

Virginia Ridge

Annual Drinking Water Quality Report

INTRODUCTION

This Annual Drinking Water Quality Report for calendar year 2010 is designed to provide you with valuable information about your drinking water quality. We are committed to providing 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 meets all state and federal requirements administered by the Virginia Department of Health (VDH). If you have questions about this report, 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:

Mr. Stephen Rossi, Virginia Ridge Water Company, Inc. at (540) 342-6600

GENERAL INFORMATION

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. Substances (referred to as contaminants) in source water may come from septic systems, discharges from domestic or industrial wastewater treatment facilities, agricultural and farming activities, urban stormwater runoff, residential uses, and many other types of activities. Water from surface sources is treated to make it drinkable, while groundwater may or may not have any treatment.

All 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).

SOURCES AND TREATMENT OF YOUR DRINKING WATER

Your drinking water was groundwater obtained from one of two drilled wells. The well that is not in use is located across the street from the storage tank. The second well which is currently being used is located adjacent to the storage tank. Water is distributed throughout the system by the storage tank and distribution piping. Disinfection treatment is provided. A chlorine solution is blended with the well water before water enters the storage tank. The water is also treated with soda ash and potassium permanganate. The soda ash is used to increase the PH level and the potassium permanganate is used to collect iron and manganese. After the water is treated with these two additives, it is then filtered through a green sand

filter which removes the iron and manganese from the water. The water is then treated one final time with a corrosion inhibitor then sent to the storage tank/distribution system.

SOURCE WATER ASSESSMENTS

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.

Contaminants that may be present in source water include: (i) microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; (ii) inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (iii) pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; (iv) 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 stormwater runoff, and septic systems; (v) radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

A source water assessment for well #1 has been completed by VDH. The assessment for well #4 is in process. This well was determined to have high susceptibility to contamination because it is located in an area that promotes migration of contaminants from land use activities of concern. More specific information may be obtained by contacting the water system representative listed on page 1.

QUALITY OF YOUR DRINKING WATER

Your drinking water is routinely monitored according to Federal and State Regulations for a variety of contaminants. The tables that follow show the results of our monitoring for the period of January 1st through December 31st, 2009.

Most of the results in the table are from testing done in 2009. However, 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 accurate, is more than one year old.

DEFINITIONS

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.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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

Maximum Residential Disinfectant Level or 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 Residential Disinfectant Level Goal or 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.

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.

Variances and exemptions - state or EPA permission not to meet an MCL or a treatment technique under certain conditions.

WATER QUALITY RESULTS

Microbiological

Contaminant	Unit of Measurement	MCLG	MCL	Level Found	Violation	Sample Date(s)	Typical Source of Contamination
total coliform bacteria	presence or absence	0	1 positive monthly sample	1 of 9 was positive	no	9/2010-10/2010	naturally present in the environment

We are pleased to report to you that there were no detections of total coliforms or fecal coliforms in the monthly samples collected during calendar year 2009.

Lead and Copper - most recent monitoring period 2009

Contaminant/ Unit of Measurement	MCLG	MCL	Level Found / Range	Violation	Date of Sample	Typical Source of Contamination
Lead / ppb	0	AL = 1.3	<5	No	07/09	corrosion of household plumbing systems; erosion of natural deposits
Copper / ppm	1.3	AL= 1.3	0.1 (90 th percentile) Range: 0.03 to 0.1 Of the five samples collected, none exceeded the AL.	No	07/09	Corrosion of household plumbing systems; Erosion of natural deposits.

We are pleased to report to you that there were no detections of lead in the samples collected during calendar year 2009.

Lead and copper are analyzed every three years

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 Ridge Water Company Inc. 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 15 to 30 seconds or until it becomes cold or reaches a steady temperature 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 <http://www.epa.gov/safewater/lead>.

Inorganic Contaminants

Contaminant	Unit of Measurement	MCLG	MCL	Level Found	Violation	Sample Date(s)	Typical Source of Contamination
nitrate	ppm	10	10	ND	no	8/09	runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
fluoride	ppm	4	4	2.2 ppm	no	9/09	Erosion of natural deposits; Discharge from fertilizer and aluminum factories

Most inorganic contaminants are analyzed every three years - nitrate is analyzed every year. Our water system recently exceeded the fluoride secondary maximum contaminant level.

*Fluoride exceeded the Secondary Maximum Contaminant Level (SMCL) but not the Primary Maximum Contaminant Level (PMCL). Some people who drink water containing fluoride in excess of the PMCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking

water at half the MCL or more may cause mottling of the children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of teeth, and occurs only in developing teeth before they erupt from the gums.

Volatile Organic Chemical Compounds

Byproduct	Unit of Measurement	MRDL	MRDLG	Level Found/Range	Violation	Sample Date	Typical Sources of Contamination
Chlorine	ppb	4	4	Average: 0.67 Range: 0.5 to 1.0	no	Monthly 2010	water additive used to control microbes
Total trihalomethanes	ppb	n/a	80	2	no	7/08	byproduct of drinking water disinfection
Total haloacetic acids	ppb	0	60	ND	No	7/08	byproduct of drinking water chlorination

We are pleased to report to you that there were no detections of total HAA5s (Haloacetic Acids) in the samples collected during calendar year 2008.

* Organic contaminants analyzed every three years

Radiological Contaminants

Contaminant	Unit of Measurement	MCLG	MCL	Level Found; range	Violation	Sample Date(s)	Typical Source of Contamination
gross alpha radiation	pCi/l	0	15	0.75 0.1-1.4	no	Quarterly 2003	erosion of natural deposits
combined radium	pCi/l	0	5	0.9 .3 - 1.5	no	Quarterly 2003	erosion of natural deposits

Volatile Organic Contaminants

Contaminant	Unit of Measurement	MCLG	MCL	Level Found	Violation	Sample Date(s)	Typical Source of Contamination
no volatile organic contaminants were found					no	1/06	

Volatile organic contaminants are initially analyzed quarterly, then annually, and ultimately every three years.

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.

Maximum Contaminant Levels (MCLs) 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

Water Quality Violations – None

Monthly Reports – All required monthly reports were submitted to the Health Department for 2009.

Monitoring and Reporting Violations – None

This Drinking Water Quality Report was prepared by Virginia Ridge Water Company Inc. Please call if you have questions.

Signature: _____

Date: _____