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# City of West Chicago

# Water Quality Report 2013



Well 12 Well House



Well 3 Column Pipe

## INTRODUCTION

This Report summarizes the quality of water that was provided to you during the 2013 calendar year and provides details about the sources of your water, what it contains, and how it compares to standards set by Federal and State regulatory agencies. We believe that you will find this Report helpful in answering your questions regarding the quality and safety of your drinking water.

The City of West Chicago remains committed to maintaining and improving your water treatment and distribution systems. In demonstrating this commitment, we routinely test your tap water according to USEPA and IEPA health standards. In addition, our water treatment plant, which is now into its ninth year of operation, is allowing us to meet the drinking water quality standards set forth by the USEPA.

## DISTRIBUTION SYSTEM IMPROVEMENTS

In addition to supplying high quality drinking water, there are ongoing programs to rehabilitate wells and replace aging water mains, services, and appurtenances. Water leaks are identified and repaired as quickly as possible. A valve maintenance program

keeps interruptions of service to our customers at a minimum and our fire hydrant maintenance program assures that there is adequate fire protection at any time.

The City is completing construction on the Well Station on Hawthorne Lane (Well #12). Construction is expected to be complete in the summer of 2014 and the well should enter production shortly thereafter. Well #12 is a deep well tapping into the Ironton-Galesville aquifer and should provide similar production of approximately 1,000 gallons per minute as the City's other deep wells.

These projects demonstrate the City of West Chicago's continuing commitment to provide our community with present and future infrastructure improvements of the highest standards, combined with sound fis-

cal decision making. These efforts assure all of our valued customers of the City's commitment to providing a safe and reliable source of drinking water for years to come.

If you have any questions, please feel free to attend a regularly scheduled City Council Meeting. The Council meets on the first and third Monday of each month at 7:00 pm in the Council Chambers at City Hall, 475 Main Street, West Chicago.

## WEST CHICAGO'S SOURCE WATER

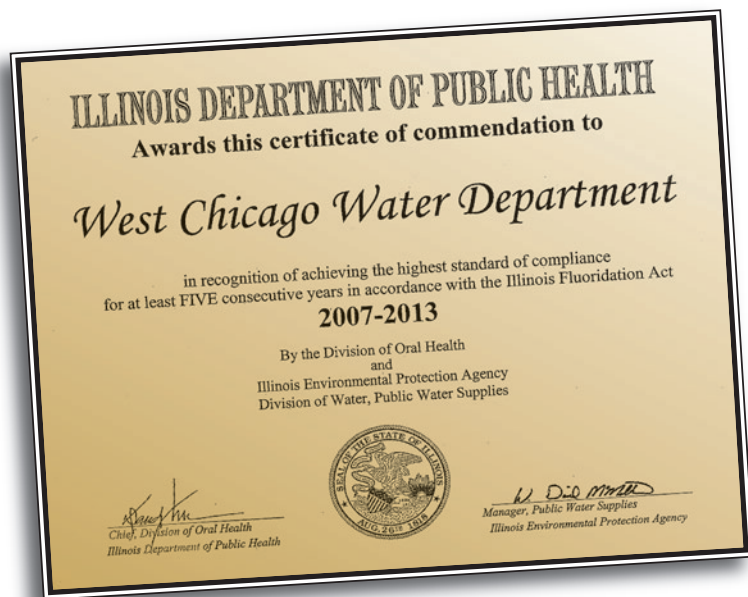
The City of West Chicago uses groundwater provided by eight wells drilled into two different geological formations. These formations consist of the Ironton-Galesville and Silurian-Devonian aquifers. An aquifer is a geological formation that contains water. The formations are comprised either of sand stone or dolomite.

The IEPA has performed an assessment of the City of West Chicago's source water. Based on information obtained in a Well Site Survey, published in March 1997 by the Illinois EPA, sixteen potential sources or

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*Este informe contiene informacion muy importante. Traduscalo o hable con alguien que lo entienda bien.*

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possible problem sites were identified within the survey area of West Chicago's wells. Furthermore, information provided by the Leaking Underground Storage Tank and Remedial Project Management sections of the IEPA indicated several additional sites with ongoing remediation which may be of concern. The IEPA has determined that the source water obtained from West Chicago's Wells #3, #5, #9, and #10 (deep wells) are not susceptible to contamination. However, the source water obtained from Wells #6, #7, #8 and #11 (shallow wells) are susceptible to possible contamination as are all shallow wells. These shallow wells typically utilize water supplied by a sand and gravel aquifer, which by nature are unconfined and in close proximity to potential sources of contamination. The City of West Chicago's source water is monitored and no contamination has been found.

Further information on our community

nants 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 persons and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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

water supply's source water assessment is available at the Water Treatment Plant, 1400 Hawthorne Lane, West Chicago, IL 60185 between the hours of 8:00 AM and 4:30 PM.

### THE EPA WANTS YOU TO KNOW

Some people may be more vulnerable to contami-

by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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 can pick up substances resulting from the presence of animals or from human activity. Possible contaminants consist of:

- » **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 waste water discharges, 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems; and
- » **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the USEPA prescribes regulations that 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 following are some definitions and scientific terms that may be helpful in understanding the information contained in the tables listing the Regulated and Unregulated Contaminants Detected Section

AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Avg	Regulatory compliance with some MCLs is based on running annual average of monthly samples.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal 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. MCLGs allow for a margin of safety.
MRDL	Maximum Residual Disinfectant Level: The highest level of disinfectant allowed in drinking water.
MRDLG	Maximum Residual Disinfectant Level Goal: The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLGs allow for a margin of safety.
N/A	Not Applicable
NTU	Nephelometric Turbidity Units (a measure of water clarity)
pCi/L	picocuries per liter (a measure of radioactivity)
ppb	parts per billion or micrograms per liter (ug/L) - or one ounce in 7,350,000 gallons of water.
ppm	parts per million or milligrams per liter (mg/L) - or one ounce in 7,350 gallons of water.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

# City of West Chicago - 2013 Regulated and Unregulated Contaminants Detected

Lead and Copper								
	Date Sampled	MCLG	Action Level (AL)	90 Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2012	1.3	1.3	0	0	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	2012	0	15	5.56	0	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits.

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 City of West Chicago 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>.

Disinfectants & Disinfection Byproducts	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2013	.8	0.7 - 1.0	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes
Haloacetic Acids (HAA5)*	2013	5	2.77 - 7.27	No goal for the total	60	ppb	N	By-product of drinking water chlorination
Total Trihalomethanes (TTHm)*	2013	24	14.72 - 28.42	No goal for the total	80	ppb	N	By-product of drinking water chlorination
<b>Inorganic Contaminants</b>								
Fluoride	10/10/2012	.869	0.869 - 0.869	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Barium	10/10/2012	0.0116	0.0116 - 0.0116	2	2	ppm	N	Erosion from naturally occurring deposits. Discharge from metal refineries. Discharge of drilling wastes.
Nitrate (measured as Nitrogen)	2013	0.1	0.1 - 0.1	10	10	ppm	N	Runoff from fertilizer use; leaching septic tanks, and sewage; Erosion
Sodium	04/04/12	38.3	38.3 - 38.3	N/A	N/A	ppm	N	Erosion from naturally occurring deposits. Used in water softener regeneration.
<b>Radiological Contaminants</b>								
Combined Radium 226/228	08/21/2012	1.04 ± 0.48	1.04 - 1.02	0	5	pCi/L	N	Erosion of natural deposits
Gross alpha excluding radon and uranium	08/21/2012	3.92 ± 1.77	3.92 - 3.92	0	15	pCi/L	N	Erosion of natural deposits
Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.								

Unregulated Contaminants Detected	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Vanadium	11/13/13	0.4	0.4 - 0.4	N/A	NA	ppb	N	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst.
Vanadium(*)	11/13/13	0.3	0.3 - 0.3	N/A	N/A	ppb	N	Above
Chromium	11/13/13	3.4	3.4 - 3.4	N/A	N/A	ppb	N	Naturally occurring element; used in making steel and other alloys; used for chrome plating, dyes, and pigments, leather tanning, and wood preservation
Chromium (*)	11/13/13	3.5	3.5 - 3.5	N/A	N/A	ppb	N	Above
Strontium	11/13/13	95.2	95.2 - 95.2	N/A	N/A	ppb	N	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
Strontium	11/13/13	99.6	99.6 - 99.6	N/A	N/A	ppb	N	Above
Molybdenum	11/13/13	5.0	5.0 - 5.0	N/A	N/A	ppb	N	Naturally-occurring element found in ores and present in plants, animals, and bacteria; commonly used form molybdenum trioxide used as a chemical reagent.
Molybdenum (*)	11/13/13	3.1	3.1 - 3.1	N/A	N/A	ppb	N	Above
Chromium (VI)	11/13/13	2.67	2.67 - 2.67	N/A	N/A	ppb	N	Naturally occurring element; used in making steel and other alloys; used for chrome plating, dyes, and pigments, leather tanning, and wood preservation.
Chromium(VI)(*)	11/13/13	2.71	2.71 - 2.71	N/A	N/A	ppb	N	Above
Chlorate	11/13/13	210	210 - 210	N/A	N/A	ppb	N	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide.
Chlorate (*)	11/13/13	310	310 - 310	N/A	N/A	ppb	N	Above

Please note that the data annotated with an asterisk (\*) were collected from the Distribution System. All other data in this table reflect results from samples collected at the Water Treatment Plant

Note: The City of West Chicago is required to monitor for unregulated contaminants under the Unregulated Contaminant monitoring rule. The results of the monitoring are available by calling the Water Treatment Plant at 630-293-2255 or visiting the Plant, 1400 Hawthorne Lane, West Chicago, IL 60185

## Violation Summary Table

No monitoring, reporting, treatment technique, maximum residual disinfectant level, or maximum contaminant level violations were recorded during 2013.



## Data Table Footnotes

**A**ll the data contained in the 2013 Regulated Contaminants Detected table and the 2013 Unregulated Contaminants Detected table represents the most recent monitoring period for each individual test.

### ALPHA EMITTERS

Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years have an increased risk of getting cancer.

### COMBINED RADIUM

Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

### LEAD

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that levels in your home may be higher than at other homes 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 water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

### IRON

This contaminant is not currently regulated by the USEPA. However, the State has set an MCL for this contaminant for supplies serving a population of 1000 or more. The water treatment plant was designed to remove iron as well as hardness from the drinking water.

### SODIUM

There is not a State or Federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If the level is greater than 20 mg/l, and you are on a sodium-restricted diet, you should consult a physician.



# City of West Chicago Water Quality Report 2013

This report was prepared by:

**The City of West Chicago  
Department of Public Works**

Contact: Joe Munder,  
Utility Superintendent • 630-293-2255  
8:00 am to 4:30 pm • Monday through Friday

