Environmental Analytical Laboratories

Effective December 1, 2023

Residential Service List

Packages for Home and Cottage Owners, Acreages and Farms

Well Water Potability

To ensure drinking water taken from well water (groundwater) sources is safe for human consumption, the water should be tested for potability on a regular basis. SRC's Well Water Potability Package includes tests for ***Total coliform bacteria, E. Coli and Nitrates***. The presence of coliform bacteria indicates the water is not safe for human consumption. The *Canadian Guidelines for Drinking Water Quality* specify a maximum acceptable concentration of 45 mg/L for nitrates in drinking water.

Routine testing and maintenance of your well will help identify and prevent problems, enabling you to ensure the safety of your drinking water on an ongoing basis.

ANALYSIS
WELL WATER POTABILITY PACKAGE • Includes Total Coliform, E.Coli, Nitrates
REPEAT TEST AFTER POSITIVE RESULT • Includes Total Coliform, E.Coli

Water Quality Assessment for Treatment Needs

Well water contains naturally occurring minerals, such as calcium, magnesium, sodium, potassium, chloride, sulfate, iron and manganese. Although these minerals are not hazardous to human health, they can affect water quality when present in high concentrations, resulting in hard water scaling, odour, colour and taste. Testing for these components will help determine the right treatment solution.

ANALYSIS
WATER QUALITY PACKAGE, BASIC • Includes Calcium, Magnesium, Sodium, Potassium, Chloride, Sulfate, pH, Specific conductivity, Nitrate, Alkalinity, Bicarbonate, Carbonate, Total Hardness, Iron, Manganese, Hydroxide, Sum of Ions
WATER QUALITY PACKAGE, EXTENSIVE • Includes Calcium, Magnesium, Sodium, Potassium, Chloride, Sulfate, pH, Specific conductivity, Nitrate, Alkalinity, Bicarbonate, Carbonate, Hydroxide, Sum of ions, Total Hardness, Full ICP-MS metal scan (includes iron, manganese, lead in drinking water, heavy metals and other trace elements), Total Dissolved Solids, Fluoride, Silicon, Total Organic Carbon, Free Carbon Dioxide

Additional Water Testing for Treatment Needs

Tannins may enter the water supply through the process of vegetable matter degradation. This will cause the water to be amber in colour.

ANALYSIS
TANNIN/LIGNIN
TOTAL ORGANIC CARBON

The primary reasons for reducing organic carbon in drinking water are not related to the toxicity of the organic carbon compounds, but to reduce the formation of trihalomethanes (THMs) following chlorination and to avoid the objectionable colour that arises when humic and fulvic acids are present at high levels.

Lead and Other Contaminants in Water

Leaching from plumbing (e.g., pipes, solder, brass fittings and lead service lines) can lead to elevated lead and copper concentrations in drinking water. Arsenic and uranium may be present in elevated levels from naturally occurring sources, such as erosion and weathering of rocks and soils. The *Canadian Guidelines for Drinking Water Quality* specify maximum acceptable concentrations for lead (0.010 mg/L), arsenic (0.010 mg/L) and uranium (0.020 mg/L).

ANALYSIS
LEAD IN DRINKING WATER
CONTAMINANTS PACKAGE • Full trace metal scan plus lead in drinking water

Irrigation and Greenhouse Applications

Two major factors to consider when determining if water is suitable for irrigation or greenhouse use are salinity and the Sodium Adsorption Ratio (SAR). A plant's salt sensitivity is a function of many conditions, including salt type, soil conditions, water quality and climate. High SAR levels (meaning excess sodium relative to calcium and magnesium) can negatively impact soil structure by dispersing clay aggregates, which reduces soil permeability and aeration.

ANALYSIS
GREENHOUSE PACKAGE • Includes Calcium, Magnesium, Sodium, Potassium, Chloride, Sulfate, pH, Specific conductivity, SAR, Total dissolved solids, Nitrate, Alkalinity, Bicarbonate, Carbonate, Total Hardness, Hydroxide, Sum of Ions, Boron, Copper, Phosphorus, Zinc, Iron, Manganese

Surface Water Quality for Livestock

Sulfate
Sulfate in livestock water should not exceed 1,000 mg/L. Higher concentrations of sulfate can be tolerated, but loss in production should be anticipated. High levels of sulfate can cause diarrhea in young animals.

Salinity (Total Dissolved Solids)
The concentration of total dissolved solids (TDS) in water used for livestock should not exceed 3,000 mg/L. Water with higher TDS concentrations can be used, but the type of livestock and their age must be considered.

ANALYSIS
LIVESTOCK PACKAGE, BASIC • Includes Sulfate/Salinity • Suitable for assessing common concerns in water used for livestock
LIVESTOCK PACKAGE I • Includes Calcium, Magnesium, Sodium, Potassium, Chloride, Sulfate, Sum of ions, pH, Specific conductivity, Nitrate, Alkalinity, Bicarbonate, Carbonate, Hydroxide, Total Hardness, Total Dissolved Solids, Fluoride • Suitable for assessing overall quality in water used for livestock
LIVESTOCK PACKAGE II • Includes ICP-MS Metal Scan, Mercury • Suitable for identifying potential contaminants in water for livestock
LIVESTOCK PACKAGE III • Includes Phenoxy Herbicides and Pesticides I • Suitable for identifying contamination of pesticides and herbicides in water used for livestock

Spray Water Suitability

Some surface and well water may not be suitable to mix fungicides, herbicides and pesticides for use in sprayers. Unsuitable water can decrease the effectiveness of the chemical and cause plugging problems during application.

ANALYSIS
SPRAY WATER SUITABILITY PACKAGE • Includes Calcium, Magnesium, Sodium, Potassium, Sum of Cations, pH, Specific conductivity, Alkalinity, Bicarbonate, Carbonate, Hydroxide, Total Hardness, Total Dissolved Solids, Iron

QUESTIONS?

For questions about our laboratory testing procedures, pricing and sampling methods, please contact us.

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