

**Kevil Water Department
2022 Water Quality Report**

Manager: Tim Myatt
Address: P.O. Box 70 Kevil Kevil, Kentucky 42053
Meetings: Kevil City Hall / 1st Monday of each month 10:00 AM

CCR Contact: Tim Myatt

PWSID: KY0040223
Phone: (270) 462-3104



Our source of water is ground water. Kevil Water Department withdraws water from two wells drilled into the McNairy aquifer for processing at our treatment plant to meet drinking water standards. The city has completed a Wellhead Protection Plan and is working to implement management strategies in an effort to protect source. A source water assessment is a component of the Wellhead Plan that characterizes the susceptibility of contamination from various land uses within the delineated protection area. The susceptibility analysis uses a weighted rating system which evaluates the toxicity, distance, and likelihood of release of contaminants which could adversely affect water quality. The sensitivity of the aquifer to pollution is rated moderate. Potential contaminants include fuel storage, agricultural application, and runoff and potential spills along HWY 60. Under certain circumstances contaminants could be released that would pose challenges to water treatment, or even get into your drinking water. These activities, and how they are conducted, are of interest to the entire community because they potentially affect your health and the cost of treating your water. A copy of the plan is available at City Hall.

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).

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>.

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

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.

Variances & 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.

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

To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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. **Copies of this report are available upon request by contacting our office during business hours.**

Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Inorganic Contaminants							
Fluoride [1025] (ppm)	4	4	0.75	0.75 to 0.75	Apr-18	No	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	2.9	2.9 to 2.9	Dec-21	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Selenium [1045] (ppb)	50	50	2.1	2.1 to 2.1	Apr-18	No	Discharge from petroleum and metal refineries or mines; erosion of natural deposits

Disinfectants/Disinfection Byproducts

Chlorine (ppm)	MRDL = 4	MRDLG = 4	0.83 (highest average)	0.65 to 1.13	2022	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids] (Annual Sample)	60	N/A	4 (high site)	2 to 4 (range of individual sites)	2022	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes] (Annual Sample)	80	N/A	24 (high site)	1 to 24 (range of individual sites)	2022	No	Byproduct of drinking water disinfection.

Household Plumbing Contaminants

Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	0.13 (90 th percentile)	0.03 to 0.13	Dec-20	No	Corrosion of household plumbing systems
Lead [1030] (ppb) sites exceeding action level 0	AL = 15	0	3.7 (90 th percentile)	0 to 6	Dec-20	No	Corrosion of household plumbing systems

Violations: Routine Monitoring

We received four violations for failing to monitor for Inorganic and Synthetic Organic Contaminants and Nitrate and Secondary Contaminants during the 1/1/2020 - 12/31/2022 and 1/1/2022 - 12/31/2022 monitoring periods, respectively. The samples have been collected and the public notification for these violations is included with this CCR.

PUBLIC NOTICE

Our water system violated one or more drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we 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 the 1/1/2020 - 12/31/2022 monitoring period we did not monitor or test for Inorganic and Synthetic Organic Contaminants and during the 1/1/2022 - 12/31/2022 monitoring period we did not monitor or test for Nitrate and Secondary Contaminants and therefore cannot be sure of the quality of your drinking water during that time.

There is nothing you need to do at this time. You do not need to use an alternative (e.g., bottled) water supply.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for this contaminant and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were taken.

Contaminant	Required sampling frequency	Number of samples taken	Number of samples that should have been taken	When samples were taken
Inorganic Contaminants (IOC) ¹	Once in a 3 year compliance period	0	1	Feb-23
Synthetic Organic Contaminants (SOC) ²	Once in a 3 year compliance period	0	1	Feb-23
Nitrate	Annual	0	1	Feb-23
Secondary Contaminants ³	Annual	0	1	Feb-23

What happened? Who is at risk? What is being done?

We had become accustomed to our contract laboratory maintaining our sample collection schedule and sending the collection containers when the samples were due. During 2021-2022, the laboratory had staffing issues and they failed to notify us that these compliance samples were due for collection. The city is responsible for this compliance failure. Our utility director has discussed this issue with the Division of Water (DOW) and will be contacting the laboratory annually to confirm the sample schedule for the upcoming year. Once DOW notified the city of these violations, we immediately collected the samples. None of the results were out of compliance. We are fortunate that our groundwater source provides us with high quality water. No one was at risk because of this violation.

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.

Violation number(s) 2023 - 888, 2023 - 889, 2023 - 9747842, 2023 - 887

¹**VOC Group Analytes:** 1,2,4-TRICHLOROBENZENE, CIS-1,2-DICHLOROETHYLENE, XYLENES, TOTAL, DICHLOROMETHANE, O-DICHLOROBENZENE, P-DICHLOROBENZENE, VINYL CHLORIDE, 1,1-DICHLOROETHYLENE, TRANS-1,2-DICHLOROETHYLENE, 1,2-DICHLOROETHANE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, 1,2-DICHLOROPROPANE, TRICHLOROETHYLENE, 1,1,2-TRICHLOROETHANE, TETRACHLOROETHYLENE, CHLOROBENZENE, BENZENE, TOLUENE, ETHYLBENZENE, STYRENE.

²**SOC Group Analytes:** ENDRIN, BHC-GAMMA, METHOXYCHLOR, TOXAPHENE, DALAPON, DIQUAT, ENDOTHALL, GLYPHOSATE, DI(2-ETHYLHEXYL) ADIPATE, OXAMYL, SIMAZINE, DI(2-ETHYLHEXYL) PHTHALATE, PICLORAM, DINOSEB, HEXACHLOROCYCLOPENTADIENE, ALDICARB SULFOXIDE, ALDICARB SULFONE, CARBOFURAN, ALDICARB, ATRAZINE, LASSO, HEPTACHLOR, HEPTACHLOR EPOXIDE, 2,4-D, 2,4,5-TP, HEXACHLOROBENZENE, BENZO(A)PYRENE, PENTACHLOROPHENOL, TOTAL POLYCHLORINATED BIPHENYLS (PCB), 1,2-DIBROMO-3-CHLOROPROPANE, ETHYLENE DIBROMIDE, CHLORDANE.

³**Secondary Contaminants Group Analytes:** ALUMINUM, CHLORIDE, COPPER, FREE , FLUORIDE, IRON, MANGANESE, SILVER, SULFATE, ZINC, COLOR, CORROSIVITY, ODOR, PH, TDS, FOAMING AGENTS (SURFACTANTS).