

# DAGSBORO WATER DEPARTMENT WATER QUALITY REPORT

33134 Main Street, P.O. Box 420, Dagsboro, DE 19939

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Report Created April 2009

We are very pleased to provide you with this annual water quality report for 2008. 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 these substances were found during tests conducted from Jan. 1, 2008 - Dec. 31, 2008, unless otherwise specified. If you have any questions about this report and the quality of your water, please call Stacy Long at (302) 732-3777. If you wish to learn more, please attend any of the regularly scheduled meetings of Mayor & Council held the fourth Monday of each month at 7:30 p.m. at the Bethel Center.

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. DNREC's source water assessment plan has been completed for the Millsboro Water Department. Copies can be obtained by contacting the Town of Millsboro at 302-934-8171 or by visiting the Source Water Assessment Program website at <http://www.wr.udel.edu/swaphome/>.

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:

**90<sup>th</sup> PERCENTILE** - A calculation based upon averaging the 4<sup>th</sup> and 5<sup>th</sup> highest lead/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.

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

**NOT REGULATED (N/R)** - no MCL identified because this substances 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.

**PICOCURIES PER LITER (PCI/L)** – a measure of radioactivity in water.

Parameter	Unit of Measure	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Highest Level Detected	Annual Range	Major Sources
<b>Organic &amp; Inorganic Contaminants</b>						
Ethylbenzene	ppb	700	700	0.7	nd – 0.7	Discharge from petroleum refineries.
Nitrate	ppm	10	10	4.6	n/a	Erosion of natural deposits. Runoff from fertilizer use.
Nitrate/Nitrite	ppm	10	10	4.6	n/a	Erosion of natural deposits. Runoff from fertilizer use.
Toluene	ppb	1000	1000	0.9	nd – 0.9	Discharge from petroleum factories.
Trichloroethene	ppb	5	0	0.5	nd – 0.5	Discharge from metal degreasing sites.
Xylenes, total	ppb	10000	10000	3	nd - 3	Discharge from chemical factories.
<b>Disinfection/Disinfection By-Products</b>						
Chlorine, free & total residual	ppm	4	4	1.0	nd – 1.0	Disinfectant used in drinking water industry.
Haloacetic Acids, total	ppb	60	n/a	5.3	n/a	By-product of drinking water chlorination.
Bromochloroacetic Acid	ppb	n/r		2.3	n/a	
Dibromoacetic Acid	ppb	n/r		1.7	n/a	
Dichloroacetic Acid	ppb	n/r		3.7	n/a	
Trihalomethanes, total	ppb	80	n/a	13	n/a	By-product of drinking water chlorination.
Bromodichloromethane	ppb	n/r		3.9	1.2 – 3.9	
Bromoform	ppb	n/r		1.2	nd – 1.2	
Chloroform	ppb	n/r		3.6	1.1 – 3.6	
Dibromochloromethane	ppb	n/r		4.3	1.5 – 4.3	
<b>Unregulated Contaminants</b>						
Alkalinity, Total	ppm	n/r		40	n/a	
Chloride	ppm	n/r	250	12.6	n/a	
Hardness, Total	ppm	n/r		33.8	n/a	
Iron	ppb	n/r	300	600	20 – 600	
pH, Field	0-14 scale	n/r		7.2	6.1 – 7.2	
Sodium	ppm	n/r		17.4	n/a	
Solids, Total Dissolved	ppm	n/r	500	128	n/a	
<b>Lead &amp; Copper</b>						
90th Percentile Lead	ppb	Action Level 15	0	90 <sup>th</sup> Percentile 7	nd – 7	Corrosion of household plumbing systems, erosion of natural deposits
Number of Sites Exceeding Lead Action Level				0		
90th Percentile Copper	ppb	1,300	0	299	46 – 1320	Corrosion of household plumbing systems, erosion of natural deposits
Number of Sites Exceeding Copper Action Level				1		
<b>Microbiological Contaminants</b>	Negative results in 100% of monthly samples collected. One coliform sample per month is taken.					Naturally present in the environment.
<b>Total Coliform</b>						

**Contaminants tested for, but not found.**

**Synthetic Organic Contaminants (Pesticides/Herbicides/Insecticides)**

**Inorganic Contaminants**

Antimony Mercury  
 Arsenic Nickel  
 Barium Nitrite  
 Beryllium Selenium  
 Cadmium Thallium  
 Chromium Turbidity  
 Fluoride

**Radiological Contaminants**

Gross Alpha Emitters  
 Gross Beta Emitters

**Disinfection By-products**

Monobromoacetic Acid  
 Monochloroacetic Acid  
 Trichloroacetic Acid

1,2-Dibromo-3-Chloropropane Benzo(g,h,i)perylene Heptachlor  
 1,2-Dibromoethane Benzo(k)fluoranthene Heptachlor Epoxide  
 2,4,5-TP (Silvex) Bis(2-ethylhexyl) phthalate Hexachlorobenzene  
 2,4-D Butachlor Hexachlorocyclopentadiene  
 2,4-dinitrotoluene Butylbenzylphthalate Indeno(1,2,3-cd)pyrene  
 2,6-dinitrotoluene Carbaryl Lindane  
 2-Methyl Naphthalene Carbofuran Methiocarb  
 3-Hydroxycarbofuran Chrysene Methomyl  
 4,4'-DDE Dalapon Methoxychlor  
 Acenaphthene Di(ethylhexyl)adipate Metolachlor  
 Acenaphthylene Dibenzo(a,h)anthracene Metribuzin  
 Acetchlor Dibenzofuran Molinate  
 Acifluorfen Dicamba Oxamyl (Vydate)  
 Alachlor Dieldrin PCBs  
 Aldicarb Diethylphthalate Pentachlorophenol  
 Aldicarb Sulfone Dimethyl phthalate Phenanthrene  
 Aldicarb Sulfoxide Di-n-butylphthalate Picloram  
 Aldrin Dinoseb Propachlor  
 Anthracene Endrin Propoxur  
 Atrazine Eptam (EPTC) Pyrene  
 Benzo(a)anthracene Ethylene Dibromide Simazine  
 Benzo(a)pyrene Fluoranthene Terbacil  
 Benzo(b)fluoranthene Fluorene Toxaphene

**Volatile Organic Contaminants**

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

