



**WHAT YOU NEED TO KNOW ABOUT THE WATER YOU ARE  
DRINKING, SWIMMING AND BATHING IN...**

# Company Profile



- Central Ontario Analytical Laboratory Inc. (C.O.A.L.) opened in September 1996 as a privately owned laboratory, in 2012, C.O.A.L. became incorporated, and now services most of North-Central Ontario, some Northern, Eastern, and Western areas of the Province.
- C.O.A.L. is licensed by the Ministry of Environment (M.O.E.) and accredited by the Standards Council of Canada (S.C.C.). This enables C.O.A.L. to perform bacterial, nutrient, and Microcystin analysis on regulated and unregulated water such as private households, lakes, rivers, and streams. Besides Bacterial and Microcystin, C.O.A.L. also analyzes for Lead, Nitrate, Nitrite, and many more parameters.

# Pond Scum: A Hidden Danger



- Blue-green algae are primitive microscopic plants that form in shallow, warm, slow moving or still water.
- They can also be present below the surface in deeper cooler water such as in the bays of lakes or swimming hot spots.
- Many forms of blue-green algae are relatively harmless; however some forms can produce toxins, which are harmful to both humans and animals. One of the most common toxins is Microcystins.
- Referred to as blue-green algae, or red tide, Microcystins can range in colour from olive green to red.

# Pond Scum: A Hidden Danger



- Dense blooms may make the water look like bluish-green pea soup.
- Fresh blooms often smell like newly mown grass, while older blooms smell like rotting garbage.
- Due to the toxic effect of some blue-green algae, occasionally some drinking water and recreational water may become unfit for use.

# Side Effects and Symptoms



- Symptoms range from itchy, irritated eyes and skin to sore throat, fever, dizziness, and vomiting
- Symptoms can last up to several days
- Extended exposure to contaminated water could lead to liver or nervous system damage or even in death in animals, and possibly humans.

# Dealing with Microcystin



- Currently, there is no treatment or procedure to remove Microcystins from water, except time. Blooms in an affected area will be safe again anywhere from a couple of days to a couple of weeks.
- Do not cook, wash dishes, wade, swim, or bathe with blue-green algae in elevated levels. Boiling water or U.V. treatment will not remove toxins from water, however chlorine has been known to reduce the toxin level as blooms are destroyed a little by chlorine.
- If you are uncertain about the quality of the water, do not use it, keep your pet away from the water source and have it analyzed.

# Recreational Swimming Samples



- You must be just as conscientious of swimming in water as you are of drinking it.
- Analysis should be performed on a regular basis.
- Samples should be collected from different depths and in areas where swimming occurs— shallow areas, as well as deeper waters.
- In deeper water, samples should be collected by putting your arm elbow deep in the water, with the bottle opening facing upward.

# Recreational Swimming Samples



- Reportable limit for recreational samples is a count of 100 *E.coli*. Anything over this count deems the area unsafe for swimming.
- Public beaches are required to post signs to advise water is unsafe for swimming when bacterial levels reach a count of 100 or greater, or if toxic level of Microcystins are present
- Swimmer's itch is a typical symptom of swimming in water that is warm, shallow and near the shore and more prone to higher *E. Coli* counts. Towel off roughly after being in shallow water, this prevents the rash and itch from Swimmer's itch.