

## **EXECUTIVE SUMMARY**

Enclosed is a water licence amendment for the Hamlet of Coral Harbour, Nunavut. The Hamlet is seeking a ten-year amendment of its current licence which would be valid through 2024. The projected population for the Hamlet of Coral Harbour in the year 2024 is 1097 persons.

Currently, the Hamlet of Coral Harbour operates a truck-fill station which has been in service for more than 25 years. Almost all of the internal systems and equipment housed within the existing buildings are in need of replacement. Presently, the existing buildings do not provide sufficient space to house a water treatment process which meets the current drinking water quality guidelines.

The new truck fill station will replace the existing station and has been designed with a single truck loading arm with a truck fill (loading) rate of 1,000L/min. A disinfection method using chlorine disinfection, including contact time (CT) has been evaluated using the CT concept. A chlorine contact reactor, in the form of a pipe, with a volume of 12,000 litres is proposed. Filtration, in the form of cartridge filters is proposed. The sequence of filters should incorporate 20 micron, followed by 5 micron, followed by 1 micron cartridges. The treated water will meet the requirements of the guidelines for Canadian drinking water quality.

As a component of this licence, the Hamlet of Coral Harbour seeks to build the new water truck-fill station to meet the 20-year requirements of the Hamlet.