

NTMWD Tawakoni Water Treatment Plants Water Quality Data for Year 2022

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	Cust#	0	Cust#		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

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2022	Cust#	Cust#	No goal for the total	60	ppb	Cust#	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	Cust#	Cust#	No goal for the total	80	ppb	Cust#	By-product of drinking water disinfection.
Bromate	2022	4.23	4.23 - 4.23	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.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2022	Levels lower than detect level	0 - 0	6	6	ppb	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; and test addition.
Arsenic	2022	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	2022	0.062	0.062 - 0.062	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beryllium	2022	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	2022	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	2022	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from steel and pulp mills; erosion of natural deposits.
Cyanide	2022	Levels lower than detect level	0 - 0	200	200	ppb	No	Discharge from steel/metal factories; Discharge from plastics and fertilizer factories.
Fluoride	2022	0.197	0.197 - 0.197	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Mercury	2022	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)	2022	0.289	0.289 - 0.289	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
Selenium	2022	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	2022	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	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2021	4.8	4.8 - 4.8	0	50	pCi/L	No	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	2021	Levels lower than detect level	0 - 0	0	15	pCi/L	No	Erosion of natural deposits.
Radium	2021	Levels lower than detect level	0 - 0	0	5	pCi/L	No	Erosion of natural deposits.

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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)	2021	Levels lower than detect level	0 - 0	50	50	ppb	No	Residue of banned herbicide.
2, 4 - D	2021	Levels lower than detect level	0 - 0	70	70	ppb	No	Runoff from herbicide used on row crops.
Alachlor	2021	Levels lower than detect level	0 - 0	0	2	ppb	No	Runoff from herbicide used on row crops.
Aldicarb	2021	Levels lower than detect level	0 - 0	1	3	ppb	No	Runoff from agricultural pesticide.
Aldicarb Sulfone	2021	Levels lower than detect level	0 - 0	1	2	ppb	No	Runoff from agricultural pesticide.
Aldicarb Sulfoxide	2021	Levels lower than detect level	0 - 0	1	4	ppb	No	Runoff from agricultural pesticide.
Atrazine	2021	0.1	0.1 - 0.1	3	3	ppb	No	Runoff from herbicide used on row crops.
Benzo (a) pyrene	2021	Levels lower than detect level	0 - 0	0	200	ppt	No	Leaching from linings of water storage tanks and distribution lines.
Carbofuran	2021	Levels lower than detect level	0 - 0	40	40	ppb	No	Leaching of soil fumigant used on rice and alfalfa.
Chlordane	2021	Levels lower than detect level	0 - 0	0	2	ppb	No	Residue of banned termiticide.
Dalapon	2021	Levels lower than detect level	0 - 0	200	200	ppb	No	Runoff from herbicide used on rights of way.
Di (2-ethylhexyl) adipate	2021	Levels lower than detect level	0 - 0	400	400	ppb	No	Discharge from chemical factories.
Di (2-ethylhexyl) phthalate	2021	Levels lower than detect level	0 - 0	0	6	ppb	No	Discharge from rubber and chemical factories.
Dibromochloropropane (DBCP)	2021	Levels lower than detect level	0 - 0	0	200	ppt	No	Runoff / leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb	2021	Levels lower than detect level	0 - 0	7	7	ppb	No	Runoff from herbicide used on soybeans and vegetables.
Endrin	2021	Levels lower than detect level	0 - 0	2	2	ppb	No	Residue of banned insecticide.
Ethylene dibromide	2021	Levels lower than detect level	0 - 0	0	50	ppt	No	Discharge from petroleum refineries.
Heptachlor	2021	Levels lower than detect level	0 - 0	0	400	ppt	No	Residue of banned termiticide.
Heptachlor epoxide	2021	Levels lower than detect level	0 - 0	0	200	ppt	No	Breakdown of heptachlor.
Hexachlorobenzene	2021	Levels lower than detect level	0 - 0	0	1	ppb	No	Discharge from metal refineries and agricultural chemical factories.
Hexachlorocyclopentadiene	2021	Levels lower than detect level	0 - 0	50	50	ppb	No	Discharge from chemical factories.
Lindane	2021	Levels lower than detect level	0 - 0	200	200	ppt	No	Runoff / leaching from insecticide used on cattle, lumber, and gardens.
Methoxychlor	2021	Levels lower than detect level	0 - 0	40	40	ppb	No	Runoff / leaching from insecticide used on fruits, vegetables, alfalfa, and livestock.
Oxamyl [Vydate]	2021	Levels lower than detect level	0 - 0	200	200	ppb	No	Runoff / leaching from insecticide used on apples, potatoes, and tomatoes.
Pentachlorophenol	2021	Levels lower than detect level	0 - 0	0	1	ppb	No	Discharge from wood preserving factories.
Picloram	2021	Levels lower than detect level	0 - 0	500	500	ppb	No	Herbicide runoff.
Simazine	2021	Levels lower than detect level	0 - 0	4	4	ppb	No	Herbicide runoff.
Toxaphene	2021	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	2022	Levels lower than detect level	0 - 0	200	200	ppb	No	Discharge from metal degreasing sites and other factories.
1, 1, 2 - Trichloroethane	2022	Levels lower than detect level	0 - 0	3	5	ppb	No	Discharge from industrial chemical factories.
1, 1 - Dichloroethylene	2022	Levels lower than detect level	0 - 0	7	7	ppb	No	Discharge from industrial chemical factories.
1, 2, 4 - Trichlorobenzene	2022	Levels lower than detect level	0 - 0	70	70	ppb	No	Discharge from textile-finishing factories.
1, 2 - Dichloroethane	2022	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
1, 2 - Dichloropropane	2022	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from industrial chemical factories.
Benzene	2022	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories; leaching from gas storage tanks and landfills.
Carbon Tetrachloride	2022	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from chemical plants and other industrial activities.

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Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorobenzene	2022	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from chemical and agricultural chemical factories.
Dichloromethane	2022	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from pharmaceutical and chemical factories.
Ethylbenzene	2022	Levels lower than detect level	0 - 0	0	700	ppb	No	Discharge from petroleum refineries.
Styrene	2022	Levels lower than detect level	0 - 0	100	100	ppb	No	Discharge from rubber and plastic factories; leaching from landfills.
Tetrachloroethylene	2022	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from factories and dry cleaners.
Toluene	2022	Levels lower than detect level	0 - 0	1	1	ppm	No	Discharge from petroleum factories.
Trichloroethylene	2022	Levels lower than detect level	0 - 0	0	5	ppb	No	Discharge from metal degreasing sites and other factories.
Vinyl Chloride	2022	Levels lower than detect level	0 - 0	0	2	ppb	No	Leaching from PVC piping; discharge from plastics factories.
Xylenes	2022	Levels lower than detect level	0 - 0	10	10	ppm	No	Discharge from petroleum factories; discharge from chemical factories.
cis - 1, 2 - Dichloroethylene	2022	Levels lower than detect level	0 - 0	70	70	ppb	No	Discharge from industrial chemical factories.
o - Dichlorobenzene	2022	Levels lower than detect level	0 - 0	600	600	ppb	No	Discharge from industrial chemical factories.
p - Dichlorobenzene	2022	Levels lower than detect level	0 - 0	75	75	ppb	No	Discharge from industrial chemical factories.
trans - 1, 2 - Dichloroethylene	2022	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	0.16 NTU	No	Soil runoff.
Lowest monthly percentage (%) meeting limit	0.3 NTU	100%	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)	2022	Cust#	Cust#	Cust#	4.00	<4.0	ppm	Disinfectant used to control microbes.
Chlorine Dioxide	2022	0.01	0	0.32	0.80	0.80	ppm	Disinfectant.
Chlorite	2022	0.15	0	0.72	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 parts per million (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	2022	Levels lower than detect level	0 - 0	(Oo) Cysts/L	Human and animal fecal waste.
Giardia	2022	Levels lower than detect level	0 - 0	(Oo) Cysts/L	Human and animal fecal waste.

NOTE: Only source water was evaluated for cryptosporidium and giardia. Levels shown are not for drinking water.

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Lead and Copper

Contaminants	Date Sampled	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Lead		15	CUST #	CUST #	ppb		Corrosion of household plumbing systems; erosion of natural deposits.
Copper		1.3	CUST #	CUST #	ppm		Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.

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. [Customer] 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	2022	CUST #	CUST #	ppb	By-product of drinking water disinfection.
Bromoform	2022	CUST #	CUST #	ppb	By-product of drinking water disinfection.
Bromodichloromethane	2022	CUST #	CUST #	ppb	By-product of drinking water disinfection.
Dibromochloromethane	2022	CUST #	CUST #	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.

Secondary and Other Constituents Not Regulated

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Aluminum	2022	0.022	0.022 - 0.022	ppm	Erosion of natural deposits.
Calcium	2022	53.1	38.3 - 53.1	ppm	Abundant naturally occurring element.
Chloride	2022	24.0	11.1 - 24.0	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Iron	2022	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2022	3.26	3.26 - 3.26	ppm	Abundant naturally occurring element.
Manganese	2022	0.0024	0.0018 - 0.0024	ppm	Abundant naturally occurring element.
Nickel	2022	0.0032	0.0032 - 0.0032	ppm	Erosion of natural deposits.
pH	2022	8.3	7.1 - 8.3	units	Measure of corrosivity of water.
Silver	2022	Levels lower than detect level	0 - 0	ppm	Erosion of natural deposits.
Sodium	2022	21.3	13.5 - 21.3	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2022	73.2	48.4 - 73.2	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO ₃	2022	82	62 - 82	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2022	243	173 - 243	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO ₃	2022	128	98 - 128	ppm	Naturally occurring calcium.
Zinc	2022	Levels lower than detect level	0 - 0	ppm	Moderately abundant naturally occurring element used in the metal industry.