

Capstone Turbine Corporation reaches yet another milestone at a remote Oil & Gas site in Northern Canada.



By Dan Boonstra, Freelance Writer
October 2010

A pair of Capstone C30 MicroTurbines has reached an impressive 75,000+ hours of operation in a rather harsh Canadian environment. The two systems commissioned in 1999, at a remote gas gathering battery near Buick Creek, British Columbia, have operated as the prime power supply in this somewhat remote location.

What makes this achievement even more remarkable is the systems operating conditions.

The units had operated on 2.5 – 3% (25,000 – 30,000 ppm) sour gas for the first 7 years of operation. The end user has since started chemically sweetening the sour gas on site and has reduced the concentration to approx 100 ppm, which is essentially considered sweet gas in the industry. Keep in mind that this is raw gas from the earth and has not been conditioned to pipeline specifications, which is what is provided to the average homeowner.

Other than the fuel source, the ambient environmental conditions of the area can be extreme. Temperatures in the area can range from a balmy 34° Celsius to a blistering –54° Celsius. The systems operate for a good five months of the year at temperatures well below –5° C and can see temperature swings of 10 - 20° Celsius in any given day.

A calculated risk by the end user and the local service provider paid off in proving the robustness and longevity of the technology when they decided not to replace the turbine assemblies at the recommended 40,000-hour service interval. Although still operational the MicroTurbines engine and generator assembly were just recently exchanged for new as part of the end users preventative maintenance program.