

2019 Consumer Confidence Report Data CALEDONIA WATER UTILITY - VILLAGE OF, PWS ID: 25201847

Water System Information

If you would like to know more about the information contained in this report, please contact Robert J Lui at (262) 681-3900.

Opportunity for input on decisions affecting your water quality

Utility Commission meetings are held at 6:00 PM on the first Wednesday of the month at the Utility District Office, 333 4 1/2 Mile Road, Racine, WI, 53402.

Health Information

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 Environmental Protection Agency's safe drinking water hotline (800-426-4791).

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 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 Environmental Protection Agency's safe drinking water hotline (800-426-4791).

Source(s) of Water

Source ID	Source	Depth (in feet)	Status
1	Purchased Surface Water		Active
2	Purchased Surface Water		Active
3	Purchased Surface Water		Inactive as of 06/29/15
4	Purchased Surface Water		Inactive as of 06/29/15

Source ID	Source	Depth (in feet)	Status
5	Purchased Surface Water		Inactive as of 06/29/15

Purchased Water

PWS ID	PWS Name
24101726	OAK CREEK WATERWORKS
25200626	RACINE WATERWORKS

To obtain a summary of the source water assessment please contact, Robert J Lui at (262) 681-3900.

Educational Information

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 dissolves naturally occurring minerals and, in some cases, radioactive material, 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 stormwater 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 stormwater 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 stormwater 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 that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

Definitions

Term	Definition
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
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 or why total coliform bacteria have been found in our water system, or both, on multiple occasions.
MCL	Maximum Contaminant Level: 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.
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.
MFL	million fibers per liter
MRDL	Maximum residual disinfectant level: 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.
MRDLG	Maximum residual disinfectant level goal: 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.
mrem/year	millirems per year (a measure of radiation absorbed by the body)
NTU	Nephelometric Turbidity Units
pCi/l	picocuries per liter (a measure of radioactivity)
ppm	parts per million, or milligrams per liter (mg/l)
ppb	parts per billion, or micrograms per liter (ug/l)
ppt	parts per trillion, or nanograms per liter
ppq	parts per quadrillion, or picograms per liter
TCR	Total Coliform Rule
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Detected Contaminants

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants which were detected in your water. If a contaminant was detected last year, it will appear in the following tables without a sample date. If the contaminant was not monitored last year, but was detected within the last 5 years, it will appear in the tables below along with the sample date.

Disinfection Byproducts

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
HAA5 (ppb)	60	60	18.3	13.5-20		No	By-product of drinking water chlorination
TTHM (ppb)	80	0	42	30.5-44.7		No	By-product of drinking water chlorination

Inorganic Contaminants

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	# of Results	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
COPPER (ppm)	AL=1.3	1.3	0.42	0 of 30 results were above the action level.	8/29/2017	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD (ppb)	AL=15	0	3	1 of 30 results were above the action level.	8/29/2017	No	Corrosion of household plumbing systems; Erosion of natural deposits

Health effects for any contaminants with MCL violations/Action Level Exceedances

Contaminant Health Effects

LEAD Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Additional Health Information

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. Caledonia Water Utility - Village Of 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 www.epa.gov/safewater/lead.

Purchased Water

Our water system purchases water from OAK CREEK WATERWORKS. In addition to the detected contaminants listed above, these are the results from OAK CREEK WATERWORKS.

Source(s) of Water

Source ID	Source	Depth (in feet)	Waterbody Name	Status
2	Surface Water	45	Lake Michigan	Active

To obtain a summary of the source water assessment please contact, Mike Robe at (414) 764-1867.

Detected Contaminants

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants which were detected in your water. If a contaminant was detected last year, it will appear in the following tables without a sample date. If the contaminant was not monitored last year, but was detected within the last 5 years, it will appear in the tables below along with the sample date.

Microbiological Contaminants

Contaminant	MCL	MCLG	Count of Positives	Violation	Typical Source of Contaminant
Coliform (TCR)	Presence of coliform bacteria in $\geq 5\%$ of monthly samples.	0	0	No	Naturally present in the environment.

Disinfection Byproducts

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
HAA5 (ppb)	D15	60	60	11	8 - 14		No	By-product of drinking water chlorination
TTHM (ppb)	D15	80	0	23.1	16.8 - 34.3		Yes, Ended 4/9/2019	By-product of drinking water chlorination
HAA5 (ppb)	D45	60	60	19	10 - 19		No	By-product of drinking water chlorination
TTHM (ppb)	D45	80	0	155.6	23.9 - 49.2		Yes, Ended 4/9/2019	By-product of drinking water chlorination
HAA5 (ppb)	D55	60	60	18	16		No	By-product of drinking water chlorination
TTHM (ppb)	D55	80	0	43.7	29.4		Yes, Ended 4/9/2019	By-product of drinking water chlorination

Inorganic Contaminants

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
ANTIMONY TOTAL (ppb)		6	6	0.2	0.2		No	Discharge from petroleum refineries; fire retardants;

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
								ceramics; electronics; solder
ARSENIC (ppb)		10	n/a	1	1		No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
BARIUM (ppm)		2	2	0.020	0.020		No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE (ppm)		4	4	0.8	0.8		No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NICKEL (ppb)		100		1.5000	1.5000		No	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products.
NITRATE (N03-N) (ppm)		10	10	0.63	0.63		No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SODIUM (ppm)		n/a	n/a	15.00	15.00		No	n/a

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	# of Results	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
COPPER (ppm)	AL=1.3	1.3	0.21	0 of 30 results were above the action level.	8/10/2017	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD (ppb)	AL=15	0	2.60	0 of 30 results were above the action level.	8/9/2017	No	Corrosion of household plumbing systems; Erosion of natural deposits

Radioactive Contaminants

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
Radium, (combined) (pCi/l)	5	0	0.7	0.7	4/8/2014	No	Erosion of natural deposits

Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring.

Contaminant (units)	Level Found	Range	Sample Date (if prior to 2019)
SULFATE (ppm)	24.00	24.00	
1,4-DIOXANE(p-DIOXANE) (ug/L)	0.074		
CHLORATE (ug/L)	114.3	53.9-226	

Contaminant (units)	Level Found	Range	Sample Date (if prior to 2019)
CHROMIUM (ug/L)	0.353	0.30-0.46	
CHROMIUM, HEXAVALENT (ug/L)	0.174	0.09-0.23	
MOLYBDENUM (ug/L)	1.1		
STRONTIUM (ug/L)	136.9	128-149	
VANADIUM (ug/L)	0.23	0.22-0.24	

Our water system purchases water from RACINE WATERWORKS. In addition to the detected contaminants listed above, these are the results from RACINE WATERWORKS.

Source(s) of Water

Source ID	Source	Depth (in feet)	Waterbody Name	Status
2	Surface Water		Lake Michigan	Active

To obtain a summary of the source water assessment please contact, Mike Kosterman at (262) 636-9534.

Detected Contaminants

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants which were detected in your water. If a contaminant was detected last year, it will appear in the following tables without a sample date. If the contaminant was not monitored last year, but was detected within the last 5 years, it will appear in the tables below along with the sample date.

Microbiological Contaminants

Contaminant (units)	MCL	MCLG	Count of Positives	Violation	Typical Source of Contaminant
COLIFORM (TCR)	presence of coliform bacteria in $\geq 5\%$ of monthly samples	0	0	No	Naturally present in the environment
CRYPTOSPORIDIUM		0	0 cysts/l		Found naturally in water
GIARDIA		0	0 cysts/l		Found naturally in water
LEGIONELLA		0	0 cysts/l		Found Naturally in water

Disinfection Byproducts

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
HAA5 (ppb)		60	60	18.9	12 - 26		No	By-product of drinking water chlorination
TTHM (ppb)		80	0	29.9	17 - 49		No	By-product of drinking water chlorination

Inorganic Contaminants

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
ANTIMONY TOTAL (ppb)		6	6	0.18			No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
ARSENIC (ppb)		10	10	0.69			No	Erosion of natural deposits; Runoff from orchards; Runoff from glass

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
								and electronics production wastes
BARIUM (ppm)		2000	2000	20			No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
BERYLLIUM (ppb)		4		<0.13			No	By-product of industrial processes.
CADMIUM (ppb)		5		<0.10			No	By-product of industrial processes; erosion of natural deposits
CHLORINE RESIDUAL (ppm)		4	4	1.25	0.95-1.47		No	Water additive for disinfection
CHROMIUM (ppb)		100		<0.58			No	Erosion of natural deposits
CYANIDE (ppb)		200		<0.005			No	By-product of industrial, mining, and metal finishing processes
FLOURIDE (ppm)		4		0.71	0.63-0.93		No	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
MERCURY (ppb)		2		<0.025			No	Erosion of natural deposits
NICKEL (ppb)		100		0.74			No	Occurs naturally in soils, ground water and surface waters and is often used in electroplating,

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
								stainless steel and alloy products
NITRATE (ppm)		10	10	0.33			No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
NITRITE (ppm)		1	1	<0.036			No	Runoff from fertilizer use; Leaching from septic tanks, sewage
pH			6.5-8.5	7.82	7.40-8.07		No	Erosion of natural deposits
SELENIUM (ppb)		50		<2.0			No	Erosion of natural deposits
THALLIUM (ppb)		2		<0.10			No	Erosion of natural deposits

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	# of Results	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
COPPER (ppm)	AL=1.3	1.3	0.27	0 of 50 results were above the action level.		No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD (ppb)	AL=15	0	7.30	3 of 50 results were above the action level.		No	Corrosion of household plumbing systems; Erosion of natural deposits

Organic Contaminants (sampled in 2017)

Contaminant (units)	Results	Violation	Typical Source of Contaminant
VOLATILE ORGANIC COMPOUNDS (ppb)	37 compounds were tested with no detection of any of these chemicals	No	By-product of industrial processes; petroleum production; gas stations; urban storm runoff; residential uses
SYNTHETIC ORGANIC COMPOUNDS (ppb)	41 other compounds were tested with no detection of any of these chemicals.	No	By-product of industrial processes; petroleum production; gas stations; urban storm runoff; residential uses

Synthetic Organic Contaminants including Pesticides and Herbicides

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
ATRAZINE (ppb)		3	3	0.0	0.027-0.034	5/10/2017	No	Runoff from herbicide used on row crops

Particulate Results

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
TURBIDITY (NTU)		TT Never >1, 95% of the time <0.3	NA		0.051-0.19		No	Soil runoff; suspended matter in source water

Radioactive Contaminants

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
BETA/PHOTO EMITTERS (pCi/l)		50	0	1.52	1.52	2014	No	Decay of natural and manmade deposits
ALPHA EMITTERS (pCi/l)		15	0	0.441	0.441	2014	No	Erosion of natural deposits
COMBINED RADIUM (pCi/l)		5	0	0.492	0.492	2014	No	Erosion of natural deposits

Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring.

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
ALKALINITY (ppm)		NA	NA	110	104-125		No	Erosion of natural deposits

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2019)	Violation	Typical Source of Contaminant
SODIUM (ppm)		NA	NA	2.1	2.1		No	Erosion of natural deposits
SILICA/SILICATE (ppm)		NA	NA	2.7	2.7		No	
ORTHO-PHOSPHATE (ppm)		NA	NA	0.75	0.55-0.90		No	Erosion of natural deposits, addition of chemical in water treatment
TOTAL ORGANIC CARBON (ppm)		NA	NA	1.94	1.8-2.3		No	Decay of natural and manmade deposits
CALCIUM (ppm)		NA	NA	35	34-36		No	Erosion of natural deposits
HARDNESS (ppm)		NA	NA	139	130-140		No	Erosion of natural deposits
CHLORIDE (ppm)		250	NA	16	14-17		No	Erosion of natural deposits
MANGANESE (ppm)		0.05	NA	0.002	0.002-0.009		No	Erosion of natural deposits, addition of chemical in water treatment
IRON (ppm)		NA	0.30	0.012	0.005-0.03		No	Erosion of natural deposits
ALUMINUM (ppm)		NA	0.05-0.20	0.011	0.007-0.016		No	Erosion of natural deposits, addition of chemical in water treatment
SULFATE (ppm)		NA	250	20	18-21		No	Erosion of natural deposits
CONDUCTIVITY (umhos)		NA	NA	305	294-311		No	Erosion of natural deposits

Other Compliance

Monitoring and Reporting Violations

The Oak Creek Water works was cited with a noncompliance notice from the Wisconsin DNR in October of 2018 for a reporting error related to disinfection byproducts MCL. The Oak Creek Waterworks issued a public notification in November 2018 and the waterworks achieved compliance in April 2019.

Violation of the Terms of a Variance, Exemption, or Administrative or Judicial Order

NONE

Noncompliance with Recordkeeping and Compliance Data

NONE