

LA'IE WATER COMPANY 2019 WATER QUALITY REPORT

Contaminant (Units)	Sample Date	Samples		MCLG	MCL	Your Water	Range		Violation	Typical Sources
		#	#>AL				Low	High		
Copper (ppm)	9/19/18	20	0	1.3	AL=1.3	0.084*	No sample exceeds AL		None	Corrosion of household plumbing systems
Chromium (ppb)	9/24/14	1	NA	100	100	2.2	2.2		None	Erosion of natural mineral deposits
Nitrate (ppm)	5/3/19	2	NA		10	0.3	0.3	0.3	None	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<u>Unregulated item</u>										
Sodium (ppm)	9/24/14	2	NA		NA	29	27	29	None	Naturally occurring

ABBREVIATIONS USED IN THE TABLE

MCLG: Maximum Contaminant Level Goal.

MCL: Maximum Contaminant Level.

AL: Action Level (90% of samples must be below this level).

ppm: parts per million, or milligrams per liter (mg/l)

ppb: parts per billion, or micrograms per liter (µg/l)

NA: Not Applicable

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.

* Required testing every three years, 90th percentile value is reported

Water Source Information

La'ie's drinking water is drawn from five wells, over 200 to 300 feet below the surface, that tap the deep basalt drinking water aquifer described above. Possible contamination sources of concern in this area include untreated wastewater from cesspools, and agricultural activities such as pesticides and other chemicals. The underground basalt and the cap rock between the aquifer and the surface, however, filter out most contaminants; but very small contaminants over many years can be measured, as is shown in the above table of data. Our water, as it is pumped out of the ground, does not need treatment, but we do add a small amount of chlorine disinfection to prevent bacterial growth in pipelines and tanks, as do most water utilities in the country. A Source Water Assessment Report has been completed and is available at the Hawaii Reserves Offices in the Laie Shopping Center.

Explanation of the Results

All water contains some contaminants, many are naturally occurring in the environment and some are man made. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. The table above shows that out of over a hundred contaminants tested for each year, only three were detected in the water you drink. Of the three regulated contaminants that were detected in our water, Copper was detected at 6.5%, Chromium at 2.2% and Nitrate at 3% of the Federal Safe Drinking Water Maximum Contaminant Level (MCL). The EPA allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or our system is not considered vulnerable. Our water continues to be among the best water on Oahu and in the Nation to drink with very few contaminants at very low levels.

LA'IE WATER COMPANY, INC.



2019 Water Quality Report



**For Information or Comments about La'ie Drinking Water,
Please Contact:**

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Is My Drinking Water Safe? Yes!

La'ie Water Company (LWC) is proud to report that your tap water continues to meet all U.S. Environmental Protection Agency (EPA) and State of Hawai'i Department of Health (DOH) safe drinking water health standards and complies with all State and Federal safe drinking water regulations.

General Report Information

In September 1998 the EPA, as part of the Safe Drinking Water Act, put in effect new regulations requiring all water systems to prepare an annual water quality report. This report reflects the results from the hundreds of water quality tests that LWC and the DOH conducted last (and every) year. Some of the tests were performed every week and others were done on a multi-year schedule, depending on the type of test required.

To ensure that tap water remains safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water, provided by public systems. U.S. Food and Drug Administration regulations also establish limits for contaminants in bottled water. These limits are expressed as follows:

- **Maximum Contaminant Level (MCL).** The highest level of a contaminate that is allowed in drinking water as set by EPA. Because the concentration of the contaminants in question are so small, the concentrations are expressed in parts per million (ppm) or parts per billion (ppb).
- **Maximum Contaminant Level Goal (MCLG).** This is the level of a contaminant in drinking water below which there is no expected or known risk to health. MCLGs allow for a margin of safety.

- **Action Level (AL).** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements a water system must follow.
- **Unregulated Contaminates.** The EPA monitors various unregulated contaminants in order to gather information to determine if future regulations are needed.

Where Does My Water Come From?

Sources of tap and bottled drinking water normally include rivers, lakes, streams, ponds, reservoirs, springs and wells. In La'ie, wells draw water from rock formations called basalt aquifers that form naturally hundreds of feet below the ground. Our water cycle starts as rain falling in the Ko'olau Mountains from Punalu'u to La'ie. Most of this water quickly runs off to the ocean, but over geologic time, some naturally filters through the porous volcanic rock, or basalt that makes up most of this island, and seeps into a large underground formation — the basalt aquifer. This deep aquifer is protected by a “cap-rock” that prevents most surface water contaminants and seawater from mixing with the deeper basalt aquifer water and also ensures that our source of potable water is as clean as possible. As surface water flows over the land or under the ground, it dissolves naturally occurring minerals, in some cases even radioactive material, and can also pick up substances resulting from the presence of animals or human activity.

Contaminant Sources

All drinking water, including bottled water, may reasonably be expected to contain at least minute amounts of some contaminants. The minute presence of such contaminants, however, does not necessarily indicate that the water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline, 1-800-426-4791. Possible contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, wastewater 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 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which occur naturally or might be the result of oil and gas production, and mining activities.
- Lead contaminants. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Laie Water Company 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 by a private laboratory that has been certified by the State Department of Health. 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>.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are also available from the Safe Water Drinking Hotline, 1-800-426-4791.