



Water - Essential for Life

City of Pikeville Water Quality Report for year 2017

KY0980350

306 Island Creek Road
Pikeville, KY 41501

Meetings: City Hall Meeting Room

Meeting Dates and Time: 2nd and 4th Mondays 6:00 PM

| | |
|--------------|---------------------|
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| CCR Contact: | Ralph Varney |
| Phone: | 606-437-0540 |

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.

We at Utility Management Group Pikeville treat surface water from the Levisa Fork of the Big Sandy River. Activities and land uses upstream of Pikeville Water Department source of water can pose potential risks to your drinking water. The area is highly influenced by commercial and industrial businesses, traffic flow on US 23, and the location of major railways. Pikeville Water Department is subjected to non-point pollution from various activities such as agriculture, mining and road construction. Within the greater source water protection area potential contaminant sources of concern include 3 major roads, 1 railroad, 4 small sewage plants, 1 active contained landfill, 1 active superfund site, 9 bridges and culverts, and 3 points of active mining activity. Each of these potential sources of contamination is rated high in a susceptibility analysis because of the contaminant type, their proximity to the intake, and the high chance of release. The complete source water assessment can be found at the Big Sandy Area Development District, the Pike County Judge's office, and the Pikeville/Pike County public library.

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 (N/A) - 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.

Variations & 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. The City of Pikeville 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>.

| | |
|-------------------------------------|--|
| SODIUM | During the year of 2017 sodium testing was performed in our system. Even though this is only from 1 test during the year knowing the amount of sodium found in our water may be beneficial to some of our customers. |
| 8/14/2017 testing | |
| 45.4 mg/L | |
| 20 mg/L is considered ideal. | |

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

The data presented in this report are from the most recent testing done during 2016 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. Unless otherwise noted, the report level is the highest level detected.

| | Allowable Levels | Highest Single Measurement | Lowest Monthly % | Violation | Likely Source |
|--|--|----------------------------|------------------|-----------|---------------|
| Turbidity (NTU) TT * Representative samples of filtered water | No more than 1 NTU* Less than 0.3 NTU in 95% of monthly samples | 0.68 | 95.6 | No | Soil runoff |

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 | 1.50 | 1.5 to 1.5 | Apr-14 | No | Erosion of natural deposits |
| Uranium (µg/L) | 30 | 0 | 2.20 | 2.2 to 2.2 | Apr-14 | No | Erosion of natural deposits |

Inorganic Contaminants

| | | | | | | | |
|--|----------|-----|--------------------------------------|-----------------|--------|----|---|
| Barium [1010] (ppm) | 2 | 2 | 0.068 | 0.068 to 0.068 | Aug-17 | No | Drilling wastes; metal refineries; erosion of natural deposits |
| Copper [1022] (ppm) sites exceeding action level 0 | AL = 1.3 | 1.3 | 0.0205 (90 th percentile) | 0.001 to 0.0842 | Sep-16 | No | Corrosion of household plumbing systems |
| Fluoride [1025] (ppm) | 4 | 4 | 0.50 | 0.50 to 0.50 | Aug-17 | No | Water additive which promotes strong teeth |
| Lead [1030] (ppb) sites exceeding action level 0 | AL = 15 | 0 | 0 (90 th percentile) | 0 to 4 | Sep-16 | No | Corrosion of household plumbing systems |
| Nitrate [1040] (ppm) | 10 | 10 | 0.400 | 0.4 to 0.4 | Feb-17 | No | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |

Disinfectants/Disinfection Byproducts and Precursors

| | | | | | | | |
|---|-----|-----|-----------------------|-------------------------------|-----|-------|-----------------------------------|
| Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio) | TT* | N/A | 0.83 (lowest average) | 0.00 to 1.00 (monthly ratios) | N/A | NO *1 | Naturally present in environment. |
|---|-----|-----|-----------------------|-------------------------------|-----|-------|-----------------------------------|

1*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average of the monthly ratios must be 1.00 or greater for compliance. PIKEVILLE USES AN ALTERNATIVE COMPLIANCE METHOD.

| | | | | | | | |
|--|----------|-----------|------------------------|-----------------------------------|-----|------------|---|
| Chlorine (ppm) | MRDL = 4 | MRDLG = 4 | 1.29 (highest average) | 0.27 to 2.2 | N/A | NO | Water additive used to control microbes. |
| HAA (ppb) (all sites) [Haloacetic acids] | 60 | N/A | 24 (system average) | 10 to 40 (range of system sites) | N/A | NO | Byproduct of drinking water disinfection |
| TTHM (ppb) (all sites) [total trihalomethanes] | 80 | N/A | 93 (Site max) | 34 to 131 (range of system sites) | N/A | YES | Byproduct of drinking water disinfection. |

Violations and Health Effects for the year of 2017

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for the City of Pikeville

Our water system violated drinking water requirements over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we are doing (did) to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 2017 year we had violations listed below for reporting and monitoring deficiencies therefore cannot be sure of the quality of your drinking water during that time.

The table below lists the requirements that we were deficient in, the time it happened, and what we did about it.

| Violation | What was the violation | When it happened | What action did we take |
|--|---|------------------|---|
| Failure to submit an OEL report (Operational Evaluation Level) | Did not send in an OEL report on time | 2nd Quarter 2017 | Sent in report as soon as we were aware of violation |
| Failure of routine monitoring of turbidity | Failed to repair turbidity equipment within a 5 day period. | December 2017 | Took manual samples as outlined in regulations. When parts were available the equipment was repaired. |

What should I do?

There is nothing you need to do at this time.

What is being done?

OEL report is a calculation to try and "predict" the next compliance period's result for TTHM and HAA. The spreadsheet was double checked for accuracy of calculations. The turbidity equipment was repaired as soon as parts were available. Spare parts will be ordered to cut down the down time of our equipment.

For more information, please contact Ralph Varney at 606-437-0540 or by mail at 306 Island Creek Road Pikeville KY 41501.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, 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.

These notices are being sent to you by the City of Pikeville. State Water system ID# KY0980350 Date Distributed: On CCR

Also during the calendar year 2017 other violations occurred that you the customer were notified about along with your billing.

They were as follows:

- 1) We failed to submit the CCR for 2015 correctly. Wording was incorrect. Corrected wording was sent out at a later date. Also public meeting times, arsenic information, and some other language was left out of the report as well.
- 2) We exceeded the locational running annual average for trihalomethanes for the 1st quarter of the year, 1/1/2017 to 3/31/2017.
- 3) We exceeded the locational running annual average for trihalomethanes for the 2nd quarter of the year, 4/1/2017 to 6/30/2017.
- 4) We exceeded the locational running annual average for trihalomethanes for the 3rd quarter of the year, 7/1/2017 to 9/30/2017.
- 5) We exceeded the locational running annual average for trihalomethanes for the 4th quarter of the year, 10/1/2017 to 12/31/2017.

Items 2-5 are caused by the chlorine added to the water forming compounds with the organic matter present in the water. These compounds have been found to be cancer causing and are closely regulated. We have been working to bring these violations into compliance by altering our treatment process, including change of chemicals used and the application points of chlorine. We feel we will be in compliance in 2018.

A notice specific to the 5 above violations were sent to you the customer with your bills during the year.

Health Effects

TTHMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.