

# WATER QUALITY '05

City of Port Lavaca  
Excellence in Water Quality



Port Lavaca Water Department 361/552-9793 Ext. 239  
GBRA Water Treatment Plant 361/552-9751

Dear Customer:

The City of Port Lavaca is pleased to provide you with this calendar year 2005 Water Quality Report. We take all possible precautions to safeguard your water supply and hope you will be encouraged to learn about the high quality of water provided to you.

The federal Safe Drinking Water Act (SDWA) requires water utilities to issue an annual report to customers, in addition to other notices that may be required by law. This report explains where your drinking water comes from, what it contains, and the health risks our water testing program and treatment are designed to prevent.

We are committed to providing you with information about your water supply because informed consumers are our best allies in supporting improvements needed to maintain the highest drinking water standards.

**We are proud to report that the Texas Commission on Environmental Quality (TCEQ) has assessed our system and determined that your drinking water, provided by the City of Port Lavaca, through the Guadalupe-Blanco River Authority's surface water treatment plant, meets or exceeds all federal and state established water-quality standards.**

The tables in this report list all substances that were detected in our treated water, and the highest levels at which they were detected. The tables also reflect the highest levels allowed by federal regulatory agencies. Please read this information carefully and if you have questions, call the phone numbers listed in this report.

## En Español

Este informe incluye informacion importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en Espanol, favor de llamar tel. 361/552-9793 Ext 239 para hablar con una persona bilingue en espanol durante las horas regulares de oficina (8 a.m. - 5 p.m.).

## Customer Views Welcome

The City of Port Lavaca strongly supports the national primary drinking water regulations compliance process. If you are interested in learning more about the water department, water quality, or participating in the decision-making process, there are a number of opportunities available.

Questions about water quality can be answered by calling our Customer Service Department at 361/552-9793 Ext. 239 from 8 a.m.-5 p.m., Monday through Friday. Inquiries about public participation and policy decisions should be directed to the City Secretary's office at 361/552-9793 Ext 225.

The Port Lavaca City Council meets every 2nd and 4th Monday at 6:30 p.m. at City Hall and all meetings are open to the public. Our website address is [www.portlavaca.org](http://www.portlavaca.org).

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

The City of Port Lavaca receives its water from the Guadalupe-Blanco River Authority (GBRA). Surface water is diverted from the Guadalupe River, treated at the GBRA surface water treatment plant, and pumped to the City.

The TCEQ completed an assessment of your source water and results indicate that our source is 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 GBRA Port Lavaca Water Treatment Plant at 361/552-9751.

Trained 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. The water is monitored to insure that it meets or exceeds all state and federal drinking water standards. The treated water is delivered to the City's customers through its distribution system.

## 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 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).

## Required Additional Health Information

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 very 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.

### What We Found

The following tables contain all of the chemical constituents that have been found in your drinking water. EPA requires water systems to test for more than 90 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 in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

**Action Level** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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).

**NA** = MCL not applicable or not regulated.

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

**TABLE I - Test results for the GBRA water supply to Port Lavaca (Sampled at the GBRA Water Treatment Plant)**

#### 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.
2005	Fluoride	0.86	1	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2005	Nitrate	0.06	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 Detected	Number of Analyses	MCL	MCLG	Unit of Measure	Source of Constituent
2005	Atrazine	0.18	1	3	3	ppb	Runoff from herbicide used on row crops.

#### Unregulated Contaminants

Year	Constituent	Average of Analyses	Range of Detected Levels	Reason for Monitoring
<b>Trihalomethanes</b>				
2005	Chloroform	11.528	7.5 - 18.0	Monitoring helps EPA determine where certain contaminants occur and need for regulation.
2005	Bromoform	4.412	1.2 - 7.56	Same as above.
2005	Bromodichloromethane	23.872	20.4-29.2	Same as above.
2005	Chlorodibromomethane	22.04	12.8-29.32	Same as above.
<b>Haloacetic Acids</b>				
2005	Chloroacetic acid	6.025	ND-8.5	Monitoring helps EPA determine where certain contaminants occur and the need for regulation.
2005	Dichloroacetic acid	14.175	7.1-19.4	Same as above.
2005	Trichloroacetic acid	3.975	ND-8.7	Same as above.
2005	Bromoacetic acid	ND	ND	Same as above.
2005	Dibromoacetic acid	11.6	6.4-20.5	Same as above.
2005	Bromochloroacetic acid	5.87	ND-8.4	Same as above.

**Availability of Unregulated Contaminant Monitoring Rule Data (UCMR)** - We participated in gathering data under the 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 tables above. This data may also be found on EPA's web site at <http://www.epa.gov/safewater/data/ncod.html>, or you can call the Safe Drinking Water Hotline at 1-800-426-4791.

**Disinfection Byproducts**

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Constituent
2005	Total Haloacetic Acids	33.3	19.6	43.2	60	ppb	Byproduct of drinking water disinfection.
2005	Total Trihalomethanes	65.3	53.9	76.2	80	ppb	Byproduct of drinking water disinfection.

**Total Organic Carbon (TOC)**

Year	Contaminant	Highest Measurement	Lowest Measurement	Average Measurement	Unit of Measure	Source of Contaminant
2005	Source Water TOC	4.95	2.16	3.235	ppm	Naturally occurring, no health effects directly associated.
2005	Drinking Water TOC	2.48	1.51	1.913	ppm	Same as above.
2005	Removal Ratio	3.014	1.28	2.187	ppm	NA

**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	Detected Constituent	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Constituent
2005	Turbidity	0.18	100	0.3	NTU	Organic particles.

**Disinfectant Residuals**

Year	Constituent	Highest Average	Range of Detects (low-high)	MRDL	Unit of Measure	Source of Constituent
2005	Chloramines	3.432	1.3-4.5	4	ppm	Disinfectant used to control microbes.

**2005 Total Coliform** NOT DETECTED      **2005 E. coli** NOT DETECTED

**Cyptosporidium Monitoring Information**

Cyptosporidium monitoring will begin in 2006. Initial testing for cyptosporidium has found no organisms. Cyptosporidium is a microbial pathogen that may be found in water contaminated by feces. Although filtration removes Cyptosporidium, it cannot guarantee 100 percent removal nor can the testing methods determine if the organisms are alive and capable of causing cyptosporidiosis, an abdominal infection with nausea, diarrhea, and abdominal cramps that may occur after ingestion of contaminated water.

**TABLE II - Tested in City of Port Lavaca distribution system at home taps**

**Maximum Residual Disinfectant Level**

Year	Constituent	Highest Average	Range of Detects (Low - High)	MRDL	MCLG	Unit of Measure	Source of Constituent
2005	Chlorine Residual	2.22	0.2 - 3.5	4	4	ppm	Disinfectant used to control microbes.

**Trihalomethanes (THMs)**

Year	Detected Constituent	Average of All Sampling Points	Range of Detected Levels	MCL	MCLG	Unit of Measure	Source of Constituent
2005	Total Trihalomethanes	66.3	51.3 - 91.6	80	0	ppb	By-product of drinking water chlorination.

**Haloacetic Acids (HAA5s)**

Year	Detected Constituent	Average of All Sampling Points	Range of Detcted Levels	MCL	MCLG	Unit of Measure	Source of Constituent
2005	Total Haloacetic Acids	39.5	9.4 - 111.2	60	0	ppb	By-product of drinking water chlorination.

**Lead and Copper (Analyzed every 3 years)**

Year	Detected Constituent	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Constituent
2004	Lead	8.82	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2004	Copper	0.8813	1	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits.

## TABLE II Continued

### 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. With some exceptions, coliforms are not themselves disease producers, but often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy 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 bacteria (mostly *E.coli*) are a portion of the coliform bacteria group originating in the intestinal tract of warm-blooded animals that passes into the environment as feces. Fecal coliform bacteria are often used as indicators of the fecal contamination of a domestic water supply.

Year	Detected Constituent	Highest Monthly Number of Positive Samples	MCL	Unit of Measure	Source of Constituent
2005	Total Coliform/	1	*	Presence/	Naturally present in the environment.
2005	<i>E. coli</i>	0	*	Absence	

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

### Secondary and Other Unregulated Constituents

No associated adverse health effects

Year	Constituent Detected	Measured Concentration	Number of Analyses	Secondary Limit	Unit of Measure	Source of Constituent
2002	Aluminum	31	1	50	ppm	Abundant naturally occurring element.
2005	Bicarbonate	97	1	NA	ppm	Corrosion of carbonate rocks such as limestone.
2002	Calcium	66.9	1	NA	ppm	Abundant naturally occurring element.
2005	Chloride	32	1	300	ppm	Abundant naturally occurring element. Used in water purification; by-product of oil field activity.
2002	Copper	0.054	1	NA	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
2005	Hardness as Ca/Mg	162	1	NA	ppm	Naturally occurring calcium and magnesium.
2002	Magnesium	15	1	NA	ppm	Abundant naturally occurring element.
2005	pH	7.67	1	7	units	Measure of corrosivity of water.
2002	Sodium	25	1	NA	ppm	Erosion of natural deposits. Byproduct of oil field activity.
2005	Sulfate	81	1	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2005	Total Alkalinity as CaCO <sub>3</sub>	97	1	NA	ppm	Naturally occurring soluble mineral salts.
2005	Total Dissolved Solids	254	1	1000	ppm	Total dissolved mineral constituents in water.
2005	Total Hardness as CaCO <sub>3</sub>	162	1	NA	ppm	Naturally occurring calcium.

### National Primary Drinking Water Regulation Compliance

*This report was prepared by the Guadalupe-Blanco River Authority. Please contact GBRA at 361/552-9751 or through their website 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).*