Town of Dagsboro

Dagsboro, DE 19939
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WATER QUALITY REPORT

Artesian Water Company, Dagsboro's water operator, is pleased to provide this Water Quality Report for the year 2010. Please notice that substances such as iron, chloride, and sodium are commonly found in drinking water. They occur naturally at trace levels, and the EPA has deemed that these substances pose no health hazard from consumption in drinking water. This report indicates the concentrations of these and many other substances obtained during analyses performed from Jan. 1, 2009 – Dec. 31, 2009 unless otherwise specified. If you have any questions about this report or the quality of your tap water, please call Stacey Long at (302) 732-3777.

A Safe Water Source
The water serving your home comes from the Millsboro Water Department via an interconnection. Millsboro has 3 wells, one located in the Manokin aquifer and the other two located in the Columbia aquifer. The Manokin aquifer is confined and is not subject to contamination from nutrients and pesticides. The Columbia aquifer is unconfined and is potentially subject to contamination from nutrients and pesticides.

Source Water Assessment Plan
Further evaluation of the Dagsboro's water supply is made available by the Delaware Department of Natural Resources and Environmental Control (DNREC), through a program designed to assess the susceptibility of public water sources to contamination. DNREC's source water assessment plan has been completed and approved by the EPA. Copies can be obtained by contacting Stacey Long at the phone number listed above or by visiting DNREC's Source Water Program website at http://www.wr.udel.edu/swaphome/swassessments.html.

Expected Substances and Health Risks
All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals, or 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 water poses a health risk.

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 have established limits for bottled water, which must provide the same protection for public health. For more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

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 from their health care providers about drinking water.

The following tables contain terms and abbreviations that might be unfamiliar to you; yet, they are important toward understanding the data in the tables. The definitions of those terms and abbreviations follow.

90th Percentile
The eighteenth highest lead and copper reading (out of a total of twenty). This value is used to determine compliance with the Lead & Copper Rule.

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

Maximum Contaminant Level (MCL)
This value is the highest level of a contaminant that is allowed in drinking water. The State of Maryland sets MCLs as close to the MCLGs as feasible using the best available water-treatment technology.

Maximum Contaminant Level Goal (MCLG)
This value is level of a contaminant for which the State of Delaware has determined that no known or expected risk to health exists. MCGLs allow for a margin of safety.

NTU (Nephelometric Turbidity Unit)
A measure of the clarity of the water. Turbidity in excess of 5 NTU is barely noticeable to the average person.

Non-detect (nd)
Laboratory analyses using the state-approved methods indicate that the contaminant is not present.

Not regulated (n/r)
No MCL is identified because the substance is unregulated. (It is unregulated because the State of Delaware has deemed that the substance poses no risk to health in any concentration in drinking water.)

Parts per billion (ppb)
One part of the named substance in a billion parts of the drinking water. Equivalent relationships are one minute in 2,000 years or one penny in $10,000,000.

Parts per million (ppm)
One part of the named substance in a million parts of the drinking water. Equivalent relationships are one minute in 2 years or one penny in $10,000. (1 ppm equals 1,000 ppb.)

picoCuries per liter
A measure of radioactivity in drinking water.

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

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.

Public Meeting Information

For the opportunity to ask more questions or participate in decisions that may affect your drinking water quality, a public meeting is held the fourth Monday, each month, at 7:00 p.m. at the Bethel Center.

Violations:

Although Dagsboro did not exceed any State or Federal Maximum Contaminant Level, there was a monitoring and reporting violation this previous year. In July, we were late in getting the Lead and Copper Rule results to the Office of Drinking Water (ODW). In January of this year, we completed the first round of sampling and will conduct the second round in July. This will bring us back into compliance with the Lead and Copper Rule.

Substances Detected

Substance/Parameter	Unit of Measure	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Highest Level Detected	Annual Range	Major Sources
Inorganic Contaminants						
Nitrate	ppm	10	10	5.7	2.4 – 5.7	Erosion of natural deposits. Runoff from fertilizer use.
Nitrate/Nitrite	ppm	10	10	5.7	2.4 – 5.7	Erosion of natural deposits. Runoff from fertilizer use.
Organic Contaminants						
Xylenes, total	ppb	10000	10000	0.8	nd – 0.8	Discharge from chemical factories.
Disinfection/Disinfection By-products						
Chlorine, free and total	ppm	4	4	0.8	nd – 0.8	Disinfectant used in drinking water industry.
Haloacetic Acids, total (2007 Data)	ppb	60	0	5.2	n/a	By-product of drinking water chlorination.
Bromochloroacetic Acid	ppb	n/r		2.4	n/a	
Dibromoacetic Acid	ppb	n/r		2.6	n/a	
Dichloroacetic Acid	ppb	n/r		2.6	n/a	
Trihalomethanes, total (2007 Data)	ppb	80	0	12.2	n/a	By-product of drinking water chlorination.
Bromodichloromethane	ppb	n/r		3.9	nd – 3.9	
Bromoform	ppb	n/r		1.3	nd – 1.3	
Chloroform	ppb	n/r		2.4	nd – 2.4	
Dibromochloromethane	ppb	n/r		4.7	nd – 4.7	
Unregulated Contaminants						
Alkalinity, Total	ppm	n/r		40	8 – 40	
Chloride	ppm	n/r	250	14	5.4 - 14	
Hardness, total	ppm	n/r		34	nd – 34	
pH, Field	0-14 scale	n/r		7.1	4.9 – 7.1	
Sodium	ppm	n/r	50	17.4	6.8 – 17.4	
Solids, total dissolved	ppm	n/r	500	128	72 - 128	
Sulfate	ppm	n/r	250	11.4	nd – 11.4	
Lead & Copper		Action Level		90th Percentile		
90th Percentile Lead	ppb	15	0	14	nd - 19	Corrosion of household plumbing systems, erosion of natural deposits.
Number of Sites Exceeding Lead Action Level				1		
90th Percentile Copper	ppb	1,300	0	570	nd – 1670	Corrosion of household plumbing systems, erosion of natural deposits.
Number of Sites Exceeding Copper Action Level				1		
Microbiological Contaminants **Total Coliform**						
Highest number of positive samples in any one month	Negative results in 100% of monthly samples collected. One coliform sample per month is taken.					Naturally present in the environment.

Important Information pertaining to 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.

Substances Tested for but Not Found

Inorganic Contaminants

Antimony	Fluoride
Arsenic	Iron
Barium	Mercury
Beryllium	Nitrite
Cadmium	Selenium
Chromium	Sulfate
Cyanide	Thallium

Radiological Contaminants

Gross Alpha Emitters
Uranium

Disinfection By-products

Monobromoacetic acid
Monochloroacetic acid
Trichloroacetic Acid

Volatile Organic Contaminants

1,1,1,2-Tetrachloroethane	Acetone	Naphthalene
1,1,1-Trichloroethane	Acrylonitrile	n-Butylbenzene
1,1,2,2-Tetrachloroethane	Benzene	n-Propylbenzene
1,1,2-Trichloroethane	Bromobenzene	o-Xylene
1,1-Dichloroethane	Bromochloromethane	para-Dichlorobenzene
1,1-Dichloroethene	Bromomethane	sec-Butylbenzene
1,1-Dichloropropene	Carbon Disulfide	Styrene
1,2,3-Trichlorobenzene	Carbon Tetrachloride	tert-Butylbenzene
1,2,3-Trichloropropane	Chlorobenzene	Tetrachloroethene
1,2,4-Trichlorobenzene	Chloroethane	Tetrahydrafuran (THF)
1,2,4-Trimethylbenzene	Chloromethane	Toluene
1,2-Dichlorobenzene	cis-1,2-Dichloroethene	tr-1,2-Dichloroethene
1,2-Dichloroethane	cis-1,3-Dichloropropene	tr-1,3-Dichloropropene
1,2-Dichloropropane	Dibromomethane	tr-1,4-Dichlorobutene
1,3,5-Trimethylbenzene	Dichlorodifluoromethane	Trichloroethene
1,3-Dichlorobenzene	Ethyl methacrylate	Trichlorofluoromethane
1,3-Dichloropropane	Ethylbenzene	Vinyl acetate
1,4-Dichlorobenzene	Hexachlorobutadiene	Vinyl chloride
2,2-Dichloropropane	Iodomethane	Xylenes, total
2,4,5-trichlorophenol	Isopropylbenzene	
2-Butanone (MEK)	m,p-Xylene	
2-Chloroethylvinyl Ether	Methyl Isobutyl Ketone (MIBK)	
2-Chlorotoluene	Methyl methacrylate	
2-Hexanone	Methylene Chloride	
3-chloro-1-propene	Methyl-t-butyl ether (MTBE)	
4-Chlorotoluene		
4-Isopropyltoluene		

Synthetic Organic Contaminants (Pesticides/Herbicides/Insecticides)

2,4,5-TP (Silvex)	Butachlor	Endrin	Pentachlorophenol
2,4-D	Butylbenzylphthalate	Ethylene Dibromide	Phenanthrene
3-Hydroxycarbofuran	Carbaryl	Fluoranthene	Picloram
Acenaphthene	Carbofuran	Fluorene	Propoxur
Acenaphthylene	Chlordane	Heptachlor	Pyrene
Acifluorfen	Chyrsene	Heptachlor Epoxide	Simazine
Alachlor	Dalapon	Hexachlorobenzene	Toxaphene
Aldicarb	Di(ethylhexyl)adipate	Hexachlorocyclopentadiene	
Aldicarb Sulfone	Di(ethylhexyl)phthalate	Indeno(1,2,3-cd)pyrene	
Aldicarb Sulfoxide	Dibenzo(a,h)anthracene	Iodomethane	
Aldrin	Dibromochloropropane	Lindane	
Anthracene	Dicamba	Methiocarb	
Atrazine	Dieldrin	Methomyl	
Benzo(a)anthracene	Diethylphthalate	Methoxychlor	
Benzo(a)pyrene	Dimethyl phthalate	Metolachlor	
Benzo(b)fluoranthene	Di-n-butylphthalate	Metribuzin	
Benzo(g,h,i)perylene	Di-n-octyl phthalate	Oxamyl (Vydate)	
Benzo(k)fluoranthene	Dinoseb	PCBs	