

CITY OF FRIENDSWOOD

2006 DRINKING WATER QUALITY REPORT

The Consumer Confidence Report (CCR) regulations were published by the U.S. Environmental Protection Agency (USEPA) on August 19, 1998 and became effective on September 19, 1998. All community water systems are required to deliver their CCR annually by July 1.

CCRs are the centerpiece of the public's "right to know" required by the 1996 State Drinking Water Act amendments and must include information on the water source, information on regulated and unregulated contaminants found in drinking water, special health effects language provided by the EPA, and information on drinking water violations.

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 activities. Contaminants that may be present in the source water before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

Where Do We Get Our Drinking Water?

Our drinking water is purchased from the City of Houston. Our surface water plant receives its raw water from Lake Livingston and the Trinity River. In addition, we can supply ground water utilizing six water wells drawing their water from the Gulf Coast Aquifer at a depth of six hundred feet or deeper. A source Water Susceptibility Assessment for your drinking water sources is currently being updated by TCEQ and will be provided to us this year. The report will describe 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 will allow us to focus our source water protection strategies.

Public Participation Opportunities

The City of Friendswood's water system is maintained by the Public Works Department (telephone number 281-996-3382) and is part of the city government. The City Council meets every first and third Monday of each month at 7:00p.m. The meetings are held at City Hall and are open to the public. For more information about the meetings, call 281-996-3200.

Our Drinking Water Meets Or Exceeds All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of water we provide our customers. The analysis was made by using data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in these pages. We hope this information helps you become more knowledgeable about what is in your drinking water.

Special Notice For THE ELDERLY, INFANTS, CANCER PATIENTS, HIV-AIDS PATIENTS OR OTHERS WITH IMMUNE SYSTEM PROBLEMS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer under-going 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 to infections. These people should seek advice about drinking water from their health care providers. 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, **800-426-4791**.

The following table contains all of the chemical constituents which have been found in your drinking water. The U.S. EPA requires testing of the water system for at least 97 possible constituents. In some cases, the testing frequency for various constituents can range from one to three years:

INORGANIC CONTAMINANTS:

Year	Constituent	Average Level	Range of Detects (Min-Max)	MCL	MCLG	Units	Source
2006	Barium	0.126	0.047-0.419	2	2	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2006	Fluoride	0.67	0-1.30	4	4	ppm	Erosion of natural deposits; Water additives which promote strong teeth; Discharge from fertilizer and aluminum factories.
2006	Nitrate	0.42	0-1.18	10	10	ppm	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits.
2006	Nitrite	0.17	0-0.78	1	1	ppm	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits.
2006	Selenium	0.30	0-18.7	50	50	ppb	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
2006	Uranium	0.20	0-16.1	30	0	ppb	Erosion of natural deposits.
2006	Gross beta Emitters	1.73	0-15.1	50	0	pci/l	Erosion of natural deposits.
2006	Gross Alpha	1.1	0-12.5	15	0	pci/l	Decay of natural and man-made deposits.
2006	Combined Radium 226 & 228	0.26	0-3.5	5	0	pci/l	Erosion of natural deposits.

ORGANIC CONTAMINANTS:

Year	Constituent	Average Level	Range of Detects (Low-High)	MCL	MCLG	Units	Source
2006	Atrazine	0.02	0-0.23	3	3	ppb	Runoff from herbicide used on row crops.
2003	Xylenes	0.01	0-0.8	10000	10000	ppb	Discharge from petroleum and metal refineries; Discharge from chemical factories.
2006	Toluene	0.01	0-3.7	1000	1000	ppb	Discharge from petroleum factories.
2006	Ethylbenzene	0.01	0-2.4	700	700	ppb	Discharge from petroleum factories.

DISINFECTION BY-PRODUCT:

Year	Constituent	Average of all Sampling Point	Range of Detects (Low-High)	MCL	MCLG	Units	Source
2006	Total Trihalomethanes	18.2	14.8-23.9	80	0	ppb	By-product of drinking water disinfection.
2006	Total Haloacetic Acids	19.1	8.4-33.1	60	0	ppb	By-product of drinking water disinfection.

UNREGULATED CONTAMINANTS:

Year	Constituent	Average Level	Range of Detects (Low-High)	MCL	MCLG	Units	Source
2006	Chloroform	5.98	0-72	Unregulated		ppb	By-product of drinking water disinfection.
2006	Bromoform	2.82	0-19	Unregulated		ppb	By-product of drinking water disinfection.
2006	Bromodichloromethane	5.04	0-42	Unregulated		ppb	By-product of drinking water disinfection.
2006	Dibromochloromethane	5.06	0-34	Unregulated		ppb	By-product of drinking water disinfection.

Chloroform, Bromoform, Bromodichloromethane, and dibromochloromethane are disinfection byproducts. There is no Maximum Contaminant Level for these chemicals at the entry point to distribution.

DISINFECTANT RESIDUALS:

Year	Constituent	Average Level	Range of Detects (Low-High)	MRDL	MCLG	Units	Source
2006	Chloramines Residual	2.9	0.5-3.5	4	4	ppm	Disinfectant used to control microbes.

LEAD AND COPPER:

Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	MCLG	Units	Source
2004	Lead	5.1	0	15		ppb	Corrosion of household plumbing systems; erosion of natural deposit.
2004	Copper	0.601	0	1.3		ppm	Corrosion of household plumbing systems; erosion of natural deposit; leaching from wood preservatives.

TOTAL COLIFORM BACTERIA are used as indicators of microbial contamination of drinking water because testing 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.

Over 400 samples were submitted for testing last year with only one positive found. It is not unusual to have an occasional positive sample simply because of test sensitivity and/or human error in sampling techniques. Once the system is notified of a positive sample, the system operator immediately collects repeat samples from the original sample point and additional samples from up and down stream of that location.

Year	Constituent	Highest Monthly Number Of Positive Samples	Range of Detects (Low-High)	MRDL	MCL	Units	Source
2006	Total Coliform Bacteria	1			Two or more coliform samples found in any single month	Presence	Naturally present in the environment.
2006	Fecal Coliform	Not Detected					

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	Constituent	Highest Average Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	MCLG	Units	Source
2006	Turbidity	0.12		100		0.3	NTU Soil runoff.

SECONDARY AND OTHER CONSTITUENTS NOT REGULATED: 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, secondary constituents are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Year	Constituent	Average Level	Range of Detects (Low-High)	Secondary Limits	Units	Source
2006	Bicarbonate	189	96-338	NA	ppm	Corrosion of carbonate rocks such as limestone.
2006	Calcium	35.2	5.8-70	NA	ppm	Abundant naturally occurring element.
2006	Chloride	62	22-147	300	ppm	Abundant naturally occurring element; Used in water purification; By-product of oil field activity.
2006	Iron	0.096	0-0.36	0.3	ppm	Erosion of natural deposits; Iron or steel water delivery equipment or facilities.
2006	Magnesium	5	1.2-12.8	NA	ppm	Abundant naturally occurring element.
2006	Manganese	0.0181	0-0.038	0.05	ppm	Abundant naturally occurring element.
2006	PH	7.2	6.9-8.3	7	units	Measure of corrosivity of water.
2006	Sodium	73	22-142	NA	ppm	Erosion of natural deposits; By-product of oil field activity.
2006	Sulfate	24	2-93	300	ppm	Naturally occurring; Common industrial byproduct; Byproduct of oil field activity.
2006	Total Alkalinity as CaCO ₃	155	79-277	NA	ppm	Naturally occurring soluble mineral salts.
2006	Total Dissolved Solids	315	227-497	1000	ppm	Total Dissolved soluble mineral salts.
2006	Total Hardness as CaCO ₃	108	19-227	NA	ppm	Naturally occurring calcium.
2006	Zinc	0.47	0-1.17	5	ppm	Moderately abundant naturally occurring element; Used in the metal industry.

2006 CONSUMER CONFIDENCE REPORT

Your Annual Report on Drinking Water Quality for the City of Friendswood.

City of Friendswood

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Your Drinking Water Is Safe!

En Espanol: Este reporte incluye informacion importante sobre el agua para tomar. Para obtener una copia de esta informacion traducida al Espanol, favor de llamar al telefono (281) 996-3380.

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 Environmental Protection Agency's Safe Drinking Water Hotline at **800-426-4791**.

Drought Contingency Plan

The City of Friendswood has adopted a drought contingency plan in order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and also to protect and preserve public health, welfare, and safety, as well as minimize the adverse impacts of water supply shortage or other water supply emergency conditions.

Definitions of Terms Used in this Report

Maximum Contaminant Level (MCL) – the highest permissible level of a contaminant in drinking water. MCL's are set as close to the MCLG's 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. MCLG's allow for a margin of safety

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 that a water system must follow

NTU – Nephelometric Turbidity Units

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

ppb – parts per billion, or micrograms per liter (ug/l)

ppq – parts per quadrillion, or picograms 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