

FREDsense water quality test kit finds infection in wastewater to guide communities in fighting disease

Field test kit used in Israel shows lab-quality results for worldwide application

ALBERTA, CANADA, December 16, 2022 /EINPresswire.com/ -- FREDsense announced this week that it is showing positive results from a pilot in Israel involving its patented FRED-Extract

System. Taking a giant leap forward in community monitoring for infectious diseases in [wastewater](#) and in the field of wastewater epidemiology, an in-field pilot shows lab-comparable water quality test results at 20 percent of the regular costs and in half the wait time. This pilot was a collaboration among FREDsense, Kando Environmental Services, Ben Gurion University in Israel, and [Elemental Exceleator](#).



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*David Lloyd, founder
FREDsense*

The three-phase pilot was born after Elemental Exceleator, a nonprofit climate tech investor with a portfolio of more than 150 startups, awarded FREDsense an 'Ohana Award prize for this project. The 'Ohana Award celebrates collaboration and synergy, providing up to \$100,000 for projects that outline how multiple companies in Elemental's portfolio partner across geography and product to implement new strategic, transformative, and collaborative projects with impact.

Since many infectious diseases can be found in fecal matter (including COVID-19), wastewater samples – such as sewage – are the medium of choice for governments, universities, corporations, and others to assess the health of a population. FREDsense provided its FRED-Extract system for analysis as well as training and troubleshooting support for the testing performed in Israel.

Kando Environmental Services provided access to samples for SARS-CoV-2 analysis and performed Phase III testing in the field, demonstrating close results in a short time. Elemental

Excelerator provided support, funding, and set the stage for the relationship between Kando and FREDsense.

"Water quality is so important to our lives and the pandemic illustrated how wastewater can be vital to keeping people safe in changing circumstances. Elemental's 'Ohana Award shows how working together allows us to use water quality to inform public health outcomes in real-time with results that support communities and decision makers," said David Lloyd, co-founder and chief executive officer of FREDsense.

The resulting FRED-Extract system can rapidly extract purified genetic material from wastewater samples, enabling the on-site analysis of COVID-19 at less than \$100 USD per sample, versus the cost of using a traditional lab, which is significantly higher per sample.

"At Elemental, we are committed to our mission to redesign the systems at the root of climate change," Elemental Senior Director of Innovation Kim Baker said. "We were elated to collaborate and invest in this project that brought together FREDsense and Kando, empowering them to move forward on testing a solution that is more cost effective and can be deployed quickly in communities to bring critical knowledge to global health."

Many traditional, current wastewater testing practices are obsolete, and the wider adaptation of FREDsense dispenses with the old methods relying on off-site analytical labs with highly trained personnel. While accurate, the old methods are slow and expensive. This results in a reluctance to test frequently, and the subsequent lack of data means that key data could be missed.

About FREDsense Technologies Corp.

FREDsense is a world leader in portable and rapid water instrumentation systems for the water industry. FREDsense analyzes water chemistry in real-time using next generation biological sensor technology. With modular and customizable sensor solutions and results which are comparable to traditional analytical labs, FREDsense is moving analytical lab analysis into the field, saving time and money. This empowers water utilities, environmental consulting firms, and heavy industry to optimize their water sources in ways never before possible. Learn more about how to bring lab analysis for arsenic and other contaminants to the field at FREDsense biosensors.

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