



## What's In My Water? - Meriden Water-Quality Analysis

Contaminant	Date Tested	Unit	MCL	MCLG	Highest Detected Level	Range	Major Sources	Violation
<b>Inorganic Contaminants</b>								
Copper	2005	ppm	AL=1.3	1.30	0.101	0.002-0.101	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	NO
Lead	2005	ppb	AL=15	0	<1.0	<1.0	Corrosion of household plumbing systems; Erosion of natural deposits	NO
Fluoride	2005	ppm	4	4	1.39	0.15-1.39	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.	NO
Nitrate	2005	ppm	10	10	4.9	0.83-4.9	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	NO
Nitrite	2005	ppm	1	1	<0.01	ND-0.01	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	NO
Barium	2005	ppm	2	2	0.334	0.003-0.334	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	NO
Sodium	2005	ppm	AL=28 <sup>(1)</sup>	n/a	97.5	5.01-97.5	Stormwater runoff containing road salt	NO <sup>(1)</sup>
Chlorine	2005	ppm	4.0	4.0	1.8	0-1.8	Water additives used to control microbes	NO
Sulfate	2005	ppm	250 <sup>(2)</sup>	n/a	36	7.0-36	Naturally occurring	NO
Asbestos	2000 <sup>(3)</sup>	mfl	7	7	0.53	ND-0.53	Decay of asbestos cement water mains; Erosion of natural deposits	NO
Chloride	2005	ppm	250	n/a	250	3.4-250	Water additives used to control microbes	NO
Nickel	2005	ppm	4.0	n/a	0.002	ND-0.002	Discharge from steel and pulp mills, erosion of natural deposits	NO
<b>Radioactive Contaminants</b>								
Alpha emitters	2005	pci/L	15	0	6.8	ND-6.8	Erosion of natural deposits	NO
Radium (combined)	2005	pci/L	5	0	1.3	ND-1.3	Erosion of natural deposits	NO
Uranium	2005	pci/L	30	0	3.5	ND-3.5	Erosion of natural deposits	NO
<b>Microbiological Contaminants</b>								
Turbidity (combined filter effluent)	2005	%>0.3/MO NTU	TT <sup>(4)</sup> 0.3 <sup>(4)</sup>	n/a n/a	0 0.265	0 0.010-0.265	Soil runoff	NO NO
Turbidity (system)	2005	NTU	5 <sup>(4)</sup>	n/a	3.58	0.02-3.58	Soil runoff	NO
Total Coliform	2005	%POS/MO	5% <sup>(5)</sup>	0	0%	0%	Naturally present in the environment	NO
Heterotrophic Plate Count	2005	cfu/mL	500	n/a	130	0-130	Measures a range of bacteria that are naturally present in the environment	NO
<b>Volatile Organic Contaminants</b>								
Tetrachloroethylene	2005	ppb	5	0	2	ND-2	Discharge from factories and dry cleaners	NO
Trichloroethylene	2005	ppb	5	0	0.54	ND-0.54	Discharge from metal degreasing sites and other factories	NO
TTHMs [Total Trihalomethanes]	2005	ppb	80 <sup>(6)</sup>	n/a	41	32-41	By-product of drinking water disinfection	NO
HAAs [Haloacetic acids]	2005	ppb	60 <sup>(6)</sup>	n/a	24	21-24	By-product of drinking water disinfection	NO
<b>Unregulated Contaminants</b>								
Bromochloroacetic Acid	2005	ppb	NR	n/a	3.8	ND-3.8	By-product of drinking water disinfection	NO
Calcium	2005	ppm	NR	n/a	51.7	19.1-51.7	Erosion of natural deposits	NO

We are pleased to report that during the past year, the water delivered to your home or business complied with, or did better than, all state and federal drinking water requirements. Each year we analyze thousands of water samples for bacteria, turbidity, inorganic contaminants, lead and copper, nitrate, volatile organic contaminants, total trihalomethanes, and synthetic organic contaminants. For your information, we have listed in the table on the left the substances that were detected in our drinking water during the year. Although all of the substances listed are under the Maximum Contaminant Level (MCL) set by U.S. EPA, we believe it is important that you know exactly what was detected and how much of the substance was present in the water.

### Notes To Table

<sup>(1)</sup> Although sodium does not have a MCL, the State requires that the water supplier provide notification to customers of levels exceeding 28.0 ppm. Therefore, if levels of sodium were recorded from a supply source in your area, you were previously provided notification of the event. Elevated levels of sodium were believed to be caused by road salt.

<sup>(2)</sup> The National Secondary Drinking Water Guideline for sulfate.

<sup>(3)</sup> Asbestos is not tested for every year; the most recent results available are given.

<sup>(4)</sup> Turbidity: As of January 1, 2002, for conventional and direct filtration combined filter effluent, turbidity may never exceed 1 NTU, and must not exceed 0.3 NTU in 95% of daily samples in any month. At no time can turbidity at any point in the system exceed 5 NTU.

<sup>(5)</sup> No more than 5% of monthly samples can be positive in any given month for total coliform.

<sup>(6)</sup> As of January 1, 2002, these standards refer to running annual averages. Data from the last three quarters of 2004 is included in figuring these averages.

### Key To Table

AL = Action Level  
MCL = Maximum Contaminant Level  
MCLG = Maximum Contaminant Level Goal  
NTU = Nephelometric Turbidity Units  
ND = Not Detected  
NR = Not Regulated  
ppm = parts per million, or milligrams per liter (mg/l)  
ppb = parts per billion, or micrograms per liter (µg/l)  
TT = Treatment Technique  
pci/L = Picocuries per liter  
mfl = Million fibers per liter  
cfu/mL = bacterial colonies per milliliter  
n/a = Not Applicable

## Understanding Contaminants

To ensure that tap water is safe to drink, U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of both tap and bottled drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water from these sources travels over the surface of the land or through the ground, it can acquire naturally occurring minerals (which in some cases could be radioactive) and substances resulting from the presence of animals or from a wide variety of human and industrial activities. Substances that may be present in source water include:

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may result from such things as urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, or mining. This category of contaminants also includes the pesticides and herbicides used primarily in agriculture.

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

**Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations or wildlife.

**Volatile Organic (and Synthetic) Contaminants**, which are typically by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems.

As the table above demonstrates, the Meriden Water Division removes these contaminants prior to distribution. Meriden water meets or surpasses all state and federal drinking water requirements.

## Regulated Contaminants

Meriden Water Division tests for a large number of contaminants, though only detected contaminants are noted. Every regulated contaminant that we detected in the water is listed in the water-quality table above. In 2005, the Meriden Water Division's drinking water met or surpassed all federal and state drinking water standards.

## Unregulated Contaminants

Meriden Water Division was not required to test for *Cryptosporidium* in 2005.

## Health Matters

The presence of contaminants in drinking water does not necessarily indicate that the water poses a potential health threat.

A few contaminants, like copper, are in fact essential nutrients at appropriate, very low concentrations. However, some people who drink water that contains copper in excess of the EPA's Action Level could experience gastrointestinal distress over a relatively short period of time. Over many years, ingesting water that contains copper in excess of the Action Level could lead to liver or kidney damage. People with Wilson's disease should consult their personal doctor about their water consumption.

Lead is also a concern. 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 water containing lead in excess of the action level over many years could develop kidney problems or high blood pressure.

Some people may be more vulnerable to contaminants in drinking water than is 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* are available from the Safe Drinking Water Hotline (800-426-4791).

## Source Water Assessment

Source Water Assessment Reports were completed by the Department of Public Health, Drinking Water Division for the Meriden Water Division. The assessment report can be found at [www.dph.state.ct.us/brs/water/source\\_protection/swap/swap.htm](http://www.dph.state.ct.us/brs/water/source_protection/swap/swap.htm). The assessment found that Meriden's surface water sources (Bradley Hubbard, Broadbrook, Kenmere and Merimere) have a LOW susceptibility to potential sources of contamination. Meriden's groundwater sources (Evansville, Platt-Lincoln, Mule, Columbus Park) ratings vary from MODERATE to HIGH, resulting from zoning regulations, aquifer protection regulations and potential contaminants in the source water.

The ratings are not a measure of the quality of water supplied to the consumers. They provide valuable direction to further securing our water sources.