

## General Information

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Maximum Contaminant Levels (MCLs), defined in a List of Definitions in this report, 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. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

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 it can pick up substances resulting from the presence of animals and 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 run-off, 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, storm water run-off, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products 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.

Some individuals may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, individuals with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. Individuals at risk should seek advice about drinking water from their health care providers.

Surface water sources are tested for pathogens such as Cryptosporidium at certain intervals determined by the EPA and the ADEM. These pathogens can enter the water from animal or human waste. All test results were well within Federal and State standards. For people who may be immuno-compromised, a guidance document developed by the Center for Disease Control is available online at <http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=200024LD.txt> or from the Safe Drinking Water Hotline at 1-800- 426-4791. This language does not indicate the presence of Cryptosporidium in our drinking water.

## Definitions

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

**Coliform Absent (ca)** - Laboratory analysis indicates that the contaminant is not present.

**Disinfection byproducts (DBPs)** - are formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water.

**Locational Running Annual Average (LRAA)** - yearly average of all the DPB results at each specific sampling site in the distribution system. The highest distribution site LRAA is reported in the Table of Detected Contaminants.

**Maximum Contaminant Level (MCL)** - The 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 Contaminant Level Goal (MCLG)** - The MCLG is 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. Millirems per year (mrem/yr)-measure of radiation absorbed by the body.

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

**Non-Detects (ND)** - laboratory analysis indicates that the constituent is not present above detection limits of lab equipment.

**Not Reported (NR)** - laboratory analysis, usually Secondary Contaminants, not reported by water system. EPA recommends secondary standards to water systems but does not require systems to comply.

**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 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 quadrillion (ppq) or Picograms per liter (picograms/l)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years, or a single penny in \$10,000,000,000,000.

**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.

**RAA** - Running annual average

**Standard Units (S.U.)** - pH of water measures the water's balances of acids and bases and is affected by temperature and carbon dioxide gas. Water with less than 6.5 could be acidic, soft, and corrosive. A pH greater than 8.5 could indicate that the water is hard.

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

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

## Source Water Assessment

Troy Utilities has completed all the components of the required Source Water Assessment Plan (SWAP 2021) in accordance with the Alabama Department of Environmental Management (ADEM) regulations. This plan assists with protecting our water sources. The plan provides information such as the delineation of wellhead protection areas and potential sources of contamination within these areas. It also includes a susceptibility analysis which classifies potential contaminants as high, moderate, or non-susceptible (low) to contaminating the water source. The SWAP is updated as needed. The SWAP report is available in our office for review, or you may request a copy. Please help us protect our source water. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden and properly dispose of household chemicals, paints, and waste oil.

Troy Utilities	
Water Sources	6 groundwater wells producing from the Ripley and Tuscaloosa aquifers
Inter-Connections	
Water Treatment	Chlorination for disinfection fluoridation at wells 3 and 4 for tooth health
Storage Capacity	Seven elevated storage tanks with a total capacity of 4.75 million gallons
Number of Customers	Approximately 7500 metered service connections
Water/Wastewater Engineer	Ethan Mount

City Council	
Mayor	Jason A. Reeves
District 1	Sharon McSwain-Holland
District 2	Greg Meeks
District 3	Max Davis
District 4	Stephanie Baker
District 5	Wanda Moultry

## Questions?

If you have any questions about this report or concerning Troy Utilities, please contact Ethan Mount, Water/Wastewater Engineer, at 334-566-0177. We want our valued customers to be informed about their water utility. Council meetings are held on the second and fourth Tuesday of each month at 5:00 p.m. at Troy City Hall, 301 Charles W. Meeks Avenue, Troy, Alabama.

More information about contaminants in drinking water and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

# 2023 Annual Water Quality Report

(Testing Performed January through December 2023)



## CITY OF TROY UTILITIES

PWSID AL0001124

301 Charles W. Meeks Avenue

P. O. Box 549 Troy, AL 36081

Phone 334-566-0177

Fax 334-808-7404

The Troy Utilities Department is pleased to present this Annual Water Quality Report to inform you about the quality of the water delivered to you. We work diligently to provide a high quality, cost effective drinking water supply.

## Lead Service Line Statement

The City of Troy performed visual inspection on residential service lines installed before 1990. The City surveyed System Owned Portion's (SOP) and Customer Owned Portion's (COP) during the inventory. No lead service lines or galvanized requiring replacement were found during the survey.

## Monitoring Schedule

**Troy Utilities** water sources are routinely monitored for contaminants according to a schedule determined by Federal and State regulations, using EPA approved methods and State-certified laboratories. Every water system has individually assigned monitoring requirements. The ADEM allows monitoring of some contaminants less than once per year because the concentrations of these contaminants do not change frequently. The following table shows the most recent year of monitoring for these contaminant groups.

Table of Primary Drinking Water Contaminants		
This table provides a quick glance of the primary contaminant and the highest level detected to determine compliance.		
CONTAMINANT	MCL	AMOUNT DETECTED
2023 Microbiological Contaminants		
Total Coliform Bacteria	<5%	Positive on 4-19; Retake was Negative
Fecal Coliform & E. Coli	0	ND
Turbidity (2016)	TT	0.4
Radioactive Contaminants (2022)		
Gross Alpha (pCi/L)	15	2.86
Radium 228 (pCi/L)	5	0.698
Inorganic Contaminants (2021)		
Antimony (ppb)	6	ND
Arsenic (ppb)	10	ND
Asbestos (MFL)	7	Exemption
Barium (ppm)	2	0.01
Beryllium (ppb)	4	ND
Cadmium (ppb)	5	ND
Chlorine (ppm) (2023)	4	3.99
Chromium (ppb)	100	ND
Copper (ppm)	AL = 1.3	0.257
Cyanide (ppb)	200	ND
Fluoride (ppm) (2023)	4	3.81
Lead (ppm)	AL = 0.015	0.0017
Mercury (ppb)	2	ND
Nickel (ppm)	0.1	ND
Nitrate (ppm) (2023)	10	0.096
Nitrite (ppm) (2023)	1	0.107
Total Nitrate and Nitrite (ppm) (2023)	10	0.017
Selenium (ppb)	50	ND
Thallium (ppb)	2	ND
1. Exemption Based on study conducted by the department. With the approval of EPA, a statewide waiver for the monitoring of Asbestos and Dioxin was issued. Thus, monitoring for these contaminants was not required.		

Unregulated Organic Contaminants			
Unregulated contaminants are those that don't yet have a drinking water standard set by the USEPA. The purpose of monitoring for these contaminants is to help USEPA decide whether the contaminants should have a standard.			
Contaminant	Average Level Detected	Detected Range	Unit Measurement
Chloroform	5.6	2.3 – 11.9	ppm

Disinfection Byproduct Rule Sampling (Selected Addresses)						
Contaminant	Violation Y/N	Level Detected	Unit	MCL	MCLG	Likely Source of Contamination
TTHM (Total Trihalomethanes)	N	10.46 (Average) Range 3.6 – 18.6	ppb	80	0	By-product of drinking water chlorination
HAA5 (Total Haloacetic Acids)	N	4.17 (Average) Range 1.6 – 9	ppb	60	0	By-product of drinking water chlorination

REGULATED CONTAMINANTS (Well Distribution Points)							
Contaminant	Violation Y/N	Average Level Detected	Detected Range	Unit	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants							
Gross Alpha (2022)	N	1.9	ND – 2.86	pCi/L	0	15	Erosion of natural deposits
Radium 228 (2022)	N	0.61	ND – 2.2	pCi/L	0	5	Erosion of natural deposits
Inorganic Contaminants							
Barium (2021)	N	BDL	ND - 0.01	ppm	2	2	Erosion of natural deposits
Chlorine	N	1.12	.24 – 3.99	ppm	4	4	Water Additive to control microbes
Copper (2021)	N	0.129	ND - 0.257	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	N	0.59	0.24 – 3.81	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth
Lead (2021)	N	1.4	.2 – 2.6	ppm	0	AL=0.015	Erosion of natural deposits; corrosion of household plumbing systems
Nitrate	N	BDL	ND – .107	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Nitrite and Nitrate	N	BDL	ND – .107	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Constituents Monitored	Year Monitored
Inorganic Contaminants	2021
Lead/Copper	2022
Microbiological Contaminants	Monthly
Nitrates	2022
Radioactive Contaminants	2022
Synthetic Organic Contaminants (including pesticides & herbicides)	2021
Volatile Organic Contaminants	2021
Disinfection By-products	2022
Unregulated Contaminants Monitoring Rule 4 (UCMR4) Contaminants	2019
Distribution System Evaluation (DSE) Disinfection By-products	2022

Secondary Maximum Contaminant Levels-Aesthetics (2021)				
Contaminant	Average Detected	Detected Range	Unit	MCL
Aluminum	.035	ND – 0.045	ppm	0.2
Chloride	10	5.47 – 14.9	ppm	250
Copper	0.005	0.0018 – 0.011	ppm	1
Iron	0.035	0.0273 - 0.0347	ppm	0.3
Manganese	0.004	0.001 – 0.0069	ppm	0.05
Sulfate	22.633	5.04 – 37.5	ppm	250
Total Dissolved Solids	258	224 – 310	ppm	500
Zinc	0.003	0.00035 – 0.0032	ppm	5

### Lead-Specific Information

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. Troy 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, you may wish to have it 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).

Lead and Copper Monitoring (Select Addresses, 2021)				
Contaminant	Samples Taken	Action Limit (AL)	Samples Exceeding AL	90th Percentile
Lead	30	0.015 ppm	0	0.0026 ppm
Copper	30	1.3 ppm	0	0.256 ppm