WATER QUALITY REPORT 2015
DEPARTMENT OF WATER WORKS MICHIGAN CITY, INDIANA
PWSID IN5246020

Message from the Superintendent

We're pleased to once again present to you this year's Annual Water Quality Report. This report is to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are pleased to report that our drinking water is safe and meets federal and state requirements.

If you have any questions about this report or concerning your water utility, you may contact the Main Office at (219) 874-3228, and speak to Randall E. Russell, Superintendent. We want our valued customers to be informed about their water utility. If you want to learn more you may attend the Water Board meetings. They are scheduled twice monthly on the 2nd and 4th Tuesdays at 7:00 p.m. in the Main Office, 532 Franklin Street.

Water Source and Treatment

The greater area of Michigan City receives its drinking water directly from Lake Michigan, a surface water source. It is treated through a conventional treatment process that includes Flocculation-Sedimentation (the mixing of Alum into the water to create "Floc" which allows large particulate matter to settle out of the water) and Filtration (to remove fine particulate matter and micro-organisms from the water). Chemical additions are also required which includes Chlorine (for bacteriological removal), Alum (to remove large particulate matter), Fluoride (to prevent dental decay), and Chloramines (the mixture of chlorine and ammonia which allows for longer disinfectant levels in the water distribution system and remove chlorine odor from the water).

Monitoring & Measuring Contaminants

The Department of Water Works of Michigan City, IN routinely monitors for contaminants in your drinking water according to Federal and State laws. The Table on the back shows the results of our monitoring for the period of January 1st to December 31st, 2015. 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

It is important to know that 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 particularly be at risk and 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 are also available from the Safe Drinking Water Hotline (800) 426-4791.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. The Department of Water Works 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 (800) 426-4791 or at http://www.epa.gov/safewater/lead.

OTHER RELATED DATA

The sources of drinking water (both tap 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 human activity. Contaminants that may be present in source water are:

1. ***Microbial Contaminants,*** such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural, livestock operations and wildlife.
2. ***Inorganic Chemical 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.
3. ***Pesticides and Herbicides,*** which may come from a variety of sources such as agriculture, stormwater runoff and residential uses.
4. ***Organic Chemical Contaminants,*** including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
5. ***Radioactive Contaminants***, which can be naturally occurring or be the result of oil and gas productions and mining activities.

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 (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Water Quality Analysis

The following chart lists the highest recorded level in Michigan City in 2015 and the highest allowed by the USEPA. Michigan City water has met all EPA requirements.

DATE	CONTAMINANT	MCL	MCLG	UNIT	RESULT	MIN	MAX	ABOVE AL #REPEATS	VIOLATES	LIKELY SOURCES
11/10/2015	Barium	2	2	mg/l	0.02	0.02	0.02		No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Valid until 12/31/2016	Lead (90th percentile)	15 (AL)	0	mg/l	0.012	ND	0.120		No	Corrosion of household plumbing systems. Erosion of natural deposits
Valid until 12/31/2016	Copper (90th percentile)	1.3 (AL)	0	mg/l	0.29	0.015	0.480		No	Erosion of natural deposits; Corrosion of household plumbing systems: Leaching from wood preservatives
2015	Fluoride	4	4	mg/l		0.85	1.10		No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharges from fertilizer and aluminum factories
11/10/2015	Nitrate-Nitrite (as N)	10	10	mg/l		0.31			No	Erosion of natural deposits, runoff from fertilizers, leaching from septic systems-sewers
2015	Total Trihalomethanes	80	0	ug/l	15.3	8.3	19.7		No	By-product of drinking water chlorination
2015	Total Haloacetic Acids	60	0	ug/l	4.2	ND	7.7		No	By-product of drinking water chlorination
2015	Total Organic Carbon	TT	TT	mg/l		ND	2.10		No	Naturally present in the Environment
11/10/2015	Sodium	N/A	N/A	mg/l	ND				No	Metals; Erosion of natural deposits
2015	Turbidity (lowest percentage)	TT **	TT**	%	100%	100%	100 %		No	Soil runoff
2015	Turbidity (Maximum level)	1	1	NTU	0.07	0.05	0.11		No	Soil runoff
2015	Chloramine residual	4 MRDL		mg/l	0.89	0.10	1.55		No	Water additive (disinfectant) used to control microbiological organisms
2015	Total Coliform 40/month	0	0	mg/l	0	0%	0%		No	Naturally present in environment

Definitions

MCL: Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water.
MCLG: Maximum Contaminant Level Goal, the level of a contaminant in drinking water below which there is no known or expected risk to health.
MRDL: Maximum Residual Disinfectant Level, the highest level of disinfectant allowed in drinking water.
MRDLG: Maximum Residual Disinfectant Level Goal, the level of drinking water disinfectant below which there is no known or expected risk to health.
AL: Action level, the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
TT: Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.
NTU: Nephelometric Turbidity Unit, is the measure of clarity of the water
mg/l: milligrams per liter, a measurement for concentration equivalent to ppm = one part per million
ug/l: micrograms per liter, measurement for concentration equivalent to ppb = one part per billion
pCi/l: picocuries per liter, a measurement of radiation
P*: Potential violation, one that is likely to occur in the near future, subject to other applicable requirements.
ND: Not detected, the result was not detected at or below the analytical method detection level.

Special Note on 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. Our system 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 http://www.epa.gov/safewater/lead.

Special Note on Turbidity: ** The turbidity treatment technique (TT) requires that at least 95% of the total combined effluent turbidity samples shall not exceed 0.3 NTU (1.0 NTU for slow sand and diatomaceous earth filtration systems). At least 95% is required to be in compliance. In addition, the maximum turbidity level cannot exceed 1.0 NTU at anytime.

We recently completed a round of UCMR monitoring as required by the USEPA. If you should have any questions regarding the UCMR monitoring, please contact our office at (219) 874-3228.