



2008 Water Quality Report Bristol Division, PWSID#: PA1090001

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

About Your Drinking Water

Aqua Pennsylvania, Inc. (Aqua) is pleased to provide you with important information about your drinking water in this 2008 Consumer Confidence Report for the Bristol Division (public water supply ID: PA1090001). The report summarizes the quality of water Aqua provided in 2008—including details about water sources, what the water at your tap contains, and how it compares to standards set by regulatory agencies. We are pleased to report that we were in compliance with all water quality regulations in 2008. Although the report lists only those regulated substances that were detected in your water, we test for more than what is reported. This report is only a summary of our testing during 2008. If you have any questions about the information in this report, please call 610.645.4248 or visit our website at www.aquapennsylvania.com.

Sources of Supply

Water for the Bristol Division comes from the Delaware River and wells. A source water assessment for the Delaware River was completed in 2002 by the Pennsylvania Department of Environmental Protection (DEP) and more recently for the wells. The assessment found that overall, the sources were found to have a moderate risk of significant contamination. Information on the source water assessment is available on the DEP Web site at www.depweb.state.pa.us (DEP keyword "source water"). Copies of the complete report are available for review at the DEP Southeast Regional Office, Records Management Unit, 484.250.5900.

The sources of drinking water (tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that 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 protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 800.426.4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with 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 at 800.426.4791.

The following table lists contaminants that were detected in your water system. The table provides the average of the sources used to supply the division, as well as minimum and maximum observed levels of regulated contaminants.

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Contaminants	Average Detection	Range of Detections	MCL	MCLG	Sample Date	Violation Y/N	Major Sources in Drinking Water
Total Coliform bacteria	0	NA	1	0	2008	N	Naturally present in the environment
Values above are number positive samples each month. The MCL is 1 positive monthly sample. During the year, none of 430 samples was positive for Total Coliform Bacteria.							
Turbidity	100.0%	100.0-100.0%	TT	NA	2008	N	Soil runoff
Values above are % meeting plant performance level. The Treatment Technique requirement is 95% of samples < 0.3 NTU							
Inorganic							
Barium, ppm	0.03	0.03 - 0.03	2	2	2004	N	Erosion of natural deposits
Chromium, ppb	2	2 - 2	100	100	2004	N	
Nitrate, ppm	1.6	ND - 3.2	10	10	2008	N	Fertilizers; septic tanks, sewage; erosion of natural deposits
Radiological – values are in pCi/L							
Alpha emitters	1.4	1.2 - 1.7	15	0	2003	N	Erosion of natural deposits
Combined radium	1.1	0.9 - 1.2	5	0	2003	N	
Disinfectants and Disinfection Byproducts Compliance for Haloacetic Acids and Total Trihalomethanes is based on a running annual average of quarterly samples. The range shows the highest and lowest result for individual samples.							
Chloramines, ppm	1.6	1.2 - 2.0	MRDL = 4	MRDLG = 4	2008	N	Water additive used to control microbes
Total organic carbon, removal ratio	1.16	1.00 - 1.79	≥ 1.00, TT	NA	2008	N	Naturally present in the environment
Haloacetic acids, ppb	RAA= 44	6 - 70	60	NA	2008	N	Byproduct of drinking water chlorination
Total Trihalomethanes, ppb	RAA= 46	8 - 76	80	NA	2008	N	
Organic compounds							
Cis-1,2-Dichloroethylene, ppb	ND	ND - 0.5	70	70	2008	N	Discharge from industrial sites
Tetrachloroethylene, ppb	ND	ND - 1.5	5	0	2008	N	Discharge from factories and dry cleaners
Ethylbenzene, ppb	ND	ND - 0.5	700	700	2008	N	Petroleum spills; tank coatings
Xylenes, ppm	ND	ND - 0.0005	10	10	2008	N	

Lead and Copper

Lead and Copper	90th Percentile	Total Number of Samples	Samples Exceeding Action Level	Action Level	MCLG	Sample Date	Violation Y/N	Major Sources in Drinking Water
Copper, ppm	0.16	33	0	1.3	1.3	2007	N	Corrosion of household plumbing
Lead, ppb	3	33	0	15	0	2007	N	

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Aqua is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Notes:

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements.

Fluoride: Fluoride may help prevent tooth decay if administered properly to children, but can be harmful in excess. Customers in the Bristol division receive water from unfluoridated supplies. For more information about fluoride in your tap water, call Aqua Pennsylvania at 610.645.4248. This information may be helpful to you, your pediatrician or your dentist in determining whether fluoride supplements or treatment are appropriate.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. Some levels are based on a running annual average.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs 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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable.

ND: Not detected.

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six 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 agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

NTU: Nephelometric turbidity unit (cloudiness of water).

Running Annual Average (RAA): The average of all monthly or quarterly samples for the last year at all sample locations.

Turbidity: Monitored as a measure of treatment efficiency for removal of particles. Plant Performance Level: 0.3 NTU.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

pCi/L, picoCuries/Liter: A unit of concentration for radioactive contaminants.

ppb: A unit of concentration equal to one part per billion.

ppm: A unit of concentration equal to one part per million.

PWSID: Public water supply identification number.

Unregulated Contaminant Monitoring Rule: Monitoring was conducted in 2008 for 25 unregulated contaminants. None were detected.

Monitoring for *Cryptosporidium* (a naturally occurring microbial pathogen) was conducted under a national program in 2008 on raw (untreated) water samples from the surface water source (Delaware River) supplying the Bristol Division. *Cryptosporidium* was detected in 1 of 16 samples collected during 2008; the Running Annual Average was 0.006 per liter. This is in the lowest category of risk for raw (untreated) water. Although our water treatment processes will remove *Cryptosporidium*, complete removal of all organisms at all times cannot be guaranteed. For this reason, immunocompromised individuals (people with weakened immune systems) are encouraged to consult their doctor regarding appropriate precautions to avoid infection.

Our water systems are designed and operated to deliver water to our customers' plumbing systems that complies with state and federal drinking water standards. This water is disinfected using chlorine, but it is not necessarily sterile. Customers' plumbing, including treatment devices, might remove, introduce or increase contaminants in tap water. All customers, and in particular operators of facilities like hotels and institutions serving susceptible populations (like hospitals and nursing homes), should properly operate and maintain the plumbing systems in these facilities. You can obtain additional information from the EPA's Safe Drinking Water Hotline at 800.426.4791.