

# 2015 Consumer Confidence Report Sheppard AFB, TX



Illustration Provided by  
Cameron Mayberry  
Sheppard AFB Youth Center

A summary of SAFB water quality results from Jan 1 thru Dec 31, 2015

# 2015 Annual Drinking Water Quality Report

(Consumer Confidence Report)

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## Sheppard Air Force Base

**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 human activity. Contaminants that may be present in source water before treatment include: microbes, inorganic chemicals, pesticides, herbicides, radioactive isotopes, and organic chemical contaminants.

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### Public Participation Opportunities

To learn about future public meetings concerning your drinking water, or to request to schedule one, please call us.

### Bioenvironmental Engineering (BE) POC:

**Capt José C. Pagán**

**Location: Bldg 1200**

**Phone No: 940-676-3080**

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**En Español:** Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al teléfono (940) 676-3080.

### OUR DRINKING WATER Meets or Is Better Than 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 test and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

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### Special Notice

#### Required language for ALL community public water supplies:

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

## Where do we get our drinking water?

Our drinking water comes from the following surface water sources: Lake Kickapoo, Wichita Falls secondary terminal reservoir, and Lake Arrowhead. Sheppard AFB purchases water from the City of Wichita Falls and is therefore considered a consecutive water system. Wichita Falls provides most monitoring and treatment. Bioenvironmental Engineering monitors for contaminants and hazards specific to our distribution system. For more information on source water assessments and protection efforts, please contact us.

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## It is possible that 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).

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## Secondary Constituents

Many un-harmful constituents often found in drinking water (such as calcium, sodium, or iron) can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, and monitored by the EPA. These constituents, though not required to be reported in this document, may greatly affect the appearance and taste of your water.

## About the Following Pages

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

### 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 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  
(a measure of suspended particles in the water)

**MFL** - million fibers per liter  
(a measure of asbestos)

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

**ppm** - parts per million

**ppb** - parts per billion

**µg/L** - micro grams per liter

**µOhms/cm** - Measure of dissolved solids in the water.

**OoCysts/L**- Total number found in one liter of water.

**Cysts/L** -Total number found in one liter of water.

The following contaminants are monitored at points throughout the distribution system.

**Inorganic Contaminants**

Year	Contaminants	Highest Single Sample	Minimum Sample Level	Maximum Sample Level	MCL	MCLG	Unit of Measure	Violation	Source of Contaminant
2015	Nitrite Measured as Nitrogen	0.07	0.0	0.065	1	1	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2015	Nitrate Measured as Nitrogen	0.7	0.065	0.684	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

**Organic Contaminants** testing waived, not reported, or none detected

**Maximum Residual Disinfectant Level**

Systems must complete and submit disinfection data on the Disinfection Level Quarterly Operating Report (DLQOR). On the CCR report, the system must provide disinfectant type, minimum, maximum and average levels. The monthly average disinfectant level is used to determine compliance with the MRDL.

Year	Disinfectant	Monthly Average Level	Minimum Sample Level	Maximum Sample Level	MRDL	MRDLG	Unit of Measure	Source of Disinfectant
2015	Chloramine Residual	2.4	0.1	6.4	4.0	< 4.0	ppm	Disinfectant used to control microbes

**Disinfectant Byproducts**

Year	Contaminant	Running Annual Average	Minimum Sample Level	Maximum Sample Level	MCL	Unit of Measure	Violations	Source of Contaminant
2015	Total Haloacetic Acids (HAA5)	19.8	4.2	22.3	60	ppb	N	Byproduct of drinking water disinfection.
2015	Total Trihalomethanes (TTHM)	36	21.4	46.3	80	ppb	N	Byproduct of drinking water disinfection.

**Lead and Copper**

Year	Contaminant	The 90 <sup>th</sup> percentile	Number of Sites Exceeding Action Levels	Action Level	Unit of Measure	Violations	Source of Contaminant
2015	Lead	8.1	0	15	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits.
2015	Copper	0.084	0	1.3	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

**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 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 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 <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water> "



A1C Houldridge from BE analyzes chlorine levels at the Sheppard DFAC.

## Turbidity

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limit	Unit of Measure	Violation	Source of Contaminant
2015	Turbidity	*0.32	100.00	0.3	NTU	N	Soil runoff

\* Secondary standard, no violation occurred. Treatment technique meets the rounded average turbidity requirement.

## Total Coliform

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are harder than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Year	Contaminant	Highest Monthly Number of Positive Samples	MCL	Unit of Measure	Source of Contaminant
2015	Total Coliform Bacteria	0	*	Presence	Naturally present in the environment

\* Two or more positive coliform samples in any single month.

**Fecal Coliform:** Reported monthly tests found no fecal coliform bacteria.

## Regulated Contaminants

Year	Contaminants	Highest Single Sample	Minimum Sample Level	Maximum Sample Level	MCL	MCLG	Unit of Measure	Violation	Source of Contaminant
2015	Antimony	0.3	0	0.3	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
2015	Arsenic	1.3	0	1.3	10	0	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
2015	Barium	0.041	0.027	0.041	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
2015	Chromium	1.4	0.91	1.4	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits
2015	Cyanide	147	5.08	147	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
2015	Fluoride	0.6	0.47	0.64	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
2015	Selenium	1.3	0	1.3	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
2011	***Thallium	0.06	ND	0.06	2	0.5	ppb	N	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
2011	***Combined Uranium	1	1	1	5	0	pCi/L	N	Erosion of natural deposits.
2015	Uranium	1.3	0	1.3	30	0	µg/L	N	Erosion of natural deposits.

2015	Gross Beta Emitters	9.2**	5.6	9.2	50*	0	pCi/L	N	Decay of natural and man-made deposits
<p>* The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.  ** Because the beta particle results were below 50 pCi/L, no testing for individual beta particle constituents was required.  *** Constituents are not required to be sampled annually.</p>									

### Secondary and Other Constituents Not Regulated

Year	Contaminants	Highest Single Sample	Minimum Sample Level	Maximum Sample Level	Standard (TCEQ)	Goal (EPA)	Unit of Measure	Source of Contaminant	
2014	**Chloride	348	125	348	300	300	ppm	Abundant naturally occurring element; used in water purification	
2014	**pH	10.4	6.9	10.1	>7.0	6.5-8.5	units	Measure of corrosivity of water	
2014	*Sulfate	64.4	35.0	64.4	300	250	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.	
2014	*Total Dissolved Solids	727	356	727	1000	500	ppm	Total dissolved mineral constituents in water.	
<p>* Constituents are not required to be sampled annually.  **Secondary standard, no violation occurred. Meets average value.</p>									

### Unregulated Contaminants

Year	Contaminants	Highest Single Sample	Minimum Sample Level	Maximum Sample Level	MCL	MCLG	Unit of Measure	Source of Contaminant	
2013	*Bicarbonate	68	55	68	NA	NA	ppm	Corrosion of carbonate rocks such as limestone	
2013	*Carbonate	<2	<2	<2	NA	NA	ppm	Corrosion of carbonate rocks such as limestone	
2013	*Conductivity	1330	620	1330	NA	NA	μOhms/cm	Measure of conductivity of water.	
2013	*Cryptosporidium	0	0	0	NA	0	OoCysts/L	Human and animal fecal waste.	
2013	*Giardia	0	0	0	NA	0	Cysts/L	Human and animal fecal waste.	
2011	*Nickel	0.65	0.51	0.65	NA	NA	ppb	Erosion of natural deposits	
2013	*Sodium	198.0	70.3	198.0	NA	NA	ppm	Erosion of natural deposit; byproduct of oil field activity.	
2013	*Total Alkalinity as CaCO3	68	55	68	NA	NA	ppm	Naturally occurring; soluble mineral salts.	
<p>* Constituents are not required to be sampled annually.</p>									



A1C Houldridge from BE takes water sample from base housing.



A1C Houldridge from BE analyzes chlorine levels at the Sheppard's mission Support Bldg. 2113.

### WATER CONSERVATION TIPS

- Turn water off when shaving and brushing your teeth.
  - Run only full loads in washing machine and dishwasher
  - Adjust lawn sprinklers to water the grass not the street.
  - Take shorter showers. Turn water off while lathering up.
  - Use the garbage can rather than the garbage disposal.
- Water is a natural resource not to be wasted.***

