



Maintaining Accurate Water Levels for Residential Reservoirs in Vancouver, Canada

Overview

Metro Vancouver is the largest utility company in British Columbia, Canada. Their company consists of 21 municipalities and offers drinking water, wastewater treatment, and solid waste management as their main utility services to over 2.5 million people in the province.

What did they need?

For this division of Metro Vancouver, they required a solution that could measure the water levels of two elevated reservoirs, the Jericho and Clayton. It is especially important to know the water levels during times of high demand for water usage, which is early in the morning and days that are very hot or cold. Each tank holds over 2.5 million gallons

of water and is refilled overnight to ensure there is enough water supply for each resident. Knowing the levels at all times of the day provides activity information to Metro Vancouver, and how much the reservoirs need to be refilled each evening. Having accurate level measurements will also ensure that the tanks are not being overfilled.

Finding the right level measurement solution

At the Clayton and Jericho Reservoirs, they required a level measurement solution that could accurately measure level from on top of the tank. It was also important that the solution was capable of being monitored at a location away from the tanks, which are in an elevated position. With this in mind, Metro Vancouver reached out to Pulsar Measurement as they have been a long-time customer and standardized on Pulsar Measurement solutions many years ago. After verifying the needs of Metro Vancouver, Pulsar Measurement and local representatives Delpro Automation Inc. decided that the right solutions would be the dB6 Ultrasonic Level Transducers paired with the Ultra 5 controller.



Metro Vancouver standardizing Pulsar Measurement products should be a clear indicator to utilities across North America that we can handle any challenge.

Why the dB6 transducer & Ultra 5 controller?

Pulsar Measurement has a range of dB transducers, and the one that was most favorable for this application was the dB6 transducer. All dB transducers are non-contacting and produce extremely high acoustic power to give accurate and repeatable results in a wide variety of applications, including tank level. The dB6 has a measurement range of 300 mm to 6 m (11.8 in to 19.7 ft) and an effective beam angle of 3-degrees thanks to our DATEM signal processing. This is ideal for the application as the transducer needs to be able to measure from the top of a 2.5 million gallon tank for accurate water level measurement.

The Ultra 5 controller was the ideal controller for the dB6 in this level application. The unit comes pre-programmed with tank shape conversions for a wide range of tank shapes, one of which is rectangular like the reservoir applications making it quick, simple, and easy to set up. It also has five control relays to ensure proper configuration for accurate level measurement. With its 6-digit display, the Ultra 5 allows for localized monitoring of level, meaning that staff at Metro Vancouver no longer need to climb to the top of the tanks to get an indication of levels.



Success with an ultrasonic level measurement solution

Pulsar Measurement proved that non-contacting, accurate level measurement can be accomplished with the dB6 transducer and Ultra 5 controller. The solution exceeded and continues to exceed the expectations of Metro Vancouver. Shaun Minton, Sales Manager for the Americas said, "The fact that Metro Vancouver, the largest utility in the province, has standardized on Pulsar Measurement solutions is a huge feather in our cap. It should be a clear indicator to water/wastewater utilities across North America that we can handle any challenge, large or small."

Pulsar Measurement prides itself on our long-standing relationships with our customers. Our product portfolio offers a wide range of ultrasonic level and flow meters, and can provide solutions for a variety of applications.

More Information

dB Transducers: <https://pulsarmeasurement.com/db-transducer>

Ultra 5 Controller: <https://pulsarmeasurement.com/ultra-5>

Metro Vancouver: <http://www.metrovancouver.org>

Delpro Automation Inc.: <https://www.delpro.net>



INFO@PULSARMEASUREMENT.COM

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*Copyright © 2020 Pulsar Measurement
Registered Address: 1 Chamberlain Square CS, Birmingham B3 3AX
Registered No.: 3345604 England & Wales*

United States
+1 888-473-9546

Asia
+60 102 591 332

Canada
+1 855-300-9151

Oceania
+61 428 692 274

United Kingdom
+44 (0) 1684 891371

pulsarmeasurement.com