



CITY OF ODESSA

2010 WATER QUALITY REPORT

PWS No. 068002

ODESSA'S DRINKING WATER EXCEEDS ALL FEDERAL PRIMARY DRINKING WATER REQUIREMENTS!

This report is a summary of the quality of water Odessa provides its customers. The analysis was made by using the data from the most recent Federal and State required tests and is presented on the following pages. We hope this information helps you to become more knowledgeable about your drinking water.

En español: Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al tel. (432) 335-4625 – para hablar con una persona bilingüe en español.

Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, and 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. 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).

Where Do We Get Our Drinking Water? The City purchases all of its water, untreated, from the Colorado River Municipal Water District (CRMWD). The majority of the water is surface water from Lake Ivie. Lake Thomas and Lake Spence are also sources for our drinking water supply. The City may also receive water from Ward and Martin Counties wells during certain times of the year to supplement the surface water supplies. A Source Water Susceptibility Assessment for our drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with our drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies. Some of this source water assessment information is available on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/>. For more information on source water assessments and protection efforts at our system, please contact us.

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.

About the Tables Contained In This Report. The tables in this report list all of the federally regulated or monitored constituents, which have been found in Odessa's water. The EPA requires testing of up to 97 constituents. The concentrations (MCL and MCLG) of these standards are set by the EPA based on the potential health effects of the regulated constituent in the public water supply. The following abbreviations/definitions are used in the tables:

- 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 (Fg/L).
- ppt** – parts per trillion, or nanograms per liter.
- ppq** – parts per quadrillion, or pictograms per liter.

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.

Maximum Contaminant Level (MCL) - The highest permissible level of a contaminant in drinking water. MCL's are set as close to the MCLG as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of 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.

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

na – not applicable

Definitions – The following tables contain scientific terms and measures, some of which may require explanation.

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 at (800) 426-4791.

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	Constituent	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits in 95% of Samples	Unit of Measure	Source of Constituent
2010	Turbidity	0.26	100.0%	0.3	NTU	Soil runoff

Cryptosporidium Monitoring – Cryptosporidium was not detected in any sample analyzed during 2009.

Total Coliform

Total Coliform bacteria are used as indicators of microbial contamination of drinking water because testing for 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 more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.					
Year	Contaminant	Highest Monthly % of Positive Samples	MCL	Unit of Measure	Source of Contaminant
2010	Total Coliform Bacteria	3	*	Presence	Naturally present in the environment
* Presence of coliform bacteria in 5% or more of the monthly samples					

Fecal Coliforms – No fecal coliform bacteria were detected in the water supply during the required monitoring for 2010.

Inorganics

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2010	Fluoride	0.75	0.75	0.75	4	4	ppm	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
2010	Nitrate	0.47	0.47	0.47	10	10	ppm	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
2005	Gross alpha	2	2	2	15	0	pCi/L	Erosion of natural deposits.

Organic Contaminants: Testing waived, not reported, or none detected.

Disinfectant Residuals

Year	Constituent	Annual Average	Range of Detected Levels from Single Sample		MRDL for Annual Average	MRDLG	Unit of Measure	Source of Constituent
			Minimum	Maximum				
2010	Chloramines	3.0	0.3	4.6	4	<4.0	ppm	Disinfectant used to control microbes.

Total Organic Carbon (TOC)

TOC has no health effects. The disinfectant can combine with TOC to form disinfection byproducts (THM and HAA) which are reported below. Disinfection is necessary to ensure the water does not have unacceptable levels of pathogens.

Year	Constituent	Average	Range		MCL	MCLG	Units of Measure	Source of Constituent.
			Minimum	Maximum				
2010	Raw Water TOC	6.13	3.92	10.00	NA	NA	ppm	Naturally occurring
2010	Treated Water TOC	5.08	4.75	5.52	NA	NA	ppm	Naturally occurring

Disinfection Byproducts

Year	Constituent	Average of all Sampling Points	Minimum Level	Maximum Level	MCL, Annual Average of all samples	Unit of Measure	Source of Constituent
2009	Total Trihalomethanes (THM)	75	53.1	75.1	80	ppb	By-product of drinking water chlorination.
2009	Total Haloacetic Acids (HAA)	20	13.2	20.5	60	ppb	By-product of drinking water chlorination.

Unregulated Initial Distribution System Evaluation for Disinfection Byproducts

This evaluation is sampling required by EPA to determine the range of total trihalomethane and haloacetic acid in the system for future regulations. The samples are not used for compliance and may have been collected under non-standard conditions. EPA also requires the data to be reported here.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2007	Total Haloacetic Acids	23.5	0	100.0	NA	ppb	Byproduct of drinking water disinfection
2007	Total Trihalomethanes	110.8	33.6	526.2	NA	ppb	Byproduct of drinking water disinfection

Unregulated Contaminants

Odessa has participated in the Unregulated Contaminant Monitoring Rule by sampling for the following parameters. There is no maximum level for these chemicals at the entry to the distribution system.

Year	Constituent	Average Level	Minimum Level	Maximum Level	Unit of Measure	Reason for Monitoring
2009	Chloroform	1	1	1	ppb	Byproduct of drinking water disinfection
2009	Bromoform	15	15	15	ppb	Byproduct of drinking water disinfection.
2009	Bromodichloromethane	3.9	3.9	3.9	ppb	Byproduct of drinking water disinfection.
2009	Chlorodibromomethane	8.5	8.5	8.5	ppb	Byproduct of drinking water disinfection.

Lead and Copper

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>.

Year	Constituent	The 90 th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Constituent
2009	Lead	2.74	0	15	ppb	Corrosion of household plumbing systems. Erosion of natural deposits.
2009	Copper	0.144	0	1.3	ppm	Corrosion of household plumbing systems. Erosion of natural deposits. Leaching from wood preservatives.

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.

Year	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2009	Bicarbonate	142	142	142	NA	ppm	Corrosion of carbonate rocks such as limestone.
2009	Sodium	169	139	169	NA	ppm	Naturally occurring soluble mineral salts.
2009	Chloride	317	317	317	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
2009	pH	7.6	7.6	7.6	>7.0	Standard units	Measure of corrosivity of water.
2009	Sulfate	289	289	289	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2009	Total Alkalinity as CaCO ₃	116	116	116	NA	ppm	Naturally occurring soluble mineral salts.
2009	Total Dissolved Solids	1040	1040	1040	1000	ppm	Total dissolved mineral constituents in water.
2008	Total Hardness as CaMg	421	421	421	NA	ppm	Naturally occurring element.

Questions or Comments? The Utilities Department values your comments on the Water Quality Report as well as on other issues relating to water quality or provision of water service. No meetings concerning this report are scheduled. If you have any comments or questions or would like additional conservation information, please contact us by calling 335-4625, write us at City of Odessa Utilities Department, P.O. Box 4398, Odessa, Texas 79760 or email us at utilities@ci.odessa.tx.us.