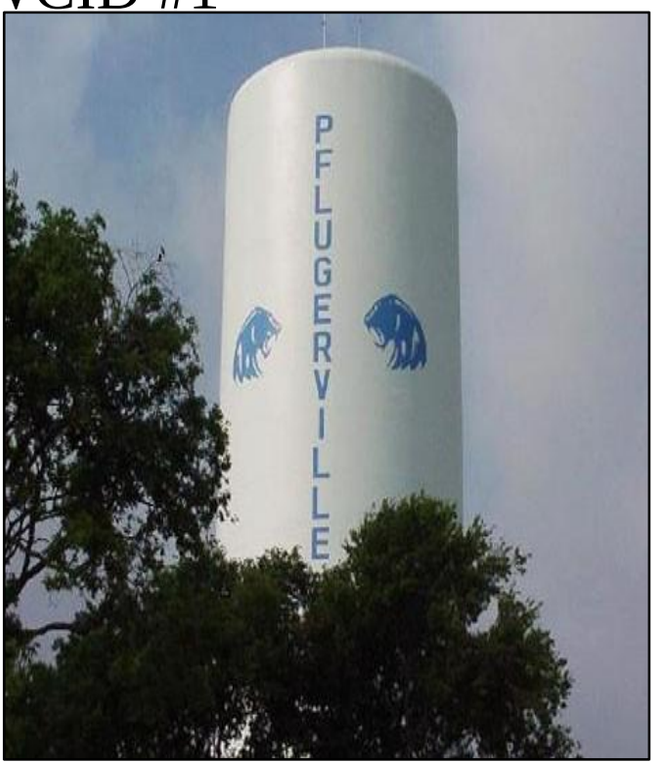
2014 Pflugerville Utility Department Drinking Water Quality Report

Kelly Lane WCID #1

The City of Pflugerville provides our water customers an annual water quality report to show the source of your water, test results and information on water and health. The information is provided to highlight improvements necessary to main Pflugerville's drinking water standards. The report reflects the hard work of our employees to protect your health by producing, delivering and maintaining safe and reliable drinking water. In this report, you will find data based on 2014 collections.



1.5 million gallon tank at The Club.

Our drinking water is safe

The Pflugerville Public Works Department employees take pride in delivering safe and superior-quality drinking water to you. The Texas Commission on Environmental Quality (TCEQ) assessed our system using the data enclosed in this document, and our water is not only safe to drink, but it was given the highest possible ranking of "Superior."

Public Interest:

The City of Pflugerville Public Works Department encourages public interest and participation in our community's decisions affecting drinking water. Regular City Council meetings occur on the second and fourth Tuesday of every month at City Hall, 100 E Main St., Suite 500 at 7 p.m.

Pf Connect Notification: Boil Water Notices / Emergency Alerts

The city uses Facebook, Twitter, Nixle (a text-messaging alert system), street signs and the news media to announce boil water notices. You are encouraged to sign up to receive text alerts if there is ever a boil water notice in your neighborhood.Text PFPD to 888777 to sign up for Pflugerville emergency texts or visit www.pflugervilletx.gov/connect to pick your way to receive information from the city.

En Español Este reporte incluye informacion importante sobre el aqua para tomar. Para obtener una copia de esta informacion traducida al Espanol, favor de llamar a telephono 512-990-6100.

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PFLUGERVILLE
TEXAS

City of Pflugerville Public Works
15500 Sun Light Near Way #B
512-990-6400
http://www.pflugervilletx.gov/publicworks

Our Drinking Water is Regulated

All drinking water may contain contaminants:

When drinking water meets federal standards, there may not be any health benefits to purchasing bottled water or point-of-use devices. Drinking water, including bottled water, may reasonably be expected to contain small amounts of contaminants. Presence of contaminants does not necessarily indicate a health risk. For more information, call the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Special notice for the 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, elderly or immune-compromised such as those who are undergoing chemotherapy, have had organ transplants, in treatment with steroids or other immune system disorders may be at risk of infections. Seek advice about drinking water from your physician or health-care provider. Additional guildlines with appropriate means to lessen the risk of infection by cryptosporidium are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Source of drinking water:

The sources of drinking water (both tap and bottled) 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 humans. Contaminants that may be present in source water include:

- ***Microbial contaminants** – viruses, bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- ***Inorganic contaminants** – salt and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- ***Pesticides or herbicides** – may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- ***Radioactive contaminants** – may be naturally occurring or the result of oil and gas production and mining activities.

Where do we get our drinking water?

The Kelly Lane WCID#1 is Purchased Ground Water. A Source Water Susceptibility Assessment for your drinking water source(s) is currently updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activity and natural conditions. The in formation contained in the assessment allows us to focus source-water protection strategies. Some of this assessment is available on the Texas Drinking Water Watch at http://dww.tceq.state.state.tx.us/DWW/.

Chloramine Disinfection:

The City of Pflugerville and Manville Water Supply Corporation use Chloramines as a disinfectant. They have been used in municipal water supply treatment since the 1930's. Chloramines are produced when a small amount of ammonia is added to chlorine. Chloramines are a weaker disinfectant than chlorine, but are more stable, thus extending the disinfecting benefits throughout the distribution system.

Benefits of chloramines are:

- It is not as reactive as chlorine with organic material in water which produces a lower concentration of disinfection byproducts.
- Chloramine residual is more stable and longer lasting than free chlorine, and therefore offers better protection against bacterial regrowth in systems with large storage tanks and dead-end water mains.
- Chloramines do not tend to react with organic compounds, so many systems experience fewer incidences of taste and odor complaints.

As with chlorine, special water treatment is required in some instances:

- Kidney dialysis - Medical centers performing dialysis are responsible for purifying the water that enters dialysis machines. Persons with home-dialysis machines should check with their physician or equipment supplier.
- Aquatic life - Chloramines stay in the water for several weeks, so a de-chlorinating agent should be added to remove it.
- Rubber - Rubber linings of water lines may deteriorate over time.

Persons with kidney ailments, diabetes or low-sodium diets can drink or use chloraminated water for all purposes. It is safe to water any type of plant, including ornamentals, vegetables, fruit and nut trees.

Important information on additional chemicals:

Arsenic (above 25 ug/l but below the MCL) - The Environmental Protection Agency (EPA) is reviewing the drinking water standards for Arsenic due to concerns it may not be stringent enough. Arsenic is a naturally-occurring mineral known to cause cancer in humans at high concentrations.

Nitrate (5 mg/l, but below the MCL) - 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. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, seek advice from your health care provider.

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. Your water supplier is responsible for high-quality drinking water but cannot control the variety of materials used in plumbing components. If 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. Safe Drinking Water Hotline 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

Coliforms - Coliform bacteria are used as indicators of microbial contamination of drinking water because they are easily detected and found in the digestive tract of warm-blooded animals. While not disease producers, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are hardier than many disease-causing organisms; therefore their absence from water is a good indication that the water is bacteriologically safe for human consumption. Fecal coliform (mostly E-coli), is a portion of the coliform bacteria originating in the intestinal tract of warm-blooded animals that passes into the environment as feces. Fecal coliform is often used as an indicator of the fecal contamination of domestic water supply.

Total Coliform - The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. The city complies with all regulations.

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. Since these constituents are not causes for health concerns, secondary constituents are not required to be reported in this document, although they may affect the appearance and taste of your water.

Understanding provided tables and information:

The attached table contains all of the constituents which have been found in your drinking water. U.S. EPA requires water systems to test up to 97 constituents. The table contains the name of each constituent, the highest level allowed by regulation (MCL); the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings and a key to units of measurement.

Abbreviations

NTU- Nephelometric Turbidity Units
pCi/L- picocuries per liter (a measure of radioactivity)
ppb- parts per billion or micrograms per liter
ppq- parts per quadrillion or pictograms per liter
MFL- million fibers per liter (a measure of asbestos)
ppm- parts per million or milligrams per liter (mg/L)
ppt- parts per trillion or nanograms per liter

Definitions

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

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 residual disinfectant level (MRDLG) - The level of a drinking water disinfectant below which there is a known or expected risk of health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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 the control of microbial contaminants.

AVG - Regulatory compliance with some MCLs are based on running annual average of monthly samples.

ppm - milligrams per liter or part per million- or one ounce in 7,350 gallons of water.

ppb - micrograms per liter or parts per billion- or one ounce in 7,350,000 gallons of water.

na - not applicable

Inorganic Contaminant

Year	Contaminant	Range of Detection	Maximum Level	MCL	MCLG	Unit of Measure	Contaminant Source
2013	Barium	0.0539-0.138	0.138	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries, erosion of natural deposits.
2014	Fluoride	0.16-1.88	1.88	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2014	Nitrate	<0.01-3.13	3.13	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2014	Gross alpha	4-4	4	15	0	pci/i	Erosion of natural deposits.
2014	Combined Radium	<1.0-1.22	1.22	50	0	pci/l	Decay of natural and man-made deposits.

Required additional Health Information for Arsenic - The maximum contaminant level (MCL) for arsenic decreased from 0.05 mg/L (50 ppb) to 0.010 mg/L (10 ppb) effective January 23, 2006. If we violate, you will be notified. Because the highest reported level on this report is above 10 ppb, the following information is required by the EPA. *Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and have an increased risk of getting cancer.

Maximum Residual Disinfectant Level

Year	Disinfectant	Average	Level Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Contaminant Source
2014	Chloramine Residual	2.25	1.00	3.30	4	4	ppm	Disinfectant used to control microbes.

Disinfection Byproducts

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Disinfectant
2014	Total Haloacetic acids	16.55	1.4	31.7	60	ppb	By product of drinking water disinfection.
2014	Total Trihalomethanes	109	<0.05	109	80	ppb	By product of drinking water disinfection.

Organic contaminants - Testing Waived, Not Reported, Or None Detected.

Unregulated contaminants - Bromoform, chloroform, dichlorobromomethane 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	Contaminant Source
2014	Chloroform	28.3	<0.05	28.3	ppb	Byproduct of drinking water disinfection
2014	Bromoform	14.6	<0.05	14.6	ppb	Byproduct of drinking water disinfection
2014	Bromodichloromethane	32.6	<0.05	32.6	ppb	Byproduct of drinking water disinfection
2014	Dibromochloromethane	36.3	<0.05	36.3	ppb	Byproduct of drinking water disinfection
2012	Vinyl Chloride	<0.5	<0.5	<0.5	ppb	Leaching from PVC piping. Discharge from plastic factories

Lead and Copper

Year	Constituent	The 90th Percentile	Number of sites exceeding action level	Action Level	Unit of Measure	Constituent Source
2014	Lead	.00134	0	15	ppb	Corrosion of household plumbing system
						Erosion of natural deposits
2014	Copper	.116	0	1.3	ppm	Corrosion of household plumbing systems
						Erosion of natural deposits

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 limits	Unit of Measure	Contaminant Source
2014	Turbidity	0.39	99.5	0.3	NTU	Soil runoff

Total Coliform

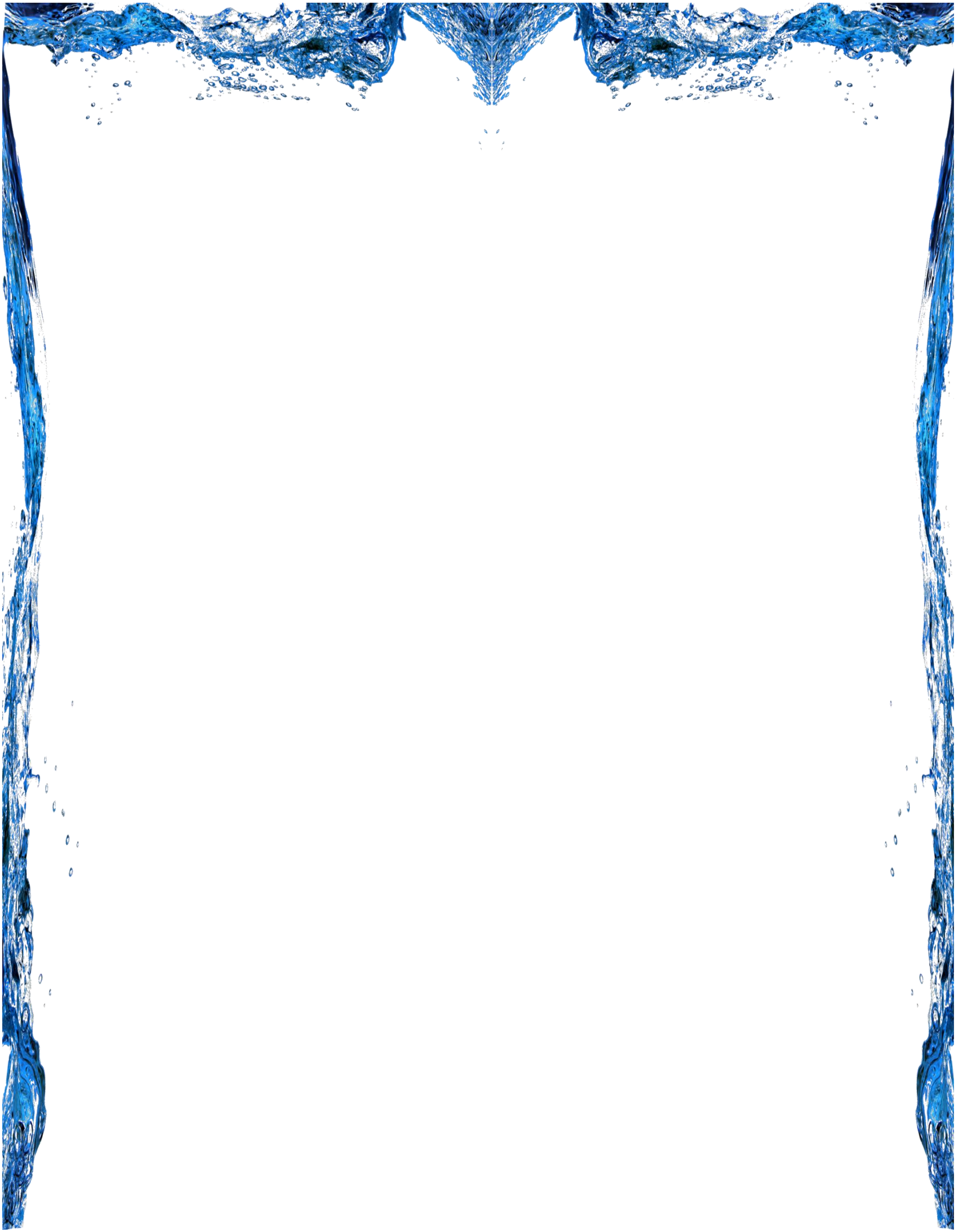
Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than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

Year	Violation Type	Health effects	Duration	Explanation	Steps to correct
2014	None				

Year	Contaminant	Highest monthly of positive samples	MCL	Unit of measure	Source of Constituent
2014	Total Coliform Bacteria	0	0	presence	Naturally present in environment

*Two or more coliform found samples in any single month

Fecal Coliform reported monthly test found no fecal coliform bacteria.

Secondary and Other Constituents Not Regulated

Year	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Level	Unit of Measure	Source of Constituent
2013	Aluminum	0.0047	<0.004	0.0047	0.05	Ppm	Abundant naturally occurring element
2014	Bicarbonate	272	161	384	NA	ppm	Corrosion of carbonate rocks such as limestone
2013	Calcium	72.9	49.4	96.5	NA	ppm	Abundant naturally occurring element
2014	Chloride	61	18	104	300	ppm	Abundant naturally occurring element, used in water purification, byproduct of oil field activity
2013	Iron	0.333	0	0.333	300	ppb	Erosion of natural deposits, iron or steel water delivery equipment or facilities
2013	Magnesium	15.1	8.7	21.6	NA	ppm	Abundant naturally occurring element
2013	Nickel	0.0018	0.0009	0.0028	NA	ppm	Erosion of natural deposits
2013	pH	7.3	7	7.7	7	units	Measure of corrosivity of water
2013	Sodium	38.1	20.3	56	NA	ppm	Erosion of natural deposits, byproducts of oil field activity
2013	Sulfate	31.5	24.6	38.5	300	ppm	Naturally occuring, common industrial byproduct, byproduct of oil field activity
2014	Total Alkalinity as CaCO3	223.5	132	315	NA	ppm	Naturally occurring soluble mineral salts.
2013	Total Dissolved Solids	387	350	425	1000	oom	Total dissolved mineral constituents in water
2013	Total hardness as CaCO3	244	159	330	NA	ppm	Naturally occurring calcium
2013	Zinc	0.015	0.014	0.017	5	ppb	Moderately abundant naturally occurring element, used in the metal industry.