

# 2008 Annual Drinking Water Quality Report

(Consumer Confidence Report)

**LLANO COUNTY MUD #1**

**830-598-5460**

***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-

the drinking water. LCMUD#1 Board Meetings are held every fourth Tuesday of the month at 10:30 a.m.

The Public is always welcome.

## **Public Participation Opportunities**

We encourage public interest and participation in our community's decisions affecting

Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

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

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

This report is a summary of the quality of the water we provide our customers. This analysis was made by using the data from the most recent U.S.

### **Where do we get our drinking water?**

***En Español*** Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. ( 830)598-5460 - para hablar con una persona bilingüe en español.

Our drinking water is obtained from SURFACE water sources. It comes from the following Lake/River/Reservoir/Aquifer: LAKE LYNDON B JOHNSON. A Source Water Susceptibility Assessment for your drinking water sources(s) is currently being

updated by the Texas Commission on Environmental Quality 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. For more information on source water assessments and protection efforts at our system, please contact us.

***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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

**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. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

**About The Following Pages**

The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

**DEFINITIONS**

**Maximum Contaminant Level (MCL)** The highest permissible level of a contaminant 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.

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

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

**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 which a water system must follow.

**ABBREVIATIONS**

**NTU** -Nephelometric Turbidity Units

**MFL** -million fibers per liter (a measure of asbestos)

**pCi/L** -picocuries per liter (a measure of radioactivity)

**ppm** - parts per million, or milligrams per liter (mg/L)

**ppb** -parts per billion, or micrograms per liter (µg/L)

**ppt** -parts per trillion, or nanograms per liter

**ppq** -parts per quadrillion, or picograms per liter

### Inorganic Contaminants

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2008	Fluoride	0.19	0.19	0.19	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2008	Nitrate	0.02	0.02	0.02	10	10	Ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2006	Gross beta emitters	3.9	3.9	3.9	50	0	pCi/L	Decay of natural and man-made deposits.

### Organic Contaminants

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Chemical
2008	Toluene	0.6	0.6	0.6	1000	1000	ppm	Discharge from petroleum factories.

### Maximum Residual Disinfectant Level

Systems must complete and submit disinfection data on the Surface Water Monthly Operations Report (SWMOR). On the CCR report, the system must provide disinfectant type, minimum, maximum and average levels.

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2008	Chloramines Disinfectant	2.58	1.97	2.94	4.0	<4.0	ppm	Disinfectant used to control microbes.

### Disinfection Byproducts

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2008	Total Haloacetic Acids	12.3	12.3	12.3	60	ppb	Byproduct of drinking water disinfection.
2008	Total Trihalomethanes	8	8	8	80	ppb	Byproduct of drinking water disinfection.

### Unregulated Initial Distribution System Evaluation for Disinfection Byproducts WAIVED OR NOT YET SAMPLED

#### Unregulated Contaminants

Bromoform, chloroform, bromodichloromethane, and dibromochloromethane are disinfectant 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	Source of Contaminant
2008	Chloroform	9.2	9.2	9.2	ppb	Byproduct of drinking water disinfection.
2007	Bromodichloromethane	4.2	4.2	4.2	ppb	Byproduct of drinking water disinfection.
2008	Dibromochloromethane	1.2	1.2	1.2	ppb	Byproduct of drinking water disinfection

## Lead and Copper

Year	Contaminant	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Contaminant
2008	Lead	5.7	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2008	Copper	0.105	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

### Recommended Additional Health Information for Lead

All water systems are required by EPA to report the language below starting with the 2009 CCR to be delivered to you by July of 2010. We are providing this information now as a courtesy.

*"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. This water supply is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>."*

## 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	Source of Contaminant
2008	Turbidity	.60	96.00	0.3	NTU	Soil runoff.

## Total Organic Carbon

**Total organic carbon (TOC) no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.**

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2008	Source Water	5.09	3.70	7.06	ppm	Naturally present in the environment.
2008	Drinking Water	3.74	2.80	4.66	ppm	Naturally present in the environment.
2008	Removal Ratio	1.09	0.86	1.62	% of removal *	N/A

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

## Cryptosporidium Monitoring Information

*For systems that operate a surface water treatment plant, if your PWS has conducted monitoring for the Long Term Stage 2 Enhanced Surface Water Treatment Rule and detected either E. Coli or Cryptosporidium, you must summarize those findings and explain the significance of the results in the CCR report year following the detections. You do not need to forward the source data to your wholesale customer PWSs. You must forward any finished water data to your wholesale customer PWSs. Example language for retail customers: "Cryptosporidium is a microbial pathogen that may be found in water contaminated by feces. Although filtration removes Cryptosporidium, it cannot guarantee 100 percent removal nor can the testing methods determine if the organisms are alive and capable of causing cryptosporidiosis, an abdominal infection with nausea, diarrhea and abdominal cramps that may occur after ingestion of contaminated water."*

**Total Coliform** REPORTED MONTHLY TESTS FOUND NO COLIFORM BACTERIA.

**Fecal Coliform** REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.

## Secondary and Other Constituents Not Regulated

(No associated adverse health effects)

Year or Range	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2008	Bicarbonate	168	168	168	NA	ppm	Corrosion of carbonate rocks such as limestone.
2008	Chloride	35	35	35	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity
2005	Hardness as Ca/Mg	183	183	183	NA	ppm	Naturally occurring calcium and magnesium.
2008	pH	7.5	7.5	7.5	>7.0	units	Measure of corrosivity of water.
2008	Sulfate	32	32	32	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2008	Total Alkalinity as CaCO <sub>3</sub>	138	138	138	NA	ppm	Naturally occurring soluble mineral salts.
2008	Total Dissolved Solids	242	242	242	1000	ppm	Total dissolved mineral constituents in water.

### Board of Directors

L. D. Stewart, President  
William Stevens, Vice President  
Jeff Pruett, Secretary-Treasurer  
D. Jarrett Bates, Board Member  
Emory Garlick, Board Member

Betty L. Brooker, General Manager

**Administrative Office:**  
2900 Blue Lake Drive  
Horseshoe Bay, TX 78657

**Hours:**  
Monday – Friday 9 am to 5 pm  
Phone: 830-598-5460 Fax: 830-596-1014

**After hours – water / sewer emergencies**  
830-598-8741

Email Address:  
[lcmudone@zeecon.com](mailto:lcmudone@zeecon.com)

# Notice

**The Annual  
2008 Report of Drinking Water Quality  
(Consumer Confidence Report)**  
is now available for:

**Llano County Municipal Utility  
District #1**

You can obtain a copy of this report by calling

**Betty Brooker or Sally Schwab  
830-598-5460**

Copies are available for pickup at the  
District Office  
located at

2900 Blue Lake Drive, Horseshoe Bay,  
TX 78657

# **Aviso!**

**El informe anual de la calidad del agua potable  
(informe de la confianza de consumidor)  
esta disponible ahora para:**

## **Llano County Municipal Utility District #1**

Usted puede obtener una copia de este informe llamando  
nombre:

**Betty Brooker or Sally Schwab  
830-598-5460**

O usted puede

**2900 Blue Lake Drive, Horseshoe Bay,  
TX 78657**