2018 Water Quality Report

Wickliffe Municipal Water

KY0040469

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Meetings: City Hall 321 Court st. Wickliffe, KY. 42087 2nd Thursday of every month at 4:00 PM

The City of Wickliffe uses groundwater supplied by 3 wells, which withdraws water from the Ecocene sands group. The wells reach 300 feet in depthand were constucted in 1985 and 1991. There is no history of source water quality problems or violations. The wellhead protection areas are rural residential with few businesses. Most of the wellhead protection area is forested land owned by private residents and Newpage paper mill. The majority of WHPA 3 is owend by Newpage and maintained as forest. The majority of the potential contaminants sources are considered to be low risk to the aquifer. The land within the wellhead protection area is also a low risk asthe land is predominantly forest and residential. Additionally, the well are deep enough to have some natural protection from contaminants. Given each of these factors, the aquifers susceptibility to contamination is determined to be low. The wellhead management plan should direct priority to a public education initiative and emergency response planning to possible highway or railroad spills. This Wellhead Protection Plan may be obtained at Purchase Area Development District, 1002 Medical Drive Mayfield, KY 42066 (270) 251-6132.

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.

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.

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.

Radioactive Contaminants									
Alpha emitters	15	0	1.5	1.5	to	1.5	2017	No	Erosion of natural deposits
[4000] (pCi/L)									
Combined radium	5	0	1.18	1.18	to	1.18	2017	No	Erosion of natural deposits
(pCi/L)									
Inorganic Contaminants									
Barium [1010] (ppm)	2	2	0.025	0.025	to	0.025	March-16	No	Drilling wastes; metal refineries; erosion of natural deposits
Copper [1022] (ppm)	AL =		0.170						G : 61 1111 1:
sites exceeding action level	1.3	1.3	(90 th	BDL	to	0.44	Sept-17		Corrosion of household plumbing systems
0			percentile)					!	systems
Fluoride									W . 110 1 1
[1025] (ppm)	4	4	0.94	0.94	to	0.94	March-16	No	Water additive which promotes strong teeth
Nitrate									Fertilizer runoff; leaching from
[1040] (ppm)	10	10	0.093	0.093	to	0.093	Dec-18	No	septic tanks, sewage; erosion of natural deposits
Disinfectants/Disinfection By	products ar	d Precursors					•	•	
Chlorine	MRDL	MRDLG	1.22						***
(ppm)	= 4	= 4	(highest	1.07	to	1.27	2018	No	Water additive used to control microbes.
			average)						inicioses.
TTHM (ppb) (Stage 2)			14						5
[total trihalomethanes]	80	N/A	(high site	5	to	14	2018	No	Byproduct of drinking water disinfection.
			average)	(range of individual sites)				İ	disinfection.

This report will not be sent to individual customers. It will be available at City Hall.

NOTICES of VIOLATION: 2019 - 805 DBPS TTHM THAA, 2019 - 8440224 1002 ALUMINUM, 2019 - 8440223 1925 PH, 2018 - 8840220 MOR MONTHLY OPERATING REPORT, 2018 - 8440219 0700 GROUNDWATER RULE

2018 - 8840220 MOR MONTHLY OPERATING REPORT Description of Non Compliance: 401 KAR 8:020 MONTHLY OPERATING REPORT The public water system failed to submit the Monthly Operating Report for the compliance period of 06.01/2018 - 06/30/2018.

Comments: MOR Late: The June 2018 was mailed to the Division of Water on 07/10/2018 and was recieved by 07/12/2018. MORs must be placed in the mail before the 10th to be recieved by Division of Water on time. Remedial Measures: Submit the MOR, if available, to the Division of water within 30 days of receipt of this Notice of Violation. We sent the MOR in question to our primacy agency. Our system also had to perform public notification and required certification. There were no health effects due to this oversight.

2019 - 805 DBPS TTHM THAA

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 07/01/2018 - 09/30/2018 we did not complete all monitoring or testing' for DBPs TTHM THAA and therefore cannot be sure of the quality of your drinking water during that time.

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

Description of Non Compliance: 401 KAR 8:510, Section 1 TTHM THAA The public water system failed to submit an adequate number of DBP samples for the compliance4 period 07/01/2018 - 09/30/2018. Your System is required to collect 2 Routine Samples per year. No samples were recieved by DOW. **Comments** 3rd qtr. DBPs in incorrect month. Samples should have been pulled in August. **Remedial Measures**: Submit any overdue or unreported sampling results, if available, for the compliance period 07/01/2018 - 09/30/2018. We sent the results in question to our primacy agency and resampled. Our system had to perform public notification and required certification. There were no health effects due to this oversight.

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.

2019 - 8440224 1002 ALUMINUM

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 01/01/2018 - 12/31/2018 we did not complete all monitoring or testing for 1002 ALUMINUM 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.

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

Description of Non Compliance: 401 KAR 8:600, Aluminum The public water system failed to submit analytical results for the specified contaminant for the compliance period 01/01/2018 - 12/31/2018. **Comments**: Failed to submit 2018 ALUMINUM. **Remedial Measures**: Submit any overdue or unreported sampling results, if available, for the compliance period. Our system had to perform public notification and required certification. There were no health effects due to this oversight.

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.

2019 - 8440223 1925 PH

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 01/01/2018 - 12/31/2018 we did not complete all monitoring or testing for 1925 PH 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.

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

Description of Non Compliance: 401 KAR 8:600, PH The public water system failed to submit analytical results for the specified contaminant for the compliance period 01/01/2018 - 12/31/2018. **Comments:** Failed to submit 2018 Secondary (PH). **Remedial Measures:** Submit any overdue or unreported sampling results, if available, for the compliance period. Our system had to perform public notification and required certification. There were no health effects due to this oversight.

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.

2018 - 8440219 0700 GROUNDWATER RULE

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 05/01/2018 - 05/31/2018 we did not complete all monitoring or testing for 0700 GROUNDWATER RULE 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.

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

Description of Non Compliance: 401 KAR 8:150, Section 10 GROUNDWATER RULE The public water system failed to submit an adequate sampling results to meet Chlorine summary requirements for the compliance period 05/012018 - 05/31/2018. **Comments**: System failed to sample and report Ground Water Rule chlorine residuals. **Remedial Measures**: Submit any overdue or unreported sampling results, if available, for the compliance period 05/01/2018 - 05/31/2018 . We sent the results in question to our primacy agency and resampled. Our system had to perform public notification and required certification. There were no health effects due to this oversight.

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.