

2022 Consumer Confidence Report for Public Water System COLEMAN COUNTY SUD

This is your water quality report for January 1 to December 31, 2022

COLEMAN COUNTY SUD provides Purchased Surface Water from Lake Coleman and Lake Brownwood located in **Coleman and Brown counties**.

For more information regarding this report contact:

Name TRAVIS RHOADS

Phone 325-625-2133

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (325) 625-2133.

Definitions and Abbreviations

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.

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 svstem.

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 whv total coliform bacteria have been found in our water svstem 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)

Definitions and Abbreviations

ppb:	micrograms per liter or parts per billion
ppm:	milligrams per liter or parts per million
ppq	parts per quadrillion, or picograms per liter (pg/L)
ppt	parts per trillion, or nanograms per liter (ng/L)
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water.

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 EPAs 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

COLEMAN COUNTY SUD purchases water from BROOKESMITH SPECIAL UTILITY DISTRICT. BROOKESMITH SPECIAL UTILITY DISTRICT provides purchase surface water from **Lake Brownwood** located in **Brown County**.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Halo acetic Acids (HAAs)*	2022	25.5	12-4-25.5	No goal for the total	60	ppb	N	By-product of drinking water chlorination. July 2016 high levels due to high organics with lake flooding. Problem corrected.

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)*	2022	62.2	37.3-62.2	No goal for the total	50	ppb	N	By-product of drinking water chlorination. July 2016 high levels due to high organics with lake flooding. Problem corrected.
--------------------------------------	------	------	-----------	-----------------------	----	-----	---	--

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

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2022	<0.0010	<0.0010	6	6	ppm	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic	2022	<0.0020	<0.0020	0	10	ppm	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2022	0.128	0.128-0.128	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Beryllium	2022	<0.00080	<0.00080	4	4	ppm	N	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries.

Cadmium	2022	<0.0010	<0.0010	5	5	ppm	N	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints.
Chromium	2022	<0.0100	<0.0100	100	100	ppm	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2022	0.19	0.19-0.19	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

Cyanide	2022	0.12	0.12-0.12	2	2	ppm	N	Discharge from plastic and fertilizer factories. Discharge from steel/metal factories.
Nitrate [measured as Nitrogen]	2022	0.25	0.25-0.25	10	10	ppm	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.

Selenium	2022	<0.0031	<0.0031	50	50	ppm	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	2022	<0.00040	<0.00040	0.5	2	ppm	N	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2017	6.1	6.1- 6.1	0	4	mrem/yr	N	Decay of natural and man-made deposits.
Combined Radium 226/228	2017	<1.0	<1.0	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2017	Levels lower than detect level	<3.0	<3.0	15	pCi/L	N	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
2,4,5-TP (Silvex)	2022	<0.2	<0.2	so	so	ppb	N	Residue of banned herbicide.
2,4-D	2022	<0.1	<0.1	70	70	ppb	N	Runoff from herbicide used on row crops.
Alachlor	2022	<0.2	<0.2	0	2	ppm	N	Runoff from herbicide used on row crops.

Atrazine	2022	<0.1	<0.1	3	3	ppm	N	Runoff from herbicide used on row crops.
Benzo(a)pyrene	2022	<0.02	<0.02	0	20	ppb	N	Leaching from linings of water storage tanks and distribution lines.
Carbofuran	2022	<0.9	<0.9	40	40	ppb	N	Leaching of soil fumigant used on rice and alfalfa.
Chlordane	2022	<0.20	<0.20	0	2	ppb	N	Residue of banned termiticide.
Dalapon	2022	<1.0	<1.0	200	200	ppb	N	Runoff from herbicide used on rights of way.
Di (2-ethylhexyl) adipate	2022	<0.6	<0.6	400	400	ppb	N	Discharge from chemical factories.
Di (2-ethylhexyl) pbthalate	2022	<0.6	<0.6	0	6	ppb	N	Discharge from rubber and chemical factories.
Dibromochloropropane (DBCP)	2022	<0.05	<0.05	0	0	ppt	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb	2022	<0.02	<0.02	7	7	ppb	N	Runoff from herbicide used on soybeans and vegetables.
Endrin	2022	<0.01	<0.01	2	2	ppb	N	Residue of banned insecticide.
Ethylene dibromide	2022	<0.01	<0.01	0	50	ppt	N	Discharge from petroleum refineries.
Heptachlor	2022	<0.04	<0.04	0	400	ppt	N	Residue of banned termiticide.
Heptachlor epoxide	2022	<0.02	<0.02	0	200	ppt	N	Breakdown of heptachlor.
Hexachlorobenzene	2022	<0.1	<0.1	0	1	ppb	N	Discharge from metal refineries and agricultural chemical factories.

Hexachlorocyclopentadiene	2022	<0.1	<0.1	50	50	ppb	N	Discharge from chemical factories.
Lindane	2022	<0.02	<0.02	200	200	ppt	N	Runoff/leaching from insecticide used on cattle, lumber, gardens.
Methoxychlor	2022	<0.1	<0.1	40	40	ppb	N	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.
Oxamyl [Vydate]	2022	<2.0	<2.0	200	200	ppb	N	Runoff/leaching from insecticide used on apples, potatoes and tomatoes.
Pentachlorophenol	2022	<0.04	<0.04	0	1	ppb	N	Discharge from wood preserving factories.
Picloram	2022	<0.1	<0.1	500	500	ppb	N	Herbicide runoff.
Simazine	2022	<0.07	<0.07	4	4	ppb	N	Herbicide runoff.
Toxaphene	2022	<1.0	<1.0	0	3	ppb	N	Runoff/leaching from insecticide used on cotton and cattle.
Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
1,1,1-Trichloroethane	2022	<0.5	<0.5	200	200	ppb	N	Discharge from metal degreasing sites and other factories.
1,1,2-Trichloroethane	2022	<0.5	<0.5	3	5	ppb	N	Discharge from industrial chemical factories.
1,1-Dichloroethylene	2022	<0.5	<0.5	7	7	ppb	N	Discharge from industrial chemical factories.
1,2,4-Trichlorobenzene	2022	<0.5	<0.5	70	70	ppb	N	Discharge from textile-finishing factories.
1,2-Dichloroethane	2022	<0.5	<0.5	0	5	ppb	N	Discharge from industrial chemical factories.

1,2-Dichloropropane	2022	<0.5	< 0.5	0	5	ppb	N	Discharge from industrial chemical factories.
Benzene	2022	<0.5	<0.5	0	5	ppb	N	Discharge from factories; Leaching from gas storage tanks and landfills.
Carbon Tetrachloride	2022	<0.5	< 0.5	0	5	ppb	N	Discharge from chemical plants and other industrial activities.
Chlorobenzene	2022	<0.5	<0.5	100	100	ppb	N	Discharge from chemical and agricultural chemical factories.
Dichloromethane	2022	<0.5	<0.5	0	5	ppb	N	Discharge from pharmaceutical and chemical factories.
Ethylbenzene	2022	<0.5	< 0.5	700	700	ppb	N	Discharge from petroleum refineries.
Styrene	2022	<0.5	<0.5	100	100	ppb	N	Discharge from rubber and plastic factories; Leaching from landfills.
Tetrachloroethylene	2022	<0.5	<0.5	0	5	ppb	N	Discharge from factories and dry cleaners.
Toluene	2022	<0.5	< 0.5	1	1	ppm	N	Discharge from petroleum factories.
Trichloroethylene	2022	<0.5	< 0.5	0	5	ppb	N	Discharge from metal degreasing sites and other factories.
Vinyl Chloride	2022	<0.5	<0.5	0	2	ppb	N	Leaching from PVC piping; Discharge from plastics factories.
Xylenes	2022	<0.5	<0.5	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.
cis-1,2-Dichloroethylene	2022	<0.5	< 0.5	70	70	ppb	N	Discharge from industrial chemical factories.
o-Dichlorobenzene	2022	<0.5	< 0.5	600	600	ppb	N	Discharge from industrial chemical factories.

p-Dichlorobenzene	2022	<0.5	<0.5	75	75	ppb	N	Discharge from industrial chemical factories.
trans-1,2-Dichloroethylene	2022	<0.5	<0.5	100	100	ppb	N	Discharge from industrial chemical factories.

Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.142 NTU	N	Soil runoff.
Lowest monthly\ meeting l.i.m.i.t	0.3 NTU	100%	N	Soil runoff.

COLEMAN COUNTY SUD purchases water from CITY OF COLEMAN. CITY OF COLEMAN provides purchase surface water from Lake Coleman located in Coleman County.

Disinfection By-Product!	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chloric	2022	068	0.0172 - 0.68	0.8	1	ppm	N	By-product of drinking water disinfection.
Halo acetic Acids (HAAS)	2022	19	IU-24.9	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 highest average of all HAA.5 sample results collected at a location over a year

Total Trihalomethanes (TTHM)	2022	42	13.3-49.7	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
-------------------------------------	------	----	-----------	-----------------------	----	-----	---	--

*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 Len) Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2022	0.109	0.109 - 0.109	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2022	0.2	0.24 - 0.24	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)	2022	0.2	0.2-0.2	10	10	ppm	N	Runoff from fertilizer u. e: Leaching from septic tanks, sewage; Erosion of natural deposits

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2022	9.5	9.5 - 9.5	0	50	pCi/L*	N	Decay of natural and man-made deposits.

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

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
-------------------------------	-----------------	------------------------	-----------------------------	------	-----	-------	-----------	--------------------------------

x,1enes	2022	0.0008	0.0008 - 0.0008	JO	JO	ppm	N	Discharge from petroleum factories; Discharge from chemical factories
---------	------	--------	-----------------	----	----	-----	---	---

Disinfectant Residual

A Wank disinfectant residual table CCR been added to the CCR template, you will need to add data to the fields. Your data can be taken off the Disinfectant Level Quarterly Operating Reports (DLQOR).

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
	2022	1.93	05-2.68	4		PPM	N	Water additive used to control microbes.

Turbidity

	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest single measurement	0.33 NTU	1 NTU	N	Soil runoff
Lowest monthly % meeting limit	100%	0.3NTU	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 system and disinfectants.

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system all TOC realm requirements set, unless a TOC violation is noted in the violations section.

(A) Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

(B) During the past year we were required to conduct 1 Level 1 assessment(s). 1 Level 1 assessment(s) were completed. In addition, we were required to take 2 corrective actions and we completed 2 of these actions.

TCEQ completed a Source Water Susceptibility for all drinking water systems that own their sources. This report describes the susceptibility and types of constituents that may come into contact with the drinking water source based on human activities and natural conditions. The system(s) from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at our system contact **Travis Rhoads (325-625-2133)**.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2022	1.3	1.3	0.365	1	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead	2022	0	15	9.55	3	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

2022 Water Quality Test Results

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2022	38	14.7 - 51.8	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)	2022	76	23.9 - 99.5	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
------------------------------	------	----	-------------	-----------------------	----	-----	---	--

*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 Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2022	0.3	0.12 - 0.3	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual

A blank disinfectant residual table has been added to the CCR template, you will need to add data to the fields. Your data can be taken off the Disinfectant Level Quarterly Operating Reports (DLQOR).

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
TOTAL	2022	2.63	1.21-2.87	4	4	PPM	NO	Water additive used to control microbes.

Violations

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)	07/01/2020	01/14/2022	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.
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	01/01/2021	01/14/2022	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.
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	07/01/2021	01/14/2022	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.

Revised Total Coliform Rule (RTCR)			
The Revised Total Coliform Rule (RTCR) seeks to prevent waterborne diseases caused by E. coli. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children,			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE, MINOR (RTCR)	03/01/2022	03/31/2022	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.

Total Trihalomethanes (TTHM)			
Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.			
Violation Type	Violation Begin	Violation End	Violation Explanation
FAILURE SUBMIT OEL REPORT FOR TTHM	12/27/2022	2022	We failed to submit our operational evaluation level (OEL) report to our regulator. The report is needed to determine best treatment practices necessary to minimize possible future exceedences of TTHM.