

TABLE II Continued

Trihalomethanes (THM)

Year	Detected	Average of All Sampling Points	Range of Detected Levels	MCL	MCLG	Unit of Measure	Source of Constituent
2006	Year Detected	74.4	52.5-87.1	80	0	ppb	By-product of drinking water chlorination.

Halocetic Acids (HAA5)

Year	Detected	Average of All Sampling Points	Range of Detected Levels	MCL	MCLG	Unit of Measure	Source of Constituent
2006	Year Detected	26.8	17-38.4	60	0	ppb	By-product of drinking water chlorination.

Total Coliform

Year	Constituent	Measured Concentration	Number of Analyses	Secondary	Units of Measure	Source of Constituent
2006	Halocetic Acids	26.8	17-38.4	60	0	ppb

No associated adverse health effects

Secondary and Other Unregulated Constituents

Year	Constituent	Measured Concentration	Number of Analyses	Secondary	Units of Measure	Source of Constituent
2002	Aluminum	0.031	1	50	ppb	Abundant naturally occurring element.
2006	Bicarbonate	189	1	NA	ppm	Corrosion of carbonate rocks such as limestone.
2002	Calcium	66.9	1	NA	ppm	Abundant naturally occurring element. Used in water purification; by-product of oil field activity.
2006	Chloride	78	1	300	ppm	Abundant naturally occurring element. Used in preservatives.
2002	Copper	0.054	1	NA	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
2006	Hardness as Ca/Mg	267	1	NA	ppm	Naturally occurring calcium and magnesium.
2002	Magnesium	14.8	1	NA	ppm	Naturally occurring calcium and magnesium.
2006	pH	7.77	1	7	units	Measure of corrosivity of water.
2002	Sodium	25	1	NA	ppm	Erosion of natural deposits. Byproduct of oil sulfate
2006	Sulfate	88	1	300	ppm	Naturally occurring; common industrial field activity.
2006	Total Alkalinity as CaCO3	189	1	NA	ppm	Naturally occurring soluble mineral salts.
2006	Total Dissolved Solids	443	1	1000	ppm	Total dissolved mineral constituents in water.
2005	Total Hardness as CaCO3	162	1	NA	ppm	Naturally occurring calcium.

This report was prepared by the Guadalupe-Blanco River community water systems throughout the United States is available at [www.gbra.org](http://www.gbra.org), for further information. Water quality data for community water systems throughout the United States is available at [www.waterdata.com](http://www.waterdata.com).

National Primary Drinking Water Regulation Compliance

# WATER QUALITY '06

## CALHOUN COUNTY RURAL WATER SUPPLY OF GBRA

### Excellence in Water Quality

GBRA Water Treatment Plant, Box 146, Port Lavaca, Texas 77979 Tel:361/552-9751

### En Español

Este reporte incluye la informacion importante sobre su agua de beber. Si tiene preguntas o comentarios sobre este informe en Espanol, favor de llamar 361/552-9751 para hablar con una persona bilingue in espanol durante las horas regulares de oficina (8 a.m. - 5 p.m.).

**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 advice about drinking water from their health care providers.

The United States Environmental Protection Agency (EPA) and the Center 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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

All 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).

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 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 include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses;

(D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems;

(E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Many constituents (such as calcium, sodium or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste, color and odor constituents are called secondary constituents and are regulated by the state of Texas, not EPA. These constituents are not causes for health concerns. Secondary constituents may affect the appearance and taste of your water.

**Customer Views Welcome**

GBRA strongly supports the national primary drinking water regulations compliance process. Questions about water quality may be answered by calling 361/552-9751 or writing to us at Box 146, Port Lavaca, Texas 77979. You are also encouraged to attend the Rural Water Annual Membership meeting hosted each January by GBRA.

### Where Do We Get Our Drinking Water and What Happens to It?

Surface water (water from a lake, pond, river or stream) is diverted from the Guadalupe River and pumped to the GBRA Water Treatment Plant. There, licensed operators treat the water by settling and filtering out suspended solids, dirt, and other organic particles until the water reaches a crystal-clear quality. A disinfectant compound of chlorine and ammonia is used to destroy any pathogens (germs) present. Fluoride is added to promote dental health.

### What We Found

The following table contains all of the chemical constituents that have been found in your drinking water. EPA requires water systems to test for more than 97 constituents. The column marked "Highest Level at Any Sampling Point" shows the highest test results during the year. The "Source of Constituent" column shows where this substance usually originates.

#### DEFINITIONS:

**Maximum Contaminant Level (MCL)** - the highest level of a contaminant 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 allowed 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 concentration of disinfectant residual allowed in the distribution system.

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

NTU = Nephelometric Turbidity Units, a measure of clarity.

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

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

pCi/L = picocuries per liter, a measure of radioactivity.

ND = none detected NA = not applicable.

UCMR = Unregulated Contaminants Monitoring Rule.

### Inorganics

Year	Detected Constituent	Highest Level at Any Sampling Point	Number of Analyses	MCL	MCLG	Unit of Measure	Source of Constituent
2002	Barium	0.074	1	2	2	ppm	Discharge of drilling wastes; erosion of natural deposits.
2002	Chromium	1.49	1	100	100	ppb	Discharge from steel and pulp mills; erosion of natural deposits.
2006	Fluoride	0.72	1	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; runoff from fertilizer use.
2006	Nitrate	1.34	1	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks; treated wastewater effluent; erosion of natural deposits.
2004	Gross Beta Emitters	4.8	1	50	0	pCi/L	Decay of mineral and man-made deposits.

### Organics

Year	Detected Constituent	Concentration of Analyses	Number of Analyses	MCL	MCLG	Unit of Measure	Source of Constituent
2006	Atrazine	ND	1	3	3	ppb	Runoff from herbicide used on row crops.

### Unregulated Contaminants

Year	Constituent	Average of All Sampling Points	Range of Detected Levels	Reason for Monitoring
2006	Trihalomethanes	15.648	6.4-28.5	Monitoring contaminants helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.
2006	Bromoform	7.058	5.7-8.39	Same as above.
2006	Bromodichloromethane	29.01	15.1-41.7	Same as above.
2006	Chlorodibromomethane	31.792	20.3-39.76	Same as above.
2006	Chloroacetic acid	9.55	ND-22.6	Monitoring helps EPA determine where certain contaminants occur and the need for regulation.
2006	Dichloroacetic acid	11.75	ND-24.9	Same as above.
2006	Trichloroacetic acid	4.1	ND-9.4	Same as above.
2006	Bromoacetic acid	ND	ND	Same as above.
2006	Dibromoacetic acid	10.125	7.0-12.6	Same as above.
2006	Bromochloroacetic acid	12.65	8.4-16.7	Same as above.

We participated in gathering data under UCMR in order to assist EPA in determining the occurrence of possible drinking water contaminants. If any unregulated contaminants were detected, they are shown in the table below. This data may also be found on EPA's website at <http://www.epa.gov/safewater/data/ucmr.html>, or you can call the Safe Drinking Water Hotline at 1-800-426-4791.

Year	Constituent	Average	Minimum	Maximum	MCL	Unit of Measure	Source of Constituent
2006	Total Haloacetic Acids	35.525	10.2	78.475	47.9	ppb	Byproduct of drinking water disinfection.
2006	Total Trihalomethanes	78.475	10.2	111.3	80	ppb	Byproduct of drinking water disinfection.

### 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. Turbidity is measured every 15 minutes.

Year	Constituent	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Constituent
2006	Turbidity	0.25	100	0.3	NTU	Organic particles.

### Disinfectant Residuals

Year	Constituent	Highest Range of Detects (low-high)	MRDL	MCLG	Unit of Measure	Source of Constituent
2006	Chloramines	3.57	1.0-4.0	4	ppm	Disinfectant used to control microbes.

### Total Organic Carbon (TOC)

Year	Detected Constituent	Highest Measurement	Lowest Measurement	Average Measurement	Unit of Measure	Source of Constituent
2006	Source Water TOC	5.46	2.05	3.4975	ppm	Naturally occurring. There are no health effects directly associated with it.
2006	Drinking Water TOC	3.44	1.5	2.2567	ppm	Same as above.
2005	Removal Ratio	3.72	1.058	1.817667	NA	NA

Removal Ratio is the percent of TOC removal by the treatment process divided by the percent of TOC required by TCEQ to be removed.

### Source Water Assessment

TCEQ completed an assessment of your source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact the Guadalupe-Blanco River Authority at 361-552-9751.

### Cryptosporidium Monitoring Information

The EPA Long Term 2 Enhanced Surface Water Treatment Rule (LT2 Rule) requires that water treatment plants monitor the source water (water prior to treatment plant) for Cryptosporidium, turbidity and *E.coli*. Cryptosporidium is a microbial pathogen that may be found in water contaminated with feces. Monitoring results will be used to determine whether additional treatment is required and to refine the relationship established between *E.coli* and Cryptosporidium levels in the source water. Although treatment plant filters remove Cryptosporidium, filters cannot guarantee 100% removal nor can the analysis determine if the organisms are alive and capable of causing cryptosporidiosis, an abdominal infection causing nausea, vomiting, diarrhea and abdominal cramps that may occur after ingestion of contaminated water. Bimonthly sampling of the Guadalupe River, the source water for the GBRA Pt. Lavaca Water Treatment Plant, began in October 2006 and will continue until September 2008. The following table summarizes the source water data collected in 2006.

Analysis of Source Water Prior to Treatment	No. of Analyses	Mean	Range of Analysis	Units
Cryptosporidium	6	<0.1	0	Oocysts per liter
<i>E. coli</i>	6	18*	8.0-52.0	Most probable number
Turbidity	6	47	18.1-82.0	NTU

\*geometric mean

### Total Coliform

Not Detected

*E. coli*

Not Detected

## TABLE II - Test results for GBRA water supply to Calhoun County Rural Water customers (As sampled in the customer distribution system)

### Inorganics

Year	Detected Constituent	Measured Concentration	Number of Analyses	MCL	MCLG	Unit of Measure	Source of Constituent
1999	Gross Alpha	1	1	15	0	pCi/L	Erosion of natural deposits.
2004	Gross Beta	3.2	1	50	0	pCi/L	Decay of natural and man-made deposits.

### Lead and Copper (None taken for 2006 - analyzed every 9 years)

Year	Detected Constituent	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Constituent
1999	Lead	2.70	0	15	ppb	Corrosion of household plumbing systems;
1999	Copper	0.081	0	13	ppm	Corrosion of household plumbing systems; erosion of natural deposits.

### Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum	MRDL	MRDLG	Unit of Measure	Source of Constituent
2006	Chlorine Residual	2.39	1.1	3.6	4	4	ppm	Disinfectant used to control microbes.