

JOHNSON VILLAGE WATER DEPT – VT0005156

Consumer Confidence Report – 2014

This report is a snapshot of the quality of the water that we provided last year. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies. This report is designed to inform you about the quality water and services we deliver to you every day. To learn more, please attend any of our regularly scheduled meetings which are held: **On the second Monday of every month at 4:00 p.m. at the Municipal Building.** The person who can answer questions about this report is: Thomas Elwood Telephone: 802-635-2951.

Water Source Information Your water comes from:

Source Name	Source Water Type
Nadeau WELL	Ground Water
Osgood WELL	Ground Water

The State of Vermont Water Supply Rule requires Public Community Water Systems to develop a Source Protection Plan. This plan delineates a source protection area for our system and identifies potential and actual sources of contamination. Please contact us if you are interested in reviewing the plan.

Drinking Water Contaminants

The sources of drinking water (both tap water and bottled water) include surface water (streams, lakes) and ground water (wells, springs). As water travels over the land’s surface or through the ground, it dissolves naturally-occurring minerals. It also picks up substances resulting from the presence of animals and human activity. Some “contaminants” may be harmful. Others, such as iron and sulfur, are not harmful. Public water systems treat water to remove contaminants, if any are present.

In order to ensure that your water is safe to drink, we test it regularly according to regulations established by the U.S.

Environmental Protection Agency and the State of Vermont. These regulations limit the amount of various contaminants:

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

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.

Pesticides and herbicides, may come from a variety of sources such as storm water run-off, agriculture, and residential users.

Radioactive contaminants, which can be naturally occurring or the result of mining activity

Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the past year. It also includes the date and results of any contaminants that we detected within the past five years if tested less than once a year. The presence of these contaminants in the water does not necessarily show that the water poses a health risk.

Terms and abbreviations - In this table you may find terms you might not be familiar with. To help you better understand these terms we have provided the following definitions:

Maximum Contamination Level Goal (MCLG): The “Goal” is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLG’s allow for a margin of safety.

Maximum Contamination Level (MCL): The “Maximum Allowed” MCL is the highest level of a contaminant that is allowed in drinking water. MCL’s are set as close to the MCLG’s as feasible using the best available treatment technology.

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 disinfectants in controlling microbial contaminants.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. Addition a disinfectant may help control microbial contaminants.

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

90th Percentile: Ninety percent of the samples are below the action level. (Nine of ten sites sampled were at or below this level).

Treatment Technique (TT): A process aimed to reduce the level of a contaminant in drinking water.

Parts per million (ppm) or Milligrams per liter (mg/l): (one penny in ten thousand dollars)

Parts per billion (ppb) or Micrograms per liter (µg/l): (one penny in ten million dollars)

Picocuries per liter(pCi/L): a measure of radioactivity in water

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

Running Annual Average (RAA): The average of 4 consecutive quarters (when on quarterly monitoring); values in table represent the highest RAA for the year

Detected Contaminants JOHNSON VILLAGE WATER DEPT

Microbiological	Result		MCL	MCLG	Typical Source		
No Detected Results were Found in the Calendar Year of 2013							
Chemical Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Hardness (as CaCO3)	6/7/2012	170	170-170	ppm			
NITRATE	2/14/2013	1.5	0.05 - 1.5	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SELENIUM	2/14/2013	2	0 – 2	ppb	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
GROSS ALPHA	2/14/2013	0.642	0.642 - 0.642	pCi/L	15	0	Erosion of natural deposits

Disinfection ByProducts		Monitoring Period	RAA	Range	Unit	MCL	MCLG	Typical Source
Total Trihalomethanes		2011 to 2013	7	0 – 7	ppb	80	0	By-product of drinking water chlorination
Lead and Copper	Date	90 th Percentile	95 th Percentile	Range	Unit	AL	Sites Over AL	Typical Source
COPPER	2011 - 2013	0.13	0.2	0 - 0.26	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2011 - 2013	3	34	0 - 64	ppb	15	1	Corrosion of household plumbing systems; Erosion of natural deposits

Violation(s) that occurred during the year

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. The below table lists any drinking water violations we incurred during 2013. A failure to perform required monitoring means we cannot be sure of the quality of our water during that time.

Type	Category	Analyte	Compliance Period
No violations			2013

Health information regarding drinking water

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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 Safe Drinking Water Hotline.

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. JOHNSON VILLAGE WATER DEPT 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 drinking 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>.

Hard Water Concerns. The Village water can be described as "hard", which means it is relatively high in dissolved minerals, especially calcium carbonate. Our water is rigorously tested on a regular basis and falls within all required parameters (recent testing shows 170 ppm). Hardness is a common problem with drilled water supplies; in fact USGS data indicates 89% of all water in the United States is hard water. Hard water is not a health hazard and there is no requirement to "treat" it. In fact, the National Research Council (National Academy of Sciences) states that hard drinking water generally contributes a small amount toward total calcium and magnesium human dietary needs. It can be a nuisance, however, because of its tendency to cause mineral buildup in water pipe and heating systems, and its poor soap and/or detergent performance when compared with "soft" water. As water moves through soil and rock, it dissolves very small amounts of minerals and holds them in solution. Calcium carbonate dissolved in water is the most common mineral that make water "hard."

What Can You Do? There are a number of tips you can follow to reduce the effects of hard water in your home, without having to make any major changes:

Choose a correct laundry detergent – Some laundry detergents do not produce as many suds in hard water, these are likely to be soap-based products and do not work as well in hard-water as detergent based products. Nowadays, there are washing powders and liquids available for a wide range of water hardness. Make sure you choose the correct detergent for your area; you may also need to use slightly more detergent than the manufacturers recommended amount to compensate for the hard water. In many cases the manufacturer will give specific instructions on how to use the product in hard water areas, look out for these labels on your product.

Reduce the temperature of your boiler or hot water heater– As the water temperature increases, the more mineral deposits will appear in your dishwasher, water tank and pipes. By reducing the heat of your boiler to about 130°F, you will have enough hot water for your shower and you will reduce the amount of mineral build-up in your pipes and tanks. *Drain and flush your boiler or hot water heater periodically.* Deposits from hard water settle to the bottom of hot water tanks and periodic flushing will reduce the harmful effects to the tank and heating elements and prolong its life. Use rinse agents to remove mineral deposits. There are many rinse agents available to remove mineral deposits from crockery and dishwasher. Alternatively, you can use white vinegar by using the dishwasher dispenser or placing a cup of vinegar on the dishwasher rack. Boil some white vinegar in your kettle as a useful way of removing hard water deposits.

Install a water softener or other type of treatment to reduce the hardness (typically on the hot water supply only). While this would likely be a last resort, water softeners do work well and remove hardness. Most water softeners use salt as the treatment agent and can increase sodium levels of the treated water.

The Village Trustees have considered municipal wide treatment of hard water, but the cost of installation is prohibitive and ongoing annual maintenance costs are also high and can also increase sodium levels for all users. Point of use treatment is the best solution.