

# NORTH OF 60 MINING NEWS

## **2 Alaska miners seek infrastructure**

*Road to Nome, affordable rural energy tops minerals commission wish list*

## **10 Pols urge 'Restart' of REE mining**

*Legislation aims to stimulate domestic rare earth element supply-chain*

## **12 Nunavut looks beyond Meadowbank**

*Leaders call for planning, cooperation as Far North preps for more mines*

The view looking toward the Skwenta River from the Kitty North drill-site at Kiska Metal Corp.'s Whistler gold-copper project in Alaska.

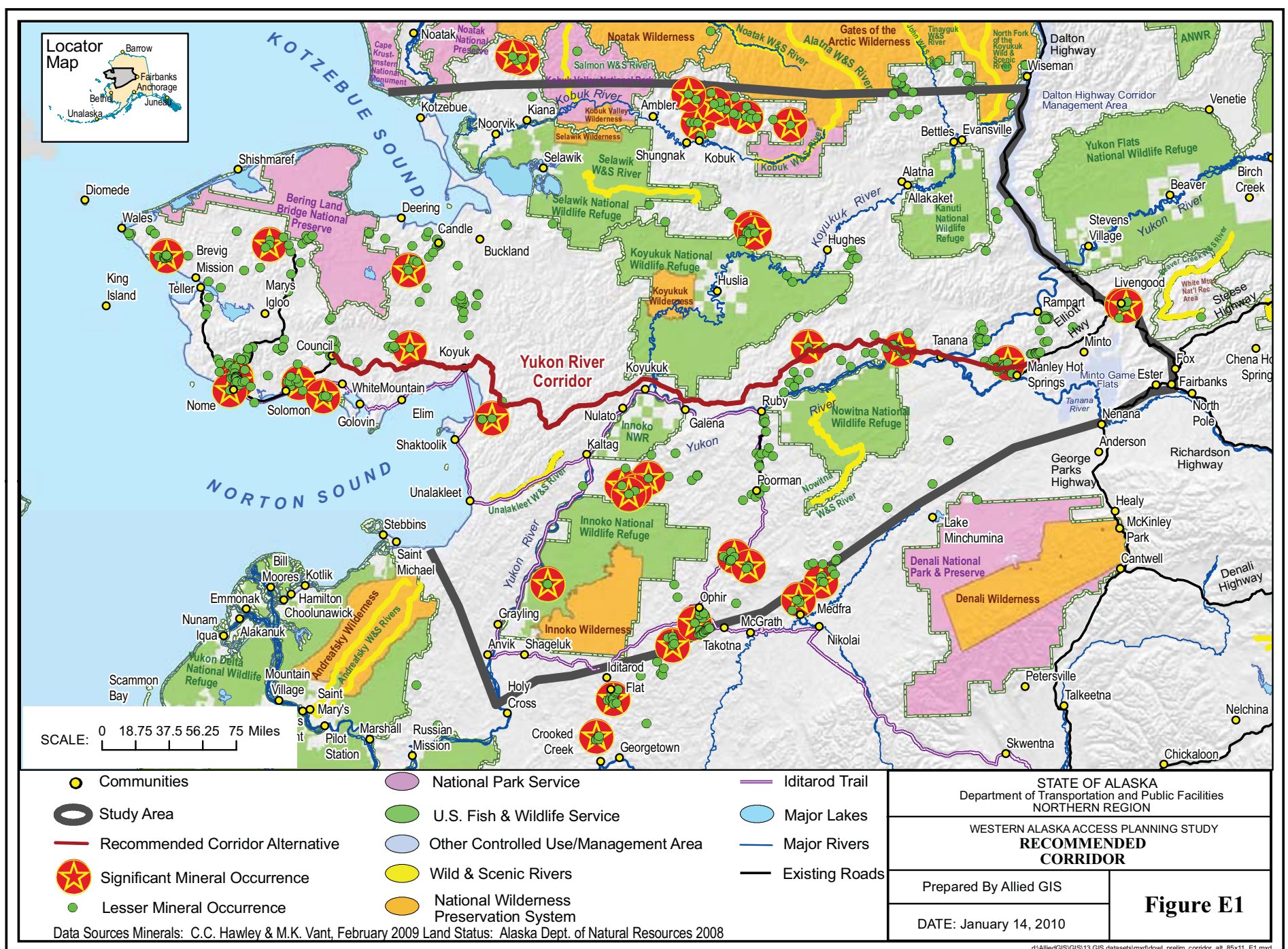
KISKA METALS CORP.

*A special supplement to Petroleum News*

WEEK OF  
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news





## • ALASKA

# Road to Nome tops commission wish list

Infrastructure could enhance development of Alaska's minerals while benefiting rural communities; lawmakers fund more studies

By SHANE LASLEY

Mining News

The expansion of North America's infrastructure ended about 500 miles short of reaching the westernmost shores of the United States, leaving more than 350,000 square miles of Alaska without surface transportation or affordable energy. A vast amount of mineral wealth is locked up in this Texas-sized expanse of western Alaska.

In its 2010 report, the Alaska Minerals Commission informed state lawmakers that, "Mining is one of few Alaska industries with near-term growth potential. Unfortunately, realizing this potential is currently limited

by inadequate energy and transportation infrastructure."

The commission, which was created by the Alaska Legislature in 1986 to make recommendations to lawmakers on ways to mitigate constraints on the development of minerals in the state, listed building a "road to Nome" and providing affordable power to rural Alaska as its top priorities in 2010.

In addition to westward expansion of transportation and energy systems, proposed improvements to Alaska's existing infrastructure also are expected to lower the costs of mining in the state.

During the final days of the regular session Alaska legislators added US\$58 million to the state's 2010 capital

budget for infrastructure spending that could support mine development.

## Road to Nome

The long-envisioned "road to Nome" has gained renewed traction in the form of the state-funded Western Alaska Access Planning Study, which investigates the costs and economic benefits of linking the Far West mining town to Alaska's contiguous road system about 500 miles, or 800 kilometers, to the east.

Dowl HKM, an Anchorage, Alaska, engineering firm contracted to do the study, evaluated four alternative

see **INFRASTRUCTURE** page 3

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# INFRASTRUCTURE

routes to Nome. The engineers considered the benefits to mining and communities in western Alaska in their recommendations.

Of the alternatives considered, the engineering firm determined that the Yukon River Corridor has the best balance of resource and community development benefits with the least adverse impact to the environment as well as land ownership and management.

The 500-mile road, which would generally parallel the Yukon River for most of its length, is estimated to cost about US\$2.5 billion to build.

Benefits for mining were among the major considerations of the study. A road would support the exploration, development and operations of mining projects by providing a less expensive method of shipping supplies and fuel to the mines along with transporting mining concentrates out of the mines, according to the study.

The Tanana Chiefs Conference, a unified group of 42 Interior Alaska Native communities, has endorsed the Yukon route. The alliance's board of directors cites the current high transportation and fuel costs as reasons it stands behind building the road.

"The transportation costs make everything more expensive around the community. A road system would alleviate that somewhat," board President Jerry Isaac said.

Six communities belonging to the Tanana Chiefs Conference (Tanana, Ruby, Galena and Koyukuk) would share in the expected annual savings of US\$19.1 million per year in fuel, freight and mail transport costs if road transportation is used. Other communities near the road also would benefit, but to a lesser degree.

In addition to serving several villages, the study said the Yukon Route also would provide connections to Donlin Creek gold mine to the south and the Ambler Mining District to the north.

The Alaska House of Representatives Finance Committee April 16 added US\$1 million to the state capital budget to fund preliminary engineering of the road.

## The northern route

Many in Alaska's mining industry prefer the runner-up alternative, known as the northern route. This corridor would take off from the Dalton Highway north of the Yukon River and run southwest along the southern slopes of the Brooks Range to the road system near Nome. This nearly 700-mile, or 1,100-kilometer, route was specifically chosen to provide access to the Ambler Mining District, a region of the western Brooks Range which hosts several volcanic massive sulfide prospects, including the world-class Arctic deposit.

NovaGold Resources Inc. President and CEO Rick Van Nieuwenhuyse told an



The Elliott Highway extends 152 miles (245 kilometers) from Fox, about 10 miles (16 kilometers) north of Fairbanks, to Manley Hot Springs. The proposed Yukon River Corridor would continue west from Manley Hot Springs to the road system near Nome.

audience at the Arctic International Mining Symposium in Fairbanks in March that if the Ambler region had road access, there is no question a mine would be operating at the Arctic deposit.

Arctic, one of several known volcanic massive sulfide deposits in the region, contains an indicated resource of 16.8 million metric tons containing 4.1 percent copper, 6.0 percent zinc, 0.83 grams per metric ton gold 59.6 g/t silver and 0.94 percent lead. The estimate includes an additional inferred resource of 11.9 million metric tons with an average of 3.6 percent copper, 5.0 percent zinc, 0.67 g/t gold, 48.4 g/t silver, and 0.80 percent lead.

The northern route alternative passes about 50 miles, or 80 kilometers, south of the Arctic deposit.

## Mackenzie rail

While a road to Nome may still be years down the road, a rail extension to Port Mackenzie is on the fast track to completion.

The Matanuska-Susitna Borough and the Alaska Railroad are working together to build the rail extension, which would connect a deep-water port capable of handling Cape-size ships to Alaska's main rail.

The spur line is expected to provide an efficient means of transporting bulk commodities like Alaska coal and limestone to world markets. The railroad and the borough say the rail extension also would improve the economics of mining copper, zinc, lead and molybdenum along the railbelt.

The rail line would travel north from the port facility and connect to the existing rail system at a point between Meadow Lakes and north of Willow. Depending on the final route, the extension would be about 30 miles, or 48 kilometers, to 45 miles, or about 73 kilometers, long.

The route will be known when an envi-

ronmental impact study, due this summer, is completed.

The Alaska State House added US\$57 million to the state's capital budget to continue work on the rail extension. Depending on the route chosen, the rail spur is expected to cost an additional US\$170 million to US\$240 million to complete.

The borough and railroad are projecting construction to begin this summer and the project's completion by 2013.

## Linking Livengood

Another transportation idea floated to miners is a rail extension from the Dunbar

*"The transportation costs make everything more expensive around the community. A road system would alleviate that somewhat."*

—Tanana Chiefs Conference Board President  
Jerry Isaac

Station (located about 19 miles, or 30 kilometers, north of Nenana) to Livengood. This potential 50-mile extension would provide access to the world-class Globe Creek limestone deposit north of Fairbanks and could lower transportation costs to and from International Tower Hill Ltd.'s multi-million-ounce Livengood gold deposit.

Charles Bohart from the Department of Mining and Geological Engineering told participants in the Arctic International Mining Symposium in Fairbanks that preliminary estimates suggest that rail transportation could reduce shipping-transportation costs for the Livengood project between US\$35 million and US\$76 million.

The rail also would pass near the 1.6-billion-ton Globe Creek limestone deposit. At a quarry rate of 3,320 tons per day, the deposit could provide limestone, Portland cement and fertilizer to Alaska and the world for more than 100 years.

Bohart also noted the potential for the transport of timber from the Tanana Valley State Forest and sightseeing excursions for tourists as other ways the Alaska Railroad would benefit from laying tracks to Livengood.

Bohart told Mining News that a two-part prefeasibility study, investigating the costs and benefits of the rail extension, is expected to be completed in December. ●

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## • GUEST COLUMN

# Gold demand could shake world markets

*China shifts from largest producer to largest buyer of precious metal as growing middle class and bullion reserves drive trend*

By CURT FREEMAN

For Mining News

As Alaska's mining industry moves into the frenetic summer exploration and development season, the rest of the world is being buffeted by wild financial and commodity "mood swings" that are affecting the metals markets. The big markets shake the little markets and the little markets shake Alaska. Perfect example: the World Gold Council recently reported that China's growing middle class is expected to double its demand for gold for jewelry and investment purposes over the next decade.

However, China's current position as the world's largest gold producer is expected to change since most of its mines are small, short-life, labor-intensive operations. In fact, in 2009 China's gold production grew to 314 metric tons of gold, while jewelry and investment demand grew to 423 metric tons of gold, creating a significant shortfall in gold supply that was made up with purchases from nondomestic sources.

To make matters worse, the Chinese central bank gold bullion reserve, at 1,054 metric tons, is just 1.6 percent of its total liquid reserves, and there is pressure to increase its bullion holdings, primarily by converting its huge U.S. dollar holding into gold. That means demand for gold from outside of current production. Long story short – more gold demand, less gold production leads to only one thing. And most of the other metals are in the same boat – long on demand, short on supply.

## Western Alaska

**TECK RESOURCES LTD.** announced first-quarter results from its Red Dog Mine. In the first quarter, the mine produced 132,900 metric tons of zinc in concentrate. Zinc ore grade decreased to 18.9 percent while mill recoveries remained steady at 81.2 percent. The mine also produced 35,000 metric tons of lead in concentrate. Lead ore grade increased to 6.3 percent, while mill recoveries decreased to 64.2 percent. The mine posted a US\$94 million operating profit for the quarter, more than tripling the US\$29 million profit in the same period a year ago. The increased operating income was attributed to higher zinc and lead prices, offset by lower zinc grades. The mine paid US\$20 million in royalty payments to partner **NANA INC.** and the State of Alaska during the first

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CURT FREEMAN

quarter. The company said the Aqqaluk deposit permit remains unsettled, and the company will see a curtailing of mine operations by October 2010 if the permit issues are not resolved.

**ZAZU METALS CORP.** announced completion of a preliminary assessment study on its Lik South deposit. The study considered both indicated and inferred mineral resources in the Lik South deposit amenable to open pit mining. The life of mine open pit production plan includes the production of 16 million metric tons grading 8.08 percent zinc, 2.57 percent lead and 47.9 g/t silver. The preproduction capital cost estimate was \$352 million including 22 percent contingency for a 5,500 tpd mine and mill with an eight-year mine life. The estimated life-of-mine operating costs were \$75 per metric ton. Based on metal prices of \$1 per pound for zinc, 80 cents/lb for lead and \$16/oz for silver, the operation demonstrated a pretax Internal Rate of Return of 9 percent.

**TINTINAGOLD RESOURCES INC.** announced 2010 plans for the Kugruk project near Candle. Plans call for camp mobilization in early May followed by a 4,000 meter core drilling program beginning in June. The property consists of a 15-kilometer belt of a strong magnetic anomaly along the eastern margin of the Kugruk pluton, a large granodiorite body intruding Paleozoic schists and marbles. A thick layer of loess (windblown silt) covers most of this magnetic belt; however, locally the higher terrain shows anomalously high copper in soils. A few historic drill holes from the Kugruk magnetic belt show strong concentrations of magnetite with associated chal-

copyrite and pyrite. Further east, a halo of silver-lead-zinc prospects and further outboard gold prospects ring the intrusive system beyond its magnetic border, suggesting the project hosts a large area of intrusive-related system which has received little exploration. The planned 4,000-meter drilling program at Kugruk will initially test for economic grades of copper mineralization along the magnetic belt. Three specific targets have coincident high magnetic/low resistivity responses along with copper in soils and strong Induced Polarization chargeability anomalies. Additional baseline geophysical and geochemical programs are planned to identify other target areas beneath the thick loess cover.

**TINTINAGOLD RESOURCES INC.** also announced plans to fly airborne geophysical surveys over its Colorado Creek gold project north of McGrath and its Omlak lead-zinc-silver project on the Seward Peninsula.

Alaska newcomer **CEDAR MOUNTAIN EXPLORATION INC.** announced acquisition of the Kelly Creek gold project on the Seward Peninsula. Under terms of the option agreement with Alaska-based **GREATLAND EXPLORATION**, Cedar Mountain can earn its interest by paying aggregate lease payments of \$1 million and incurring US\$2.15 million in work commitments over six years. Cedar Mountain has the option to purchase 100 percent of the project at any time within those six years for US\$1.5 million, with all lease payments paid prior to exercise of the option being deducted from the purchase price. Greatland will retain a production royalty equal to 5 percent of the net smelter returns. Cedar Mountain also will make annual advance royalty payments of US\$100,000 upon exercise of the option, US\$100,000 on the first anniversary of the exercise of the option, and US\$200,000 on or before each subsequent anniversary of the exercise of the option. Kelly Creek is believed to be a sediment-hosted gold deposit with numerous open-ended, multi-element, coincident gold, arsenic and antimony soil anomalies that have been tested with limited drilling. Gold mineralization at Kelly Creek is hosted in a metamorphosed Devonian-Silurian carbonate-shale platform-shelf sequence and is associated with the intersection of specific stratigraphic horizons and secondary fault splays. This prospective stratigraphy is exposed along a

15-kilometer by 5-kilometer corridor bounded by regional faults. The gold mineralization at Kelly Creek was discovered by **ANACONDA COPPER MINING CO.** as part of a regional stream sampling project focused on tin exploration in the early 1980s. Following up a positive gold stream sediment anomaly with a small, but encouraging soil survey, Anaconda drilled two holes into the target horizon returning results of 1.07 grams of gold per metric ton over 23.5 meters and 0.83 grams of gold per metric ton over 32 meters. Welcome to Alaska Cedar Mountain Exploration Inc.

**FIRE RIVER GOLD CORP.** announced new gold results from previously unreleased drilling at its Nixon Fork gold project near McGrath. Significant results include 3.5 ozs/t gold over 14 feet in hole N08U023, 1.6 ozs/t gold over 3.3 feet in hole N08U025, 1.8 ozs/t gold over 1.3 feet in hole N08U026, 1.7 ozs/t gold over 3.6 feet in hole N08U032, 1.8 ozs/t gold over 13.7 feet in hole N08U028, 1.5 ozs/t gold over 8.8 feet in hole N08U031, 0.79 ozs/t gold over 30.2 feet in hole N07U024 and 0.76 ozs/t gold over 10.8 feet in hole N07U022. In the years 2007 to 2008, the former operator drilled 9,400 meters in 110 holes, the results of which have never been previously disclosed to the public. These holes are being resampled as part of the company's re-valuation of the project. The new assay results are in reasonable agreement with previously sampled core, although grade variations are present due to the coarse nature of the gold at Nixon Fork. Results are pending for 84 additional underground holes and seven additional surface holes.

**LIBERTY STAR URANIUM & METALS CORP.** announced it has identified 12 targets for further exploration at its Big Chunk copper-gold project near Iliamna. An airborne ZTEM geophysical survey covering 1,256 line kilometers (315.2 square kilometers) was completed and partial data from that survey has returned signatures typical of a porphyry copper-gold system. Additional results from the geophysical survey are pending.

## Interior Alaska

**TERYL RESOURCES CORP.** and joint venture partner **KINROSS GOLD CORP.** completed a 12.8-mile ground magnetometer/gradiometer survey on its Gil

see FREEMAN page 5

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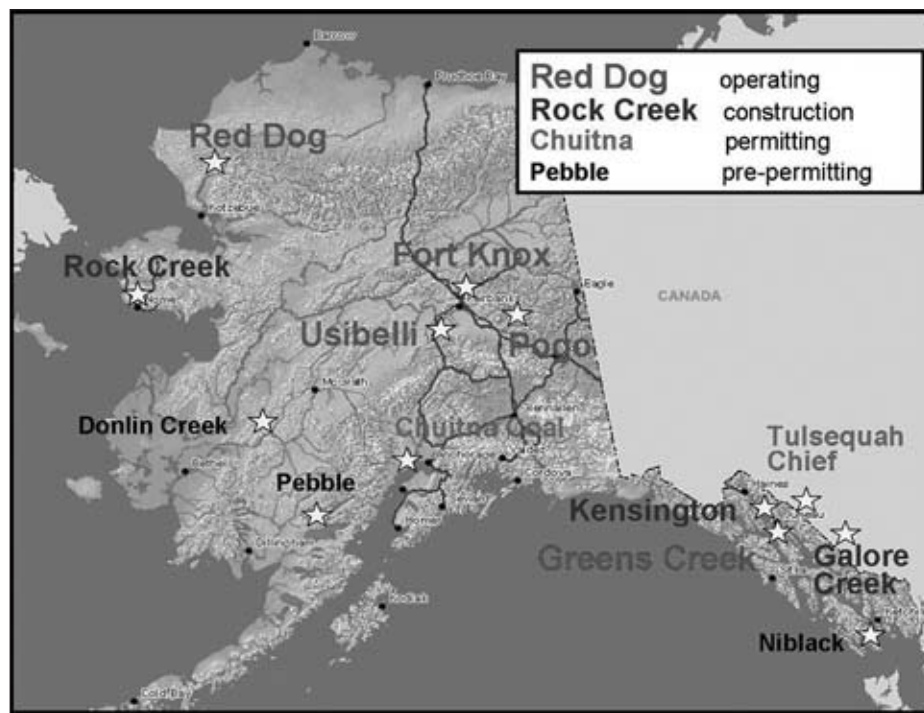
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## FREEMAN

deposit in March and began a 16,000-foot drilling program in April. The goal of its 2010 exploration program is to further delineate the strike extension of the mineralized zones, and to infill between step-out holes in order to gain a better understanding of continuity. The drilling program consists of 11,000 feet of reverse circulation drilling and 5,000 feet of core drilling. In addition, fieldwork involving mapping, soil and rock sampling and mobile metal ion geochemical sampling will be performed.

**FREEGOLD VENTURES LIMITED** and **WESTERN STANDARD METALS LTD.** announced plans to defer their previously announced merger. The companies will concentrate on building value for their shareholders by focusing on the exploration and development work programs on their respective and joint projects for the upcoming field season. Both companies will continue amalgamation discussions in order to consolidate their projects.

**INTERNATIONAL TOWER HILL MINES LTD.** announced additional drilling results from its 20,000-meter 2010 winter drilling campaign at its Livengood gold project. Significant results include hole MK-RC-0310, which returned 33.53 meters at 0.92 g/t gold, hole MK-RC-0315 which returned 82.29 meters at 0.78 g/t gold and an additional 25.91 meters at 2.00 g/t gold, hole MK-RC-0316, which returned 13.72 meters at 1.58 g/t gold, hole MK-RC-0317, which returned 35.05 meters at 0.91 g/t gold, hole MK-RC-0322, which returned 57.91 meters at 1.20 g/t gold, hole MK-RC-0323, which returned 62.48 meters at 1.03 g/t gold and hole MK-10-47, which returned 36.98 meters at 1.30 g/t gold. These holes continue to fill in



the gap between the Sunshine zone and Core zone. The winter drill program has now moved into the Southwest zone and will be followed up with a 40,000 meter summer 2010 drilling program set to begin in June.

Alaska newcomer **FIRST STAR RESOURCES** announced that it had acquired options on International **TOWER HILL MINES LTD.'S** LMS gold project in the Goodpaster District. Under the terms of the agreement, First Star has the ability to earn an initial 55 percent interest, and a second option to earn a further 45 percent for a total 100 percent interest. To earn the 55 percent interest First Star will pay \$280,000 and expend \$3.5 million on exploration. To acquire a 100 percent ownership, First Star will fund the project through to an advanced exploration stage by spending an additional \$3 million prior to December 31, 2015, or by producing, fil-

ing and having accepted inferred resources of 2 million ounces of gold using a 0.3 gram per metric ton cutoff grade, whichever costs less. A net smelter return royalty of 3 percent or 4 percent on gold or silver and 1 percent on all other products will be payable to Tower Hill. The royalty can be reduced by 1 percent by paying Tower Hill \$3 million. The gold mineralization in the LMS claim block occurs with strongly silicified and brecciated zones that are associated with a low-angle shear zone within, and marginal to schist units. The outcrop exposure of this zone has produced samples up to 6.2 g/t gold and the zone has been defined through drilling to a down-plunge depth of 500 meters. Published resources at LMS stand at 167,000 ounces of gold at an average grade of 0.89 g/t gold using a cut-off grade of 0.3 g/t gold. The company intends to conduct a drilling program at LMS during 2010. Welcome to Alaska First

Star Resources!

First Star Resources also announced that it has acquired options on International Tower Hill Mines Ltd.'s West Pogo gold project in the Goodpaster District. Under the terms of the agreement, First Star has the ability to earn an initial 55 percent interest, and a second option to earn a further 45 percent for a total 100 percent interest. To earn the 55 percent interest First Star will pay US\$250,000 and spend US\$2.8 million on exploration. To acquire a 100 percent ownership, First Star will fund the project through to the advanced exploration stage by spending another US\$2 million prior to Dec. 31, 2015, or by producing, filing and having accepted inferred resources of 1 million ounces of gold, using a 0.3 g/t cutoff grade, whichever costs less. A net smelter return royalty of 3 percent or 4 percent on gold or silver and 1 percent on all other products will be payable to Tower Hill. The royalty can be reduced by 1 percent by paying Tower Hill US\$3 million. The gold mineralization discovered to date at West Pogo is related to high-temperature quartz veins like those at the nearby Pogo gold mine with similar trace-element values (up to 11 g/t gold with high bismuth and tellurium values). Dominant structures on the property are east-west shear zones related to northwest and northeast trending fault zones. The company intends to conduct a drilling program at West Pogo during 2010.

### Alaska Range

**GRAYD RESOURCE CORP.** has entered into an agreement with the **HUNTER DICKINSON GROUP** to form a joint venture on its 100 percent-owned Delta base and precious metals volcanogenic massive sulfide project located in the eastern Alaska Range. Under the terms of agreement,

see **FREEMAN** page 7



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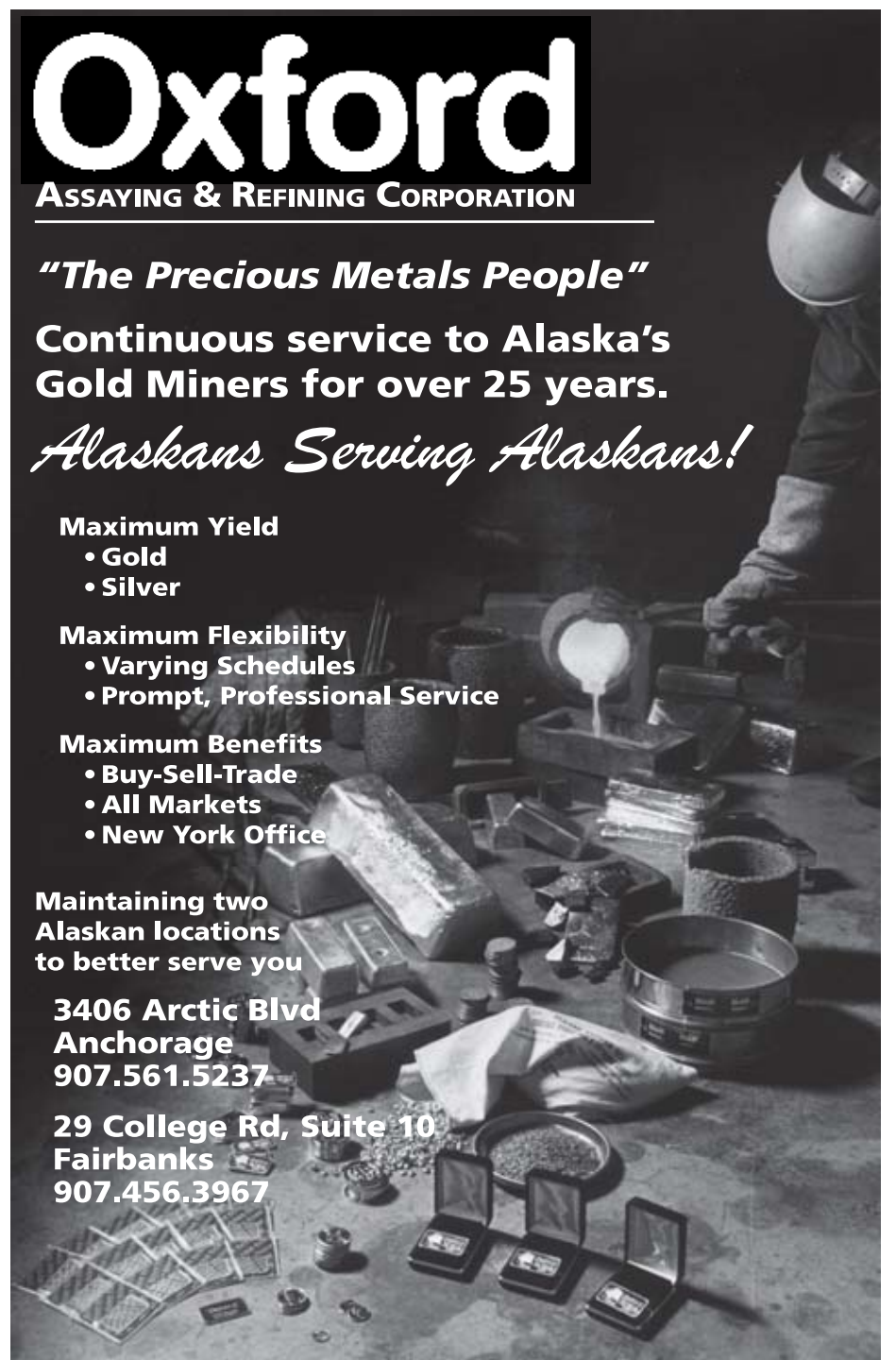
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## • GUEST COLUMN

# Life's certainties remain death and taxes

*Media misses real story in West Virginia coal mine fatalities, focuses instead on company's disputes with federal watchdog agency*

By J. P. TANGEN

For Mining News

**I**t is said that two things are certain: death and taxes. Since most of us have just sent off our annual tribute to the sovereign, it seems timely to reflect on death for a while. Always an indelicate subject in our society, death stalks us all. None of us are getting out of here alive.

Of the 61 million people who will shuffle off the mortal coil this year, roughly 90 percent will die as a result of some medical condition, which leaves all other causes with the rest. Half of those people, about 3 million, will die as a result of violence, war or traffic accidents.

No statistical review, of course, softens the bereavement suffered when a loved one dies, nor should it; however, those who work in the mining industry should take comfort in the knowledge that mining is one of the safest industries in the United States.

This thought is brought on due to the extraordinary coverage that death from domestic mining incidents receives in the popular press. The recent tragedy in West Virginia grotesquely underscores the point. There was an explosion. Lives were lost. Sacred, valuable human lives. Nonetheless, a large focus of the coverage was on the fact that the mining company had a history of safety violations, as if to imply that but for the negligence or misconduct of the company,

## Mining & the law

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J.P. TANGEN

these brave souls would still be with us.

Nothing I have read makes even the slightest effort to go behind the isolated facts to draw a nexus between the allegations of violations and the causation of the fatalities. In a gaseous environment, it does not require a safety violation to precipitate an explosion.

Anecdotally, anyone close to the mining industry in the United States is well aware of the fact that the Mine Safety and Health Administration, which is charged with ensuring the mining workplace is a safe one, does its job to an absurd extreme. They make a mockery of the process by citing innumerable trivial offenses routinely. Some even argue that this is their perceived mandate. But whether this is the case or not, with regard to the Massey disaster, the repeated statistic was that the company was challenging more than 200 cita-

*No statistical review, of course, softens the bereavement suffered when a loved one dies, nor should it; however, those who work in the mining industry should take comfort in the knowledge that mining is one of the safest industries in the United States.*

tions, as if to imply that there was an evil motive in disputing criticism.

It seems incongruous in the extreme to imagine that a money-grubbing capitalist would waste time and resources resisting sanctions that could simply be passed on to consumers as a cost of doing business; unless, of course, there was something thought wrong with the citations. When you and I get a traffic ticket, no matter how much we love our money, we pay the fine. Even if we have a colorable excuse, the time and costs associated with fighting city hall just isn't worth the benefit. Don't think for a minute that coal mining is more dangerous than traffic violations – more than 3,500 people a day die in automobile accidents.

Companies don't fight MSHA citations because they enjoy it; they fight them because that is the only way, under our system, to try to focus light on the extreme practices of the agency. Ironically, this is the huge back story that the press has totally missed.

Unfortunately people die prematurely on a daily basis. I am mindful of the four police officers recently shot in a Seattle coffee shop while preparing for their day on the street. These heroes

confront violence on a daily basis; their demise was duly marked by memorials reflective of their contribution to the community and the risks they take on a daily basis to keep our communities safe. Nowhere was the press coverage focused on the number of safety violations the police department had incurred or whether the oversight was adequate.

It is submitted that the miners of America are no less heroic than our men in blue. Much of our energy comes from mined coal; and, by extension, virtually all of our social amenities are the direct result of commodities derived from the ground, whether lead or gold, zinc or silver, molybdenum or platinum. Mining is labeled as a dangerous occupation; however, mining in America is far less dangerous than shopping in Wal-Mart.

As we reflect on the lives lost in West Virginia, let us put it in perspective. Grieve though we must, the startling fact remains: Miners are safer in the pits and tunnels than they are on the way home from work after their shift; and in an American mine they are, perhaps, safer than anywhere else in the world. ●



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continued from page 5

## FREEMAN

Grayd has acquired a 40 percent interest in the venture by contributing all claims it holds. HD will hold a 60 percent interest in the venture by reimbursing Grayd for reasonable costs related to the December 2009 claim-staking, and by funding exploration and development expenditures on the project totaling in aggregate at least US\$1 million on or before Jan. 1, 2012, and an additional amount of at least US\$2 million, on or before Jan. 1, 2013. Upon completion of its initial contribution, HD shall have the option to increase its ownership interest in the venture to 80 percent by funding additional expenditures of US\$4 million on or before Jan. 1, 2014, and HD shall have an additional option to increase its ownership interest to 100 percent by providing to Grayd either two million shares or shares with a market value of US\$4 million in any publicly listed company. Exploration work on the project dates back to 1976 and has resulted in the discovery of some 40 mineral showings. Three stratigraphic horizons favorable for the occurrence of massive sulfide mineralization have been recognized and sulfide mineralization has been traced for at least 3.2 kilometers, or about 2 miles, of strike length in a semicontinuous horizon. Delta hosts mineral zones with estimated inferred mineral resources totaling 15.4Mt grading 0.6 percent copper, 1.7 percent lead, 3.8 percent zinc, 62 g/t silver and 1.7 g/t gold. Historic work on the property includes geological mapping, geophysical and geochemical surveying and approximately 27,000 meters of core drilling. HD has initiated a compilation and reinterpretation of the extensive historic database and archived core specimens as a first step in the development of new deposit models and targets.

**PURE NICKEL INC.** announced that **ITOCHU CORP.** will proceed with exercising its option to vest its interest in the MAN project in the Paxson area. ITOCHU has agreed to an acceleration of expenditures over the next three years. The partners have agreed to a US\$7.5 million budget for 2010, which represents an almost 90 percent increase over the original US\$4 million budget. ITOCHU also has agreed to spend US\$8.0 million in 2011 and US\$8.0 million in 2012.

**FULL METAL MINERALS LTD.** announced that it has entered into an agreement with **KENNECOTT EXPLORATION CO.** on the Grizzly-Butte copper-gold porphyry in the Talkeetna Mountains. Under terms of the agreement, Full Metal can earn a 100 percent interest in the project by paying US\$20,000 in cash and incurring US\$5.0 million in exploration expenditures over six years (US\$180,000 firm first year). Full Metal will pay Kennecott a one-time cash payment of US\$10 million upon completion of a feasibility study. Upon commencement of commercial production, Full Metal will pay a 2 percent net smelter return royalty. Before effecting a sale or assignment of rights and interests to the property, Full Metal will give Kennecott notice of price and terms, and a 90 day period to acquire such rights and interests at 90 percent of the price and terms stated in the notice. Historical exploration of the area included programs by Cities Service and Bear Creek Mining in the 1970s. Previous work included geologic mapping, soil sampling, and an airborne magnetic geophysical survey. Previous operators completed wide-spaced soil grid with 300-meter line spacing covering a portion of the intrusive complex and extending west over thin surficial cover. Collectively, there are a total of 313 samples, of which 28 percent returned greater than, or equal to, 70 parts per billion gold and 23 percent returned greater

than, or equal to, 280 parts per million copper. Gold anomalies in soil tend to form a broad northeast-southwest-oriented zone 1,680 meters in length and 300 to 750 meters wide around the western outcropping extent of the intrusive complex. Values within this zone average 104 ppb gold and range up to 1,600 ppb gold. The anomaly is open to the southwest and west, demanding additional sampling. Copper in soil anomalies are more closely associated with the central portion of the intrusive complex and extend to the south across the Grizzly Fault into sediments. This anomaly measures 1,850 meters by 500 meters and averages 350 ppm copper ranging up to 1350 ppm copper, forming a crescent-shaped body. The anomaly is completely open to the east. Spotty anomalous molybdenum with a peak of 20 ppm molybdenum in soils is noted and cluster within both copper and gold anomalous zones. Several strong copper and gold in rock anomalies occur in greenstones more than 1,700 meters away from the anomalous soil zones. A total of 91 samples were collected in the pat with values ranging from trace to 1.79 percent copper. Gold values range from trace to a high of 2,660 ppb. Local anomalous molybdenum occurs with some of the copper and gold, ranging up to 1,680 ppm

molybdenum. Full Metal Minerals will commence an aggressive exploration program in mid-June 2010, including a resistivity-induced polarization geophysical survey as well as additional soil and rock sampling and geological mapping. A five-hole diamond drilling program will directly follow the geophysical survey, targeting coincident chargeability/surface soil-rock copper-gold/magnetic and other porphyry style anomalies.

## Northern Alaska

**GOLDRICH MINING CO.** announced that it has secured US\$1,756,442 in financing, of which approximately US\$1.3 million will be used to acquire equipment to begin commercial production at its Chandalar gold project and the balance will be used for exploration and general purposes. The company also has committed to a 20,000-foot diamond-core drill program on the project. The drill program will evaluate the degree of mineralization occurring in a stratabound structure estimated to be about 5 miles long by 1,800 feet wide by 300 to 400 feet thick. Historic hard-rock mining has occurred on some of the high-grade veins at various locations along this trend and seven placer deposits have been mined in streams draining the trend. The drill program will consist

of some 40 holes averaging 500 feet deep with the deepest hole being about 750 feet deep. Drilling is planned to begin in June. The company expects to complete more than half of the drill program this year with the balance to be completed in the summer of 2011.

## Southeast Alaska

In a move that I believe is unique in the history of Alaska, the State House of Representatives unanimously passed House Resolution Number 16, a resolution supporting and encouraging rare earth element mining and production at **UCORE URANIUM INC.'S** Bokan-Dotson Ridge rare earth element project on Prince of Wales Island. The state resolution also urged Congress to support the similar rare-earth-element-friendly federal House Resolution 4866, which had been introduced in the U.S. House of Representatives a few days back. This bill, the so-called RESTART Act, was introduced by Rep. Mike Coffman, R-Colo. The RESTART Act proposes support for the development of a rare earth element supply chain within the U.S. Hard to imagine but there it is – overt support for the mining industry at both the state and federal level! ●

# NORTH OF 60 MINING NEWS



I would like to introduce you to North of 60 Mining News, a monthly supplement to Anchorage-based Petroleum News. North of 60 Mining News covers the mining industry in the Arctic, focusing on Alaska and northern Canada. It is inserted in Petroleum News the fourth week of every month.

Mining News carries the latest news in the industry, as well as features on the most important projects and issues, such as new technology, environmental policy, aboriginal rights and mining legislation. It is the only newspaper that covers this far northern region in such depth, and our reporters frequently travel to see mining projects for themselves and to attend major mining conferences.

In addition to news and features, we publish regular columns by Fairbanks geologist Curt Freeman and Anchorage attorney J.P. Tangen, a specialist in mineral law. A subscription to the paper includes access to the online archive of thousands of mining and petroleum articles from past years.

The most recent addition to North of 60 Mining News is the weekly online newsletter, keeping you up to date on the most important news affecting the industry.

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• N U N A V U T

# Canada metals ride tide of rising prices

Scotiabank economist offers wide-ranging summary of global market conditions for commodities at annual Nunavut Mining Symposium

By ROSE RAGSDALE

For Mining News

**I**QALUIT, Nunavut – Canadian mining companies can expect to see continued upward movement in prices generally for precious and base metals and coal, along with increasing volatility during the next 18 months to 2 years, a top economist told a gathering here April 13.

Patricia Mohr, vice president, economics and commodity market specialist for The Scotiabank Bank Group offered delegates attending the 13th annual Nunavut Mining Symposium her expert view of current global economic conditions and how they will likely impact Canadian commodities prices in the near future.

The Scotiabank Group was a leading underwriter in Barrick Gold Corp.'s US\$4 billion bought deal equity offering of 109 million common shares in September 2009, the largest equity underwriting in Canadian history and the largest in the international gold sector. The firm also served as the sole financial adviser to China Investment Corp. when it invested US\$1.5 billion in Teck Resources Ltd. in July 2009.

Mohr, who also developed the Scotiabank Commodities Index, the first-ever designed to measure trends for Canadian commodities, said commodities have rebounded more rapidly than anyone would have predicted in the past year and created an extraordinary environment in global markets.

Canadian commodities, including oil and gas, minerals, and agriculture and forest products, were up 30 percent from

their bottom prices in April 2009; their prices are quite high relative to historical experience, she said.

Mohr cited a strong rebound in China's economy and the dominance of China in world commodity markets as lifting prices much more rapidly than would normally have occurred.

"Traditionally, we didn't see a pickup in commodity prices until 18 months after the end of the U.S. recession," she said. "This time we started to see commodity prices picking up really before the United States had bottomed in its economy. I think this is testimony to the role of China now in lifting global demand for commodities."

Mohr also cited the "heated interest" investment funds around the world have shown in commodities.

"Before, investment funds didn't invest directly in commodities," she said. "Now, they take massive positions. I think this is because interest rates around the world have been at record lows, virtually zero. Commodities are giving much better returns than, for example, U.S. Treasuries."

Mohr said the fund managers are using investments in base metals as a proxy for being directly involved in China's emerging economy, which is showing remarkable and sustained strength. She predicted that China's gross domestic product will climb 9.5 percent in 2010 and 8.9 percent in 2011. In 2009, China's GDP grew at a rate of 8.7 percent, higher than Beijing authorities' prediction of 8 percent.

Another reason for the recent surge in commodity prices is restocking of raw materials in industrialized countries, especially in the United States, she said.

"Up until now, all commodity prices had nothing to do with U.S. demand, but we think we will finally begin to see the economy recover in the United States in the second quarter as we see widespread restocking in the manufacturing sector, something hedge funds and investment funds have been waiting for," Mohr said.

She cited the success of the "Cash for Clunkers" program in the United States as a key factor in lifting the country out of recession because automobile inventories fell to record lows.

The economist said another reason she is optimistic about the near-term outlook for commodity prices is the tremendous interest that investors are showing in commodities as an asset class.

| North America                        | 2000-08 | 2009   | 2010f  | 2011f  |
|--------------------------------------|---------|--------|--------|--------|
| (annual % change)                    |         |        |        |        |
| <b>Canada</b>                        |         |        |        |        |
| Real GDP                             | 2.6     | -2.6   | 3.3    | 2.8    |
| Consumer Spending                    | 3.5     | 0.2    | 3.1    | 2.7    |
| Residential Investment               | 5.3     | -7.4   | 10.1   | 2.4    |
| Business Investment                  | 4.6     | -17.4  | -0.8   | 5.9    |
| Government                           | 3.4     | 4.5    | 6.0    | 1.8    |
| Exports                              | 0.9     | -14.0  | 7.1    | 6.0    |
| Imports                              | 3.9     | -13.4  | 9.5    | 6.1    |
| Nominal GDP                          | 5.6     | -4.5   | 6.1    | 4.8    |
| GDP Deflator                         | 2.9     | -1.9   | 2.7    | 2.0    |
| Consumer Price Index                 | 2.3     | 0.3    | 1.9    | 2.3    |
| Core CPI                             | 1.9     | 1.8    | 2.0    | 2.2    |
| Pre-Tax Corporate Profits            | 7.7     | -33.2  | 27.0   | 16.0   |
| Employment                           | 1.9     | -1.6   | 1.1    | 1.5    |
| thousands of jobs                    | 301     | -272   | 185    | 263    |
| thousands of jobs (Q4/Q4)            | 285     | -253   | 250    | 274    |
| Unemployment Rate (%)                | 6.9     | 8.3    | 8.2    | 8.0    |
| Current Account Balance (C\$ bn.)    | 21.0    | -41.3  | -35.8  | -31.9  |
| per cent of GDP                      | 1.7     | -2.7   | -2.2   | -1.9   |
| Merchandise Trade Balance (C\$ bn.)  | 58.2    | -4.3   | 5.0    | 8.0    |
| Federal Budget Balance (C\$ bn.)     | 8.4     | -53.8  | -49.2  | -27.6  |
| per cent of GDP                      | 0.7     | -3.5   | -3.0   | -1.6   |
| Housing Starts (thousands)           | 207     | 149    | 190    | 175    |
| Motor Vehicle Sales (thousands)      | 1,605   | 1,461  | 1,525  | 1,570  |
| Motor Vehicle Production (thousands) | 2,590   | 1,425  | 1,900  | 2,100  |
| Industrial Production                | 0.5     | -10.0  | 3.7    | 4.9    |
| <b>United States</b>                 |         |        |        |        |
| Real GDP                             | 2.4     | -2.4   | 3.6    | 2.8    |
| Consumer Spending                    | 2.8     | -0.6   | 2.3    | 2.4    |
| Residential Investment               | -2.6    | -20.5  | 2.7    | 4.7    |
| Business Investment                  | 3.0     | -17.8  | 3.1    | 4.7    |
| Government                           | 2.3     | 1.8    | 2.5    | 1.6    |
| Exports                              | 4.5     | -9.6   | 13.6   | 8.3    |
| Imports                              | 4.3     | -13.9  | 9.9    | 6.3    |
| Nominal GDP                          | 4.9     | -1.3   | 4.6    | 4.6    |
| GDP Deflator                         | 2.5     | 1.2    | 1.0    | 1.8    |
| Consumer Price Index                 | 2.9     | -0.3   | 2.3    | 2.4    |
| Core CPI                             | 2.2     | 1.7    | 1.3    | 2.2    |
| Pre-Tax Corporate Profits            | 5.3     | -3.8   | 25.0   | 14.5   |
| Employment                           | 0.7     | -4.3   | -0.3   | 2.2    |
| millions of jobs                     | 0.86    | -5.87  | -0.37  | 2.86   |
| millions of jobs (Q4/Q4)             | 0.53    | -5.38  | 1.95   | 2.81   |
| Unemployment Rate (%)                | 5.1     | 9.3    | 9.6    | 9.0    |
| Current Account Balance (US\$ bn.)   | -601    | -420   | -497   | -548   |
| per cent of GDP                      | -4.9    | -2.9   | -3.3   | -3.5   |
| Merchandise Trade Balance (US\$ bn.) | -655    | -517   | -636   | -711   |
| Federal Budget Balance (US\$ bn.)    | -197    | -1,413 | -1,490 | -1,220 |
| per cent of GDP                      | -1.5    | -9.9   | -10.0  | -7.8   |
| Housing Starts (millions)            | 1.65    | 0.55   | 0.68   | 1.00   |
| Motor Vehicle Sales (millions)       | 16.4    | 10.4   | 11.5   | 12.2   |
| Motor Vehicle Production (millions)  | 11.5    | 5.6    | 7.4    | 7.7    |
| Industrial Production                | 1.0     | -9.7   | 4.6    | 3.8    |
| <b>Mexico</b>                        |         |        |        |        |
| Real GDP                             | 2.8     | -6.5   | 4.2    | 3.5    |
| Industrial Production                | 1.5     | -7.3   | 4.7    | 3.8    |
| Consumer Price Index (year-end)      | 5.1     | 3.6    | 5.4    | 4.5    |
| Current Account Balance (US\$ bn.)   | -11.4   | -5.2   | -13.8  | -25.0  |
| per cent of GDP                      | -1.6    | -0.5   | -1.6   | -2.5   |

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With interest shifting from passive investing in 2007 and 2008 to more active strategies using hedge funds, the search for higher returns given record low interest rates across the world and exceptionally low Treasury yields has boosted

investments in commodity assets. Globally, that total hit US\$260 billion by late 2009 from the previous level of about US\$75 billion, she said.

"This compares to a mere US\$6 billion to US\$10 billion invested in commodities in the year 2000," Mohr added.

This trend is particularly evident in base metals, she said.

"I think we are already seeing volatility in gold and base metals," the economist said. "Because of that commodity prices pulled back sharply in February. Everybody knows that China is really leading world demand for commodities and the risk appetite for commodities had returned."

Mohr said she expect the United States to begin to tighten monetary policy in the third quarter of 2010 and to see another pull back in commodity prices in response.

She said difficulties in the U.S. housing market have morphed into a global credit crisis "the likes of which I have never seen."

"It was very, very scary," she said.

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**Brent Cook, Exploration Insights Newsletter. (04/02/10)**

"If you are a long time reader of 321gold and can remember back to when I wrote about Pebble many years ago, when I went to Toronto, I came across the next Pebble. The company is called Kiska Metals."

**Bob Moriarty, 321gold.com (03/30/10)**



continued from page 8

## FORECAST

ever, has been doing all it can to kick-start the U.S. economy and Fed Chairman Ben Bernanke is already moving toward a neutral monetary policy in preparation to begin a tightening later this year, she said.

"We expect to see a 200-basis-point increase (in U.S. interest rates) between the third quarter and the middle of 2011," Mohr said. "In other words, short-term interest rates will increase two percentage points."

She also said the Bank of Canada may tighten its monetary policy in June, and the nation probably will see a 250-basis-point increase in short-term interest rates "because the Canadian economy is doing quite well."

"If that happens, expect the Canadian dollar to move above par with the U.S. dollar," she said. She observed that this will present quite a few challenges for Canadian resource companies.

Though economic recoveries have begun in Japan and Germany as well as the United States, she said she expects to see another slowdown in 2011.

The U.S. dollar has seen a bit of a recovery, but the world is still very concerned about the nation's projected \$1.5 trillion deficit in 2010 and 2011, she said. "This will push U.S. public debt to 70 percent of GDP, and the major rating agencies have put the United States on credit watch," she added.

Mohr also said she expect energy prices to continue to slowly trend upward with oil prices averaging US\$83 per barrel in 2010 and US\$87/bbl in 2011.

"China is leading the way on global oil demand because motor vehicle demand is much higher than in the United States. However, the United States also will have a recovery in petroleum consumption," she predicted.

### Outlook for individual metals

Mohr also summarized conditions for individual metals. Among them:

**COPPER** – Medium-term supply conditions for copper have been tight, which is reflected in the unprecedented jump in prices from \$1.26 a pound in late 2008 to \$3.58/lb in mid-April. "This is extraordinary. I've never seen anything like this in my career," she said.

China's demand for copper climbed 30 percent in 2009, excluding any inventory the country restocked.

Mohr said China has already begun to tighten its monetary policy, but the country is particularly exposed to copper prices because 75 percent of its copper imports is arranged through traders and not directly from mining companies.



Scotiabank economist Patricia Mohr shares insights about Canadian commodities at the 13th annual Nunavut Mining Symposium April 13. Mohr said she had just returned from Shanghai, China, which she described as having become so modern and new, "with gleaming skyscrapers that resemble something from a science fiction movie."

"In the past six months, Chinese mining companies, smelters and refiners have been investing strategically in copper mines around the world to the tune of 2 million tons," she said. "In the next three to four years, all of this new copper mine capability is going to come onstream, so while I'm optimistic that copper prices will move up further, supply-demand conditions by mid-decade may not be as tight as people have been imagining and it is because of all these strategic investments by China."

Mohr said copper prices will average US\$3.30/lb in 2010, including the effects of a pullback in the third quarter, and move up to US\$3.50/lb in 2011 with some quarters at the US\$4 mark.

**ZINC** – Zinc prices have been rising in sync with copper prices, but they are not quite as strong as prices for the brown metal, Mohr said.

"Because investors are playing such a big role now in base metals, they've actually been bidding up zinc," she said. "I don't know if supply-demand fundamentals would justify where zinc prices actually are. Zinc inventories are quite high around the world and they are for aluminum as well, and yet the prices rebounded hugely because investors are looking down the road two years toward supply-side tightness. Then toward mid-decade, we're going to get a lot of mine depletion around the world, which would permit zinc prices to actually rise."

The economist said investors are antici-

ipating this development and discounting it now just like in the stock market where investors discount six to 12 months forward.

"It means that if the market should pull back, there might be a possibility of short selling," she said.

**COAL & IRON** – Mohr said market conditions for premium-grade hard coking coal and for high-grade iron ore have changed dramatically in recent months. Prices for hard coking coal have jumped 55 percent to about \$200 per metric ton and producers have switched from annual

to quarterly contracts to better keep pace with spot price increase. She said a recent cyclone off the coast of Australia may force prices even higher in the second quarter of 2010.

Iron prices, meanwhile, have jumped 83-90 percent to around \$161/t and iron ore producers also are moving into quarterly contracts.

China is the largest importer of iron ore and accounts for 40 percent of global steel production. That country's reliance on high-grade iron ore imports is going to grow, but one of its major suppliers, India, recently cut back on its exports of high-grade iron ore to better meet the needs of its own steel industries.

Mohr said she advised Chinese investors in Shanghai recently to invest in iron ore mines around the world.

**URANIUM** – Uranium prices have decreased recently to around \$41 a pound, mainly due to falling demand because utilities around the world have finished restocking inventories, the economist said.

Canada is set to host the G-20 meeting in June and is expected to sign a bilateral cooperation agreement with India, she said.

China, too, is expected to become a major market of Canadian uranium exports as that country builds more nuclear power plants. Canada is currently working on changes to its trade agreement with China to better accommodate that growth, Mohr added.

**GOLD** – The economist said she expects the remonetization of gold as evidenced by the recent increases in prices to US\$1,000-\$2,000 per ounce to continue. "Some people think it will go to US\$1,300/oz," she said. "If Greece defaults on its debt, gold will go to US\$1,300/oz." ●




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• ALASKA

# Bill urges ‘restart’ of U.S. REEs mining

Colorado lawmaker advocates stimulating domestic rare earth elements industry, calls for stockpiling minerals deemed critical

By SHANE LASLEY  
Mining News

Rare earth elements have become a hot topic among United States policy-makers. The growing demand for the unique properties of these metals in “green energy” technology and military applications, coupled with China’s monopoly on the rare earth market has lawmakers and the Pentagon investigating the need to stimulate domestic production, manufacture and stockpiling of these elements.

A bill introduced by U.S. Rep. Mike Coffman, R-Colo., in March has moved the rare earth conversation from focus groups to Capitol Hill.

Coffman has introduced legislation in the U.S. House of Representatives that would require government agencies – including the departments of State, Defense, Commerce and Interior – to support the re-establishment of rare earth element mining, refining, alloying and manufacturing operations in the United States. H.R. 4866, the “Rare Earths Supply-Chain Technology and Resources Transformation Act of 2010” or the Restart Act – also calls for a national stockpile of “critical” REEs. China is not only the sole source of nearly all of the REEs mined in the world, it also controls the refining and alloy processing of these strategic metals.

“The United States has no active heavy group rare earth production capabilities or refining capabilities for heavy rare earth elements. Thus, should the United States begin to mine its heavy rare earth oxides, it would still be dependent on overseas refineries for further elemental and alloy processing,” according to the Restart Act.

The proposed legislation also calls for the re-establishment of a domestic rare earth supply chain. Among proposals in the bill are assessments and implementations of “obtaining loan guarantees to support the re-establishment of mining, refining, alloying and manufacturing operations for (rare earth elements) in the United States.”

## Growing focus on REEs

The bill’s introduction follows a

### RARE EARTH ELEMENTS

| LIGHT RARE EARTH ELEMENTS (LREEs) |          |        |                                                                                 |
|-----------------------------------|----------|--------|---------------------------------------------------------------------------------|
| Element                           | Atomic # | Symbol | Common Uses                                                                     |
| Lanthanum                         | 57       | La     | Hybrid cars (nickel-metal hydride batteries), optical glass, petroleum refining |
| Cerium                            | 58       | Ce     | Diesel engine catalytic convertors, self-cleaning ovens, television phosphors   |
| Praseodymium                      | 59       | Pr     | High-strength metal alloys for aircraft engines                                 |
| Neodymium                         | 60       | Nd     | High-power magnets used in hybrid cars and wind turbines, solid-state lasers    |
| Promethium                        | 61       | Pm     | Synthetic element                                                               |
| Samarium                          | 62       | Sm     | Lasers, headphone magnets, optical glass, ethanol catalyst                      |

| HEAVY RARE EARTH ELEMENTS (HREEs) |          |        |                                                                             |
|-----------------------------------|----------|--------|-----------------------------------------------------------------------------|
| Element                           | Atomic # | Symbol | Common Uses                                                                 |
| Europium                          | 63       | Eu     | Flat screen displays, lasers, genetic disease screening                     |
| Gadolinium                        | 64       | Gd     | MRI imaging, nuclear reactor shielding                                      |
| Terbium                           | 65       | Tb     | Fuel cells, naval sonar systems, high-efficiency lighting                   |
| Dysprosium                        | 66       | Dy     | Lasers, nuclear control rods, magnets for hybrid cars, computer hard drives |
| Holmium                           | 67       | Ho     | Nuclear control rods, medical and dental lasers, fiber optics               |
| Erbium                            | 68       | Er     | Photographic filters, fiber optics                                          |
| Thulium                           | 69       | Tm     | Lasers, x-ray devices, superconductors, ceramic magnets                     |
| Ytterbium                         | 70       | Yb     | Portable x-ray devices, lasers                                              |
| Lutetium                          | 71       | Lu     | Petroleum cracking                                                          |

| OTHER REEs |          |        |                                          |
|------------|----------|--------|------------------------------------------|
| Element    | Atomic # | Symbol | Common Uses                              |
| Scandium   | 21       | Sc     | Aluminum alloys                          |
| Yttrium    | 39       | Y      | LED televisions, lasers, superconductors |

December roundtable on rare earth materials hosted by the U.S. Department of Commerce. A 25-member panel, including representatives of key end users of rare earth materials such as General Electric and the American Wind Energy Association, as well as interested government agencies such as the Department of Defense and the White House, discussed the issue.

The roundtable’s findings and the Restart Act both reflect concerns about China’s near complete control of the REE market, and the United States’ lack of mines and infrastructure needed to obtain these elements that are playing an increasingly important role in emerging technologies critical to the nation’s defense and clean energy needs.

In Canada, numerous Asian investors flocked to the Prospectors and Developers Association annual conference in March seeking junior mining companies with

REE prospects in their portfolios.

“Lots of investors from Asia came to the trade show. They all were looking for REEs listed on the companies’ displays, and it was the only the thing that they were looking for,” one observer told Mining News recently.

Coffman’s legislation received overwhelming support from the Alaska State House April 15, as the legislators unanimously voted in favor of House Resolution 16, which urges the U.S. Congress to pass the Restart Act. The State House Resources Committee sponsored the resolution.

“The rare earths are no longer mined in the United States, but they are exceptionally valuable due to their unique chemical, electrical and physical properties,” House Resources Committee Co-Chairman Craig Johnson, R-Anchorage, said. “Rare Earth elements are critical to high-technology industries and many

weapons systems used by our armed forces. They’re also in high demand for ‘green’ energy projects and there’s a backlog of buyers looking for them. The bottom line is you can’t go green without good, old-fashioned mining, and America’s ability to meet the new business and consumer demand is compromised until we get rare earth minerals back in production.”

“We have known and available rare earths right here in Alaska at Bokan Mountain,” Johnson added. “Passing Restart is another way we can provide for domestic energy security and provide for Alaska families, businesses, diversifying our economy and strengthening our mining industry.”

## China’s control of market

China, which accounts for nearly all of the production of REEs worldwide, has increasingly restricted its exports of the critical metals to non-China-based production facilities.

The Chinese Ministry of Industry and Information Technology has proposed banning all exports of heavy rare earth elements (dysprosium, terbium, thulium, lutetium and yttrium) and further restricting the export of the light rare earth metals to a level well below that of Japan’s 2008 demand alone.

“China currently accounts for 97 percent of global production of these incredibly important metals and last month set off a wave of anxiety among clean energy developers by announcing its intention to decrease export quotas for the eighth time in as many years,” U.S. Sen. Lisa Murkowski, R-Alaska, wrote in a Roll Call report last October.

“By cutting rare earth exports, China is seeking to ensure the manufacture of clean technologies within its own borders,” she added.

China is not only the sole source of nearly all of the REEs mined in the world, the Far East country also controls the refining and alloy processing of these strategic metals.

A report released by the Rare Earth Material Roundtable said China’s near

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## REE MINING

total monopoly over global REE production and its 80 percent control over dense rare earth magnet production coupled with the country's restrictive trade policies create supply concerns for rare earth product end users in the United States.

Roundtable participants expressed the concern that a surge in demand for these products could put domestic manufacturers at a disadvantage if timely and cost competitive access to these materials is not ensured. Some participants indicated that a crisis point could be reached as early as 2012.

### Growing appetite for green metals

From the curly-fry shaped compact fluorescent lamps to enormous wind turbines, "green technology" is expected to drive much of the near-term demand for REEs.

Increasing quantities of rare earths are being needed to build fuel-efficient hybrid cars.

For example, every Toyota Prius has between 25 and 35 pounds of the special elements. The hybrid electric motors and generators of the world's top-selling hybrid need praseodymium, dysprosium, terbium plus about 4 pounds of neodymium. Lanthanum, which is found in the batteries and catalytic convertors, is the most used REE in these fuel-efficient vehicles. The special qualities of yttrium, cerium and Europium also are utilized in the manufacture of the gas-electric cars.

Between 1997 — when Prius first hit the markets in Japan — and May 2008, Toyota sold 1 million of the popular hybrids. By the end of 2009 that number jumped to 1.6 million. Today, nearly every major automobile manufacturer has added hybrid vehicles to its lineup.

The same properties REEs attribute to the efficiency of hybrid cars also apply to generators in wind turbines. It is estimated that a utility-scale wind generator contains more than 1 ton of rare earth magnets.

Concerned about United States' reliance on foreign sources of metals, Sen. Murkowski wrote, "The large quantities of minerals required for clean energy technologies only add to the scale of our needs. A large wind turbine can contain more than 1 ton of rare earth elements — in addition to more than 300 tons of steel, nearly 5 tons of copper and

*"The large quantities of minerals required for clean energy technologies only add to the scale of our needs. A large wind turbine can contain more than 1 ton of rare earth elements — in addition to more than 300 tons of steel, nearly 5 tons of copper and 3 tons of aluminum."*

—U.S. Sen. Lisa Murkowski

3 tons of aluminum."

### Stockpiling REEs

The U.S. Department of Defense is worried that growing demand coupled with foreign reliance could create shortages in the REEs needed for military applications. Guided missiles, lasers, radar systems and night vision equipment are part of a long list of defense equipment that utilizes the special properties of these elements.

H.R. 4866, as it was introduced by Coffman, would require the secretaries of Commerce, Defense, Energy, Interior and State — as well as the United States Trade Representative and the Office of Science and Technology Policy — to create an interagency working group to evaluate which rare earth elements are critical to the defense and economy of the nation.

Once a list of critical REEs is established, the elements would be added to the national stockpile list, according to the legislation.

### Funding loan guarantees

Given the broad economic and national security implications, combined with the substantial funds that will be required to develop a viable REE industry in the United States, roundtable participants suggested that government-industry partnerships will be required.

Coffman's bill addresses this public-private sector partnership by directing various government agencies to investigate mechanisms for funding loan guarantees to establish a domestic rare earth supply chain.

Defense stockpile funds and the American Recovery and Reinvestment Act of 2009 are suggested mechanisms for funding the development of REE mining and manufacturing in the United States.

The legislation calls for the funding of governmental and private research and development projects.

"It is the sense of Congress that, in order to re-establish the United States as the pre-eminent supplier of rare earth materials, components and associated technologies, there is a pressing need to support innovation, training and workforce development of the rare earth supply chain. Therefore, base budget funding should be provided by the Secretaries of Commerce, Defense, Energy, and Interior to fund academic institutions, Government laboratories, corporate research and development, not-for-profit research and development, and industry associations," H.R. 4866 reads.

### Targeting U.S. REEs deposits

According to the U.S. Geological Survey, global demand for rare earths is expected to exceed 200,000 tons per year by 2014.

"The good news is that the United States has, within its borders, abundant reserves of many critical minerals. These reserves represent an opportunity to create many new American jobs, and their production would undoubtedly facilitate a robust clean technology manufacturing sector," Sen. Murkowski wrote.

According to the findings of H.R. 4866, at least 15 percent of the world's REE reserves are in the United States.

The Mountain Pass Mine, located in California's Mojave Desert, is considered to be the largest concentration of rare earths outside of China.

After supplying rare earths for about 50 years, mining operations at Mountain Pass were closed in 2002.

MolyCorp Minerals LLC, the Chevron Mining subsidiary that operated Mountain Pass, was bought by a group of investors in 2008. The privately-owned MolyCorp is in the process of resuming operations at the southern California mine and plans to produce about 20,000 metric tons of finished rare earth products per year from the mine by the end of 2012.

Historically, Mountain Pass has not been known for producing large quantities of heavy rare earth elements. Though small quantities of heavy rare earths such as dysprosium and terbium are recovered from the ore, the developed deposit contains primarily light rare earth elements.

MolyCorp is setting out to explore other deposits on the property known to contain the ores that commonly contain higher concentrations of the valuable HREEs.

The Bokan Mountain prospect on the southern end of Prince of Wales Island in

Southeast Alaska is a project that could provide the United States with HREEs that are feared to soon be in short supply.

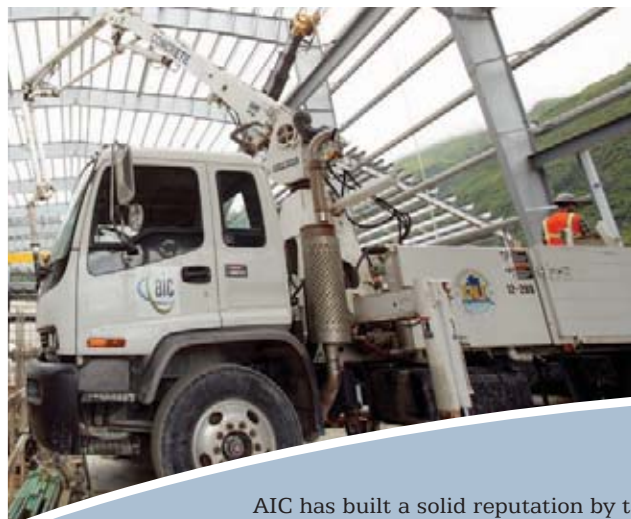
Ucore Uranium Inc. is currently gearing up for its 2010 exploration program at the REE prospect. Though a NI 43-101-compliant resource has yet to be calculated for Bokan Mountain, drill results indicate that HREEs make up about half of the total rare earth elements in the deposit.

The company is planning to drill about 5,000 meters focused on two areas which yielded significant HREE intercepts in 2009, with the goal of calculating a resource in 2010.

In addition to drilling, the Nova Scotia-based explorer is planning geological mapping, airborne and ground-based geophysical surveying, detailed mineralogical studies, environmental baseline data collection, and bench-scale metallurgical testing. The company said it also plans to have an early-stage scoping study of prospective mining logistics and methodologies completed for the prospect.

"Our objective is to advance the Bokan-Dotson Ridge project as quickly as possible," said Ucore President and CEO Jim McKenzie. "A number of near-term events have the potential for material impact on the U.S. rare earth sector, and HREEs in particular. They include the pending finalization of China's five-year plan, which promises a staged export withdrawal of HREEs such as terbium and dysprosium, metals particular to Bokan and in short supply worldwide. In April, the U.S. Committee on Armed Services is due to issue a report on rare earths in the supply chain of the Department of Defense to the U.S. Senate. The United States is the world's largest consumer of HREEs for strategic military and high technology applications. In turn, Bokan's unique positioning as the nation's largest historically estimated HREE deposit, albeit non-43-101-compliant, should serve us well in focusing attention on an increasingly compelling story. As well, our drive toward a 43-101-compliant resource estimate in 2010 becomes all the more salient, in light of near-term domestic and international events."

Other REE deposits have been identified by the USGS in Colorado, Idaho and Montana, Missouri, Utah and Wyoming. The agency estimates that the United States has 13 million tons of REE reserves within its borders. ●



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## • NUNAVUT

# New gold mine offers taste of prosperity

*Government, industry officials urge territory to prepare for future jobs, business opportunities with more training, discussions*

**By ROSE RAGSDALE**

*For Mining News*

**I**QALUIT, Nunavut – Now that Agnico-Eagle Mines Ltd. is producing three or four 8-kilogram bars of gold every week at the newly opened Meadowbank Mine in the central region, government, business and mining industry officials here are beginning to look ahead toward the territory's next big challenge.

"Meadowbank's startup is a small step for us in Nunavut," said Paul Kaludjak, president of Nunavut Tunngavik Inc., the Inuit organization that co-administers the Nunavut Land Claims Agreement with the Government of Canada. "We hope to maintain the pace. We want to see balance going forward where we protect both the mining sector and the environment."

Kaludjak told delegates attending the 13th annual Nunavut Mining Symposium April 13, that the people of Nunavut want to look at future opportunities with mining companies.

"For many years, we in Nunavut were on the side, (watching the mining industry.) We want to be looking at development," he said. "We want to take it to the next step and become developers, partners and producers, and more, we want to be full party to how things happen in Nunavut."

"Work with us! There is a protocol now for (mining) production on the lands," Kaludjak continued. "We want to do this jointly, all of us to protect the land, not just governments, but also the private sector. Let us help you. Never forget, we're here to help our people and not ourselves."

Nunavut Tunngavik has joined two other Inuit-owned groups, Kitikmeot Inuit Association and Kivalliq Inuit Association to form Nunavut Resources Corp. in order to invest directly in Arctic resource development. The groups have reportedly raised just over C\$1 million and are seeking another C\$2 million in one-time funding from the Canadian government to use as working capital and seed money to enter private capital markets and raise funds for individual projects.

## Public deserves mining's benefits

Minister Peter Taptuna, head of Government of Nunavut Department of Economic Development & Transportation, told the gathering April 13 that the territory's priorities derive from believing that all "Nunavutmut" (Nunavut people) deserve to have their basic needs met.

This point was driven home later in the symposium during a forum in which mayors and representatives of six Nunavut communities observed that many of the children in their hamlets routinely go hungry.



**PAUL KALUDJAK**

Baker Lake Mayor David Aksawnee said the Meadowbank Mine, where 35 percent of the current work force comes from the local community, has brought unprecedented prosperity to the region. The mine is projected to pay out more than C\$500 million in payroll over its life span.

"The mining company hired many local people, even people who have never worked before, but we need more training for our people," Aksawnee told the delegates. "Their kids are not hungry any more, and they have more capital items like Skidoos™, boats and motors. Families are happier, and the children have better clothes."

Still, the community should have been better prepared for the changes in that the developer has been working on a mine for six years, he said. "People are moving into our community, and we've seen quite a few opportunities since 2005. But we are having a housing shortage. I've heard of 14 people living in one house."

The greater number of jobs for local residents also has created new challenges for Agnico-Eagle. Mine officials have expressed disappointment that none of their local employees have sought to purchase a home in the five years since mine development activities got under way, and they report some local employees have experienced difficulty being away from their families during two weeks their schedule requires them to work at the mine before getting a nearly equal amount of time off.

## Mining activity rebounds

Still, government and mine officials say mining exploration and development in recent years have brought more positives than negatives to Nunavut.

"In this industry, it seems that all of the best and worst of times were compressed into less than two years (between 2008 and 2010)," Taptuna told the symposium delegates.

He said about C\$250 million in exploration spending is planned for Nunavut in 2010, up substantially from the C\$175 million spent in 2009, but still down from the record C\$330 million the industry spent in 2008.

Still, the territory ranked fifth in Canada among jurisdictions for mining activity in 2009, with significant employment and business spinoffs, said Bernie MacIsaac, acting regional director for Indian and North Affairs Canada in Nunavut.

This year, Nunavut will see 120 active mining projects that will employ about 2,000 workers in total, MacIsaac said.

"Following up on a 2008 report, INAC and its partners will be working to streamline the regulatory process in Nunavut, while providing greater environmental protection," he said.

John Kearney, president of the NWT & Nunavut Chamber of Mines, said his organization takes its mission to be the leading advocate in the North for sustainable mining seriously.



**BERNIE MACISAAC**



**PETER TAPTUNA**



## • NUNAVUT

# Mayors: Impact of mining remains mixed

*Good jobs and quality education for residents, protecting the environment and obtaining good foods top communities' concerns*

By ROSE RAGSDALE

For Mining News

**I**QALUIT, Nunavut —Mayors and representatives from six Nunavut communities offered feedback on the effects of mining exploration and development activities in their respective areas during a forum at the 13th annual Nunavut Mining Symposium held April 14 at the Frobisher Inn and Conference Centre.

The panel members voiced concerns about potential detrimental effects of mining activities on the environment.

"How will the companies make the land like it was before?" asked Mayor Ernie Bernhardt of Kugluktuk, a community in western Nunavut located relatively near the large diamond mines operating in Northwest Territories.

## Joining the mining work force

The panel members described thorny, yet subtle, socioeconomic problems that many residents must overcome in the remote hamlets of Nunavut to successfully enter the mining work force in the territory and offered numerous anecdotes to support their observations.



A panel of leaders from Nunavut communities offered insights on the impact of mining activities to delegates attending the 13th annual Nunavut Mining Symposium April 14. Pictured are mayors Lucasi Ivalu of Igloodik, Ernie Bernhardt of Kugluktuk, David Aksawnee of Baker Lake, Percy Kabloona of Whale Cove and City Councilman Jimmy Killabuck of Iqaluit.

"It's very difficult for our people to adjust to living by the clock and living in a house that belongs to the government," said Bernhardt. "Our parents made a good living trapping for furs, but it's impossible to go back to the way our parents lived. Our children have to master their own destinies and the parents have to teach

the children to grab opportunities. We have to instruct our youth to buy into the new lifestyle."

The panel, moderated by Rhoda Katsak of Pond Inlet, urged mining companies to consult with the hamlets to discover what local residents want. Mainly, the locals want opportunities, rather than handouts, they said.

Bernhardt said only a few employees of the big diamond mines come from nearby villages, and those workers have fairly low-level jobs such as truck drivers and laborers. "There's only one trainee, in welding," he said. "In Kugluktuk, we have 14 university graduates and three have their master's in business administration, and yet no one has asked them: 'Come work for us'."

However, BHP Billiton, majority owner of the Ekati Mine, recently informed communities near the mine that they had 290 jobs to fill and they wished to fill them with local residents, one mining executive told Mining News after the forum.

The executive said the mine owner received only three job applications in response. "So it's more complicated than just a question of jobs," he said.

One factor in the low response, another a delegate

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## NUNAVUT

"Aboriginal employees account for 8-10 percent of the mining work force in the North, and the mining industry is the largest employer of aboriginal people in Canada, about three times the national average," he said. The industry employs more than 4,800 aboriginal workers, he added.

Kearney said mining development and exploration spending is especially impressive in Nunavut, which reported a total of C\$1.3 billion invested in such activity in 2008 and 2009. Comparable spending in the Northwest Territories totaled C\$642 million and C\$500 million in Yukon Territory.

He said the future success of mining in Nunavut is dependent on land access and the efficiency of the territory's regulatory framework. The industry also needs new roads, bridges and power plants, and the chamber supports current pro-development legislation being sponsored by INAC.

## Gold takes center stage

Donald James, chief geologist for the Canada-Nunavut Geoscience Office, told Mining News that he believes Nunavut is well on its way to becoming the new gold mining center for North America.

"We have some very big projects coming on line in the next few years," he said. James cited Agnico-Eagle's recent acquisition of the Meliadine Project in Nunavut and Newmont Mining Corp.'s Hope Bay Project as examples of the gold mining ventures moving toward startup in the territory in the near future.

Gordon Davidson, general manager, projects for Commander Resources Ltd., echoed that view.

"Nunavut is 'elephant country.' You can find huge mineral deposits at surface and there are few other places in the world like that," Davidson told Mining News.

Commander and partner AngloGold

Ashanti Ltd. are exploring the Baffin Gold Project on Baffin Island in northern Nunavut. "This is the first exposure in North America for "AngloGold and their investment in the project is a validation of our program and our management team," Davidson said. "We also hope AngloGold will bring world exposure to our company and to other Canadian explorers."

Davidson said Commander is excited about a new discovery at the Baffin Gold Project. "We're looking at a juicy system here that could be quite significant. The gold extends outside the quartz veins and into the wall rock. We know it's at least 3 1/2 kilometers long and 400 meters wide, and we haven't drilled the first well yet."

## Agnico-Eagle seeks more gold

Agnico-Eagle and Comaplex Minerals Corp. April 1 said they have reached an agreement in principle in which Agnico-Eagle will acquire all shares of Comaplex that it does not already own. Comaplex owns the advanced stage Meliadine gold project located in Nunavut about 300 kilometers from the Meadowbank Mine. First discovered in 1990, Meliadine currently boasts 3.29 million ounces from measured and indicated resources of nearly 13 million metric tons, grading 7.9 grams per metric ton gold, and an inferred gold resource of 1.73 million ounces from 8,385,600 metric tons grading 6.4 g/t gold.

"Upon completion of the proposed transaction, the addition of the large, high-grade Meliadine property is consistent with our steady, focused approach to per-share growth. In addition, on the back of a successful startup of our Meadowbank gold mine this quarter, the Meliadine property is a perfect fit with our Arctic skill set and the transaction solidifies our commitment to Nunavut and our foundation in Canada," Agnico-Eagle Vice-Chairman and CEO Sean Boyd said in a statement April 1.

"Our operating focus remains on the optimization of our newly built gold mines



GORDON DAVIDSON

and on completing several internal expansion studies that are currently under way. At Meliadine, our plan would be to accelerate an underground exploration program focused on expanding the resource and converting the large resource into reserves over the next two years. We hope to initiate a feasibility study prior to the end of 2011."

Though it is difficult to relinquish the interest in the Meliadine property after all these years, Comaplex President and CEO George Fink, said Meliadine fits well with Agnico-Eagle's portfolio of properties, and Comaplex's shareholders will continue to benefit from it through their holding of Agnico-Eagle shares.

"We will miss the close relationship we have had with the people of Nunavut and wish to thank them for the tremendous support they have given us over the years. New Comaplex will be a very well-financed exploration company with cash flow that will be run by experienced staff and proven management," Fink said.

Comaplex will transfer to New Comaplex all assets and related liabilities other than those relating to the Meliadine properties and related assets. These assets include all of Comaplex's net working capital, all the non-Meliadine mineral properties, all oil and gas properties, and various investments. The transaction, which is subject to Comaplex shareholder, court and regulatory approvals, is expected to close in June.

## Big opportunities await Nunavut

Denis Gourde, general manager of the Meadowbank Mine, said Meadowbank and Meliadine, together, will employ 1,000 people in permanent jobs, spend C\$350 million a year on operating expenses and C\$120 million annually on wages.

"That's why it's a very big and very nice opportunity for everybody," he told the delegates April 13. "But more qualified labor is wanted. We need trades. We need to make sure everyone will put their focus on training the right people for the trades we are missing.



DENIS GOURDE

"The business community needs to prepare for construction, too," Gourde said. "We rushed when it was time to start Meadowbank Mine. We need to get the ball rolling now. We know what is needed for construction and we know what is required in specialized supplies."

Gourde said Nunavut businesses also need to be competitive and set the pace for new contractors and new suppliers. "We have years of permitting and feasibility studies ahead and lots of discussions with businesses, communities and regulators to maximize opportunities not only for the operating mode but also for the construction mode," he added.

## Greenland offers training advice

Hans Hinrichsen, manager of the Greenland Mine and Contracting School, said the need for training is urgent in Nunavut just as it is in his country. Hinrichsen, who was invited to speak at the Nunavut Mining Symposium, said his government has given him four to five years to train 1,000 Greenlanders in mining and construction trade skills. A prerequisite for admission to the training school is the ability to speak English, and so far, about 60 students have received the training, he said.

Greenland has three mines and will open another four mines within the next four to five years. Mine companies have identified a large deposit of rare earth elements and commercial deposits of lead, zinc, diamonds, gold, nickel and rubies, he said.

"We've started from scratch developing a mining industry in Greenland. The school will be finished in August and we have a training area the size of a soccer field, as well as buildings, equipment and dormitories."

Hinrichsen also said he was not authorized to disclose the amount of money that Greenland will spend to develop the training school. ●



HANS HINRICHSEN



## • ALASKA

# To buy back interest in Whistler or not

That is the question for Kennecott, as Kiska Metals conducts early season exploration program at the enormous gold-copper property

By SHANE LASLEY

Mining News

Eager to discover whether Rio Tinto Ltd. subsidiary Kennecott Exploration Inc. will exercise its right to buy back a 60 percent stake in the Whistler gold-copper project, Kiska Metals Corp. has launched a 15-hole drill campaign and corresponding 3-D-induced polarization survey to explore the larger potential of the 173-square-mile, or 448-square-kilometer, central Alaska property.

The largest portion of the drill program, which began in mid-March, is testing targets within the Whistler corridor, a 162-square-kilometer, or 62.5-square-mile, region that hosts the Whistler deposit. Whistler is believed to contain an indicated resource of 30 million metric tons grading 0.87 grams per metric ton gold, 2.46 g/t silver and 0.24 percent copper, and an inferred resource of 134 million tons grading 0.64 g/t gold, 2.18 g/t silver and 0.20 percent copper.

A technical committee comprised of management from both Kiska Metals and Kennecott selected the Whistler corridor targets based on data collected from an extensive geophysical survey conducted in late 2009.

The 3-D IP survey revealed several targets hidden beneath the shallow alluvial sediments covering much of the Whistler corridor. These discoveries do not have the significant outcrop of the



Geologists Robin McQuinn, Ute Fitzgerald, Dave Friznegger, Mike Roberts, Mark Baknes and Tracy Roach examine core from Raintree North, the first hole of the 2010 drill program at the Whistler gold-copper project in Alaska.

Whistler deposit, but have comparable geophysical, geological or geochemical signatures.

"We knew going in, because there is a lot of covered area in that valley right near the Whistler deposit, the geophysical program was going to be important," Kiska President and CEO Jason Weber told Mining News.

## IP reveals discreet targets

In late 2009, crews blanked the Whistler corridor, including the Whistler deposit, with a 3-D IP survey. This geo-

physical work has provided Kiska geologists with a clearer picture of what lies hidden under the glacial gravels that cover most of this region.

"Because this survey covered such a big area – we actually covered the Whistler deposit as well – we could take geophysical signature from Whistler and just apply that elsewhere in our survey area to pick our targets," Weber explained.

Using the IP signature associated with the Whistler resource as a guide, Kiska has defined more than 25 distinct new targets with a similar geophysical signature. Ten of these targets, all of comparable scale and geophysical response to that associated with the Whistler deposit are being tested in the current drill program.

"We are extremely encouraged with the outcome of the 3-D IP survey. With this data we believe we now see why some previous holes in the corridor encountered mineralization and why others missed," Weber said. "We're especially impressed by anomalies such as the Whistler North Lobe, which, if successful, could add significantly to the existing Whistler resource and the Raintree area, which looks to be part of a greater cluster of porphyry centers. Integration of this new survey with historic data has given us a much clearer picture of the subsurface providing us with discreet targets to test under the glacial cover."

Last fall, Kiska crews completed about 80 percent of the 340-line-kilometer 3-D IP survey slated for the Whistler corridor. The company plans to resume the geophysical work in May.

## Whistler deposit expansion

Kennecott and Kiska geologists are intrigued by areas to the north and southwest of the Whistler deposit that carry a similar geophysical signature as the defined resource. The Whistler committee assigned two holes to target these possible extensions of the deposit.

The area to the northwest, dubbed the Whistler North Lobe, is a large untested anomaly that appears to be the fault offset extension to the north of the Whistler deposit.

"The chargeability is fairly significant in size, so if we are fortunate enough to hit there, potentially we could be looking at adding a significant number of ounces to the resource at Whistler," Weber told Mining News.

*"We are extremely encouraged with the outcome of the 3-D IP survey. With this data we believe we now see why some previous holes in the corridor encountered mineralization and why others missed."*

— Kiska Metals President and CEO Jason Weber

Whistler Southwest Lobe appears to be a continuation of the Whistler resource to the west of deposit. This apparent expansion area revealed by the recent IP survey also will be a drill target of the spring program.

## Targeting Raintree

The Raintree area, located in the valley east of the outcropping Whistler deposit, is the target of three of three of the holes drilled this year.

Raintree North was the first target of Kiska's 2010 drill campaign. Located about 1,800 meters northwest of the Whistler deposit, this hole is targeting the northern extent of a large geophysical anomaly in the Raintree area.

Kiska is particularly excited about drilling the Raintree West prospect. This hole is a follow-up to the explorer's 2009 Raintree discovery hole, which cut 471.6 meters with an average grade of 0.93 g/t gold equivalent. The bottom 40 meters of this hole, which was angled toward the west, intersected higher temperature veining, suggesting a trend toward the core of a large porphyry system and an improved likelihood of higher copper-gold grades. The 3D IP survey revealed that the signature of these elevated grades continues 300 meters further west, and this coincidental geophysical anomaly is the target of the current program.

"We are setting up further to the west and going to drill back to the east to test that (geophysical anomaly), that's a really exciting target," said the Kiska president.

The third hole being drilled into the large Raintree prospect is located about 1,800 meters northeast of the Raintree West hole.

## Island Mountain

In addition to drilling 11 holes in the Whistler corridor, the technical team elected to drill two holes at the enigmatic Island Mountain prospect to follow up on exciting gold-copper mineralization.

IM-09-001, the Island Mountain discovery hole drilled late in 2009, cut two distinct mineralized zones. The upper 150 meters – which averaged 1.06 g/t gold equivalent (0.72 g/t gold, 2.37 g/t silver and 0.16 percent copper) – is similar to the mineralization found at the Whistler deposit about 23 kilometers, or 14 miles, north. The mineralization in the lower 106.9 meters of the hole – which averaged 1.32 g/t gold-equivalent (1.22 g/t gold, 0.69 g/t silver and .05 percent copper) – more closely resembles the gold-dominant mineralization being investigated about 2 kilometers, or 1.2 miles, southeast at the Shoeshine Zone on Millrock Resources Inc.'s Estelle property.

Weber told Mining News that the Kiska-Kennecott technical committee has not yet decided whether to follow up on the mineralization discovered last year, or

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IMPACT

speculated, might be that many unemployed Nunavut residents live in government subsidized housing that costs C\$30 a month. That monthly rent jumps to \$880 if they take a full-time job.

In Whale Cove, a hamlet on the shores of Hudson Bay in south-central Nunavut, Mayor Percy Kabloona said mining companies come and go. “When they come in, they don’t ask for the local people to help them. If mining companies are going into our communities, we would like roads and access for our communities in every mode of travel. If they are traveling by water, they need to pay attention to the tides and the movement of the water. It would a good position for our people.”

Killabuck said a lot of Iqaluit residents are unemployed despite jobs being available because they do not speak and understand English well.

“If mining activity is going on near Iqaluit, perhaps there could be more employment for our young people,” he said.

One difficulty with employing the youth of Nunavut is that many young people drop out of high school, and those who obtain their diplomas discover when they pursue higher education at universities in the south that they have difficulty competing with students educated in other regions of Canada.

Baffinland Iron Mines Ltd., which is developing a massive high-grade iron ore at the Mary River Project on Baffin Island, has been working to overcome these barriers for local Inuit youth. Since 2007, the company has presented laptop computers to every graduate of the local high school, and effectively eliminated the local high school dropout rate, said Greg Missal, Baffinland’s vice president of corporate affairs.

Supporting local businesses

“We would also like local business owners to be given consideration if you’re

giving out contracts,” said Killabuck.

Helen K. Klengenberg, owner of The Akhaliak Group of Companies of Iqaluit, echoed this sentiment while touring a trade show sponsored by the symposium.

Klengenberg, whose company offers office products and supplies and printing services, said she attends the trade show every year in hopes of attracting business from mining and mining support companies. The daughter of an Alaska Native from a small village in the Arctic and a Danish father, Klengenberg also is a sales representative for Xerox and a consultant.

Inuit-owned businesses have formed successful joint ventures with service firms in Quebec and other jurisdictions in recent years to support mining projects in Nunavut. Qamanittuaq Sana, for example, performed much of the civil engineering, road and dike construction, crushing and consolidation and environmental services required for construction of the Meadowbank Mine. The firm was formed in August by the Qamanittuaq Development Corp. and Fernand Gilbert Ltee., an engineering firm in Quebec.

Some of the mayors said creating and supporting local business activity in their communities might be too difficult to do

in the near future.

“It’s very hard for our people to go from trading furs to starting a business,” Bernhardt said. “Maybe we should leave that alone for another hundred years.”

Obtaining food a priority

The mayors also expressed concern about growing difficulty in obtaining traditional foods. “We have to go a long way to get narwhal. We can still get white whale and caribou, the annual cycle continues, but we have to go a long way to get the narwhal,” Kabloona said.

“The last two years it’s been pretty hard to get caribou,” Bernhardt said. “We don’t know if it’s due to the two diamond mines or if it’s because the hunters are taking the bulls and the young ones can’t find their way back. The fish are also getting pretty soft and the seals are going farther out on the ice.”

Mayor Lucasi Ivalu of Igloolik, a hamlet on the Melville Peninsula in northern Nunavut across Foxe Basin from Baffin Island, said many of his residents want to hunt but no longer have dog teams and sleds. “They need to purchase equipment to go out on the ice, and the costs are going up every year,” Ivalu said.

In Baker Lake where Agnico-Eagle Mines Ltd. recently began producing gold at the Meadowbank Mine, local residents working at the mine on a two weeks on, two weeks schedule off schedule still go out on the land to hunt during their time off, said Mayor David Aksawnee.

Even in Iqaluit, the territory’s capital, food costs are high.

“If I want to eat properly, C100 bucks a day is not enough to feed three people,” said Council Member Jimmy Killabuck.

When asked to name two things that the mining companies might do to help improve conditions in the hamlets, Bernhardt of Kugluktuk replied, “Only two?”

He then suggested that mining companies that routinely fly huge, largely empty planes to remote mine sites near communities should consider bringing breakfast for the local children.

“In order to have healthy children, it would be nice to have healthy breakfasts for the children,” he said. “You could fill up the planes with cereal, milk, oranges and bananas. The bananas might turn black, but they still make good banana bread.” ●

continued from page 14

WHISTLER

to drill new targets at Island Mountain.

The final two holes of the 15-hole program are being reserved for Round Mountain, pending additional geophysical data from this prospect.

Kennecott decision

Once the current IP and drill program is complete, Kennecott will have 90 days to decide whether it wants to exercise its back-in rights on the project. If the Rio Tinto subsidiary decides it would like to gain a 51 percent interest in the project it will pay Kiska an estimated C\$25 million (double what it and its predecessor Geoinformatics spent on exploration at Whistler) and fund Whistler exploration through a positive prefeasibility study.

Kennecott can up its stake to 60 percent by funding the project through to a positive development decision.

Weber said Whistler also is attracting the attention of other majors.

“Kennecott has been a great partner, and they have gone above and beyond what they needed to do to help us be successful; as long as they have the back-in right, I am not entertaining the other companies,” he said.

Kennecott, which optioned Whistler to Kiska (Geoinformatics) in 2007, will retain a 2 percent royalty if it chooses not to exercise its back-in right for the gold-copper project. ●



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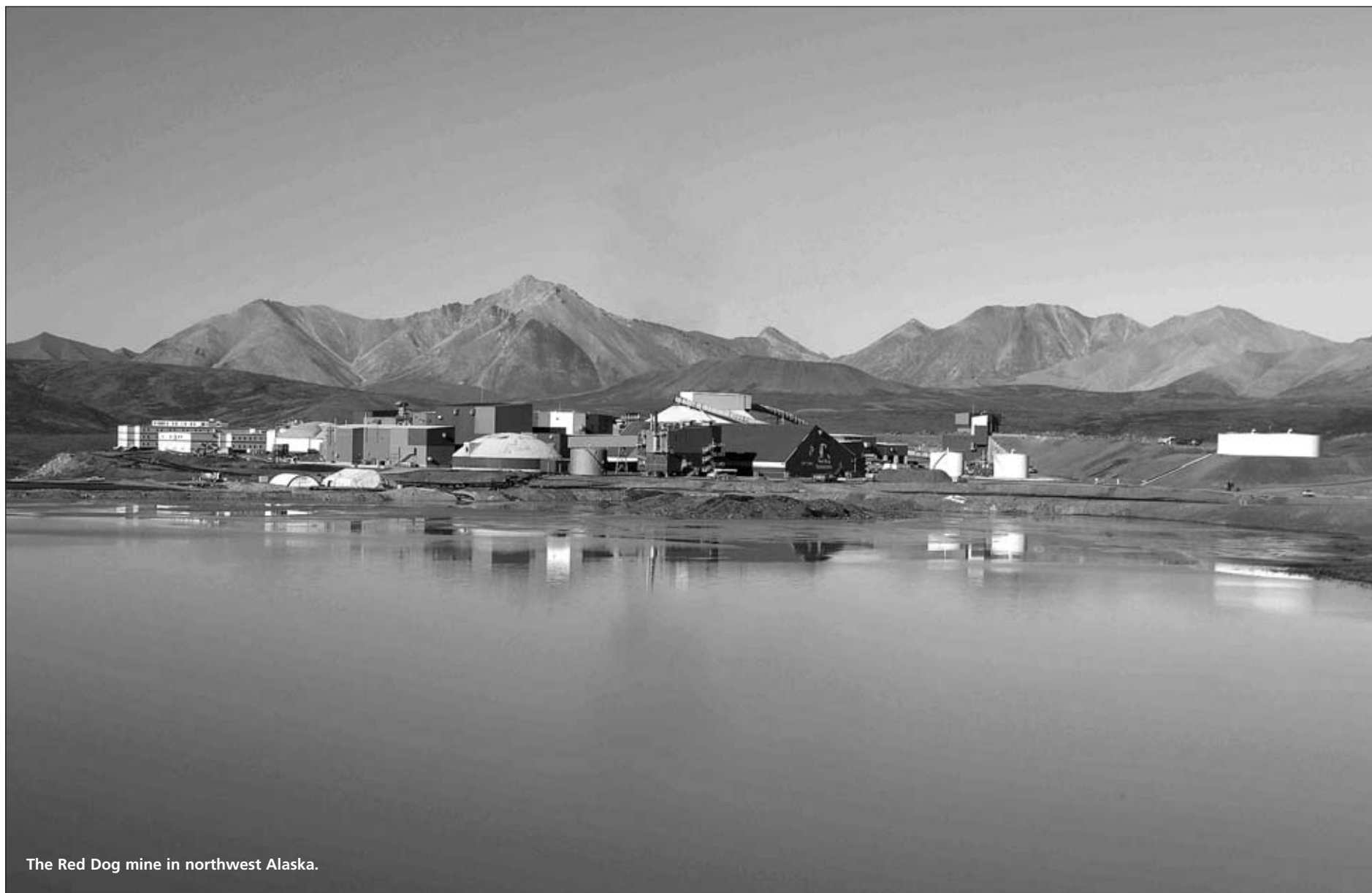


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## NEWS

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• NORTH OF 60

# Quebec tops list of best places to mine

*Mining survey: Alaska, Canadian territories get low marks for lack of infrastructure; First Nations issues plague British Columbia*

By SHANE LASLEY

Mining News

Quebec is considered the best place in the world to mine, according to the Fraser Institute's Survey of Mining Companies 2009/2010.

"Mining executives say Quebec remains an international standout for investment because stable government policies offer them the certainty that reduces risk for long-term projects," said Fred McMahon, coordinator of the survey and the institute's vice-president of international policy research.

The Toronto-based thinktank asked 670 mining executives and managers to rate the government policies and mineral endowment of 72 mining jurisdictions around the globe.

Respondents ranked Quebec particularly high for its government policies, giving the province a score of 96.7 out of a possible 100 on the survey's policy potential index.

The policy potential index is a composite index that measures the effects on exploration of government policies including uncertainty concerning the administration, interpretation and enforcement of existing regulations; environmental regulations; regulatory duplication and inconsistencies; taxation; uncertainty concerning native land claims and protected areas; infrastructure; socioeconomic agreements; political stability; labor issues; geological database; and security.

Yukon Territory ranked No. 11 on the index, climbing from the No. 15 position in 2008/2009. The miners rated Alaska as having the 18th best government policies in the world, while British Columbia came in at No. 38, Nunavut at No. 43 and Northwest Territories at No. 50, near the bottom half of the list.

## Highly prospective Alaska

Taking into consideration Alaska's mineral potential as well as its government policies, the mining executives ranked the northernmost state as the fifth-best mining jurisdiction in the world behind frontrunners Quebec, Nevada, Chile and Saskatchewan.

Though Alaska received only a lukewarm response when it comes to government policies, mining leaders consider the state to be the second-most prospective place in the world to look for minerals, according to the survey.

When asked to rank jurisdictions assuming no land use restrictions in place, and applying industry "best practices," only the Democratic Republic of Congo ranked higher.

Though the miners consider Alaska to be the second-richest mineral province in the world, they pointed to a

lack of infrastructure as a drawback to doing business there. More than 70 percent said the lack of roads and power is a deterrent to investing in the state.

Uncertainty about Alaska's environmental regulations and which areas of the state will be protected as wilderness areas or parks are two other issues that trouble mining leaders. Nearly half the survey-takers said these issues would cause them to think twice before spending money in Alaska.

## Yukon regulations are fair

The Yukon Territory, taking the No. 10 position in the composite policy and mineral potential index, fared well on the survey overall.

In government policy the territory ranked 11th globally, and the miners considered it to be the eighth-best region in terms of mineral potential.

The mining executives had a much better view of environmental regulations in the Yukon than those in Alaska, with only 20 percent of respondents listing the area as a concern.

The territory also is considered a fair place to do business. Survey respondents rated the Yukon as fourth in the world when it comes to its administration's interpretation and enforcement of existing regulations.

The miners also said Yukon's geological database is the sixth-best in the world.

Lack of infrastructure and uncertainty over what areas will be designated as wilderness areas or parks were deemed the biggest drawback to investing in the territory.

"The Yukon has settled most First Nations land claims. The new environmental screening regime (YESAA) has been in effect for 5-plus years and is working reasonably. There have been some recent discoveries that are very significant. My greatest concern is that the land use planning process, particularly in the Peel Planning region, is 'off the rails,'" according to a consulting company president who responded to the survey.

## Low marks for NWT policies

Though the Northwest Territories was rated No. 7 for its pure mineral potential, it ranked near the bottom when it comes to government policies.

An exploration company president responding to the Fraser Institute survey said, "In the Northwest Territories, there is total uncertainty within the regulatory and permitting framework."

"In the Northwest Territories, you can't get a permit to do any thing there. Even simple environmental baseline studies require multiple layers of red tape and have over-the-top community consultation requirements. Parks and protected areas are being created at break-neck speed

and still more layers of bureaucracy are being considered to assist in stalling development proposals," an exploration company vice president wrote in answering the survey.

Miners are most unsettled about First Nations land claim issues in the territory. Respondents rated the territory as the third-worst jurisdiction in the world when it comes to aboriginal land claims.

The Northwest Territories also ranked in the bottom 10 regions when it comes to infrastructure and uncertainty over what areas will be designated wilderness areas or parks.

## Low view of Nunavut potential

Though miners consider Nunavut's government policies to be in better shape than its neighbor to the west, they do not consider the territory's mineral potential to be as good. Considering both its policies and its mineral potential, Nunavut is considered to be the 31st-best place in the world to mine.

Mining executives rated the mineral potential of Nunavut last among all Canadian jurisdictions.

"Nunavut is also becoming an exploration backwater. Although it is an area with a settled land claim, the regulatory regime is complex and processing of applications is extremely slow," according to an exploration vice president.

Like Alaska and the other Canadian territories, miners gave Nunavut low marks for lack of infrastructure.

## Opinions of B.C. policies erode

Mining leaders' opinions of British Columbia's government policies eroded substantially over the past year. The western Canadian province slipped from No. 24 in 2009 to No. 38 this year.

Survey respondents ranked British Columbia as the worst place in the world when it comes to settling aboriginal claims.

The province also received low marks for uncertainty over which areas will be protected as wilderness areas and parks. California was the only jurisdiction worldwide that received a lower score in this category.

Uncertainty over environmental regulations is another area that depressed British Columbia's score. The province was ranked worst among Canadian jurisdictions in this category.

Association for Mineral Exploration British Columbia President and CEO Gavin C. Dirom said, "We are working with government, First Nations, and stakeholders to identify and implement key initiatives that will increase both industry and investor confidence in B.C." ●

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## • YUKON TERRITORY

# Explorer shifts gold hunt to southeast

Northern Tiger options property from Watson Lake prospector, hoping to make rare discovery in mountains near Northwest Territories

By ROSE RAGSDALE

For Mining News

As investors clamor for bigger stakes in exploration projects in the White Gold District of Yukon Territory, one astute explorer is shifting part of its focus farther south and eastward.

In early April, Northern Tiger Resources Inc., a spin-out of Firestone Ventures Inc. in 2008, reported optioning the 3Ace Property — located about 270 kilometers, or 167.4 miles, north of Watson Lake in southeast Yukon Territory — from longtime Yukon prospector Alex McMillan. The junior formalized terms outlined in a March 5 letter of intent.

McMillan, who is based in Watson Lake, recently discovered a quartz vein containing abundant quantities of free gold on the 3Ace property, which encompasses 140 claims covering about 2,593 hectares, or 7,000 acres, in a mountainous area some 25 to 30 kilometers by road from Yukon's border with Northwest Territories.

Northern Tiger said historic work on and near the claims performed toward the end of a five-year exploration program that ended in 2003 identified a number of large gold-in-soil anomalies that warrant further exploration.

The remote Hyland gold discovery, about 80 kilometers, or 50 miles, to the south, is the nearest known gold mineralization, according to Dennis Ouellette, vice president of exploration for Northern Tiger.

In March, Northern Tiger President Greg Hayes said the junior was turning its attention "to planning a program to both evaluate the existing high-grade gold occurrence and also develop a model to explore for similar occurrences on the property."

Ouellette, a longtime Yukon explorer, told Mining News April 21 that Northern Tiger is mounting a C\$300,000 to C\$400,000 grassroots exploration program this year. The junior has hired a structural geologist who specializes in orogenic gold deposits because the quartz vein in which remarkable amounts of visible gold was discovered at 3Ace appears to be that type of mineralization. He said the geologist will start at the vein and see if he can find the geological structure of the occurrence.

McMillan also will continue prospecting on the property.

"We are confident we should be able to repeat the occurrence of that vein in this area. We think geology and structure will be the key," Ouellette said. "Our plan is to develop drill targets for next season. We have the type of property here that we think we can bring forward quickly or determine that it is a unique situation and return it to the prospector."

Ouellette said finding such significant quantities of free gold in eastern Yukon Territory has been quite exciting because it is "very rare."

The prospector had quite a number of samples taken from the 3Ace property that show visible gold, he said.

"We can also see gold in the vein itself in the outcrop, and we have had visible gold sighted in other veins on the property," Ouellette said. "Just having sighted visible gold 300 meters away was very encouraging. It also suggested that the structure allows visible gold to precipitate as opposed to being bound by sulphides."

Ouellette said such gold often is less expensive to extract, which bodes well for



Spectacular visible gold coats a fracture in an exposed quartz vein in this sample taken from the 3Ace property in southeastern Yukon Territory.



the property's potential.

"I've certainly never seen anything like it before," he added.

The option agreement, which is subject to TSX Venture Exchange approval, provides Northern Tiger with the opportunity to earn 100 percent interest in the property. To complete the option, Northern Tiger must make cash payments of C\$500,000, issue 2 million shares and incur C\$700,000 in exploration expenditures, all over a four-year period.

An annual advance royalty payment of C\$45,000 will start on the fifth anniversary of the agreement and continue until the start of commercial production. McMillan will retain a 2 percent net smelter return

*"Our plan is to develop drill targets for next season. We have the type of property here that we think we can bring forward quickly or determine that it is a unique situation and return it to the prospector."*

—Dennis Ouellette, vice president of exploration, Northern Tiger Resources Inc.

interest on the property.

If a NI 43-101-compliant resource estimate in excess of 500,000 ounces of gold at a grade greater than 5 grams per metric tons is defined on the property, the vendor's NSR will increase to 2.5 percent and he will receive a bonus payment of C\$300,000 (in cash or equivalent Northern Tiger shares).

If the NI 43-101-compliant resource

estimate exceeds 1 million ounces of gold with the same or higher grade, then McMillan's NSR would jump to 3 percent, and he will receive another C\$300,000 bonus payment in cash or Northern Tiger shares. Each 1 percent of the NSR can be purchased by Northern Tiger for C\$2 million.

Northern Tiger's main focus is the Sonora Gulch Project in the Dawson Range where it has found evidence of a strongly altered system hosting multiple styles of mineralization and exceeding 2 kilometers, or 1.24 miles, in length. Two significant zones of gold mineralization have been discovered along this trend — the Nightmusic and Amadeus zones.

The junior also is exploring six copper-gold prospects in an alliance with Minto Explorations Ltd., a subsidiary of Capstone Mining Co., owner of the Minto Mine in central Yukon. ●



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