

# Culleoka Water Supply Corp.

## 2021 Annual Drinking Water Quality Report PWS ID: TX0430030

### **Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements**

This report complies with the requirements of the U.S. Environmental Protection Agency (EPA) to provide information to the public regarding the public drinking water. This report contains a summary of the quality of the water we provided to our customers in the calendar year 2021. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

**Special notice – Required language for ALL community public water supplies:** 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; those 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 (1-800-426-4791).

### **Public Participation Opportunities**

The Board of Directors regularly meets on the third Tuesday of each month at 7:00 PM at the office at 3388 FM 982, Princeton, Texas. The telephone number for emergencies, questions or to learn about future public meetings is 972-736-2592.

### **Where do we get our drinking water?**

Culleoka WSC purchases our water from the City of Princeton, The City of Princeton's water is obtained from Lake Lavon in Collin County, our surface water source. The raw water is treated at the North Texas Municipal Water District (NTMWD) plant in Wylie and furnished to CWSC and surrounding cities through distribution lines maintained by NTMWD. The TCEQ has completed a Source Water Assessment for all drinking water systems that own their sources. The report describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. Some of this source water assessment information is available on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/>. The system from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at our system, contact our office at 972-736-2592.

### **Water Sources**

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. Contaminants that may be present in source water before treatment 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.

### **Water Loss Report.**

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2021, our system lost an estimated 22,921,000 gallons of water. It represents 9.0% of the water we purchased, surpassing our goal to keep water loss (non-metered) below 15%. If you have any questions about the water loss audit please call 972-736-2592.

### ***En Espanol***

Este informe incluye informacion importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en espanol, favor de llamar al tel. (972) 736-2592.

### **All drinking water may contain contaminants**

When drinking water meets federal standards, there may not be any health based benefits to purchasing bottled water or point of use devices. All 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. The EPA prescribes regulations which limit the amount of certain impurities in water provided by public water systems. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

### **Secondary Constituents**

Many constituents (such as calcium, sodium or iron) which are often found in drinking water can cause taste, color or odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not EPA. These constituents are not causes for health concern. Therefore, secondary's are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

This page lists all the federally regulated or monitored contaminants which have been found in your drinking water. Contaminants in water provided by Culleoka Water Supply Corp. are well below that required by law and the water quality is much higher than the required standards.

## **DEFINITIONS**

**Maximum Contaminant Level (MCL)** – The highest permissible level of a contaminant in drinking water. MCL's are set as close to the MCLG's 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. MCLG's allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL)** – The highest level of 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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

**Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.

**Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**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.

**Level 1 Assessment** – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment** – A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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

**ppm** – Parts per million. One part per million equals one packet of artificial sweetener sprinkled into 250 gallons of iced tea.

**ppb** – Parts per billion. One part per billion is equal to one packet of artificial sweetener sprinkled into an Olympic-size swimming pool.

**MFL** – Million fibers per liter (a measure of asbestos)

**Mrem** – millirems per year (a measure of radiation absorbed by the body)

**NTU** – nephelometric turbidity units (a measure of turbidity)

### Maximum Residual Disinfectant Level

| Year | Disinfectant      | Average Level | Minimum Level | Maximum Level | MRDL | MRDLG | Unit of Measure | Source of Disinfectant                |
|------|-------------------|---------------|---------------|---------------|------|-------|-----------------|---------------------------------------|
| 2021 | Chlorine Residual | 1.83          | 0.50          | 3.5           | 4    | 4     | ppm             | Disinfectant used to control microbes |

### Regulated Contaminants

| Year | Contaminant                  | Highest Level Detected | Range of Levels Detected | MCLG                   | MCL | Unit of Measure | Violation | Likely source of contaminant              |
|------|------------------------------|------------------------|--------------------------|------------------------|-----|-----------------|-----------|---|
| 2021 | Haloacetic Acids (HAA5)      | 20                     | 13.1 – 26.3              | No goal for the total. | 60  | ppb             | No        | Byproduct of drinking water chlorination. |
| 2021 | Total Trihalomethanes (TTHm) | 31                     | 15.2 – 33.1              | No goal for the total. | 80  | ppb             | No        | Byproduct of drinking water chlorination. |

| Year | Inorganic Contaminants         | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination   |
|------|--------------------------------|------------------------|--------------------------|------|-----|-------|-----------|--|
| 2021 | Nitrate (measured as Nitrogen) | 0.323                  | 0.323-0.323              | 10   | 10  | ppm   | No        | Runoff from fertilizer use; Leaching from Septic Tanks, sewage; Erosion of Natural Deposits. |

### Lead and Copper

| Year | Contaminant | MCLG | The 90 <sup>th</sup> Percentile | # Sites Exceeding Action Level | Action Level | Unit of Measure | Violation | Likely source of Contamination  |
|------|-------------|------|---------------------------------|--------------------------------|--------------|-----------------|-----------|---|
| 2020 | Lead        | 0    | 1.7                             | 0                              | 15           | ppb             | No        | Corrosion of household plumbing systems; erosion of natural deposits.                                   |
| 2020 | Copper      | 1.3  | 0.74                            | 1                              | 1.3          | ppm             | No        | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives. |

### 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.

### Required 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. This water supply 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 you 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>.”

**Turbidity:** NOT REQUIRED.

**Total Coliform:** 3

**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.               | 2                       | 0   | 0   | N         | Naturally present in the environment. |

**Fecal Coliform:** NOT DETECTED.

**Secondary and Other Not Regulated Constituents:** NOT TESTED OR REPORTED, OR NONE DETECTED.  
(No associated adverse health effects)

**Violations**

| <b>None</b>    |                 |               |  |
|----------------|-----------------|---------------|--|
|                |                 |               |  |
| Violation Type | Violation Begin | Violation End |  |
| None           |                 |               |  |

The following pages contain water quality information from the North Texas Municipal Water District Wylie Water Treatment Plant and this information is required to be included with the Culleoka Water Supply Corporation Water Quality Report for 2021.

## NTMWD Wylie Water Treatment Plants Water Quality Data for Year 2021

### 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   |   |           | 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)              | 2021            |                        |                          | No goal for the total | 60  | ppb   |           | By-product of drinking water disinfection. |
| Total Trihalomethanes (TTHM)               | 2021            |                        |                          | No goal for the total | 80  | ppb   |           | By-product of drinking water disinfection. |
| Bromate                                    | 2021            | 69.2                   | 5.27 - 69.2              | 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               | 2021            | Levels lower than detect level | 0 - 0                    | 6    | 6   | ppb   | No        | Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; and test addition.                              |
| Arsenic                | 2021            | 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                 | 2021            | 0.038                          | 0.037 - 0.038            | 2    | 2   | ppm   | No        | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.  |
| Beryllium              | 2021            | 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                | 2021            | 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                       | 2021 | Levels lower than detect level | 0 - 0         | 100 | 100 | ppb | No | Discharge from steel and pulp mills; erosion of natural deposits.  |
| Cyanide                        | 2021 | 86.9                           | 86.9 - 86.9   | 200 | 200 | ppb | No | Discharge from steel/metal factories; Discharge from plastics and fertilizer factories.                                    |
| Fluoride                       | 2021 | 0.480                          | 0.306 - 0.480 | 4   | 4   | ppm | No | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| Mercury                        | 2021 | 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) | 2021 | 0.802                          | 0.110 - 0.802 | 10  | 10  | ppm | No | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.                               |
| Selenium                       | 2021 | 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                       | 2021 | 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            | 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 | 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.            |

# NTMWD Wylie Water Treatment Plants Water Quality Data for Year 2021 (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)  | 2019            | Levels lower than detect level | 0 - 0                    | 50   | 50  | ppb   | No        | Residue of banned herbicide.   |
| 2, 4 - D   | 2019            | 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   | 2019            | Levels lower than detect level | 0 - 0                    | 1    | 3   | ppb   | No        | Runoff from agricultural pesticide.                                  |
| Aldicarb Sulfone   | 2019            | Levels lower than detect level | 0 - 0                    | 1    | 2   | ppb   | No        | Runoff from agricultural pesticide.                                  |
| Aldicarb Sulfoxide   | 2019            | Levels lower than detect level | 0 - 0                    | 1    | 4   | ppb   | No        | Runoff from agricultural pesticide.                                  |
| Atrazine   | 2021            | 0.3                            | 0.2 - 0.3                | 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   | 2019            | 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  | 2019            | 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) | 2019 | Levels lower than detect level | 0 - 0 | 0   | 200 | ppt | No | Runoff / leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards. |
| Dinoseb                     | 2019 | 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          | 2019 | 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]             | 2019 | Levels lower than detect level | 0 - 0 | 200 | 200 | ppb | No | Runoff / leaching from insecticide used on apples, potatoes, and tomatoes.               |
| Pentachlorophenol           | 2019 | Levels lower than detect level | 0 - 0 | 0   | 1   | ppb | No | Discharge from wood preserving factories.  |
| Picloram                    | 2019 | Levels lower than              | 0 - 0 | 500 | 500 | ppb | No | Herbicide runoff.  |



|                                      |                        |                                |                                 |             |            |              |                  |  |
|--------------------------------------|------------------------|--------------------------------|---------------------------------|-------------|------------|--------------|------------------|--|
|                                      |                        | detect level                   |                                 |             |            |              |                  |  |
| Simazine                             | 2021                   | 0.12                           | 0.08 - 0.12                     | 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.            |
| <b>Volatile Organic Contaminants</b> | <b>Collection Date</b> | <b>Highest Level Detected</b>  | <b>Range of Levels Detected</b> | <b>MCLG</b> | <b>MCL</b> | <b>Units</b> | <b>Violation</b> | <b>Likely Source of Contamination</b>                                    |
| 1, 1, 1 - Trichloroethane            | 2021                   | Levels lower than detect level | 0 - 0                           | 200         | 200        | ppb          | No               | Discharge from metal degreasing sites and other factories.               |
| 1, 1, 2 - Trichloroethane            | 2021                   | Levels lower than detect level | 0 - 0                           | 3           | 5          | ppb          | No               | Discharge from industrial chemical factories.                            |
| 1, 1 - Dichloroethylene              | 2021                   | Levels lower than detect level | 0 - 0                           | 7           | 7          | ppb          | No               | Discharge from industrial chemical factories.                            |
| 1, 2, 4 - Trichlorobenzene           | 2021                   | Levels lower than detect level | 0 - 0                           | 70          | 70         | ppb          | No               | Discharge from textile-finishing factories.                              |
| 1, 2 - Dichloroethane                | 2021                   | Levels lower than detect level | 0 - 0                           | 0           | 5          | ppb          | No               | Discharge from industrial chemical factories.                            |
| 1, 2 - Dichloropropane               | 2021                   | Levels lower than detect level | 0 - 0                           | 0           | 5          | ppb          | No               | Discharge from industrial chemical factories.                            |
| Benzene                              | 2021                   | Levels lower than detect level | 0 - 0                           | 0           | 5          | ppb          | No               | Discharge from factories; leaching from gas storage tanks and landfills. |
| Carbon Tetrachloride                 | 2021                   | Levels lower than detect level | 0 - 0                           | 0           | 5          | ppb          | No               | Discharge from chemical plants and other industrial activities.          |

# NTMWD Wylie Water Treatment Plants Water Quality Data for Year 2021 (Cont.)

| Volatile Organic Contaminants | Collection Date | Highest Level Detected         | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination   |
|-------------------------------|-----------------|--------------------------------|--------------------------|------|-----|-------|-----------|--|
| Chlorobenzene                 | 2021            | Levels lower than detect level | 0 - 0                    | 100  | 100 | ppb   | No        | Discharge from chemical and agricultural chemical factories.           |
| Dichloromethane               | 2021            | Levels lower than detect level | 0 - 0                    | 0    | 5   | ppb   | No        | Discharge from pharmaceutical and chemical factories.                  |
| Ethylbenzene                  | 2021            | Levels lower than detect level | 0 - 0                    | 0    | 700 | ppb   | No        | Discharge from petroleum refineries.                                   |
| Styrene                       | 2021            | Levels lower than detect level | 0 - 0                    | 100  | 100 | ppb   | No        | Discharge from rubber and plastic factories; leaching from landfills.  |
| Tetrachloroethylene           | 2021            | Levels lower than detect level | 0 - 0                    | 0    | 5   | ppb   | No        | Discharge from factories and dry cleaners.                             |
| Toluene                       | 2021            | Levels lower than detect level | 0 - 0                    | 1    | 1   | ppm   | No        | Discharge from petroleum factories.                                    |
| Trichloroethylene             | 2021            | Levels lower than detect level | 0 - 0                    | 0    | 5   | ppb   | No        | Discharge from metal degreasing sites and other factories.             |
| Vinyl Chloride                | 2021            | Levels lower than detect level | 0 - 0                    | 0    | 2   | ppb   | No        | Leaching from PVC piping; discharge from plastics factories.           |
| Xylenes                       | 2021            | Levels lower than detect level | 0 - 0                    | 10   | 10  | ppm   | No        | Discharge from petroleum factories; discharge from chemical factories. |
| cis - 1, 2 - Dichloroethylene | 2021            | Levels lower than detect level | 0 - 0                    | 70   | 70  | ppb   | No        | Discharge from industrial chemical factories.                          |
| o - Dichlorobenzene           | 2021            | Levels lower than detect level | 0 - 0                    | 600  | 600 | ppb   | No        | Discharge from industrial chemical factories.                          |
| p - Dichlorobenzene           | 2021            | Levels lower than              | 0 - 0                    | 75   | 75  | ppb   | No        | Discharge from industrial chemical factories.                          |

|                                 |      |                                |       |     |     |     |    |   |
|---------------------------------|------|--------------------------------|-------|-----|-----|-----|----|---|
|                                 |      | detect level                   |       |     |     |     |    |   |
| trans - 1, 2 - Dichloroethylene | 2021 | 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 |
|--|-----------------------------|----------------|-----------|--------------------------------|
| <b>Highest single measurement</b>                  | 1 NTU                       | 0.39 NTU       | No        | Soil runoff.                   |
| <b>Lowest monthly percentage (%) meeting limit</b> | 0.3 NTU                     | 98.80%         | 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) | 2021 | Cust#                           | Cust#                          | Cust#                           | 4.00 | <4.0  | ppm   | Disinfectant used to control microbes. |
| Chlorine Dioxide                | 2021 | 0                               | 0                              | 0                               | 0.80 | 0.80  | ppm   | Disinfectant.                          |
| Chlorite                        | 2021 | 0.105                           | 0                              | 0.97                            | 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

|                | Collection Date | Highest Level Detected | Range of Levels Detected | Units       | Likely Source of Contamination        |
|----------------|-----------------|------------------------|--------------------------|-------------|---------------------------------------|
| Source Water   | 2021            | 4.66                   | 3.69 - 4.66              | ppm         | Naturally present in the environment. |
| Drinking Water | 2021            | 4.01                   | 2.01 - 4.01              | ppm         | Naturally present in the environment. |
| Removal Ratio  | 2021            | 46.0                   | 1.9 - 46.0               | % removal * | N/A                                   |

**NOTE:** Total organic carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

\* Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

## Cryptosporidium and Giardia

| Contaminants    | Collection Date | Highest Level Detected | Range of Levels Detected | Units        | Likely Source of Contamination |
|-----------------|-----------------|------------------------|--------------------------|--------------|--------------------------------|
| Cryptosporidium | 2021            | 0                      | 0 - 0                    | (Oo) Cysts/L | Human and animal fecal waste.  |
| Giardia         | 2021            | 0                      | 0 - 0                    | (Oo) Cysts/L | Human and animal fecal waste.  |

# NTMWD Wylie Water Treatment Plants Water Quality Data for Year 2021 (Cont.)

## Lead and Copper

| Lead and Copper | Date Sampled | Action Level (AL) | 90th Percentile | # Sites Over AL | Units | Violation | Likely Source of Contamination  |
|-----------------|--------------|-------------------|-----------------|-----------------|-------|-----------|---|
| Lead            |              | 15                |                 |                 | ppb   | No        | Corrosion of household plumbing systems; erosion of natural deposits.                                   |
| Copper          |              | 1.30              |                 | 1               | ppm   | No        | 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. Culleoka Water Supply Corp. 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           | 2021            | CUST #                 | CUST #                   | ppb   | By-product of drinking water disinfection. |
| Bromoform            | 2021            | CUST #                 | CUST #                   | ppb   | By-product of drinking water disinfection. |
| Bromodichloromethane | 2021            | CUST #                 | CUST #                   | ppb   | By-product of drinking water disinfection. |
| Dibromochloromethane | 2021            | 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     | 2021            | Levels lower than detect level | 0 - 0                    | ppm   | Erosion of natural deposits.  |
| Calcium      | 2021            | 77.5                           | 34.5 - 77.5              | ppm   | Abundant naturally occurring element.   |
| Chloride     | 2021            | 78.9                           | 4.78 - 78.9              | ppm   | Abundant naturally occurring element; used in water purification; by-product of oil field activity. |
| Iron         | 2021            | Levels lower than detect level | 0 - 0                    | ppm   | Erosion of natural deposits; iron or steel water delivery equipment or facilities.                  |
| Magnesium    | 2021            | 4.43                           | 3.40 - 4.43              | ppm   | Abundant naturally occurring element.   |
| Manganese    | 2021            | 0.038                          | 0 - 0.038                | ppm   | Abundant naturally occurring element.   |
| Nickel       | 2021            | 0.0060                         | 0.004 - 0.006            | ppm   | Erosion of natural deposits.  |
| pH           | 2021            | 9.12                           | 7.56 - 9.12              | units | Measure of corrosivity of water.  |
| Silver       | 2021            | Levels lower than detect level | 0 - 0                    | ppm   | Erosion of natural deposits.  |
| Sodium       | 2021            | 81.1                           | 33.0 - 81.1              | ppm   | Erosion of natural deposits; by-product of oil field activity.                                      |
| Sulfate      | 2021            | 153                            | 22.4 - 153               | ppm   | Naturally occurring; common industrial by-product; by-product of oil field activity.                |

|                           |      |                                |           |     |   |
|---------------------------|------|--------------------------------|-----------|-----|---|
| Total Alkalinity as CaCO3 | 2021 | 128                            | 65 - 128  | ppm | Naturally occurring soluble mineral salts.                                  |
| Total Dissolved Solids    | 2021 | 444                            | 186 - 444 | ppm | Total dissolved mineral constituents in water.                              |
| Total Hardness as CaCO3   | 2021 | 192                            | 96 - 192  | ppm | Naturally occurring calcium.  |
| Zinc                      | 2021 | Levels lower than detect level | 0 - 0     | ppm | Moderately abundant naturally occurring element used in the metal industry. |

## Violations Table

| Violation Type                     | Violation Begin | Violation End | Violation Explanation   |
|------------------------------------|-----------------|---------------|---|
| CHEMICAL MONITORING, ROUTINE MAJOR | Dec-21          | Dec-21        | <p><b>What Happened:</b><br/>On December 5 and 26 of 2021, as a result of staff oversight in routine daily monitoring for chlorine dioxide/chlorite was not collected two out of the thirty-one days required in the month. Although this situation did not pose a safety risk and does not require you take any action, NTMWD is required to notify customers of the monitoring violation.<br/>All samples that were collected within the transmission system and those collected in-plant during December 2021 remained below regulatory requirements and have remained below these limits ever since this monitoring requirement was implemented over a decade ago.</p> <p><b>What should I do?</b><br/>There is nothing you need to do at this time and no alternate water supply is needed.</p> <p><b>What is being done?</b><br/>District personnel have revised our sample validation procedures and sampling protocols to twice per day to ensure these samples are collected, above what is required by regulation.</p> <p>Mandatory Language for Monitoring/Reporting Violation - Chemical Sampling - CHEMICAL MONITORING, ROUTINE MAJOR</p> <p>The NORTH TEXAS MWD WYLIE WTP water system PWS ID TX0430044 has violated the monitoring/reporting requirements set by Texas Commission on Environmental Quality (TCEQ) in Chapter 30, Section 290, Subchapter F. Public water systems are required to collect and submit chemical samples of water provided to their customers, and report the results of the monitoring to the TCEQ on a regular basis.<br/>We failed to monitor/report the following constituents: Chlorine Dioxide /Chlorite<br/>This/These violation(s) occurred in the monitoring period(s) December 5 &amp; 26, 2021</p> <p>Results of regular monitoring are an indicator of whether your drinking water is safe from chemical contamination. We did not complete all monitoring/reporting for chemical constituents, and therefore TCEQ cannot be sure of the safety of your drinking water during that time. Potential health effects from long-term exposure above the MCL - Anemia; infants and young children: nervous system effects<br/>Please share this information with all other people who drink this water, especially those who may not have received this notice directly (i.e., people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.</p> <p>If you have questions regarding this matter, you may contact Zeke Campbell, Assistant Director Water Treatment and Conveyance at 972-442-5405.<br/>North Texas Municipal Water District<br/>E. Brown Street<br/>Wylie, TX</p> |