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NEWS NUGGETS

Compiled by Shane Lasley

KINROSS GOLD CORP.

Kinross Gold's Fort Knox Mine north of Fairbanks poured roughly 1,000 ounces of gold per day during the first half of 2017. Gold production at this in Interior Alaska operation typically increases during the second half of the year due to improved heap leach recoveries.

Fort Knox gold production down

Kinross Gold Corp. Aug. 2 reported that its Fort Knox Mine near Fairbanks, Alaska, produced 91,848 ounces of gold during the second quarter, a nearly 6 percent decrease from the 97,221 oz recovered there during the same period last year. The company attributes the 5,373-oz decrease to a colder spring that affected heap leach performance, which was partially offset by an increase in mill grades. "Fort Knox had a solid quarter as higher mill grades largely offset heap leach performance which was impacted by a colder-than-normal spring," said Kinross COO Lauren Roberts.

The Fort Knox mill processed 3.07 million metric tons of ore averaging 0.86 grams per metric ton gold during the first quarter, compared to 3.47million metric tons averaging 0.64 g/t during the second quarter of 2016.

The Fort Knox mill processed 3.07 million metric tons of ore averaging 0.86 grams per metric ton gold during the first quarter, compared to 3.47million metric tons averaging 0.64 g/t during the second quarter of 2016. Additionally, 5.8 million metric tons of ore averaging 0.26 g/t was processed on the heap leap pad, compared to 4.9 million metric tons averaging 0.28 g/t during the same period last year. The per-ounce cost of Fort Knox gold sold during the second quarter was US$635, a 20 percent drop from the US$793 production cost of sales during the same period last year. During the first six months of 2017, Fort Knox produced 184,886 oz of gold, down very slightly from the 185,021 oz during the first half of last year. Gold production at this Interior Alaska mine increases during the second half of the year due to improved recoveries from the heap leach pad during the summer and fall.

JUDY PATRICK PHOTOGRAPHY; COURTESY OF HECLA MINING COMPANY

The real-time data provided by a high-speed wireless data transfer system installed at Hecla Mining's Greens Creek Mine is improving safety and productivity at this underground operation near Juneau, Alaska.

SILVER PRODUCTION

21st Century mine

Cutting edge innovation, exploration success ensuring Greens Creek future

By SHANE LASLEY
Mining News

After nearly three decades of operation, Hecla Mining Company's Greens Creek Mine in Southeast Alaska continues to rank among the largest and lowest cost primary silver mines on Earth.

On pace to produce between 7.5 and 8 million ounces of silver at a cost of around US$2.50/oz during 2017, Greens Creek is also the cash generating engine that powers Hecla.

"Greens Creek continues to be the dominant source of revenue," said Hecla Mining CFO Lindsay Hall, during an Aug. 3 presentation.

Increasing zinc and lead prices, along with steady gold prices, is helping to push down silver production costs at Greens Creek this year.

"We've seen a nice increase in the zinc and lead prices, which represent about 20 percent of our revenue," Hecla Mining President and CEO Phil Baker said.

During the first six months of 2017, Greens Creek produced 3.86 million oz silver at a cost of only US$1.26/oz after crediting the value of the 26,726 oz gold, 52.74 million pounds zinc and 18.46 million lb lead also recovered during that period.

The all-in sustaining cost – which includes indirect costs such as depreciation, depletion and amortization – for producing an ounce of silver at Greens Creek during the first half of the year was US$6.28/oz.

Thanks to the implementation of 21st Century technologies, such as high-speed wireless and semi-autonomous mining equipment, alongside the success of traditional drilling, this Southeast Alaska mine looks like it will maintain its silver legacy for decades to come.

Cutting edge technologies

The centerpiece of the cutting edge mining technologies being implemented at Greens Creek is a high-speed wireless data transfer system that includes miles of communication cables and 70 wireless hotspots connecting the working areas of the underground mine.

Hecla said this connectivity provides real-time data on where every person and piece of equipment is located, and alerting workers when they are near each other, increasing safety and efficiency.

"This system has enabled management to make better-informed decisions based on real-time information from the underground operations," the company penned in its annual report. "We're also able to monitor the operating environment, reduce accidents, and ensure proper equipment performance."

The wireless system also enables crews to operate fully remote and semi-autonomous mining equipment from the surface.

While this may sound futuristic, Hecla already has a remotely operated semi-autonomous long-haul dump loader operating during shift changes at Greens Creek.

With two shift changes a day, each taking about two hours, this avant-garde piece of equipment can add extra hours of ore hauling every day at the underground operation.

An operator sitting behind a bank of computer monitors on the surface runs the LHD on the first pass, teaching the machine where to load and dump, and then the loader repeats the process.

"The LHD has successfully been operated remotely from surface in a long-haul application, mucking by itself and hauling to an ore pass, all automatically, with the operator simply pressing

see **GREENS CREEK** *page 8*