



Annual Drinking Water Quality Report

CASEYVILLE WATER DEPARTMENT: IL1630250

Annual Water Quality Report for the period of:
January 1 to December 31, 2009

This report is intended to provide important information about your drinking water and the efforts made by the CASEYVILLE water system to provide safe drinking water. This year, as in years past, your tap water met all USEPA and state drinking water health standards. Our system vigilantly safeguards its water supply, and we are able to report that the department had no violation of a contaminant level or of any other water quality standard in the previous year. This report summarizes the quality of water that we provided last year (2009), including details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

The source of drinking water used by CASEYVILLE is: Water purchased from Illinois-American Water Company.

For more information regarding this report contact:

Name G.W. Scott, Village Water Superintendent

Phone (618) 344-1234

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Need Copies?

This 2009 Water Quality Report is mailed to all customers who receive a water bill from the Caseyville Water Department. If you receive a water bill for other users (such as tenants or employees), please share this report with them. If you need more copies, feel free to contact the water department at 618-344-1234. Copies of this report are also available at our website: <http://www.caseyville.org>

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled Village Board meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by Village Hall or call our water operator at 618-344-1234. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>. A Source Water Assessment summary is included below for your convenience.

Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems, hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Within the Illinois portion of the Mississippi River Watershed, many commodities, including manufactured goods, petrochemicals, and pesticides are transported along the river system. The production, storage, and transportation of these commodities are a major concern, especially when occurring near surface water intakes. In addition, agricultural runoff within the Illinois portion of the Mississippi River Basin contributes to the susceptibility of the IAWC-East St. Louis intakes. With high flow rates and long distances of travel on the Mississippi River, critical areas can be extensive. The critical area for the IAWC-East St. Louis intake was determined using data from a joint U. S. Environmental Protection Agency/U. S. Geological Survey project. This project used a computer modeling program (SPARROW) to determine travel times on major rivers in the United States. Accidental spills of hazardous materials into navigable waterways are a major concern because of their frequency in the U.S. in recent years. Illinois has access to 1,116 miles of inland waterway that can handle commercial barge traffic. These include the Upper Mississippi River, Illinois River Waterway, and the Ohio River. Along these waterways are numerous facilities that load and unload hazardous materials. Analysis of reported spills indicate that between 1974 and 1989, 794 accidental spills of hazardous materials occurred along Illinois waterways. Approximately 92% of these spills occurred along the Mississippi and/or the Illinois River. Spills occurring in the critical area of concern for the IAWC-East St. Louis surface water intake will travel to the intake in five hours or less, making contingency planning and spill reporting a major concern in this watershed. Information concerning spill response planning on the Mississippi River may be found at the U. S. EPA website www.epa.gov/region5/oil, and additional data can also be downloaded at the U. S. Geological Survey's FTP site ftp://ftp.umesc.er.usgs.gov/pub/gis_data/oil_spill.

Source of Drinking Water

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 dissolve naturally-occurring minerals and, in some cases, radioactive materials, and can pick up substances resulting from the presence of animals or from 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 wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water 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 storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-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.

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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

In order to ensure that tap water is safe to drink, USEPA 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.

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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

2009 Regulated Contaminants Detected (Caseyville Water System)

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

Lead and Copper

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

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

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 Caseyville 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>.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation?	Likely Source of Contamination
Copper	8/14/2008	1.3	1.3	0.2388	0	ppm	NO	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Water Quality Test Results

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

1. **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.
2. **Maximum Contaminant Level Goal (MCLG):** 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.
3. **Maximum Residual Disinfectant Level (MRDL):** 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.
4. **Maximum Residual Disinfectant Level Goal (MRDLG):** 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.
5. **ug/l:** micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
6. **ppb:** parts per billion or micrograms per liter - or one ounce in 7,350,000 gallons of water.
7. **N/A:** not applicable.
8. **Avg:** Regulatory compliance with some MCLs are based on running annual average of monthly samples.

9. **mg/l:** milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
10. **pp :** parts per million or milligrams per liter - or one ounce in 7,350 gallons of water.
11. **NTU:** Nephelometric Turbidity Units
12. **pCi/L:** Pico curies per liter (a measure of radioactivity)
13. **ND:** Not detectable at testing limits
14. **Amount Detected:** Unless otherwise noted in the footnotes, an average of all sample results for the year, or results from a single sample if only one was collected. If multiple entry points exist, the data from the entry point with the highest value is reported.
15. **Compliance Achieved:** Indicates that the levels found were all within the allowable levels as determined by the EPA.
16. **Range of Detections:** The range of individual sample results, from the lowest to highest, that were collected during the sample period.
17. **Removal Factor:** Actual percent of TOC removal divided by required percent TOC removal.
18. **S:** Single Sample
19. **TT(Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.
20. **≥:** Greater than or equal to
21. **%<0.3 NTU:** Percent of all samples less than 0.3 NTU

Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Chlorine		3.6	0.8 - 3.6	MRDLG=4	MRDL=4	ppm	NO	Water additive used to control microbes
Haloacetic Acids (HAA5)		17.0	2.8 - 24.8	No goal for the total	60	ppb	NO	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes]		19.0	11.3 - 17.3	No goal for the total	80	ppb	NO	By-product of drinking water chlorination

Notes:

- Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future
- 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.

2009 Regulated Contaminants Detected (Illinois-American Water System)

Regulated Substances (Measured in the water leaving the treatment facility)

Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range of Detections	Compliance Achieved	Typical Source
Arsenic (ppb)	2009	0	10	2	S	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Atrazine (ppb)	2009	3	3	0.3	ND-1.2	Yes	Runoff from herbicide used on row crops
Barium (ppm)	2009	2	2	0.070	S	Yes	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm) ¹	2009	4	4	1.1	0.9-1.2	Yes	Water additive that promotes strong teeth
Nitrate (ppm) ²	2009	10	10	5.1	1.5-5.1	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2009	50	50	3	S	Yes	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Combined Radium 226/228 (pCi/L)	2008	0	5	0.35	S	Yes	Erosion of natural deposits
Gross alpha emitters (pCi/L)	2008	0	15	0.58	S	Yes	Erosion of natural deposits

Other Compounds (Measured in the distribution system or in the water leaving the treatment facility)

Substance (units)	Year Sampled	MCLG/ MRDLG	MCL/ MRDL	Amount Detected	Range of Detections	Compliance Achieved	Typical Source
TOC [Total organic carbon] (removal factor) ³	2009	N/A	TT Removal ≥ 1.0	1.1	0.9-2.3	Yes	Naturally present in the environment

Turbidity⁴ – (Measured in water leaving the treatment facility)

Substance (Units)	Year Sampled	MCLG	MCL	Amount Detected	Range of Detections	Compliance Achieved	Typical Source
Turbidity (NTU) (%<0.3 NTU)	2009	N/A	TT	100%	100%-100%	Yes	Soil runoff
Turbidity (NTU)	2009	N/A	TT=1 NTU max	0.13	N/A	Yes	Soil runoff

State Regulated Substances

Substance (Units)	Year Sampled	MCLG	MCL	Amount Detected	Range of Detections	Compliance Achieved	Typical Source
Sodium (ppm) ⁵	2009	N/A	N/A	22	S	Yes	Erosion of naturally occurring deposits; Byproduct of home water softening.
Zinc (ppb) ⁶	2009	N/A	5000	262	S	Yes	Naturally occurring; water treatment additive

Unregulated Substances⁷

Substance (units)	Year Sampled	Amount Detected	Range of Detections	Typical Source
N-nitroso-dimethylamine (NDMA) (ppb)	2009	0.023	0.010-0.036	Nitrosamines can form as intermediates and byproducts in chemical synthesis and manufacture of rubber, leather, and plastics; can form spontaneously by action of precursor amines with nitro sating agents (nitrate and related compounds), or by action of nitrate-reducing bacteria. Foods such as bacon and malt beverages can contain nitrosamines; there is also evidence that they form in the upper GI tract.
Sulfate (ppm)	2009	41.6	S	Erosion of naturally occurring deposits

Footnotes:

¹Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride level of 0.9 mg/L to 1.2 mg/L.

²The value in the "amount detected" column is the maximum detected for the year. Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

³Total organic carbon (TOC) has no health effects. However, TOC provides a means for the formation of disinfection by-products. One way to minimize disinfection by-product formation is to remove a specific percentage of the TOC present in the source water. The numbers in the Amount Detected and Range columns are the TOC removal factors, where the removal factor is defined as the actual percent TOC removal divided by the required percent removal. A value of 1.0 or greater in the Amount Detected column indicates that compliance with the removal requirement was achieved.

⁴Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The treatment technique requires that at least 95% of routine samples are less than or equal to 0.3 NTU, and no sample exceeds 1 NTU. We are reporting the percentage of all readings meeting the standard of 0.3 NTU, plus the single highest reading for the year.

⁵There is no 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 you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

⁶Zinc is not currently regulated by USEPA. However, the state has set an MCL for zinc and therefore monitoring is required.

⁷A maximum contaminant level (MCL) for this substance has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this substance is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted. For the N-nitroso-dimethylamine (NDMA) and N-nitroso-pyrrolidine (NPYR), in the "Amount Detected" column, we are reporting the lowest and highest individual readings.