



Gilford Island, BC April 15, 2007

BI Pure Water (Canada) Inc. has completed the supply and commissioning of a water treatment plant to provide safe drinking water for the Kwicksutaineuk Ah-Kwa-Mish First Nation. The plant is located in Northern BC at Health Bay, Gilford Island.

The poor quality drinking water made national news last year. Funding was approved by INAC for a new water treatment plant that would treat the difficult combination of excessive hardness, total dissolved solids, Iron/Manganese and microbiological contaminants in the water. These problems necessitate four different water treatment solutions to be implemented.

The design concept is unique in that the mobile building contains three separate reverse osmosis units that will supply more than enough water for the community. The plant will be operated by Epcor Inc. for two years as a "Test Bed Evaluation". As well as supplying potable water, the objective includes obtaining operating data from the three different membrane treatment systems to determine effectiveness and operating costs of each RO unit. Kerr Wood Leidal Associates are the Consulting Engineers for the project.



Figure 1 – The water treatment plant was skidded to its location above the community

Because of the scarcity of nearby ground water, three wells are required to supply the amount of water needed for the community. This ground water shortage is typical of many islands along the BC coast.

The 12 foot by 40 foot water treatment plant building was built on a durable skid base so it could be transported to Gilford Island and then skidded over rough ground.



Figure 2: The BI Pure Water Reverse Osmosis Water Treatment Plant under study

Due to the remote location, sophisticated SCADA equipment is installed to monitor the plant's operations from the Vancouver area. The building, controls, SCADA, three pilot plants and accessories are worth more than \$800,000. The plant was delivered in February of this year.

Delivery of the plant was complex because of the lack of the right docking facilities at the small community. After being assembled and started-up at the BI Pure Water facility in Surrey, the plant was trucked to Campbell River, where it was loaded onto a landing craft. The landing craft traveled to Gilford Island and waited until high tide so it could land on the beach near a road. The plant was then pulled off the barge and to its final location by two tractors.

If the community has a population growth in the future, the water treatment plant is designed to be expanded. The plans are to replace the three pilot RO units with a single commercial RO system flowing 15 USGPM of product water

BI Pure Water specializes in analyzing water treatment needs and prescribing the most cost-effective solution. We pilot, design, manufacture, install, start-up and commission package water treatment plants. BI Pure Water focuses on small and medium-sized water treatment plants to meet the needs of Federal, Provincial and Municipal Governments, Industrial Process, Private Water Systems, Resorts and First Nations.

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