



2000 DRINKING WATER QUALITY REPORT

Midland's annual Drinking Water Quality Report is intended to update you, our customer, on the continuing efforts made toward ensuring the safety and availability of your drinking water. This report shares the most recent water quality testing data as well as summaries of a few noteworthy projects recently completed.



Your concerns and opinions are important to us, and we encourage you to contact us with any questions or comments. You can reach us by calling the Water Treatment Plant at 837-3515 or leaving a message on our 24-hour citizen comment line, 837-3400. You may also send an e-mail to cityhall@midland-mi.org or write to us at 333 West Ellsworth Street, Midland, MI 48640.



New Facelift!

The Plymouth Water Tower, located near the intersection of Swede Avenue and Wheeler Street, was taken out of service for approximately three months in 2000 while it was sandblasted and repainted. The new four-coat epoxy paint system was applied to the interior and exterior surfaces as part of a \$470,000 project. It took approximately 73 days with a crew of six and more than 1,050 gallons of primer and paint to cover

the 120 foot high tower. The Tower was painted artic ermin (off-white). The City of Midland logo was painted on the outside of tower in two locations.

Welcome!

Midland and Larkin Township water systems have become part of the City of Midland's water system. As new retail customers, Midland and Larkin Township will receive finished water from extensions of the City of Midland's Water Distribution System. The City's water system includes Lake Huron as its source water and 48-MGD treatment facility located at 2607 Bay City Road. The City now has approximately 428 meter services in Larkin Township and 406 meter services in Midland Township.

Important Definitions

The following tables contain scientific terms and measures,
some of which may require an explanation.

Maximum Contaminant Level Goal or MCLG: The level of 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 or MCL: The highest level of a contaminant, which is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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

Action Level or AL: The concentration of a contaminant which, if exceeded, triggers the need for additional treatment or other requirements which a water system must meet.

Part per million (PPM); part per billion (PPB): These units describe the levels of detected contaminants. One part per million is about 1/2 of a dissolved aspirin tablet (162.5 mg) in a full bathtub of water (about 50 gallons). One part per billion is about one dissolved aspirin tablet (325 mg) in a typical 25-meter swimming pool (about 100,000 gallons).

Turbidity: is a measure of the clarity of water. The lower the numbers, the more clear the water. It is measured in nephelometric turbidity units (ntu).

Total Beta: a measurement of radioactivity. It is measured in pico curies per litre (pCi/L). Pico = one part per trillion.

City of Midland Test Results for 2000

Substances regulated at the Water Treatment Plant

Substance	Unit	Amount Detected		MCL	MCLG	Likely Source	Violation?
		Lowest	Highest				
Fluoride	ppm	0.10	1.35	4	4	Erosion of natural deposits; Water Treatment additive which promotes strong teeth	NO
Turbidity	ntu	0.02	0.14	TT ¹	n/a	Soil runoff; suspended matter in surface water	NO
Total Beta ²	pCi/L	4	4	50	0	Decay of natural and man-made deposits	NO

1. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system. The limits for turbidity state that all samples must be below 5 ntu, and that at least 95% of the samples must be lower than 0.5 ntu. Our samples were below 0.5 ntu 100% of the time.

2. Total Beta: only one sample was required, therefore, the lowest and highest levels detected are shown as equivalent.

Substances regulated in the Distribution System

Substance	Unit	Amount Detected		MCL	Likely Source	Violation?
		Range	Highest			
Total Trihalomethanes	ppb	17.6-41.1	35.6 ³	100	By-products of drinking water chlorination	NO
Total Coliform Bacteria	note ⁴	0-2.4%	2.4%	n/a	Naturally present in the environment	NO

3. Highest Running Annual Quarterly Average

4. The MCL for Total Coliform Bacteria states that detects must equate to less than 5% of the total monthly samples collected.

Substances regulated at the Customer's Tap (City of Midland)

Substance	Unit	Amount Detected		MCL	MCLG	Likely Source	Violation?
		90th Percentile					
Copper ⁵	ppb	377	AL=1300	1300	Corrosion of household plumbing systems	NO	
Lead ⁶	ppb	4	AL=15	0	Corrosion of household plumbing systems	NO	

5. No testing sites exceeded the Copper Action Level of 1300 ppb.

6. One testing site exceeded the Lead Action Level of 15 ppb. However, MCL compliance is determined using the 90th percentile value.

Substances regulated at the Customer's Tap (City of Auburn)

Substance	Unit	Amount Detected		MCL	MCLG	Likely Source	Violation?
		90th Percentile					
Copper ⁷	ppb	298	AL=1300	1300	Corrosion of household plumbing systems	NO	
Lead ⁸	ppb	4	AL=15	0	Corrosion of household plumbing systems	NO	

7. No testing sites exceeded the Copper Action Level of 1300 ppb.

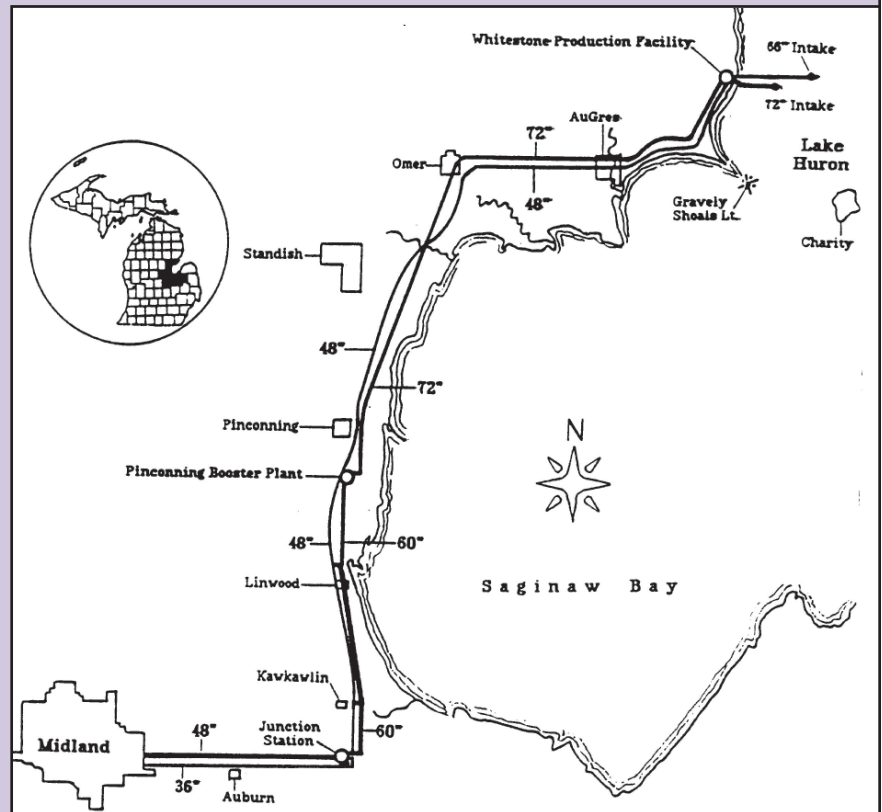
8. No testing sites exceeded the Lead Action Level of 15 ppb.

Unregulated (single sample at Water Treatment Plant)

Substance	Unit	Amount Detected	Likely Source	Violation?
Chloroform	ppb	26.8	By-products of drinking water chlorination	NO
Chlorodibromomethane	ppb	2.5	By-products of drinking water chlorination	NO
Dichlorobromomethane	ppb	8.8	By-products of drinking water chlorination	NO
Sulfate	ppm	17	Erosion of natural deposits	NO
Sodium	ppm	5	Erosion of natural deposits	NO

Where Does Our Water Come From?

Midland has received its source water supply from Lake Huron since 1948. The source water pumping system is jointly owned and operated by the cities of Midland and Saginaw and is called the Saginaw-Midland Municipal Water Supply Corporation (SMMWSC). Water from Lake Huron is drawn into the system through two intake structures located one and two miles offshore at Whitestone Point. The intake structures are screened to keep out debris and fish. The water is chlorinated at Whitestone to kill harmful bacteria and zebra mussels and is then pumped through 65 miles of pipeline to Midland. There is a 110 million gallon source water reservoir located behind the water plant on Bay City Road that is used for flow equalization and an emergency supply in case of loss of water supply. The water treatment complex is able to provide 48 million gallons per day (mgd) of treated Lake Huron water to Midland. The water plant is staffed by professional water treatment plant operators, water analysts and maintenance personnel to produce and deliver this large amount of water whenever and wherever needed. The MDEQ will be completing a source water assessment of our raw water supply by 2003.



FREQUENTLY ASKED QUESTIONS

What are the white particles coming from my tap?

The white particles are most likely either calcium carbonate deposits (scale) or the result of a deteriorating hot water heater plastic "dip tube". Contact the Midland Water Treatment Plant for more information.

Helpful Tip:

These particles may accumulate in coffee pots. To remove them, fill the coffee pot with vinegar and let it sit overnight. Then rinse the coffee pot thoroughly before using. Vinegar will also work as a soak for clogged shower heads and faucet aerators.

Concerned about your sodium intake?

Water from the Midland Water Treatment Plant has an average of 5 milligrams of sodium per liter. Our water is very low in sodium, however water softeners that use sodium to remove hard-water minerals raise the sodium level. If you are cutting back on sodium, try attaching your water softener only to your hot-water line, or not attaching the kitchen faucet to the softener.

What is the arsenic level in my drinking water?

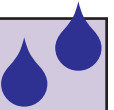
The arsenic level in Midland is one (1) part per billion.

The present maximum contaminant level for arsenic is 50 parts per billion. A new proposed standard may lower this level to 10 parts per billion.

Here are some helpful City of Midland telephone numbers:

Questions or concerns about water quality:	989-837-3515
Questions about your water bill:	989-837-3341
To report water main breaks or outside leaks:	989-631-0814
24-hour water emergency services:	989-837-3515

WHAT THE EPA SAYS ABOUT DRINKING WATER CONTAMINANTS



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

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. Environmental Protection Agency/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 (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 can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The Midland Water Treatment Plant is monitoring for additional contaminants under the EPA's Unregulated Contaminant Monitoring Regulation (UCMR). The information collected under the UCMR will help the EPA determine future drinking water regulations. The results of the monitoring are available upon request.

Note: We have also concluded voluntary testing for Halo Acetic Acids, a group of by-products of drinking water chlorination that will be regulated in the near future. Our monitoring results were well below the future maximum contaminant levels (MCLs) for these compounds.

Information on 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 contact their personal doctor. If you are concerned about elevated copper levels in your home's water, you may wish to have your home's water tested, and flush your tap for 30 seconds to two minutes before using the water. Contact the City's Water Treatment Plant at 837-3515 for further information on water testing.

Information on 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 others 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 home's water tested, and flush your water tap for 30 seconds to two minutes before using the water. Contact the City's Water Treatment Plant at 837-3515 for further information on water testing.



Tour Our Facility. The Midland Water Treatment Plant, located at 2607 Bay City Road, Midland, Michigan welcomes interested citizens and groups to tour its facilities. Free water plant tours are available on weekdays during regular business hours from 8:30 a.m. to 4:30 p.m. Tours are restricted as to age and number of participants. Reservations can be made by calling: (989) 837-3515.

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is produced by the City of Midland,
333 W. Ellsworth, Midland, MI 48640.
www.midland-mi.org

Midland City Council -- meetings held twice monthly on Monday evenings at 7 p.m. Check your City calendar for dates.

R. Drummond Black, Ward I / Mayor
John Coppage, Ward II
Hollis McKeag, Ward III
Mary Currie, Ward IV
Marty Wazbinski, Ward V/Mayor Pro Tem

This report was mailed to all residences and businesses in the City of Midland and to customers in communities that purchase their water from Midland. Extra copies of the report are available at the Water Plant or by calling 989-837-3515.

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