

# Graham County Utilities, Inc.

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## Ft. Thomas Community Water System System# AZ0405001 Annual Drinking Water Quality Report For 2019

We're very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. Ground water is the source from which our water comes. Based on the information currently available on the hydrogeological settings of and the adjacent land uses that are in the specified proximity of the drinking water source(s) of this public water system, the Arizona Department of Environmental Quality has given us a "low risk" designation for the degree to which this public water system drinking water source(s) are protected. A low risk designation indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection. We have 4 wells that we draw from. The well field is located just south of Desert Sage road, at the end of Bowman Lane. The water is pumped into a PVC line, chlorinated, and into our two storage tanks. Together they will store up to 250,000 gallons. We have two 30h.p. booster pumps and a 4,000 gallon pressure tank to insure a greater and more constant pressure and a 100 KW back-up generator to power the booster pumps in case of a power outage.

Graham County Utilities routinely monitors 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>, 2018. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose 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. Graham County Utilities is pleased to report that our drinking water is safe and meets Federal and State requirements.

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. **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. **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water. **Action Level or "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"** 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 Contamination Level Goal or "MCLG"** means 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 or “MRDL”** means 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 disinfection level goal or “MRDLG”** means 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.

### TEST RESULTS

Contaminant	Violation Y/N	Running Annual Average (RAA)  <b>OR Highest Level Detected</b>	Range of all Samples	MCLG	MCL	Likely Source of Contamination	Date Tested
GROSS ALPHA (pCi/L)	N	3	3	0	15	Erosion of natural deposits	Feb. 2019
Combined Radium (pCi/L)	N	1	1		5	Erosion of natural deposits	Feb. 2019
Copper (ppm)	N	90th percentile =.41	.04-.49	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives	August 2017
Lead (ppm)	N	90 <sup>th</sup> percentile =.00	.00		AL=150	Corrosion of household plumbing systems, Erosion of natural deposits	August 2017
Nitrate (ppm)	N	.26	.34-1.4	10	10	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits	Feb. 2019
TTHM (ppb) (Total Trihalomethanes)	N	11.3	11.3	0	80	By-product of drinking water chlorination	Aug. 2019
HAA5 (ppb) (Haloacetic Acids)	N	2.3	2.3	0	60	By-product of drinking water chlorination	Aug 2019
Chlorine (ppm)	N	.28	.19-.5	4	4	Water additive used to control microbes	Monthly 2019
Arsenic (ppb)	N	1	1	10	10	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes	Feb. 2019
Barium (ppm)	N	.039	.039	2	2	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits	Feb. 2019
Fluoride (ppm)	N	.68	.68	4	4	Erosion of natural deposits; water additive which Promotes strong teeth; discharge from fertilizer and aluminum factories	Feb. 2019

Graham County Utilities sampled its water sources for Synthetic Organic Contaminants in 2019, Volatile Organic Contaminants in 2018, and Inorganic Contaminants in 2016. Lead, copper samples have been taken in 2017. Nitrate samples were taken in 2019.

These are the most current test results, and were done in compliance with current regulations.

The sources of drinking water (both tap water and bottle 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 animal or from human activity.

Contaminants that may be present in source water include:

- 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, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- 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.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that 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.

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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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).

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the

health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause “blue baby syndrome.” Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

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. Graham County Utilities 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, or 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).

As you can see by the table, our system had no violations. We’re proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water is safe at these levels.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

We at Graham County Utilities 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.

If you have any questions about this report or concerning your water utility, please contact Wes Reidhead at 485-8667 or Rusty Sherman at 485-8653. We want our valued customers to be informed about their water utility. If you would like, please attend any of our regularly scheduled board meetings. They are normally held on the first Wednesday of every month. Please call for the time and to make an appointment if you would like to attend. This and other information is available on line at; [www.gce.coop](http://www.gce.coop).