

Village of Holly
Consumers Confidence Report
Water Quality Report
2007

June, 2008

The Village of Holly water supply comes from four (4) wells located on the West side of town. Wells are approximately 210 feet deep and are embedded into sand stone (Marshall Formation). Water pumped from the wells flow through an aerator and into detention tank for oxidation of iron. After oxidation the water is pumped through six (6) filters for iron removal. After filtration, chlorine and fluoride are added and the water is then pumped to the distribution system.

Last Year, as in the past years your tap water met all E.P.A. and state drinking water standards, All routine bacteriological samples came back safe for the year 2007.

Source Water Assessment

the assessment of a "geologic" sensitivity analysis and an overall source water "susceptibility" determination. The geologic sensitivity is inherent to the aquifer from which the production wells obtain ground water. Susceptibility is determined in large part by the number and type of contamination source within the Wellhead Protection Area (WHPA) with additional consideration to aspects of well construction and the chemical monitoring history of individual production wells.

Our aquifer is termed a leaky confined aquifer. Leaky confined aquifers Posses a "Moderate" geologic sensitivity.

Information on Contaminant sources within the Wellhead Protection Area is available through the Holly Water Dept. phone (248) 634-2202 for further information.

The Village of Holly currently had a Wellhead Protection Program in place and it is also being updated as this report is being prepared. Potential sources of contamination including underground and storage tank sites, and groundwater discharge permits sites. Also abandoned wells provide a direct conduit for surface run-off and contaminants to easily reach the groundwater and may pose a potential problem. To ensure that these wells are not a potential problem they should be searched and properly plugged.

Water Quality Information

1) 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 E.P.A.'s tap drinking water hotline (1-800-426-4791).

2) Some people may be more vulnerable to contaminants in drinking water than the general public. Immune compromised persons such as persons with cancer and undergoing chemotherapy persons who have undergone organ transplant, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lesson the risk of infection by Cryptosporidium and other microbial contaminants are available from the safe drinking water hotline (1-800-426-4791).

3) The sources of drinking water (both tap and bottle water) include lakes, rivers, 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 animal or 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 wild life.

* **Inorganic contaminants**, such as salts and metals, which can be naturally/occurring or resulting from urban storm water runoff, industrial or domestic waste water discharge, oil and gas production, mining, or farming.

* **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

* **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

* **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

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. Food and drug administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

WATER QUALITY DATA

The table below lists all the drinking water contaminants that we detected during the 2007 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 the table is from testing done in January 1 to December 31, 2007. The state requires us to monitor for certain contaminants less then once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data though representative of the water quality, is more than one year old.

Terms and abbreviations used below:

* **Running Annual Average (RAA)** If compliance Monitoring for a substance is required quarterly, the running annual average would be the average of

the current quarter's monitoring results along with the results of the three previous quarters.

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

***Maximum contaminants Level (MCL):** the highest level of a contaminant that is allowed in drinking water. MLC are set as close to the MCLG as possible using the best available treatment technology.

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

*N/A: not applicable-

*N/D: not detectable at testing limit

*PPI: parts per billion or micrograms per liter

*PCI: picocuries per liter

*PPM: part per million or milligrams per liter

*N/R: not regulated

	MCL	MCLG	Holly Water	Sample Date	Typical Source of Contaminants
Inorganic contaminants					
Arsenic (ppb)	10	0	RAA= 8.75	3-2007 6-2007 8-2007 10-2007	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Fluoride (ppm)	AL=4	4	1.3	8-07	Erosion of natural deposits; Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories
Unregulated Contaminants					
Sodium (ppm)	N/R	N/A	60	2-07	

Contaminant in CCR units	Traditional MCL mgh	To convert for CCR multiply by	MCL CCR units	MCLG in CCR units	Holly Water	Sample date	Typical source of contaminant
Chlorine (ppm) free residual taken during bacteriological sampling	4	No conversion necessary	MRDL =4	MRDLG =4	Average high 0.76 average low 0.12	1-2007 9-2007	Water additives to control microbes
Non Volatile Organics							
Haloacetic Acids HAAs (ppb)	0.060	1000	60	N/A	0 ppb for HAASS	6-2007	By product of chlorination

The MCL for haloacetic acids is the sum of the concentrations of the individual halacetic acids

Non-Volatile Organics							
Total Trihalomethanes	.80	1000	80	N/A	39 ppb	6-2007	By product of chlorination

The MCL for total trihalomethanes is the sum of the concentrations of the individual trihalomethanes, Different MCL's for TTHMs apply to different types of systems

Chlorine residual is based on a Running Annual Average, calculated quarterly of Monthly averages for the last 12 months. Reported below is the highest RAA and the range of detections during the year covered in the report.

Chlorine	Jan	Feb	March	April	May	June	July	Aug.	Sept	Oct	Nov	Dec
Chlorine residual site #1				1.02	0.88	1.01	0.73	0.90	0.99	1.02	1.03	1.12
Chlorine residual site # 2	Not for RAA in year			0.67	0.43	0.44	0.34	0.56	0.56	0.61	0.74	0.83
Bacteria logical sample site's	Covered by the CCR			0.54	0.46	0.49	0.27	0.10	0.34	0.55	0.55	0.63
Average of all measurements taken in the month				0.74	0.59	0.65	0.45	0.52	0.63	0.73	0.77	0.86
Chlorine	Year Covered by CCR 2007											
Chlorine residual site #1	1.04	1.06	1.07	1.19	1.04	0.81	1.03	1.14	0.95	0.87	0.89	0.73
Chlorine residual site # 2	0.98	1.01	0.69	0.55	0.21	0.34	0.56	0.49	0.40	0.32	0.43	0.50
Bacteria logical sample site's	0.77	0.71	0.57	0.72	0.45	0.52	0.54	0.52	0.31	0.42	0.32	0.66
Average of all measurements taken in the month	0.93	0.93	0.78	0.82	0.57	0.56	0.71	0.72	0.67	0.54	0.55	0.63
RAA calculated quarterly from 12 month averages			0.72			0.71			0.75			0.70

LEAD /COPPER

Copper/Lead	MCLG	AL	90 th percentile	Number of Sites Above Action Level	
Copper (ppm)	1.3	1.3	0.24	1 9-05	Corrosion of household plumbing systems.
Lead (ppb)	15	0	10	2 9-05	Corrosion of household plumbing system.

Microbial Contaminants	M L C	M C L G	Number Detected	Violation Yes/No	Typical source of Contaminant
Total Coliform Bacteria	>1 positive monthly sample (>5% of monthly samples positive)	0	0	NO	Naturally present in the environment
Fecal Coliform and E coli	Routine and repeat sample total coliform positive, and one is fecal or E coli positive	0	0	No	Human and animal fecal waste

RAA Calculated running annual average

Volatile Organic Compound	MCL/AL	Reporting limit	Holly Water	Sample date	Typical source of contaminant
Chloroform Mg/L	0.080	0.0005	trace	7-9-07	Painting of clear wells
Ethylbenzene Mg/L	0.70	0.0005	0.0005	2-27-07	Painting of clear wells
M & P Xylene Mg/L	10	0.0005	0.0013	3-27-07	Painting of clear wells
Total Trihale Thaneg Mg/L	0.080		trace	7-09-07	Painting of clear wells
Total Xylenes Mg/L	10		0.001	7-09-07	Painting of clear wells

Health Effects Language

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.

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 Holly is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing. 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, testing methods, and steps you can take to minimize exposure are available from the Safe Drinking Water Hotline on at <http://www.epa.gov/safewater/lead>.

Chloroform

The common name for Trihalomethane, a trihalomethane containing only chlorine atoms. Typically, this is the Trihalomethane formed during chlorination. Some people who drink water containing Trihalomethane in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

TOTAL TRIHALOMETHANES

Some people who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

ETHYLBENZENE

Some people who drink water containing Ethylbenzene well in excess of the MCL over many years could experience problems with liver or kidneys.

M&P-XYLENES & TOTAL XYLENES

Some people who drink water containing Xylenes in excess of the MCL over many years could experience damage to their nervous system.

ARSENIC

“While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. EPA continues to reach the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

For more information please contact Mr. Mark Smith, Village of Holly, at (248) 634-2202, or the Michigan Department of Environmental Quality at (586) 753-3755.

This notice is being sent to you by the Village of Holly.

Public Meeting Information

Village Council meetings are on second and fourth Tuesday of each month.

Copies

The report will be mailed to customers. Copies are available for inspection during regular business hours at the Village of Holly, 202 S. Saginaw St., Holly, MI.

For Additional Information

For more information on the Consumer Confidence Report or water quality, please contact the Village of Holly:

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