2022 Water Quality Report*
Aqua Illinois - Vermilion County, PWSID# IL1835120

Este informe contiene información muy importante sobre su agua de beber.
Tradúzcalo o hable con alguien que lo entienda bien.

About Your Drinking Water
Aqua Illinois, Inc. (Aqua) is pleased to provide you with its 2022 Consumer Confidence Report for the Vermilion County Division, which contains important information about your drinking water. The report summarizes the quality of water Aqua Illinois, Vermilion County Division provided in 2022 - including details about water sources, what the water at your tap contains, and how it compares to standards set by regulatory agencies. We are pleased to report that we were in compliance with all water quality regulations in 2022. Although the report lists only those regulated substances that were detected in your water, we test for more than what is reported. This report is a summary of our testing during 2022 and earlier. If you have any questions about the information in this report, please call Alan Stark at 815.614.2032 or visit our website at AquaWater.com.

Your Water Source
Aqua Vermilion County Division uses surface water from the north fork of the Vermilion River as its water source.

Source Water Assessment
The Source Water Assessment for the Vermilion River has been completed by the IEPA. The Illinois Environmental Protection Agency (IEPA) considers all surface water sources of public water supply to be susceptible to potential sources of contamination. Mandatory treatment for a surface water supply includes coagulation, sedimentation, filtration and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline erosion. A copy of this report can be obtained by calling Alan Stark at 815.614.2032 or on the website https://dataservices.epa.illinois.gov/swap/factsheet.aspx.

Source of Drinking Water
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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 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 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 organics, which are byproducts 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.

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 U.S. EPA's Safe Drinking Water Hotline at (800.426.4791).

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must 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. U.S. EPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800.426.4791).

The following table lists contaminants that were detected during 2022 in your water system. The table provides the highest level found and range of the observed levels of regulated contaminants.

2022 Water Quality Data: Aqua Illinois – Vermilion County – PWSID# IL1835120

Contaminants	Level Found	Range of Levels	Federal/ State Standard MCL	Ideal Goal MCLG	Violation?	Sample Date	Major Sources in Drinking Water
DISINFECTANTS & DISINFECTION BYPRODUCTS - For haloacetic acids and total trihalomethanes, compliance is based on a locational running annual average (LRAA) of test results, not a single sample result. The Level Detected is the highest LRAA. Chloramine compliance is based on a running annual average (RAA). The Range is the lowest and highest single sample result among all samples.							
Chloramine, ppm	RAA= 2	2 – 2	MRDL= 4	MRDLG= 4	No	2022	Water additive used to control microbes
Haloacetic acids, ppb	LRAA= 19	7.35 – 29.1	60	NA	No	2022	Byproduct of drinking water disinfection
Total Trihalomethanes, ppb	LRAA= 40	16.9 – 51.7	80	NA	No	2022	
INORGANIC CONTAMINANTS							
Barium, ppm	0.0045	0.0045 – 0.0045	2	2	No	2022	Erosion of natural deposits
Fluoride, ppm	0.7	0.713 – 0.713	4	4	No	2022	Erosion of natural deposits
Nitrate, ppm	9 (a)	ND – 9	10	10	No	2022	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium, ppb	1	1.3 – 1.3	50	50	No	2022	Erosion of natural deposits, discharge from mines.
UNREGULATED CONTAMINANTS							
Sodium, ppm	10	9.9 – 9.9	NA (b)	NA (b)	No	2022	Erosion of naturally occurring deposits; road salt
SYNTHETIC ORGANIC CONTAMINANTS							
Atrazine, ppb	1.3	ND – 1.3	3	3	No	2022	Herbicide runoff

<u>Water Quality Data Footnotes</u>:

(a) **Nitrate:** in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

(b) **Sodium:** There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. People on a sodium-restricted diet should consult their physician about the level of sodium in the water they drink.

LEAD AND COPPER RESULTS							
Lead & Copper	**90th Percentile Level**	**# of Sites Exceeding Action Level**	**Federal/State Standard Action Level**	**Ideal Goal MCLG**	**Last Monitoring Period**	**Violation?**	**Major Sources in Drinking Water**
Copper, ppm	0.04	0	1.3	1.3	2020	No	Corrosion of household plumbing
Lead, ppb	6.5	0	15	0	2020	No	Corrosion of household plumbing

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. Aqua 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 www.epa.gov/safewater/lead.

Coliform Bacteria Results						
Ideal Goal MCLG	**Federal/ State Standard MCL**	**Highest Percentage of Positive Samples**	**Fecal Coliform or E. Coli Maximum Contaminant Level (MCL)**	**Total No. of Positive E. Coli or Fecal Coliform Samples**	**Violation?**	**Major Sources in Drinking Water**
0	5% of monthly samples are positive	2.2	NA	0	No	Naturally present in environment

TURBIDITY - Regulated at the water treatment plant: 95% of samples must be below 0.3 NTU.				
Limit (Treatment Technique)	**Lowest monthly % meeting limit**	**Highest single measurement (1 NTU limit)**	**Violation?**	**Source**
0.3 NTU	100%	0.24	No	Soil Runoff

Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system.

Total Organic Carbon: The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by the IEPA.

Triennial or Less Frequent Monitoring: The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

2022 Violation Summary Table: None - We are pleased to report we were in compliance with all water quality parameters in 2022.

Illinois EPA's Sampling of Per- and Polyfluoroalkyl Substances (PFAS):
In 2021, our PWS was sampled as part of the State of Illinois PFAS Statewide Investigation. None were detected in our finished drinking water. The results are shown in the table below. GEN-X data has been included below in anticipation of future federal regulations that include monitoring for this PFAS compound. For more information regarding PFAS advisories in Illinois, please visit https://epa.illinois.gov/topics/water-quality/pfas/pfas-healthadvisory.html. Aqua has also posted information regarding proposed federal regulations on our website at AquaWater.com/pfas.

PFAS (Forever Chemicals) Entry Point Sampling from 2021

Name	Chemical Name	Range of Detections (ppt)
GEN-X	Hexafluoropropylene oxide (dimer acid and ammonium salt)	ND
PFOA	Perfluorooctanoic acid	ND
PFOS	Perfluorooctane sulfonate	ND
PFBS	Perfluorobutane sulfonic acid and Perfluorobutane sulfonate	ND
PFHxA	Perfluorohexanoic acid	ND
PFHxS	Perfluorohexanesulfonic acid	ND
PFNA	Perfluorononanoic acid	ND

ND = Not Detected

Cryptosporidium
Monitoring for *Cryptosporidium* (a naturally occurring microbial pathogen) was conducted under a national program in 2016 and 2017 on raw (untreated) water samples from our intake on the North Fork of the Vermilion River. *Cryptosporidium* was detected in 2 of 12 raw water samples with an average count of 0.037 per liter. This level is in the lowest category of risk for raw (untreated) water. Our water treatment processes will remove *Cryptosporidium*, but complete removal of all organisms at all times cannot be guaranteed. For this reason, immuno-compromised individuals (people with weakened immune systems) are encouraged to consult their doctor regarding appropriate precautions to avoid infection.

Unregulated contaminant monitoring (UCMR4)
The 1996 amendments to the Safe Drinking Water Act (SDWA) require that once every 5 years, the U.S. Environmental Protection Agency (EPA) issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWS). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. These data serve as a primary source of occurrence and exposure information that the agency uses to develop regulatory decisions. If a PWS monitoring for UCMR4 finds contaminants in its drinking water, it must provide the information to its customers in this annual water quality report. Below is a table of the results of our UCMR4 monitoring in 2019. All other contaminants tested during UCMR4 were Not Detected.

Unregulated Contaminants Detected During 2019			
Unregulated Contaminant	**Average Detection**	**Range of Detections**	**MCL**
Distribution Samples			
HAA5, ppb	13.6	10.67 – 16.48	NA
HAA6Br, ppb	3.4	0.85 – 5.26	NA
HAA9, ppb	16.29	13.22 – 19.41	NA

Water Quality Table Definitions:

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements.

Date of Sample: Some contaminants are monitored less frequently than once a year. If any of these contaminants were detected the last time they were monitored, they are included in the table with the sample date.

Fluoride: Fluoride may help prevent tooth decay if administered properly to children but can be harmful in excess. Customers in the Vermillion water supply receive fluoridated water. For more information about fluoride in your tap water, call Aqua Illinois at 815.614.2032. This information may be helpful to you, your pediatrician, or your dentist in determining whether fluoride supplements or treatment are appropriate.

Level Found: For contaminants with annual or less frequent monitoring, this is the single level detected in the most recent monitoring period. For other contaminants, the level found is the annual average of multiple test results. If multiple locations were tested, the level found is the annual average for the location with the highest level. For Lead and Copper, see below.

Lead and Copper Level Found: Only the 90th percentile detection level from the most recent monitoring period of all approved sites sampled for each of these contaminants. The number of sites monitored and the frequency of monitoring is determined by the IEPA for every supply.

Locational Running Annual Average (LRAA): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule.

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.

NA: Not applicable.

ND: Not detected.

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

ng/L: nanograms per liter or ppt – or one ounce in 7,500,000,000 gallons of water

pCi/L, picocuries/Liter: A unit of concentration for radioactive contaminants.

ppb: Parts per billion or micrograms per liter – or one ounce in 7,350,000 gallons of water.

ppm: Parts per million or milligrams per liter – or one ounce in 7,350 gallons of water.

PWSID: Public water supply identification number

Range of Detected Levels: The range of values from all tests during the CCR reporting year. For contaminants tested annually or less frequently, only one value is reported. For Lead and Copper, see above.

Running Annual Average (RAA): The average of all monthly or quarterly samples for the last year at all sample locations. Because this is a running annual average, results from the previous year may be reflected in the Level Found column while the Range of Detected Levels only reflects results from the CCR reporting year.

Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Turbidity: Monitored as a measure of treatment efficiency for removal of particles.

Our water systems are designed and operated to deliver water to our customers' plumbing systems that complies with state and federal drinking water standards. This water is disinfected using chlorine, but it is not necessarily sterile. Customers' plumbing, including treatment devices, might remove, introduce or increase contaminants in tap water. All customers, and in particular operators of facilities like hotels and institutions serving susceptible populations (like hospitals and nursing homes), should properly operate and maintain the plumbing systems in these facilities. You can obtain additional information from the EPA's Safe Drinking Water Hotline at 800.426.4791.

**This consumer confidence report contains regulatory required or recommended language, and nothing herein is, is intended as, nor should be construed as, a promise of or contract for payment or reimbursement of expenses incurred for any action you take on account of this consumer confidence report.*