



CITY NEWS

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June 4, 2014

DELAWARE CITY
2013 WATER QUALITY REPORT
407 Clinton Street, Delaware City, DE 19706
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Report Created: May 2014

We are pleased to provide you with this annual water quality report for 2013. You will see that substances such as iron, chloride, and sodium are commonly found in drinking water. They occur naturally and, at trace levels, are not harmful to drink. The report shows at what levels any substances were found during tests conducted from January 1, 2013 - December 31, 2013, unless otherwise specified. If you have any questions about this report or the quality of your water, please contact Mr. Dick Cathcart, City Manager, at (302) 834-4573. If you wish to learn more, please attend any of the regularly scheduled meetings of Mayor and Council held the third Monday of each month at 6:30 p.m. in the Paul H. Morrill, Jr. Community Center, located at 250 Fifth Street, Delaware City, DE 19706.

A Safe Water Source

The water serving your home comes from the Potomac aquifer via two (2) wells at depths of 720 and 737 feet. This aquifer is confined and protected from the influence of past farming activities and saltwater intrusion. The Division of Public Health (DPH) in conjunction with the Department of Natural Resources and Environmental Control (DNREC) has conducted source water assessments for nearly all community water systems in the state. Copies can be obtained by contacting Mr. Dick Cathcart at (302) 834-4573 or by visiting DNREC's Source Water Program website at <http://www.wr.udel.edu/swaphome/swassessments.html>.

Expected Substances In Drinking 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 can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 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 stormwater 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, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

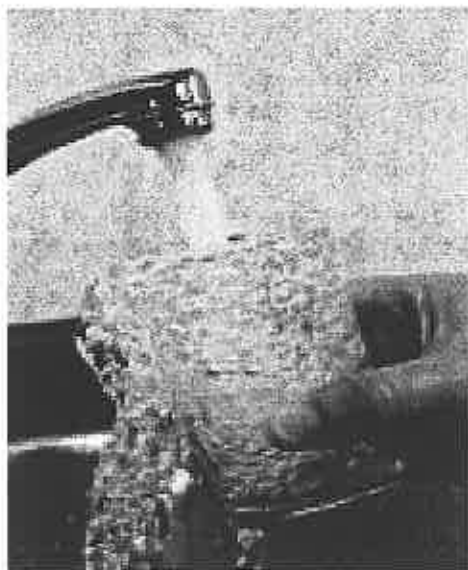
Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

City of Delaware City
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Important Information Pertaining to Radon:

Radon is a radioactive gas that is found in nearly all soils. It typically moves up through the ground to the air and into homes through the foundation. Drinking water from a ground water source can also add radon to the home air. The EPA indicates that, compared to radon entering the home through soil, radon entering the home through water will in most cases be a small source of risk. The EPA and the State of Delaware have not yet set standards for monitoring radon in drinking water, although we do expect sampling to become mandatory in the near future. We are keeping a close eye on the situation and will be sure to comply with any new regulations as required.

Important Information Pertaining to Lead:

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. We are 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.

If You Have A Special Health Concern

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 (1-800-426-4791).

Definition of Terms

In the table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

- **90th Percentile** – The ninth highest (out of a total of ten) lead and copper readings, used to determine compliance with the Lead and Copper Rule.
- **Action Level** - The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **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.
- **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 Disinfection Residual Level (MRDL)** – the highest level of a disinfectant in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.
- **Maximum Disinfection Residual 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.
- **Nephelometric Turbidity Unit (NTU)** – a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **Non-Detects (nd)** - laboratory analysis indicates that the constituent is not present.
- **Not Regulated (n/r)** - no MCL identified because this substance is unregulated.
- **Picocuries per Liter (pCi/l)** – a measure of the radioactivity in water.
- **Parts per Billion (ppb)** – one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.
- **Parts per Million (ppm)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.

<u>SUBSTANCES DETECTED</u>		Violation Yes / No	Unit of Measure	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Highest Level Detected	Annual Range	Major Sources
Inorganic Contaminants								
Fluoride		N	ppm	2	2	1.38	0.49 – 1.38	Water additive that promotes strong teeth.
Barium (2010 Data)		N	ppb	2000	2000	27	23.8 – 27	Erosion of natural deposits.
Chromium (2010 Data)		N	ppb	100	100	2.9	2.6 – 2.9	Erosion of natural deposits.
Nitrate – Nitrite (2012 Data)		N	ppm	10	10	0.3	0.3	Erosion of natural deposits.
Nitrate (2012 Data)		N	ppm	10	10	0.3	0.3	Erosion of natural deposits.
Nitrite (2012 Data)		N	ppm	1	1	0.1	0.1	Erosion of natural deposits.
Radiological Contaminants								
Radium, combined (2010 Data)		N	pCi/l	5	0	0.67	0.31 – 0.67	Erosion of natural deposits.
Gross alpha excluding radon & uranium (2009 Data)		N	pCi/l	15	0	0.88	0.34 – 0.88	Erosion of natural deposits.
Disinfection/Disinfection By-product Contaminants								
Chlorine, Free Residual		N	ppm	4 (MRDL)	4 (MRDLG)	1.94	0.0 – 1.94	Disinfectant used in drinking water industry.
Halooacetic Acids, total (2012 Data)		N	ppb	60	0	5.8	0.0 – 5.8	By-product of drinking water chlorination.
Dibromooacetic Acid		N	ppb	n/r		1.5	0.0 – 1.5	
Dichloroacetic Acid		N	ppb	n/r		1.9	0.0 – 1.9	
Monochloroacetic Acid		N	ppb	n/r		1.4	nd – 1.4	
Trichloroacetic Acid		N	ppb	n/r		1.9	0.0 – 1.9	
Trihalomethanes, total (2012 Data)		N	ppb	80	0	9.89	7 – 9.89	By-product of drinking water chlorination.
Bromodichloromethane		N	ppb	n/r		3.5	0.0 – 3.5	
Bromoform		N	ppb	n/r		0.8	0.0 – 0.8	
Chloroform		N	ppb	n/r		2.6	0.6 – 2.6	
Dibromochloromethane		N	ppb	n/r		3.8	0.0 – 3.8	
Unregulated Contaminants								
Alkalinity, Total (2012 Data)		N	ppm	n/r	n/r	83	83	Corrosion of household plumbing systems.
Chloride (2012 Data)		N	ppm	n/r	250	16.9	16.9	
Hardness, Total (2011 Data)		N	ppm	n/r	0.3	9.4	9.2 – 9.4	Erosion of natural deposits
Iron		N	ppm	n/r	0.3	0.4	0.03 – 0.4	
pH, (Field)		N	ppm	0-14	7.5	8.3	6.8 – 8.3	Corrosion of household plumbing systems.
Sodium (2012 Data)		N	ppm	n/r	50	46	46	
Solids, Total Dissolved (2011 Data)		N	ppm	n/r	500	150	124 – 150	Erosion of natural deposits
Sulfate (2012 Data)		N	ppm	n/r	250	12.7	12.7	
Lead & Copper								
90th Percentile Lead		N	ppb	15	0	3.1	0	Corrosion of household plumbing systems.
Number of Sites Exceeding Lead Action Level								Erosion of natural deposits
90th Percentile Copper)		N	ppm	1.3	1.3	0.646		Corrosion of household plumbing systems.
Number of Sites Exceeding Copper Action Level								Erosion of natural deposits

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.