Annual Drinking Water Quality Report

SILVIS	Source of Drinking Water	Drinking water, including bottled water, may reasonably be expected to contain at least small			
IL1610700	The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water	amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about			
Annual Water Quality Report for the period of January 1 to December 31, 2021	travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can	contaminants and potential health effects can be obtained by calling the EPAs Safe Drinking Water Hotline at (800) 426-4791.			
This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.	pick up substances resulting from the presence of animals or from human activity.	In order to ensure that tap water is safe to			
The source of drinking water used by	Contaminants that may be present in source water include: - Microbial contaminants, such as viruses and	drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish			
SILVIS is Ground Water	bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.	limits for contaminants in bottled water which must provide the same protection for public health.			
For more information regarding this report contact:	 Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or 	Some people may be more vulnerable to contaminants in drinking water than the general population.			
NameJoseph Rockwell	domestic wastewater discharges, oil and gas production, mining, or farming.	Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have			
Phone309-429-0078 Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.	 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. 	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. EPA/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 (800-426-4791).			
	- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.	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. We 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.			

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 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 City Hall or call our water operator at <u>309-429-0078</u>. 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.

Source of Water: SILVISTo determine Silvis's susceptibility to groundwater contamination, information obtained during a Well Site Survey performed by the Illinois Rural Water Association on May 20, 1999, was reviewed. Based on this information, 24 potential sites of concern were identified within proximity of this water supply's wells. The Illinois EPA does not consider the city's source water susceptible to contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data on the wells. In anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that the water supply is not vulnerable to viral contamination. This determination is based upon the completed evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper site conditions; a hydrogeologic barrier exists that should prevent pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and a sanitary survey of the water supply did not indicate a viral contamination threat. Because the community's wells are constructed in a confined aquifer, which should minimize the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in the vulnerability determination. Hence, well hydraulics were not evaluated for this groundwater supply.

2021 Regulated Contaminants Detected

Lead and Copper

Definitions:

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

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ACLION Level.	The concentration of	a contaminant whi	ICH, IL	exceeded,	Lriggers	treatment o	r other	requirements	whitch a	water	system must	LOTIOW.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/30/2020	1.3	1.3	0.79	0	mqq		Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	09/30/2020	0	15	5.5	0	dđđ		Corrosion of household plumbing systems; Erosion of natural deposits.

Water Quality Test Results

Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
Level 1 Assessment:	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment:	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Maximum Contaminant Level or MCL:	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Contaminant Level Goal or MCLG	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.
Maximum residual disinfectant level or 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.
Maximum residual disinfectant level goal or MRDLG:	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
na:	not applicable.
mrem:	millirems per year (a measure of radiation absorbed by the body)
ppp:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water.

Regulated Contaminants

Disinfectants and Disinfection By- Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2021	0.2	0 - 0.4	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Total Trihalomethanes (TTHM)	2021	7	7.17 - 7.17	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	07/20/2020	1	0 - 1	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	07/20/2020	0.099	0.023 - 0.099	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2021	0.574	0.574 - 0.574	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	07/20/2020	0.3	0.088 - 0.3		1.0	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Manganese	07/20/2020	3.6	2.1 - 3.6	150	150	dqq	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate [measured as Nitrogen]	08/18/2020	0.62	0.16 - 0.62	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	07/20/2020	7.1	2.8 - 7.1	50	50	dqq	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sodium	07/20/2020	450	190 - 450			ppm	N	Erosion from naturally occuring deposits. Used in water softener regeneration.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2021	4	3.8 - 3.8	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2021	5	5.2 - 5.2	0	15	pCi/L	N	Erosion of natural deposits.

Violations Table

Combined Radium 226/228 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. Violation Type Violation Begin Violation End Violation Explanation The laboratory failed to submit the results to the IEPA on time. We are back in compliance MONITORING, ROUTINE MAJOR 01/01/2021 12/31/2021 We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Gross alpha including radon and uranium

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 may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation			
			The laboratory failed to submit the results to the IEPA on time. We are back in compliance			
MONITORING, ROUTINE MAJOR	01/01/2021		We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.			

Lead and Copper Rule

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

Violation Type	Violation Begin	Violation End	Violation Explanation
LEAD CONSUMER NOTICE (LCR)	12/30/2020		We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.

We failed to send notice to the EPA that we notified residents of sample results, that has been rectified and we are back in compliance

East Moline Water Quality Report (Source for Silvis Upper Zone June 17, 2021 - Current) Table 1: Substances Regulated by the USEPA

	Unit the			MCLG	Amount			
Substance we	substance is	Year we		or	we	Range		
test for	measured in	sampled	MCL or MRDL	MRDLG	detected	detected	Violation	Likely Source of contamination
Combined								
Radium								
226/228	pCi/L	2015	5	0	1.52	1.52-1.52	No	Erosion of naturally occurring deposits
Gross Alpha								
excluding								
Radon &						0.552-		
Uranium	pCi/L	2015	15	0	0.552	0.552	No	Erosion of naturally occurring deposits
								Discharge of drilling wastes
								Discharge from metal refineries
Barium	ppm	2021	2	2	0.04	0.04-0.04	No	Erosion of naturally occurring deposits
								Discharge from fertilizer and aluminum factories
						0.673-		Erosion of naturally occurring deposits
Fluoride	ppm	2021	4	4	0.673	0.673	No	Water additive that promotes strong teeth
								Erosion of naturally occurring deposits
								Leaching from septic tanks and sewage
Nitrate	ppm	2021	10	10	1.2	1.2-1.2	No	Runoff from fertilizer use
								Discharge from petroleum and metal refineries
								Erosion of naturally occurring deposits
Selenium	ppb	2021	50	50	2.5	2.5-2.5	No	Discharge from mines
Turbidity ¹	NTU	2021	1	NA	0.27	0.10-0.27	No	Soil runoff
	Lowest							
	monthly % of							
	samples							
Turbidity	meeting limit	2021	0.3 NTU	NA	100%	100%	No	Soil runoff

¹Turbidity is a measure of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of the filtration system and disinfectants.

Table 1 continued: Substances Regulated by the IEPA

Substance we tested for		Violation	Likely source of contamination
	The percentage of Total Organic Carbon (TOC) removal was measured each		
Total Organic	month and the system met all TOC removal requirements set, unless a TOC		
Carbon	violation is noted in the violation section.	No	Naturally present in the environment

Table 2: Substances Regulated by the IEPA

	Unit the			MCLG	Amount			
Substance we	substance is	Year we		or	we	Range		
test for	measured in	sampled	MCL or MRDL	MRDLG	detected	detected	Violation	Likely Source of contamination
						<0.010-		
Iron ²	ppm	2021	1.0	NA	<0.010	<0.010	No	Erosion of naturally occurring deposits
Manganese ²	ppb	2021	150	150	<1.0	<1.0-<1.0	No	Erosion of naturally occurring deposits
Sodium ²	ppm	2021	NA	NA	35	35-35	No	Erosion of naturally occurring deposits Used in water softener regeneration
								Discharge from petroleum and metal refineries
								Erosion of natural deposits
Selenium	ppb	2021	50	50	2.5	2.5-2.5	No	Discharge from mines

²Iron, manganese and sodium are not currently regulated by the USEPA. However, the state has set an MCL for these contaminants for supplies serving a population of 1,000 or more.

Table 3: Unregulated Contaminants

	Unit the			Amount			In 2021, our public water supply was sampled as part of
Substance we	substance is	Year we		we	Range		the State of Illinois PFAS Statewide Investigation. Results
test for	measured in	sampled	Advisory Level	detected	detected	Violation	from this sampling indicated that PFAS were detected in
							our drinking water above the advisory level. Follow up
							monitoring is being conducted. For mor information about
							PFAS health advisories please visit
							https://www2.illinois.gov/epa/topics/water-
PFOA	ppt	2021	2.0	2.4	2.4-2.4	No	quality/pfas/Pages/pfas-healthadvisory.aspx.

