

2018 Annual Drinking Water Quality Report

TX0840011

BACLIFF MUD

Annual Water Quality Report for the period of January 1 to December 31, 2018

For more information regarding this report contact:

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

Name Hayne Fussell JR.

Public Participation Opportunities

Phone 281-339-1634

Date: Second Monday of every month **Time:** 6:00pm

Location: 4302 12th Street **Phone:** (281) 339-1634

BACLIFF MUD provides purchased surface water from Gulf Coast Water Authority and self-supplied ground water (Brazos River and Gulf Cost aquifer in Galveston County)

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (281) 339-1634

Information about your Drinking Water

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>.

Information about Source Water

The 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 are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Hayne Fussell JR. Phone 281-339-1634

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	
1 - 4303 12TH ST	4303 12TH ST	GW	Emergency	Gulf Coast Aquifer
TREATED SW FROM GCWA TX CITY	CC FROM TX0840153 GULF	SW	Active	Brazos River

Water Loss

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2018, our system lost an estimated 18,671,246 gallons of water. If you have any questions about the water loss audit please call PWS phone number (281) 339-1634.

Disinfectant Residual

Disinfectant	Year Report Covers	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source of Chemical
Chloramines, Free Chlorine	2018	1.89	0.8	3.3	4.0	<4.0	ppm	N	Disinfectant used to control microbes.

2018 Water Quality Test Results

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.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	06/13/2017	1.3	1.3	0.184	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	06/13/2017	0	15	0.68	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Definitions and Abbreviations:	The following tables contain scientific terms and measures, some of which may require explanation.
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.
na:	not applicable.
NTU	nephelometric turbidity units (a measure of turbidity)
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.

Water Quality Test Results

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2018	13	8.6 – 17.7	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 HAA5 sample results collected at a location over a year'

Total Trihalomethanes (TTHM)	2018	45	36.9 – 56.4	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 Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	02/09/2017	0.0921	0.0921 - 0.0921	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	02/09/2017	0.53	0.53 - 0.53	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and <u>aluminum factories.</u>
Nitrate [measured as Nitrogen]	2018	1	0.73 – 0.73	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	2018	0.13	0 - 0.13	3	3	ppb	N	Runoff from herbicide used on row crops.
Di(2-ethylhexyl) phthalate	2018	1	0 – 3.2	0	6	ppb	N	Discharge from rubber and chemical factories
Simazine	2018	0.1	0 – 0.1	4	4	ppb	N	Herbicide runoff.

Turbidity

Turbidity has no health effects, 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.

Contaminant	Year (Range)	Highest Single Measurement	Lowest Monthly % of Samples Meeting Turbidity Limit	Turbidity Limits	Unit of Measure	Likely Source of Contamination
Turbidity	2018	0.49	99.4%	<0.3	NTU	Soil runoff.

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 REPORT	07/01/2018	01/28/2019	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.

*TCEQ notified Bacliff MUD in January 2019 that we failed to provide a copy of the 2018 CCR to TCEQ. A second copy was mailed and the Bacliff MUD water system was put back into compliance 01-28-2019.