City of Germantown Water Quality Report - 2013

Is my drinking water safe?
Yes. Our water meets all EPA health standards. Tests for more than 80 possible contaminants were conducted. As the chart on the back indicates, only eight contaminants were detected and all at safe levels.

Why are there contaminants in my water?
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 is available by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

Quality On Tap!
Our Commitment Our Profession

What is the source of my water?
Your water is ground water that comes from the Memphis Sand Aquifer. The City's goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water source to potential contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the untreated water sources serving water to this water system. The SWAP Report assesses the susceptibility of untreated water sources to potential contamination. To ensure safe drinking water, all public water systems treat and routinely test their water. Water sources have been rated as reasonably susceptible, moderately susceptible or slightly susceptible based on geologic factors and human activities in the vicinity of the water source. The City of Germantown sources rated as reasonably susceptible to potential contamination.

An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at www.tn.gov/environment/water/water-supply_source-assessment.shtml or you may contact Germantown water department at 751-7685 to obtain copies of specific assessments.

A wellhead protection plan is available for review weekdays between 7 a.m. and 3 p.m., at 7648 Southern Avenue. Water Plant personnel are available for assistance.

Other Information
The sources of drinking water (both 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, in some cases, 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:
- Microbial contaminants, such as viruses and bacteria, originating from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which are naturally-occurring or result from urban stormwater runoff, industrial or domestic waste water discharges, oil and gas production, mining or farming.
- Pesticides and herbicides from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products 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 tap water is safe to drink, the EPA and the Tennessee Department of Environment and Conservation prescribe 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 protection for public health.

Do I Need To Take Special Precautions?
Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as those with cancer undergoing chemotherapy, organ transplant patients, 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 not only their drinking water, but food preparation, personal hygiene and precautions in handling infants and pets from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 800-426-4791.

Lead in Drinking Water
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water results primarily from materials and components associated with service lines and home plumbing. The City of Germantown 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 two 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 www.epa.gov/safewater/lead.

Is our water system meeting other rules that govern our operations?
The State and EPA require us to test and report on our water on a regular basis to ensure its safety. We have met all of these requirements. Results of unregulated contaminant analysis are available upon request. We want you to know that we follow all rules and requirements.

Water System Security
Following the events of September 2001, we realize that our customers are concerned about the security of their drinking water. We urge the public to report any suspicious activities at any utility facilities, including treatment plants, tanks, fire hydrants, etc. to 757-7338.

How can I get involved?
The Germantown Board of Mayor and Aldermen meets on the second and fourth Monday each month at Municipal Center, 1930 South Germantown Road. The public is encouraged to participate in these meetings.

Este informe contiene información muy importante. Tradúscalo o hable con alguien que lo entienda bien.

For more information about your drinking water, call Lead Water Plant Operator Mike O'Neill at 751-7692.

Water Quality Data

What does this chart mean?

- MCLG - Maximum Contaminant Level Goal, or 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.
- MCL - Maximum Contaminant Level, or 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. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.
- AL - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- Parts per million (ppm) or milligrams per liter (mg/l) – explained as a relation to time and money as one part per million corresponds to one minute in two years or a single penny in $10,000.
- Parts per billion (ppb) or micrograms per liter - explained as a relation to time and money as one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
- Iron - Iron occurs naturally in our raw water and occasionally accumulates in the distribution system. Iron shows up as “red” or ”rusty” water at the tap. Although you do not want to drink water that is not clear, iron is not considered to be health hazard. The City tests for iron daily and the result is usually around 0.02 ppm. The aesthetic limit for iron is 0.3 ppm.

Contaminant	Violation Yes/No	Level Found	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
HAA5 Haloacetic Acids	N	2	0.8-2	2013	ppb	NA	60	By-product of drinking water disinfection
Copper*	N	90%= 0.491	0.02-0.6	2013	ppm	1.3 ppm	Action level >1.3 90% of samples must have levels less than 1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	N	0.82	0.65-1.06	2013	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead *	N	90%= 0.002	0.0-0.003	2013	ppm	0	Action level 90% of samples must have levels less than 0.015 ppm	Corrosion of household plumbing systems, erosion of natural deposits
Sodium	N	7.19	NA	2010	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
TTHM Total Trihalomethanes	N	6	0.25-15	2013	ppb	N/A	80	By-product of drinking water chlorination
Chlorine	N	0.83	0.62-1.07	2013	ppm	4	4	Water additive used to control microbes
Nitrate		.311	0.0-0.311	2012	ppm	10	10	Erosion of natural deposits; leaching from septic tanks; runoff from fertilizer use.

*During the most recent round of lead and copper testing, out of 30 households sampled none contained concentrations exceeding the action level for lead and none exceeded the action level for copper.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other; potentially-harmful, bacteria may be present. In 2013, we sampled for coliform bacteria at almost 500 locations in the water system and had one sample test positive. Subsequent samples from that location were negative (there were no signs of bacteria).

While Germantown drinking water meets EPA standards for trihalomethanes, it does contain low levels. Those who drink water containing trihalomethanes in excess of the maximum contaminate level over many years may experience liver, kidney or central nervous system problems and may have an increased risk of cancer.

CITY OF
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IMPORTANT INFORMATION ABOUT GERMANTOWN'S DRINKING WATER
Monitoring Requirements Not Met for Germantown Water System

Due to a communication problem, Germantown's Utility Department violated drinking water standards over the past year. Even though these were not emergencies, as customers, you have a right to know what happened and what was done to correct these issues.

The City of Germantown is required to monitor drinking water for specific contaminants on a regular basis. Results of regular and periodic monitoring are an indicator of whether or not City drinking water meets health standards. During the 2011 to 2013 compliance periods, technicians did not monitor or test for required periodic containments as listed below. Raw water was tested for many of these contaminants but finished water was not tested as required. Raw water testing was in full compliance.

The table below lists the contaminants not properly tested for during the 2011 to 2013 compliance period, how often these tests should take place, the number of samples that should have been taken and the date on which samples were taken to correct the issue.

CONTAMINANT	REQUIRED SAMPLING FREQUENCY	NUMBER OF SAMPLES TAKEN	SAMPLES SHOULD HAVE BEEN TAKEN	SAMPLES WERE TAKEN
Volatile Organic [1] Chemicals (VOCs)	one sample triennially	0	1/1/11--12/31/13	2/18/14
Inorganic & Secondary [2] Compounds (IOCs/Sec)	one sample triennially	0	1/1/11—12/31/13	2/18/14
Sodium	one sample triennially	0	1/1/11—12/31/13	2/18/14
Asbestos	one sample triennially	0	1/1/11—12/31/13	2/18/14
Nitrate	one sample per year	0	1/1/13—12/31/13	3/04/14

Based on testing reports received March 5 and 10, 2014, all listed contaminants were tested and found to be at acceptable levels.

For more information, contact Water Services Superintendent Mike Sorensen, at 751-5685 or msorensen@germantown-tn.gov. .

[1] VOCs, also known as volatile organic compounds, are tested by collecting one sample and testing that sample for the VOCs. VOCs are commonly used in industrial and manufacturing processes. VOCs include benzene, carbon tetrachloride, chlorobenzene, 1,2-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, cis-dichloroethane, trans-dichloroethane, dichloromethane, 1,2-dichloropropane, ethylbenzene, styrene, tetrachloroethylene, 1,1,1-trichloroethane, trichloroethylene, toluene, 1,2,4-trichlorobenzene, 1,1-dichloroethylene, 1,1,2-trichloroethane, vinyl chloride, and xylene.,
[2] IOCs/Sec, also known as inorganic and secondary compounds, are tested by collecting one sample testing that sample for all the IOCs and secondaries. IOCs include arsenic, barium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, antimony, beryllium, and thallium. Secondaries include aluminum, chloride, copper, iron, manganese, silver, sulfate, mbas, zinc, odor, and total dissolved solids.