



Consumer Confidence Water Quality Report 2017

19th Annual Water Quality Report – June 2017

Your Drinking Water

Drinking Water Quality Report

Golden Heart Utilities (GHU) is proud of the fine drinking water it provides. This annual water quality report shows the source of our water, lists the results of our 2016 tests, and contains important information about water and health.

We are happy to report to you that we have met or surpassed established water quality standards.

Where Does Our Water Come From?

We operate three wells, 70 to 90 feet deep, which pump an average of 3.5 million gallons per day. These wells tap the huge aquifer that lies beneath the Tanana Valley. Since our water is supplied from deep wells we avoid the kinds of contaminants that may come from surface waters.

Water Testing and Your Health

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes limits on the amount of certain contaminants in water provided by public water systems. Similarly, the Food Drug Administration (FDA) regulates bottled drinking water.

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 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:

- a. Microbiological contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- b. Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- c. Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- d. Organic chemical contaminants, including synthetic and volatile organics, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- e. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Consumers With Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons undergoing chemotherapy, persons who have undergone organ transplants, persons 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 (1-800-426-4791).

Source Water Assessment

The Alaska Department of Environmental Conservation (ADEC) Source Water Assessment program was implemented to make public water systems and the public they serve aware of potential wellhead and watershed contamination sources. An informed public is the best ally in wellhead and watershed protection. GHU's most recent source water assessment identified possible contaminating activities (PCAs) located in the Fairbanks area. PCAs at the top of GHU's source water (well water) vulnerability ranking include: industrial activities, businesses, fuel storage tanks, sewer lines, residential areas, landfill, airport, class V injection wells, and ADEC recognized contaminated sites. Due to the PCAs in our area, the Fairbanks aquifer received a high to very high vulnerability ranking. Despite the high vulnerability ranking, GHU's water quality remains stable and EPA compliant. If contaminant levels above the allowable limits are ever detected in the source and/or distribution water, you will receive notification of the results.

Some of the contaminants that could be found in our source water are removed during the water treatment process prior to distribution.

GHU performs numerous required tests on the water it provides to its customers. Regular monitoring of the source wells, treatment process, and the distribution system helps to ensure water quality.

In addition to ADEC and EPA required testing, GHU takes added samples from the distribution system and the source wells to help ensure the safety of the water we supply to our customers. This sampling includes general water quality tests such as pH, total dissolved solids, conductivity, turbidity, hardness, alkalinity, salinity, and bacteriological analysis. The weekly water quality tests and quarterly volatile organic chemical samples are meant to alert GHU to the presence of source water contamination.

If each of us does our part to protect our water resources, we can ensure that future generations will have ample supplies of high quality water. A complete



copy of the source water assessment document can be obtained by contacting Golden Heart Utilities' customer service department at 479-3118.

Attention Property Owners and Managers

This report is available at our administrative office located at 3691 Cameron Street or on our website at: www.akwater.com/ghu-ccr.pdf

Certain residents and tenants may not receive notice of this report if the property owner or manager is receiving the water bill. While not required by law, property owners and managers, as well as business owners, are encouraged to provide this information to their tenants. This report should be photocopied and distributed, or posted in a prominent place at the facility.

Benefits of Chlorination

Disinfection, a chemical process used to control disease causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment.

Before communities began routinely treating drinking water with chlorine, starting with Chicago and Jersey City in 1908, cholera, typhoid fever, dysentery, and hepatitis killed thousands of U.S. residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the United States. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water plus the use of chlorine is probably the most significant public health advancement in human history.

Testing Our Water

The ADEC and US EPA require GHU to test the drinking water we distribute regularly to make sure that it meets State and Federal requirements. GHU collects numerous water samples from locations throughout the community to monitor the quality of water as it travels to your tap.



The table below shows substances that are regulated by the US EPA and ADEC and that were detected in our finished drinking water. GHU tests for many other substances, but because they were not detected, they are not reported here.

The State requires GHU to monitor for certain contaminants less than once a year because concentrations of these contaminants are not expected to vary significantly from year to year.

How to Read the Water Quality Tables

- AL: Action Level or the concentration which, if exceeded, triggers treatment or other requirements which a water system must follow.
- MCL: Maximum Contaminant Level or the highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- MCLG: Maximum Contaminant Level Goal or the level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- MRDL: Maximum Residual Disinfectant Level or the highest level of a disinfectant allowed in the distribution system.
- MRDLG: Maximum Residual Disinfectant Level Goal or the level of a disinfectant in the distribution system below which there is no known or expected risk to health. MRDLGs allow for a margin of safety.
- NA: Not applicable.
- NTU: A Nephelometric Turbidity Unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- ppm: Parts per million, or milligrams per liter (mg/L). The same as one minute in two years or one penny in \$10,000.
- ppb: Parts per billion, or micrograms per liter (µg/L). The same as one minute in 2,000 years or one penny in \$10,000,000.
- The “<” symbol: A symbol which means ‘less than’. A result of “< 2.0” means that the contaminant was not detected above the reportable level of 2.0.



Detected Contaminant Table

Contaminant	Tested	Units	MCLG	MCL	Result	Range	Violation	Typical Sources
Inorganic Compounds								
Arsenic	2011	ppb	0	10	0.707	NA	No	Erosion of natural deposits
Barium	2011	ppm	2	2	0.048	NA	No	Erosion of natural deposits
Chromium (total)	2011	ppb	100	100	1.11	NA	No	Erosion of natural deposits
Fluoride ¹	2011	ppm	4	4	0.44	NA	No	Erosion of natural deposits
Nickel	2011	ppb	100	100	1.69	NA	No	Erosion of natural deposits
Disinfection By-Products								
Haloacetic Acids	2016	ppb	0	60	30.0 ²	17.4 - 29.0	No	By-product of water chlorination
Total Trihalomethanes	2016	ppb	0	80	48.7 ²	32.5 - 58.9	No	By-product of water chlorination
Disinfectants								
Free Chlorine	2016	ppm	MRDLG 4	MRDL 4	0.51 ³	0.02 - 0.84	No	Additive to control bacterial growth
Unregulated Compounds⁴								
1,1-Dichloroethane	2013	ppb	NA	NA	0.04	< 0.03 - 0.04	NA	Used as a solvent
Chlorate	2013	ppb	NA	NA	348	320 - 420	NA	By-product of water chlorination
Hexavalent Chromium	2013	ppb	NA	NA	0.05	0.03 - 0.06	NA	Erosion of natural deposits
Strontium	2013	ppb	NA	NA	243	240 - 250	NA	Erosion of natural deposits
Vanadium	2013	ppb	NA	NA	0.3	0.2 - 0.3	NA	Erosion of natural deposits
Lead and Copper								
Lead	2016	ppb	0	AL 15	3.9	30 samples; 1 exceeded AL	No	Erosion of natural deposits; plumbing corrosion
Copper	2016	ppm	1.3	AL 1.3	0.12	30 samples; 0 exceeded AL	No	Erosion of natural deposits; plumbing corrosion

Data in this report is from the most recent testing done in accordance with regulations and presented as required by 40 CFR 141.153 and 141.154.

1. The addition of fluoride was halted on 6/15/2011 by City Ordinance No. 5849.
2. Reported as the highest locational running annual average.
3. Reported as the highest system-wide running annual average.
4. Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by the EPA. The purpose of monitoring for these contaminants is to help the EPA decide whether the contaminants should have a standard.

Other Monitoring

In addition to the ADEC and EPA mandated sampling, our water system voluntarily tests for numerous additional substances to make certain your water is of the highest quality.

Substance	Frequency	MCL	2016 Average	Compare to MCL
Alkalinity	Daily	No Limit	128 ppm as CaCO ₃	-
Hardness	Daily	No Limit	142 ppm as CaCO ₃	-
Turbidity	Daily	1 NTU	0.12 NTU	8 times better
Iron	Daily	300 ppb	16 ppb	19 times better
pH	Daily	6.5 - 8.5 standard units	8.4 standard units	within range
Manganese	Daily	50 ppb	14 ppb	4 times better
Dissolved Solids	Weekly	500 ppm	173 ppm	3 times better

Want to Learn More About Your Water Company?

Visit our website at www.akwater.com to learn about conservation and other helpful information about our utility. We're happy to answer any other questions about Golden Heart Utilities and our water quality.

Call customer service at 479-3118.



Experiencing a Problem? Call the Utility First! 479-3118

Call the utility at our 24 hour number 479-3118 before you call the plumber. Customers experiencing problems with their service line should always call the utility first. We can tell you if there is a problem in your area that may be affecting your service, or we can send out a crew to check our mains and determine where the problem is located.

Additional Health Information for Lead in Drinking Water

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.

Golden Heart Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in household 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 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 (1-800-426-4791) or at: www.epa.gov/safewater/lead.

Water that remains stationary within your home plumbing for extended periods of time can leach lead out of pipes joined with lead-containing solder as well as brass fixtures or galvanized pipes. Flushing fixtures has been found to be an effective means of reducing lead levels. The flushing process could take from 30 seconds to 2 minutes or longer while the water becomes cold or reaches a steady temperature. Faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. Consumers should be aware of this when choosing fixtures and take appropriate precautions. Visit the NSF Web site at www.nsf.org to learn more about lead-containing plumbing fixtures.



Have a question about your water system?

Contact Golden Heart Utilities
PO Box 80370 Fairbanks, AK 99708 Phone: 479-3118 Email: usainfo@akwater.com