

Annual Water Quality Report

January 1-December 31, 2024

About this Report

The Consumer Confidence Report is a summary of the quality of the water the City of Crandall provides to its customers. The report includes analysis results from the most current USEPA required water quality tests. The City of Crandall hopes this information helps you, the consumer, become more knowledgeable about your drinking water supply.

Public Participation

City of Crandall Council Meetings are held on the first and third Monday of each month with adjustments made for holidays or other conflicts. The public may sign in to address the council regarding this report at the beginning of each Regularly Scheduled City Council meeting.

Contact Us

For more information regarding this report, contact: Brad Piland, Director of Public Works (972) 427-3771.

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar at telephone (972) 427-3771.

USEPA Safe Drinking Water Hotline

The U.S. Environmental Protection Agency (USEPA) Safe Drinking Water Hotline provides the general public, regulators, medical and water professionals, academia, and media, with information about drinking water and ground water programs authorized under the Safe

Drinking Water Act. The Hotline responds to factual questions in the following program areas:

- Local drinking water quality
- Drinking water standards
- Public drinking water systems
- Source water protection
- Large capacity residential septic systems
- Commercial and industrial septic systems
- Injection wells
- Drainage wells

Our Drinking Water is Regulated

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. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. 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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800-426-4791.

Where We Get Our Water



The City of Crandall is a member of the North Texas Municipal Water District (NTMWD) which supplies water to over 35 cities across North Texas. The City of Crandall purchases water from North Texas MWD Wylie WTP. North Texas MWD Wylie WTP provides surface water from Lake Lavon in Collin County Crandall's water is treated at the NTMWD facility in Wylie, Texas and is delivered to customers through the city's distribution system. 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 or water received the assessment report. For more information on source water assessments and protection efforts at our system contact North Texas MWD at 972-442-5405



Sources of Drinking Water and Required Additional Health Information

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.

Contaminates 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 our office. 972-427-3771

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).

Water Loss Data

During the 2013 83rd Regular Legislative Session, House Bill (HB) 1461 was passed and became effective on September 1, 2013. HB 1461 requires any retail public utility that is required to file a water loss audit with Texas Water Development Board to notify

its customers of the most recent water loss reported in the water loss audit.

In the water loss audit submitted to the Texas Water Development Board for the time period of January-December 2023, the City of Crandall Water System lost an estimat-

ed 15,639,508 gallons of water. If you have any questions about the water loss audit, please contact Brad Piland (972) 472-3771.



Special Notice

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 at 800-426-4791

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 necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please call 972-427-3771.

Lead Statement

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 NTMWD 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>.

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

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

Action Level: The concentration of a contaminate which, if exceeded, triggers treatment or other requirements which a water system must follow.

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 corrosively. Lead and copper entering drinking water mainly from corrosion of lead and copper containing plumbing materials.

Definitions

Avg.: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Contaminant Level (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 (MCLG): The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (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 (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 contamination.

Level 1 Assessment: study of the water system to identify

potential problems and determine (if possible) why total coliform have been found in our system.

Level 2 Assessment: a very detailed study of the water system to identify 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.

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	0	0	0	0	n	Naturally present in the environment

LEAD AND COPPER	DATE SAMPLED	MCLG	ACTION LEVEL (AL)	90TH Percentile	# Sites over AL	Units	Violation	Likely Source of Contamination
Copper	6/10/22	1.3	1.3	0.502	0	Ppm	n	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
Lead	6/10/2022	0	15	1.3	0	Ppb	n	Corrosion of household plumbing systems; erosion of natural deposits

LEAD & COPPER RULE MONITORING AND REPORTING VIOLATION

MANDATORY LANGUAGE - TIER III

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

City of Crandall 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 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 6/1/2021 thru 9/30/2021 - 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 contaminants 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 will be taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were or will be taken
<i>Lead and copper tap water sampling</i>	<i>Every 3 years</i>	<i>10</i>	<i>6/1/22 to 9/30/22</i>	<i>June 2023</i>
<i>Lead and Copper entry point sampling</i>				
<i>Water quality parameters</i>				

What is being done?

We are working to correct the problem. For more information, please contact Brad Piland at 972- 427-3771

Lead and copper samples will be taken the second week of June 2022 and submitted to the lab for analysis

Please share this information with all other people who drink this water, especially those who may not have received this notice directly. 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 City of Crandall. Public Water System Number: Tx:1290007

Date Distributed: 6-14-2024

Abbreviations

- MFL:** Million fibers per liter (a measure of asbestos)
- 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)
- ppt:** parts per trillion or nanograms per liter (ng/L)
- Mrem:** millirem per year (a measure of radiation absorbed by the body)
- Treatment Technique or TT:** A required process intended to reduce the level of contaminant in drinking water

Violation Tables

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

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2024	1	0.76 - 0.76	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen]	10/26/2021	0.0611	0.0611 - 0.0611	1	1	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
	2024	0.5	3.7	4	4		ppm	Water additive used to control microbes.

NTMWD Tawakoni Water Treatment Plants

Water Quality Data for Year 2024

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	0.00	0	0	0.00	Naturally present in the environment.

NOTE: Reported monthly tests found no fecal coliform bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.

Regulated Contaminants

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2024	31.40	13.0 -31.4	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2024	40.40	18.2 - 40.4	No goal for the total	80	ppb	No	By-product of drinking water disinfection.
Bromate	2024	Levels lower than detect level	0 - 0	5	10	ppb	No	By-product of drinking water ozonation.

NOTE: 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. TCEQ only requires one sample annually for compliance testing. For Bromate, compliance is based on the running annual average.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2024	Levels lower than detect level	0 - 0	6	6	ppb	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; and test addition.
Arsenic	2024	Levels lower than detect level	0 - 0	0	10	ppb	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	2024	0.073	0.073 - 0.073	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.

Beryllium	2024	Levels lower than detect level	0 - 0	4	4	ppb	No	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.
Cadmium	2024	Levels lower than detect level	0 - 0	5	5	ppb	No	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.
Chromium	2024	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from steel and pulp mills; erosion of natural deposits.
Cyanide	2024	53.9	53.9 - 53.9	200	200	ppb	No	Discharge from steel/metal factories; Discharge from plastics and fertilizer factories.
Fluoride	2024	0.489	0.489 - 0.489	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Mercury	2024	Levels lower than detect level	0 - 0	2	2	ppb	No	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.
Nitrate (measured as Nitrogen)	2024	0.172	0.172 - 0.172	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
Selenium	2024	Levels lower than detect level	0 - 0	50	50	ppb	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Thallium	2024	Levels lower than detect level	0 - 0	0.5	2	ppb	No	Discharge from electronics, glass, and leaching from ore-processing sites; drug factories.

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.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCL G	MC L	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2024	Levels lower than detect level	0 - 0	0	50	pCi/L	No	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	2024	Levels lower than detect level	0 - 0	0	15	pCi/L	No	Erosion of natural deposits.
Radium	2024	Levels lower than detect level	0 - 0	0	5	pCi/L	No	Erosion of natural deposits.

NTMWD Tawakoni Water Treatment Plants Water Quality Data for Year 2024 (Cont.)

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)	2024	Levels lower than detect level	0 - 0	50	50	ppb	No	Residue of banned herbicide.
2, 4 - D	2024	Levels lower than detect level	0 - 0	70	70	ppb	No	Runoff from herbicide used on row crops.
Alachlor	2024	Levels lower than detect level	0 - 0	0	2	ppb	No	Runoff from herbicide used on row crops.
Aldicarb	2024	Levels lower than detect level	0 - 0	1	3	ppb	No	Runoff from agricultural pesticide.
Aldicarb Sul-fone	2024	Levels lower than detect level	0 - 0	1	2	ppb	No	Runoff from agricultural pesticide.
Aldicarb Sul-foxide	2024	Levels lower than detect level	0 - 0	1	4	ppb	No	Runoff from agricultural pesticide.
Atrazine	2024	0.1	0.1 - 0.1	3	3	ppb	No	Runoff from herbicide used on row crops.
Benzo (a) py-rene	2024	Levels lower than detect level	0 - 0	0	200	ppt	No	Leaching from linings of water storage tanks and distribution lines.
Carbofuran	2024	Levels lower than detect level	0 - 0	40	40	ppb	No	Leaching of soil fumigant used on rice and alfalfa.
Chlordane	2024	Levels lower than detect level	0 - 0	0	2	ppb	No	Residue of banned termiticide.
Dalapon	2024	Levels lower than detect level	0 - 0	200	200	ppb	No	Runoff from herbicide used on rights of way.
Di (2-ethylhexyl) adipate	2024	Levels lower than detect level	0 - 0	400	400	ppb	No	Discharge from chemical factories.
Di (2-ethylhexyl) phthalate	2024	Levels lower than detect level	0 - 0	0	6	ppb	No	Discharge from rubber and chemical factories.
Dibromochloropropane (DBCP)	2024	Levels lower than detect level	0 - 0	0	200	ppt	No	Runoff / leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb	2024	Levels lower than detect level	0 - 0	7	7	ppb	No	Runoff from herbicide used on soybeans and vegetables.
Endrin	2024	Levels lower than detect level	0 - 0	2	2	ppb	No	Residue of banned insecticide.
Ethylene dibromide	2024	Levels lower than detect level	0 - 0	0	50	ppt	No	Discharge from petroleum refineries.

Heptachlor	2024	Levels lower than detect level	0 - 0	0	400	ppt	No	Residue of banned termiticide.
Heptachlor epoxide	2024	Levels lower than detect level	0 - 0	0	200	ppt	No	Breakdown of heptachlor.
Hexachlorobenzene	2024	Levels lower than detect level	0 - 0	0	1	ppb	No	Discharge from metal refineries and agricultural chemical factories.
Hexachlorocyclopentadiene	2024	Levels lower than detect level	0 - 0	50	50	ppb	No	Discharge from chemical factories.
Lindane	2024	Levels lower than detect level	0 - 0	200	200	ppt	No	Runoff / leaching from insecticide used on cattle, lumber, and gardens.
Methoxychlor	2024	Levels lower than detect level	0 - 0	40	40	ppb	No	Runoff / leaching from insecticide used on fruits, vegetables, alfalfa, and livestock.
Oxamyl [Vydate]	2024	Levels lower than detect level	0 - 0	200	200	ppb	No	Runoff / leaching from insecticide used on apples, potatoes, and tomatoes.
Pentachlorophenol	2024	Levels lower than detect level	0 - 0	0	1	ppb	No	Discharge from wood preserving factories.
Picloram	2024	Levels lower than detect level	0 - 0	500	500	ppb	No	Herbicide runoff.
Simazine	2024	Levels lower than detect level	0 - 0	4	4	ppb	No	Herbicide runoff.
Toxaphene	2024	Levels lower than detect level	0 - 0	0	3	ppb	No	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	2024	Levels lower than detect level	0 - 0	200	200	ppb	No	Discharge from metal degreasing sites and other factories.
1, 1, 2 - Trichloroethane	2024	Levels lower than detect level	0 - 0	3	5	ppb	No	Discharge from industrial chemical factories.
1, 1 - Dichloroethylene	2024	Levels lower than detect level	0 - 0	7	7	ppb	No	Discharge from industrial chemical factories.
1, 2, 4 - Trichlorobenzene	2024	Levels lower than detect level	0 - 0	70	70	ppb	No	Discharge from textile-finishing factories.
1, 2 - Dichloroethane	2024	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
1, 2 - Dichloropropane	2024	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.

Benzene	2024	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories; leaching from gas storage tanks and landfills.
Carbon Tetrachloride	2024	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from chemical plants and other industrial activities.

NTMWD Tawakoni Water Treatment Plants Water Quality Data for Year 2024 (Cont.)

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorobenzene	2024	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from chemical and agricultural chemical factories.
Dichloromethane	2024	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from pharmaceutical and chemical factories.
Ethylbenzene	2024	Levels lower than detect level	0 - 0	0	700	ppb	No	Discharge from petroleum refineries.
Styrene	2024	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from rubber and plastic factories; leaching from landfills.
Tetrachloroethylene	2024	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories and dry cleaners.
Toluene	2024	Levels lower than detect level	0 - 0	1	1	ppm	No	Discharge from petroleum factories.
Trichloroethylene	2024	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from metal degreasing sites and other factories.
Vinyl Chloride	2024	Levels lower than detect level	0 - 0	0	2	ppb	No	Leaching from PVC piping; discharge from plastics factories.
Xylenes	2024	Levels lower than detect level	0 - 0	10	10	ppm	No	Discharge from petroleum factories; discharge from chemical factories.
cis - 1, 2 - Dichloroethylene	2024	Levels lower than detect level	0 - 0	70	70	ppb	No	Discharge from industrial chemical factories.
o - Dichlorobenzene	2024	Levels lower than detect level	0 - 0	600	600	ppb	No	Discharge from industrial chemical factories.
p - Dichlorobenzene	2024	Levels lower than detect level	0 - 0	75	75	ppb	No	Discharge from industrial chemical factories.
trans - 1, 2 - Dichloroethylene	2024	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from industrial chemical factories.

Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.41	No	Soil runoff.
Lowest monthly percentage (%) meeting limit	0.3 NTU	99.4%	No	Soil runoff.

NOTE: 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.

Maximum Residual Disinfectant Level

Disinfectant Type	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Units	Source of Chemical
Chlorine Residual (Chloramines)	2024	3.08	1.11	3.93	4.00	<4.0	ppm	Disinfectant used to control microbes.
Chlorine Dioxide	2024	0.033	0	0.68	0.80	0.80	ppm	Disinfectant.
Chlorite	2024	0.129	0	0.86	1.00	N/A	ppm	Disinfectant.

NOTE: Water providers are required to maintain a minimum chlorine disinfection residual level of 0.5 parts per million (ppm) for systems disinfecting with chloramines and an annual average chlorine disinfection residual level of between 0.5 ppm and 4 ppm.

Total Organic Carbon

	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set.					

NTMWD Tawakoni Water Treatment Plants Water Quality Data for Year 2024 (Cont.)

Lead and Copper

Lead and Copper	Date Sampled	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Lead	6/10/2022	15	1.3	0	ppb	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
Copper	6/10/2022	1.3	0.502	0	ppm	No	Corrosion of household plumbing systems; erosion of natural deposits.

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 plumbing materials containing lead and copper.

ADDITIONAL HEALTH INFORMATION FOR LEAD: 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. City of Crandall 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>.

Unregulated Contaminants

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2024	25.5	20.7 -25.5	ppb	By-product of drinking water disinfection.
Bromoform	2024	Levels lower than detect level	0 -0	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2024	12.2	9.93 - 12.2	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2024	5.85	4.38 -5.85	ppb	By-product of drinking water disinfection.

NOTE: Bromoform, chloroform, bromodichloromethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution. These contaminants are included in the Disinfection By-Products TTHM compliance data.

Secondary and Other Constituents Not Regulated

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Aluminum	2024	0.023	0.023 - 0.023	ppm	Erosion of natural deposits.
Calcium	2024	46.8	38.6 - 46.8	ppm	Abundant naturally occurring element.
Chloride	2024	19.2	12.5 - 19.2	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Iron	2024	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2024	2.64	2.64 - 2.64	ppm	Abundant naturally occurring element.
Manganese	2024	0.0085	0.0085 - 0.0085	ppm	Abundant naturally occurring element.
Nickel	2024	0.0043	0.0043 - 0.0043	ppm	Erosion of natural deposits.
pH	2024	8.2	7.3 - 8.2	units	Measure of corrosivity of water.
Silver	2024	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.

Sodium	2024	19.7	14.5 - 19.7	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2024	78.8	54.0 - 78.8	ppm	Naturally occurring; common industrial by-product; by-product of
Total Alkalinity as CaCO ₃	2024	86.6	59.2 - 86.6	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2024	221	168 - 221	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO ₃	2024	127	102 - 127	ppm	Naturally occurring calcium.
Zinc	2024	Levels lower than detect level	0 - 0	ppm	Moderately abundant naturally occurring element used in the metal

Violations Table

Violation Type	Violation Begin	Violation End	Violation Explanation

Unregulated Contaminant Monitoring Rule (UCMR5)

PWSs are required to report UCMR results in the CCR when unregulated contaminants are found (i.e., measured at or above minimum reporting levels [MRLs]), and must report the average and range of the monitoring results for the report year. Additionally, PWSs are required to notify customers through Tier 3 Public Notification (PN) about the availability of all UCMR results no later than 12 months after they are known by the PWS. If timing and delivery requirements are met, systems may include their PN within the CCR, also known as annual drinking water quality report. EPA has resources for PWSs available on the CCR and PN Compliance help webpages.

Contaminants	Collection Date	Average Level	Range of Levels Detected	MRL	Units	Likely Source of Contamination
	2024	0.97	0.5 - 2.41		ppb	

Lead Service Line Inventory

North Texas Municipal Water District has completed its service line inventory and determined through field investigations that no lead, galvanized requiring replacement, or lead status unknown service lines are in the system. To view and access the service line inventory, go to <https://www.ntmwd.com/200/Water-Quality>.

NTMWD Wylie Water Treatment Plants—Water Quality Data for Year 2024

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		0	0	0		No	Naturally present in the environment.
NOTE: Reported monthly tests found no fecal coliform bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.								
Regulated Contaminants								
Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAAs)	2024	31.4	13.0 - 31.4	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (THM)	2024	40.4	18.2 - 40.4	No goal for the total	80	ppb	No	By-product of drinking water disinfection.
Bromate	2024	Levels lower than detect level	0 - 0	5	10	ppb	No	By-product of drinking water ozonation.
NOTE: 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. As a wholesale water provider with less than 500 direct customers, TCEQ only requires one sample annually for Disinfection By Products (DBPs) compliance testing. In addition to TCEQ required testing on the NTMWD regional system, over 300 samples of water initially treated by NTMWD are tested for DBPs each year within the city/local water systems to comply with TCEQ regulations. For Bromate, compliance is based on the running annual average.								
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2024	0.06	0.04 - 0.06	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium	2024	1.3	1.3 - 1.3	100	100	ppb	No	Discharge from steel and pulp mills; erosion of natural deposits.
Cyanide	2024	128	28.5 - 128	200	200	ppb	No	Discharge from steel/metal factories; discharge from plastics and fertilizer factories.
Fluoride	2024	0.712	0.316 - 0.712	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2024	0.926	0.0592 - 0.926	10	10	ppm	No	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 for advice from your health care provider.								
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/Photon emitters	2024	5.3	5.3 - 5.3	0	50	pCi/L	No	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	2024	Levels lower than detect level	0 - 0	0	15	pCi/L	No	Erosion of natural deposits.
Radium	2024	Levels lower than detect level	0 - 0	0	5	pCi/L	No	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	2024	0.1	0.1 - 0.1	3	3	ppb	No	Runoff from herbicide used on row crops.
Simazine	2024	0.071	0.071 - 0.071	4	4	ppb	No	Herbicide runoff.
Turbidity								
				Limit (Treatment Technique)	Level Detected		Violation	Likely Source of Contamination
Highest single measurement				1 NTU	0.93		No	Soil runoff.
Lowest monthly percentage (%) meeting limit				0.3 NTU	96.7%		No	Soil runoff.
NOTE: 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.								
Maximum Residual Disinfectant Level								
Disinfectant Type	Year	Average Level of Quarterly Data	Lowest Result of Single Sample	Highest Result of Single Sample	MRDL	MRDLG	Units	Source of Chemical
Chlorine Residual (Chloramines)	2024	3.08	1.11	3.93	4	<4.0	ppm	Disinfectant used to control microbes.
Chlorine Dioxide	2024	0.03	0	0.79	0.80	0.80	ppm	Disinfectant.
Chlorite	2024	0.187	0	0.95	1.00	NA	ppm	Disinfectant.
NOTE: Water providers are required to maintain a minimum chlorine disinfection residual level of 0.5 parts per million (ppm) for systems disinfecting with chloramines and an annual average chlorine disinfection residual level of between 0.5 ppm and 4 ppm.								
Total Organic Carbon								
The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set.								
Cryptosporidium and Giardia								
Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected		Units		Likely Source of Contamination	
Cryptosporidium	2024	Levels lower than detect level	0 - 0		(Oo) Cysts/L		Human and animal fecal waste. Naturally present in the environment.	
Giardia	2024	Levels lower than detect level	0 - 0		(Oo) Cysts/L		Human and animal fecal waste. Naturally present in the environment.	
NOTE: Levels detected are for source water, not for drinking water. No cryptosporidium or giardia were found in drinking water.								
Lead and Copper								
Lead and Copper	Date Sampled	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination	
Lead	2023	15	1.3	0	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits.	
Copper	2023	1.3	0.53	0	ppm	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.	
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 plumbing materials containing lead and copper.								
ADDITIONAL HEALTH INFORMATION FOR LEAD: 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 NTMWD 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 .								

NTMWD Wylie Water Treatment Plants—Water Quality Data for Year 2024 (continued)

Unregulated Contaminants					
Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2024	20.8	3.68 - 20.8	ppb	By-product of drinking water disinfection.
Bromoform	2024	5.27	1.29 - 5.27	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2024	16.0	6.34 - 16.0	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2024	11.8	4.81 - 11.8	ppb	By-product of drinking water disinfection.

NOTE: Bromoform, chloroform, bromodichloromethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution. These contaminants are included in the Disinfection By-Products TTHM compliance data.

Secondary and Other Constituents Not Regulated					
Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Aluminum	2024	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Calcium	2024	66.5	35.4 - 66.5	ppm	Abundant naturally occurring element.
Chloride	2024	95.3	15.4 - 95.3	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Iron	2024	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities
Magnesium	2024	9.84	5.88 - 9.84	ppm	Abundant naturally occurring element.
Manganese	2024	0.082	0.029 - 0.082	ppm	Abundant naturally occurring element.
Nickel	2024	0.0067	0.0048 - 0.0067	ppm	Erosion of natural deposits.
pH	2024	8.9	7.4 - 8.9	units	Measure of corrosivity of water.
Silver	2024	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Sodium	2024	88.7	35.5 - 88.7	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2024	165	39.6 - 165	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO3	2024	128	56.5 - 128	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2024	509	271 - 509	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2024	202	105 - 202	ppm	Naturally occurring calcium.
Zinc	2024	Levels lower than detect level	0 - 0	ppm	Moderately abundant naturally occurring element used in the metal industry.

Lead Service Line Inventory

North Texas Municipal Water District has completed its service line inventory and determined through field investigations that no lead, galvanized requiring replacement, or lead status unknown service lines are in the system. To view and access the service line inventory, go to <https://www.ntmwd.com/2000/Water-Quality>.

Contaminant Levels Lower Than Detect

NTMWD is monitored for regulatory compliance at established frequencies. NTMWD water was analyzed for the following parameters and the most recent analytical result was found to be "non-detectable." "Non-detectable" means if a contaminant is present in the sample, the concentration (amount) is below the reporting limit (or the concentration of the parameter that can be measured accurately within a stated confidence) as established by the testing laboratory.

Antimony	Arsenic	Beryllium	Cadmium	
Mercury	Selenium	Thallium	Cryptosporidium	Giardia
2,4,5-TP (Silvex)	2,4-D	Alachlor	Aldicarb	Aldicarb Sulfone
Aldicarb Sulfoxide	Benzo (a) pyrene	Carbofuran	Chlordane	Dalapon
Di (2-ethylhexyl) adipate	Di (2-ethylhexyl) phthalate	Dibromochloropropane	Dinoseb	Endrin
Ethylene dibromide	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Hexachlorocyclopentadiene
Lindane	Methoxychlor	Oxamyl [Vydate]	Pentachlorophenol	Picloram
Toxaphene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethylene	1,2,4-Trichlorobenzene
1,2-Dichloroethane	1,2-Dichloropropane	Benzene	Carbon Tetrachloride	Chlorobenzene
Dichloromethane	Ethylbenzene	Styrene	Tetrachloroethylene	Toluene
Trichloroethylene	Vinyl Chloride	Xylenes	cis-1,2-Dichloroethylene	o - Dichlorobenzene
p - Dichlorobenzene	trans-1,2-Dichloroethylene			

NTMWD Tawakoni Water Treatment Plant—Water Quality Data for Year 2024

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	0	0	0	No	Naturally present in the environment.		
NOTE: Reported monthly tests found no fecal coliform bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.								
Regulated Contaminants								
Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2024	24.1	24.1 - 24.1	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2024	43.5	43.5 - 43.5	No goal for the total	80	ppb	No	By-product of drinking water disinfection.
Bromate	2024	Levels lower than detect level	0 - 0	5	10	ppb	No	By-product of drinking water ozonation.
NOTE: 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. TCEQ only requires one sample annually for compliance testing. For Bromate, compliance is based on the running annual average.								
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2024	0.073	0.073 - 0.073	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Cyanide	2024	53.9	53.9 - 53.9	200	200	ppb	No	Discharge from steel/metal factories; Discharge from plastics and fertilizer factories.
Fluoride	2024	0.489	0.489 - 0.489	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2024	0.172	0.172 - 0.172	10	10	ppm	No	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 for advice from your health care provider.								
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2024	Levels lower than detect level	0 - 0	0	50	pCi/L	No	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	2024	Levels lower than detect level	0 - 0	0	15	pCi/L	No	Erosion of natural deposits.
Radium	2024	Levels lower than detect level	0 - 0	0	5	pCi/L	No	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	2024	0.1	0.1 - 0.1	3	3	ppb	No	Runoff from herbicide used on row crops.
Turbidity								
			Limit (Treatment Technique)		Level Detected		Violation	Likely Source of Contamination
Highest single measurement			1 NTU		0.41		No	Soil runoff.
Lowest monthly percentage (%) meeting limit			0.3 NTU		99.4%		No	Soil runoff.
NOTE: 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.								
Maximum Residual Disinfectant Level								
Disinfectant Type	Year	Average Level of Quarterly Data	Lowest Result of Single Sample	Highest Result of Single Sample	MRDL	MRDLG	Units	Source of Chemical
Chlorine Residual (Chloramines)	2024	3.61	3.15	4.07	4.00	<4.0	ppm	Disinfectant used to control microbes.
Chlorine Dioxide	2024	0.033	0	0.68	0.80	0.80	ppm	Disinfectant.
Chlorite	2024	0.129	0	0.86	1.00	N/A	ppm	Disinfectant.
NOTE: Water providers are required to maintain a minimum chlorine disinfection residual level of 0.5 parts per million (ppm) for systems disinfecting with chloramines and an annual average chlorine disinfection residual level of between 0.5 ppm and 4 ppm.								
Total Organic Carbon								
The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set.								

NTMWD Tawakoni Water Treatment Plant—Water Quality Data for Year 2024 (continued)

Unregulated Contaminants					
Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2024	25.5	20.7 - 25.5	ppb	By-product of drinking water disinfection.
Bromoform	2024	Levels lower than detect level	0 - 0	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2024	12.2	9.93 - 12.2	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2024	5.85	4.38 - 5.85	ppb	By-product of drinking water disinfection.

NOTE: Bromoform, chloroform, bromodichloromethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution. These contaminants are included in the Disinfection By-Products TTHM compliance data.

Secondary and Other Constituents Not Regulated					
Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Aluminum	2024	0.023	0.023 - 0.023	ppm	Erosion of natural deposits.
Calcium	2024	46.8	38.6 - 46.8	ppm	Abundant naturally occurring element.
Chloride	2024	19.2	12.5 - 19.2	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Iron	2024	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2024	2.64	2.64 - 2.64	ppm	Abundant naturally occurring element.
Manganese	2024	0.0085	0.0085 - 0.0085	ppm	Abundant naturally occurring element.
Nickel	2024	0.0043	0.0043 - 0.0043	ppm	Erosion of natural deposits.
pH	2024	8.2	7.3 - 8.2	units	Measure of corrosivity of water.
Silver	2024	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Sodium	2024	19.7	14.5 - 19.7	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2024	78.8	54.0 - 78.8	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO3	2024	86.6	59.2 - 86.6	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2024	221	168 - 221	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2024	127	102 - 127	ppm	Naturally occurring calcium.
Zinc	2024	Levels lower than detect level	0 - 0	ppm	Moderately abundant naturally occurring element used in the metal industry.

Contaminant Levels Lower Than Detect

The NTMWD is monitored for regulatory compliance at established frequencies. NTMWD water was analyzed for the following parameters and the most recent analytical result was found to be "non-detectable." "Non-detectable" means if a contaminant is present in the sample, the concentration (amount) is below the reporting limit (or the concentration of the parameter that can be measured accurately within a stated confidence) as established by the testing laboratory.

Antimony	Arsenic	Beryllium	Cadmium	Chromium
Mercury	Selenium	Thallium	Aldicarb	Aldicarb Sulfone
2,4,5-TP (Silvex)	2,4-D	Alachlor	Chlordane	Dalapon
Aldicarb Sulfoxide	Benzo (a) pyrene	Carbofuran	Dinoseb	Endrin
Di (2-ethylhexyl) adipate	Di (2-ethylhexyl) phthalate	Dibromochloropropane	Hexachlorobenzene	Hexachlorocyclopentadiene
Ethylene dibromide	Heptachlor	Heptachlor epoxide	Pentachlorophenol	Picloram
Lindane	Methoxychlor	Oxamyl [Vydate]	1,1,2-Trichloroethane	1,1-Dichloroethylene
Simazine	Toxaphene	1,1,1-Trichloroethane	Benzene	Carbon Tetrachloride
1,2,4-Trichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	Styrene	Tetrachloroethylene
Chlorobenzene	Dichloromethane	Ethylbenzene	Xylenes	cis-1,2-Dichloroethylene
Toluene	Trichloroethylene	Vinyl Chloride		
o - Dichlorobenzene	p - Dichlorobenzene	trans-1,2-Dichloroethylene		

NTMWD Leonard Water Treatment Plant—Water Quality Data for Year 2024

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	0	0	0	No	Naturally present in the environment.			
NOTE: Reported monthly tests found no fecal coliform bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.									
Regulated Contaminants									
Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination	
Total Haloacetic Acids (HAA5)	2024	25.9	25.9 - 25.9	No goal for the total	60	ppb	No	By-product of drinking water disinfection.	
Total Trihalomethanes (TTHM)	2024	46.1	46.1 - 46.1	No goal for the total	80	ppb	No	By-product of drinking water disinfection.	
Bromate	2024	9.19	9.19 - 9.19	5	10	ppb	No	By-product of drinking water ozonation.	
NOTE: 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. As a wholesale water provider with less than 500 direct customers, TCEQ only requires one sample annually for Disinfection By Products (DBPs) compliance testing. In addition to TCEQ required testing on the NTMWD regional system, over 300 samples of water initially treated by NTMWD are tested for DBPs each year within the city/local water systems to comply with TCEQ regulations. For Bromate, compliance is based on the running annual average.									
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination	
Barium	2024	0.046	0.046 - 0.046	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.	
Cyanide	2024	120	120 - 120	200	200	ppb	No	Discharge from steel/metal factories; discharge from plastics and fertilizer factories.	
Fluoride	2024	0.204	0.204 - 0.204	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.	
Nitrate (measured as Nitrogen)	2024	0.376	0.376 - 0.376	10	10	ppm	No	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 for advice from your health care provider.									
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination	
Beta/photon emitters	2023	4.1	4.1 - 4.1	0	50	pCi/L	No	Decay of natural and man-made deposits.	
Gross alpha excluding radon and uranium	2023	Levels lower than detect level	0 - 0	0	15	pCi/L	No	Erosion of natural deposits.	
Radium	2023	Levels lower than detect level	0 - 0	0	5	pCi/L	No	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	2024	0.2	0.1 - 0.2	3	3	ppb	No	Runoff from herbicide used on row crops.	
Turbidity									
Limit (Treatment Technique)				Level Detected		Violation		Likely Source of Contamination	
Highest single measurement				1 NTU		0.50		No	Soil runoff.
Lowest monthly percentage (%) meeting limit				0.3 NTU		99.5%		No	Soil runoff.
NOTE: 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.									
Maximum Residual Disinfectant Level									
Disinfectant Type	Year	Average Level of Quarterly Data	Lowest Result of Single Sample	Highest Result of Single Sample	MRDL	MRDLG	Units	Source of Chemical	
Chlorine Residual (Chloramines)	2024	3.18	2.89	3.38	4.00	<4.0	ppm	Disinfectant used to control microbes.	
Chlorine Dioxide	2024	0.010	0	0.12	0.80	0.80	ppm	Disinfectant.	
Chlorite	2024	0.124	0	0.79	1.00	N/A	ppm	Disinfectant.	
NOTE: Water providers are required to maintain a minimum chlorine disinfection residual level of 0.5 parts per million (ppm) for systems disinfecting with chloramines and an annual average chlorine disinfection residual level of between 0.5 ppm and 4 ppm.									
Total Organic Carbon									
The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set.									
Cryptosporidium and Giardia									
Contaminants	Collection Date	Highest Level Detected		Range of Levels Detected		Units		Likely Source of Contamination	
Cryptosporidium	2024	Levels lower than detect level		0 - 0		(Oo) Cysts/L		Human and animal fecal waste. Naturally present in the environment.	
Giardia	2024	Levels lower than detect level		0 - 0		(Oo) Cysts/L		Human and animal fecal waste. Naturally present in the environment.	

NTMWD Leonard Water Treatment Plant—Water Quality Data for Year 2024 (continued)

Unregulated Contaminants					
Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Chloroform	2024	14.7	1.31 - 14.7	ppb	By-product of drinking water disinfection.
Bromoform	2024	1.98	1.98 - 1.98	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2024	17.3	2.26 - 17.3	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2024	12.2	2.16 - 12.2	ppb	By-product of drinking water disinfection.

NOTE: Bromoform, chloroform, bromodichloromethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution. These contaminants are included in the Disinfection By-Products TTHM compliance data.

Secondary and Other Constituents Not Regulated					
Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Aluminum	2024	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Calcium	2024	54.1	42.7 - 54.1	ppm	Abundant naturally occurring element.
Chloride	2024	16.9	10.0 - 16.9	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Iron	2024	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2024	2.95	2.95 - 2.95	ppm	Abundant naturally occurring element.
Manganese	2024	0.063	0.028 - 0.063	ppm	Abundant naturally occurring element.
Nickel	2024	0.0041	0.0041 - 0.0041	ppm	Erosion of natural deposits.
pH	2024	8.4	7.8 - 8.4	units	Measure of corrosivity of water.
Silver	2024	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Sodium	2024	34.5	22.9 - 34.5	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2024	69.4	47.2 - 69.4	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO3	2024	137	98.0 - 137	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2024	310	170 - 310	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2024	188	112 - 188	ppm	Naturally occurring calcium.
Zinc	2024	Levels lower than detect level	0 - 0	ppm	Moderately abundant naturally occurring element used in the metal industry.

Violations Table			
Violations Table	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine, Major (RTCR)	1/1/2024	1/31/2024	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. North Texas Municipal Water District collects thousands of samples every year to ensure our customers are receiving the highest quality of water possible. This was a single sample that was not collected in the distribution system associated with the Leonard Water Treatment Plant during the month of January 2024. It's important to note that samples from other areas of the system were collected on the same day and met all water quality parameters.

Contaminant Levels Lower Than Detect					
The NTMWD is monitored for regulatory compliance at established frequencies. NTMWD water was analyzed for the following parameters and the most recent analytical result was found to be "non-detectable." "Non-detectable" means if a contaminant is present in the sample, the concentration (amount) is below the reporting limit (or the concentration of the parameter that can be measured accurately within a stated confidence) as established by the testing laboratory.					
Antimony	Arsenic	Beryllium	Cadmium	Chromium	
Mercury	Selenium	Thallium	Cryptosporidium	Giardia	
2,4,5-TP (Silvex)	2,4-D	Alachlor	Aldicarb	Aldicarb Sulfone	
Aldicarb Sulfoxide	Benzo (a) pyrene	Carbofuran	Chlordane	Dalapon	
Di (2-ethylhexyl) adipate	Di (2-ethylhexyl) phthalate	Dibromochloropropane	Dinoseb	Endrin	
Ethylene dibromide	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Hexachlorocyclopentadiene	
Lindane	Methoxychlor	Oxamyl [Vydate]	Pentachlorophenol	Picloram	
Toxaphene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethylene	1,2,4-Trichlorobenzene	
1,2-Dichloroethane	1,2-Dichloropropane	Benzene	Carbon Tetrachloride	Chlorobenzene	
Dichloromethane	Ethylbenzene	Styrene	Tetrachloroethylene	Toluene	
Trichloroethylene	Vinyl Chloride	Xylenes	cis-1,2-Dichloroethylene	o - Dichlorobenzene	
p - Dichlorobenzene	trans-1,2-Dichloroethylene	Simazine			