

Triggered Source Monitoring and Reporting Violation: Ground Water Rule

Tulia Municipal Water System failed to collect the required number of triggered source bacteriological samples for fecal indicator monitoring of the ground water system during 05/2015. This monitoring is required by the Texas Commission on Environmental Quality's "Drinking Water Standards" and the federal "Safe Drinking Water Act," Public Law 95-523.

Triggered source samples are used to monitor water quality and indicate if the water is free of fecal indicator bacteria. Following a positive routine total coliform result in our distribution system, our water system is required to submit one triggered source sample for every active ground water well. Failure to collect all required triggered source samples is a violation of the monitoring requirements and we are required to notify you of this violation.

If you have any questions regarding this violation, you may contact James L. Davis at 806-995-3547.

2017 ANNUAL DRINKING WATER QUALITY REPORT

CONSUMER CONFIDENCE REPORT (CCR)



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2017 Consumer Confidence Report for Public Water System TULIA MUNICIPAL WATER SYSTEM

This is your water quality report for January 1 to December 31, 2017

For more information regarding this report contact:

This report is intended to provide you with important about your drinking water and the efforts made by the water system to provide safe drinking water.

Name: James L. Davis
 Phone: 806-995-3547
 Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telefono (806)995-3547.

TULIA MUNICIPAL WATER SYSTEM provides surface water from **Mackenzie Municipal Water Authority** located in Briscoe County and ground water from the Ogallala Aquifer and Santa Rosa Aquifer located in Swisher County.

Definitions and Abbreviations	The following tables contain scientific terms and measures, some of which may require explanation.
Action Level:	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
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.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
Level 1 Assessment:	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment:	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Maximum Contaminant Level or MCL:	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Contaminant Level Goal or MCLG:	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum residual disinfectant level or MRDL:	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.
Maximum residual disinfectant level goal or 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 contaminants.
MFL	million fibers per liter (a measure of asbestos)
mrem:	millirems per year (a measure of radiation absorbed by the body)
na:	not applicable.
NTU	nephelometric turbidity units (a measure of turbidity)
pCi/L	picocuries per liter (a measure of radioactivity)
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
ppq	parts per quadrillion, or picograms per liter (pg/L)

LEAD & COPPER RULE MONITORING AND REPORTING VIOLATION MANDATORY LANGUAGE - TIER III

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Tulia Municipal Water System has violated the monitoring and reporting requirements set by Texas Commission on Environmental Quality (TCEQ) in Chapter 30, Section 290, Subchapter F. Even though these were not emergencies, as our customers, you have the right to know what happened and what we are doing (or did) to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 1/1/2014 thru 12/31/2017 we did not monitor or test – or – did not complete all monitoring or testing for lead and copper and therefore cannot be sure of the quality of your drinking water during that time.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for lead and copper, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which the follow-up samples were [or will be] taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were or will be taken
Lead and Copper	Annually	0	Jan 1-Dec 31, 2014	
Lead and Copper	Annually	0	Jan 1-Dec 31, 2015	
Lead and Copper	Annually	0	Jan 1-Dec 31, 2016	
Lead and Copper	Annually	0	Jan 1-Dec 31, 2017	June 2018

What is being done?

We are working to correct the problem. For more information, please contact James L. Davis at 806-995-3547 or P. O. Box 847 Tulia, TX 79088.

Corrective actions:

Tulia Municipal Water System is beginning the process of taking the samples at forty (40) locations and will be submitted for testing. This will be done bi-annually.

Please share this information with all other people who drink this water, especially those who may not have received this notice directly (i.e., people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by Tulia Municipal Water System. Public Water System Number: TX2190003

Date Distributed: June 30, 2018

Routine Monitoring Violation Total Coliform Rule

Tulia Municipal Water System/TX2190003 failed to collect the required number of bacteriological samples for coliform monitoring of the water distribution system during 05 / 2013. This monitoring is required by the Texas Commission on Environmental Quality's "Drinking Water Standards" and the federal "Safe Drinking Water Act," Public Law 95-523.

Bacteriological samples are used to monitor water quality and indicate if the water is free of coliform bacteria. Our water system is required to submit five (5) bacteriological samples each month. Failure to collect all required bacteriological samples is a violation of the monitoring requirements and we are required to notify you of this violation.

If you have any questions regarding this violation, you may contact James L. Davis at 806-995-3547.

Information about your Drinking Water

2017 Disinfectant Residual - Chlorine

Month & Year	Average Level	Number of Samples	Minimum Level	Maximum Residual Disinfectant Level	Violations
January, 2017	1.24 mg/L	37 Readings	2.07	.47	No
February, 2017	1.43 mg/L	34 Readings	1.82	.55	No
March, 2017	1.38 mg/L	37 Readings	1.99	.52	No
1st Quarter	1.43 mg/L	36 Readings	.51 mg/L	1.96 mg/L	No
April, 2017	1.41 mg/L	36 Readings	1.79	.69	No
May, 2017	1.26 mg/L	37 Readings	2.20	0	No
June, 2017	1.46 mg/L	36 Readings	2.20	.80	No
2nd Quarter	1.38 mg/L	36 Readings	.50 mg/L	2.06 mg/L	No
July, 2017	1.26 mg/L	36 Readings	2.20	.76	No
August, 2017	1.28 mg/L	36 Readings	2.20	.47	No
September, 2017	1.43 mg/L	35 Readings	1.97	.76	No
3rd Quarter	1.32 mg/L	36 Readings	.66 mg/L	2.12 mg/L	No
October, 2017	1.32 mg/L	36 Readings	2.14	.11	No
November, 2017	1.37 mg/L	35 Readings	2.02	.60	No
December, 2017	1.46 mg/L	36 Readings	1.85	.60	No
4th Quarter	1.38 mg/L	36 Readings	.44 mg/L	2.00 mg/L	No

Information about Source Water Assessments

A Source Water Susceptibility Assessment for your 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 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 source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW>

Source Water Name	Type of Water	Report Status	Location
10 - WELLFIELD / PS 3	WELLFIELD / PS 3	GW	_____ Swisher County
13 - DONLEY PARK	DONLEY PARK	GW	_____ Swisher County
14 - WELLFIELD / PS 3	WELLFIELD / PS 3	GW	_____ Swisher County
15 - CR 13 / CR N		GW	_____ Swisher County
16 - 4 MI SW OF TOWN	4 MI SW OF TOWN	GW	_____ Swisher County
7 - WELLFIELD / PS 3	WELLFIELD / PS 3	GW	_____ Swisher County
8 - WELLFIELD / PS 3	WELLFIELD / PS 3	GW	_____ Swisher County
9 - WELLFIELD / PS 3	WELLFIELD / PS 3	GW	_____ Swisher County
SW FROM MACKENZIE MWA	CC FROM TX0230004	SW	_____ Briscoe County

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.

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.

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 storm water 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (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. We are responsible for providing high quality drinking water, but we 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>.

'This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system **Tulia Municipal Water Authority** has a fluoride concentration of **2.9 mg/L.**'

'Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.'

“Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/L of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/L because of this cosmetic dental problem.”

'For more information, please call **James L. Davis** of **Tulia Municipal Water Authority** at 806-995-3547. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.'

Information about Source Water

TULIA MUNICIPAL WATER SYSTEM purchases water from MACKENZIE MUNICIPAL WATER AUTHORITY. MACKENZIE MUNICIPAL WATER AUTHORITY provides purchase surface water from **Lake Mackenzie** located in Briscoe County.

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 **James L. Davis** at **806-995-3547**.

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.	1		0	N	Naturally present in the environment.

2017 Water Quality Test Results

Disinfection By-Products	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAAS)	2017	10	0 - 27	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level or Average Detected column is the highest average of all HAAS sample results collected at a location over a year'

Total Trihalomethanes (TTHM)	2017	27	1.99 - 61.1	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
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* The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year'

Inorganic Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	06/30/2016	0.92	0.92 - 0.92	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Barium	06/30/2016	0.019	0.019 - 0.019	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2017	24.1	0 - 24.1	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2017	2.9	2.92 - 2.92	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2017	3	0 - 3.07	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen]	11/30/2015	0.027	0 - 0.027	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	CLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	08/19/2014	4.1	0 - 4.1	0	4	mrem/yr	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Gross alpha excluding radon and uranium	08/19/2014	8.5	5 - 8.5	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	08/19/2014	5.9	0 - 5.9	0	30	ug/l	N	Erosion of natural deposits.

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Di (2-ethylhexyl) phthalate	2017	1	0.6 - 0.6	0	6	ppb	N	Discharge from rubber and chemical factories.

Violations

Consumer Confidence Rule			
The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems.			
Violation Type	Violation Begin	Violation End	Violation Explanation
CCR ADEQUACY/ AVAILABILITY/CONTENT	07/01/2016	03/20/2018	We failed to provide to you, our drinking water customers, an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants detected in our drinking water.
CCR REPORT	07/01/2015	03/20/2018	We failed to provide to you, our drinking water customers, an annual report that informs you about the quality of our drinking water and characterizes the risks from exposure to contaminants detected in our drinking water.

Lead and Copper Rule			
The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.			
Violation Type	Violation Begin	Violation End	Violation Explanation
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2017	2017	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

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).			
Violation Type	Violation Begin	Violation End	Violation Explanation
PUBLIC NOTICE RULE LINKED TO VIOLATION	02/03/2017	2017	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.