



WAUSAU WATERWORKS

FOR YOU!

free lateral tests

For a limited time only, Wausau Water Works is still offering FREE lateral tests for homes with lead water service laterals. Generally, homes built prior to 1965 would have lead laterals and would qualify for this testing. Questions regarding lead in the drinking water, or to see if your home qualifies for the lateral testing, may be referred to Deb Geier at 715-261-7262.

Water Quality Report

Retrofitting at Wausau Water Works

The four raw sewage pumps at the wastewater plant are some of the many essential pieces of equipment we rely on. The large 9500 gpm vertical shaft influent pumps and 100 hp electric motors, in turn, aren't very useful without the electrical panels that control them. That's why Senior Plant Maintenance Mechanic, Pat VanOuse, knew he was going to have some major challenges on December 16, 2012 when he walked into the plant and smelled a burnt plastic odor coming from the pump room.

The original motor drives were installed in 1989. They were state of the art at that time but also very costly, so only two drive units were installed for the four pumps. With one drive unit down, a second pump could only be run in an on or off mode. If needed, one of the massive pumps would repeatedly kick in at full speed followed by a loud bang of the check valve as it shut back off. Repairing the drive units was urgent to be prepared for the next storm event.

Wastewater staff selected Vacon brand drives from Linder Electric as replacements based on our experience with Vacon drives on other equipment, price, and availability. Van Ert Electric was retained to install the two new drives in the existing electrical cabinets. The new drives were delivered and installed by the end of January.



(L-R) Wastewater Superintendent, Dave Erickson, and Pat VanOuse, Senior Plant Maintenance Mechanic, accept a plaque from Bob Rohde, Regional Sales Manager at Linder Electric Motors, Inc. for participation in the VACON Driven by Drives program. The new drives operate not only quieter but also more efficiently reducing the overall costs of operations within the Wastewater Treatment Plant.

IMPORTANT WATER QUALITY INFORMATION ENCLOSED

Dlaim ntawv tshaabxu nuav muaj lug tseemceeb heev nyob rua huv hws has txug cov dlej mej haus. Kuas it tub paab txhais rua koj, los nrug ib tug kws paub lug thaam.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Did You Know?

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 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 water runoff, industrial or domestic wastewater discharges, oil and gas productions, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban storm water runoff and residential users.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum productions, and can also come from gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring, or be the result of oil and gas production and mining operations.

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 shall provide the same protection for public health.

Let's Raise Our Glasses to Toast Water Quality Excellence!

Wausau Water Works is proud to present this year's Water Quality Report, and even more proud to announce that our test results for 2014 met all the requirements for safe, excellent water quality. A complete list of the results of these tests are shown on pages 4-5 of this report.

We are often asked "why do you prepare this report?" Because we want you, our valued customers, to be informed about your drinking water, and know that the product you are drinking is safe and of the highest quality. The federal government also wants you to be informed about your drinking water, and requires all water utilities in the United States to provide this information to their customers on an annual basis. So let's raise our glasses (of water, of course) and toast to another year of water quality excellence!



Water Utility Complies with Lead Action Levels in First Round of Testing

Wausau Water Works recently completed their first round of lead compliance tests after their 2014 exceedance. Results of the 60 homes tested between January-June, 2015 came back with only 3 properties testing higher than the action level of 15 ppb which puts us back into compliance. A second round of testing will be conducted starting in July.

We often get asked if the lead in the water is in specific areas of town. The answer to that is no. Actually, the water mains themselves are not where the problems occur, it's when the water sits in lead service lines, or copper lines with lead solder, or the home's plumbing that the lead gets into the water. There are a couple of easy things to do to help minimize the amount of lead that your family would be exposed to. The first is to flush any faucet that you would normally drink from, such as kitchen and bathroom faucets, anytime the water has sat for 6 hours or longer. Running the cold water from 30 seconds to 2 minutes, or until it runs cold-cold, should do the trick to bring in the fresh water from the mains. Also, when using water for cooking or preparing baby formula, never use hot water from the tap. Hot tap water is more apt to leach the lead from the pipes than the cold water. Always draw the water from the cold water tap and heat.

Important Info

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 of 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

You may also contact our office at 715-261-6530 if you have any questions regarding your water quality. Our office hours are 8:00 a.m. to 4:30 p.m. Monday through Friday.

Routine Water Quality Testing...

The Water Quality Test Results shown on pages 4-5 only lists substances which were detected. **We run numerous tests for substances which are not detected.** We also run routine tests to help us evaluate water characteristics such as pH, alkalinity, hardness, etc. A summary of those results is shown below.

pH - Typical result: 8.5. Ideal range: 7 to 8.5. Measure of acidity—low values may indicate corrosive water.

Alkalinity - Typical result: 70 to 80 mg/l. Measure of water's ability to neutralize acids—is related to pH and hardness.

Hardness - Typical results: 80 to 100 mg/l or 4-1/2 to 6 grains/gallon. Wausau's water is moderately soft. Hard water is beneficial to health, but high levels can decrease soap's cleaning ability and cause scaling inside of pipes.

Iron - Typical result: less than 0.05 mg/l. Natural levels in our well water can be high, but it is removed by our treatment plant - not a health concern, but it can cause taste and odor problems as well as staining of laundry when bleach is used.

Manganese - Typical result: less than 0.04 mg/l. Like iron, a naturally occurring mineral that is removed at the treatment plant.

What these tests indicate is that we have high quality, good tasting water available right at our taps!

Definitions of Terms

The terms listed below relate to the tables as shown on pages 4-5

AL - Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

PPM - Parts Per Million or milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

PPB - Parts Per Billion or micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

pCi/l - Picocuries per liter - measure of radioactivity.

MCL - Maximum Contaminant Level - the "Maximum Allowed" (MCL) is 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.

MCLG - Maximum Contaminant Level Goal - the "goal" (MCLG) is a 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.

TCR - Total Coliform Rule.

ND - None Detected.

MCLs are set at a very stringent level. 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.

Do Not to Flush!

With today's hectic schedules we all enjoy the modern conveniences such as anti-bacterial wipes, diaper wipes, disposable diapers, etc. Unfortunately, our Wastewater Treatment Plant has seen an increase in these types of products. These items are notorious for plugging up pumps and can get caught on roots or other debris in laterals and sewer mains causing back-ups to occur. Maintenance costs to remove these products and repair equipment is also increasing. These items do not break down like toilet paper does.

Our sewer collection crew also has seen an increase in rags and wipes in our sewer mains. When backups occur as a result of these types of items, it is often at the expense of the property owner. Grease is another issue that causes homeowners problems. Grease should be wiped from pans and disposed of in the garbage prior to washing dishes. Using soaps that claim to eliminate grease, only breaks it down for a short period of time where it again congeals further down the line, clinging to other debris such as rags or roots.

Remember, use your toilet only for its' intended purpose.

Never flush

diapers, wipes of any type, feminine hygiene products, rags, paper towels, or anything that is not intended for the toilet. Dispose of these products in your garbage can.

**WATER QUALITY TEST RESULTS**

Substance	Unit Measurement	MCLG	MCL	Level Detected	Violation Y/N	Likely Source Of Substance
-----------	------------------	------	-----	----------------	---------------	----------------------------

Disinfection Byproducts

HAA5 Site D11 Site D16	ppb	60	60	18 14 (Range 14-18)	NO 	By-product of drinking water chlorination
TTHM Site D11 Site D16	ppb	0	80	10.5 13.6 (Range 10.5-13.6)	NO 	By-product of drinking water chlorination



Inorganic Contaminants

Barium	ppm	2	2	.006	NO 	Erosion of natural deposits
Cyanide (Last sample date 09/09/2011)	ppb	200	200	12		Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	ppm	4	4	0.7	NO 	Erosion of natural deposits; water additive which promotes strong teeth
Nickel	ppb		100	0.56 (Range .54-.56)	NO 	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products
Nitrate (N03-N)	ppm	10	10	0.49 (Range .46-.49)	NO 	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (N02-N)	ppm	1	1	0.021 (Range 0.015-0.021)	NO 	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	ppm	N/A	N/A	14	NO 	Naturally occurring, contained in corrosion control additive


INFORMATION ON MONITORING FOR CRYPTOSPORIDIUM AND RADON—Our water system did not monitor our water for cryptosporidium or radon during 2014. We are not required by State or Federal drinking water regulations to do so.

Substance	Unit Measurement	MCLG	MCL	Level Detected	Violation Y/N	Likely Source Of Substance
-----------	------------------	------	-----	----------------	---------------	----------------------------

Inorganic Contaminants (continued)


Copper	ppm	1.3	AL=1.3	0.0580 (0 of 30 results were above the action level)	NO * 	Corrosion of household plumbing systems
Lead	ppb	0	AL=15	16.00 (4 of 30 results were above the action level)	NO * 	Corrosion of service lines and household plumbing systems

Radioactive Contaminants

Radium (226 + 228)	pCi/l	0	5	0.8 (Range 0.5-0.8)	NO 	Erosion of natural deposits
---------------------------	-------	---	---	------------------------	--------------------------------------------------------------------------------------------------	-----------------------------

Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring.

Sulfate	ppm			9.20 (Range 8.90-9.20)	NO 	Naturally occurring
----------------	-----	--	--	---------------------------	----------------------------------------------------------------------------------------------------	---------------------

* Systems exceeding a lead and/or copper action level must take actions to reduce lead and/or copper in the drinking water. The lead and copper values represent the 90th percentile of all compliance samples collected. If you want more information on the number of sites or the actions taken to reduce these levels, please contact Wausau Water Works at 715-261-7262.

DETECTED CONTAMINANTS—Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The tables on these two pages list only those contaminants which were detected in your water. If a contaminant was detected last year, it will appear in these tables without a sample date. If the contaminant was not monitored last year, but was detected within the last 5 years, it will appear in the table along with the sample date.

Health Effects for any Contaminants with MCL Violations/Action Level Exceedances

LEAD INFORMATION—Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. 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. Wausau Water Works 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 www.epa.gov/safewater/lead.

Data presented in these tables represent the most current test results. Some tests are performed on a 3 year cycle.

How to Avoid a Water System Cross Connection

What is a Cross Connection? A cross-connection is an actual or potential connection between the safe drinking water (potable) supply and a source of contamination or pollution. State plumbing codes require approved backflow prevention methods to be installed at every point of potable water connection and use. Cross-connections must be properly protected or eliminated.

How does contamination occur? When you turn on your faucet, you expect the water to be as safe as when it left the treatment plant. However, certain hydraulic conditions left unprotected within your plumbing system may allow hazardous substances to contaminate your own drinking water or even the public water supply.

Water normally flows in one direction. However, under certain conditions, water can actually flow backwards; this is known as Backflow. There are two situations that can cause water to flow backwards: backsiphonage and backpressure.

Backsiphonage may occur due to loss of pressure in the municipal water system during a fire fighting emergency, a watermain break or system repair. This creates a siphon in your plumbing system which can draw water out of a sink or bucket and back into your water or the public water system.

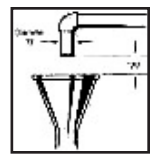
Backpressure may be created when a source of pressure (such as a boiler) creates a pressure greater than the pressure supplied from the public water system. This may cause contaminated water to be pushed into your plumbing system through an unprotected cross-connection,

Insights to Protect Your Drinking Water DO...

- Keep the ends of hoses clear of all possible contaminants
- Make sure dishwashers are installed with a proper air-gap device
- Verify and install a simple hose bibb vacuum breaker on all threaded faucets around your home

DON'T...

- Submerge hoses in buckets, pools, tubs, sinks or ponds
- Use spray attachments without a backflow prevention device
- Connect waste pipes from water softeners or other treatment systems directly to the sewer or submerged drain pipe. Always be sure there is an one inch "air gap" separation



In the Bathroom Hand Held Shower Fixture

The hand held shower fixture is Compliant if:

- When shower head is hanging freely, it is at least 1" above top of the flood level rim of the receptor (tub)
- Complies with ASSE #1014



Has the ASME code 112.18.1 stamped on the handle

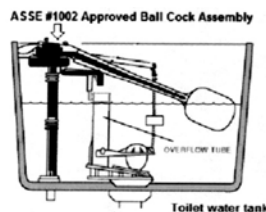
1" minimum AIR GAP above Tub from fixture outlet



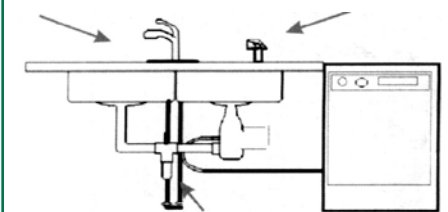
In the Bathroom—Toilet Tanks

There are many unapproved toilet tank fill valve products sold at common retailers which do not meet the requirements for backflow prevention.

- Look for ASSE #1002 Standard symbol on the device and packaging.
- Replace any unapproved devices with an ASSE #1002 approved anti-siphon ball-cock assembly. Average cost is typically between \$12 to \$22 at home improvement stores.
- Verify overflow tube is one inch below critical level (CL) marking on device.



In the Kitchen

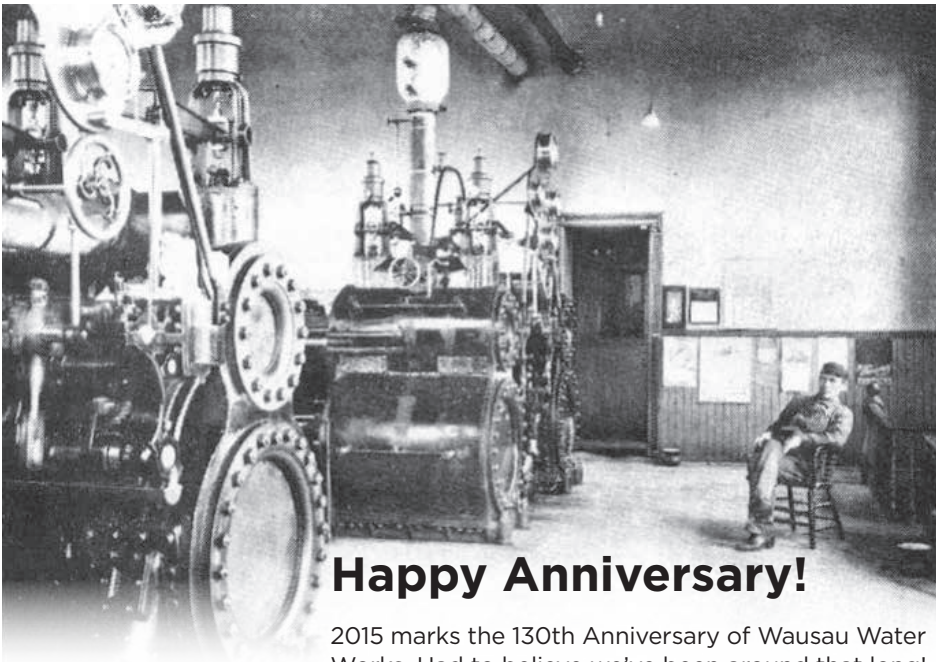


Hoses and water treatment devices may create a potential backflow hazard if not properly isolated with backflow prevention methods.

Source—Wisconsin Municipal Environment Group—Water Division

Upcoming Taxroll Changes to Affect Tenants

Based on a 2014 change to Wisconsin State Statutes, tenants who default on their water and sewer bills could see these charges applied to the Wisconsin Circuit Court Access (CCAP) program. The public, including landlords, have access to this program and will be able to assess whether future tenants have a history of defaulting on public utility bills. When delinquent notices are sent in October, tenants will also now receive a copy of the notice if there is an outstanding balance and if the quarterly bills typically are mailed directly to them. Questions regarding these changes may be directed to the Wausau Water Works billing office at 715-261-6530.

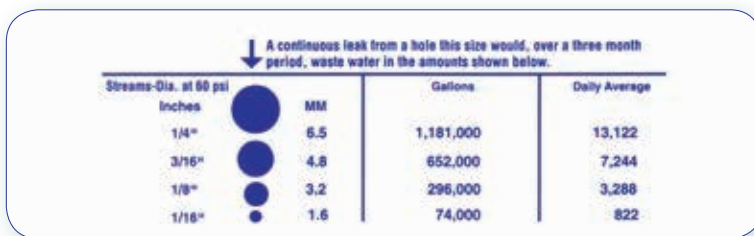


Happy Anniversary!

2015 marks the 130th Anniversary of Wausau Water Works. Had to believe we've been around that long!

Back in 1885 when the utility was created, land was purchased north of Bridge Street along the Wisconsin River for the first well and pumping station which consisted of boilers and two steam driven Holly pumps (pictured above). The pumps had a rated capacity of 2,100 gpm each and the boilers were fired with "hog feed" (wood chips and sawdust). 10 miles of water mains, 100 hydrants were also installed for a grand total of \$115,175.

Today, have 6 supply wells, a 12 mgd water treatment plant, over 230 miles of water mains, in excess of 1,600 hydrants and provide service to almost 16,000 customers. Yes, we've come a long way, but one thing has remained consistent, and that is our commitment to provide the best quality drinking water possible for our residents!



Fixing a Leak Can Save \$\$

A leaky faucet that runs a stream of water as small as 1/16" can waste 74,000 gallons over a three month period. You might think that it couldn't possibly increase your bill that much, but in fact a continual leak can cause bills to go up tremendously! That 74,000 gallons can equal an increase in your quarterly water and sewer bill of almost \$465.00. Take the time now to check those faucets and repair any known leaks. Toilets can also be checked by putting a few drops of food coloring in the tank of the toilet. If the color comes through without flushing then the stopper is not closing off properly. Generally inexpensive repairs can ultimately create significant savings on your water and sewer bill.

Private Well Permits

Property owners in the City of Wausau are required to have a permit for wells on their property. Wells that do not meet code requirements or that are not operational must be properly abandoned.

The procedure for obtaining a permit has changed in response to changes in the Wisconsin Administrative Code. To obtain or renew a well permit the property owner must submit an application form, an inspection report from a licensed well driller or pump installer certifying that the well is in compliance, a passing bacteria test, and a \$15 fee.

Wells that are not in use must be properly abandoned by a licensed well driller or pump installer. DO NOT attempt to fill a well yourself as it is very expensive to remove unapproved materials from the well casing.

Please contact Wausau Water Works at 715-261-7262 if you need an application for a well permit or information on well abandonment.

Questions About This Water Report?

If you have questions regarding this water quality report, or concerns about your water, please contact Eric Lindman, Director of Public Works and Utilities at 715-261-6745 or Scott Boers, Drinking Water Superintendent at 715-261-7286.

If you'd like to learn more about Wausau Water Works visit our website at www.ci.wausau.wi.us/Departments/WausauWaterWorks.aspx.

Utility Commission Meets Monthly

The Wausau Water Works Commission typically meets the first Tuesday of each month at 1:30 p.m. in City Hall. (some exceptions do apply).

If you'd like to learn more about Wausau Water Works, please feel free to attend any of our regularly scheduled Commission meetings. If you wish to have an item placed on the agenda for Commission consideration, please contact Lori Wunsch at 715-261-6742 two weeks prior to the next scheduled meeting.

Meeting agendas and minutes of prior meetings are available on the City of Wausau website at www.ci.wausau.wi.us.

Congratulations!

Congratulations are extended to Shannon Lane who was recently promoted to the position of Senior Distribution Maintainer. We wish Shannon the best in his new position.

Rich Wendlick has recently transferred from the Department of Public Works to the Water Utility as a Distribution Maintainer.

Floyd Smith Jr. has also recently started with the Water Utility as a Distribution Maintainer.

We welcome both Rich and Floyd to our Team!



Thousands of Water Quality Tests Conducted Annually

The substances shown on the tables on pages 4 and 5 indicate contaminants that are detected in our drinking water. Other items that are tested, but are indicated as non-detects (meaning their amounts are so low, if at all present, that they are not detected during testing) include: Antimony, Beryllium, Cadmium, Chromium, Mercury, Selenium, Thallium, Aldicarb, Atrazine, Pentachlorophenol, Toxaphine, Benzene, Styrene, Vinyl Chloride, and Xylene, just to name a few.

Thousands of water quality tests are performed annually to ensure that you are receiving the best possible quality of drinking water. Additional tests, including inorganic substances, disinfection byproducts, radioactive substances, unregulated contaminants, microbiological, volatile organic and synthetic organic substances which include pesticides and herbicides, are conducted on a three to five year cycle.

Where Does Our Water Come From?

Wausau's drinking water comes from six municipal wells, all of which are located near the Wisconsin River. These wells range in depth from 95 feet to 160 feet and pump anywhere from 900 to 3000 gallons per minute.

From the wells, the water travels to our Water Treatment Plant where it undergoes treatment to remove iron and manganese prior to distribution to your home or business. Approximately 250 miles of mains deliver the water from the Treatment Plant to approximately 16,000 homes and businesses served by Wausau Water Works.

To obtain a summary of the source water assessment, please contact Scott Boers at 715-261-7286.

Did You Know?

All drinking water, including bottled water, may be reasonably expected to contain naturally dissolved elements/minerals. It's important to remember that the presence of these constituents does not necessarily pose a health risk, and generally are required for a balanced diet. All sources of drinking water are subject to potential contamination by constituents that are naturally occurring, or are man-made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

