

# 2016 Water Quality Report for Village of Oxford

This report covers the drinking water quality for the Village of Oxford and the 2016 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2016. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

Your water comes from 3 groundwater wells, 2 of which are over 113 ft deep. In 2007 a new well that was put into service is 108 ft deep.

The State performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very-low" to "very-high" based on geologic sensitivity, well construction, water chemistry and contamination sources. The susceptibility of our source is "High." due to geologic sensitivity (sand and gravel)

There are no significant sources of contamination in our water supply. We are making efforts to protect our sources with a "Wellhead Protection Program." Our program was the first EPA approved program in the State of Michigan, and approved by the Oxford Village Council in 2005.

- **Contaminants and their presence in water:** 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 **EPA's Safe Drinking Water Hotline (800-426-4791)**. 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

- **Vulnerability of sub-populations:** 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 systems 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).
- **Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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 water 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 and residential uses.
- **Radioactive contaminants**, which are naturally occurring or be the result of oil and gas production and mining activities.
- **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.

## Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2016 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 – December 31, 2016. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All of the data is representative of the water quality, but some are more than one year old.

### Terms and abbreviations used in table below:

- **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 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 Residual Disinfectant Level (MRDL)**: means 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)**: means 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.
- **N/A**: Not applicable **ND**: not detectable at testing limit
- **(ppb): parts per billion or micrograms per liter / (ppm): parts per million or milligrams per liter**
- **Action Level**: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **EPTDS**: Entry point to distribution system/ water to system
- **RAA**: Running annual average
- **pCi/L**: picocuries per liter (a measure of radioactivity).

Regulated Contaminant	MCL	MCLG	Your Water	Range	Sample Date	Violation Yes / No	Typical Source of Contaminant
Arsenic (ppb)	10 (ppb)	0	0 <u>0 at EPTDS</u>	N/A	7/19/2011	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
TTHM - Total Trihalomethanes (ppm)	.080 (ppm)	N/A	.019 (ppm)	N/A	7/23/2016	No	Byproduct of drinking water disinfection
HAA5 (ppm)	.060 (ppm)	N/A	.002	N/A	7/23/2016	No	Byproduct of drinking water disinfection
Fluoride (ppm)	4	4	0.13 ppm	N/A	7/5/2016	No	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Barium (ppm)	2	2	.05	N/A	2009	No	Discharge of drilling wastes Discharge from metal refineries Erosion of natural deposits
Selenium (ppm)	50	50	1	N/A	2009	No	Discharge of drilling wastes Discharge from metal refineries Erosion of natural deposits
Chlorine (ppm)	4	4	RAA: 0.20 ppm	.01 - 0.72 ppm	2016	No	Water additive used to control microbes
	4	4					
Combined radium (pCi/L)	5	0	0.8 pCi/L	N/A	2013	No	Erosion of natural deposits
Special Monitoring and Unregulated Contaminant **			Your Water	Range	Sample Date	Violation Yes / no	Typical Source of Contaminant
Sodium (ppm)			126 ppm	N/A	7/5/2016	No	Erosion of natural deposits

Contaminant Subject to AL	Action Level	MCLG	90% of Samples ≤ This Level	Sample Date	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15	0	0 ppb	2016	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppb)	1300	1300	390 ppb	2016	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

\*\* Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

## **Lead and Copper Health affects language**

### **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. The Village of Oxford 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 from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### **Copper:**

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

<b>Microbial Contaminants</b>	<b>MCL</b>	<b>MCLG</b>	<b>Number Detected</b>	<b>Violation Yes / No</b>	<b>Typical Source of Contaminant</b>
Total Coliform Bacteria	1 positive monthly sample (5% of monthly samples positive)	0	0	NO	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	Routine and repeat sample total coliform positive, and one is also fecal or <i>E. coli</i> positive	0	0	NO	Human and animal fecal waste

The Village of Oxford did not have any violations for the 2016 calendar year.

If you would like to know more about the report please contact Mark Dowson at [markd@highlandtreatment.com](mailto:markd@highlandtreatment.com) or to view this report and source water assessment go to [www.villageofoxford.org](http://www.villageofoxford.org)

Village offices, Phone 248-628-2543

Council meetings are on the 2nd and 4<sup>th</sup> Tuesday of each month.