The Gold Standard

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Yukon Gold Rush, Detroit Diesel 2-Cycle Series 71 engine

In 1896, miners discovered gold in the Klondike region of the Yukon Territory. Once the news spread, an estimated 100,000 prospectors flocked to the remote area, creating The Yukon Gold Rush. Hopeful miners searched for “placer gold,” which is eroded from its original rock and transported a distance away from where it formed. Some miners struck it rich in the Yukon, but the vast majority wasn’t so lucky.

The Yukon Gold Rush lasted three years, ending when gold was discovered in Nome, Alaska. But placer mining in the Yukon continued as gold mining methods became more efficient. Heavy-duty hydraulic machinery replaced metal pans and ramshackle wooden sluices. Powerful water cannons called hydraulic monitors were used to separate the precious material from the deposit. The new equipment helped small gold mine operations like the Yukon Placer Mining Company dig deeper, away from placer deposits, to find the main source.

In the 1950s, the Yukon Placer Mining Company used a hydraulic monitor powered by a Detroit Diesel 2-Cycle Series 71 engine. Nearby on Big Gold Creek, three Series 71 engines powered the generator on the gold dredge. When the operation ended forty years later, the hydraulic monitor's engine was still in good shape. Over its lifetime, the six-cylinder engine was reconditioned with a factory short block, but the ancillaries were all original. Jim Lynch, Yukon Placer Mining Company pump operator, says, "The only problem I ever had with the unit was the monitor nozzle was so powerful it would swing around and take off the exhaust stack."

Even after retirement, the legend of the Series 71 lives on. Today, the Yukon Placer Mining Company's hydraulic monitor unit and engine are on display at the Klondike Gold Dredge Museum in Skagway, Alaska. And several Series 71-powered machines from the Yukon Placer Mining Company are still in use under different owners – the K-1 Mining Company.

Tough work goes with the territory

Like other successful gold mining operations in the Yukon Territory, K-1 Mining Company knows how to work in harsh conditions. Winter temperatures can drop to 60 degrees below zero Fahrenheit, while summer temperatures can reach the high 80s. During mining season, the days are long. "The engines will both run up to 12 hours, day in and day out, to support both development work and production at our mine," says Mike McDougall, K-1 Mining Company president. "They are steadfastly reliable and easy for our staff to use, which is important due to our remote location. I can't think of one instance when we have had a shutdown. The engines have kept operating at our mine long after they would have been expected to be replaced."

Coupled to water pumps that push up to 3,000 gallons of water per minute, K-1 Mining Company's four-

and six-cylinder Series 71 engines have been in use for more than 25 years. K1's four-cylinder unit currently has more than 20,000 hours since any significant maintenance work was done to it. Being an early high block, it has been producing power since the early 1950s. The six-cylinder engine is a newer (1980s) model. Both machines start, idle and run like new and are competitive with modern engines that run water pumps at 1800 RPM.

A golden opportunity

K-1 Mining prolongs the life of its engines with routine maintenance, backed by expert support from MTU distributor Cullen Diesel Power. "The Detroit Diesel 2-Cycle design is very reliable and rarely needs any maintenance other than regular oil and filter changes," says McDougall. "When parts are required, they are readily and economically available and the modular design of the engines reduces the inventory we need to keep on hand."

McDougall finds the ease of maintenance and repair to be a real plus in such a remote site. "Pretty much all maintenance work can be accomplished on site by our own staff. The only downside to our relationship with Cullen is that we often have to re-introduce ourselves to them since our parts purchases are so few and far between."

While the Yukon Gold Rush lasted three scant years, the area is still rich in gold. K-1 Mining and other small placer gold mines operating in the region have a combined annual production of approximately 100,000 ounces. The Yukon's total gold production from 1885 to date is about 12.5 million ounces, a value of roughly US $15 billion at today's prices. In the event of another gold rush, K-1 Mining will be ready. And so will its Detroit Diesel 2-Cycle-powered equipment.

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