



**Annual Drinking Water Quality Report for 2011**  
**Town of Frankford**  
**5 Main Street, P.O. Box 550**  
**Frankford, Delaware 19945**  
**PWS ID # DE0000242**  
**June 4, 2012**

*Omissions' from 2010 CCR have been added to this report and are in Bold Italics*

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is **groundwater. Our wells draw from the Columbia Aquifer.**

The Division of Public Health in conjunction with the Department of Natural Resources and Environmental Control has conducted a source water assessment. If you are interested in reviewing this assessment, please contact the **Town Hall @ 732-9424**. Or, go on-line @ <http://www.wr.udel.edu/swaphome/swassessments.html>

This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact **Terry Truitt @ 732-9424**. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on **first Monday of each month at 7:00 p.m. at the Town Hall, #5 Main Street.**

Public Health, Office of Drinking Water and the Town of Frankford routinely monitor for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, **2011.**

In this 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:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000. Or 1 drop in 13 gallons.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000. Or 1 drop in 13,000 gallons.

Action Level (AL) - the concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level (MCL) - 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 (MCLG) - 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 Residual Disinfectant Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant 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.

<b>TEST RESULTS</b>						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
<b>Microbiological Contaminants</b>						
Chlorine (Cl <sub>2</sub> )	N	0-8.4	ppm	4	4	Water additive used to control microbes
<b>Radioactive Contaminants</b>						
5. Alpha emitters	N	0.81-2.4	pCi/l	0	15	Erosion of natural deposits
6. Combined radium	N	0.1-2.47	pCi/l	0	5	Erosion of natural deposits
<b>Inorganic Contaminants</b>						
9. Arsenic	N	0.5	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
11. Barium	N	0.0692	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
14. Chromium	N	5.4	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
18. Lead (90 <sup>th</sup> Percentile)	N	8.3 *(2009)	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel	N	16.6	ppb	n/a	100	Naturally occurring
<b>Volatile Organic Contaminants</b>						
68. Haloacetic Acids (HAA)	N	3.9-49.3	ppb	n/a	60	By-product of drinking water disinfection
76. TTHM [Total trihalomethanes]	Y	44.2-97	ppb	n/a	80	By-product of drinking water chlorination
<b>Unregulated Inorganic Contaminants</b>						
80. Iron (Fe)	N	0.12-2.1 *(2010) (average 1)	ppm	0	0.3	
81. Sodium (Na)	N	86	ppm	0		
82. Alkalinity (Alk)	N	110	ppm			
83. pH	N	7.5	ppm		6.5 – 8.5	
84. Chloride (Cl)	N	63	ppm		250	

Contaminant	Violati on Y/N	Level Detected	Unit Measurement	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
86. Total Dissolved Solids (TDS)	N	242-272 *(2010) (average 256)	ppm		500	
Manganese	N	1.7	ppb		50	
Sulfate	N	20	ppm		250	

\*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.

**All other contaminants were ND in compliance with the Safe Drinking Water Act.**

(18) Lead. 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 this water over many years could develop kidney problems or high blood pressure.

*Lead-If present, elevated lead levels 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. Frankford Water Department 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. 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](http://www.epa.gov/safewater/lead).*

(76) TTHMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

The table shows that our system uncovered some problems this year for TTHM's. Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level) for the period of 1/01/2011 until 06/30/2011. Compliance is determined by using an entire year's worth of data. At the beginning of the year our maximum contaminant level was being affected by some older water test results collected in 2010. Since the new treatment plant has been on-line our disinfection by-product levels have improved and we will continue to flush the system and collect samples.

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. In order to insure 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 bottled water, which must provide the same protection for public health.

**Contaminants that may be present in source water include:**

**1) Microbial contaminants, such as viruses and bacteria, which may come from sewage**

*treatment plants, septic systems, agricultural livestock operation, and wildlife.*

*2) Inorganic contaminants, such as salts and metals can be naturally[occurring or result from urban storm water runoff, industrial or domestic wastewater discharge, oil and gas production, mining, or farming.*

*3) Pesticides and herbicides, which may come from a variety of sources, such as agricultural, urban storm water runoff, and residential uses.*

*4) 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 storm water runoff, and septic systems.*

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

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.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect. In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

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 (800-426-4791).

Please call our office if you have questions.

We at the Town of Frankford work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

