tap water. Additional information is available from the Safe Drinking Water Hotline @ (800) 426-4791.

In order to insure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same level of protection to the public's health. The State allows us to monitor for some contaminants less than once per year. This is because the concentrations do not change frequently. Some of our data, though representative, are more than one year old.

As previously stated, for the year 2009, NPWA provided less than 1% of water distributed by DTMA and Doylestown Borough provided 12% of water distributed by DTMA. As such, DTMA includes monitoring results from these two entities where applicable. These results are posted under the column "range detected". Monitoring results under the column "level detected" are results from DTMA.

DOYLESTOWN TOWNSHIP MUNICIPAL AUTHORITY – VOLATILE ORGANIC VIOLATION

Doylestown Township Municipal Authority violated a drinking water standard during 2009. Although this incident was not an emergency, as our customers, you have a right to know what happened. We routinely monitor for drinking water contaminants. Test results we received on 8/5/2009 and on 11/10/2009 showed that our system exceeded the standard or maximum contaminant level (MCL) for Tetrachlorethylene. The standard for Tetrachlorethylene is 5 parts per billion (ppb). The level(s) at which Tetrachlorethylene was found was 5.3ppb at South Well # 2 located in The Estates of Doylestown and 6.4ppb at Central Well # 1 located on New Britain Road. Re-sampling results showed 4.4ppb at South Well # 2 and 0ppb at Central Well # 1.

Following Pennsylvania Department of Environmental Protection (DEP) regulations, a second sample was taken and the results average out to be less than the MCL.

You do not need to use an alternative water supply. However, if you have specific health concerns, please see a doctor.

This is not an immediate risk. If it had been, you would have been notified immediately.

***TETRACHLOROETHYLENE:** Some people who drink water containing tetrachloroethylene in excess of the Maximum Contaminant Level (MCL) over many years could have problems with their liver, and may have an increased risk of getting cancer.

How can I get involved with protecting our water sources?

“Water is life” and we can all play an important role in protecting and conserving life’s most sustaining resource. First, be aware of what goes down the drain, be it sanitary or storm drain, can alter the potential for keeping our water sources free of contamination. Secondly, conserve water by washing clothes or dishes when you have full loads; use water saving devices and make timely repair of plumbing leaks. Other water conservation suggestions:

Spring time: Install rain barrels or cisterns in your yard to collect rain water for summer time garden use.

Spring time: Create mini basins around trees and shrubs to allow for ground water recharge.

Summer time: Water your lawn or garden before sunrise and avoid excess evaporation loss.

Summer time: Keep drinking water in the refrigerator and save time waiting for cool tap water.

Fall: Check household plumbing for leaks. Make repairs to save water and dollars.

Winter time: When snow falls, place on lawn for melt down and ground water recharge.

Winter time: Use deicing materials sparingly. It helps to keep our streams clean.