



CITY NEWS

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DELAWARE CITY WATER QUALITY REPORT 407 Clinton Street, Delaware City, DE 19706 PWSID – DE0000566 Report Written April, 2011

We are very pleased to provide you with this annual water quality report for 2010. We're also pleased to report that Delaware City drinking water meets or exceeds all the standards for reportable substances. 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 Jan. 1, 2010 - Dec. 31, 2010, unless otherwise specified. If you have any questions about this report and the quality of your water, please contact the City Manager at (302) 834-4573. If you wish to learn more, please attend any of the regularly scheduled meetings of Mayor & Council held the third Monday of each month.

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 in conjunction with the Department of Natural Resources and Environmental Control has conducted source water assessments for nearly all community water systems in the state. For a copy of the assessment, contact the Delaware City Town Hall (302) 834-4573.

All sources of drinking water (whether a river, lake, spring, well, or pond) are subject to potential contamination by substances that are naturally occurring or man made. As water travels through the ground or over the surface of the land, it can dissolve naturally occurring substances, including radioactive substances. Additionally, some substances result from the presence of animals or human activity. These substances (both natural and man-made) can be microbes, inorganic or organic chemicals, pesticides/herbicides and radioactive substances. 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. 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 microbiological contaminants are available from the Safe Drinking Water Hotline mentioned above.

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 established limits for contaminants in bottle water, which must provide the same protection for public health.

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 - 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.

MAXIMUM CONTAMINANT LEVEL GOAL - the "Goal" (MCLG) is 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.

NON-DETECTS (ND) - laboratory analysis indicates that the constituent is not present.

NOT REGULATED (N/R) - no MCL identified because this substance is unregulated.

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 \$10,000,000.

Parameter	Unit of Measure	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Highest Level Detected	Annual Range	Major Sources
Inorganic Contaminants						
Barium	ppb	2000	2000	27	24 – 27	Erosion of natural deposits.
Chromium	ppb	100	100	2.9	2.6 – 2.9	Erosion of natural deposits.
Fluoride	ppm	2	2	1.4	0.2 – 1.4	Water additive that promotes strong teeth.
Radiological Contaminants						
Radium, combined	pCi/l	5	0	0.7	0.3 – 0.7	Erosion of natural deposits.
Radium 226	pCi/l			0.2	0.1 – 0.2	Erosion of natural deposits.
Radium 228	pCi/l			0.5	0.2 – 0.5	Erosion of natural deposits.
Disinfection/Disinfection By-product Contaminants						
Chlorine, Free Residual	ppm	4 (MRDL)	4 (MRDLG)	2.2	nd – 2.2	Disinfectant used in drinking water industry.
Haloacetic Acids, total	ppb	60	0	7.1	2.4 – 7.1	By-product of drinking water chlorination.
Dibromoacetic Acid	ppb	n/r		1.5	nd – 1.5	
Dichloroacetic Acid	ppb	n/r		4.3	1.3 – 4.3	
Monochloroacetic Acid	ppb	n/r		1.4	nd – 1.4	
Trichloroacetic Acid	ppb	n/r		1.6	nd – 1.6	
Bromodichloromethane	ppb	80	0	22.3	10 – 22.3	
Bromoform	ppb	n/r		5.3	nd – 5.3	
Chloroform	ppb	n/r		0.9	nd – 0.9	
Dibromochloromethane	ppb	n/r		13.4	nd – 13.4	By-product of drinking water chlorination.
		n/r		4.4	nd – 4.4	
Unregulated Contaminants						
Alkalinity, Total	ppm	n/r		88	87 – 88	
Chloride	ppm	n/r	250	16	14 – 16	
Hardness, Total	ppm	n/r		6	n/a	
Iron	ppb	n/r	300	460	30 – 460	
pH, Field	0-14 scale	n/r		7.8	6.7 – 7.8	
Sodium	ppm	n/r		47	nd – 47	
Solids, Total Dissolved	ppm	n/r	500	186	168 – 186	
Sulfate	ppm	n/r	250	11.3	10.5 – 11.3	
Lead & Copper						
90th Percentile Lead	ppb	15	0	1.5	nd - 3	Corrosion of household plumbing systems, Erosion of natural deposits
Number of Sites Exceeding Lead Action Level				0		
90th Percentile Copper	ppb	1,300	0	605	51 – 643	Corrosion of household plumbing systems, Erosion of natural deposits
Number of Sites Exceeding Copper Action Level				0		
Microbiological Contaminants						
Total Coliform						Naturally present in the environment.
						Negative results in 100 % of samples collected. Two (2) coliform samples per month are collected.

Contaminants tested for, but not found.

Inorganic Contaminants	Volatile Organic Contaminants	
Antimony Arsenic Beryllium Cadmium Mercury Nickel Nitrate Nitrite Nitrate/Nitrite Selenium Thallium	1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene 1,1-Dichloropropene 1,2,3-Trichlorobenzene 1,2,3-Trichloropropane 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Dichlorobenzene 1,3-Dichloropropane 1,4-Dichlorobenzene 2,2-Dichloropropane 2-Butanone (MEK) 2-Chloroethylvinyl Ether 2-Chlorotoluene	m,p-Xylene Methyl Isobutyl Ketone (MIBK) Methyl methacrylate Methylene Chloride Methyl-t-butyl ether (MTBE) Naphthalene n-Butylbenzene n-Propylbenzene o-Xylene sec-Butylbenzene Styrene tert-Butylbenzene Tetrachloroethene Tetrahydrofuran (THF) Toluene tr-1,2-Dichloroethene tr-1,3-Dichloropropene tr-1,4-Dichlorobutene Trichloroethene Trichlorofluoromethane Vinyl acetate Vinyl chloride Xylenes, total
Radiological Contaminants Uranium Disinfection By-Products Monobromoacetic Acid	2-Hexanone 3-chloro-1-propene 4-Chlorotoluene 4-Isopropyltoluene Acetone Acrylonitrile Benzene Bromobenzene Bromochloromethane Bromomethane Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane Chloromethane cis-1,2-Dichloroethene cis-1,3-Dichloropropene Dibromomethane Dichlorodifluoromethane Ethyl methacrylate Ethylbenzene Hexachlorobutadiene Isopropylbenzene	

Synthetic Organic Contaminants (Pesticides/Herbicides/Insecticides)		
1,2-Dibromo-3-Chloropropane 1,2-Dibromoethane 2,4,5-TP (Silvex) 2,4-D 2,4-dinitrotoluene 2,6-dinitrotoluene 2-Methyl Naphthalene 3-Hydroxycarbofuran 4,4'-DDE Acenaphthene Acenaphthylene Acetylchlor Acifluorfen Alachlor Aldicarb Aldicarb Sulfone Aldicarb Sulfoxide Aldrin	Anthracene Atrazine Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Bis(2-ethylhexyl) phthalate Butachlor Butylbenzylphthalate Carbaryl Carbofuran Chrysene Dalapon Di(ethylhexyl)adipate Dibenzo(a,h)anthracene Dibenzofuran Dibromochloropropane	Methiocarb Methomyl Methoxychlor Metolachlor Metribuzin Molinate Oxamyl (Vydate) PCBs Pentachlorophenol Phenanthrene Picloram Propachlor Propoxur Pyrene Simazine Terbacil Toxaphene

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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. Artesian Water Company is 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. Artesian Water 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.