

**City of Guthrie**  
**Water Quality Report**  
**2024**

PWSID ID: KY1100171  
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Meeting location and time:  
 110 Kendal Street,  
 Guthrie, KY 42234  
 Second Tuesday of each month  
 at 7:00 PM

This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide a safe, clean, and reliable supply of drinking water. We want to assure that we will continue to monitor, improve, and protect the water system and deliver a high-quality product. Water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system.

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (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, in some cases, radioactive material, and may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or 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 to provide the same protection for public health.

*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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).*

**Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.**



**Cryptosporidium**

Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes Cryptosporidium, 100 percent removal cannot be guaranteed. Our monitoring indicated the presence of one of these organisms in our source water. Current test methods do not allow us to determine if the organism is dead or alive or if it was capable of causing disease. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immune-compromised people have more difficulty and are at greater risk of developing severe, life threatening illness. Cryptosporidium must be ingested for it to cause disease, and may be passed through means other than drinking water.

**Type and Location of Source Water**

The City of Guthrie Water System purchases water from the Logan/Todd Regional Water Commission (LTRWC), which produces treated drinking water at the George W. Arnold Treatment Plant. The raw water intake is surface water located in the main channel of the Cumberland River, in Clarksville, Montgomery County, Tennessee. The protection area taken into consideration is from the LTRWC intake point to the Clarksville Water System intake upstream. Urban nonpoint source runoff may contribute contamination to the water supply by delivering sediment, oil and grease, road salt, fertilizers, pesticides, nutrients, and other contaminants to the Cumberland River. Transportation corridors pose a significant threat to water quality. Transportation accidents can release substances into water supplies, threatening water quality. Tractor-trailers, barges, rail cars and pipelines all have the potential for adverse impact of our water supply. A state primary road – TN 13 – crosses the Cumberland River, as do the Cunningham Bridge and the L&N Railroad Bridge. Water sources have been rated as reasonably susceptible (high), moderately susceptible (moderate) or slightly susceptible (low) based on geologic factors and human activities in the vicinity of the water source. The water source for LTRWC is rated as reasonably susceptible to potential contamination. For more information regarding the LTRWC source water protection area and plan, contact LTRWC located at 248 Tower Street in Guthrie, Kentucky.

**Service Line Inventory Information**

To address lead in drinking water, EPA requires that all community water systems develop and maintain an inventory of service line materials. We have completed a service line inventory (SLI) and it is available for review at Guthrie City Hall.

**Lead Sample Results Availability Information**

We are required to periodically sample water from customer taps to determine lead and copper levels. EPA sets the lead action level at .015 mg/L (15 ppb). For a water system to be in compliance, at least 90% of tap water samples must have lead levels below this limit. This report contains the 90<sup>th</sup> percentile and range of our most recent sampling. The individual results for each location sampled can be reviewed at Guthrie City Hall.

**Information About Lead**

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. The City of Guthrie is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing **components** in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact the City of Guthrie at 270-483-2511. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>

**Maximum Contaminant Level (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 (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.

**Below Detection Levels (BDL)** - laboratory analysis indicates that the contaminant is not present.

**Not Applicable (N/A)** - does not apply.

**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, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Parts per trillion (ppt)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

**Parts per quadrillion (ppq)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

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

**Millirems per year (mrem/yr)** - measure of radiation absorbed by the body.

**Million Fibers per Liter (MFL)** - a measure of the presence of asbestos fibers that are longer than 10 micrometers.

**Nephelometric Turbidity Unit (NTU)** - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

**Variations & Exemptions (V&E)** - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

**Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

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

## City of Guthrie 2024 Water Quality Data KY1100171

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old.

|  | Allowable Levels   | Highest Single Measurement | Lowest Monthly % | Violation | Likely Source |
|--|--|----------------------------|------------------|-----------|---------------|
| Turbidity (NTU) TT<br>* Representative samples of filtered water | No more than 1 NTU*<br>Less than 0.3 NTU in 95% of monthly samples | 0.09                       | 100              | No        | Soil runoff   |

### Regulated Contaminant Test Results

| Contaminant [code] (units) | MCL | MCLG | Report Level | Range of Detection | Date of Sample | Violation | Likely Source of Contamination |
|----------------------------|-----|------|--------------|--------------------|----------------|-----------|--------------------------------|
|----------------------------|-----|------|--------------|--------------------|----------------|-----------|--------------------------------|

### Radioactive Contaminants

|                         |   |   |      |              |        |    |                             |
|-------------------------|---|---|------|--------------|--------|----|-----------------------------|
| Combined radium (pCi/L) | 5 | 0 | 1.52 | 1.52 to 1.52 | Jun-24 | No | Erosion of natural deposits |
|-------------------------|---|---|------|--------------|--------|----|-----------------------------|

### Inorganic Contaminants

|  |          |     |                                     |                  |        |    |  |
|--|----------|-----|-------------------------------------|------------------|--------|----|--|
| Barium [1010] (ppm)                                | 2        | 2   | 0.0198                              | 0.0198 to 0.0198 | Jun-24 | No | Drilling wastes; metal refineries; erosion of natural deposits                     |
| Copper [1022] (ppm) sites exceeding action level 0 | AL = 1.3 | 1.3 | 0.074 (90 <sup>th</sup> percentile) | 0.014 to 0.106   | Aug-23 | No | Corrosion of household plumbing systems  |
| Fluoride [1025] (ppm)                              | 4        | 4   | 0.728                               | 0.728 to 0.728   | Jun-24 | No | Water additive which promotes strong teeth   |
| Lead [1030] (ppb) sites exceeding action level 0   | AL = 15  | 0   | 3 (90 <sup>th</sup> percentile)     | 2 to 4           | Aug-23 | No | Corrosion of household plumbing systems  |
| Nitrate [1040] (ppm)                               | 10       | 10  | 0.419                               | 0.419 to 0.419   | Feb-24 | No | Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits |

### Disinfectants/Disinfection Byproducts and Precursors

|   |     |     |                       |                               |      |    |                                   |
|---|-----|-----|-----------------------|-------------------------------|------|----|-----------------------------------|
| Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio) | TT* | N/A | 1.82 (lowest average) | 1.58 to 1.95 (monthly ratios) | 2024 | No | Naturally present in environment. |
|---|-----|-----|-----------------------|-------------------------------|------|----|-----------------------------------|

\*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.

|  |          |           |                        |                                      |      |    |   |
|--|----------|-----------|------------------------|--------------------------------------|------|----|---|
| TTHM (ppb) (Stage 2) [total trihalomethanes] (Annual Sample) | 80       | N/A       | 41 (high site average) | 20 to 47 (range of individual sites) | 2024 | No | Byproduct of drinking water disinfection. |
| HAA (ppb) (Stage 2) [Haloacetic acids] (Annual Sample)       | 60       | N/A       | 26 (high site average) | 12 to 35 (range of individual sites) | 2024 | No | Byproduct of drinking water disinfection  |
| Chlorine (ppm)   | MRDL = 4 | MRDLG = 4 | 1.83 (highest average) | 0.7 to 2.2                           | 2024 | No | Water additive used to control microbes.  |

**The City of Guthrie sampled for Chlorine, Lead, Copper, HAA and TTHM. All other parameters were completed by LTRWC.**