# 2015 Annual Drinking Water Quality Report

**(Consumer Confidence Report)**

**Deer Run Water System**

**PWS # TX1700700**

**936-756-7400**

**Annual Water Quality Report for the period of January 1 to December 31, 2015**

**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.**

**For more information regarding this report contact:**

**Name:** **Ronald L. Payne**

**Phone:** **936-756-7400**

***En Español :*** Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (936) 756-7400 para hablar con una persona bilingüe en español.

## SPECIAL NOTICE

**Required language for ALL community public water supplies:**

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

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 protections for public health.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. 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).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

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
- 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.

**Information about 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 causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

**Information about Source Water Assessments:** TCEQ completed an assessment of your source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact Ron Payne.

Our ground water source is from the Gulf Coast Aquifers.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: https://www.tceq.texas.gov/gis/swaview

Further details about sources and source water, assessments are available in Drinking Water Watch at the following URL: http://dww2.tceq.texas.gov/DWW/

**Water Quality Test Results**

| **Definitions:** | **The following tables contain scientific terms and measures, some of which may require explanation** |
|---|---|
| Maximum Contaminant Level Goal or MCLG: | The level of a contaminant in drinking water below which there is no known or expected risk to health. MGLGs allow for a margin of safety. |
| Maximum Contaminant Level or MCL: | The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. |
| Maximum residual disinfectant level goal or MRDLG | The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants. |
| Maximum residual disinfectant level or MRDL: | The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. |
| MFL: | Million fibers per liter (a measure of asbestos) |
| NTU: | Nephelometric turbidity units (a measure of turbidity) |
| pCi/L | Picocuries per liter ( a measure of radioactivity) |
| Avg: | Regulatory compliance with some MCLs are based on running annual average of monthly samples |
| ppm: | milligrams per liter or parts per million – or one ounce in 7,350 gallons of water |
| ppb: | micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water |
| na: | not applicable |
| ppt: | parts per trillion, or nanograms per liter (ng/L) |
| ppq: | parts per quadrillion, or pictograms per liter (pg/L) |

**Coloform Bacteria**

| Collection Date | Maximum | Total Coliform | Highest No. of | Fecal Coliform or | Total No. of | Violation | Likely Source of |
|---|---|---|---|---|---|---|---|

| | Contaminant Level Goal | Maximum Contaminant Level | Positive | E. Coli Maximum Contaminant Level | Positive E.Coli or Fecal Coliform Samples | | Contamination |
|---|---|---|---|---|---|---|---|
| 01/01/2013 12/31/2013 | 0 | 1 positive monthly sample | There were no TCR detections for this system in this CCR period | 0 | 0 | N | Naturally present in the environment. |

**Regulated Contaminants**

| Collection Date | Disinfectants and Disinfection ByProducts | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units of Measure | Violations | Likely Source of Contaminant |
|---|---|---|---|---|---|---|---|---|
| 01/01/2011 | Haloacetic Acids (HAAS)* | Levels lower than detect level | 0 - 0 | No goal for the total | 60 | ppb | N | By-product of drinking water chlorination. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 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 | | | | | | | | |
| 01/01/2011 | Total Trihalomethanes (TThm) | Levels lower than detect level | 0 - 0 | No goal for the total | 80 | ppb | N | By-product of drinking water chlorination.. |
| Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future | | | | | | | | |

**Inorganic Contaminants**

| Collection Date | Disinfectants and Disinfection ByProducts | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units of Measure | Violations | Likely Source of Contaminant |
|---|---|---|---|---|---|---|---|---|
| 03/12/2009 | Antimony | Levels lower than detect level | 0 - 0 | 6 | 6 | ppb | N | Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition. |
| 2015 | Arsenic | 4.2 | 4.2 – 4.2 | 0 | 10 | ppb | N | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes. |
| 2015 | Barium | 0.237 | 0.237 – 0.237 | 2 | 2 | ppm | N | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| 03/12/2009 | Beryllium | Levels lower than detect level | 0 - 0 | 4 | 4 | ppb | N | Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace and defense. |
| 03/12/2009 | Cadmium | Levels lower than detect level | 0 - 0 | 5 | 5 | ppb | N | Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries. |
| 03/12/2009 | Chromium | Levels lower than detect level | 0 - 0 | 100 | 100 | ppb | N | Discharge from steel and pulp mills; Erosion of natural deposits. |
| 2015 | Fluoride | 0.32 | 0.32 - 0.32 | 4 | 4.0 | ppm | N | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| 03/12/2009 | Mercury | Levels lower than detect level | 0 - 0 | 2 | 2 | ppb | N | Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland. |
| 2015 | Nitrate (measured as Nitrogen) | 0.01 | 0.01 – 0.01 | 10 | 10 | ppm | N | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |
| Nitrate Advisory – Nitrate in drinking water at levels above 10 ppm is a health risk for infants or 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. | | | | | | | | |
| 2015 | Selenium | 5.5 | 5.5 – 5.5 | 50 | 50 | ppb | N | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines. |
| 03/12/2009 | Thallium | Levels lower than detect level | 0 - 0 | 0.5 | 2 | ppb | N | Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories. |

**Radioactive Contaminants**

| Collection Date | Disinfectants and Disinfection ByProducts | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units of Measure | Violations | Likely Source of Contaminant |
|---|---|---|---|---|---|---|---|---|
| 4/24/2012 | Beta/photon emitters | 19.8 | 19.8 – 19.8 | 0 | 50 | pCi/L * | N | Decay of natural and man-made deposits. |
| 2012 | Gross alpha excluding radon and uranium | 2 | 2 – 2 | 0 | 15 | pCi/L * | N | Erosion of natural deposits. |
| 4/24/2012 | Combined Radium 226/228 | 2.2 | 2.2 – 2.2 | 0 | 5 | pCi/L | N | Erosion of natural deposits. |
| 4/24/2012 | Gross alpha excluding radon and uranium | 2.2 | 2.2 – 2.2 | 0 | 15 | 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 | Disinfectants and Disinfection ByProducts | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units of Measure | Violations | Likely Source of Contaminant |
|---|---|---|---|---|---|---|---|---|
| 03/08/11 | Alachlor | Levels lower than detect level | 0 – 0 | 0 | 2 | ppb | N | Runoff from herbicide used on row crops. |
| 03/08/11 | Atrazine | Levels lower than detect level | 0 – 0 | 3 | 3 | ppb | N | Runoff from herbicide used on row crops. |
| 2010 | Benzo (a) pyrene | Levels lower than detect level | 0 – 0 | 0 | 200 | ppt | N | Leaching from linings of water storage tanks and distribution lines. |
| 2010 | Chlordane | Levels lower than detect level | 0 – 0 | 0 | 2 | ppb | N | Residue of banned termiticide. |
| 08/05/2010 | Dalapon | Levels lower than detect level | 0 – 0 | 200 | 200 | ppb | N | Runoff from herbicide used on rights of way. |
| 2010 | Di (2-ethylhexyl) adipate | Levels lower than detect level | 0 – 0 | 400 | 400 | ppb | N | Discharge from chemical factories. |

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|---|---|---|---|---|---|---|---|---|
| 2010 | Di (2-ethylhexyl) phthalate | Levels lower than detect level | 0 – 0 | 0 | 6 | ppb | N | Discharge from rubber and chemical factories.. |
| 02/22/2006 | Dibromochloropropane (DBCP) | Levels lower than detect level | 0 – 0 | 0 | 0 | ppt | N | Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards. |
| 2010 | Endrin | Levels lower than detect level | 0 – 0 | 2 | 2 | ppb | N | Residue of banned insecticide. |

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|---|---|---|---|---|---|---|---|---|
| 02/22/2006 | Ethylene dibromide | Levels lower than detect level | 0 – 0 | 0 | 50 | ppt | N | Discharge from petroleum refineries. |
| 2010 | Heptachlor | Levels lower than detect level | 0 – 0 | 0 | 400 | ppt | N | Residue of banned termiticide. |
| 2010 | Heptachlor epoxide | Levels lower than detect level | 0 – 0 | 0 | 200 | ppt | N | Breakdown of heptachlor. |
| 2010 | Hexachloro benzene | Levels lower than detect level | 0 – 0 | 0 | 1 | ppb | N | Discharge from metal refineries and agricultural chemical factories. |
| 2010 | Hexachloro cyclopentadiene | Levels lower than detect level | 0 – 0 | 50 | 50 | ppb | N | Discharge from chemical factories. |
| 2010 | Lindane | Levels lower than detect level | 0 – 0 | 200 | 200 | ppt | N | Runoff/leaching from insecticide used on cattle, lumber, gardens. |
| 2010 | Methoxychlor | Levels lower than detect level | 0 – 0 | 40 | 40 | ppb | N | Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock. |
| 2010 | Pentachloro phenol | Levels lower than detect level | 0 – 0 | 0 | 1 | ppb | N | Discharge from wood preserving factories. |
| 2010 | Simazine | Levels lower than detect level | 0 – 0 | 4 | 4 | ppb | N | Herbicide runoff. |
| 2010 | Toxaphene | Levels lower than detect level | 0 – 0 | 0 | 3 | ppb | N | Runoff/leaching from insecticide used on cotton and cattle. |

**Volatile Organic Contaminants**

| Collection Date | Disinfectants and Disinfection ByProducts | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units of Measure | Violations | Likely Source of Contaminant |
|---|---|---|---|---|---|---|---|---|
| 2/22/2006 | 1,1,1 – Trichloroethane | Levels lower than detect level | 0 – 0 | 200 | 200 | ppb | N | Discharge from metal degreasing sites and other factories. |
| 2/22/2006 | 1,1,2 - Trichloroethane | Levels lower than detect level | 0 – 0 | 3 | 5 | ppb | N | Discharge from industrial chemical factories. |
| 2/22/2006 | 1,1 - Dichloroethylene | Levels lower than detect level | 0 – 0 | 7 | 7 | ppb | N | Discharge from industrial chemical factories. |
| 2/22/2006 | 1,2,4 - Trichlorobenzene | Levels lower than detect level | 0 – 0 | 70 | 70 | ppb | N | Discharge from textile-finishing factories. |
| 2/22/2006 | 1,2 - Dichloroethane | Levels lower than detect level | 0 – 0 | 0 | 5 | ppb | N | Discharge from industrial chemical factories. |
| 2/22/2006 | 1,2 - Dichloropropane | Levels lower than detect level | 0 – 0 | 0 | 5 | ppb | N | Discharge from industrial chemical factories. |
| 2/22/2006 | Benzene | Levels lower than detect level | 0 – 0 | 0 | 5 | ppb | N | Discharge from factories; Leaching from gas storage tanks and landfills. |
| 2/22/2006 | Carbon Tetrachloride | Levels lower than detect level | 0 – 0 | 0 | 5 | ppb | N | Discharge from chemical plants and other industrial activities. |
| 2/22/2006 | Chlorobenzene | Levels lower than detect level | 0 – 0 | 100 | 100 | ppb | N | Discharge from chemical and agricultural chemical factories. |
| 2/22/2006 | Dichloromethane | Levels lower than detect level | 0 – 0 | 0 | 5 | ppb | N | Discharge from pharmaceutical and chemical factories. |
| 2/22/2006 | Ethylbenzene | Levels lower than detect level | 0 – 0 | 700 | 700 | ppb | N | Discharge from petroleum refineries. |
| 2/22/2006 | Styrene | Levels lower than detect level | 0 – 0 | 100 | 100 | ppb | N | Discharge from rubber and plastic factories; Leaching from landfills. |
| 2/22/2006 | Tetrachloroethylene | Levels lower than detect level | 0 – 0 | 0 | 5 | ppb | N | Discharge from factories and dry cleaners. |
| 2/22/2006 | Toluene | Levels lower than detect level | 0 – 0 | 1 | 1 | ppm | N | Discharge from petroleum factories. |
| 2/22/2006 | Trichloroethylene | Levels lower than detect level | 0 – 0 | 0 | 5 | ppb | N | Discharge from metal degreasing sites and other factories. |
| 8/5/2010 | Vinyl Chloride | Levels lower than detect level | 0 – 0 | 0 | 2 | ppb | N | Leaching from PVC piping; Discharge from plastics factories. |
| 2/22/2006 | Cis – 1,2 - Dichloroethylene | Levels lower than detect level | 0 – 0 | 70 | 70 | ppb | N | Discharge from industrial chemical factories. |
| 2/22/2006 | o – Dichlorobenzene | Levels lower than detect level | 0 – 0 | 600 | 600 | ppb | N | Discharge from industrial chemical factories. |
| 2/22/2006 | p – Dichlorobenzene | Levels lower than detect level | 0 – 0 | 75 | 75 | ppb | N | Discharge from industrial chemical factories. |
| 2/22/2006 | trans – 1,2 - Dicholoroethylene | Levels lower than detect level | 0 – 0 | 100 | 100 | ppb | N | Discharge from industrial chemical factories. |

**Lead & Copper**

| Collection Date | | MCLG | Action Level (AL) | 90th Percentile | # Sites Over AL | Units of Measure | Violations | Likely Source of Contaminant |
|---|---|---|---|---|---|---|---|---|
| 2014 | Copper | 1.3 | 1.3 | 0.46 | 0 | ppm | N | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | household plumbing systems. |
| | | | | | | | | |

**Violations Table**

| Lead and Copper Rule |
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| 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 |
|---|---|---|---|
| LEAD CONSUMER NOTICE (LCR) | 12/30/2014 | 04/20/2015 | We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results. |

**Disinfectant Residual Table**

| Disinfectant | Year | Average Level | Minimum Level | Maximum Level | MRDL | MRDLG | Unit of Measure | Violation (Y/N) | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|---|---|
| Chlorine | 2015 | 1.11 | 0.37 | 2.12 | 4.0 | 4.0 | ppm | N | Water additive used to control microbes. |