

City of Vermilion Water Dept.

Drinking Water Consumer Confidence Report

This Report is for Water Produced in 2021

“Your Drinking Water Has Met All of The Ohio EPA Standards”.

The City of Vermilion Water Dept. has prepared the following report to provide you, the consumer, with information on the quality of our drinking water. Included within this report are general health information, water quality test results and information on how you can participate in decisions concerning your drinking water.

The most current version of this report is available online at:

cityofvermilion.com/water-report

Printed copies can be obtained by calling the Vermilion Utilities Billing Office: 440-204-2450

Water Source

The Vermilion Water Plant draws its drinking water from Lake Erie. If necessary, we can draw water from the Vermilion River. Also, we have emergency connections with the City of Lorain Water Dept. and the Erie County Water Dept. These connections are used for emergencies and planned maintenance. In 2021 these connections were used occasionally while making system repairs. This report does not contain information on the water quality received from Lorain Water Dept. or the Erie County Water Dept., but a copy of their consumer confidence report can be obtained by going to:

Lorain Water Dept. website:

<https://www.cityoflorain.org/DocumentCenter/View/4061/2021-Annual-Water-Quality-Report>

Erie County Water Dept. website:

<https://www.eriecounty.oh.gov/Downloads/2021VermilionWestWaterQualityReport.pdf>

Water Source Assessment Susceptibility Analysis

The Ohio EPA performed a risk assessment of our water source. For the purposes of source water assessments, all surface waters are susceptible to contamination. By their nature surface waters are accessible and can be readily contaminated by chemicals and pathogens with relatively short travel times from source to intake. The source water assessment for the City of Vermilion Public Water System indicates that the Lake Erie source water is susceptible to potential future contamination. Based on information compiled for this assessment, the City of Vermilion Public Water System drinking water protection area is susceptible to contamination from municipal wastewater treatment discharges, industrial wastewater discharges, air contamination deposition, runoff from residential and urban areas, contaminated river sediments, and accidental releases and spills from vehicular traffic as well as from commercial shipping operations and recreational boating. For more detailed information or to obtain a copy of this report call:

Water Plant Superintendent Eugene Baker at: office: 440-204-2450

Cell: 440-320-4490

What are Sources of Contamination to Drinking Water

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 can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) 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; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses; (D) 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; (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, USEPA prescribes regulations which limit the level of certain contaminants that may be in the water provided by public water systems. FDA regulations establish limits for contaminants that may be in bottled water which must provide the same protection for public health.

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:

Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Who Needs to Take Special Precautions?

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 infection. 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 by calling:

EPA Safe Drinking Water Hotline (1-800-426-4791)

About Your Drinking Water

The EPA requires regular sampling to ensure drinking water safety. During 2021 the City of Vermilion Water Dept. collected over 200 samples and tested for over 50 different contaminants including: bacteria, inorganic chemicals, synthetic organic chemicals, volatile organic chemicals, radiological, and lead and copper. Most of these contaminants were not detected. Those that were detected were within the limits set by the EPA. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, may be more than one year old.

On the following page is a table containing information regarding the contaminants that were found in the City of Vermilion's drinking water in 2021.

Note: Some contaminants are sampled less than annually and may be from a prior year.

All levels found were within the standards established by the Ohio and U.S. EPA.

2021 CCR Table of Contaminants for City of Vermilion's Drinking Water.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Microbiological Contaminants							
Turbidity (NTU)	NA	TT	0.21	0.05-0.21	No	2021	Soil Runoff Soil Runoff
Turbidity (% meeting standard)	NA	TT	100%	100%	No	2021	
Total Organic Carbon (Compliance Value)	NA	TT	1.53	1.33-1.94	No	2021	Naturally present in the environment.
Radioactive Contaminants							
Radium-228 (pCi/L)	0	5	1.09	1.09	No	2020	Erosion of Natural Deposits
Inorganic Contaminants							
Fluoride (mg/L)	4	4	1.23	.082-1.23	No	2021	Erosion of natural deposits, Water additive which promotes strong teeth, discharge from fertilizer and aluminum factories
Barium (ppm)	2	2	0.021	0.021	No	2021	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate (ppm)	10	10	2.09	0.11-2.09	No	2021	Runoff from fertilizer use; Erosion of natural deposits.
Synthetic Organic Contaminants including Pesticides and Herbicides							
Atrazine (ug/L)	3	3	0.30	0.22-0.30	No	2021	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
Simazine (ug/L)	4	4	0.57	0.057	No	2021	Herbicide runoff
Disinfection Byproducts							
Total TTHMs (ppb)	0	80	53.7	20.2-84.5	No	2021	By-product of drinking water chlorination.
Haloacetic Acids HAA5 (ppb)	0	60	27.4	9.8-41.2	No	2021	By-product of drinking water chlorination.
Residual Disinfectants							
Total Chlorine (ppm)	4	4	1.58	1.25-1.77	No	2021	Water additive used to control microbes.
Lead and Copper							
Contaminant (units)	Action Level (AL)	MCLG	Individual Results over the AL	90% of test levels were less than	Violation	Year Sampled	Typical source of Contaminants
Lead (ppb)	15 ppb	0 ppb	31 ug/L	3.3	No	2021	Corrosion of household plumbing systems.
	1 out of 32 samples was found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm)	1.3 ppm	1.3 ppm	N/A	0.093	No	2021	Corrosion of household plumbing systems.
	0 out of 32 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.						

Misc. Information

Turbidity

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and turbidity shall not exceed 1 NTU at any time. As reported above, the Vermilion Water Plant's highest recorded turbidity result for 2021 was 0.21 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%. All samples were under the Ohio EPA limit for turbidity.

Lead Educational Information

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 Vermilion Water Dept. 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 at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the **Safe Drinking Water Hotline (1-800-426-4791)**.

TOC Results: The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between percent of TOC removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

Definitions of Terms Used in This Report

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

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 Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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 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.

N/A: Not applicable.

Parts per Million (ppm) or Milligrams per Liter (mg/L): are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter (ug/L): are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

Picocuries per liter (pCi/L): A common measure of radioactivity.

PWS: Public Water System.

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

How Do I Participate in Decisions Concerning My Drinking Water?

Public participation and comments are encouraged at meetings of the Vermilion City Council which meets on the 1st and 3rd Monday of the month at 7:00 p.m. Council meets at:

685 Decatur Street, Vermilion, Ohio 44089.

If you have questions or would like more info contact:

Water Plant Superintendent Eugene Baker at: Office: 440-204-2450 Cell: 440-320-4490

License To Operate

In 2021 The City of Vermilion had an Unconditioned License To Operate (LTO).