Annual Drinking Water Quality Report

Virginia American Water, Eastern District
Potomac and Westmoreland Shores

INTRODUCTION

This Annual Drinking Water Quality Report for calendar year **2008** is designed to inform you about your drinking water quality. Our goal is to provide you with a safe and dependable supply of drinking water, and we want you to understand the efforts we make to protect your water supply. The quality of your drinking water must meet state and federal requirements administered by the Virginia Department of Health (VDH).

If you have questions about this report, please contact:

J. Creel, Network Supervisor
Virginia American Water, Eastern District
621 Oldhams Road
Warsaw, VA 22572
Telephone: 1-800-452-6863

If you want additional information about any aspect of your drinking water or want to know how to participate in decisions that may affect the quality of your drinking water, please contact J. Creel, Network Supervisor of Virginia American Water, Eastern District.

PRESIDENT'S MESSAGE

As a trusted leader in the industry, Virginia American Water places a strong emphasis on sharing information about the quality of the water we provide with our customers. One way we do this is by reporting to you annually the results of our tests on the water we deliver to your home. Please review this Consumer Confidence Report (CCR), which outlines information applicable to your local water system for testing completed through December 2008.

Just as important, Virginia American Water makes the necessary investments to maintain and upgrade its facilities so that we can deliver quality water directly to your tap 24 hours a day, seven days a week.

Our customers are our top priority and we are committed to providing them with the highest quality drinking water and service possible now and in the years to come. In addition to this written report, you can view information about Virginia American Water and your water system on our website http://www.amwater.com. For more information about this report, or for any questions relating to your drinking water, please feel free to call our Customer Service Department at (800) 452-6863, where you will be placed in contact with a water quality professional.

Sincerely,

William Walsh

GENERAL INFORMATION

Drinking water, including bottled drinking 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. More information can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (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 (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, stream, 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. 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 operations, and wildlife. (2) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, 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 results of oil and gas production and mining activities. 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 establish limits for contaminants in bottled water, which must provide the same protection for public health.

SOURCE and TREATMENT OF YOUR DRINKING WATER

The source of your drinking water is groundwater. All wells draw water from the Potomac aquifer. The only treatment provided is chlorination. Chlorine is added for disinfection and to prevent bacteriological growth in the distribution system.

As a first step toward protection of our sources of drinking water, the Virginia Department of Health (VDH) evaluated the susceptibility of Virginia's water supplies to contamination. Contamination sources and pathways were reviewed using maps, known & observed activities, water quality data and information about the water source. Using criteria developed by the State in its EPA-approved Source Water Assessment Programs, it was determined that, on a relative basis, all four wells are of high susceptibility to contamination. This does not mean that your drinking water is currently unsafe. Your current water quality is described in the rest of this report. A copy of the source water assessment report is available by contacting J. Creel at the phone number or address given elsewhere in this drinking water quality report.

DEFINITIONS

Contaminants in your drinking water are routinely monitored according to Federal and State regulations. The tables show the results of our monitoring. In the table and elsewhere in this report you will find many terms and abbreviations you might not be familiar with. The following definitions are provided to help you better understand these terms:

Non-detects (ND) - lab analysis indicates that the contaminant 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.

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.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

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, or MCL - 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, or MCLG - 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.

millirems per yea r (mrem/yea r) - The measure of radiation absorbed by the body.

WATER QUALITY RESULTS

I. Lead and Copper Contaminants

Contaminant	Units of Measure	Action level	MCLG	Results of samples for the 90th Percentile Value	Action Level Exceedance (Y/N)	Month of Sampling	# of Sampling Sites Exceeding Action level	Typical Source of Contamination
Lead	ppb	15	0	3.4	N	7/06; 8/06	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	ppm	1.3	1.3	0.187	N	706; 8/06	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Lead Education Statement

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. Virginia American 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 two minutes before using the 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 (800) 426-4791or at http://www.epa.gov/safewater/lead.

II. Other Chemical and Radiological Contaminants

Contaminant	Units of Measure	MCLG	MCL	Level Detected	Violation (Y/N)	Range of Detection at Sampling Points	Date of Samples	Typical Source of Contamination
Total Trihalo-methanes	ppb	N/A	80	6.4	N	4.1 – 6.4	8/28/07	By-product of drinking water chlorination.
Chlorate	ppm	N/A	N/A	0.385	N	0.38- 0.39	8/28/07	By- product of drinking water chlorination
Styrene	ppb	N/A	1000	.05	N	ND – 0.5	2/25/08	Discharge from petroleum factories; discharge from chemical factories.
Xylenes	ppb	10000	10000	0.7	N	ND-0.14	3/21/07	Discharge from petroleum factories; discharge from chemical factories.
Nitrate + Nitrite	ppm	10	10	0.005	N	ND - 0.02	3/20/08	Erosion of natural deposits and fertilizers.
Arsenic	ppb	0	10	1	N	ND-1	2/26/07	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production wastes.
Fluoride	ppm	4	4	1.9	N	1.3-1.9	2/26/07	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Chloride	ppm	N/A	250	4.3	N	2.1 – 9.6	2/26/07	Naturally occurring
Sulfate	ppm	N/A	250	11.8	N	8.3 – 15.4	2/26/07	Naturally occurring
Barium	ppm	N/A	2	0.015	N	0.001-0.015	2/26/07	Naturally occurring
Zinc	ppm	N/A	5	0.004	N	ND – 0.016	2/26/07	Naturally occurring and water treatment additive to control corrosion.
Calcium	ppm	N/A	N/A	1.25	N	ND - 5	2/26/07	Naturally occurring
Magnesium	ppm	N/A	N/A	0.75	N	ND - 3	2/26/07	Naturally occurring
Potassium	ppm	N/A	N/A	2.5	N	ND - 10	2/26/07	Naturally occurring
Boron	ppm	N/A	N/A	0.656	N	0.617 – 0.671	2/26/07	Naturally occurring
Molybdenum	ppm	N/A	N/A	0.004	N	0.003 – 0.006	2/26/07	Naturally occurring
Gross Alpha	pCi/l	0	15	0.225	N	ND – 0.7	2/25/08	Erosion of natural deposits.
Gross Beta (1)	pCi/l	0	50	0.8	N	0.6 – 1.2	2/25/08	Decay of natural and man-made deposits.

Combined Radium	pCi/L	0	5	5.25	N	2.6 - 10.2	2/25/08	Erosion of natural deposits.

(1) The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/l to be the level of concern for beta particles.

III. Disinfectants – Distribution System

Disinfectant	Units of Measure	MRDLG	MRDL	Level Detected (Annual Average)	Violation (Y/N)	Range of Detection at Sampling Points	Sampling Year	Typical Source
Chlorine	ppm	4	4	0.87	N	0.09 - 1.69	2008	Water additive used to control microbes

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The table lists only those contaminants that had some level of detection. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment.

The state allows us to monitor for same contaminants less than once per year because the concentrations of the contaminants do not change frequently. Some of the data in the tables above, though accurate, may be more than one year old.

Other Drinking Water Constituents You May Be Interested In Are As Follows:

Well Name	Station No.	Sample Collection Date	Sodium Concentration	Comment
Potomac Shores Well No. 1A	4	2/26/07	115 ppm	These concentrations exceed the recommended maximum contaminant level of 20 ppm for persons on a "strict" sodium diet.
Potomac Shores Well No. 2A	5	2/26/07	105 ppm	
Westmoreland Shores Well No. 1A	3	2/26/07	103 ppm	
Westmoreland Shores Well No. 2A	2	2/26/07	93 ppm	

MCL's are set at very stringent levels by the U.S. Environmental Protection Agency. In developing the standards EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-a-million chance of having the described health effect for other contaminants.

VIOLATION INFORMATION

Your water system did not have any violations during the year.

This Drinking Water Quality Report was prepared by:

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