

Annual Water Quality Report-Reporting Year 2016

City of Albion Water Department

112 W. Cass St.

Albion, MI 49224

PWSID#: 0100

Meeting the Challenge:

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2016. Over the years we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please share with us your thoughts or concerns about the information in this report. After all, well informed customers are our best ally.

For more information about this report, or for any questions relating to your drinking water, please call Jim Lenardson, Director of Public Services at (517) 629-7200.

Community Participation:

You are invited to participate in our City Council meetings and voice your concerns about your drinking water. We meet the 1st and 3rd Monday of each month beginning at 7 p.m. at City Hall, 112 W. Cass St. Albion, Michigan.

Important Health Information:

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice from their health care providers. The U.S.EPA/CDC (Center for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

Substances That Could Be in Water:

To ensure that tap water is safe to drink, U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations

establish limits for contaminants 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 these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife; Inorganic Contaminants, such as salt and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses; Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems; Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at (800) 426-4791.

Where does my water come from?

Your water comes from two main groundwater wells and three back-up wells, each over 250 feet deep, drawing water from the Marshall-Sandstone formation. The State performed an assessment of our source water in 2003 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 primarily on geologic sensitivity, water chemistry and contaminant services. The susceptibility of our services are: Starr 1 (high); Starr 2 (high); Clark 1 (moderate); Clark 2 (moderate); Clark 3 (moderate). Significant potential sources are transportation routes, industry and underground tanks. We are making efforts to protect our sources through the Wellhead Protection Program.

Source Water Assessment:

A Source Water Assessment Plan (SWAP) is now available at our office. This plan is an assessment of the delineated area around our listed sources, through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. For additional information on the Source Water Assessment contact Jim Lenardson, Director of Public Services at (517) 629-7200.

Lead in Home Plumbing:

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are 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 State Drinking Water Hotline or at www.eps.gov/safewater/lead.

Sampling Results:

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Regulated Substances

City of Albion Water Department

<u>Substance</u> (Unit of Measure)	<u>Year Sampled</u>	<u>MCL</u> <u>[MRDL]</u>	<u>MCLG</u> <u>[MRDLG]</u>	<u>Amount Detected</u>	<u>Range</u> <u>Low-High</u>	<u>Violation</u>	<u>Typical Source</u>
Arsenic (ppb)	2016	10	0	4.0	ND	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium (ppm)	2011	2	2	0.11	0.11-0.11	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

Fluoride (ppm)	2016	4	4	0.51	0.13-0.51	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
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Tap water samples were collected for lead and copper analyses from twenty (20) sample sites throughout the community

City of Albion Water Department

<u>Substance</u> (Unit of Measure)	<u>Year Sampled</u>	<u>AL</u>	<u>MCLG</u>	<u>Amount Detected</u> (90 th percentile)	<u>Sites Above AL/Total Sites</u>	<u>Violation</u>	<u>Typical Source</u>
Copper (ppb)	2015	1300	1300	650	0/20	NO	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	2015	15	0	0	0/20	NO	Corrosion of household plumbing systems; Erosion of natural deposits.

Other Regulated Substances

City of Albion Water Department

<u>Substance</u> (Unit of Measure)	<u>Year Sampled</u>	<u>[MRDL]</u>	<u>[MRDLG]</u>	<u>Amount Detected</u>	<u>Low-High</u>	<u>Violation</u>	<u>Typical Source</u>
Haloacetic Acids [HAA5]-IDSE Results (ppb)	2016	[MCL] 60ppb	NA	4.0	NA	NO	By-Product of drinking water disinfection.
Total Trihalomethanes (TTHM) Results (ppb)	2016	[MCL] 80 ppb	NA	23.0	NA	NO	By-Product of drinking water disinfection.

Chlorine 12 Month Avg. (ppm) (RRA)	2016	4.0	4.0	0.700	0.460- 0.850	NO	Chlorine added for disinfection.
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Secondary Substances

City of Albion Water Department

Substance (Unit of Measure) (ppm.)	Year Sampled	SMCL	MCLG	Amount Detected	Low-High	Violation	Typical Source
Chloride (Unregulated Substance) (ppm)	2016	250	NA	41	39-42	NO	Runoff/leaching from natural deposits.
Hardness (Unregulated Substance) (ppm)	2016	NA	NA	335	311-358	NO	NA
Sulfate (Unregulated Substance) (ppm)	2016	250	NA	50	NA	NO	NA
Sodium (ppm)	2016	NA	NA	13	11-14	NO	NA

Table Definitions

Ppm (parts per million): One part substance per million parts of water (or milligrams per liter).

Ppb (parts per billion): One part substance per billion parts of water (or micrograms per liter).

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

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

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA (Not Applicable).

ND (Not Detected).

RRA: Reverse Running Average.

SMCL: (Secondary Maximum Contaminant Level): SMCL's are established only as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color and odor. These contaminants are not considered to present a risk to human health at the SMCL.

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