

**CITY OF PORT NECHES
2018 ANNUAL WATER QUALITY REPORT**

REGULATED CONTAMINANTS	COLLECTION DATE	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Haloacetic Acids - (HAA5)*	2018	41	15.9-43.9	NA	60	ppb	N	By-product of drinking water disinfection
Total Trihalomethanes - (TTHM)	2018	47	19.7-40.9	NA	80	ppb	N	By-product of drinking water disinfection

ABBREVIATIONS

NTU Nephelometric Turbidity Units

pCi/L picocuries per liter (measure of radioactivity)

ppm parts per million, or milligrams per liter (mg/L)

ppb parts per billion, or micrograms per liter (ug/L)

ppq parts per quadrillion, or picograms per liter

ppt parts per trillion, or nanograms per liter

NA Not Applicable

INORGANIC CONTAMINANTS	COLLECTION DATE	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Barium	2018	0.0297	.0297-.0297	2	2	ppm	N	Discharge of drilling water; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2018	110	110-110	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Nitrate (measured as Nitrogen)	2018	0.14	.14-.14	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite (measured as Nitrogen)	05-07-2013	0.04	0.04 - 0.04	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six (6) months old of age. High nitrate levels in drinking water can cause blue babe syndrome. Nitrate levels may rise quickly for short periods of time due to 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	01-20-2011	5.8	5.8 - 5.8	0	50	pCi/L*	N	Decay of natural and man-made deposits.
Combined Radium 226/228	01-20-2011	1	1 - 1	0	5	pCi/L	N	Erosion of natural deposits.

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

SYNTHETIC ORGANIC CONTAMINANTS INCLUDING PESTICIDES	COLLECTION DATE	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Atrazine	2018	0.11	.11-.11	3	3	ppb	N	Discharge from chemical factories.

DEFINITIONS

Maximum Contaminant Level Goal (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 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 Residual Disinfectant Level (MRDL)

The highest level of a drinking water 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 the use of disinfectants to control microbial contaminants.

Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment.

TURBIDITY	COLLECTION DATE	LIMIT (TREATMENT)	LEVEL DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Highest Single Measurement	2018	1 NTU	0.24	NA	NA	NTU	N	Soil runoff.
Lowest Monthly % meeting limit	2018	0.3 NTU	100%	NA	NA	NTU	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.

TOTAL ORGANIC CARBON (2)	YEAR	AVERAGE LEVEL	MINIMUM LEVEL	MAX LEVEL	MRDL	MRDLG	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Source Water	2018	0	0	0	-	-	ppm	N	Naturally present in the environment

Removal ratio is the percent of Total Organic Carbon (TOC) removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

Total Organic Carbon (TOC) has no health effects. The disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

MAXIMUM RESIDUAL DISINFECTANT LEVEL	YEAR	AVERAGE LEVEL	MINIMUM LEVEL	MAX LEVEL	MRDL	MRDLG	UNITS	SOURCE OF CONTAMINANT
Chloramines	2018	2.3	0.9	4.2	4	4	ppm	Disinfectant used to control microbes.

LEAD AND COPPER	YEAR	MCLG	ACTION LEVEL (AL)	90TH PERCENTILE	# SITES OVER AL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Copper	2018	1.3	1.3	0.0303	1	ppm	N	Erosion of natural deposits; Leaching from wood preservations; Corrosion of household plumbing systems.
Lead	2018	0	15	2.65	2	ppm	N	Erosion of natural deposits; Leaching from wood preservations; Corrosion of household plumbing systems.

Coliform Bacteria	Total Coliform Maximum	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or	Violation	Likely source of Contamination
Maximum Contaminant Level Goal	0	0	Fecal Coliform or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. Coli positive	0	N	Naturally present in the environment

VIOLATIONS TABLE

Total Trihalomethanes (TTHM)
Some people who drink water containing Total Trihalomethanes in excess of the MCL over many years may have an increased risk of getting cancer. According to TCEQ, "This is not an emergency. When EPA established the MCL it assumes that the people consume about 1/2 gallon of water every day for 70 years (approximately a lifetime). The risk of one (1) case in one million (1,000,000) people who are exposed over their lifetime."

VIOLATION TYPE	VIOLATION BEGIN	VIOLATION END	VIOLATION EXPLANATION

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