



Hardeman Water District

Water Quality Report for year 2016

KY0420172

Manager: **Kevin Leonard**
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P.O. Box 329
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Meetings: Mayfield Electric and Water Office

CCR Contact: **Same**

Water - Essential for Life

Meeting Dates and Time: 4th Tuesday of the month 8:00 AM

Phone: **270-247-4661**

This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide our customers with a safe, clean, and reliable supply of drinking water. We want to assure that we will continue to monitor, improve, and protect the water system and deliver a high quality product. Water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system.

The drinking water for Hardeman is purchased from Mayfield Water System and is treated by certified water system operators. Groundwater is obtained from three wells drilled into an aquifer of the Claiborne Group beneath our community. The susceptibility to contamination for our source of water is generally low but there are areas of concern. Groundwater can become contaminated due to chemical spills near highways and industrial sites. It can also be contaminated due to underground fuel storage tanks or agriculture activities. Another area of concern is unreported or improperly capped wells drilled into the same aquifer. A Wellhead Protection Plan was developed to identify any potential contaminant source that may threaten our water supply. The source water assessment to determine potential contaminant sources indicates that currently none of the concerns mentioned above are posing a threat to the water supply but we will continue to monitor activities in the area. The Wellhead Protection Plan is available for review at our office during normal business hours. We encourage you to help us protect your drinking water supply by reporting any activity that may pose a threat.

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities).

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Some or all of these definitions may be found in this report:

Information About Lead:

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 risk to health. 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 contaminants.

Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.

Not Applicable (NA) - does not apply.

Parts per million (ppm) - or milligrams per liter, (mg/L). One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - or micrograms per liter, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Variance & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

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

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. Your local public water system 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>.

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The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old.

Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Radioactive Contaminants							
Combined radium (pCi/L)	5	0	1.4	1.4 to 1.4	Oct-14	No	Erosion of natural deposits
Inorganic Contaminants							
Barium [1010] (ppm)	2	2	0.018	0.018 to 0.018	Jul-14	No	Drilling wastes; metal refineries; erosion of natural deposits
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	0.0626 (90 th percentile)	0.0029 to 0.126	Sep-15	No	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	0.8	0.8 to 0.8	Jul-14	No	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	2.8	2.8 to 2.8	Jul-16	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Selenium [1045] (ppb)	50	50	1.9	1.9 to 1.9	Jul-14	No	Discharge from petroleum and metal refineries or mines; erosion of natural deposits
Volatile Organic Contaminants							
Tetrachloroethylene [2987] (ppb)	5	0	2.2	2.2 to 2.2	Aug-16	No	Leaching from PVC pipes; discharge from factories and dry cleaners
Disinfectants/Disinfection Byproducts and Precursors							
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.28 (highest average)	1.02 to 1.51	2016	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids] (Annual Sample)	60	N/A	1 (high site)	0 to 1 (range of individual sites)	2016	No	Byproduct of drinking water disinfection
THM (ppb) (Stage 2) [total trihalomethanes] (Annual Sample)	80	N/A	20 (high site)	0 to 20 (range of individual sites)	2016	No	Byproduct of drinking water disinfection.

This report will not be mailed to individuals unless requested. If you desire to receive a copy, a request can be made at the Mayfield Electric and Water office during regular business hours. This report will also be posted at the Mayfield office, at our website www.mayfieldews.com and listed in the Mayfield Messenger.

Please share this information with all other people who drink this water, especially those who may not have received this notice through our listing in the Mayfield Messenger or on our website. You can do this by posting this notice in a public place or distributing copies by hand or mail. If you have any questions about our water system or of this report, please contact Kevin Leonard at 270-247-4661.

The world has approximately 326 trillion gallons of water. That amount of water remains constant, but the various forms it takes are constantly changing. The same water recirculates over and over again, first evaporating, then falling to the earth again as rain or snow.

A hot water faucet that leaks 60 drops per minute can waste 192 gallons of water and 48 kilowatt hours of electricity per month.

Drinking 5 glasses of water a day decreases the risk of colon cancer by 45%. It can slash the risk of breast cancer by 79%, and one is 50% less likely to develop bladder cancer.

One glass of water will stop midnight hunger pangs for almost 100% of dieters studied in a University of Washington study. Your body is able to store food, but not water. The average person's body eliminates about three quarter of a gallon of water each day. Lack of water is the # 1 trigger for daytime fatigue.