



Ontario, Canada



6 Months



15 samples/week



3 sampling areas



4 pathogen targets



## **Greater Toronto Airport Authority (GTAA) Wastewater Surveillance**

Kraken Sense was one of three biotech companies selected by **The National Research Council of Canada Industrial Research Assistance Program (NRC-IRAP)** and the **GTAA** to test the wastewater at Toronto Pearson Airport for **three SARS-CoV-2 variants and for Monkeypox**. Fifteen samples were autonomously taken and tested per week between October 2022 to March 2023 via the KRAKEN™. Biosurveillance occurred at three separate sites of the airport: Terminal 1, Terminal 2, and the Tritator. During the 6-month program, the team noticed a need to pivot to another target pathogen based on sequencing data. Kraken Sense was able to **develop a new sensor** and implement the change **within 6 weeks.** 

The KRAKEN™ device employed **automated real-time PCR technology** to monitor liquid-based samples for bacteria and viruses, enabling early detection and continuous monitoring of pathogen surges. This innovative approach allowed for non-intrusive testing that did not disrupt passenger traffic, contributing to public health efforts and ensuring airport safety.



### **Rapid Results**

Obtained results faster than any other method without the need of human interference



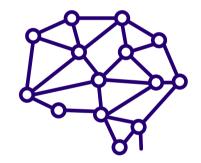
#### **Real-Time Alerts**

Received alerts remotely via an IoTenabled mobile app



#### **Improved Workflow**

Replaced timeconsuming individual testing with batch testing of wastewater



# Networked Sampling Sites

Monitored several sampling sites in a single dashboard



#### **Informed Decisions**

Leveraged quantitative data to inform decisions and put mitigants in place when needed

[KRAKEN<sup>TM</sup>'s] ability to provide **rapid**, **on-site**, **automated pathogen testing** has been invaluable to provide us with an **early warning** to allow us to put mitigants in place for the protection of our passengers and our employees. Its ability to be **rapidly deployed**, its **user-friendliness** has allowed our employees to be able to use this equipment quite easily.

We are very grateful to Kraken Sense for their ability to work with us, to **customize the system** to meet the needs of Toronto Pearson [Airport]; and I highly recommend Kraken Sense to any organization out there that is looking to have **on-site pathogen testing** available.

Dwayne Macintosh
Director of Safety, Security, & Health
Greater Toronto Airport Authority













Our real-time monitoring technology offers autonomous pathogen detection to help you get the results you need, immediately.

