

# Big Spring Works Hard to Provide Quality Water to You!

Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2012. As in the past, we purchase our surface water from O.H. Ivie, J.B. Thomas, E.V. Spence, Moss Lake, and Ward County Well Field and are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.



## OUR COMMUNITY, CONSERVING OUR WATER

A Source Water Susceptibility Assessment for your drinking water sources(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 your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>

Further details about sources and sourcewater assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW/>

### PUBLIC PARTICIPATION OPPORTUNITIES

We encourage public interest and participation in our community's decisions affecting drinking water. Informed consumers are our best allies in maintaining safe drinking water. Regular City Council meetings occur on the 2nd and 4th Tuesdays each month, beginning at 5:30 in the City Council Chambers at 307 East 4th St. We will also be happy to answer any questions about this report, as well as any you may have concerning your water. Call Johnny Womack at 432-264-2500 or Tony Modisette at 432-264-2389.



# Water Quality Report 2012



Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo o hable con alguien que lo entienda bien.



PWSID: TX1140001



## WATER QUALITY RESULTS 2012 \*

RESIDUAL DISINFECTANT LEVEL							
Disinfectant	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Source of Chemical
Chloramines (ppm)	2012	1.989 mg/l	0.5	5.5	4.0	<4.0	Disinfectant used to control microbes

COLIFORM BACTERIA						
Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation?	Likely Source of Contamination
0	1 positive monthly sample.	3 samples were positive		0	Y	Naturally present in the environment.

**LEAD AND COPPER**  
 Definitions: Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety. Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Violation	Likely Source of Contamination
Copper (ppm)	09/30/2010	1.3	1.3	0.227	0	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead (ppb)	09/30/2010	0	15	3.13	0	N	Corrosion of household plumbing systems; Erosion of natural deposits.

REGULATED CONTAMINANTS							
Disinfectants and Disinfection By-Products	Date tested	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)* (ppb)	2012	16	2.3 - 25.9	No goal for the total	60	N	By-product of drinking water chlorination.

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future

Total Trihalomethanes (TTHm)* (ppb)	2012	50	17.4 - 62.4	No goal for the total	80	N	By-product of drinking water chlorination.
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Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future

UNREGULATED CONTAMINANTS							
Contaminant	Year	Avg Level	Minimum Level	Maximum Level	MCL		Source of Contaminant
Chloroform (ug/l or ppb)	2012	1.56	<1.0	2.2	100		Product of drinking water disinfection.
Bromoform (ug/l or ppb)	2012	21.263	10.4	35.8	100		
Bromodichloromethane (ug/l or ppb)	2012	5.380	2.5	9.0	100		
Dibromochloromethane (ug/l or ppb)	2012	9.381	4.5	15.4	100		

For these constituents the MCL is 100 UG/L or ppb. These are byproducts of the disinfection process. The results for the year ending 12/31/2012 are as follows:

INORGANIC CONTAMINANTS							
Fluoride (ppm)	02/17/2010	0.19	0.19 - 0.19	4	4.0	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum
Nitrate [measured as Nitrogen] (ppm)	2012	0.33	0.32 - 0.33	10	10	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Nitrate Advisory - Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Nitrite [measured as Nitrogen] (ppm)	2012	0.01	0.01 - 0.01	1	1	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
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TURBIDITY				
	Limit (TT)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.34 NTU	N	Soil runoff.
Lowest monthly % meeting limit	0.3 NTU	100%	N	Soil runoff.

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration

### HEALTH INFORMATION ABOUT YOUR WATER

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). 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/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 (1-800-426-4791).

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. The City of Big Spring 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 drinking 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>.

### INFORMATION ABOUT SECONDARY CONTAMINANTS

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.

### WHY PROVIDE A WATER QUALITY REPORT EACH YEAR?

The United States Congress has directed the Environmental Protection Agency (EPA) to require public water systems to report annually on the quality of the drinking water they serve. The City of Big Spring Water Utility supports the regulation and is providing this report to all households in our service area. This report is about your drinking water sources and quality; regulations that protect your health; programs that protect the high water quality of our supply sources; and the treatment processes that assure our drinking water meets or surpasses all federal and state standards.

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 include:

#### Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

\***UNIT DESCRIPTIONS:** **ppm** (Parts per million), **ppb** (Parts per Billion), **mg/L** (milligrams per liter)

**TT:** Treatment Technique – a required process intended to reduce a contaminant level in drinking water.

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

**MCL:** Maximum Contaminant Level – highest level of contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible.

**MCLG:** Maximum Contaminant Level Goal – level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

**MRDLG:** Maximum Residual Disinfectant Level Goal – level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

**N/A:** Not Applicable

**ND:** Not detected

**NTU:** Nephelometric turbidity units

TCEQ recently completed a review of Public Notice violations that were historically present in our database. This review was done at the request of the Environmental Protection Agency and was triggered by the TCEQ migration to the Safe Drinking Water Information System (SDWIS). Following EPA guidelines TCEQ returned to compliance many PN violations that had existed, but may have not been reported on a prior year CCR. We strongly encourage you to check Drinking Water Watch (<http://dww.tceq.texas.gov/DWW/>) for the current status of any violations displayed on this page.

Filter Backwash Rule			
The Filter Backwash Recycling Rule requires public water systems to review their backwash water recycling practices to ensure that they do not compromise microbial control.			
Violation Type	Violation Begin	Violation End	Violation Explanation
Failure to submit plant schematic (FBR)	05/26/2010	2012	We failed to submit to our regulator a plant schematic showing the origin of all flows which are recycled, the hydraulic conveyance used to transport them, and the location
Public Notification Rule			
The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).			
Public notice rule linked to violation	06/01/2012	06/30/2012	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
Public notice rule linked to violation	07/01/2012	7/31/2012	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
Total Coliform			
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.			
MCL (TCR), MONTHLY	05/01/2012	05/31/2012	Total coliform bacteria were found in our drinking water during the period indicated in enough samples to violate a standard.
MCL (TCR), MONTHLY	06/01/2012	06/30/2012	Total coliform bacteria were found in our drinking water during the period indicated in enough samples to violate a standard.