

# NORTH OF 60 MINING NEWS

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A steady convoy of trucks delivers ore to the Walter Creek heap leach pad at Kinross Gold Corp.'s Fort Knox gold mine near Fairbanks. Increased production at this Interior operation is helping push Alaska gold production near a million ounces, a milestone not reached in more than a century.

JUDY PATRICK PHOTOGRAPHY

*A special supplement to Petroleum News*

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• ALASKA

# 2013: A golden year for Alaska miners

Annual gold production set to top 1 million ounces, a landmark event that could usher in a new Golden Age for the Far North State

By SHANE LASLEY  
Mining News

Alaska miners are on the cusp of topping 1 million ounces of gold produced, an annual milestone that has not been achieved since Gold Rush pioneers recovered copious amounts of alluvial aurum at the turn of the 20th Century.

“When you think about what a million ounces of production means, it is all the more amazing that it was first accomplished by placer miners and a few lode miners, a few shovelfuls at a time, more than a century ago!” Curt Freeman, a well-known Alaska geologist and president of Fairbanks-based Avalon Development, reflected.

Unlike the tenacious Gold Rush sourdoughs that topped 1-million ounces in 1899 and again in 1906, the roughly 1-million ounces of gold recovered in 2012 was largely the product of 21st Century machinery.

“It always blows my mind when I think of a million-ounce year without the current technology and fleet of equipment,” Sumitomo Metal Mining Pogo External Affairs Manager Lorna Shaw wrote. “The miners of yesterday were some amazing people!”

Alaska’s five hardrock operations account for some 870,000 ounces of the gold produced in Land of the Midnight Sun during 2012. The bulk of this aurum, roughly 700,000 ounces, was recovered from Kinross Gold Corp.’s Fort Knox



JUDY PATRICK PHOTOGRAPHY

Refinery workers at Sumitomo Metal Mining’s Pogo Mine pour the two-millionth ounce of gold recovered from the high-grade underground operation located some 60 miles (100 kilometers) southeast of Fairbanks, Alaska.

Mine located about 25 miles (40 kilometers) north of Fairbanks and Sumitomo Metal Mining’s Pogo operation located some 60 miles (100 kilometers) southeast of Fairbanks. The Kensington, Greens Creek and Nixon Fork operations round out the hardrock mines that contributed to Alaska’s gold production in 2012.

The hardworking individuals and families that make up the Last Frontier’s

modern placer mining community are expected to add roughly 100,000 ounces to the 2012 gold production numbers, bringing the total annual production to the brink of the 1-million-ounce milestone.

While it seems likely that 2012 totals will fall just shy of the seven-digit mark,

increased gold output forecast at Fort Knox and Kensington for 2013 will likely result in contemporary Alaska miners matching the feat of their pioneering forebears.

This million-ounce-milestone could usher in a new Golden Age for Alaska. As the current class of miners challenges the million-ounce mark, a new generation of mega-gold deposits is on the horizon. Pebble, Donlin Gold and Livengood – enormous accumulations of gold that are measured in the tens of millions of ounces – could propel the Last Frontier to become the top gold-producing state in the United States

“I think it is significant that Alaska is the No. 2 gold producer in the United States. It is right behind Nevada and gaining ground. When you get projects like Donlin Gold into production, it will start rivaling Nevada,” said NovaCopper President and CEO Rick Van Nieuwenhuysse.

### Pogo reigns supreme

The 2,500-metric-tons-per-day mill at Pogo churns out around 1,000 ounces per day gold, enough for the high-grade underground operation to reign as Alaska’s top aurum producer since 2008, the mine’s first full year of production.

Pogo recovered 389,808 ounces of

see **GOLDEN YEAR** page 4

### Contact North of 60 Mining News:

Publisher: Shane Lasley • e-mail: publisher@MiningNewsNorth.com  
Phone: 907.229.6289 • Fax: 907.522.9583



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<b>Shane Lasley</b>	PUBLISHER & NEWS EDITOR	<b>ADDRESS</b> P.O. Box 231647 Anchorage, AK 99523-1647
<b>Rose Ragsdale</b>	EDITOR-IN-CHIEF (contractor)	
<b>Mary Mack</b>	CHIEF FINANCIAL OFFICER	<b>NEWS</b> 907.229.6289 publisher@miningnewsnorth.com
<b>Susan Crane</b>	ADVERTISING DIRECTOR	
<b>Heather Yates</b>	BOOKKEEPER	<b>CIRCULATION</b> 907.522.9469 circulation@petroleumnews.com
<b>Bonnie Yonker</b>	AK / INTERNATIONAL ADVERTISING	<b>ADVERTISING</b> Susan Crane • 907.770.5592 scrane@petroleumnews.com
<b>Clint Lasley</b>	GM & CIRCULATION DIRECTOR	
<b>Marti Reeve</b>	SPECIAL PUBLICATIONS DIRECTOR	Bonnie Yonker • 425.483.9705 byonker@petroleumnews.com
<b>Steven Merritt</b>	PRODUCTION DIRECTOR	<b>FAX FOR ALL DEPARTMENTS</b> 907.522.9583
<b>Curt Freeman</b>	COLUMNIST	<i>Several of the individuals listed above are independent contractors</i>
<b>J.P. Tangen</b>	COLUMNIST	
<b>Allen Baker</b>	CONTRIBUTING WRITER	
<b>Judy Patrick Photography</b>	CONTRACT PHOTOGRAPHER	
<b>Forrest Crane</b>	CONTRACT PHOTOGRAPHER	
<b>Tom Kearney</b>	ADVERTISING DESIGN MANAGER	
<b>Renee Garbutt</b>	ADVERTISING ASSISTANT	
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SHANE LASLEY



Although International Tower Hill Mines Ltd. has yet to submit permit applications, the company believes the highway accessible Livengood project north of Fairbanks could begin producing more than 500,000 ounces of gold per year by 2019.

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## GOLDEN YEAR

gold in 2009, a record that stands to this day. Gold production at the mine dropped to 383,434 ounces and in 2010 and 325,708 ounces in 2011.

Sumitomo Metal Mining Pogo LLC – a joint venture between Japanese firms Sumitomo Metal Mining Company (85 percent) and Sumitomo Corp. (15 percent) to operate Pogo – celebrated the first 2 million ounces of gold produced at the underground operation on July 31, 2012.

The first 2 million ounces of gold produced at Pogo were mined from the Liese zone – three flat-lying, parallel quartz veins that carry high-grade gold.

Although Sumitomo continues to expand Liese, the Tokyo-based miner has found new zones of high-grade gold that are expected to extend the mine life at Pogo well beyond 2019, which is what the current 2.9 million ounces of gold reserves support.

The gold-rich veins of the Liese zone end abruptly where they come in contact with a gold-barren body of diorite to the northeast.

Two years ago, the Pogo exploration team set out to see if it could find additional gold mineralization on the opposite side of the intrusive body.

Some road-based drilling just north of the diorite tapped a zone with quartz-vein structures with grades and thicknesses similar to those that have provided feedstock for the mill over the past six years.

The Pogo geological team now believes that the Liese and East Deep zones are the same ore body that became separated when the diorite split the two zones as it intruded along the Liese Creek fault about 95 million years ago, or about 12 million years after the zones were mineralized.

Through the end of 2011, Sumitomo had outlined 2 million ounces of indicated and inferred gold resource at East Deep. The US\$4.80-per-ounce discovery cost of this gold is a fraction of the US\$30-US\$40 industry average for each ounce of gold found.

This initial resource, according to Pogo General Manager Chris Kennedy, could be the tip of the iceberg when it comes to East Deep. The total extent of this zone is unknown and the deposit remains open to the west, north and northeast.

Sumitomo has driven two drifts through the some 300 meters of diorite

see **GOLDEN YEAR** page 5

# All Seasons



2700 S. Cushman, Fairbanks, Alaska 99701 | (907) 452-6631 | Fax: (907) 451-8632  
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that separate Liese from East Deep. These access drives linking the East Deep zone to the established underground workings at Pogo are accelerating Sumitomo's ability to mill the gold-rich ore found here.

At the end of 2011, Sumitomo reported resources and reserves of 12.32 million metric tons of ore averaging 12.5 g/t gold for 4.95 million ounces of the precious metal. With East Deep and other zones near the mill expected to add significant quantities of high-grade ore to the resource, it is expected that Pogo will continue to contribute 1,000 ounces a day to Alaska's gold production for years to come.

**Fort Knox vies for title**

Fort Knox, which reigned as Alaska's top gold producer until being overtaken by Pogo in 2008, is vying to regain the title.

Fort Knox General Manager Dan Snodgrass told the mining community gathered at the 2012 Alaska Miners Association Convention in November that the open-pit, bulk-tonnage operation north of Fairbanks is set to mine gold at a record-setting pace, all the while bolstering Kinross' bottom line.

"Our priority is generating free cash flow," he told the crowd. "It is not necessarily that we are going to mine 360,000 ounces, which is what will happen in 2012, or 425,000 ounces, like we believe we will be doing next year (2013) – it is quality versus quantity, and that theme is permeating through our organization now."

Going into 2012 Fort Knox had 4.3 million ounces of gold reserves, slightly more than when the mine went into operation in 1997. While this gold is locked up in nearly twice the ore at about half

the grade, Kinross now has the Walter Creek Heap Leach, a facility that can economically process the low-grade material, while the higher grades reserves can continue to be fed through the mill.

During 2010, the first full year of production, roughly 83,000 ounces of gold was recovered from about 14 million tons of ore stacked on the heap leach pad. With the surety the system works well at its Interior Alaska operation, Kinross has stepped up the heap leaching operation. In 2012, about 33 million tons of ore is being stacked on the heap leach pad, contributing a projected 125,000 ounces to the 2012 gold production at Fort Knox.

To accommodate the additional ore, a larger pumping system and recovery capacity is being added to the circuit.

"Instead of circulating and processing 8,000 (gallons per million), we are now pumping 16,000. We are increasing our pregnant solution grade, and we are building a second CIC (carbon-in-column) plant that will be able to take care of all 16,000 gpm," Snodgrass explained.

With the CIC plant scheduled to be completed in July, Kinross expects Fort Knox to shatter the previous record of 411,220 ounces of gold recovered from in 2001, bringing new vitality to the aging mine.

**Kensington regroups**

After enduring a permitting process measured in decades and culminated in a U.S. Supreme Court ruling in favor of the operation, Coeur d'Alene Mines' Kensington Mine is Alaska's third-largest gold producer.

Situated some 45 miles (72 kilometers) north of Juneau, the Kensington gold mine began commercial production in July 2010. During 2011, the high-grade underground mine produced 88,420 ounces of gold at cash operating costs of US\$1,088 per ounce.

Late in 2011, Coeur cut processing

see **GOLDEN YEAR** page 6



The copious amounts of alluvial aurum recovered by Gold Rush pioneers, such as this sourdough, pushed Alaska's annual gold production above 1 million ounces in 1899 and 1906, a feat yet to be matched by modern miners.

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rates in half to provide an opportunity to undertake several key initiatives aimed at improving the mine's safety and production profile. To accomplish this, Coeur completed construction of a backfill plant and related distribution system; upgraded several underground and surface facilities; and improved the overall safety of the operation.

The scaled-back production resulted in skyrocketing operating costs.

During the first three months of 2012, 7,444 ounces of gold was recovered at Kensington at cash operating costs of US\$2,709 per ounce. Returning to full-scale production of about 1,500 tpd in April, the Southeast Alaska operation improved to 21,572 ounces of gold at cash costs of US\$1,348 per ounce during the second quarter. The production profile continues to improve. During the third quarter, Kensington churned out 24,391 ounces of gold at US\$1,298 per ounce. Fourth quarter gold production hit 28,717 ounces; production costs were not available at the time of this report.

All told, Kensington produced 82,125 ounces of gold in 2012. Coeur anticipates the Southeast Alaska mine will continue the production pace set in the fourth quarter and churn out 108,000 – 114,000 ounces of gold at US\$900-US\$950 per ounce in 2013.

At the end of 2011, Kensington tallied proven and probable gold reserves totaling 1.3 million ounces, plus 587,320 ounces in measured and indicated resources and 169,680 ounces in inferred resources.

### Gold pays for Greens Creek silver

While Hecla Mining Co.'s Greens Creek Mine is primarily a silver producer, the roughly 54,000 ounces of gold recovered from the volcanogenic massive sulfide deposit was enough to make the Southeast Alaska operation the state's fourth-largest aurum producer in 2012. In fact, the gold, lead and zinc recovered at the Juneau-area operation largely paid for the mine's roughly 6 million ounces of annual silver production.

During the first nine months of 2012, Greens Creek produced 4.3 million ounces of silver at an average cash

cost of US\$2.34 per ounce, net of by-products. So, Hecla was able to bank US\$30.93 per ounce from silver sold during the first three quarters of 2012.

While the cash generated from Greens Creek is helping fortify Hecla's healthy treasury, the Idaho-based miner is investing heavily in the Southeast Alaska mine and other silver assets in Idaho, Colorado and Mexico.

"We are rapidly advancing toward our targeted goal of 15 million ounces of company-wide silver production by 2017. Underpinning this growth is our very strong balance sheet, with US\$232 million in cash and no significant debt," Hecla's President and CEO Phillips S. Baker, Jr. told investors at the end of the third quarter.

At Greens Creek, Hecla spent roughly US\$90 million on improvements and upgrades, the largest investment in the history of the Southeast Alaska mine. Some of the key capital expenditures include Deep 200 South access development (US\$18 million); mining fleet replacement and additions (US\$14 million); tailings dam expansion (US\$10 million); East Ore access and ventilation rehabilitation (US\$6 million); definition drilling (US\$5 million); and the construction of expanded and upgraded camp facilities (US\$5 million).

Going into 2012, Greens Creek had about 98 million ounces of silver and 742,400 ounces of gold in reserves – enough to ensure the Southeast Alaska mine is a significant contributor to the state's gold production for about another 10 years, and Hecla sees plenty of potential to continue a tradition of replenishing these stores in the foreseeable future.

### Encouraging signs at Nixon Fork

Fire River Gold Corp.'s Nixon Fork gold mine, the smallest of Alaska's hardrock gold producers, is expected to contribute nearly 25,000 ounces to Alaska's overall aurum production in 2012.

This high-grade operation, situated about 32 miles (50 kilometers) northeast of the gold mining town of McGrath in Interior Alaska, has been in and out of production since high-grade gold was discovered there in 1917.

Fire River, the latest company to make a go of it, fired up the 250-tpd mill at Nixon Fork in July 2011. The operation got off to a rocky start, and Fire River is continuing to ramp up the operation to its full potential.

Through the first half of 2012 the plant processed ore at a rate of about 86 tpd, but Fire River is reporting improvements. The company said the plant averaged 126 tpd during the final six months of the year and in October and in November, the plant enjoyed several 200-metric-ton production days.

Fire River is encouraged that the broad zones of high-grade gold mineralization and narrower zones of bonanza grades encountered during its 2012 underground drill program will help improve the production profile at Nixon Fork. Hole N12U-057 returned the best intercepts, including: 1.5 meters averaging 1,120 g/t gold and 3.34 meters averaging 219 g/t gold.

Fire River President and CEO Blane Wilson said, "We continue to encounter encouraging signs through our surface and underground in-fill drilling programs, as well as data that could present a more favorable view of the orientation of mineralization."

With operational efficiencies on the rise, Fire River is targeting 40,000 ounces of gold production in 2013, and ramping up to a projected 50,000 ounces in 2014.

### Placer operators prosper

With gold averaging US\$1,669 per ounce in 2012, Alaska is seeing an upsurge of individuals scouring its streams, beaches and the ocean floor for placer gold.

Alaska officials estimate that nearly 79,000 ounces of alluvial gold was recovered in the state during 2011, and this haul is expected to swell in 2012.

While small family-owned operations and individuals currently make up the bulk of placer gold production in Alaska, larger companies and more complex operations are joining the Last Frontier's mining community.

Goldrich NyacAU Placer, LLC – a joint venture placer mining company owned equally by Goldrich Mining Company and NyacAU, LLC – is set to mine some 10,000 ounces of placer gold annually from the rich alluvial gold deposits that blanket the valleys of the vast Chandalar land package located some 200 miles (320 kilometers) north of Fairbanks.

Goldrich brings the vast placer potential of the 22,840-acre (9,243 hectares) Chandalar Mining District to the partnership, including a 250,000-ounce drill-test-

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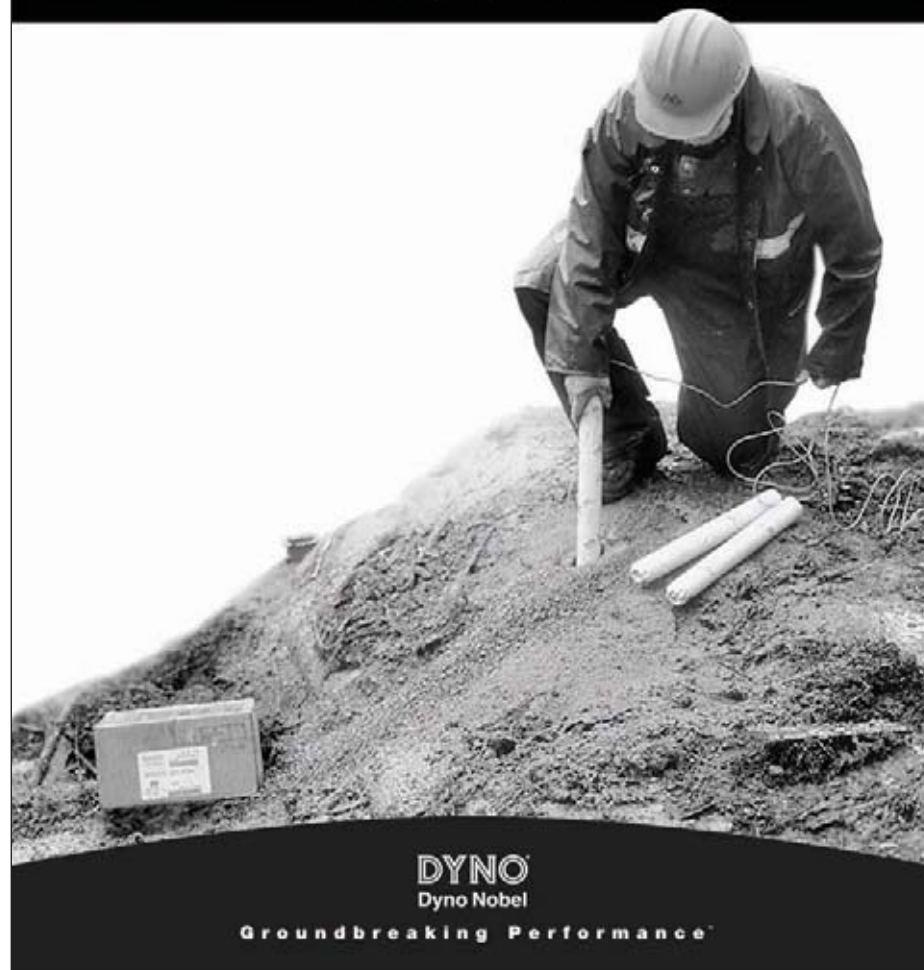
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ed alluvial gold deposit on Little Squaw Creek and a multitude of undefined gold-rich streams with the potential to increase the resource several times over.

Nyac, a private mining company owned by Dr. J. Michael James, an Anchorage-based physician and fourth generation Alaskan, is offering more than two decades of placer mining experience and some US\$7.2 million in capital to get the mining venture into production.

James' Nyac operation on Shamrock Creek in Southwest Alaska is currently considered among the top placer gold producers in the state.

With mine construction completed in 2012, the Chandalar partners are expecting to recover 8,500 ounces of placer gold in 2013 and 10,000 ounces in 2014 and in years to follow.

While the Goldrich NyacAU partnership seeks to recover aurum locked in the frozen gravels of Alaska's North, a global-scale venture is exploring a massive placer deposit roughly a mile beyond the golden beaches of Nome.

Placer Marine Mining Inc. – a joint venture that combines the gold mining expertise of AngloGold Ashanti Ltd. with the marine mining experience of De Beers – is investigating the potential of dredging a vast placer gold deposit lying beneath the icy waters of the Bering Sea.

Placer Marine Mining picked up its Nome offshore properties during a lease sale held by the Alaska Department of Natural Resources in 2011. These tracts start about a mile (1.6 kilometers) offshore and run out to about the three-mile (4.8 kilometers) limit of state-owned land and for some 20 miles (32 kilometers) parallel to the shoreline.

While the Nome beaches and near-shore marine gold deposits have been continuously worked and reworked for more than a century, the depth of the icy water covering the deposits leased by Placer Marine Mining has prevented individuals and small-scale operations from dredging there.

Since the discovery of gold there in 1899, the Nome Mining District has produced roughly 5 million ounces of placer gold.

Based on historical exploration, it is believed that the 16,581 acres of offshore leases secured by Placer Marine Mining about a mile beyond the golden beaches of Nome could hold as much gold as has been recovered from the legendary Nome Mining District over the past 113 years.

The AngloGold-De Beers partnership spent some US\$6 million during the short summer season of 2012 to begin to find out just how much gold lies below on its portion of the gold-rich placer deposits in the Bering Sea.

The company believes it will have collected the geological and environmental data needed to advance the project into permitting by mid-2014.

If all goes well, Placer Marine Mining plans to begin mining Bering Sea gold by the 2017 season.

**Mega-mines on the horizon**

The first of Alaska's next generation of mega-mines – Donlin Gold, Livengood and Pebble – are expected to come online around 2020.

In August, Donlin Gold LLC – a partnership owned equally by NovaGold Resources Ltd. and Barrick Gold Corp. – initiated the permitting process for its 40-million-ounce Donlin Gold project in western Alaska.

Once in production, the 53,500-tpd



This 744-troy-ounce bar contains the 2,000,000th ounce of gold poured at Pogo and is roughly 93.6 percent gold.

JUDY PATRICK PHOTOGRAPHY

mill at Donlin is projected to recover an average of 1.1 million ounces of gold annually at a cash-cost of US\$585 per ounce during its initial 27-year mine-life.

By feeding the mill higher grade ore, the massive project is scheduled to produce 1.5 million ounces of gold annually at an average cash-cost of US\$409 per ounce during the initial five years of operation. This increased gold production during the onset of operations will help reduce the payback period for the estimated US\$6.7 billion of capital costs needed to build the mine.

It is expected to take about four years to gain the 100 or so permits needed to

develop Donlin and, if the partners decide to move ahead with development, construction will take about as long.

Although International Tower Hill Mines Ltd. has not submitted permit applications yet, the company believes the highway accessible Livengood project north of Fairbanks could begin producing gold at about the same time as Donlin.

According to a preliminary economic assessment completed in 2011, a 91,000-tpd mill at Livengood would crank out 12.9 million ounces of gold over 23 years.

International Tower Hill President and CEO Donald Ewigleben said the 560,000-ounce-per-year operation anticipated in the PEA is at the low end of various scenarios being contemplated.

A feasibility study expected to be completed in 2013 is investigating the appropriate size operation for Livengood.

With permitting slated to begin in 2014, Tower Hill is targeting 2017 to begin construction, and hopes to begin commercial gold production at Livengood by 2019.

While best known for its 80.6 billion

pounds of copper, the colossal Pebble deposit in Southwest Alaska also hosts 107.4 million ounces of gold.

The Pebble Partnership – a 50-50 joint venture between Vancouver B.C.-based Northern Dynasty Minerals Ltd. and London-based Anglo American plc – has not published a mine plan for the project. A preliminary assessment prepared for Northern Dynasty in 2011 gives an indication of the deposit's gold producing potential.

In a 45-year base case scenario contemplated in the assessment, Pebble's annual production is envisioned to be 690 million pounds of copper, 667,000 ounces of gold, 31,000 pounds of molybdenum, 27,000 kilograms (58,000 pounds) of rhenium and 20,000 ounces of palladium.

The Pebble Partnership invested some US\$107 million to advance the project in 2012, with the objective of initiating permitting in 2013. Conceivably, this would put Pebble on track to begin production as early as 2021 but given the contentious nature of this project, it will likely take longer to realize the potential of this massive deposit. ●

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Tours for September 12<sup>th</sup> are currently being organized for the former Faro Mine and the UKHM claims in the Keno Hill Silver District.

More details available at <http://www.clra.ca/>

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# Alaska mining experiences quiet 2012

Mineral industry roundup in Vancouver, B.C. offers state sector international exposure and numerous opportunities for rebound

By **CURT FREEMAN**

For Mining News

The mining industry just passed through one of the quietest year-end transitions in over a decade. The last month has seen few new public announcements regarding Alaska mineral occurrences but that relative silence is about to change.

Within a week of completing this summary, the 2013 Cordilleran Roundup mineral convention will begin in Vancouver, B.C. This annual event is well-attended by individuals and corporations that are active in Alaska's mineral industry or looking to become active in Alaska's mineral industry. With the focus of this convention being Alaska, Yukon Territory and British Columbia, it is by far the best international exposure Alaska's mineral industry receives each year. With upwards of 8,000 in attendance, the opportunities to meet prospective new Alaska players are unsurpassed. With the opportunities available limited only by one's imagination, look for a blizzard of news releases, both before and during the conference, extolling the virtues of Alaska mineral projects!

## Western Alaska

**FIRE RIVER GOLD CORP.** announced additional drilling results at the Nixon Fork gold-copper mine near McGrath. The results are derived from 103 underground diamond drill holes totaling 9,781 meters at the Crystal mine area of the project.

## The author

The author Curt Freeman, CPG #6901, is a well-known geologist who lives in Fairbanks. He prepared this column **CURT FREEMAN** Jan. 21. Freeman can be reached by mail at P.O. Box 80268, Fairbanks, AK 99708. His work phone number at Avalon Development is (907) 457-5159 and his fax is (907) 455-8069. His email is [avalon@alaska.net](mailto:avalon@alaska.net) and his website is [www.avalonalaska.com](http://www.avalonalaska.com).



Significant results include 3.34 meters grading 219.13 grams per metric ton gold, 89.7 g/t silver and 6.17 percent copper and an additional 9.14 meters grading 9.76 g/t gold, <1.0 g/t silver and 0.02 percent copper in drill hole N12U-057, 4.13 meters grading 29.79 g/t gold, 1.5 g/t silver and 0.04 percent copper in drill hole N12U-058 and 3.73 meters grading 32.86 g/t gold, 1.8 g/t silver and 0.06 percent copper in drill hole N12U-069. The primary focus of this work was resource expansion of the 3300 ore body.

## Alaska Range

**KISKA METALS CORP.** announced metallurgical results from its Whistler cop-

per project. Locked cycle flotation tests on two composite samples returned average copper concentrate grades of 25.4 percent with recoveries averaging 91.9 percent for copper and 70.4 percent for gold. These tests indicate that the mineralization is amenable to standard froth flotation recovery techniques. Results from concentrate analysis also reveal low concentrations of deleterious elements and as a result no related smelter penalties are anticipated. Recoveries of 91.9 percent for copper and 73.1 percent for gold were obtained from locked cycle flotation tests on samples from hole WH08-08 (feed grade of 0.11 percent copper and 0.43 g/t gold). The test produced a concentrate grading 24.5 percent copper and 79.3 g/t gold. Recoveries of 91.9 percent were obtained for copper and 67.7 percent for gold were obtained from locked cycle flotation tests of samples from drill hole WH10-19 (feed grade of 0.22 percent copper and 0.53 g/t gold). This test produced a concentrate grading 26.2 percent copper and 46.5 g/t gold.

**CORVUS GOLD INC.** announced that the Company's joint venture partner and operator of the Terra project, **WESTMOUNTAIN INDEX ADVISORS INC.** provided metallurgical results from its initial production scale bulk sample tests. The results are from a 23-ton surface bulk sample of the Ben and Fish Creek veins. A total of 75.1 ounces of gold and 28.2 ounces of silver were produced using the onsite milling and gravity recovery sys-

tem yielding recoveries of 60 percent for gold and 15 percent for silver. The doré bar from this work assayed 68.683 percent gold and 25.9 percent silver.

Approximately 95 percent of the gold and silver in the concentrate reported to the doré bars. Westmountain plans to focus on a larger bulk sample next summer, utilizing the full plant capacity, which is approximately 50 metric tons per day.

**MILLROCK RESOURCES INC.** announced today that the strategic partnership between the company and **VALE EXPLORATION USA INC.** has concluded. Through the course of the program, Vale invested US\$1.4 million for research and reconnaissance exploration for porphyry copper-gold deposits in Alaska. The work led to recommendations for five Designated Projects, one of which, the AUDN project, was accepted by Vale. Under a separate budget Vale funded US\$700,000 for soil geochemical and ZTEM-magnetic airborne geophysical surveys at AUDN.

## Northern Alaska

**GOLDRICH MINING CO.** announced it has sold on-site equipment at its Chandalar gold property for US\$900,000 to an affiliate of **NYACAU LLC**. The equipment will remain at the mine site and will be leased by **GOLDRICH NYACAU PLACER, LLC**, a company owned 50/50 by Goldrich and NyacAU LLC, for the

see **FREEMAN** page 9

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• COLUMN

# Alaska miners reading the tea leaves

*Though things probably won't get any better anytime soon, the bright side for the industry is they probably won't get any worse*

By **J. P. TANGEN**  
For Mining News

With the re-inauguration of the President, Alaska's miners are being forced to hunker down and withstand yet another election cycle wondering what gifts the federal agencies will bestow upon us now.

Interior Secretary Salazar is out. His replacement has yet to be identified; however, there is little room to be optimistic. Even under friendly administrations, the selection of Secretary of the Interior has not served us well. The environmentalist community undoubtedly has the President's ear at some level, but for the most part, issues hostile to mining have gained very little traction in Washington during the first term, and perhaps we shall be equally fortunate during the second.

Despite the vast federal domain in Alaska, development of natural resources on the public front has gotten the treatment a bastard orphan would expect to receive. Present, possibly necessary, under control, but generally ignored. Occasionally, the National Park Service causes an adrenaline

## Mining & the law

The author, J.P. Tangen has been practicing mining law in Alaska since 1975. He can be reached at [jpt@jptangen.com](mailto:jpt@jptangen.com) or visit his Web site at [www.jptangen.com](http://www.jptangen.com). His opinions do not necessarily reflect those of the publishers of Mining News and Petroleum News.



J.P. TANGEN

spike with regard to a World Heritage Site for Beringia or the U.S. Fish and Wildlife Service precipitates a question as to whether the re-introduced wood bison will sooner or later become endangered, but generally the big conversation about Interior agencies, revolves around money, and as long as there are frugal forces in Congress, Interior will probably be precluded from doing too much harm.

The new secretary will have to spend a lot more time worrying about how he is going to keep the Washington Monument

open than how many new million-dollar toilet facilities he can build in Denali National Park.

Agriculture Secretary Vilsack is going to stay. How he relates to the National Forest System probably will not change. No successor has been named for Forest Service Chief Tom Tidwell, so the Tongass and Chugach National Forests will probably remain so bound up with bureaucratic red tape that it will take divine intervention for any substantial new mines, even very promising properties like Bokan Mountain and Herbert Glacier, to ever become working mines.

Likewise, Assistant Secretary of Labor for Mine Safety and Health Joseph Main appears to be sticking around. His draconian minions may be expected to continue their march on mining.

EPA Administrator Lisa Jackson is out, and a proposed successor has not yet been identified; however, it is hard to imagine that any successor could be worse when it comes to fanatical anti-development regulation.

In brief, the pressure from Washington, at least when it comes to mining in Alaska

will continue to be a negative force.

I am reminded that the mining industry in Alaska is healthy and safe, that the mineralization found in Canada and the Russian Far East does not stop at our borders, and that the global population continues to be incremented by hordes of new faces who are envious of the toys and tools of the 21st Century that are made from metals and minerals found in abundance in Alaska.

Conceding that the Great Community Organizer probably knows very little about the electricity that comes out of the hole in his wall, not to mention how it got there, it always seems incredulous to me that the contemporary recovery of metals and minerals precipitates such benign neglect and indifference, if not outright opposition from our leaders. Fundamental reason, if not informed analysis, should be sufficient to grasp the notion that just as the United States is emerging as the world leader in the production of energy minerals through the creative development; so too do we have the potential to show the world how modern mining can and should be conducted. ●

continued from page 8

## FREEMAN

production of gold at Chandalar. The venture expects to begin placer gold production at the start of the 2013 operating season with this year's production goal of 8,500 ounces. . . Continued stripping of overburden and stockpiling of placer pay gravels is planned to begin in May 2013. Goldrich forecasts that cash production costs for 2013 will be less than US\$700 per ounce of gold.

## Southeast Alaska

**COEUR D'ALENE MINES CORP.** announced 2012 summary highlights for its Kensington mine. The mine produced 28,717 ounces of gold in the fourth quarter, more than double the 4th quarter production from 2011. For the year the mine produced 82,125 ounces of gold. While 2012 total production was less than the 88,420 ounces produced in 2011, the mine has only operated at full capacity since the second quarter of 2012 due to a planned shut-down during which improvements to the mine and mill were made. The mine's 2013 cash operating costs are expected to decline significantly to US\$900 - US\$950 per gold ounce. The mine is expected to produce 108,000 to 114,000 ounces of gold in 2013. Full fourth-quarter and full-year 2012 production and reserve information is expected to be released in late February.

**ARROWSTAR RESOURCES LTD.** announced the staking of an additional 21 federal mining claims at its Snettisham iron ore prospect about 30 miles southeast of Juneau. The claims adjoin the present claim block to the east and south in an area potentially extending the magnetic highs indicated during the company's geophysical surveys conducted earlier in 2012. The company is presently preparing a permit application for drilling on the property in 2013. Historically, Marcona Corporation announced a plan in 1970 to spend US\$130 million to place this property into production at the rate of 5 million tons of iron ore per year. Steep declines in the

price of iron caused the project to be delayed, and it was subsequently dropped.

**UCORE RARE METALS** announced publication of a Canadian Instrument 43-101 technical report providing details of its recently announced Preliminary Economic Assessment at its Bokan Mountain rare earth project near Ketchikan. The technical

report includes an analysis of proposed mining methodologies, mineral processing from mine mouth to market, prospective planning and production timelines, as well as anticipated capital and operating costs, and expected internal rate of return for the project. The resource utilized in the PEA omitted the results from the I & L Zone

and did not include drilling results completed in 2011 with the objective of expanding the size of the resource and upgrading its status from the Inferred to the Indicated category. The results of this drilling are currently being modeled and the company expects to release a revised resource estimate in February. ●

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• GUEST COLUMN

# Beware effects of federal mining royalty

Proposed legislation to rewrite original 1872 mining law could shortchange local, state economies in the name of curbing U.S. debt

By **DAVID L GANJE**

Special to Mining News

A new federally collected royalty (read tax) on hardrock mining has recently been proposed as a part of Congress' solution to fix the national debt and manage the mining industry. A bill co-sponsored by U.S. Rep. Raul M. Grijalva, D-Ariz., would set a 12.5 percent royalty rate on the value of certain hardrock minerals on public lands.

This proposal would rewrite the original 1872 mining law in the United States. The proposed U.S. royalties would be among the highest of any country in the world.

Mining is today one of the most regulated and government-supervised business sectors in the economy. Some in Congress see this proposed mining royalty or tax as a new source of "revenue strip mining."

One congressman stated, "We've been leaving a huge pot of money on the table."

The Washington Post also has added its opinion to the idea. In its recent editorial about possible new legislation on hardrock mining, the paper stated, "Even if the increased revenue is only an extra



DAVID GANJE

*The mining industry is handsomely assessed with taxes and administrative costs. Why now should the bedrock 1872 Mining Act be so radically rewritten? To paraphrase John Milton: For what can a new tax but endless new taxes still breed?*

billion or two, a stretched federal budget could certainly use it now."

What is missed is the fact that taxes and other fees are currently collected.

All western hard rock mining states, including Alaska, would be affected by this new legislation. South Dakota, for example, has a rich history of hardrock mining. The Homestake mine began operations in the Black Hills of Dakota Territory in 1877 after a group of California miners purchased mining claims. These original claims comprised about 10 acres. By 1999, the Homestake Mine had grown to more than 8,000 acres of patented claims for open cut and deep mining and was the oldest continually operating gold mine in the world.

When mining operations ended in 2002, Homestake was the oldest, largest and deepest mine in the Western Hemisphere, with deep mining reaching more than 8,000 feet below the surface. By the time the mine closed, it was the most productive gold mine in North

America and had yielded more than US\$1 billion in gold over the years.

It is indeed easy to figure what that does for a local and regional economy. Mining states, including South Dakota, have longstanding mineral severance taxes which are enforced on federal and private lands.

Adding to the existing framework of taxes, fees, required environmental compliance, as well as regulatory and reclamation laws imposed on the mining industry, the proposed law would create a new revenue collection protocol on top of six existing categories of costs, fees and taxes now assessed against the mining industry. Consider that the government's most 'uniform' way of collecting revenues from the mining industry is already in place – income taxes.

## Undermining economic development

The new proposed legislation is the same as proposing a new royalty assessment on ranchers' pre-tax profits from the sale of livestock when the cattle are finished and taken to market. The federal government already charges ranchers a rental fee on leased federal lands. It is called a grazing fee.

The federal grazing fee, which applies to federal lands in 16 Western states on public lands managed by the Bureau of Land Management and the U.S. Forest Service, is adjusted annually and is calculated by using a formula originally set by Congress. A grazing fee is really the cost to ranchers for renting federal land.

Would it be reasonable for the federal government to collect a rental for use of federal lands and also 'tax' the rancher a percentage of sale proceeds from the rancher's profits when the cattle go to market?

After some consideration, this new 'cattle royalty' does not appear logical or reasonable. Such a cattle royalty, however, would have the same effect as the new proposed mining royalty. Charge the rancher for use of the lands and also charge the rancher a portion of the pre-tax profit that he receives from his cattle

sales. After that, assess the rancher for income taxes. This is a nonsensical but revenue-positive way of governing.

Mining rules constitute a full pallet of regulations and are administered at a cost to the industry by both federal and state agencies with broad and encompassing authority. Compliance with these mining rules is expensive and results in many financial 'soft costs' in the form of monies given to the government.

The mining industry currently pays for and complies with six different categories of fees and taxes, including mineral severance taxes collected by the state of South Dakota at a rate of US\$4 per ounce of gross production (plus an additional surtax based upon mineral value), as well as 10 percent of net income and 8 percent of royalty value.

These mineral severance taxes have long been developed by western states for the benefit of the local economy. Adding a new federal royalty (read tax) would undermine economic development in active western mining states.

In urgent economic times, a hurried act creating new revenue sources does not necessarily result in a long-term cure. The congressmen through their suggested mining royalty legislation would create a new tax-like device on top of the existing costs, fees and tax categories now assessed against a mining operation. It may be expedient for Congress to become a 'tax machine' and establish a new mandatory royalty payment requirement. But there are always economic and social consequences when new revenue sources are adopted.

The mining industry is handsomely assessed with taxes and administrative costs. Why now should the bedrock 1872 Mining Act be so radically rewritten? To paraphrase John Milton: For what can a new tax but endless new taxes still breed? ●

*David Ganje is an attorney with Ganje Law Offices in Rapid City, S.D. and practices in the areas of commercial law and natural resources law.*

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• ALASKA

# Wildcat hole hits high-grade gold-copper

Texas-based explorer discovers thick zones topping 14 g/t gold, 1 percent copper at Tetlin in Alaska's Eastern Interior

By SHANE LASLEY  
Mining News

Lacking the fanfare emblematic of an explorer hot on the trail of a high tenor gold-copper-silver deposit, Contango Ore Inc. recently posted results from its Tetlin project that include a 58.5-meter intercept averaging 14.45 grams per metric ton gold, 0.24 percent copper and 9.1 g/t silver.

While this interval from hole TET1218 underscores the potential of this previously undrilled prospect, it is not alone. Some 20 holes sunk into the newly discovered Peak zone tapped broad intercepts of high-grade gold and copper mineralization at the Interior Alaska project.

"The preliminary results of our 2012 exploration program at our Tetlin lease site exceeded our expectations in terms of gold and copper grade as well as thickness," said Contango Ore President and CEO Brad Juneau.

Despite these better-than-expected results from the hole drilled a short 12 miles (19 kilometers) southeast of the crossroads town of Tok, the exploration company known as Core is continuing its practice of tempering investor expectations.

"While we have found outstanding rocks in terms of grade-thickness, we do not believe we have yet identified a commercial resource," Juneau advised.

The cautionary statement from Core's newly appointed CEO is somewhat more persuasive than those previously made by chairman, founder and former CEO Kenneth Peak.

Upon announcing financing that funded the 2012 exploration program at Tetlin, Peak advised, "I have personally invested US\$4 million in the company's US\$8.8 million offering and am obviously enthused about our potential for success but also fully cognizant of the speculative nature of this investment and the likelihood that this entire investment may well be a 'dry hole.'"

For medical reasons, Peak relinquished his executive positions with the Houston, Texas-based junior, handing the reins of the Alaska-focused exploration company to Juneau.

Juneau, through his privately held Juneau Exploration, was instrumental in securing and negotiating the lease of the Interior Alaska copper-gold project with the Tetlin Village Council, an Alaska Native Village in Alaska's Eastern Interior, in 2008.

"I am glad that Brad Juneau, the founder and originator of our exploration activities in Alaska, has agreed to become our president and chief executive officer," Peak commented on the appointment. "Brad has a successful track record of finding resources and the results of our successful 2012 exploration program in Alaska suggest the company has identified a potentially significant gold-copper occurrence in an area with no previous significant exploration activities."

## Wildcat hole taps Peak

The roughly US\$6 million exploration program carried out at Tetlin in 2012 – designed and supervised by Fairbanks-based geological consulting firm Avalon Development Corp. – included 10,974 meters of HQ-size diamond core drilling

*"While we have found outstanding rocks in terms of grade-thickness, we do not believe we have yet identified a commercial resource."*

—Contango Ore President and CEO Brad Juneau

in 36 holes at the Chief Danny prospect.

This program followed up on clues provided by exploration orchestrated by Avalon over the previous three seasons, including a maiden 11-hole drill program carried out at a porphyry prospect known as Chief Danny in 2011.

Geophysical and geochemical surveys at Chief Danny revealed two interesting areas separated by an east-west trending fault – a zoned hydrothermal system consisting of a gold-copper-iron-enriched core covering six square miles (15.5 square kilometers) to the south of the rift and a three-square-mile (7.8 square kilometers) arsenic-gold zone to the north.

The best holes drilled at Chief Danny in 2011 sampled a portion of the southern anomaly now referred to as the Discovery zone.

TET1105, the discovery hole, cut 3.7 meters averaging 3.1 grams per metric ton gold, 300.2 g/t silver and 0.26 percent copper. TET1107 – drilled about 100 meters north of hole 5 – cut 6.4 meters grading 7.4 g/t gold, 4.9 g/t silver and 0.15 percent copper.

TET1110 – drilled more than 1,000 meters north of the discovery hole – cut 9.8 meters grading 1.18 g/t gold, 3.1 g/t silver and 0.04 percent copper.

Encouraged by the results from the maiden drill program, Core revisited Chief Danny in 2012.

The explorer started the program by following up on the encouraging results from 2011 drilling at the Discovery zone.

Not finding the mineralization it was seeking in the Discovery zone, Core drilled a "wildcat" hole some 500 meters to the northeast. This fifth hole of the 2012 program, TET1216, cut thick zones of gold-copper-silver mineralization. Highlights include:

- 25.8 meters averaging 7.83 g/t gold, 23.5 g/t silver and 0.05 percent copper, from a depth of 20 meters;

- 6.7 meters averaging 3.50 g/t gold, 15.8 g/t silver and 0.54 percent copper, from a depth of 53.3 meters;

- 13.7 meters averaging 2.77 g/t gold, 1.4 g/t silver and 0.05 percent copper, from a depth of 64.6 meters; and

- 32.6 meters averaging 3.74 g/t gold, 2.6 g/t silver and 0.11 percent copper, from a depth of 81.4 meters.

The grades and thicknesses improved over the next two holes drilled into the newly discovered Peak zone: TET1217 cut 49.1 meters averaging 11.22 g/t gold, 21.6 g/t silver and 0.09 percent copper, from a depth of 7.9 meters; and TET1218 cut 58.5 meters averaging 14.45 g/t gold, 9.1 g/t silver and 0.24 percent copper.

Some US\$3.6 million was originally budgeted for exploration at this porphyry target but as Core dialed in on thick zones of high-grade gold-copper mineralization, the junior allocated a larger portion of its budget and resources to this

prospect. As a result, TET1236, drilled 125 meters west of hole 18, cut strikingly similar mineralization. From a depth of 155.5 meters, hole 36 cut 48.8 meters averaging 14.72 g/t gold, 10.1 g/t silver and 0.24 percent copper.

While copper mineralization was encountered throughout the Peak zone, particularly high-grade intercepts were encountered in the southeastern portion of the currently defined zone. Highlights of this drilling include 36.6 meters averaging 0.31 g/t gold 71.6 g/t silver and 1.11 percent copper from a depth of 118.9 meters in hole TET1238; and two thick copper-rich zones intercepted in hole TET1260 – 32.6 meters averaging 0.06 g/t gold, 28.7 g/t silver and 1.34 percent copper from a depth of 116.4 meters, drilled at the southeastern extent of the currently defined Peak zone and 59.1 meters averaging 0.02 g/t gold, 8.8 g/t silver and 0.37 g/t copper, from a depth of 116.4 meters.

## More time

While the exciting copper-gold-silver mineralization at Chief Danny nabbed the bulk of 2012 exploration expenditures, at least six other promising leads have been identified across the roughly 726,000-acre (293,800 hectares) Tetlin project.

Core originally planned to drill four of these prospects in 2012 but, due to the high-grade copper-gold intercepts discovered at the Peak zone, Triple Z was the only one of these outlying prospects to be

see TETLIN RESULTS page 19

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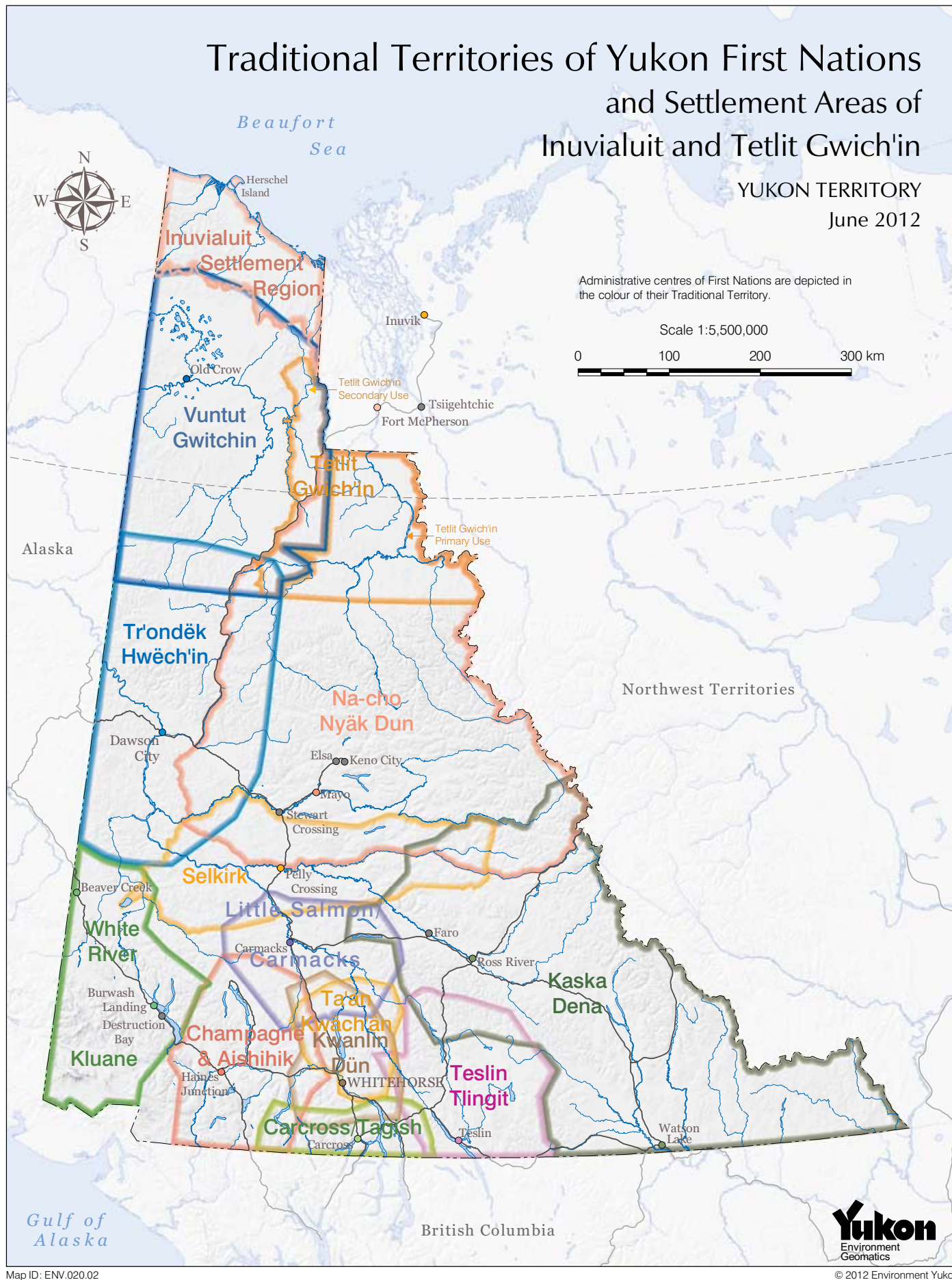
• YUKON TERRITORY

# Court ruling: Consult with First Nation

Ordering greater involvement of Ross River-area Aboriginal group in mineral claims recording process may have wider implications

By ROSE RAGSDALE

For Mining News



A recent ruling by the Court of Appeal for Yukon could give an Aboriginal group in southeastern Yukon Territory a big say in who gets to explore for and mine minerals discovered on its traditional lands.

Unless overturned on appeal, the unanimous decision Dec. 27 by a three-judge panel comprised of British Columbia Court of Appeal judges, also could affect interaction between governments and First Nations throughout Canada, according to some observers.

In "Ross River Dena Council v. Government of Yukon," the Yukon appellate court ruled that the Government of Yukon's "open entry" registration system for quartz mineral claims is subject to the same obligation required of the Canadian federal government to consult with First Nations.

The Ross River Dena Council is one of three Yukon First Nations that have not entered into a final agreement with the governments of Yukon and Canada regarding their claims to Aboriginal title and rights. A member of the larger Kaska First Nation, the Ross River Dena Council's traditional area extends over 63,000 square kilometers (24,318 square miles), or roughly 13 percent of the Yukon.

The other Kaska group, the Liard First Nation, and the White River First Nation in southwestern Yukon also have not finalized agreements regarding claims to Aboriginal title and rights. Eleven other Yukon First Nations have final agreements with both the Yukon government and the Crown.

The lawsuit by the Ross River Dena Council challenges the free entry staking system in Yukon and the government's right to register mining claims without consulting affected First Nations. Under Yukon's Quartz Mining act, an individual can acquire mineral rights by physically staking a claim and then recording it with the Mining Recorder. Once recorded, a claim gives its owner rights to the minerals within its boundaries and the right to conduct certain exploration activities on the land without further authorization or

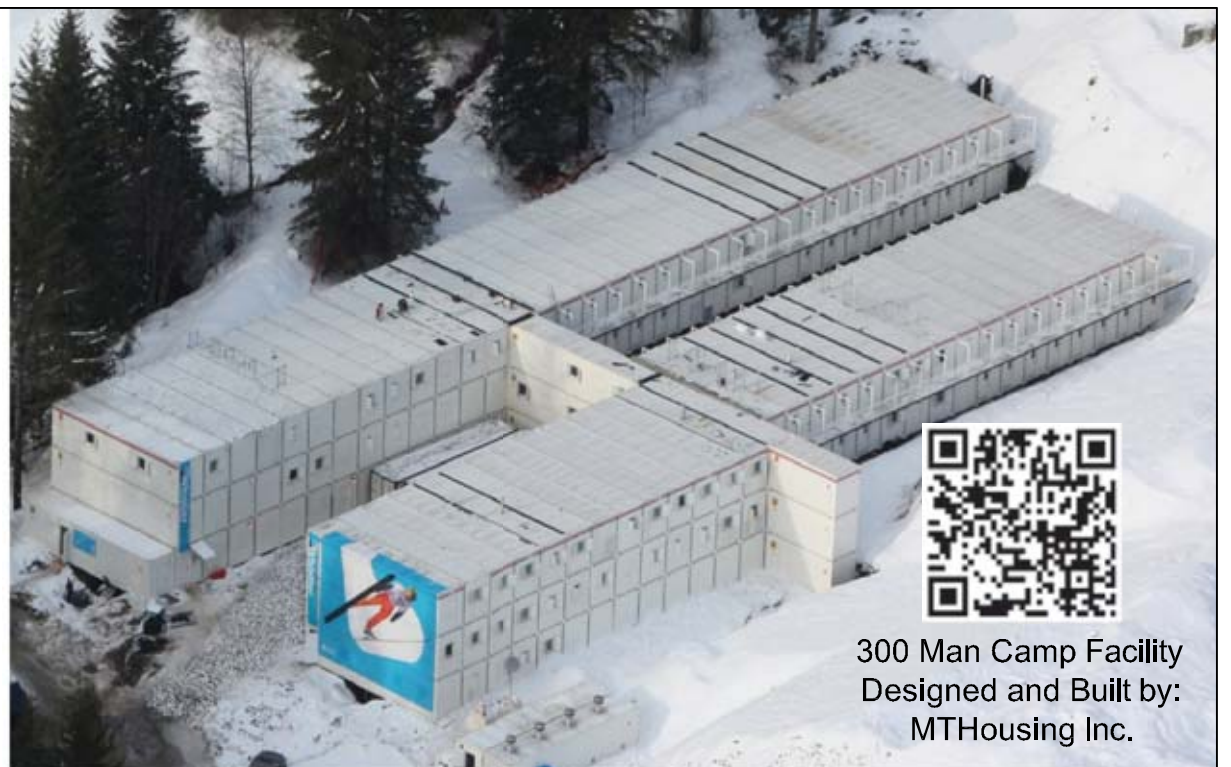
see COURT RULING page 13



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continued from page 12

## COURT RULING

notice to the Yukon government.

The Ross River Dena argued that the system allows activities that infringe on its Aboriginal rights and that principles adhered in a 2004 case, “Haida Nation v. British Columbia (Minister of Forests),” require the Yukon government to consult with the First Nation before recording quartz mining claims with the Ross River area.

The Yukon Territory Supreme Court agreed and ruled in 2011 that the Yukon government must give notice to the First Nation after new mining claims have been registered.

The Ross River Dena appealed, asserting that consultation must take place before mineral claims are recorded and that consultation requires more than mere notice of new claims.

The Yukon government argued that the granting of a mineral claim is automatic rather than discretionary when statutory requirements are met and thus, there is no duty to consult.

Moreover, mineral exploration activities in the Yukon, in general, are subject to assessment under the Yukon Environmental and Socio-Economic Assessment Act. Section 74(2) of this regulation includes a requirement for consultation with First Nations. Certain exploration activities, however, corresponding to those that fall under Class 1 exploration activities are exempted from assessment, meaning they can take place without notice to or consultation with the First Nations with claims that may be affected by them. Class 1 activities include limited clearing of land, construction of lines, corridors and temporary trails, the use of explosives and the removal of subsurface rock and other specified activities.

### A duty to consult

The Court of Appeal sided with the plaintiff, noting in its decision that “in order for the ‘government’ to meet its obligations it must develop a regime that provides for consultation commensurate with the nature and strength of the Aboriginal rights or title claim and with the extent to which proposed activities may interfere with claimed Aboriginal interests.

“The duty to consult exists to ensure that the Crown does not manage its resources in a manner that ignores Aboriginal claims. It is a mechanism by which the claims of First Nation can be reconciled with the Crown’s right to manage resources. Statutory regimes that do not allow for consultation and fail to any other equally effective means to acknowledge and accommodate Aboriginal claims are defective and cannot be allowed to subsist,” wrote the Hon. Justice J.A. Groberman.

The appellate court did not specify when or how consultation should take place, and it allowed that in some instances, simply giving a First Nation notice would be sufficient to meet its obligation.

However, at least where Class 1 exploration activities will have serious or long-lasting adverse effects on claimed Aboriginal rights, the government must be in a position to engage in consultation with First Nations before the activities are allowed to take place, the court said.

“The honor of the Crown demands that it take into account Aboriginal claims before divesting itself of control over land. Far from being an answer to the plaintiff’s claim in this case, the failure of

the Crown to provide any discretion in the recording of mineral claims under the Quartz Mining Act regime can be said to be the source of the problem,” Groberman concluded.

The appellate court also suspended its ruling for one year to allow the government time to consider statutory and regulatory changes to Yukon’s mining regime which would provide for appropriate consultation.

### Kaska reaction to ruling

Reacting to the court ruling, the Kaska First Nation Jan. 7 issued a statement in which it said the Kaska Nation has attempted to negotiate modern-day solutions to the realities of common law regarding aboriginal rights and title in Canada with the Yukon government.

“The issue of ‘free entry’ has been one that the Kaska have been asking YTG to negotiate with them on. YTG continue to refuse to negotiate, instead choosing a path of confrontation with First Nations on issues such as the Peel (Watershed) and changes to the Yukon Oil and Gas Act,” wrote the First Nation.

“... We’ve never been really opposed to mining and mineral development in our

territory. We just want to see things done properly in our territory, and we want to be a big part of the things that are happening. So, the Court of Appeal’s decision really puts us in a good position. We feel that through this decision our concerns about the existing system will finally be addressed,” said

Ross River Dena Council Chief Brian Ladue.

A Yukon government spokesman declined to comment Jan. 16, saying Yukon leaders have been reviewing the court’s decision before determining a response. Parties have 60 calendar days from Dec. 27 before an appeal could be made.

### Broader implications?

The Yukon Chamber of Mines, an intervener in the case, said it is considering the ramifications of the grounds for appeal of the appellate court decision.

“Recent inaccuracies and misunderstandings in the public have caused unnecessary alarm amongst some industry members and with Yukoners,” the chamber said in a recent statement.

“While this ruling does contain some troubling implications, we are concerned

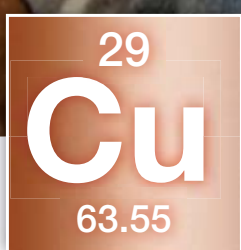
that some of the complexities of this case have been misunderstood, and we caution those who leap to a broad interpretation,” said Yukon Chamber of Mines President Rob McIntyre. “Regardless of the outcome of a possible appeal, it is critical to clarify, for the Yukon public, for our members working in the industry, and for investment and economic certainty in the territory, that this recent ruling only applies to the Traditional Territory of the Ross River Dena Council – the ‘Ross River area,’” McIntyre said.

Kaska leaders disagreed.

Chief Liard McMillan of the Liard First Nation said, “While the Ross River Dena Council’s case specifically addressed a portion of the Kaska traditional territory referred to as the ‘Ross River area,’ there can be no doubt whatsoever that the legal principles expressed by the Court of Appeal will apply to the remainder of the Kaska territory and, as well, to the traditional territory of the only other Yukon First Nation that has not entered into a land claim agreement – the White River First Nation.”

Moreover, after reviewing the decision, we are of the view that aspects of the

see **COURT RULING** page 19



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# Homestake attracts well-funded partner

Investment opens new vistas for longtime explorer in northwestern British Columbia, while Hecla Mining eyes neighboring project

By ROSE RAGSDALE

For Mining News

In today's difficult financing climate, Homestake Resources Corp. is living the dream of most junior mining companies. Agnico-Eagle Mines Ltd., an aggressive intermediate gold producer, has signed on to pay the bills at the Homestake Ridge project located in northwestern British Columbia in a deal where the gold producer could spend up to C\$25.3 million and earn up to a 70 percent interest in the exploration and development venture.

Formerly Bravo Gold Corp., the junior changes its name to Homestake Resources in April.

Homestake Ridge currently has a 1-million-ounce gold-equivalent resource, but Homestake President Joseph Kizis said he believes Agnico-Eagle was attracted to the project because of its potential to deliver much more.

"They've been following us for quite a few years, and I think the grade and reasonable logistics for this part of the world has caught their attention. But really what they are looking at is the district-scale potential of many more millions of ounces than we've found at this time," he said.

Kizis said the types of deposits his company has uncovered on the 2,585-hectare (6,388 acres) Homestake Ridge property "are typically formed as clusters."

"We've found two at this time, but late last year we intersected a parallel struc-

ture that we call the South Reef deposit," he said.

The junior quickly drilled three holes that tested a 75-meter strike-length and intersected 3.1 meters averaging 30.8 grams per metric ton gold and 3.3 g/t silver within 8.7 meters of 11.3 g/t gold and 1.6 g/t silver in drill hole HR11-232.

"What I think brought Agnico-Eagle to the table, maybe sooner than later, is that we have been drilling offset holes around that this summer," Kizis observed in September when the deal was reported.

## Hecla eyes neighbor

Adding to Homestake's strong prospects, Dolly Varden Silver Corp., a junior focused on exploration and development of the neighboring silver-rich Dolly Varden project, has attracted a C\$3.2 million strategic investment from silver producer Hecla Mining Co. in exchange for a 19.9 percent equity interest in the company.

The Dolly Varden project, which has a historic resource of 15 million ounces of silver, is located directly southeast and adjacent to the Homestake Ridge property as well as directly west and abutting Homestake Resources' huge Kinskuch project.

When the deal with Hecla was announced in August, Dolly Varden Silver President and CEO Ron Nichols said Hecla's experience at its Greens Creek Mine in Southeast Alaska will be particularly valuable to the Dolly Varden silver project because of the similar geological settings of the Greens Creek precious metal-rich VMS deposit and the precious metal-rich target that has been identified on the Dolly Varden property.

"Dolly Varden is pleased to be able to forge such a strong strategic partnership with Hecla. The combination brings together two accomplished technical teams that have a wealth of experience in operating and/or restarting mines in historical silver mining camps, as well as expertise in exploring for and developing precious metal-rich VMS deposits," Nichols added.

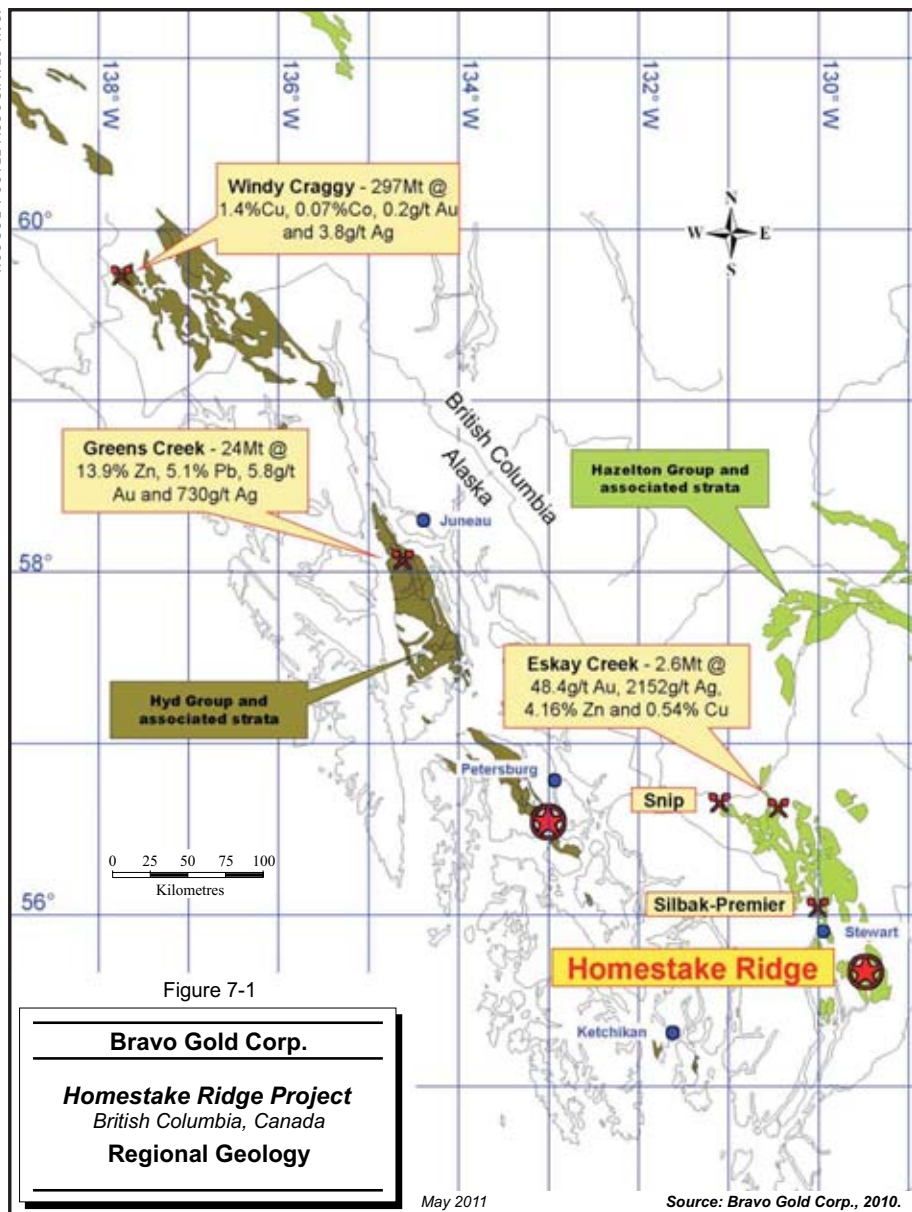
"It's basically the same package of rocks, though with different mineralization. Dolly Varden is more silver-zinc-lead rich, while Homestake is more copper-gold-silver rich," Homestake President Joseph A. Kizis Jr. told a reporter in September.

## A decade of exploration

Homestake Resources' current enviable position follows a decade of hard work. In 2003, the Vancouver, B.C.-based junior began exploring Homestake Ridge, which is hosted within Eskay Creek-equivalent stratigraphy in British Columbia's historic Kitsault mining district.

The property is located 32 kilometers (about 20 miles) southeast of Stewart, B.C. at the southern extent of the Cambria ice field in one of the largest volcanic arc terranes in the Canadian Cordillera. It is bounded by Alice Arm to the south, the Coast Plutonic Complex to the southwest, the Iskut River to the north, and the Skeena fold belt to the east. Within its boundaries is the "Golden Triangle", an area that is host to more

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## HOMESTAKE

than 200 mineral occurrences including the Eskay Creek, Silbak-Premier and Snip gold mines, as well as the Granduc, Dolly Varden-Torbrit and Anyox mines. The area's dominant mineral occurrences are precious metal vein systems, with related skarn, porphyry, and massive sulphide occurrences (Knight and Macdonald, 2010).

To date, the region has produced more than 7 million oz gold, 220 million oz silver and 3 billion pounds of copper and currently boasts NI 43-101-compliant resources/reserves exceeding 65 million oz gold and 25 billion lbs copper.

With prospecting and mining in the area dating back to the early 1900s, the Homestake Ridge property comprises two areas of historic exploration.

Homestake Resources followed up on limited modern exploration by several previous companies, and optioned the property from Teck Cominco – now Teck Resources Ltd. – before beginning exploration work in 2004.

Since then, the junior has completed 251 holes for a total of 70,533 meters in exploration and delineation drilling on the property and has identified NI 43-101-compliant indicated resources totaling 191,000 ounces gold and 1.35 million oz silver, plus 530,000 oz gold and 13.47 million oz silver inferred resources at a 3.0 g/t gold-equivalent cut-off in two separate deposits.

Discoveries to date include the Main Homestake deposit in 2005 and the Homestake Silver deposits in 2009 as well as the South Reef deposit in 2011. Multiple exploration targets remain to be tested on the property.

Though access to the Homestake Ridge property is by fixed-wing aircraft or helicopter from Prince Rupert, B.C. or Stewart, the legacy of mining in the area has left a network of roads, utilities, right of ways, and historic camps near the property. Moreover, the property is located only six kilometers (about four miles) from a historic roadway and 32 kilometers (20 miles) north-northwest of tide-water at Alice Arm. Onsite power generation facility has been permitted and British Columbia's Northwest Transmission Line along with several proposed hydro-development projects in the area brings additional synergies to the project.

The junior said early metallurgical lab results indicate that expected recoveries from a combined gravity/flotation processing plant would be 85-90 percent gold, 80-90 percent silver, and 85-90 percent copper.

Environmental testing indicates initial tailings sample has low potential for acid generation and base-line work has been initiated.

Homestake also says it has excellent relations with local First Nations and is involved in ongoing engagement and consultation.

### More progress in 2012

Homestake completed five drill holes, totaling 1,248 meters in a C\$700,000 first round of 2012 drilling at the South Reef target, which is located about 800 meters to the southwest of the Main Homestake deposits.

The company reported 4.0 meters averaging 11.4 g/t gold and 3.7 g/t silver from drill hole HR12-243; and a 2.9-meter interval averaging 5.9 g/t gold and 2.0 g/t silver, which includes a 0.5-meter interval averaging 16.3 g/t gold and 4.6 g/t silver from drill hole HR12-240.

Estimated true thicknesses were not calculated for the reported intervals due to uncertainty in correlating mineral intercepts with surface exposures; however, it is likely that the mineralization is sub-vertical.

Homestake also completed another eight holes in a second round of drilling totaling 3,495 meters at South Reef that was funded by the gold producer to the tune of C\$1.8 million.

Agnico-Eagle has an option to spend an additional C\$8.5 million by Dec. 31, 2014 to earn a 51 percent interest in the Homestake Ridge project and a total of C\$25.3 million by 2016 to earn a 65 percent interest in the project. The gold producer also can arrange 100 percent of capital expenditures needed to fund the project and earn an additional 5 percent for a total 70 percent working interest.

Agnico-Eagle also purchased 2 million common shares of Homestake Resources at C35 cents per share for proceeds of C\$700,000, which was added to the junior's working capital.

### Aggressive plans for 2013

In 2013, the junior and its new partner plan to spend C\$3.5 million to extend the South Reef zone, target new gold up-slope from the Main Homestake deposit and possibly extend both the Main Homestake and Homestake Silver deposits.

Homestake Jan. 17 reported that it has completed a transition to the senior mining company assuming management of the Homestake Ridge project for the 2013 exploration season.

The junior also posted drill results from its second round of drilling at South Reef in 2012, which tested the structure over a 600-meter strike length, as well as drill results at three other targets on the property. Among drilling highlights: A 3.0-meter interval averaging 5.4 g/t gold, 3.2 g/t silver and 0.26 percent copper, including 0.8 meters averaging 14.4 g/t gold, 5.4 g/t silver and 0.42 percent copper from drill hole HR12-242; and 5.8 meters averaging 2.3 g/t gold, 7.4 g/t silver, 0.13 percent copper and 3.0 percent zinc, including 0.6 meters interval averaging 12.2 g/t gold, 22.0 g/t silver, 0.5 percent copper and 21.9 percent zinc from hole HR12-248.

The newly reported holes are offsets to holes previously reported from South Reef during the 2011 and 2012 explo-

ration seasons. Estimated true thickness of the mineralized intervals is generally 70-85 percent of down-hole thickness.

Geological modeling indicates that drilling results in 2012 have increased the size of the high-grade mineralized zone to some 250 meters along strike and 250 meters down dip before ending in, or being offset by, a major fault structure.

Mineralization is open along strike to the northwest, where it projects beyond the extent of previous drilling in the Fox Reef zone. In addition, the modeling has identified several prospective targets to

the southeast of the newly defined South Reef deposit.

Mineralization identified in the South Reef deposit has not yet been incorporated into Homestake's most-current mineral resource estimate for the project. The South Reef deposit occurs along the eastern margin of a strong induced polarization geophysical anomaly that can be traced through much of the central part of the Homestake Ridge property. High-grade gold-quartz veins occur within

see **HOMESTAKE** page 17

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• ALASKA

# Golden Summit lives up to its name

Boasting Fort Knox as a neighbor, Freegold Ventures' 6M oz gold project is ideally situated for low-cost exploration, production

By SHANE LASLEY

Mining News

When it comes to multimillion-ounce bulk-tonnage gold deposits in Alaska, one would be hard pressed to find one more ideally located than Freegold Ventures Ltd.'s Golden Summit Project.

Situated alongside the paved Steese Highway some 20 miles (32 kilometers) northeast of Fairbanks, a city of 87,000 that embraces its gold mining heritage, the project has direct access to an able work force, grid power and the full range of services needed to operate a low-cost drill program.

"Exploration and development costs in the Fairbanks area are at or below those common in the western United States," Mark Abrams and Gary Giroux penned in a December 2012 technical report for the Golden Summit property.

Not only is the Fairbanks region an efficient place to explore for and develop a deposit, Kinross Gold Corp. has demonstrated that a low-cost mine also can be operated here.

Fort Knox, located roughly five miles (eight kilometers) southeast of Golden Summit, is one of Kinross' most efficient operations.

Fort Knox General Manager Dan Snodgrass told the mining community gathered at the 2012 Alaska Miners Association convention, "Fort Knox is by far the lowest cash-cost (open-pit) producer within the Kinross portfolio."

The ideal location has enabled Freegold to overcome the extreme cold



Golden Summit is situated along the Steese Highway about 20 miles (32 kilometers) north of Fairbanks. This advantageous locale allows Freegold Ventures to carry out year-round drill programs at Golden Summit, despite the subzero winter temperatures for which this part of Interior Alaska is known.

of Interior Alaska to successfully operate drill programs at Golden Summit nearly year-round.

"Winter drilling is possible because of the excellent infrastructure in place,"

Freegold Ventures President and CEO Kristina Walcott told Mining News at the onset of the 2012 program early last year.

The 15,000-meter drill program, launched during temperatures hovering around 40 degrees-below zero Fahrenheit, is one such example. The carefully orchestrated campaign merged the 1.3-million-ounce Dolphin gold deposit with the adjacent Cleary Hill area, resulting in an explosive 325 percent expansion of the resource.

At a 0.35 grams-per-metric-ton gold cut-off grade, the Dolphin-Cleary Hill deposit at Golden Summit now boasts an indicated resource of 62.62 million met-

ric tons averaging 0.73 g/t gold for 1.46 million ounces and an inferred resource of 191.92 million metric tons averaging 0.67 g/t gold for 4.1 million ounces.

The Golden Summit property also hosts three historical mines – Cleary Hill, Hi Yu and American Eagle. These high-grade gold operations – which together produced more than 450,000 ounces of gold from ore that averaged about 1.5 ounces-per-short-ton gold – are among 80 known gold occurrences scattered across Freegold's 12,257-acre (4,960.8 hectares) land package.

An aggressive 20,000-to-25,000-meter drill program currently being drafted by Freegold management for 2013 will continue to expand and upgrade the six-million-ounce Dolphin-Cleary Hill gold deposit as well as investigate other promising prospects across the Golden Summit property.

## 6M oz. deposit


When Freegold kicked off its 2012 drill program in early January, the company had already outlined 1.3 million ounces of gold at the Dolphin deposit and some 6,400 meters of reverse circulation and core drilling completed at Cleary Hill indicated this adjacent prospect was of similar size and tenor.

Highlights from this past drilling at Cleary Hill include hole CHD9704, which cut 55.2 meters averaging 1.95 g/t gold; hole CHD0301 with 124.5 meters averaging 1.02 g/t gold; and hole CHD001 with 61 meters averaging 1.87 g/t gold, including 14.3 meters averaging 6.4 g/t gold.

The 47 holes drilled by Freegold in 2012 was a balance of upgrading and expanding the Dolphin zone, establishing a resource at the Cleary Hill area and filling in the 400-meter gap between these two exploration areas:

•GSCL1201, drilled in the heart of

see **GOLDEN SUMMIT** page 18



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## HOMESTAKE

broad zones of strongly anomalous gold mineralization (e.g. 75.9 meters averaging 0.5 g/t gold in hole HR12-248) associated with disseminated pyrite and strongly chloritic host rocks that can be traced for the entire 600 meters of the tested strike-length. Thick intervals of anomalous silver (e.g. 60.0 meters averaging 1.9 g/t silver in HR12-249 and 11.6 meters averaging 16.6 g/t silver in HR12-251) mineralization were identified in several holes that tested to the east of the Vanguard Fault. These intervals appear to be closely associated with host rocks and styles of mineralization identified in the Homestake Silver deposits, indicating a potential proximity to additional gold/silver deposits or the extension of the Homestake Silver deposit to the southeast on the property.

### New horizons at Kinskuch

Homestake, meanwhile, holds an option to acquire a 100 percent interest in the 623-square kilometer (240.5 square miles) Kinskuch project, located adjacent to, and to the southeast of, the Homestake Ridge project.

"Kinskuch covers about 20 times as much ground as Homestake Ridge," said Kizis. "We've barely gotten started at Kinskuch. About 60 percent of the property was covered in 2011 by an airborne geophysical survey."

Homestake reported that diamond drilling along the Illiance River trend on the Kinskuch property during 2011 was successful in intersecting high-grade silver/lead/zinc VMS mineralization in three of four holes. In early December, the junior said surface soil and rock-chip sampling along the trend in 2012 extended known mineralization in the trend by an additional 750 meters to a 4.5-kilometer (three miles) strike length. In addition, a second sub-parallel trend of elevated copper and gold anomalies has been identified to the west of the main trend, along a prominent geophysical conductivity anomaly. The geologic setting is believed to be similar to the historic Dolly Varden VMS mine, the largest historic silver producer in the region.

The Illiance River trend is the first of several high-priority areas identified by Homestake in Kinskuch.

"Some of the best VMS deposits in the world occur within Jurassic-age Hazelton rocks, and include the past-producing Eskay Creek and nearby Dolly Varden deposits," said Homestake Vice President of Exploration Rob Macdonald in the Dec. 6 statement. "Our drilling demonstrated that (silver-lead-zinc) mineraliza-


*"We're pretty enthusiastic about adding ounces at Kinskuch with two major mining companies trying to produce a mine. It's a pretty low hurdle to become economic when there's a mine and mill already in the district."*

—Joseph A. Kizis, Jr., president and CEO, Homestake Resources Corp.

tion occurs at very attractive grades, similar to grades at the Dolly Varden deposits. Our rock and soil geochemical results, combined with our EM geophysical data, demonstrate that we have an extensive VMS horizon at Illiance River that could host several significant mineral deposits. We will initially offset our successful prior drill holes because we feel there is a very good likelihood of developing an attractive resource there, but VMS deposits typically form in clusters so other deposits probably exist in this under-explored region."

High-grade precious and base metal assays were reported in samples from several locations along the mineralized trend and extending south of the 2011 drilling. Noteworthy samples include:

Massive sulphide float assaying 3,321 g/t silver, 1.9 g/t gold, 0.8 percent copper, 40.1 percent lead and 22.4 percent zinc (4,341 g/t silver-equivalent) from in the vicinity of previously drill holes HR11-



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003 and HR11-004;

Strongly elevated silver mineralization in a series of three select chip samples ranging from 14.5 g/t silver to 61.9g/t silver, located 350 meters to the south of the 2011 drilling; and

989 g/t silver, 1.1 percent copper, 0.4 percent lead and 20.3 percent zinc (1,621 g/t silver-equivalent) assay from chip sampling of outcrop located an additional 400 meters to the south.

Homestake said these surface results are similar to those from initial 2011 sampling where subsequent drilling identified a series of sub-vertical mineralized VMS horizons along a 500-meter strike length of the trend. Results from 2011 included a 2.8-meter interval averaging 318 g/t silver, 0.4 g/t gold, 2.2 percent lead and 6.5 percent zinc (552 g/t silver-equivalent) from drill hole KN11-02; and a 3.9-meter interval averaging 268 g/t silver, 0.2 g/t gold, 1.3 percent lead and 6.5 percent zinc (462 g/t silver-equivalent) drill hole KN11-03.

In addition, anomalous copper-gold values in rock and soil samples were identified west of the silver-lead-zinc

VMS horizons within a large 1.5 kilometer by 0.5 kilometer EM geophysical anomaly, part of the company's 2011 airborne geophysical survey. Homestake geologists believe this mineralization may be more analogous to the discoveries at Homestake Ridge.

Results from the 2012 sampling include a select-chip sample of heavily disseminated sulphides in outcrop grading 6.4 percent copper; a series of select-chip samples along the new trend ranging from 0.1 percent copper to 0.5 percent copper; and a series of anomalous gold (10 to 115 parts per billion) and copper (60 to 277 parts per million) values in soil samples along the trend.

Mineralization along the entire 4.5-kilometer Illiance River trend remains open in all directions.

Homestake said it will aggressively explore this trend in 2013.

"We're pretty enthusiastic about adding ounces at Kinskuch with two major mining companies trying to produce a mine. It's a pretty low hurdle to become economic when there's a mine and mill already in the district," Kizis added. ●

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## GOLDEN SUMMIT

the Cleary Hill Mine area, cut 6.24 meters near the surface that average 2.93

g/t gold and a deeper intercept of 102.7 meters averaging 1.12 g/t gold.

•GSDL1201, drilled in the gap between Dolphin and Cleary Hill, returned 314.1 meters averaging 0.69 g/t gold, including 132.7 meters of 1.19 g/t

gold.

•GSDL1204, about midway between Dolphin and Cleary Hill, cut 115.06 meters grading 1.08 g/t gold.

•GSDL1207, between Dolphin and Cleary Hill about 100 meters north of 1204, cut 39.6 meters averaging 1.88 g/t gold, further demonstrating the tenor of mineralization between Dolphin and Cleary Hill.

•GSDL1210, between Dolphin and Cleary Hill, cut 20.9 meters grading 34.69 g/t gold.

•GSDL1213, about 100 meters east of 1204, cut 136.7 meters averaging 1.57 g/t gold.

•GSDL1218, testing the depth potential of the Dolphin resource, cut 531.3 meters averaging 0.59 g/t gold, including 90.5 meters averaging 1.1 g/t gold.

•GSCL1221, drilled in the Cleary Hill area roughly 150 meters southwest of GSCL1201, cut 50.43 meters averaging 1.46 g/t gold; and

•GSDL 1224, drilled along the northeast side of the original Dolphin deposit, cut 606.2 meters averaging 0.57 g/t gold.

Now merged, the six-million-ounce Dolphin-Cleary Hill deposit is a continuous northeast trending orebody measur-



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*"We will probably look to do another 10,000 meters in the Dolphin-Cleary area that will be both infill and expansion drilling, and we will do about another 10,000 to 15,000 (meters) out in the other areas."* —Freegold Ventures President and CEO Kristina Walcott

ing nearly 1,400 meters long, some 400 meters wide and, in places, more than 600 meters thick.

### Adding ounces in 2013

The Dolphin-Cleary Hill deposit lies at the western end of a series of prospects that stretch some four miles (6.5 kilometers) along the Golden Summit property. The aggressive 2013 drill campaign planned by Freegold management will continue to expand and upgrade the six-million-ounce deposit, while investigating other promising areas along this trend.

"We will probably look to do another 10,000 meters in the Dolphin-Cleary area that will be both infill and expansion drilling, and we will do about another 10,000 to 15,000 (meters) out in the other areas," Walcott told Mining News during a Jan. 22 interview.

Christina, a 1,500-meter-long shear zone that has hosted several historical high-grade gold mines, lies immediately to the northeast of the Dolphin-Cleary Hill deposit. While remnants of high-grade veins may still exist, Freegold believes it to be a bulk-tonnage gold prospect. Holes drilled there in late 2011 and early 2012 underscore this potential. Highlights of the results include hole GSDC 11-75, which cut 84.9 meters averaging 0.64 g/t gold; GSDC 11-76, with 64.7 meters averaging 1.75 g/t gold; and hole CH 12-05, the best hole of the latest assay results from Christina, with 34.7 meters of 0.67 g/t gold and 15.7 meters of 1.07 g/t gold.

Goose Creek, the next prospective area east of Christina, is another target Freegold wants to test in 2013. Several holes drilled at this target in the 1990s cut enticing gold and silver mineralization over significant widths. Those drill results include hole GCR9701, with 4 g/t gold over 48 meters and 30 g/t silver over 55 meters; hole GCR9204, with 1.7 g/t gold over 20 meters and 38 g/t silver over 33 meters; and hole GCR 9202, with 0.5 g/t gold over 23 meters and 28 g/t silver over 23 meters.

No drilling has been completed at Goose Creek since 1998.

Too Much Gold is the easternmost of the prospects Freegold plans to drill in 2013. Though this prospect may not hold the overabundance of gold its name suggests, drilling here in 1996 shows its potential. Those results include hole TMG9606, which cut 15 meters averaging 3.8 g/t gold; hole TMG9608 with 38 meters averaging 0.9 g/t gold; and hole TMG9611 with 47 meters averaging 0.6 g/t gold.

Freegold is studying the historical drill results along with a comprehensive geochemical and geophysical database as it puts the finishing touches on its plan to investigate these Golden Summit prospects in 2013.

"We just want to take our time, compile the results and look at everything to make sure we have the best targets," Walcott explained.

The Freegold CEO anticipates the company being ready to kick off the 2013 exploration season at Golden Summit in February, a program that surely attract the attention of its gold-producing neighbor. ●

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## COURT RULING

Court of Appeal's decision may well apply to the Yukon First Nations that have settled their land claims, and the entire Yukon, the Kaska leaders said.

"The court confirmed that Class 1 exploration activities may adversely affect the aboriginal rights of the Kaska and, therefore, the Kaska must be notified, consulted and perhaps accommodated with respect to those activities before they occur. Precisely the same argument could be made by the settled First Nations with respect to the adverse effects of Class 1 exploration activities on their treaty harvesting rights," they added.

The Chamber's McIntyre said, "On behalf of our members, we look forward to continuing the constructive dialogue we have initiated with Kaska Nation leadership, and to ensure that mineral exploration can continue undiminished within Kaska Nation Traditional Territory. We remain convinced that whatever the final outcome of this court action, people living in Kaska Territory will be able to enjoy the benefits

*"The Ross River Dena case provides a timely discussion of this issue given that 2013 has started with the high-profile 'Idle No More' campaign by First Nations, ignited by their view that federal environmental legislation and changes to the Indian Act introduced in 2012 were done without consultation."*

**Blake's Aboriginal Law Group, Vancouver, B.C.**

of a thriving mining industry like other Yukoners."

On Jan. 7, Kaska Dena Council Chair George Miller also said, "While we are unable to agree with some of the public statements made last week by the Yukon Chamber of Mines, we want to take this opportunity to confirm that we agree with the Chamber's representatives that we need to work towards a common sense approach to meeting the requirements of the Court of Appeal's decision, and we look forward to engaging in that process to build upon the excellent meeting we had with them in

December 2012."

Michael Kokiwi, executive director of the Yukon Chamber of Mines, said the Court of Appeal's ruling like will affect all of the "unsettled" First Nations in that many previous negotiations were not done to the "Haida" standard.

Kokiwi said the chamber sees its role as helping to ensure that all parties understand the implications of the decisions that they make. "We don't want to see Yukoners lose out on any future prosperity," he explained. "Our role is to see that all governments, whether federal, the territory or First Nations, understand that.

Kokiwi said considerable speculation followed the court's ruling among industry and court observers that the decision may affect all of Canada's First Nations.

The issue does appear to be topical in other Canadian jurisdictions, especially as it relates to legislative schemes concerning mining, legal observers say. As recently as Nov. 1, 2012, Ontario amended its Mining Act to ensure that affected First Nations are consulted prior to substantive exploration work based on litigation in Ontario similar to the Ross River Dena case.

Legal observers say one of the most salient aspects of the decision is the court's consideration of the responsibility of the Legislature to address the duty to consult "when legislation is introduced" – a currently unresolved issue before the courts.

"The Ross River Dena case provides a timely discussion of this issue given that 2013 has started with the high-profile 'Idle No More' campaign by First Nations, ignited by their view that federal environmental legislation and changes to the Indian Act introduced in 2012 were done without consultation," members of Vancouver, B.C.-based Blake's Aboriginal Law Group wrote in a Jan. 17 article.

They say it remains to be seen whether the Yukon government will follow or expand on Ontario's example in a way that balances and protects the right of free entry for mineral tenures.

Further, the appellate court decision illuminates a grey area in the current case law by distinguishing between the "necessity" of consultation in relation to the introduction of legislation as opposed to consultation in relation to the implementation of legislation, the lawyers added. ●

continued from page 11

## TETLIN RESULTS

targeted by core drilling.

Triple Z, located some 20 miles (32 kilometers) north of Chief Danny, is the only prospect across the Tetlin land package with historical drilling. Unfortunately, the results of the porphyry copper exploration completed by Cities Services Minerals Corp. in the early 1970s were never published.

Though the historical exploration may only provide limited clues to the potential of Triple Z, soil and rock sampling by Core yielded values as high as 9.07 g/t gold as well as anomalous copper, arsenic and bismuth.

Supported by airborne magnetic survey data, these geochemical clues encouraged the explorer to drill 2,015 meters at Triple Z in 2012. Results from these six holes are pending.

Unlike the geochemical clues that piqued Core's interest at many of the other leads at Tetlin, it was a distinct geophysical anomaly that prompted Contango to investigate Taixtsalda, a prospect about 26 miles (42 kilometers) southeast of Chief Danny.

Geophysical programs conducted in the 1970s and 2011 have outlined a distinctively round area of magnetic and resistivity highs indicative of a porphyry copper system.

This geophysical anomaly along with coincident copper-gold anomalies discovered during a soil sampling program carried out in May revealed promising drill targets.

MM, like the Chief Danny prospect some three miles (five kilometers) to the northeast, was discovered through pan concentrate sampling. One pan sample collected in 2009 topped 1 g/t gold and follow-up panning in 2010 discovered gold concentrates exceeding 0.1 g/t gold in several of the drainages in the MM prospect area.

A magnetic airborne survey conducted last year revealed a strong magnetic low at MM and refined the drill area for the upcoming 900-meter core drill program. To further refine these targets, the company plans to conduct early season top of bedrock auger drilling.

The original lease hammered out by Juneau and the Tetlin Village Council in 2008 provided Core a 10-year window to investigate these prospects spread out

*"Our goal is to identify sufficient mineral resources by the end of 2013 to justify initial reviews of economic and engineering parameters on the Chief Danny prospect."*

**—Contango Ore President and CEO Brad Juneau**

across the 675,000 acres of lands under the agreement, at which point the Texas-based explorer would have an option to renew the most prospective half of the property for another 10 years.

In order to focus on expanding the Peak zone, Core and the Alaska Native group renegotiated these terms, releasing the Texas-based explorer from the obligation to return half of the leased lands in 2018.

"We want to acknowledge the high level of cooperation afforded us by the Tetlin Village Council, as well the significant contribution made by our labor force from Tetlin and Avalon Development," Juneau said.

Taking the lessons learned over the past four years, Core is shifting its focus from wildcat drilling to outlining an economically viable high tenor gold-copper-

silver deposit in eastern Alaska.

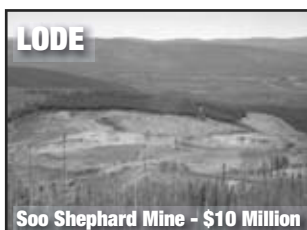
"Our challenge now is to determine the extent of the newly discovered Peak zone-Chief Danny areas, and to try to locate additional mineralized zones with similar mineralization," Juneau explained. "We are currently working on a geophysical model that ties the known drilling results to all available surface samples and geophysical data, in an effort to improve the success rate of our drilling program. Our goal is to identify sufficient mineral resources by the end of 2013 to justify initial reviews of economic and engineering parameters on the Chief Danny prospect." ●

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**Candle Creek Mine - \$5 Million**

- Approximately 6,000 total acres of mining claims available (1,000 acres are patented)
- Lots of heavy/light mining equipment (D8's, D9's, Nodwell drills, etc)
- Transportation vehicles, large mechanic shop, multiple living quarters, & other camp related structures
- 5,000 foot airstrip big enough for DC-4 and DC-6 aircrafts
- More than 600,000 ounces of gold has been removed from the Candle area with possible reserves up to 400,000 ounces remaining on site
- Hard rock potential
- Geological data, drilling reports, surveys, and production reports are available upon request



**Soo Shephard Mine - \$10 Million**

- The Soo Gold Project is situated on the north side of Pedro Dome, Fairbanks, AK
- Exploration & mining confirms that gold occurs in mineable grades
- The Property is comprised of two sets of claims.
- 450,745 oz of probable gold reserve
- \$50 million plus in property infrastructure with road access to the property
- Over \$128 Million of gold has been mined
- 300 acres with extensive drill logs and exploration data
- 1,410 acres of mining claims



**Bear Creek Mine - \$12.5 Million**

- Includes 1,640 acres of pay dirt, huge suction dredge, dozers, mining camp, and credible exploration data with package
- Located in the Northern Innoko Mining District of Western Alaska (260 air miles from Anchorage)
- 17,330 ounces of proven ground at cut off and much more virgin ground to explore
- Geological data, drilling reports, surveys, and production reports are available upon request



**Jewel Monarch - \$219,000**

- The Jewel Mine is 8 miles from Girdwood near the head of Crow Creek, .5 mile South of the Monarch veins at an elevation of 3,450 feet
- Total recorded production, including that of the Jewel Mine was 4,933 ounces Au and 996 ounces Ag
- Mill has burned so there is no equipment of value
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- A 5 acre mill site is included in the purchase price
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# MINING

NORTH OF 60

Companies involved in Alaska and  
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NEWS

DIRECTORY



The Red Dog mine in northwest Alaska.

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## • YUKON TERRITORY

# Eagle Gold eyes April construction start

Junior advances project that could become the largest gold mine in Yukon history as 2012 exploration defines nearby Olive target

By ROSE RAGSDALE

For Mining News

Victoria Gold Corp. appears to be well on its way to building a mine at the Eagle Gold Project in central Yukon Territory by 2015, with construction start-up tentatively scheduled for April.

Eagle Gold is the most advanced new project in the region and is on track to become the largest gold mine in Yukon history. With estimated employment of 350-400 people, the mine also is expected to make a significant contribution to the territory's economy.

Victoria aims to produce 207,000 ounces of gold during the first full year of operation in 2015, average 212,000 oz gold annually at a cost of US\$542/oz during the first five years and average 192,000 oz gold per year at a cost of US\$614 per oz over the 12-year life of the mine.

Based on a positive feasibility study, the company is projecting C\$260 million in annual cash flow over the first five years of production at a gold price of US\$1,700/oz.

The Eagle Gold deposit hosts probable reserves of 2.3 million oz of gold contained in 92 million metric tons of ore with a grade of 0.78 grams per metric ton gold, as outlined in a recent NI 43-101-compliant feasibility study of the project. Thanks to substantial growth through exploration during the past three years,



A core sample collected from a trench on the Olive target located about 2.5 kilometers (1.5 miles) northeast of the Eagle Gold deposit on the Dublin Gulch property in central Yukon Territory glints with visible gold.

Eagle Gold's NI 43-101 mineral resource is currently estimated at 222 million metric tons averaging 0.68 g/t gold, containing 4.9 million ounces of gold in the indicated category inclusive of probable reserves, and a further 78 million metric tons averaging 0.60 g/t gold, containing 1.5 million ounces of gold in the inferred category.

The deposit is located on the 650-

square-kilometer (251 square miles) Dublin Gulch claim block some 85 kilometers (53 miles) by road; north-northeast of the village of Mayo within the mineral rich Selwyn Basin of Yukon Territory.

In addition to the Eagle Gold deposit, Dublin Gulch hosts the Mar tungsten deposit and a 21-kilometer- (13 miles) long belt of multi-element mineralization known as the Potato Hills Trend. Within this belt, Victoria has identified several new gold and silver zones with significant mineral potential.

## More deposits nearby?

In 2012 Victoria focused on moving the Eagle Gold project towards production while exploring and expanding the mineral inventory of the entire claim block.

In October, Victoria reported drill and surface sampling results on the Olive target, one of several areas of significant mineralization centrally located along the Potato Hills Trend. The company completed 11 diamond drill holes for 2,996 meters in a program that targeted extensions of

mineralization identified during previous drilling programs and reconnaissance surface sampling. Assay results have been received for six of the 11 holes and continue to show significant gold grades and intersection widths. These include 6.4 meters of 3.12 g/t gold starting at a depth of 124.60 meters in hole DG12-530C and 1.43 meters of 8.09 g/t gold starting at 87.86 meters within 10.1 meters of 2.56 g/t gold starting at 84.03 meters in hole DG12-529C.

Victoria said some of the Olive target mineralization likely will be amenable to heap leaching and may be accretive to the nearby, proposed Eagle Gold Mine. Metallurgical work on the Olive samples is ongoing.

"Olive is shaping up to be a meaningful complement to the proposed Eagle Gold Mine, which is set to begin construction in 2013 and production in 2015," said Victoria President and CEO John McConnell.

The Olive target is located 2.5 kilometers (1.5 miles) northeast of the Eagle Gold deposit and is the site of several historically exploited high grade sulfide veins.

The Olive area was mined on a small scale from shallow shafts and adits at the turn of the last century and placer mining in creeks draining the area indicate gold bearing host rocks. The Olive vein system is located near the top of Olive gulch and consists of gold bearing quartz scorodite arsenopyrite vein material. A 200-meter trench excavated and sampled in 1991 exposed a zone of quartz and quartz arsenopyrite veins hosted in the Dublin Gulch granodiorite that averaged 1.2 g/t gold over 97.6 meters. Diamond drill hole 91 012C collared in the trench intersected 89.9 meters grading 1.08 g/t gold and drilling by Victoria in 2010 verified the gold mineralization (DG10 384C: 20.3 meters grading 1.93 g/t gold (from 18.1 meters to 38.4 meters) plus 41.1 meters grading 0.96 g/t gold (from 49.1 meters to 90.2 meters). Subsequent drilling in 2011 continued to intersect mineralization (22.8 meters averaging 0.72 g/t gold; hole DG11 466C). The best results of the 2012 surface sampling program include 189.5 g/t gold, 64.0 g/t gold and 11.5 g/t gold (all grab samples) from arsenopyrite and scorodite arsenopyrite veins in trench OLTR 09.

The 2012 program adds to the historical work and indicates that the Olive area has the potential to become Victoria's next significant resource.

"The Olive and Shamrock targets could be two more Eagle-size deposits," Victoria Senior Project Geologist Joanna Ettliger told Mining News during a visit to the Eagle Gold Project in August.

"Because we already will have the crusher and leach pad, it doesn't need to be another 6 million ounces to be worth exploiting," Ettliger explained.

## Building a mine

For 2013, the company plans to narrow its focus to concentrate exclusively on advancing Eagle Gold.

Victoria intends to build a conventional open pit, three-stage crush, in-valley leach operation with a production rate of about 29,500 metric tons per day. Gold extraction will utilize sodium cyanide



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## EAGLE GOLD

heap leaching technology.

The Eagle Gold Mine will produce 92 million metric tons of ore and 132 million metric tons of waste rock over an 11-year active mining phase, plus an additional year of gold recovery.

The project has excellent infrastructure including year-round road access, commercial grid power 25 kilometers (16 miles) from site and an airstrip 80 kilometers (50 miles) south of the project. In addition, the company has constructed a 100-person, all-season camp at the Eagle Gold project site.

A feasibility study, completed in 2012, targets initial production as early as the fourth quarter of 2014 and full production in 2015. The 20-month construction phase set to begin this spring will require initial capital and pre-strip costs estimated at C\$430 million.

A major hurdle for Victoria will be raising capital to fund construction of the proposed mine. However, the junior has more than a few financial resources on which to draw for funds.

The initial CAPEX (including pre-stripping) for the Eagle Gold project is C\$399.7 million, while life-of-mine sustaining capital costs are C\$132.9 million, and closure costs (net of salvage value) are C\$64.2 million. Based on US\$1,325-per-ounce gold, the project has a pretax net present value of US\$380.8 million (at a 5 percent discount rate), a 24.1 percent internal rate of return and a payback period of 3.1 years.

Victoria is 55 percent owned by institutions and counts senior mining company Kinross Gold Corp. among its major investors.

To raise capital, Victoria has embarked on a program of selling some of its assets, primarily in Nevada. The junior currently has about C\$40 million in working capital and could raise another \$20 million from proceeds of additional asset sales.

In November, Victoria reported the sale of its Big Springs Property, located in Elko County, Nev., for US\$6 million to MRG Copper LLC, a U.S. subsidiary of Big Springs Project Pty Ltd., which is concurrently being acquired by Kimberley Rare Earths Ltd. The deal is expected to close in February.

"This latest transaction further demonstrates our adherence to two of our core goals. Namely, to minimize share dilution by realizing cash through non-core asset sales and to remain focused on the construction of the company's flagship Eagle Gold Mine," McConnell said, after announcing the sale.

**"As a result of this assessment, the executive committee recommends to the decision bodies that the Eagle Gold Project be allowed to proceed without a review, subject to terms and conditions identified in this report." —Draft Screening Report, Yukon Environmental Socio-Economic Assessment Board**

Victoria also plans to borrow C\$210 million to C\$260 million in debt financing for the Eagle Gold project from a syndicate of banks on the strength of the project's feasibility study, which was recently reviewed and approved by an independent engineering firm.

"We're fairly confident (the syndicate) will step up with about C\$210 million in project debt financing," McConnell told reporters in December.

Alternative sources of financing include Victoria's royalty stream from the company's interests in producing assets, other forms of debt, a joint venture partner and issuing additional equity.

The Eagle Gold Project is tracking well through the environmental assessment process.

The junior has signed a comprehensive cooperation and benefits agreement with the local First Nation of the Nacho Nyak Dun. The Eagle Gold deposit is situated on land with the traditional territory of the Nacho Nyak Dun.

The project is currently being assessed under the Yukon Environmental and Socio-Economic Assessment Act by the Executive Committee of the Yukon Environmental and Socio-Economic Assessment Board. Additionally, a Water Use License and Quartz Mining License are required.

In September, Victoria reported the completion of the Draft Screening Report for the Eagle Gold project by YESAB. The regulatory body's delivery of the document is a significant milestone because it moves the project closer to finalization of an environmental assessment that is required under Yukon law.

In the screening report, the YESAB panel wrote: "As a result of this assessment, the executive committee recommends to the decision bodies that the Eagle Gold Project be allowed to proceed without a review, subject to terms and conditions identified in this report."

To begin construction, Victoria will need the Quartz Mining License, which can be issued within a matter of days following a positive YESAA Decision Document, which is expected in February or March.●



Victoria Gold Corp. President and CEO John McConnell and Senior Project Geologist Joanna Ettlinger study the mountainous terrain of the Dublin Gulch Property from atop the Eagle Gold deposit during a tour in August.

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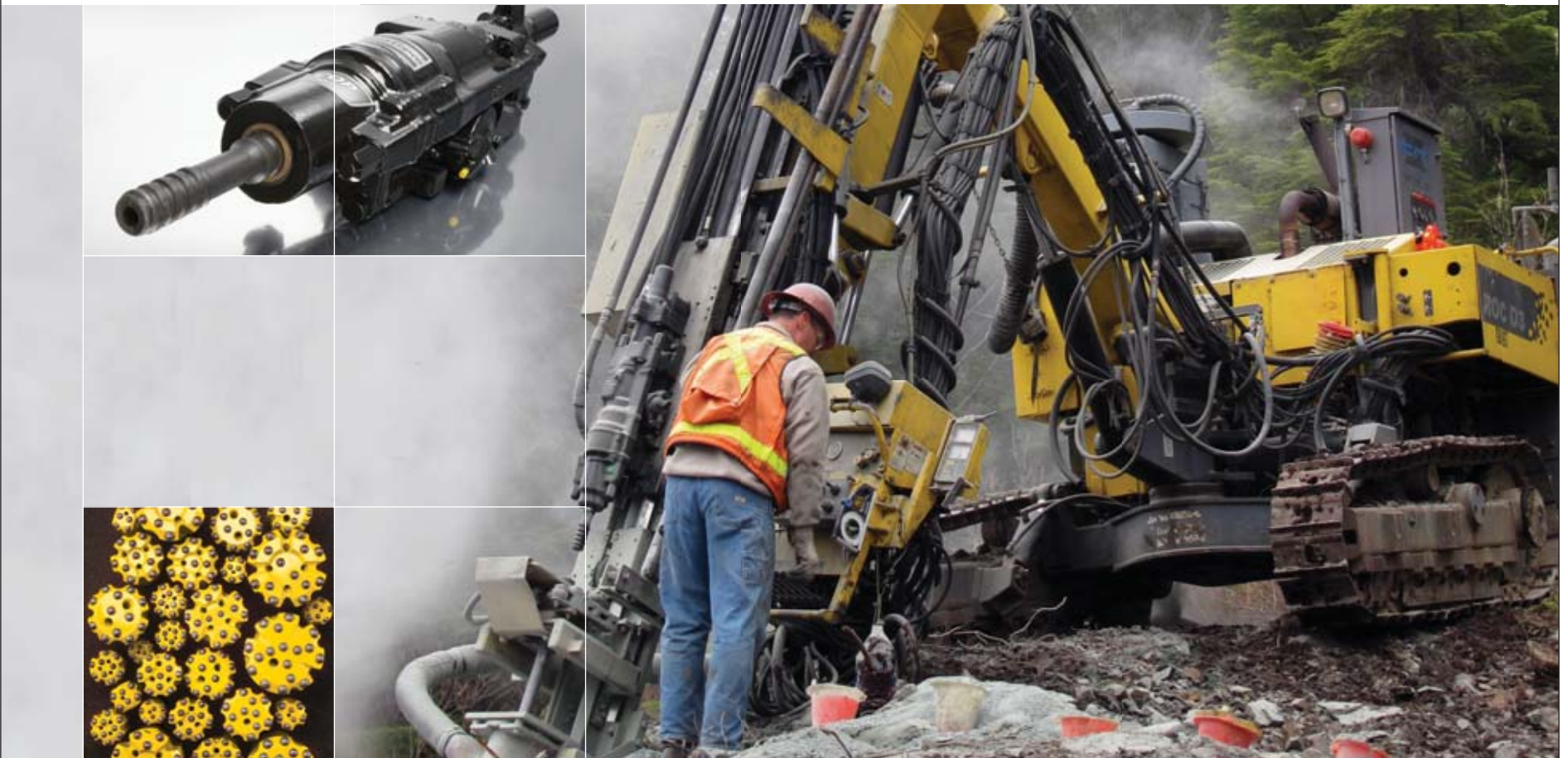


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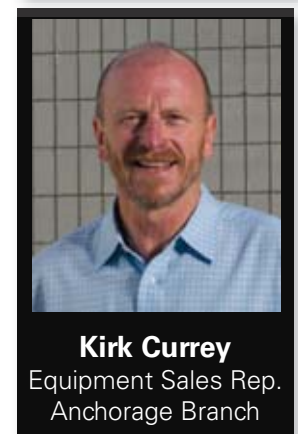
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