

# 2019 Annual Drinking Water Quality Report

(Consumer Confidence Report)

**Sonterra M.U.D.**

Phone No. (512) 246-1400

*Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems:*

Some people may be more vulnerable to contaminants in drinking water, such as Cryptosporidium, 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. The EPA/Centers for Disease Control and Prevention (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 (1-800-426-4791).

## **Public Participation Opportunities**

The Board of Directors meets on the third Monday of each month at 6:00 pm at 113 Limestone Terrace, Jarrell, TX. Please call (512) 246-1400 to confirm meeting dates and times.

In the water loss audit submitted to the Texas Water Development Board for the period of Jan-Dec 2017, our system lost an estimated 11,394,000 gallons of water. This number is 9.18% of the total water produced.

The District's water system is operated by Crossroads Utility Services, LLC. If you have any questions concerning water quality or the source of your water, please call (512) 246-1400 or (512) 246-5905.

## **Our Drinking Water Meets or Exceeds All Federal (EPA) 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 U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

**WATER SOURCES:** 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 can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

## ***En Español***

Este informe incluye informacion importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español favor de llamar al tel. (512) 246-1400 para hablar con una persona bilingue en español.

## **Where do we get our drinking water?**

Our drinking water is supplied by groundwater sources located in the Edwards North BFZ aquifer. A Source Water Susceptibility Assessment for your drinking water source(s) 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 source based on human activities and natural conditions. The information contained in the assessment allows 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 <http://dww.tceq.state.tx.us/DWW/>. For more information on source water assessments and protection efforts at our system, please contact us.

### ***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 (1-800-426-4791).

### **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 the EPA. These constituents are not causes for health concerns. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

## **About the Following Pages**

The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

### **DEFINITIONS**

#### **Maximum Contaminant Level (MCL)**

The highest permissible level of a contaminant 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 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 contamination.

#### **Treatment Technique (TT)**

A required process intended to reduce the level of a contaminant in drinking water.

#### **Action Level (AL)**

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

### **ABBREVIATIONS**

NTU – Nephelometric Turbidity Units

MFL – million fibers per liter (a measure of asbestos)

pCi/L – picocuries per liter (a measure of radioactivity)

ppm – parts per million, or milligrams per liter (mg/L)

ppb – parts per billion, or micrograms per liter (µg/L)

ppt – parts per trillion, or nanograms per liter

ppq – parts per quadrillion, or picograms per liter

**Inorganic Contaminants**

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Source of Contaminant
2019	Antimony (ppm)	<0.001	<0.001	<0.001	6	6	Discharge from petroleum refineries; fire retardants; ceramics; solder; test addition.
2019	Arsenic (ppm)	<0.002	<0.002	<0.002	0.01	0.01	Erosion of natural deposits; Runoff from orchards; runoff from glass and production wastes.
2018	Asbestos (MFL)	<0.197	<0.197	<0.197	7	7	Decay of asbestos cement in water mains; erosion of natural deposits.
2019	Barium (ppm)	0.033	0.033	0.033	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2019	Beryllium (ppm)	<0.0008	<0.0008	<0.0008	2	2	Discharge from metal refineries and coal-burning factories
2019	Cadmium (ppm)	<0.001	<0.001	<0.001	5	5	Corrosion of galvanized pipes; Erosion of natural deposits.
2019	Fluoride* (ppm)	3.97	3.97	3.97	4	4	Erosion of natural deposits; additive which promotes strong teeth; disch. from fertilizer/alum. factories.
2019	Nitrate** (ppm)	0.15	<0.05	0.26	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2016	Nitrite** (ppm)	<0.01	<0.01	<0.01	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2015	Nitrate-nitrite** (ppm)	0.05	0.05	0.05	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2011	Gross alpha (pCi/L)	<2.0	<2.0	<2.0	15	0	Erosion of natural deposits.
2011	Gross beta emitters (pCi/L)	4.4	4.4	4.4	50	0	Decay of natural and man-made deposits.
2011	Radium-228 (pCi/L)	<1.0	<1.0	<1.0	5	0	Decay of natural and man-made deposits.

\*This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 mg/L of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by Sonterra M.U.D. has a fluoride concentration of 3.79 ppm. The problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/L of fluoride (the U.S. EPA's drinking water standard) can increase your risk of developing bone disease. We are required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/L because of this cosmetic dental problem.

For more information, please call Dennis Hendrix of Crossroads Utility Services (Sonterra M.U.D.) at (512) 246-5913. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

\*\*Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. If you are caring for an infant you should ask advice from your health care provider

**Organic Contaminants**

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Source of Contaminant
2017	Simazene (ppb)	<0.07	<0.07	<0.07	4	4	Herbicide runoff.
2017	Toxaphene (ppb)	<1.0	<1.0	<1.0	3.0	3.0	Insecticide.
2019	Toluene (ppb)	<0.5	<0.5	<0.5	1000	1000	Petrochemical runoff.

**Volatile Organic Contaminants**

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Source of Contaminant
2019	Benzene (ppb)	<0.5	<0.5	<0.5	5.0	5.0	Petrochemical runoff.
2019	Vinyl Chloride (ppb)	<0.5	<0.5	<0.5	2	2	Leaching from PVC piping; Discharge of plastic factories

**Maximum Residual Disinfectant Level**

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Source of Disinfectant
2019	Free Chlorine (ppm)	1.91	1.0	3.4	4.0	<4.0	Disinfectant used to control microbes

#### Disinfection Byproducts

Year	Contaminant	LR Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2019	Total Haloacetic Acids	<6.0	<6.0	<6.0	60	ppb	Byproduct of drinking water disinfection.
2019	Total Trihalomethanes	<4.0	<4.0	<4.0	80	ppb	Byproduct of drinking water disinfection.

#### Unregulated Contaminants

Bromoform, chloroform, bromodichloromethane, and dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2019	Chloroform	<1.0	<1.0	<1.0	ppb	Byproduct of drinking water disinfection.
2019	Bromoform	1.25	<1.0	1.6	ppb	Byproduct of drinking water disinfection.
2019	Bromodichloromethane	<1.0	<1.0	<1.0	ppb	Byproduct of drinking water disinfection.
2019	Dibromochloromethane	1.2	<1.0	1.5	ppb	Byproduct of drinking water disinfection.

**Turbidity** NOT REQUIRED

**Total Organic Carbon** NOT REQUIRED

#### Lead and Copper

Year	Contaminant	The 90 <sup>th</sup> Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Contaminant
2019	Lead	0.0013	0	15	ppm	Corrosion of household plumbing systems; erosion of natural deposits.
2019	Copper	0.063	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

#### Required Additional Health Information for Lead

"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 material used 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 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 <http://www.epa.gov/safewater/lead>."

**Total Coliform** REPORTED MONTHLY TESTS FOUND ONE POSITIVE SAMPLE IN JULY OF 2017

**Fecal Coliform** REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA

#### Secondary and Other Constituents Not Regulated (No associated adverse health effects)

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Limit	Source of Contaminant
2019	Aluminum (ppm)	<0.02	<0.02	<0.02	0.2	Abundant naturally occurring element.
2017	Bicarbonate (ppm)	267	267	267	NA	Corrosion of carbonate rocks such as limestone.
2017	Carbonate (ppm)	<2.0	<2.0	<2.0	NA	Corrosion of carbonate rocks such as limestone.
2019	Calcium (ppm)	32.7	32.7	32.7	NA	Abundant naturally occurring element.
2019	Chloride (ppm)	79.2	40.6	132	300	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
2019	Iron (ppm)	0.17	0.019	0.321	0.3	Abundant naturally occurring element.
2019	Magnesium (ppm)	17.1	17.1	17.1	NA	Abundant naturally occurring element.
2019	Manganese (ppm)	<0.009	<0.005	0.042	0.05	Abundant naturally occurring element.
2017	P. Alkalinity as CaCO <sub>3</sub> (ppm)	<2.0	<2.0	<2.0	NA	Naturally occurring soluble mineral salts.
2019	pH (units)	7.6	7.4	7.9	7	Measure of corrosivity of water.
2019	Sodium (ppm)	151.7	49.5	304	NA	Erosion of natural deposits; byproduct of oil field activity.
2019	Sulfate (ppm)	126.3	56.1	229	300	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2019	Total Alkalinity as CaCO <sub>3</sub> (ppm)	236	214	272	NA	Naturally occurring soluble mineral salts.

2017	Total Dissolved Solids (ppm)	396	396	396	1000	Total dissolved mineral constituents in water.
2017	Total Hardness as CaCO3 (ppm)	195	195	195	NA	Naturally occurring calcium.
2017	Zinc (ppm)	0.0424	0.0424	0.0424	5	Moderately abundant naturally occurring element; used in the metal industry.

**Violations Table**

<b>Fluoride - Secondary Constituent Level</b>			
Naturally occurring from erosion of natural deposits in some ground water supplies.			
<b>Violation Type- Fluoride -Secondary Constituent Level</b>			
Year	Month Begin	Month End	Explanation
2019	January	December	Secondary Constituent Level of 3.97 mg/L

**Required Language for SCL Exceedance of Fluoride:**

The Texas Commission on Environmental Quality (TCEQ) has notified the SONTERRA MUD, TX2460157 that the drinking water being supplied to customers has exceeded the Secondary Constituent Level (SCL) of 2.0 mg/L for fluoride.

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system SONTERRA MUD has a fluoride concentration of 3.97 mg/L.

Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternate sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/L of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/L because of this cosmetic dental problem.

For more information, please call Darrell Winslett of SONTERRA MUD at 512 246-1400. Some home water treatment units are also available to remove fluoride from drinking water.

