

KLEIN PUD

PUBLIC WATER SYSTEM ID 1011143

2015 WATER QUALITY REPORT

The Board of Directors of Klein PUD is pleased to give you this report about our drinking water based on 2015 test results. The District is required by the Federal Safe Drinking Water Act to send the report each year. The content of this report is specified by the State of Texas. **The Board believes that the most important information contained in the report is that the District's water supply was found to meet the requirements set by the state and federal governments for drinking water.**

Please call the District's operator, Environmental Development Partners(EDP), at **832-467-1599** or toll free at **1-866-467-1599** if you have any questions regarding this report.

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

This report is a summary of the quality of the water we provide our customers, was created by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented on the following page. We hope this information helps you become more knowledgeable about what's in your drinking water.

En Español

Este reporte incluye informacion importante sobre el agua potable. Para asistencia en español, favor de llamar a Klein PUD al telefono 832-467-1599.

Public Participation Opportunities

The Board meets regularly each month typically on the third Monday of the month at 6:30pm. For information regarding the date, time and location of the meeting call **832-467-1599** or send your comments to:

Klein PUD
P.O. Box 690928
Houston, Texas 77269-0928

Data contained in this report were collected in 2015 except where noted. The State of Texas allows us to monitor for some substances less than once per year because the concentration of these substances does not change frequently. Although the Water District samples your water for up to 97 substances we are listing only those substances that were detected in your water. For additional information about your water quality please contact our operator, EDP, at **832-467-1599**.

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2015, our system lost an estimated 4,209,800 gallons of water. Overall, our system accounted for approximately 97% of the water produced during that period. If you have any questions about the water loss audit please call our District's operator 832-467-1599.

Where Do We Get Our Drinking Water?

Klein PUD water treatment facilities obtained their water from groundwater sources that draw water from the Chicot and Evangeline Aquifers and surface water from the North Harris County Regional Water Authority. An aquifer is a porous underground formation (such as sand and gravel) that is saturated with water. The Texas Commission on Environmental Quality completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confidence Report. Further details about sources and source-water assessments are available in the Drinking Water Watch at <http://dww.tceq.texas.gov/DWW>. For more information on source water assessments and protection efforts at our system, please call our District's operator at **832-467-1599**.

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. For more information on taste, odor, or color of drinking water, please contact the District operator at **832-467-1599** or toll free at **1-866-467-1599**.

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. 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 can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Interconnected Water Supplies

While the water for Klein PUD is predominantly supplied by wells owned by the District, the District can receive water by interconnect from adjoining water districts during emergency situations and maintenance periods. The adjoining Districts are NW Harris Co. MUD #36 and Cypresswood UD. The water sources for these districts are ground water wells drawing water from the same aquifer as Klein PUD and surface water from the North Harris County Regional Water Authority. For additional information about the water quality for any of these systems please call our District operator at **832-467-1599** or toll free at **1-866-467-1599**.

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 provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Water Sources:

The sources of drinking water (both tap 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.

Protecting the Water You Drink

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. Federal Food and Drug Administration Agency regulations establish limits for contaminants in bottled water, which must provide the same protection for public health as public water systems.

Klein Public Utility District Public Water System ID 1011143 2015 Water Quality Report

Inorganic Contaminants						
Year	Contaminant (Units)	MCLG	MCL	Range Min. / Max.	Violation	Source of Contaminant
2015	Barium (ppm)	2	2	0.0658 / 0.0658	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2014 - 2015	Fluoride (ppm)	4	4	0 / 0.19	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from Fertilizer and aluminum factories.
2015	Nitrate(measured as nitrogen)(ppm)	10	10	0.08 / 0.21	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants						
Year	Contaminant (Units)	MCLG	MCL	Range Min. / Max.	Violations	Source of Contaminant
2011	Beta/photon Emitters (pCi/L)	0	50*	5.4 / 5.4	No	Decay of natural and man-made deposits.
2011	Combined Radium 226/228(pCi/L)	0	5	1 / 1	No	Erosion of natural deposits.

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

Disinfectant By-Products							
Year	Contaminant (Units)	MCLG	MCL	Highest Level Detected	Range Min. / Max.	Violation	Source of Contaminant
2015	Total Trihalomethanes (TTHM) (ppb)	n/a	80	9.9	9.9 / 9.9	No	By-product of drinking water chlorination.
2015	Haloacetic Acids (HAA5) (ppb)	n/a	60	12.2	12.2 / 12.2	No	By-product of drinking water chlorination.

Maximum Residual Disinfectant Level (MRDL)							
Year	Disinfectant (Units)	MRDLG	MRDL	Annual Average	Range of Detections Min. / Max.	Violation	Source of Contaminant
2015	Chloramine Residual (ppm)	4	4	2.51	1.06 / 4.00	No	Disinfection used to control microbes.

Lead and Copper						
Year	Contaminant (Units)	Action Level	The 90 th Percentile	Number of Sites Exceeding Action Level	Violation	Source of Contaminant
2013	Lead (ppb)	15	1	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.
2013	Copper (ppm)	1.3	0.193	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood Preservatives.

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 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>.*

Turbidity						
Year	Contaminant (Units)	Turbidity Limit	Highest Single Measurement	Lowest % of Samples Meeting Limit	Violation	Typical Source
2015	Turbidity (NTU)	0.3	0.22	100%	No	Soil runoff.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbiological growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches

Definitions and Abbreviations

AL	Action Level: The concentration of contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.	Definitions The following tables contain scientific terms and measures, some of which may require explanation. ppm <u>parts per million</u> : milligrams per liter or parts per million – or one ounce in 7,350 gallons of water ppb <u>parts per billion</u> : micrograms per liter or parts per million – or one ounce in 7,350,000 gallons of water NTU Nephelometric Turbidity Units na not applicable MFL million fibers per liter (a measure of asbestos) pCi/L picocuries per liter, (a measure of radioactivity) ppm parts per million or milligrams per liter (mg/l) ppb parts per billion or micrograms per liter ppt parts per trillion, or nanograms per liters ppq parts per quadrillion, or picograms per liter
ALG	Action Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety	
MCL	Maximum Contaminant Level: 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.	
MCLG	Maximum Contaminant Level Goal: The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.	
MRDL	Maximum Residual Disinfectant Level: 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.	
MRDLG	Maximum Residual Disinfectant Level Goal: 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 contaminants.	
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.	
Avg	Average: Regulatory compliance with some MCLs is based on running average of monthly samples.	