



CITY OF ABILENE

WATER UTILITIES DEPARTMENT

SAVEABILENEWATER.COM

2021 ANNUAL & WATER QUALITY REPORTS

DEFINITIONS AND ABBREVIATIONS:

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

J—Analyte detected below the quantitation limit but above the decimal limit

Maximum Contaminant Level (MCL)—The highest level of a substance that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using best available treatment technology.

Maximum Contaminant Level Goal (MCLG)—The level of a substance in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL)—The highest level of 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.

MFL—Million fibers per liter (a measure of asbestos)

N/A—Not applicable

ND—Analyte not detected in a sample

NTU—Nephelometric turbidity units. Unit of measure of the turbidity (cloudiness) of the water

pCi/L—Picocuries per Liter (a measure of radioactivity)

ppb—parts per billion or micrograms per liter ($\mu\text{g/L}$). One ounce in 7,350,000 gallons of water.

ppm—parts per million or milligrams per liter (mg/L). One ounce in 7,350 gallons of water.

Treatment Technique (TT)—A required process intended to reduce the level of a substance in drinking water.

Type of Contaminant	Year or Range	Contaminant (Unit of measure)	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Source of Contaminant
Inorganic Contaminants	2021	Arsenic (ppb)	< 1.0	< 1.0	10	0	N	Erosion of natural deposits
	2021	Barium (ppm)	0.13	0.11-0.15	2	2	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
	2021	Cyanide (ppb)	123	35.8-123	200	200	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
	2021	Fluoride (ppm)	0.81	0.70-0.81	4	4.0	N	Erosion of natural deposits; water additive for strong teeth; discharge from fertilizer and aluminum factories
	2021	Nitrate (ppm)	<1	0.106-0.540	10.00	10	N	Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks or sewage
	2021	Selenium (ppb)	< 5.0	< 5.0	50.0	50	N	Erosion from natural deposits; discharge from petroleum refineries
Radioactive Contaminants	2020	Uranium	<0.0010	<0.0010	0	0.03	N	Erosion of natural deposits; Decay of natural and man made deposits
	2020	Gross Alpha	<3.0	<3.0	0	15	N	Erosion of natural deposits; Decay of natural and man made deposits
	2020	Gross Beta	6.6	6.6	N/A	N/A	N	Erosion of natural deposits; Decay of natural and man made deposits
	2020	Radium 228 (pCi/L)	< 1.0	< 1.0	0	5	N	Erosion of natural deposits; Decay of natural and man made deposits
	2017	Uranium (ug/L)	2.3	0-2.3	0	30	N	Erosion of natural deposits; Decay of natural and man made deposits
Disinfection Byproducts	2021	Total Haloacetic Acids (ppb)	25.1	9.4 - 25.1	No goal for the total	60	N	Byproduct of drinking water disinfection
	2021	Total Trihalomethanes (ppb)	57.3	17.1-57.3	No goal for the total	80	N	Byproduct of drinking water disinfection
	2021	Chlorite (ppm)	0.68	<0.01-0.68	0.8	1	N	Byproduct of drinking water disinfection
Unregulated Contaminants	2021	Chloroform (ppb)	1.26	<1.0-1.26	N/A	N/A	N/A	Byproduct of drinking water disinfection
	2021	Bromoform (ppb)	18.6	9.67-18.6	N/A	N/A	N/A	Byproduct of drinking water disinfection
	2021	Bromodichloromethane (ppb)	4.15	1.38-4.15	N/A	N/A	N/A	Byproduct of drinking water disinfection
	2021	Dibromochloromethane (ppb)	8.22	5.71-8.22	N/A	N/A	N/A	Byproduct of drinking water disinfection

Type of Treatment	Year or Range	Disinfectant Used	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Source of Contaminant
MRDL	2021	Chloramines (ppm)	3.4	0	4.4	4.0	4.0	Disinfectant used to control microbes
Type of Contaminant	Year or Range	MCGL	The 90th Percentile	Number of sites Exceeding Action Level	Action Level	Violation	Source of Contaminant	
Lead (ppb)	2020	0	0	0	15	No Violation	Corrosion of household plumbing systems; erosion of natural deposits	
Copper (ppm)	2020	1.3	0.360	0	1.3	No Violation	Corrosion of household plumbing systems; erosion of natural deposits	
Type of Contaminant	Year or Range	Highest Single Level Detected	Lowest Monthly % of Samples Meeting Limits	Limit (Treatment Technique)	Lowest Monthly % meeting limit	Violation	Source of Contaminant	
Turbidity (NTU)	2021	0.78	100.00%	1	0.3	No Violation	Soil runoff	
Type of Contaminant	Year or Range	Contaminant Source	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant	
Total Organic Carbon	2021	Source Water	6.42	4.20	8.59	ppm	Naturally present in environment	
Total Organic Carbon	2021	Drinking Water	3.34	2.52	5.29	ppm	Naturally present in environment	
Type of contaminant	Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MFL	Source of Contaminant	
Asbestos	2012	Asbestos	ND	ND	ND	7	Construction Materials	
Type of contaminant	Year or Range	Contaminant	Highest Monthly % of Positive Samples	MCL	Unit of Measure	Violation	Source of Contaminant	
Total Coliform	2021	Total Coliform Bacteria	0.9	*	Presence	No Monitoring Violation	Naturally present in environment	

* Presence of Coliform bacteria in 5% or more of the monthly samples.

Organic Contaminants — none detected

Fecal Coliform — not detected

Real Water Loss — 3.80%

Type of Contaminant	Year or Range	Contaminant (Unit of Measure)	Average Level	Minimum Level	Maximum Level	Secondary Limit	Source of Contaminant
Secondary and Other Constituents not Regulated	2021	Aluminum (ppm)	0.023	<0.005	0.035	0.05	Naturally present in environment
	2021	Bicarbonate (ppm)	110	94.6	117	na	Corrosion of carbonate rocks such as limestone
	2021	Calcium (ppm)	54.7	44.8	74.2	na	Naturally present in environment
	2021	Chloride (ppm)	93.9	148	237	300	Naturally present in environment.
	2021	Copper (ppm)	0.0014	0.0011	0.0018	1.0	Corrosion of household plumbing, erosion from natural deposits; leaching from wood preservatives
	2021	Magnesium (ppm)	21.9	11.4	37.8	na	Naturally present in environment
	2021	Manganese (ppm)	14.6	0.0016	0.033	0.05	Naturally present in environment
	2021	Nickel (ppm)	0.0017	<0.001	0.0032	na	Erosion of natural deposits.
	2021	Sodium (ppm)	84.6	61.2	121	na	Erosion of natural deposits; byproduct of oil field activity
	2021	Sulfate (ppm)	77.9	117	195	300	Naturally occurring; common industrial byproduct; byproduct of oil field activity
	2021	Total Alkalinity as CaCO3 (ppm)	94.6	112	122	na	Naturally occurring soluble mineral salts
	2021	Total Dissolved Solids (ppm)	512	391	743	1000	Total dissolved mineral constituents in water
	2021	Total Hardness as CaCO3 (ppm)	159	227	341	na	Naturally occurring calcium
	2021	Conductivity (uhmos/cm)	668	919	1330	na	Naturally present in environment
	2021	Potassium (mg/L)	7.47	7.24	7.71	na	Naturally present in environment
2021	Lead (mg/L)	<0.001	<0.001	<0.001	15	Corrosion of household plumbing, erosion from natural deposits; leaching from wood preservatives	
2021	Zinc (ppm)	36.3	<0.005	0.0059	na	Agricultural run-off	

NOTICE OF VIOLATIONS (NOV) FOR 2021

Notice of Violation*	Facility	Month	Analyte	Description **
Surface Water Monitoring	TP15082-Grimes WTP	Feb 21	Turbidity	Failing to monitor or report Turbidity as required in the Surface Water Monthly Operating Report
Surface Water Monitoring	TP15082-Grimes WTP	Feb 21	SWTR	Failing to monitor or report Contact Time as required in the Surface Water Monthly Operating Report
Surface Water Treatment Technique	TP15082 - Grimes WTP	Feb 21	SWTR	Low disinfectant (Total Chlorine) residual for more than four consecutive hours
Surface Water Treatment Technique	TP15083-Northeast WTP	Feb 21	Chloramine	Low disinfection Contact Time for more than four consecutive hours
Surface Water Treatment Technique	TP15083-Northeast WTP	Feb 21	Turbidity	More than 5% of the combined filter effluent turbidity readings above 0.3 NTU for the month
Surface Water Treatment Technique	TP15083-Northeast WTP	Feb 21	SWTR	Low disinfectant (Total Chlorine) residual for more than four consecutive hours
Surface Water Treatment Technique	TP15083-Northeast WTP	Feb 21	Chloramine	Low disinfectant contact time (CT) for more than four consecutive hours

* All listed violations and the respective corrective actions occurred within the period of a Boil Water Notice issued for the protection of public health and safety (issued 2/15/2021 and rescinded 2/21/2021).

**Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

JANUARY-DECEMBER 2021 WATER QUALITY REPORT

Through vigilant oversight, the City of Abilene Water Utilities Department is dedicated to providing high-quality, safe water. It begins with the city's reservoirs, which provide good-quality raw water. Along the water's journey into customers' homes and businesses, trained, certified operators consistently work to meet stringent water quality standards. Water is analyzed in all stages of production - from the city's creeks and lakes, at treatment plants, and into the distribution system - ensuring that it is safe to drink. We are proud to report that our drinking water meets or exceeds all United States Environmental Protection Agency (EPA) and TCEQ drinking water requirements.

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent EPA-required tests. We hope this information helps you become more knowledgeable about what is in your drinking water.

If you would like more information about Abilene's water quality, water assessments and protection efforts, please call the City of Abilene's Environmental Laboratory at (325) 676-6041.

En Español: Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (325) 676-6381 - para hablar con una persona bilingüe en español.

A Source Water Susceptibility Assessment for your drinking water sources is currently being updated by the TCEQ. This information describes the susceptibility and types of constituents that may come into contact with your drinking water based on human activities and natural conditions. The information contained in the assessment will allow us to focus our source water protection strategies. Some of this source water assessment information will be available later this year on Texas Drinking Water Watch at <https://dww2.tceq.texas.gov/DWW/>

CONTAMINANTS AND CONSTITUENTS

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As the 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 animals or from human activity.

Contaminants that may be present in source water:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage 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 runoff, 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.

All drinking water may contain contaminants. When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. 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 (800) 426-4791.

CONTAMINANTS AND CONSTITUENTS (CONTINUED)

SECONDARY CONSTITUENTS

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not by the EPA. These constituents are not causes for health concern.

Lead can be harmful. 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. This water supply 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 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 testing, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

WHERE DOES OUR WATER COME FROM?

Abilene's water comes from surface water sources.

- Lake Fort Phantom Hill in North Abilene
- Hubbard Creek Lake between Albany and Breckenridge
- Lake O.H. Ivie near Ballinger
- Lake Abilene (reserve source of water)
- Lake Kirby in South Abilene, reserved for landscape irrigation

SPECIAL NOTICE FOR ELDERLY, INFANTS, CANCER PATIENTS, PEOPLE WITH HIV/AIDS OR OTHER IMMUNE PROBLEMS:

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly or Immuno-compromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or care provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline (800) 426-4791.

PUBLIC PARTICIPATION OPPORTUNITIES

The City of Abilene Water Utilities Department is governed by the Abilene City Council, which meets on the second and fourth Thursdays of each month at 8:30 a.m. in City Council Chambers, City Hall, 555 Walnut. You may also contact the Department Director at (325) 676-6416.

City of Abilene Water Utilities Department
555 Walnut St., P.O. Box 60
Abilene, TX 79604
325-676-6419

VISIT OUR WEBSITE

to learn more about water conservation in Abilene, including the Stage we are currently in and watering restrictions it requires.

WWW.SAVEABILENEWATER.COM

WWW.PONDERTHESQUANDER.COM

Keep Abilene Flowing


