

HARRIS COUNTY MUNICIPAL UTILITY DISTRICT No. 162

2005 Annual Drinking Water Quality Report

Public Water Supply No. 1011612

EPA Safe Drinking Water Hotline (800 426-4791)

Water Quality Information (281 861-6215)

Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements.

Providing safe and reliable drinking water is the highest priority of the Board of Directors of Harris County Municipal Utility District No. 162. This report is a summary of the quality of water we provide our customers. We hope this information helps you become more knowledgeable about what's in our drinking water. The analysis was made using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached water quality tables. Our water system is currently purchasing water from the West Harris County Regional Water Authority (WHCRWA) and blending it with MUD 162 water; **all contaminants are well below the regulatory standards.** The water quality table for MUD 162 and the water systems that provided water are included in this report. The District has changed our method of disinfection to chloramines. You may experience a difference in the taste, odor and or color of your water. If you do experience any water quality issue as we blend surface water with our well water, please contact H₂O Consulting, our operations company at 281 861 6215.

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 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 drinking water advice 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)

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 (EPA) Safe Drinking Water Hotline (800-426-4791)** or the EPA's website at www.epa.gov/safewater.

***En Espanol:** Este reporte incluye informacion importante sobre el agua para tomar. Si tiene preguntas o discusiones sobre este reporte en espanol, favor de llamar al tel. (281 861-6215) par hablar con una persona bilingue en espanol.*

UNDERSTANDING THE TABLES

The attached table contains all of the federally regulated or monitored constituents which have been found in our drinking water. U.S. EPA requires water systems to test up to 97 constituents. **All constituent levels were below the limits set by the EPA and Safe Drinking Water Act.** 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.

DEFINITIONS

Maximum Contaminant Level (MCL) Regulatory Limit -

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 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.

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

Maximum Residual Disinfection Level (MRDL) - The highest level of disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the disinfectants to control microbial contamination.

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

ppm - Parts per million or milligrams per liter (mg/L). **ppb** - Parts per billion or micrograms per liter (ug/L).

pCi/l - Picocuries per liter; a measure of radioactivity.

Public Participation Opportunities

Harris County MUD No. 162

Date: 2nd Tuesday of Each Month
or as otherwise posted.

Time: 4:00

Location: 1301 McKinney, Suite 5100

Phone No: 713 651-3620

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 constituents, pesticides, herbicides, radioactive contaminants, and organic chemical constituents.

Where Do We Get Our Drinking Water?

Our drinking water is obtained from a ground water sources located approximately 500 ft. below ground in the Chicot Aquifer. The Texas Commission on Environmental Quality (TCEQ), the state agency that provides sampling and monitoring for the EPA, has completed an assessment of our source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for our water system are based on this susceptibility and previous sample data. Any detection of these contaminants will be found in this report. If we receive or purchase water from another water system, their susceptibility is not included in this assessment. For more information on source water assessments and protection efforts, please contact us at 281 861-6215.

Harris County MUD No. 162—Inorganic Constituents - Regulated at Water Treatment Plant

Year (Range)	Constituent	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2002	Arsenic	* 3.0	3.0	3.0	10*	0*	ppb	Erosion of natural deposits.
2002	Barium	0.205	0.205	0.205	2	2	ppm	Erosion of natural deposits.
2005	Fluoride	0.4	0.4	0.4	4	4	ppm	Erosion of natural deposits.
2005	Nitrate	0.09	0.09	0.09	10	10	ppm	Erosion of natural deposits, runoff from fertilizer use.
2002	Selenium	14.5	14.5	14.5	50	50	ppb	Erosion of natural deposits.
2005	Combined Radium 226 & 228	2.4	2.4	2.4	5	0	pCi/L	Erosion of natural deposits.
2005	Gross beta emitters	12.0	12.0	12.0	50	0	pCi/L	Decay of natural and man-made deposits.
2005	Gross Alpha	12.5	12.5	12.5	15	0	pCi/L	Erosion of natural deposits.

* These arsenic values are effective January 23, 2006. Until then the MCL is 50 ppb and there is currently no MCLG.

Harris County MUD No. 162 -Organic Contaminants

Year	Constituent	Highest Average	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2002	Xylenes	0.65	0	1.3	10000	10000	ppb	Common products used in tank coatings. Our tanks were coated in 2002 and the District retested the water and no xylenes were detected .

Harris County MUD No. 162 - Maximum Residual Disinfectant Level

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2005	Chlorine	1.21	0.4	2.0	4	4	ppm	Disinfectant used to control microbes.

Harris County MUD No. 162 - Disinfection Byproducts

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Constituent
2004	Total Haloacetic Acids	5.6	5.6	5.6	60	ppb	Byproduct of drinking water disinfection
2004	Total Trihalomethanes	4.0	4.0	4.0	80	ppb	Byproduct of drinking water disinfection

Harris County MUD No. 162 — Lead and Copper—Regulated at Customers Tap

Year	Constituent	The 90th Percentile	Number of Sites	Action Level	Unit of Measure	Source of Constituent
2002	Copper	0.109	0	1.3	ppm	Corrosion of household plumbing
2002	Lead	3.1	0	15	ppb	Corrosion of household plumbing

Harris County MUD No. 162 — Secondary and Other Not Regulated Constituents

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Year	Constituent	Average Level	Minimum Level	Maximum Level	Limit	Unit of Measure	Source of Constituent
2005	Bicarbonate	276	276	276	N/A	ppm	Dissolving of carbonate rocks such as limestone.
2002	Calcium	53.4	53.4	53.4	N/A	ppm	Abundant naturally occurring element.
2002	Chloride	46.0	46.0	46.0	300	ppm	Abundant naturally occurring element; used in water purification.
2002	Magnesium	5.5	5.5	5.5	N/A	ppm	Abundant naturally occurring element.
2005	pH	7.8	7.8	7.8	7	Units	Measure of corrosivity of water.
2002	Sodium	33	33	33	N/A	ppm	Erosion of natural deposits.
2005	Sulfate	8	8	8	300	ppm	Naturally occurring.
2005	Total Alkalinity as CaCO ₃	226	226	226	N/A	ppm	Naturally occurring soluble mineral salts.
2005	Total Dissolved Solids	326	326	326	1000	ppm	Total dissolved mineral constituents in water.
2002	Total Hardness as CaCO ₃	156	156	156	N/A	ppm	Naturally occurring calcium.

In 2005 Harris County MUD No. 162 purchased water from Harris County MUD 208 for a period of time. Harris County MUD 208's Water Quality Information is listed below.

Harris County MUD No. 208 Inorganic Constituents - Regulated at Water Treatment Plant

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2005	Arsenic	3.0	3.0	3.0	10*	0*	ppb	Erosion of natural deposits.
2005	Barium	0.185	0.185	0.185	2	2	ppm	Erosion of natural deposits.
2005	Fluoride	0.6	0.6	0.6	4	4	ppm	Erosion of natural deposits.
2005	Nitrate	0.01	0.01	0.01	10	10	ppm	Erosion of natural deposits, Runoff from fertilizer use.
2002	Gross Alpha Adjusted	2.2	2.2	2.2	15	0	Pci/l	Erosion of natural deposits.

Harris County MUD No. 208 -Organic Contaminants

Year	Constituent	Highest Average	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2002	Xylenes	1.3	0	2.6	10000	10000	ppb	Common products used in tank coatings. Our tanks were coated in 2002 and the District retested the water and no xylenes were detected .
2002	Ethylbenzene	0.6	0.6	0.6	700	700	ppb	Discharge from petroleum refineries

Harris County MUD No. 208 Disinfection Byproducts

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Constituent
2004	Total Haloacetic Acids	10.1	10.1	10.1	60	ppb	Byproduct of drinking water disinfection
2004	Total Trihalomethanes	1.3	1.3	1.3	80	ppb	Byproduct of drinking water disinfection

Harris County MUD No. 208 -Lead & Copper - Regulated at the Customers Tap

Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Levels	Action Level	Unit of Measure	Source of Constituent
2004	Copper	0.273	0	1.3	ppm	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
2004	Lead	3.6	0	15	ppb	Corrosion of household plumbing systems; Erosion of natural deposits.

In 2005 Harris County MUD No. 162 purchased water from Harris County MUD 208 for a period of time. Harris County MUD 208's Water Quality Information is listed below.

Harris County MUD No. 208 Inorganic Constituents - Regulated at Water Treatment Plant

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2005	Arsenic	3.0	3.0	3.0	10*	0*	ppb	Erosion of natural deposits.
2005	Barium	0.185	0.185	0.185	2	2	ppm	Erosion of natural deposits.
2005	Fluoride	0.6	0.6	0.6	4	4	ppm	Erosion of natural deposits.
2005	Nitrate	0.01	0.01	0.01	10	10	ppm	Erosion of natural deposits, Runoff from fertilizer use.
2002	Gross Alpha Adjusted	2.2	2.2	2.2	15	0	Pci/l	Erosion of natural deposits.

Harris County MUD No. 208 -Organic Contaminants

Year	Constituent	Highest Average	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2002	Xylenes	1.3	0	2.6	10000	10000	ppb	Common products used in tank coatings. Our tanks were coated in 2002 and the District retested the water and no xylenes were detected .
2002	Ethylbenzene	0.6	0.6	0.6	700	700	ppb	Discharge from petroleum refineries

Harris County MUD No. 208 Disinfection Byproducts

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Constituent
2004	Total Haloacetic Acids	10.1	10.1	10.1	60	ppb	Byproduct of drinking water disinfection
2004	Total Trihalomethanes	1.3	1.3	1.3	80	ppb	Byproduct of drinking water disinfection

Harris County MUD No. 208 -Lead & Copper - Regulated at the Customers Tap

Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Levels	Action Level	Unit of Measure	Source of Constituent
2004	Copper	0.273	0	1.3	ppm	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
2004	Lead	3.6	0	15	ppb	Corrosion of household plumbing systems; Erosion of natural deposits.

In 2005 Harris County MUD No. 162 purchased water from Harris County MUD 186 for a period of time. Harris County MUD 186's Water Quality Information is listed below.

Inorganic Constituents - Regulated at MUD 186 Water Treatment Plant

Year (Range)	Constituent	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2002	Arsenic	6.0	6.0	6.0	10*	0*	ppb	Erosion of natural deposits.
2002	Barium	0.157	0.157	0.157	2	2	ppm	Erosion of natural deposits.
2005	Fluoride	1.0	1.0	1.0	4	4	ppm	Erosion of natural deposits.
2005	Nitrate	0.01	0.01	0.01	10	10	ppm	Erosion of natural deposits, runoff from fertilizer use.
2002	Selenium	4.65	0	9.3	50	50	ppb	Erosion of natural 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. TCEQ is providing the following health effects language according to new Consumer Confidence Report (CCR) reporting requirements for arsenic.

Because the highest reported arsenic level on this report is between 5 ppb and 10 ppb, this information is required by the EPA:

"While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems."

Harris County MUD No. 186 - Maximum Residual Disinfectant Level

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2005	Chlorine	1.3	0.4	2.9	4	4	ppm	Disinfectant used to control microbes.

Harris County MUD No. 186 - Disinfection Byproducts

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Constituent
2004	Total Trihalomethanes	3.8	3.5	4.0	80	ppb	Byproduct of drinking water disinfection.

Harris County MUD No. 186 - Unregulated Constituents

Year	Constituent	Average Level	Minimum Level	Maximum Level	Unit of Measure	Reason for Monitoring
2002	Bromoform	0.45	0	0.9	ppb	Byproduct of drinking water disinfection
2002	Chloroform	0.50	0	1.0	ppb	Byproduct of drinking water disinfection
2002	Dibromochloromethane	0.6	0.6	0.6	ppb	Byproduct of drinking water disinfection

Harris County MUD No. 186 - Secondary and Other Not Regulated Constituents

(No associated adverse health effects)

Year	Constituent	Average Level	Minimum Level	Maximum Level	Limit	Unit of Measure	Source of Constituent
2005	Bicarbonate	365	365	365	N/A	ppm	Dissolving of carbonate rocks such as limestone.
2002	Calcium	12.3	12.3	12.3	N/A	ppm	Abundant naturally occurring element.
2005	Chloride	68	68	68	300	ppm	Abundant naturally occurring element; used in water purification.
2002	Iron	111	111	111	300	ppb	Erosion of natural deposits.
2002	Magnesium	3.2	3.2	3.2	N/A	ppm	Abundant naturally occurring element.
2005	ph	7.8	7.8	7.8	7.0	Units	Measure of corrosivity of water.
2002	Sodium	143.0	143.0	143.0	N/A	ppm	Erosion of natural deposits.
2005	Sulfate	7.0	7.0	7.0	300	ppm	Naturally occurring.
2005	Total Alkalinity as CaCO ₃	299	299	299	N/A	ppm	Naturally occurring soluble mineral salts.
2005	Total Dissolved Solids	453	453	453	1000	ppm	Total dissolved mineral constituents in water.
2002	Total Hardness as CaCO ₃	44.0	44.0	44.0	N/A	ppm	Naturally occurring calcium.