

NORTH OF ▲ 60

MINING

NEWS

3 **Marine aurum draws global miners**

AngloGold-De Beers consortium wins leases beyond Nome's golden beaches

10 **China's rise to high-tech dominance**

American Elements CEO shares view of Asian country's rare earth strategy

26 **Junior drills bonanza gold in B.C.**

Pretivm cuts 7,420 g/t gold, 3,800 g/t silver at Brucejack near SE Alaska

A rainbow arcs above the road that connects the Bornite and Dahl camps in the Ambler Mining District. NovaGold Resources Inc. and NANA Regional Corp. have teamed up to explore and develop copper-rich deposits in the Upper Kobuk region of Northwest Alaska. Page 17.

PHOTO BY ALISON NORTHEY COURTESY OF NOVAGOLD RESOURCE INC.

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WEEK OF
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• ALASKA

Sunken gold draws global miners to Nome

In worldwide quest to mine marine aurum placers, AngloGold-De Beers partnership offers US\$7M for offshore leases in state auction

By SHANE LASLEY
Mining News

An offshore lease sale held in late September by Alaska Department of Natural Resources did not draw the typical crowd of explorers seeking oil and gas in state waters. Instead, local residents and global mining giants vied for the opportunity to explore for the legendary sunken gold that may lie beyond the aurum-rich beaches of Nome.

The 23,793 acres of marine placer gold prospects auctioned by DNR's Division of Mining, Land and Water Sept. 28 fetched US\$9.3 million in high bids – the largest portion of which resulted from winning bids submitted by a consortium of South African gold miner AngloGold Ashanti Ltd. and pre-eminent diamond miner De Beers.

The state divided its offering into two groups – 53 smaller near-shore parcels, ranging from 40 acres to 160 acres, and 31 larger tracts measuring up to 2,794 acres located in the deeper waters from roughly one mile off the beach to the three-mile edge of Alaska-owned land.

During an outcry auction held in Nome, small-scale miners, including some Nome residents, bid US\$10,000 to US\$90,000 to win the smaller lots amenable to suction dredge mining.

The winning submissions among sealed bids for the tracts larger than 160 acres could net the state up to US\$7.7 million. The highest offering for a single



WIKIMEDIA COMMONS; PHOTOGRAPHER GARY WILLIAMS

Over the past 30-plus years, De Beers Marine has refined the science of offshore exploration and mining at its diamond operations off the west coast of the African country of Namibia. The diamond mining ship, Peace in Africa, uses a large undersea tracked crawler to mine diamonds off of South Africa.

parcel was a US\$1.6 million bid tendered by AngloGold on tract 74, the largest and most prospective of the lot.

Solomon Gold, a newly formed company with ties to Anchorage-based Alaska Earth Sciences, also submitted winning bids for some of the submerged gold.

Seeking marine aurum

The gold-rich placer deposits off Nome's legendary beaches are not the first marine mining endeavors undertaken jointly by AngloGold and De Beers. In 2009, the mining powerhouses forged a partnership to explore and ultimately mine marine placers rich in gold and other heavy metals on the continental shelves around the world.

AuruMar Ltd., the company resulting from the joint venture, enjoys the offshore marine mining and exploration expertise De Beers brings to the table and the gold mining proficiency of AngloGold.

"By combining one of the world's most successful gold exploration teams with the foremost authority in ocean mining and exploration, we're creating a powerful base to tackle this new frontier," AngloGold Ashanti Chief Executive Officer Mark Cutifani said upon the formation of AuruMar.

"By building on our current terrestrial exploration, development and mining activities globally we'll work to expand our resource base from an exciting array

of shallow marine prospects," he added.

Over the past 30-some years De Beers Marine has refined the science of offshore exploration and mining through its diamond operations off the west coast of the African country of Namibia.

The diamond miner also holds prospecting licenses in waters from 20 meters to 200 meters deep, the limit at which its underwater diamond mining technology functions, off the west coast of South Africa. While De Beers itself is interested in any diamond prospects discovered here, AuruMar has signed an agreement to seek out gold, heavy minerals, platinum group metals and sapphires that may have been washed onto the ocean floor over the past several million years.

AuruMar is also overseeing a project exploring for gold off the New Zealand coast, where it is believed glaciers are responsible for bulldozing the gold into the sea.

Similar to the deposits AuruMar is exploring off the shores of New Zealand, glaciers are believed to have played a role in depositing gold on the floor of Norton Sound offshore from Nome.

3.3M ounce gold resource

Individuals and small scale operations have continuously worked and reworked the beaches of Nome for the 112 years

see **MARINE PROSPECTS** page 4

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• ALASKA

Alaska accepts rare earth challenge

Gov. Parnell announces five-part strategy for in-state development of strategic minerals; Murkowski pushes at the federal level

STEFAN MILKOWSKI



Core samples from Ucore Rare Metals' Bokan Mountain near Ketchikan were on display at the Alaska Strategic and Critical Minerals Summit. The property is considered the most promising in the state for development of rare earth elements.

By STEFAN MILKOWSKI

For Mining News

Alaska officials are seeking to turn the national challenge of securing domestic supplies of critical minerals into an opportunity.

"Alaska has accepted the challenge," Gov. Sean Parnell told participants in the Strategic and Critical Minerals Summit held Sept. 30 in Fairbanks. "Where China has said, 'We're going to curtail exports,' ... Alaska is accepting the challenge of saying, 'We've got them here, and we want to provide them to our nation and to the world beyond.'"

The Department of Natural Resources organized the daylong summit to bring together national security experts, state and federal policy makers, scientists, and

industry officials for discussion; brainstorm ways to encourage mineral development; and provide an opportunity for networking.

Parnell used the gathering to renew the state's commitment to helping develop strategic minerals – including rare earth elements (REEs) – in Alaska. The governor also unveiled a strategy with five components:

- Conduct a statewide assessment of strategic mineral potential. State lawmakers this year agreed to spend US\$498,000 to compile existing geologic information and survey new areas for mineral potential. Rare earth elements have already been found at 71 sites, including 14 sites on the Bokan Mountain property near Ketchikan. But Parnell described Alaska as "one of the most underexplored regions of the world" and claimed Alaska's potential for REEs is "huge." The assessment will cover material already gathered on state, federal, and private land in Alaska, and will include surveys of select state lands. Parnell said he recently urged Interior Secretary Ken Salazar to conduct a similar survey focusing on federal lands in the state.

- Provide incentives for mineral development. Parnell noted the state's support for a road to the Ambler mining district, and the granting of bonding authority for mining projects to the Alaska Industrial Development and Export Authority. "You've got a state government – both in the legislative branch and the executive branch – that is focused on making this happen," he said. Parnell said the state is exploring ways to support the development of the Bokan Mountain site and the nearby Niblack exploration site with shared facilities built on state land.

- Improve permitting processes. Parnell touted the state's Large Mine Permitting Team, but said the permitting process must be made more efficient. "We can't afford these 10 or 20-year delays before mines come along," he said. "We can't afford another two decades for a Kensington (Mine)." He said the Department of Natural Resources will study how state requirements interplay with federal requirements; modify agency public notice requirements to complement each other; standardize procedures for calculating bond requirements; identify regulatory

continued from page 3

MARINE PROSPECTS

since gold was first discovered there. With the advent of suction dredges this endeavor moved farther offshore, and with gold prices topping US\$1,900, a record 50-plus small floating dredges braved the icy waters in 2011.

One semi-successful attempt at a commercial operation to dredge the marine placers was carried out by Western Gold Exploration and Mining Co., Limited Partnership (WestGold) in the late 1980s.

Purchasing Bima, a secondhand bucket dredge used for mining tin off the

shores of Indonesia, WestGold set out to mine a section of the "Central Core" a region that had been partially drill-tested by Shell Oil Co. in 1967 and Asarco in 1973.

From 1986 through 1990, WestGold recovered just over 118,000 ounces of gold from the submerged placer deposit. Frequent storm swells, harsh Arctic weather and mining conditions battered the Bima over its five seasons off of Nome. Structural failures coupled with gold prices sinking to US\$370 per ounce proved to be the undoing of the dredge.

WestGold completed 2,479 drill holes during its tenure, greatly enhancing the drill density in the marine placers.

Applying geographical information

system technology to the historical drill data, the University of Alaska Fairbanks, Department of Mining and Geological Engineering estimated during a study conducted in 2000 that more than 3.3 million ounces of gold lies in the tested regions.

All told, it is commonly believed that more than 10 million ounces of economically viable gold lies below the icy waters of Norton Sound.

If this proves to be true, the nearly US\$7 million AngloGold and De Beers paid could be a small price for the aurum that lies well within the reach of its modern dredging equipment. ●

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see RARE EARTH CHALLENGE page 5

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continued from page 4

RARE EARTH CHALLENGE

hurdles specific to strategic mineral mining, processing, and transport; and work with federal regulators to change shipping restrictions on the radioactive elements thorium and uranium, which commonly occur with REEs. Parnell also said some of the US\$4 million appropriated this year to address a permitting backlog will go toward improving the permitting process.

• Deepen coordination with stakeholders. As minerals are likely to be found on federal and Native corporation land as well as state land, strong working relationships with federal agencies and private landowners will be critical, Parnell said. (Alaska's most promising REE site, Bokan Mountain, is on federal land.) Joint research projects and even the REE summit itself will aid relationship building, he said.

• Attract new investment. Parnell said the state will publicly promote its mineral resources, "favorable fiscal structure," and commitment to environmentally responsible development. "Know that we are open to your investments," he told summit attendees. "We want you to get a return on that investment, and in doing so, we will be maximizing that resource for Alaska's benefit as well."

Understanding REEs

While the state is committed to a "soup-to-nuts" permitting review, as DNR Commissioner Dan Sullivan put it, some elements of permitting an REE mine remain a mystery to state regulators.

Ed Fogels, deputy commissioner of DNR, said in an interview that the agency is developing a series of white papers addressing the permitting of unconventional activities, including geothermal drilling, shale oil development, and REE mining.

DNR has a good understanding of how to deal with wastes from conventional gold, copper, lead, and zinc mines, Fogels said. But REEs will involve different processing techniques and different waste products. "We don't have a lot of experience with that, and not a lot of people really do," he said.

Fogels said REE permitting will focus largely on processing and waste disposal. "When Bokan Mountain wants to go, they're going to give us their applications and we're going to go, 'Where are you



GOV. SEAN PARNELL



SEN. LISA MURKOWSKI

going to put all your waste? Is that going to stay there forever? Is that going to leak some radioactive material?"

Regulations relating to the transport of radioactive material will likely depend on how much processing is done on site, he said.

REE expert Jack Lifton and other speakers at the summit advocated keeping as much processing as possible in-state, adding value to the commodity and creating jobs. Michael Silver, president of American Elements, noted how Molycorp's "mine-to-magnets" approach led the international mining company to go into business with a wind turbine manufacturer. "Add value," Silver said. "Build those facilities up here."

Parnell said he would have to learn more before setting goals for in-state processing or considering incentives, but said he would do whatever he could to develop the minerals for the benefit of Alaska and the U.S.

Filling in the map

Division of Geological and Geophysical Surveys Director Bob Swenson said the statewide assessment of critical minerals will be a multi-stage project taking place over at least the next two years.

The project will include the review and presentation of existing geophysical data on REEs, as well as new geochemical analyses of samples at the state's Geologic

Materials Center in Eagle River.

It will also include new geophysical surveys and other field work at select areas with REE occurrences or potential. This summer, DGGs conducted fieldwork in the Moran area west of Tanana and an REE assessment near William Henry Bay in Southeast Alaska.

Swenson said DGGs will release information on its public database and website as the information becomes available. The agency will also release any new reports based on the data.

Making it a national priority

Several speakers at the summit described the federal government as dangerously lax in addressing supply threats related to critical minerals.

"As a country, we have some very real problems on our hands," said U.S. Sen. Lisa Murkowski. "We rely on minerals for the smallest computer chips to the tallest skyscrapers. ... The fact of the matter is, nothing happens unless we've got these elements."

Earlier this year, Murkowski introduced the Critical Minerals Policy Act (S. 1113), requiring the U.S. Geological Survey to develop a list of critical minerals — minerals that are important to the economy and subject to supply disruptions — and a comprehensive strategy to encourage the domestic production of those minerals. The bill also tasks USGS with assessing domestic criti-

cal mineral resources and creates a working group to review permitting processes.

S. 1113 was heard in June in a subcommittee of the Committee on Energy and Natural Resources, of which Murkowski is the ranking Republican. Murkowski tried unsuccessfully in early October to add provisions of the bill to a bill on currency exchange oversight.

At the summit, Murkowski also spoke forcefully of the need for federal permitting reform and a solution to "the constant barrage of litigation" on development projects. She said she is working to block the Environmental Protection Agency from imposing bonding requirements in addition to those already required.

Jeff Doebrich, director of USGS's minerals program, outlined steps USGS is already taking to assess critical minerals. He said the agency would embark on a new research project in October titled Critical Mineral Resources for the 21st Century. The project will evaluate mineral inventories, assess supply risks, and develop a method for designating critical minerals.

Dwight Bradley, a research geologist at USGS's Alaska Science Center, said the agency also would conduct geological investigations of six different REE deposit types. Bokan Mountain will be one of the case studies. ●



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• COLUMN

Recent activity covers entire spectrum

Events include first offshore mineral lease sale in 10 years, vote on anti-mining ballot initiative and another major enters state

By **CURT FREEMAN**
For Mining News

As termination dust settles over Alaska, the diversity of mineral exploration, development and production news this month covers the entire spectrum of mining industry activities. The last of the seasonal early-stage exploration projects are reporting in, a major producing company has entered the state for the first time, Alaska finished its first off-shore mineral lease process in more than a decade, several projects reported on resource definition and feasibility studies, a gold deposit was sold, a ballot initiative aimed at mining went before voters and an Alaska mine began its closure process. Other than that, not much happening...

Western Alaska

NOVAGOLD RESOURCES INC. announced that it has decided to close and reclaim the Rock Creek project. The company expects to spend \$3.9 million in the fourth quarter and expects to incur a total retirement obligation of \$27.9 million. The company is working closely with the state regulatory authorities and the local community on obtaining agreement for an approved closure plan.

The **ALASKA DEPARTMENT OF NATURAL RESOURCES** announced that

The author

The author Curt Freeman, CPG #6901, is a well-known geologist who lives in Fairbanks. He prepared this column Oct. 24. Freeman can be reached by mail at P.O. Box 80268, Fairbanks, AK 99708. His work phone number at Avalon Development is (907) 457-5159 and his fax is (907) 455-8069. His email is avalon@alaska.net and his website is www.avalonalaska.com.



CURT FREEMAN

the high bids for 84 mineral lease tracts covering 23,793 acres of offshore placer gold prospects near Nome totaled US\$9.3 million. A total of 53 smaller, near-shore tracts were offered for outcry bidding, and 31 larger tracts in deeper water were auctioned by sealed bid. There were 70 registered bidders participating in the outcry portion of the sale, and 111 sealed bids were submitted. Winning bids for the outcry lease tracts totaled US\$1.6 million and ranged from US\$10,000 to US\$90,000. The total from the sealed bid tracts was US\$7.7 million with the highest single lease tract bid coming in at US\$1.6 million. DNR

said interest in offshore mining for gold at Nome has increased dramatically in recent years, largely driven by the price of gold.

ZAZU METALS CORP. announced that it has encountered significant mineralization in its first hole outside of the Lik North resource boundary at its Lik lead-zinc silver property. Prior exploration attempted to trace Lik North on a northeasterly trend and historic drilling provided enough successful holes to define an inferred resource. However, mineralization became sporadic the further northeast the drilling went. Zazu reinterpreted the trend as more northerly — similar to Lik South — and based drill holes 211 to 214 on that hypothesis. The new hole, 214, drilled in Lik North outside the resource boundary hit mineralization, showing 7 meters at over 11 percent combined lead + zinc. Significant results included hole DDH211 which intercepted 35.2 meters grading 1.78 percent lead, 5.51 percent zinc and 34.28 grams per metric ton silver, hole DDH212 which intercepted 25.3 meters grading 1.74 percent lead, 4.97 percent zinc and 37.05 g/t silver, and hole DDH214 which intercepted 10.4 meters grading 2.46 percent lead, 5.8 percent zinc and 10.1 g/t silver. In addition to exploration drilling on Lik North, the company continued with previously announced geotechnical and environmental studies, metallurgical work, bridge and haul road studies and infill drilling on the Lik South deposit.

CEDAR MOUNTAIN EXPLORATION INC. announced initial drill results from 18 diamond drill holes (1,820.5 meters)

at its Kelly Creek gold project on the Seward Peninsula. Drill results have confirmed the presence of broad intervals of gold mineralization in sheared and brecciated carbonaceous schist. Significant results include hole 11-KC-03 which returned 7.20 meters grading 1.08 g/t gold and an additional 6.00 meters grading 1.08 g/t gold, hole 11-KC-05 which returned 26.80 meters 1.04 g/t gold, including 10.10 meters grading 2.07 g/t gold and hole 11-KC-14 which returned 6.10 meters grading 1.31 g/t gold. Results for all the drill holes at the Wolf (four holes totaling 469.6 meters), Wolverine (seven holes totaling 755.4 meters), South Fox Zone 1 (seven holes totaling 864.6 meters), South Fox Zone 2 (three holes totaling 237.2 meters), and North Fox (six holes totaling 668.5 meters) prospects are pending.

In one of the most watched elections in the state, voters in the **LAKE AND PENINSULA BOROUGH** passed a ballot initiative designed to block development Anglo American — Northern Dynasty's Pebble copper-gold-molybdenum deposit. By a vote of 280 to 246, voters approved the ballot initiative, which the State of Alaska has already indicated is unenforceable as a matter of law since it seeks to restrict development of state resources on state lands using a municipal ordinance. A legal challenge will come before Alaska Superior Court next month to rule on this ballot initiative.

INVENIO RESOURCES CORP. announced that field work has been completed on its Ganes Creek and Candle Hills gold projects in Alaska. At

see **FREEMAN** page 7

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continued from page 6

FREEMAN

Ganes Creek, the company completed 42 line kilometers of induced polarization geophysical survey over the ground between the Pzs zone and Katz zone. Due to unfavorable market conditions and the lack of suitable drilling equipment, the company did not drill the project in 2011. At the Candle Hills property the company completed line cutting, geological mapping and rock and soil sampling. Assay results are pending.

FIRE RIVER GOLD CORP. announced the discovery of the new 3550 Zone at the Nixon Fork mine project. This new zone is actually the down dip extension of previously mined ore body called the Hi Grade Recreation Zone, which was mined to a depth of 50 meters in the 1920s. The zone was found to bottom out in the original mining program and previous diamond drilling could not establish the existence of a down-dip extension. Following reinterpretation of the geology at the mine site, three holes were drilled and each yielded very positive initial results in the form of mineralized zones with visible gold. The adjacent 3000 and 3300 zones were mined over vertical distances of 300 meters. If the 3550 zone demonstrates the same vertical continuity as the two other zones, its location is ideal for minimizing the capital cost and time requirement to establish access for mining, as the entire vertical extent will be close to existing development. Assays are pending and additional drilling is planned.

NOVAGOLD RESOURCES INC. and partner **BARRICK GOLD CORP.** announced that they have budgeted US\$8.8 million for the fourth quarter of 2011 at their Donlin Creek project for community engagement, environmental studies and feasibility revision activities. The feasibility revision is expected to be completed in the fourth quarter of 2011, at which point the partners may, subject to approval by their respective boards, proceed to prepare and file permit applications for the project in the first half of 2012.

FULL METAL MINERALS LTD. and JV partner **ANTOFAGASTA MINERALS** announced initial drilling results from their Pyramid copper-gold-molybdenum porphyry located in Southwest Alaska. The property is under option from the **ALEUT CORP.** Significant results include hole PY11-016 which intersected 155.94 meters averaging 0.71 percent copper, 0.179 g/t gold and 0.018 percent molybdenum, or 0.97 percent copper-

equivalent underneath a 94.0-meter thick leach cap. The intercept includes several higher grade zones, including 20.0 meters averaging 0.99 percent copper, 0.151 g/t gold and 0.012 percent molybdenum, or 1.19 percent copper-equivalent. This hole was shut down in strong mineralization, with the final 7.94 meters averaging 0.78 percent copper, 0.124 g/t gold and 0.03 percent molybdenum. Drill hole PY11-017 intersected 117.54 meters averaging 0.60 percent copper, 0.081 g/t gold and 0.024 percent molybdenum, or 0.81 percent copper-equivalent. Multiple hydrothermal centers have been identified at Pyramid, within an oval-shaped 2,300-meter-by-1,400-meter mapped extent of phyllic and potassic alteration zones. Mineralization is typically comprised of chalcocite, covellite, chalcopyrite and molybdenite with supergene enrichment at depths, ranging from 120 to more than 250 meters below surface. Surface work completed during the 2011 program included a ground magnetic survey and additional mapping. Survey results identified regions of strong magnetic highs and lows coincident with magnetite bearing potassic alteration and phyllic alteration respectively. Peripheral magnetic highs respond to early potassic (biotite-magnetite) alteration in hornfelsed sediments.

Interior Alaska

TERYL RESOURCES CORP. announced the signing of a letter of intent to sell its 20 percent interest in the Gil gold deposit to 80 percent partner **KINROSS GOLD CORP.** The purchase price consists of a US\$2.5 million advance royalty payment upon the closing of the definitive agreement; a US\$1.5 million advance royalty payment upon commencement of commercial production from the property; 1 percent royalty of net smelter returns until US\$15 million is received and thereafter a 0.5 percent royalty of net smelter returns for the remainder of the life of the mine.

FREEGOLD VENTURES LTD. announced drill results from 13 holes of drilling from the Phase One drill program on the Dolphin Zone at its Golden Summit project. Significant results include hole GSDC 11-38 which returned 207.4 meters grading 1.00 g/t gold, including 74.1 meters grading 2.3 g/t gold, hole GSDC 11-41 which returned 187 meters grading 0.65 g/t gold and GSDC 11-51 which returned 56.1 meters grading 0.68 g/t gold. Significant silver intercepts were also encountered in some holes including hole GSDC 11-37 which returned 97.5

meters grading 8.00 g/t silver and hole GSDC 11-48 returned 24.8 meters grading 34.7 g/t silver. A total of 27 holes were completed totaling 6,500 meters during the phase 1 program. Drilling in this phase was designed both to upgrade the resource category as well as expand the known resource. An updated mineral resource estimate is expected to be completed on the Dolphin Zone by the end of 2011. A phase 2, 10,000-meter drilling program was initiated in mid-August and is expected to continue until March 2012. Drilling has commenced at the Cleary Hill mine prospect where the company hopes to develop the first industry-standard resource in that area.

SUMITOMO METAL MINING CO., LTD. and **SUMITOMO CORP.**, owners and operators of the Pogo gold mine, have jointly decided to make a donation in the amount of US\$1,059,000 to the Mining Engineering Research Endowment Fund of the **UNIVERSITY OF ALASKA FAIRBANKS.** The University of Alaska Fairbanks has established an endowment fund to attract monetary assistance to be directed into experimental research and the cultivation of the human resources needed for mineral resource development initiatives.

Alaska Range

PURE NICKEL INC. released its operating highlights for its MAN copper nickel platinum group element project in the Alaska Range. During 2011 the company completed 11 holes (2,580 meters). Assays from the program are pending. In addition to the drill program, ground-based mapping and sampling was completed in the northern portion of the

property.

MILLROCK RESOURCES INC. announced that it has entered into a strategic alliance agreement with **VALE EXPLORATION CANADA INC.** The objective of the alliance is to discover large-scale copper-gold porphyry deposits in target zones of Alaska identified by Millrock. Under terms of the agreement Vale will provide funding for further research and early-stage exploration work to identify targets that may be nominated for designated project status. The work is to be focused in specific, defined areas of interest in the Alaska Range and Alaska Peninsula porphyry belts. Strategic alliance funding will consist of a minimum US\$1.0 million in the first year, and a further US\$1.0 million at Vale's option in the second year. Funding for the Strategic Alliance may continue in subsequent years at funding levels to be determined between the parties. Once Millrock nominates a designated project, Vale will have 180 days in which to accept or decline the project. If accepted, the mineral rights will be held in Millrock's name, but the designated project will become subject to an earn-in style option to joint venture agreement and Vale will have the right to earn a 65 percent interest in a designated project by expending US\$3.5 million in exploration expenditures on the project over a three-year period and paying Millrock US\$200,000. Vale may earn 75 percent total interest by carrying the full cost of further exploration and development until a positive feasibility study has been completed.

see FREEMAN page 8

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continued from page 7

FREEMAN

ALIX RESOURCES CORP.

announced results drilling results from the Riverside and Breccia Pipe prospects on the Golden Zone gold-silver-copper property. Significant results from the two holes drilled at the Riverside prospect include hole GZRS11-001 which intersected 2.37 meters grading 14.33, 36.50 g/t silver and 0.57 percent copper and hole GZRS11-002 which intersected 4.10 meters grading 4.84 g/t gold, 7.92 g/t silver and 0.08 percent copper. Both holes encountered the Wells vein, a quartz-sulfide replacement vein in Triassic limestone associated with the monzodiorite porphyry. At the Breccia Pipe prospect, hole GZBX11-003 intersected 256 meters, starting at surface, grading 1.50 g/t gold, 12.15 g/t silver and 0.11 percent copper while hole GZBX11-004 encountered 92.9 meters grading 1.39 g/t gold, 6.15 g/t silver and 0.06 percent copper. The 2011 holes in the breccia pipe extended the mineralization downward approximately 110 meters. The holes encountered brecciated porphyritic monzodiorite, brecciated monzodiorite, porphyritic monzodiorite, monzodiorite, gabbro and hornfelsed country rock. Mineralization was associated with strongly to moderately silicified and argillic-altered with carbonate alteration in some zones. Pyrrhotite, arsenopyrite, pyrite, chalcocopyrite and minor sphalerite were the primary sulfide minerals.

CARIBOU COPPER CO. announced results of its 2011 drill program on its

Caribou Dome prospect in the Valdez Creek District. Six of nine core drill holes in the 2011 program intersected copper sulfide mineralization, with the best intercept returning 3.4 meters grading 3.36 percent copper and 5.54 g/t silver in hole CD-11-06. The 2001 drilling was conducted about 425 meters from historic resources estimated at 499,315 metric tons grading 5.84 percent copper.

CORVUS GOLD INC. and joint venture partner **WESTMOUNTAIN INDEX ADVISOR, INC.** announced an update of its activities the Terra project in the western Alaska Range. The partners have completed four holes, totaling 544 meters and have confirmed the extension of the high-grade Ben Vein system 200 meters to the north. The vein is still open at depth and along strike. In addition, the new drilling has identified a parallel quartz-carbonate vein structure with a strike length of at least 100 meters in the hangingwall of the Ben Vein. Assay results from the completed 2011 drill program are pending. WestMountain has indicated that that it will continue drilling to further expand the known extent of the vein while undertaking the first bulk sampling of the vein using a pilot mill that was moved onto the site in 2011.

KISKA METALS CORP. reported additional drilling results from its Island Mountain and Raintree North prospect on its Whistler project. At Island Mountain, significant results include hole IM11-020 in the Breccia Zone, which averaged 1.28 grams of gold per tonne gold-equivalent over 161 meters. Hole IM11-026, 100 meters north of IM11-020, returned an interval of 127.0

meters of 0.76 g/t gold-equivalent, suggesting a potential transition to gold-dominant mineralization to the north in the breccia zones. Drilling has been expanded beyond the 23 holes completed thus far with plans to continue with two drill rigs at Island Mountain as long as weather conditions allow. A total of 9,700 meters of drilling have been completed at Island Mountain in 2011. At the Raintree North prospect, a total of eight drill holes were completed in 2011, defining a steeply northeast dipping body of near-surface porphyry mineralization that remains open to depth. Newly released drilling results include hole WH11-037 which averaged 0.56 g/t gold-equivalent over 110.2 meters. Mineralization is largely confined to a body of Whistler-type diorite porphyry associated with potassic alteration and stockwork chalcocopyrite-bearing quartz and magnetite veining. Mineralization is coincident with magnetic high and a halo of strong chargeability.

Northern Alaska

NOVAGOLD RESOURCES INC. and **NANA REGIONAL CORP. INC.** announced the signing of an exploration and lease-option agreement that consolidated their respective lands in the Ambler Mining District into an 180,000-hectare (699 square-mile) package. The agreement sets out options for joint venture or net-smelter return interests for NANA as well as local hire and training goals, workforce development, subsistence use guidelines and sustainability guidelines. Among other prospects, NovaGold is contributing its Arctic volcanogenic massive sulfide deposit, while NANA is contributing its Bornite copper-cobalt deposit. NovaGold completed 5,900 meters of exploration drilling on Bornite this summer and anticipates completing a mineral resource estimate for Bornite in the first half of 2012. The company also completed 1,200 meters of geotechnical and infill drilling at Arctic this summer as part of its US\$10 million 2011 budget.

GOLDRICH MINING CO. reported expansion of its land holding at its Chandalar gold project and staking of a new gold property of similar size, geology and discovery potential at nearby Thazzik Mountain, 30 miles southeast of Chandalar. The new acquisitions more than doubled the company's Alaska land holdings to 48,440 acres. U.S. Geological Survey reconnaissance sampling identified geochemically anomalous gold, arsenic and antimony associated with a large positive aeromagnetic

anomaly similar to that associated with the Chandalar district. Fieldwork has identified a number of quartz-bearing structures, including sheeted quartz veinlets. Assays are pending on new sampling conducted on these veins.

Southeast Alaska

QUATERRA RESOURCES INC. and partner **GRANDE PORTAGE RESOURCES LTD.** announced additional drilling results from the Herbert Glacier gold project near Juneau. Significant results include hole 11I-4 which encountered 0.95 meters grading 2.16 ounces of gold per ton and 2.72 ounces of silver per ton, hole 11I-4 which intercepted 1.73 meters grading 0.1 ounces per ton gold and 38.8 oz/t silver along with greater than 3 percent each of lead and zinc and strongly anomalous antimony and copper. Drilling and mapping show that the gold veins exist within a WNW package of tonalitic rocks sandwiched between metasedimentary rocks to the southwest and higher grade gneiss to the northeast with stresses creating strong E-W shear veins (as the Main and Deep Trench) and minor northeast tensional vein-faults. The contact zone between metasedimentary and tonalitic rocks has now become a target for high-grade mineralization, possibly with more silver and base-metal rich zones as indicated in hole 11I-4. During 2011 the partners completed 30 holes (5,181 meters) of drilling.

UCORE RARE METALS INC. announced an update on metallurgical and beneficiation studies of rare earth samples from its Bokan Mountain project. Chemical extraction studies were conducted on a composite of 79 samples of split core from the project which contained an average light rare earth element grade of 0.71 percent, an average heavy rare earth element grade of 0.48 percent and an average total rare earth element grade of 1.19 percent. Total recovery grades ranged from 85-90 percent using a recovery method involving sulfuric acid-baking and water leaching of the baked sample. These average recoveries were improvements over previously conducted tests. Additional metallurgical work is under way on whole core without pre-concentration of the rare earth elements.

PURE NICKEL INC. announced that the permitting process was completed at its Salt Chuck copper-palladium project on Prince of Wales Island. The company is planning the next logical exploration step in order to advance the property. ●

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• COLUMN

Superior Court hands down Pebble ruling

Judge scrutinizes State of Alaska's administration of key project permits, deems program legally sound and technically effective

By J. P. TANGEN
For Mining News

In an exhaustive 154-page decision disposing of all claims against the State of Alaska, Superior Court Judge Eric A. Aarseth found that, in conjunction with the Pebble Project in Southwest Alaska, the State of Alaska's Miscellaneous Land Use Permit (MLUP) system, as administered, and the state's Temporary Water Use Permit (TWUP) program, as administered, did not violate the provisions of Article VIII of the Constitution of the State of Alaska. In an earlier ruling Judge Aarseth had found that the two programs, essential to mineral exploration on state land, were constitutional on their face. His earlier ruling, however, allowed plaintiffs to attempt to adduce evidence to show that the programs were unconstitutional as applied.

A two-week trial was held by the court during which testimony and other evidence was introduced on numerous questions relating to exploration activities at the Pebble Project. The court's opinion addresses each issue in turn, examines it comprehensively, and, in all cases determines that the allegations of the plaintiffs were not supported by the evidence.

One of the threshold questions raised by the plaintiffs was whether the MLUP and TWUP programs when applied to mineral exploration amounted to a disposal of state land. According to Judge Aarseth, "[t]he MLUPs and TWUPs issued by the State are revocable and do not amount to a disposal under Article VIII, Section 10 of the Alaska constitution."

Turning then to the permits themselves, Judge Aarseth found that the plaintiffs failed to prove that there were long-term or harmful environmental impacts from the exploration drilling operation at the Pebble Project. He found that there was no evidence of acid rock drainage from the drill holes; he found there was no evidence of acid rock drainage from the drill cuttings; he found there was no evidence of adverse environmental impacts from the discharge of drilling muds and fluids; he found that the water withdrawals necessary to support drilling operations were insignificant and temporary; he found no persuasive evidence that the water withdrawals had caused any actual harm at all.

Judge Aarseth found no persuasive evidence that the exploration drilling activities caused impacts to fish or fish habitat, either in terms of water quantity, water quality, water intake, or seismic activity associated with blasting. He found no significant evidence to conclude that the drilling activities at the Pebble Project had caused impacts to wildlife or wildlife habitat for caribou or any other resident animals.

He found no evidence of permanent, or long-term, environmental harm resulting from fuel spills. He found that there was no evidence that mineral exploration activities had caused sig-

Mining & the law

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J.P. TANGEN

nificant and permanent impacts on vegetation. He found no evidence that exploration activities at the Pebble Project had impacted any archeological or cultural resources.

Judge Aarseth went on to rule that the permits associated with the Pebble Project did not unconstitutionally impinge on reasonable concurrent uses of the project area, as plaintiffs had alleged, because the permits did not provide for exclusive use of the area; that the drilling program and water withdrawals did not impact reasonable concurrent uses of water by fisheries; that the drilling program did not impact reasonable concurrent use of the indigenous wildlife resources; that the drilling program had not excluded hunting guides; and that the program did not impact subsistence users.

Although the opinion is long enough to discourage most readers, and technical enough to be less than an easy read for even the well-informed, it is hugely important. This decision does not address development permits, but it does constitute a playbook for all large exploration projects in the future in Alaska.

The state is administering the oversight of exploration programs correctly, and this decision is the proof. Future exploration operations in Alaska will vary from the existing guidelines at great risk.

When this matter is taken up by the Alaska Supreme Court, as indeed it will, the Supreme Court will have a strong foundation on which to build. The Supreme Court, however, will necessarily be shorthanded when it considers this case on appeal because at least two of the five justices on the court must recuse themselves due to conflicts – Justice Dana Fabe is married to an attorney who works for counsel for the Pebble Partners and Justice Craig Stowers had this case before him while he was still on the Superior Court bench. By the time this case is heard, and it is conceivable that there will be a vacancy on the court as well, due to the pending nomination of Justice Morgan Christen to the Ninth Circuit Court of Appeals.

It is perhaps too much to hope for, but the Supreme Court would be well-advised to simply embrace Judge Aarseth's excellent analysis and adopt his findings and conclusions as its own. ●

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• ALASKA

China moves to gain high-tech dominance

American Elements exec provides unique insight into country's strategy to leverage rare earth monopoly to import manufacturing

By SHANE LASLEY

Mining News

Leveraging its global dominance in the realm of rare earth elements, China has set in motion a strategy to gain supremacy in manufacturing the vast array of technologically advanced products that depend on these metals.

"China can exploit rare earths that they control all the way out to electric cars, wind turbines, whatever it is – and that is the grand strategy," American Elements Chairman and CEO Michael Silver told some 200 participants in the Alaska Strategic and Critical Minerals Summit held in Fairbanks in late September.

By levying steep export taxes, constraining overseas shipments and tagging additional upward pressures to the costs of rare earth elements leaving the Far East country – the Chinese government has driven an explosion in the prices western manufacturers must pay for these high-technology metals. All the while, their counterparts inside China's borders can source these same materials for a fraction of the cost.

"China is on the road to creating a two-tiered structure in pricing," Silver explained. "They are using this strategy primarily to produce the added-value products in China, as opposed to selling rare earths at some astronomical price."

Silver, who founded American Elements two decades ago, is a firsthand witness of China's rise to dominance as the global supplier of REEs and continues to have a clear



American Elements CEO Michael Silver chats with Alaska Gov. Sean Parnell and Department of Natural Resources Commissioner Dan Sullivan at the Alaska Strategic and Critical Minerals Summit in Fairbanks.

view through the opaque wall that stands between the United States and its source of the high technology metals.

"I have a sufficiently strong 20-year relationship with the Chinese officials for rare earths that I do not worry when I speak the truth. There is nothing that I am saying that they don't acknowledge to me in private," the American Elements leader told Mining News when asked if he worried about revealing China's strategy.

In order to avoid exporting its high-technology manufacturing jobs to China, Silver told the legislators, regulators, miners and

members of the media attending the summit that the United States needs to get into the REE game – from mining the critical minerals through assembling the products that benefit from the unique properties of these "magical" metals.

It is a game in which the American Elements executive believes Alaska could play a significant role.

"Alaska certainly has an opportunity to be the pre-eminent U.S. producer of rare earths in the future," Silver told Mining News. "Good for Alaska, good for the country."

China gains monopoly

To paint a clear picture of China's long-term strategy to control the REE markets, the American Elements executive took the summit attendees back two decades.

At that time, there were two producers of these unique metals: Molycorp in the United States and Rhône Poulenc, a French company that sourced its material from China. American Elements bought rare earths from both companies and the duopoly served to keep the prices respondent to global supply and demand economics.

"Then China began making inroads into offering their rare earths outside of China at prices that were a tenth of what Rhône Poulenc and Molycorp were selling their materials," Silver said.

Within the space of about two months, the REE producers informed Silver they were shutting down, cutting off American Elements' source of the vital metals.

"I called my wife and said 'we're going for a long walk on the beach, our company is in trouble!'" he reflected.

American Elements was not the only company in the West left without a reliable supply of REEs. Silver began to get calls from manufacturing giants General

Electric, Honeywell and Siemens, who were desperate to secure a supply of the required REEs.

"I got on a plane and flew to Baotou, China, and said, 'does anybody want to talk to me?'" Silver recalled.

The meetings resulted in American Elements building its own processing facility in the famous Chinese REE province of Baotou, securing the company's position as a top supplier of the technological metals to the West.

Over the ensuing 15 years, China continued to supply the world with REEs at rock-bottom prices, maintaining its monopoly over the sector.

"Up to two years ago, the prices of rare earths were at this other number," Silver said, referring to China's low REE prices. "At this other number, many people in China got very, very, very rich. Money can be made at this other number in China. It is a profitable number, and it is a strong indication as to what the Chinese need to sell rare earths for internally, in order for them to at least break even."

Export quotas begin

During China's 15-year reign as the global low-cost supplier, REEs have become an increasingly important component of products such as terabyte hard-drives that fit in the palm of your hand as well as high-efficiency power generation and guided missiles.

"There are literally hundreds of uses for rare earths – they are unique materials, almost alchemical magic," Silver observed.

These seemingly magical metals not only enhance the performance of high-technology products but also are integral to items that Americans use on a daily basis.

"Cerium is used by every light bulb manufacturer on the globe because it has this magical capability of keeping iron – which is always in glass – in the state that is clear as opposed to the state that is brown. It is the same material that is in every catalytic converter you have ever used, because cerium has an incredible capability to remove both NOx (nitrous oxide) and SOx (sulfur oxide). When you grind it (cerium) into a powder, it is the best glass polish known to man. It is, in fact, used for polishing the ends of fiber optic cables – it can polish so finely. All the same material ... different properties," Silver said.

In the midst of an explosion in the number of green and high-technology applications made possible by the "alchemistic" attributes of REEs China began to put a squeeze on global supplies, driving up the prices of the metals.

"If you didn't get an export quota, you couldn't ship out of China," Silver

see RARE EARTH STRATEGY page 11

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ALASKA LAND STATUS, INC.

continued from page 10

RARE EARTH STRATEGY

explained.

With export quotas allocated to companies shipping REEs out of the country, the Chinese government has incrementally reduced the available export rations. This decrease is not only affecting the supply-demand economics in the open market but is causing companies to pay astronomical prices to purchase the shrinking number of quota allotments, adding to the price of getting the metals out of the country.

"In 2009, they began a process of what we now know as a two-tiered structure for rare earth pricing," Silver told a rapt audience.

Cerium prices in the West rocketed from US\$4 a kilogram in 2009 to more than US\$150 a kilogram earlier this year. The price of the glass polishing metal has since fallen to around US\$55 per kilogram.

China's chokehold on global supply and excessive export taxes on REEs prompted the United States, the European Union and Mexico to file complaints with the World Trade Organization, charges the global commerce group upheld.

Citing environmental concerns – a way of sidestepping its commitments as a member of the WTO – Beijing said in late August that it will appeal the ruling.

Aggressive behavior

Though China's actions succeeded in driving REE prices through the roof, the country took more forceful action in 2010.

"Last year is when the real aggressive behavior began," Silver said.

The Ministry of Commerce of the People's Republic of China capped REE exports for the second half of 2010 at 7,976 metric tons, a 72 percent decrease from the 28,417 metric tons allowed during the same period a year earlier.

In addition to putting further constraints on global supply, the Far East country nationalized the REE processing facilities in China, including the American Element plant in Baotou.

"The Chinese nationalized our processing facility as of last year, so we can no longer process materials – but we still have relationships and are able to bring rare earths out of China," the American Elements CEO explained.

"The bottom line is that they now own all (REE) processing facilities of any size in China," he added.

China Daily, the country's national English-language newspaper, reported in mid-2010 that, according to its sources, the Far East country also was instituting a unitary price based on negotiation that will be

published once a month to protect the natural resources from being depleted and to avoid cut-throat competition among the five provinces and regions known to be rich in the rare metals.

Shortly after the China Daily report, traders began complaining about a more insidious system of controlling the prices of REEs leaving the country, a method outlined by Silver at the critical metals summit.

"For the last six months, customs would do this really curious thing at their office in Tianjin," Silver said. "You would go in there and say, 'I have a container of neodymium oxide that I want to ship to the United States.' And they would ask, 'What price are you selling it at?' We would say we are selling it at US\$230 per kilogram – astronomical numbers. They would say, 'well, you know, (another company) just sold a container for US\$420 dollars, you should think about that,' and then they wouldn't give you the authorization to ship the materials. So, you come back at that other price and they would say, 'okay here's your pass.'"

The kilogram of neodymium that is being fixed at over US\$400 sold for about US\$18 in 2006.

"The numbers we are looking at are artificial; they have no relevancy to environmental issues in China, which they tried to raise as their reasons to get around the WTO restrictions on what they are doing; they have no relevancy to supply and demand," Silver said.

Since Silver's address in Alaska, China's largest REE producer, Inner Mongolia Baotou Steel Rare-Earth (Group) Hi-Tech Co. Ltd., said it will suspend separation and production of REEs for one month.

"In the circumstances of a continuing fall in prices, tepid demand and oversupply, Baotou will halt smelting and separation at its processing units from Oct. 19 to further stabilize the market and balance supply and demand," the Chinese REE giant said in a Oct. 18 filing to the Shanghai Stock Exchange.

"They are artificial figures created by China in order to get the numbers as high as

possible in anticipation of the kind of world we are working in today," Silver said.

The world of which Silver speaks is one in which global manufacturing giants must move their facilities to China in order to source their materials at a reasonable price.

"We (American Elements) used to supply all of the cerium that went into General Electric's light bulbs – they have moved all of their glass plants to China because that is what China wanted," he said.

Mines to turbines

Drawing on his experience and insight into China's plan to control the REE supply-chain, Silver is urging the United States to get into the REE game.

"If we are going to be the country Thomas Edison, Henry Ford and all these wonderful people created, we have to do what they did ... we have to make things. And, in order to make things, we have to get back into the raw materials game," Silver said.

This drew a hallelujah from U.S. Rep. Don Young, R-Alaska, who sat to the right of Silver at the summit.

The American Elements CEO admitted that competing with a country that controls virtually an unlimited supply of REEs and has a socialist structure that allows it to control the industry within its borders will be tough.

"We are not going to nationalize our mines," he said.

Building mines and selling REEs into an artificially inflated market also is not a viable long-term solution.

"The only answer that I can come up with, is for the mining companies – the large ones that control the rare earth materials – to move up the supply chain," Silver said. "If you start making turbines, as a rare earth mine, all of a sudden the lowest cost rare earth is what's valuable to you – as opposed to the high cost that you would sell into this artificial price that China has created for the rest of the world."

Molycorp Inc., the largest REE producer outside of China, is already applying this

stratagem of moving up the supply chain. In a plan called mines-to-magnets, the company entered into a cooperative agreement with Canada-based magnet maker, Neo Material Technologies Inc., to use REEs recovered at Molycorp's Mountain Pass Mine in California to produce metals, alloys and magnets.

Moving further up the supply chain – in what could be dubbed mines to turbines – Molycorp announced in September that it made a substantial investment in Boulder Wind Power, which has designed a rare earth magnet-powered wind turbine generator that can produce electricity as low as US4 cents per kilowatt-hour.

"Boulder Wind Power's innovative technology promises to dramatically accelerate the global deployment of high-efficiency, advanced wind turbines," said Molycorp President and CEO Mark Smith. "By effectively solving the dysprosium supply problem for the wind turbine industry, this technology removes a major hurdle to the expansion of permanent magnet generator wind turbines across global markets. This investment also furthers Molycorp's mine-to-magnets business strategy, and our commitment to manufacturing value-added green energy materials, by providing us with potentially large markets for the magnetic rare earth materials we will produce."

Molycorp re-opened Mountain Pass in 2009 by processing stockpiled material left from the historical operation. On Oct. 20 the REE miner said it will begin mining fresh ore by the end of the month in anticipation of an accelerated start-up of commercial production, which will enable it to produce 8,000 – 10,000 metric tons of REEs in 2012.

Alaska advantage

Silver said companies developing REE deposits in Alaska should consider applying a similar policy of moving the REEs well up the supply chain before shipping them out of the state – a stratagem that would provide

see RARE EARTH STRATEGY page 12

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continued from page 11

RARE EARTH STRATEGY

more in-state jobs as well as make the operations competitive with China.

Debunking the idea that REE separation was a complicated process largely lost to the West, Silver characterized solvent extraction of the metals as easy as “salad dressing.”

“It is very, very easy to separate rare earths,” Silver emphasized. “The whole supply chain is extremely well-known, the technology is well-understood by just about everybody in my company.”

Alaska Department of Natural Resources Commissioner Dan Sullivan asked Silver if it would be possible to make magnets in the state out of REEs mined here.

“It is not only doable, but I would like to see Alaska making electric motors and wind turbines,” the American Elements executive replied. “Add value, build those facilities up here.”

Ucore Rare Metal’s Inc.’s Bokan Mountain project in Southeast Alaska is the most advanced REE deposit in the state. The project has a high percentage of heavy rare earths such as dysprosium and terbium; making it a complement to Molycorp’s light REE-skewed Mountain Pass Mine.

Ucore President and CEO Jim McKenzie told the summit attendees that the in-situ value of the metals at Bokan at current REE prices exceeds US\$3,000 per metric ton, pushing the total value of the deposit above US\$10 billion.

Though Bokan is relatively early in exploration, Ucore believes it can have a REE mine in operation there by 2016. The proposed mine has advantages, including being small in scale and enjoying the support of both the Alaska Legislature and Congress.

Pointing to the logistically advantageous location of Alaska, Silver said, “Alaska is in a position where it can create a huge manufacturing base, based on rare earth. That is the best thing for the United States because all of a sudden all of the mines have to take a look at driving down their rare-earth production costs because they want to compete in the wind-turbine market globally with China.”

“That way a free enterprise world can compete with a nationalized world in which they are artificially holding those prices down,” he added.

Encouraged by Alaska’s REE potential, logistical advantage and lawmaker support of strategic metals mining, Silver declared: “Jobs in Alaska are coming.” ●

BRITISH COLUMBIA & YUKON TERRITORY

New Gold agrees to buy Silver Quest

Gold producer snags key assets at, near Blackwater Project in stock deals with two juniors; invests in Yukon-focused spinoff

By ROSE RAGSDALE

For Mining News

New Gold Ltd., less than six months after gaining majority ownership of the Blackwater Gold Project in central British Columbia, has moved to consolidate its control of the project. The mid-tier gold producer reported Oct. 17 it had entered into agreements to acquire two juniors that currently claim significant stakes in gold-rich properties believed to host the mineral resource.

New Gold entered a binding agreement to acquire Silver Quest Resources Ltd. in an all-stock transaction that valued Silver Quest’s assets at about C\$166 million.

The mid-tier gold producer also inked a similarly structured agreement to purchase Geo Minerals Ltd., a junior that owns the West Blackwater project, which comprises about 1,471.4-hectare (3,636 acres) located to the northwest of Blackwater.

Both projects are situated some 160 kilometers, or 100 miles, southwest of Prince George, B.C.

Analysts immediately praised the transactions, while investors sent Silver Quest’s shares soaring nearly 43 percent to about C\$1.24 a share and Geo Minerals’ shares climbing 33 percent to C16 cents a share by Oct. 24.

In June, New Gold gained control of 100 percent interest in the southern portion of the Blackwater project and 75 percent interest in the northern portion, known as the Davidson Property, when it completed its acquisition of Richfield Ventures Corp. The company, which operates gold mines in Australia, Mexico and the United States, is also advancing the New Afton gold project in southern British Columbia toward production start-up in mid-2012.

Silver Quest win-win

New Gold and Silver Quest jointly announced a binding letter agreement whereby New Gold will acquire, through a plan of arrangement, all of the outstanding common shares of Silver Quest. Under the terms of the arrangement, Silver Quest shareholders will receive a fraction (0.09) of a New Gold share for each Silver Quest share they hold, along with one common share for every three Silver Quest shares held in a new Yukon Territory-focused precious metals exploration company called McIntyre Minerals Inc. The offer values Silver Quest at C\$1.32 per share, which represents a 52 percent premium based on the combination of:

The share consideration of C\$1.06 per share, representing a 22 percent premium based on New Gold and Silver Quest’s Oct. 14 closing prices on the TSX and TSX.V, respectively. This implies an equity offer value of about C\$131 million on a fully diluted basis and a transaction value of C\$121 million, net of the cash to be received from the exercise of Silver Quest’s dilutive instruments; and

Consideration of C26 cents per share for spinning out certain Silver Quest assets into McIntyre Minerals. This represents an additional 30 percent premium based on Silver Quest’s Oct. 14 closing price on the TSX.V, implying a value of about C\$35 million.

Upon closing of the arrangement, which is expected in December, New Gold will gain Silver Quest’s 25 percent interest in the Davidson Property which forms the northern half of the Blackwater gold project, and thereby consolidate ownership of Blackwater, in which it currently holds the remaining 75 percent interest. Silver Quest’s share of the

see **NEW GOLD** page 13

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continued from page 12

NEW GOLD

Blackwater mineral resource includes 555,000 ounces of indicated and 206,000 ounces of inferred gold mineral resources.

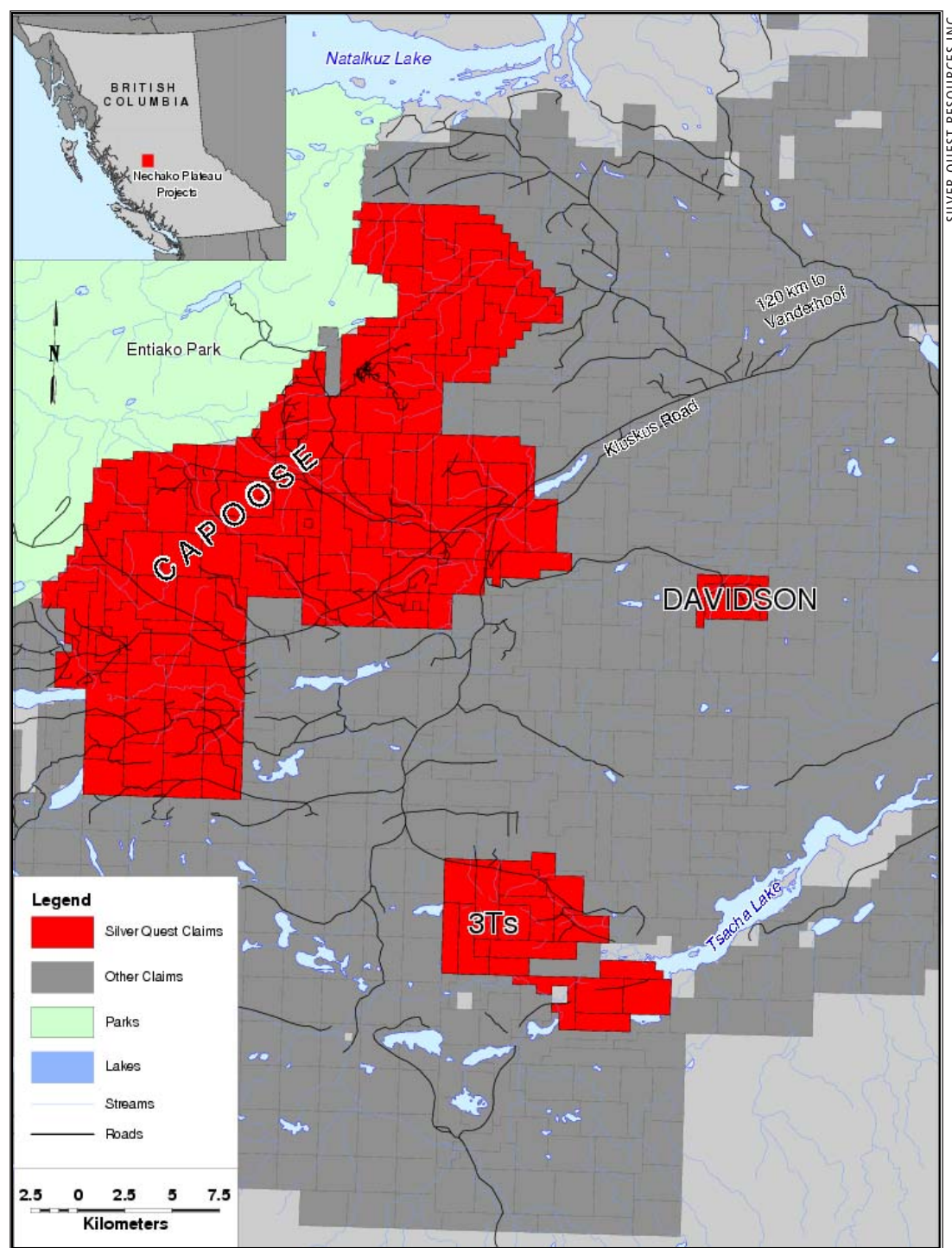
Following a report in August that New Gold and Silver Quest had intersected 278 meters grading 2.8 grams per metric ton gold at Davidson, the companies approved a new budget covering work to be completed over the next six to nine months. The planned activities included an aggressive 75-hole, 26,250-meter diamond drilling program on the Davidson Joint Venture Claims, preparation of a preliminary economic assessment report and work on certain infrastructure items that would benefit both the Davidson claims and the overall Blackwater Project. Silver Quest's share of the budget was about C\$5.1 million.

New Gold also will gain a 100 percent interest in the nearby Capoose Property in the deal. Capoose comprises 120 claims covering 46,788 hectares (115,613 acres) located about 25 kilometers (16 miles) west of the Blackwater Project. Situated in the Nechako Plateau Region of central British Columbia, the three-property land package which Silver Quest has assembled in recent years, has an established NI 43-101 gold-silver-zinc resource estimate that includes indicated resources of 383,823 ounces of gold at a grade of 0.38 g/t gold, 26.6 million ounces of silver at a grade of 26.5 g/t silver, and 137.5 million pounds of zinc at a grade of 1,998 g/t zinc. Additionally, there are inferred resources of 443,206 ounces of gold at a grade of 0.37 g/t gold, 29.5 million ounces of silver at a grade of 24.6 g/t silver, and 219.2 million pounds of zinc at a grade of 2,669 g/t zinc. The deposit remains open at depth and along all margins. Silver Quest has said a geological interpretation of the known mineralization at Capoose indicates that the explorer might have been drilling into the top of a large, disseminated gold-silver system. Silver Quest's focus at Capoose was on expanding the resource volume. There are multiple drill targets outside of the immediate deposit area that are defined by geochemical and geophysical anomalies, such as the area of anomalous metal concentrations in soils that trends northeast from the deposit area for more than 5 kilometers (3 miles).

As part of the arrangement, New Gold will purchase, on a private placement basis, C\$3.5 million of McIntyre shares at a price of C78 cents per share (\$0.26 per share, value-adjusted for the three Silver Quest shares for one McIntyre share exchange).

As a result, New Gold will gain a 9.9 percent stake in McIntyre Minerals and Silver Quest shareholders will control the remaining 90.1

see **NEW GOLD** page 14



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continued from page 13

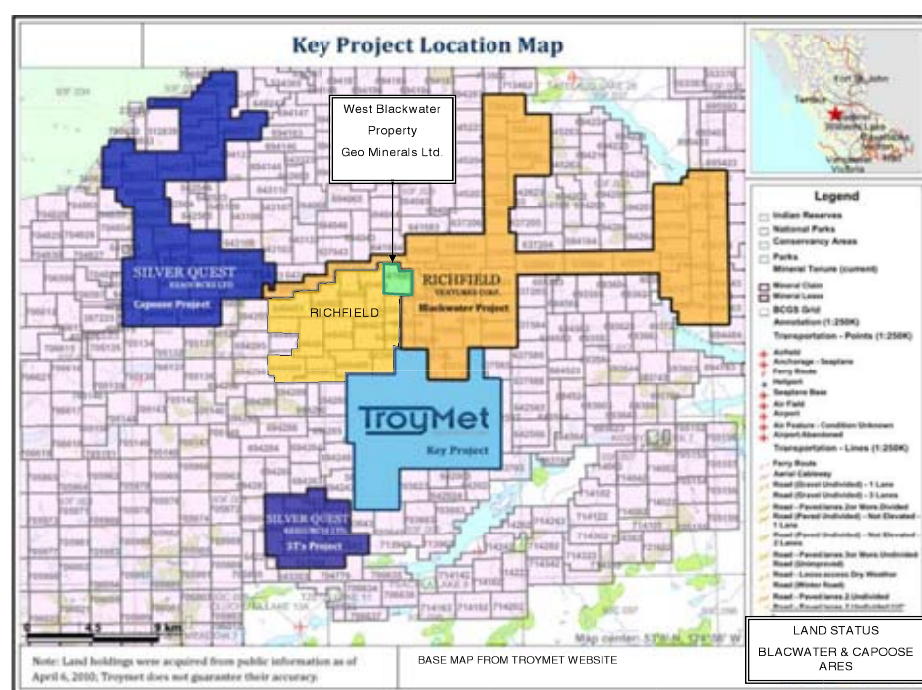
NEW GOLD

percent interest.

The companies said they expect McIntyre to have about C\$15 million in cash to fund an aggressive two-year exploration program focused on Silver Quest's 3Ts Gold Project in the Nechako Plateau region of central British Columbia and a number of Yukon exploration properties.

"The acquisition of Silver Quest's Davidson interest and the Capoose Property consolidates our ownership of the Blackwater Project and expands our presence significantly in the area," said New Gold Executive Chairman Randall Oliphant. "We also look forward to continuing our relationship with Silver Quest as a shareholder in McIntyre, given their team's track record of delivering value for shareholders."

In addition to an immediate premium recognizing both the current value and potential value of the Davidson Property, Silver Quest shareholders will retain exposure to the Blackwater Project and to its 3Ts and Yukon properties through McIntyre with sufficient cash for two years of aggressive exploration in 2012



GEO MINERALS LTD.

"This transaction delivers an immediate and attractive premium to our shareholders, while allowing them to continue to share in the potential at the Blackwater Project through their New Gold shares. We are pleased that our shareholders are able to retain their exposure to an exciting portfolio of exploration properties in the Yukon and British Columbia through their McIntyre shares with New Gold as a supportive shareholder."

—Randy Turner, president and CEO, Silver Quest Resources Ltd.

and 2013, while gaining exposure to New Gold's diversified gold production base and strong growth profile.

"This transaction delivers an immediate and attractive premium to our shareholders, while allowing them to continue to share in the potential at the Blackwater Project through their New Gold shares," said Silver

Quest President and CEO Randy Turner. "We are pleased that our shareholders are able to retain their exposure to an exciting portfolio of exploration properties in the Yukon and British Columbia through their McIntyre shares with New Gold as a supportive shareholder."

McIntyre will be led by the existing

management team and board of directors of Silver Quest, who have significant experience in building companies focused on mineral exploration.

McIntyre's exploration in British Columbia will be focused on the 3Ts Gold Project which covers an epithermal gold-silver vein system within which 12 individual mineralized veins, up to 650 meters in strike length and up to 15 meters in true width, have been identified. The 3Ts property encompasses about 3,100 hectares (8,401 acres) with an established inferred mineral resource of 942,600 metric tons at 4.89 grams per metric ton gold and 77 g/t silver. Exploration in the Yukon will be focused on 18 properties covering more than 93,000 hectares (229,803 acres), including extensive land holdings in the White Gold District.

Another spinoff deal

Geo Minerals acquired the West Blackwater project in 2010. The original claim block is within 2.5 kilometers (1.5 miles) west-northwest of Blackwater. Geo has since expanded the property with the acquisition of additional claims and conducted at least two exploration programs, including detailed geological mapping, selected prospecting, an IP geophysical survey and infill soil sampling, delineating the anomalous zones identified during the 2010 exploration program. Earlier this year, Geo initiated a 5,000-meter drill program.

Under the plan of arrangement with New Gold, Geo shareholders will receive C16 cents per share and 1/15th of a common share in a new exploration company for each Geo common share held. Excluding consideration for the new company, the offer represents a premium of about 33 percent based on the closing price of Geo's shares Oct. 14.

New Gold also will subscribe for 9.9 percent of the spinoff company's outstanding common shares for consideration of C\$250,000. On completion of the transaction, current Geo shareholders will hold about 90.1 percent of the outstanding shares of the spinoff, and new company will own all of Geo's assets and liabilities, except for cash retained by Geo and Geo's West Blackwater mineral interests.

The board of directors of Geo unanimously approved the transaction and all directors and senior officers of Geo, as well as certain other Geo shareholders, collectively holding about 29 percent of the number of Geo securities anticipated to be entitled to vote at a meeting of the Geo security holders (including holders of Geo shares, stock options, and share purchase warrants), have agreed to vote their securities in favor of the transaction. ●



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• NORTHWEST TERRITORIES

Board seeks path to more timely reviews

Chamber of mines applauds administrative tribunal for recognizing problem, taking steps to improve NWT regulatory environment

By ROSE RAGSDALE
For Mining News

The Mackenzie Valley Environmental Impact Review Board released an external report in early October that potentially could lead to significant improvements in the environmental assessment process for mineral exploration and development in a large, natural resources-rich region of the Northwest Territories.

The report, commissioned by the Review Board and dated June 2011, was prepared by Stantec Consulting Ltd. of Yellowknife, NT and focuses on opportunities to improve the timeliness of the regulatory board's environmental assessment process. It is viewed as a first step in the Review Board's work to address criticism by industry and others that the regulatory system governing land and water resources in the Mackenzie Valley is increasingly complex and lengthy. Natural resource companies and others have raised concerns that environmental assessments in the region have now become onerous for all participants from the perspective of work load and available resources.

The Review Board, which is responsible for conducting environmental assessments and environmental impact reviews in the Mackenzie Valley, said it is very aware of these concerns and has made timeliness of the environmental assessment process the top priority in its most



Mackenzie Valley Resource Management Area Map

recent three-year strategic plan.

Under provisions of the Mackenzie Valley Resource Management Act, environmental assessment is the middle step in a three-stage process for environmental impact assessment. On average, typical environmental assessments are becoming longer and more detailed and may have surpassed the original expectations of the comprehensive land claims agreements and the legislation for the middle stage between preliminary screening and environmental impact review, according to the Review Board. The Northern Regulatory Improvement Action Plan, initiated by Aboriginal Affairs and

Northern Development Canada, is addressing regulatory improvement from a broader perspective, and includes process clarification and efficiencies that can be gained through legislative amendments. In an Oct. 3 statement, the Review Board said it aims to complement the Northern Regulatory Improvement Action Plan with its own set of internal process improvements.

The Mackenzie Valley Resource Management Act allows for considerable flexibility in the process and the Review Board has the latitude and authority to make changes to its processes. The first step taken by the administrative tribunal

“With the exception of the Galore Creek project in British Columbia, which had significant proponent-caused delay during the scoping phase, the ‘EA start-up to issuance of TOR’ and the ‘EIS conformity to EA determination’ phases’ were longest for those projects assessed in the Mackenzie Valley.”
— Stantec Consulting Ltd.

was to hire Stantec to provide its perspective on improving timeliness in the environmental assessment process. By hiring the consultant, the issue of process timeliness was examined with “new eyes,” the board said. Essentially, the review was intended to identify the main bottlenecks in the assessment process and propose solutions for those matters that are within the Review Board's control. While focusing on the environmental assessment stage of the EIA process, the review also had to consider linkages to other stages of EIA (preliminary screening and EIR) and other components of the regulatory system established by the Resource Management Act.

In its report, Stantec identified several areas with room for improvement. Some are within the Review Board's control, others require collaboration of parties, and some involve legislative change.

see REPORT RESULTS page 16



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continued from page 15

REPORT RESULTS

EIA processes compared

The main recommendations focus on improving scoping efficiency, developing a defined process for referrals to environmental impact reviews, developing environmental assessment processes for large versus small projects, improving guidance materials and implementing rules-based timelines.

Though EIA processes across Canada are not directly comparable and the assessments reviewed during the study each have unique attributes, Stantec concluded that the environmental assessment process in the Mackenzie Valley is one of the lengthier processes in Canada.

The consultant examined the timeliness of each phase of the Review Board's assessment process and compared its recent reviews of DeBeers Canada Inc.'s Snap

Lake Diamond Mine and Tamerlane Ventures Inc.'s Pine Point Pilot Project with comparable EAs for recent mine development projects in Nunavut, Yukon Territory, British Columbia, Saskatchewan and Newfoundland.

"With the exception of the Galore Creek project in British Columbia, which had significant proponent-caused delay during the scoping phase, the 'EA start-up to issuance of TOR' and the 'EIS conformity to EA determination' phases' were longest for those projects assessed in the Mackenzie Valley," Stantec wrote in its report.

Unlike the Mackenzie Valley, the consultant said most EIA processes in Canada have established time limits for all or specific assessment phases. Where time limits have been implemented, the process is more expedient than most of the similar level assessments conducted by the Review Board.

Stantec said the board also is challenged

by the range of projects referred for assessment; it is estimated that more than 50 percent of the projects referred to environmental assessment in the Mackenzie Valley would not be subject to the same level of assessment in other jurisdictions.

In response, the Review Board has adjusted its process on a case-by-case basis to provide a timelier assessment for these "smaller" developments. While improving timeliness, Stantec said the implementation of this development-specific process increases uncertainty for proponents and parties to the assessment.

The consultant also identified a number of legislative, procedural and operational factors that affect the timeliness of the environmental assessment process and land and water regulation as a whole in the Mackenzie Valley.

Stantec recommended a number of improvement initiatives to address the issues affecting timeliness, including some beyond the authority of the Review Board such as legislative change and improving the linkage between environmental assessments and licensing that require the cooperation of other groups.

However, the consultant also outlined improvement initiatives that the administrative tribunal can consider implementing to achieve its goal of a timely environmental assessment process. "Many of these recommendations also will help to improve process predictability and certainty, an important tenet of good regulatory system," Stantec said.

The recommended improvement initiatives within the Review Board's authority include:

Develop best practice for scoping environmental assessments in the Mackenzie Valley which recognizes the interests of the parties and allows a timely environmental assessment;

Develop a two-level environmental assessment process – a simpler more expe-

diend process for developments requiring limited analysis and a second process which provides for increased technical review;

Develop increased guidance material for all parties – this would include updated process guidelines and more specific guidance on topics such as requirements for a project description, the scoping process, draft TOR and formal submissions;

Establish time limits for those phases of the environmental assessment process that the Review Board can control – formal submissions, conformity, technical review, report of the environmental assessment, public comment periods;

Develop a process for efficient referral of a development to EIR during the scoping phase of the environmental assessment; and,

Delegate more responsibility to the Environment Assessment Offices (EAOs) in implementing the environmental assessment process.

In an Oct. 3 statement, the board said it is reviewing Stantec's recommendations along with its own internal analysis and will initiate improvements that it considers appropriate and within its authority to change. "There will be improvements that can be implemented in the short term, while others will require more time. More information on the nature and timing of process improvements will be shared with stakeholders in the coming weeks," the Review Board added.

Vern Christensen, the board's executive director told Mining News Oct. 21 that, "Early in the new year, we anticipate sharing a discussion document with stakeholders on options we feel could improve the 'frontend' scoping process,"

Chamber praises Review Board

The Nwt & Nunavut Chamber of Mines congratulated the Review Board for recognizing that there are problems, for then examining what is within its authority to change, and for taking steps to improve the regulatory environment in the northern territory.

"Making the North an attractive place to work and invest is up to all of us, not just elected leaders. It is up to government, to Aboriginal groups, to regulators Northern Regulatory Improvement Initiative and to industry. The Review Board's positive actions to review its own processes to find improvements join those of the Federal Government in the, and the very positive move the Akaitcho (Treat & Tribal Corporation) made when they signaled their desire to improve mineral investment by signing a memorandum of understanding with the Chamber of Mines this summer," said Chamber President John Kearney.

The chamber said its members have had many positive conversations with representatives of Aboriginal groups in the NWT, and increasingly, these groups are supportive of mining investment that adds to opportunities for northern communities and their businesses.

The chamber also said it is very optimistic that this activity and the Review Board's efforts will help reinvigorate investor perceptions and interest in Northwest Territories and improvements will soon begin.

"This is very important to the economy of the NWT, which is built on a mining foundation.

The Territories' diamond production is now third place in the world by value. In addition, a number of new mining projects are in the regulatory approvals phase. Exploration this current year in the NWT is projected to fall, despite strong commodity markets fueling booming exploration in the adjoining Yukon and Nunavut territories, the group added. ●



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• ALASKA

NANA, NovaGold sign landmark agreement

Pact consolidates copper-rich deposits held by companies; provides framework for the exploration and development of Upper Kobuk

By **SHANE LASLEY**
Mining News

NovaGold Resources Inc. and NANA Regional Corp. have forged a landmark partnership to explore and develop the Ambler Mining District – a region of Northwest Alaska renown for a 110-kilometer- (70 miles) long belt of world-class volcanogenic massive sulfide deposits rich in copper, zinc, lead, gold and silver that sweep across its breadth.

The progressive agreement, penned by NovaGold President and CEO Rick Van Nieuwenhuysse and NANA President and CEO Marie Greene Oct. 19, consolidates the Upper Kobuk River region into an 180,000-hectare (445,000-acre) land package and provides a framework for exploration and development of the high-grade mineral belt that cuts across the traditional home of the Inupiat people.

For NANA, the alliance allows the Inupiat-owned Alaska Native regional corporation to be involved in the exploration and development of deposits on NovaGold's Ambler property, including the world-class Arctic Deposit. In return, NovaGold gets the opportunity to investigate the potential of the copper-rich Bornite deposit and explore other mineral prospects on NANA lands in the Upper Kobuk region.

"This will benefit their deposit as much as it will benefit NANA. It is a good fit," Greene told Mining News.

Beyond consolidating land positions in the upper Kobuk region, the alliance benefits from the traditional knowledge, business savvy and political clout of one of Alaska's most successful Native corporations with the geological knowledge, market savvy and business connections of a proven mineral exploration company.

"This agreement ratifies the cooperation that has been and will be essential to the successful development of these significant mineral deposits," said Van Nieuwenhuysse. "Notably, both parties are contributing resources to create the opportunity to take a consolidated and cost-effective approach to exploring and developing one of the richest and most-prospective copper districts in one

of the safest geopolitical jurisdictions in the world."

Local support

NANA, which has realized vast economic benefits from its partnership with Teck Resources Ltd. at the Red Dog Mine, sees the development of mineral projects in the upper Kobuk region as a means to sustain Inupiat communities scattered across Northwest Alaska and continue to provide economic opportunities for its more than 12,000 shareholders.

"At NANA, we know our corporation is created as a promise to the shareholders of tomorrow. We are doing all we can to create a basis of wealth for them so that they will have more opportunities than we have today – and our region can continue to build a stronger, better Alaska," NANA

see **PACT** page 18



NOVAGOLD RESOURCES INC.

NovaGold Resources Inc. Project Manager Scott Petsel, Senior Geologist Andy West and Technical Manager Stuart Morris pause during a photo at Sunshine, one of several known prospects in the 110-kilometer- (70 miles) long belt of world-class volcanogenic massive sulfide deposits in the Upper Kobuk region of Northwest Alaska.

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continued from page 17

PACT

Environmental Manager Jason Rutman said upon announcing the signing of the partnership with NovaGold.

NANA's commitment to developing its mineral resources is not a mandate that is handed down from its board and management, but has broad support from its Inupiat shareholders.

"In 2009 we held a shareholder survey and found that 78 percent of the people strongly supported resource development," NANA Vice President of Resources Lance Miller explained.

Before signing the exploration and development agreement, NANA and NovaGold conducted a number of meetings in the villages of Shungnak, Kobuk and Ambler. As a result of this consultation, a committee representing these upper Kobuk villages unanimously passed a resolution in support of responsible resource development and associated infrastructure in their area.

While they largely support mineral development, the Inupiat see subsistence – hunting, fishing and other traditional activities – as its most valued resource.

In its role as a resource development partner, NovaGold has made a commitment to respect Inupiat values as it explores and develops mineral resources in the NANA region.

"As an Alaska Native corporation, NANA values subsistence as the best use of its traditional lands, and all development projects must embrace this perspective. NovaGold is committed to respecting and protecting the culture of its community partners and using traditional knowledge to enhance project development," NovaGold told its shareholders.

Rutman, who also serves as NANA's liaison to NovaGold, noted that the Upper Kobuk Mineral Project – the current title of the consolidated property – will be rebranded with an Inupiat name.

Long time interest

NANA has long known that the upper Kobuk region was rich in copper and other metals.

In the 1960s, Kennecott Exploration Co. explored the Bornite (then known as Ruby Creek) deposit on NANA lands. A resource calculated for the Rio Tinto subsidiary esti-

mated that the carbonate replacement-style deposit contains some 70 million metric tons averaging 1.2 percent copper and at least 454,000 metric tons of higher grade ore averaging around 4 percent copper.

"So there is a small high-grade underground minable deposit, and there would be a larger open-pit lower grade deposit," Van Nieuwenhuysse said.

Upon the discovery of Arctic in the late 1960s, Kennecott turned its focus to this copper-rich VMS deposit situated 17 kilometers (27 miles) north of Bornite.

"We have always known there are min-



NovaGold Resources Inc. President and CEO Rick Van Nieuwenhuysse and NANA Regional Corp. President and CEO Marie Greene examine drill core from the 2011 program at the Upper Kobuk Mineral Project.

erals in the Upper Kobuk area. The question has always been: How much is there?" Greene told Mining News in April.

NovaGold's CEO also has a history of interest in the Upper Kobuk region. Working for Anaconda Copper Mining Co., Van Nieuwenhuysse and current Rio Tinto CEO Tom Albanese explored the Ambler Mining District in 1979.

Arctic – the most advanced of the projects NovaGold brings to the partnership – currently has an indicated resource of 16.8 million metric tons averaging 4.1 percent copper, 6 percent zinc. The deposit has an additional 12.1 million metric tons averaging 3.5 percent copper and 4.9 percent zinc in the inferred resource category.

At a copper-equivalent grade of 8.3 percent, Arctic is regarded as one of the highest-grade undeveloped VMS deposits in the world.

A preliminary economic assessment prepared for Arctic early in 2011 envisions a 4,000-metric-ton-per-day-mine producing some 1.7 billion pounds of copper, 2 billion pounds of zinc, 291 million pounds of lead, 266,000 ounces of gold and 22 million ounces of silver over a 25-year mine life.

Using long-term metal prices of US\$2.50 per pound copper, US\$1.05/lb zinc, US\$1.00/lb lead, US\$1,100 per ounce gold and US\$20/oz silver – Arctic produces a pre-tax net present value (at an 8 percent discount) of US\$718 million with an internal rate of return of 30 percent; and a post-tax NPV (8 percent) of US\$505 million with an IRR of 25 percent.

"This preliminary economic assessment demonstrates the robust economics of developing one of the highest-grade VMS deposits in the world," Van Nieuwenhuysse said.

2011 milestones

NANA and NovaGold began building a working relationship in 2004, when the Vancouver B.C.-based exploration company entered into a joint venture agreement with Kennecott on the Ambler property. NovaGold purchased 100 percent ownership of the 90,624 acres of state, federal and patented mining claims land package early in 2010; laying the groundwork for the progressive partnership.

"While NANA and NovaGold have been working together for the past several years on the project, several milestones

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continued from page 18

PACT

have been reached this year," Rutman said.

In January, 2011, the NANA Board of Directors passed a resolution for the corporation to partner with NovaGold on exploration of the Ambler Mining District.

Working under a tentative agreement NovaGold spent some US\$10 million in 2011 at both its own Arctic project and NANA's Bornite deposit.

Though not officially operating under the partnership, an oversight committee with equal representation from both parties guided this year's activities.

To further advance the project toward pre-feasibility, NovaGold completed about 1,200 meters of geotechnical and infill drilling in 2011. Additional engineering and metallurgical work on Arctic is ongoing to support further economic studies and to evaluate overall district development scenarios.

At Bornite, NovaGold completed 5,900 meters of drilling this year aimed at confirming and expanding the historical resource outlined by Kennecott. Assay results from the program are expected to be released in November.

"We are very pleased with the first-year program at Bornite, and we think we have had some good success at coming up with a geological model for the Bornite property and understanding the ore controls. We look forward to a productive drill season next year," Van Nieuwenhuyse reported.

The NovaGold leader said his company will begin exploring some of the outlying prospects on both NANA and NovaGold land in 2012.

"Instead of moving one deposit to prefeasibility, we really want to analyze what the best way to approach the district is," he explained. "It is not like we are necessarily are going to try to drill everything out, but we, at least, want to get an idea where the synergies are – especially between Arctic and Bornite."

Additionally, the explorer established a new 40-person camp near Bornite, hoping to improve exploration efficiency and reduce the need for helicopter support.

Road to Ambler

Though Arctic is considered one of the richest deposits of its type in the world, surface access is an important requirement for development of it and other mineral projects in the Ambler Mining District.

NovaGold and NANA are in ongoing consultation with the State of Alaska to facilitate the building of a road to the upper Kobuk region. In addition to being important to mineral development, NANA sees

the infrastructure as a means to reducing skyrocketing energy costs to its residents.

"To help ensure the sustainability of our region's villages and to mitigate the continuing energy crisis, NANA is working with our regional, state and federal partners to create alternative, affordable sources of energy and create important infrastructure in our villages in hopes of spurring economic growth," Rutman explained.

While studying the economics of building a mine at the Arctic deposit, SRK Consulting (U.S.), Inc. determined that a 340-kilometer (211-mile) road stretching west from the Dalton Highway to the village of Kobuk, would be the best route for linking the copper-rich deposit to Alaska's road-system.

For the purposes of the study, SRK assumed that the road would be designed and constructed by the State of Alaska, and NovaGold would then reimburse the state on an agreed-upon basis over the operating life of the mine. A similar arrangement exists between the state and the Red Dog Mine in Northwest Alaska for its road and port facility.

NANA shareholders are warming up to the idea of having a road extending westward into the traditional homeland of its Inupiat owners.

"When we first started having discussions about roads 15 to 20 years ago our region did not support roads, but 15-20 years later that has changed because of our economy, our high cost of energy and the need for more employment," Greene told Mining News.

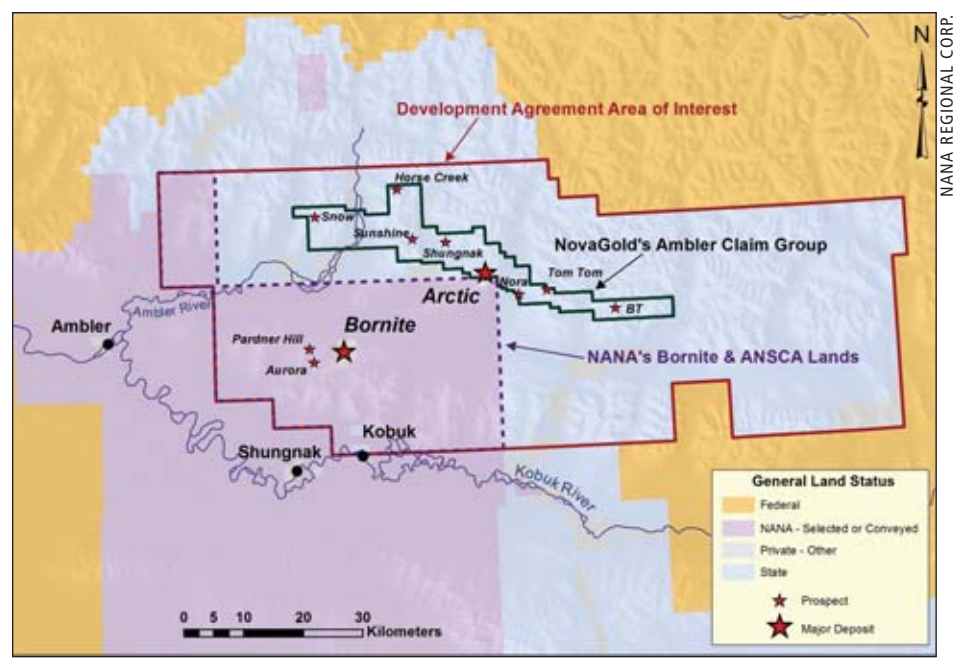
Alaska Gov. Sean Parnell and the state Legislature approved US\$4 million for scoping of the Ambler Mining District Access project in 2010 and an additional US\$1.25 million was funded in the current budget to continue this work.

In January, Alaska Department of Transportation completed a round of public meetings in the villages of Ambler, Shungnak and Kobuk in the region where the road is expected to end.

Greene said the meetings went well, and residents are largely in favor of the road as long as their concerns about potential risks to the environment, cultural values and caribou migration are addressed.

Leaders of both NANA and NovaGold have told Mining News that development in the Upper Kobuk is not a "done deal" and stressed the importance of garnering local support as the project moves ahead.

"It has to be done right," the Van Nieuwenhuyse said. "NANA and NovaGold share a common vision that we want to develop the mine or mines in cooperation with the local community." ●



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• ALASKA

Pebble, opposition each chalk a win

As project developer prevails in court, opponents' initiative succeeds in borough election; EPA decision could carry more weight

By SHANE LASLEY
Mining News

Opponents of the controversial Pebble Project and the companies that hope to someday develop the massive copper-gold-molybdenum deposit in the Bristol Bay region of Southwest Alaska, each claimed a recent victory in the high profile struggle that has been cast as world-class mine versus a world-class salmon fishery.

The win for the Pebble Limited Partnership – a 50-50 joint venture between Anglo American plc and Northern Dynasty Minerals Ltd. to explore and develop the property was claimed Sept. 26, when the Alaska

Superior Court ruled that state-issued permits to explore the colossal copper deposit did not violate the Alaska Constitution, thereby thwarting opponents' efforts to challenge the validity of the permits.

The anti-Pebble league triumph came three weeks later when residents of the Lake and Peninsula Borough voted 280 to 246 in favor of the "Save Our Salmon" initiative, an act aimed at prohibiting Pebble or any other large-scale development project in the borough seen as a threat to salmon habitat.

"This was a very close election and we are appreciative of the many voters from the Lake and Peninsula Borough who dedicated time to understand the true

risks presented by this ill-conceived ordinance and the very real impacts it could have regionally," the Pebble Partnership wrote in response to the outcome.

While it is improbable that either of these victories will be the final word on whether a mine is built at the Pebble deposit, the U.S. Environmental Protection Agency's ongoing study of the Bristol Bay watershed could have a much more significant impact on the future of the project.

Permits ruled legal

The court ruling upholding the state permits resulted from a lawsuit filed in 2009 by Trustees for Alaska on behalf of Nunamta Aulukestai – a coalition of eight Bristol Bay village corporations that are trying to stop development of a mine at Pebble. The group charged that the land and temporary water use permits issued to Pebble explorers for the past 20 years by the Department of Natural Resources are illegal because the state regulators did not seek adequate public notice and analysis of whether the authorizations for exploration are in the public's interest.

During the trial held in December 2010, the Alaska Department of Law defended DNR's issuance of the permits, and the Pebble Partnership intervened in the case.

"The State has issued permits behind closed doors without even looking at the harms to public resources. At last those harms will be addressed in court," Trustees for Alaska Attorney Nancy Wainwright said at the beginning of the trial.

The common theme in each of the

plaintiffs' five constitutional claims, according to Alaska Superior Court Judge Eric Aarseth, was that the permits essentially granted Pebble explorers the exclusive use of an interest in state land and water as part of the authorized mineral exploration activities. The plaintiffs also claimed that exploration at the mammoth copper-gold-molybdenum project significantly impacted area resources and fish and wildlife habitat.

In a 154-page decision, Aarseth said the plaintiffs' evidence did not demonstrate that the issuance of the permits violated the state constitution or that the resulting exploration caused significant environmental impacts.

"Based on the evidence provided at trial, it is more likely than not that the permits provided for non-exclusive use of State lands and the activities conducted on site did not cause any significant impact or long-term harm to concurrent uses," the Superior Court judge concluded.

A ruling in favor of the plaintiffs could have caused the state to revamp the way it permits mineral exploration to include a public comment period, which would have caused significant delays to exploration and other projects that depend on the temporary water and land permits.

"We believe we prevailed because we demonstrated we had a careful and responsible exploration program that is not causing harm, the Pebble Partnership said in a written statement. "We also want to acknowledge the work conducted by the state of Alaska in administering the

see **PEBBLE PROJECT** page 21



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continued from page 20

PEBBLE PROJECT

state's exploration program and in defending this program as sound. Hopefully the decision will bring some stability to those wishing to conduct mineral exploration on state lands."

SOS goes to court

While the "Save Our Salmon" initiative was aimed directly at preventing the development of Pebble, the borough ordinance resulting from the ballot measure could have statewide implications.

The State of Alaska and the Pebble Partnership – which view a borough ordinance resulting from the anti-Pebble initiative as unconstitutional and unenforceable because it seeks to restrict development of state-owned resources on state lands – challenged the ballot measure in Alaska court prior to the Oct. 4 election.

John Suddock, the Anchorage Superior Court judge who presided over the case, allowed the initiative to go on the ballot, scheduling the court to reconvene Nov. 7 to consider the constitutionality of a resulting Lake and Peninsula Borough ordinance.

In its previous legal filing the State of Alaska said, "The initiative would enact an ordinance that is unenforceable as a matter of law..." and "will inevitably conflict with, and be pre-empted by, state law."

The state's legal brief also notes: "The Alaska Constitution provides that the state has the policy of encouraging the development of resources by making them available for maximum use consis-

tent with the public interest?"

In addition to the Pebble Partnership and the State of Alaska, the initiative is opposed by a broad spectrum of Alaska interests, including a group of four Alaska Native village corporations representing seven Lake and Peninsula Borough communities whose private land holdings would be affected by the ordinance. It is also opposed by the Resource Development Council for Alaska, the Alaska State Chamber of Commerce, the Alaska Miners Association, Council of Alaska Producers, the Alaska Oil and Gas Association, Alaska Industry Support Alliance.

The Pebble Partnership will continue to advance the Pebble Project toward the completion of a prefeasibility study and developing a mine plan in anticipation of initiating federal and state permitting under the National Environmental Policy Act.

"In the meantime, the Pebble Partnership will continue to invest in Alaska's economic future with the goal of sharing in the near future a comprehensive development plan that fully and factually outlines this opportunity," the project developer said.

EPA results in 2012

The Pebble opposition has rallied the EPA to exercise its authority under the Clean Water Act to preemptively veto the project developer's permit applications before the NEPA process begins.

Under section 404 of the CWA the EPA can deny the discharge of dredged or fill material into an area if it believes the disposal "would have an unacceptable

adverse impact on one or more of various resources, including fisheries, wildlife, municipal water supplies, or recreational areas."

As a result of the request, the federal environmental agency launched a study to better understand how future large-scale development projects may affect water quality and Bristol Bay's salmon fishery.

"Gathering data and getting public input now, before development occurs, just makes sense. Doing this we can be assured that our future decisions are grounded in the best science and information and in touch with the needs of these communities. We look forward to working with Alaskans to protect and preserve this valuable resource," said EPA Regional Administrator Dennis McLerran.

The EPA stresses that the decision to study Bristol Bay is not an indication that the agency has made a regulatory decision on the development of the massive copper project; instead it represents proactive steps by the agency to better understand the watershed and gather important scientific information.

The Bristol Bay assessment "will assure the EPA that its future decisions are grounded in the best science and information and (is) in touch with the needs of these communities," McLerran said.

The regulatory agency expects to publish a draft of the results of its study available for public, tribal and stakeholder review in spring 2012 and a final report in late summer of 2012. ●

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• NUNAVUT

Hunt for diamonds heats up in territory

Pipe count climbs to 59 at Chidliak Project as explorers prepare for 2012 bulk sampling; junior IDs new opportunities at Jericho

By ROSE RAGSDALE

For Mining News

East of the hub of Canadian production in Northwestern Territories, diamond exploration intensified this year in far-flung corners of neighboring Nunavut. Ongoing work at the Chidliak Project to the east and the Jericho Mine to the west dominated activity in the sector, but explorers conducted modest programs at other projects in northeast and northwest Nunavut. Here's an early look at the progress of the 2011 campaigns and what lies ahead for them in 2012.

Ready to build a mine

At Chidliak, a 51/49 joint venture between BHP Billiton and Peregrine Diamonds Ltd., mounted a C\$17.7 million exploration program operator Peregrine wrapped up in September. 2011 marks the seventh year that BHP and Peregrine have searched the 8,580-square-kilometer (3,312 square miles) property for diamonds. Going where no explorer has previously ventured, Peregrine discovered the first kimberlite on the Baffin Island property in July 2008, some 700 kilometers (434 miles) from the nearest known kimberlite occurrence which is in Greenland.

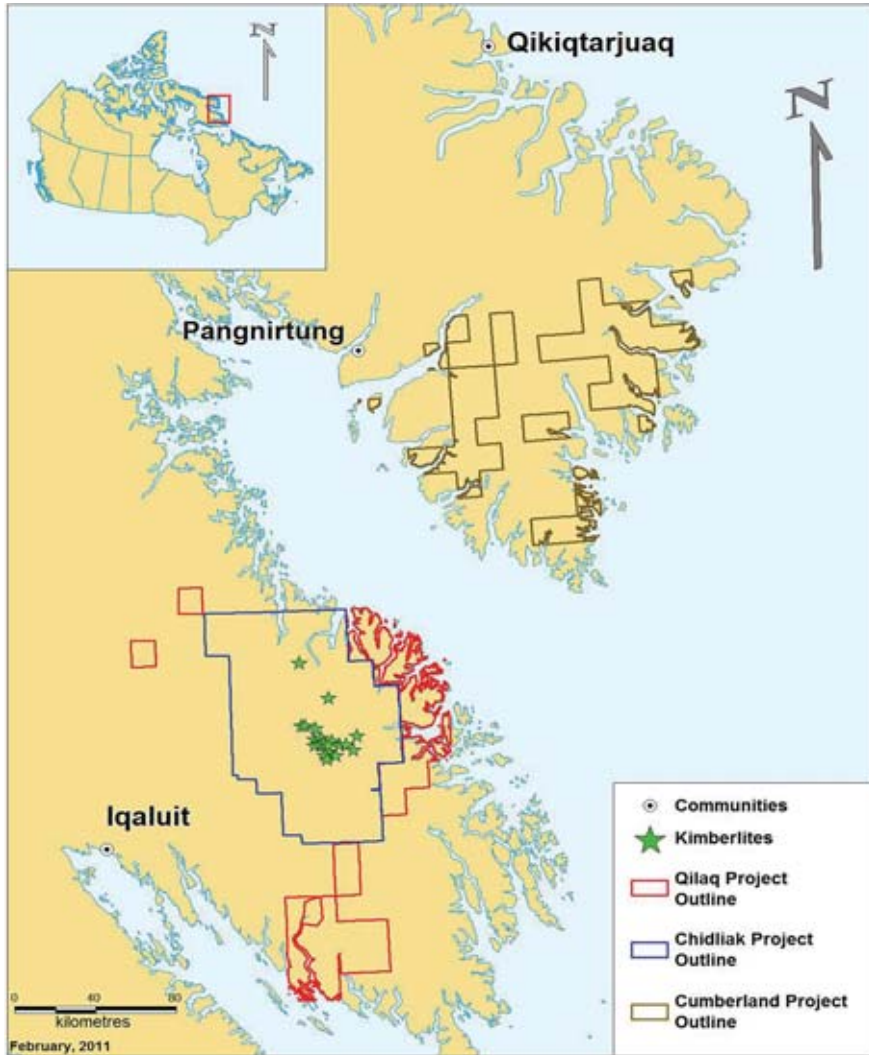
Today, the junior's prospecting permits in the region cover more than 35,000 square kilometers (13,514 square miles) across four

properties: Chidliak, Qilaa, Cumberland and Kimmirut.

Peregrine Oct. 6 reported microdiamond results from samples collected at two kimberlites, CH-52 and CH-58, discovered earlier this year on the Chidliak Project on Baffin Island in Nunavut. A 208.4-kilogram sample from CH-52 yielded 252 diamonds larger than the 0.106-millimeter sieve size, including four diamonds larger than the 0.850-millimeter sieve size that weigh a total of 0.045 carats, while a 194.9-kilogram sample from CH-58 yielded 428 diamonds larger than the 0.106-millimeter sieve size, including one diamond larger than the 0.850-millimeter sieve size. CH-52, with a surface area estimated at 0.2 hectares (0.49 acre), is located about 200 meters south of the junior exploration camp and is 5 kilometers (3 miles) to the east of the Southern Focus Area, an area with an 8-kilometer radius that hosts six of the seven kimberlites that Peregrine has identified to date at Chidliak with economic diamond mining potential. CH-58 is located about 20 kilometers (12.4 miles) north of the CH-6 kimberlite and 300 meters south of the CH-55 kimberlite. With the presence of commercial-size diamonds in small samples collected from CH-52, CH-55 and CH-58, Peregrine said more work will be scheduled on these kimberlites to determine their economic potential.

see **DIAMOND HUNT** page 23

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continued from page 22

DIAMOND HUNT

The Vancouver, B.C.-based junior Oct. 25 also reported results from a 32.54 metric ton mini-bulk sample of surface material collected from the CH-28 kimberlite – first discovered in 2010 – that returned 8.94 carats of commercial-size (+0.85 millimeter sieve size) diamonds, averaging 0.27 carats per metric ton. CH-28, with an estimated surface expression of 2 hectares (5 acres), is located about 50 kilometers (31 miles) north of the Southern Focus Area. Earlier surface and core samples also yielded significant quantities of microdiamonds, including 0.33 carats of commercial-size stones.

The nine kimberlites discovered at Chidliak in 2011 bring to 59 the total pipes found so far on the property.

Peregrine Oct. 27 reported that a 169.2-kilogram sample of kimberlite collected at surface near CH-59 yielded 174 diamonds microdiamonds, including four larger than the 0.85-millimeter sieve size that together weigh 0.047 carats. The junior also said it expects diamond additional results for more kimberlites – CH-6, CH-7, CH-28, CH-31, CH-33, CH-44, CH-45, CH-52, CH-58 and CH-59 by March 31, 2012. Detailed drilling of more than 5,500 meters on six high-potential kimberlites and extensive logistical planning set the stage for bulk sampling of select kimberlites (CH-6, CH-7, CH-31, CH-44 and CH-45) in 2012. Cooper Drilling LLC was awarded a contract for drilling services, and Nuna Logistics has been selected to provide heavy equipment and logistical support for the 2012 program. In addition, Peregrine shipped substantial equipment, supplies and fuel to Iqaluit by sealift in September.

“The 2012 bulk sampling program is an important step along the development path at Chidliak, and it will allow Peregrine to continue to unlock the value at this exciting diamond project,” said Peregrine CEO Eric Friedland. “Our goal is to deliver the first diamond mine on Baffin Island. We will work to achieve this goal by rapidly advancing the known kimberlites with economic potential as well as continuing to explore for additional diamondiferous pipes. Unresolved indicator mineral trains and the presence of kimberlite float at multiple localities not currently linked to sources give us confidence that more kimberlites will be discovered next season.”

Discovery at Qilaaq

At the nearby 437,000-hectare (1,687 square miles) Qilaaq Project northeast of Iqaluit, the capital of Nunavut, Peregrine in August reported the discovery of a third kimberlite, Q3, by testing with RC drilling a magnetic low anomaly with a 2.5-hectare (6.2 acres) surface expression. The anomaly was one of 10 selected from a 3,700 line-kilometer airborne electromagnetic/magnetic survey completed in June over which ground magnetic geophysical surveys were conducted in June and July. Peregrine said it will choose more anomalies identified by the ground surveys for evaluation in 2012 with the aid of additional data from 122 till samples collected during the season.

Peregrine planned to spend about C\$1 million on exploration at Qilaaq in 2011, in which it has a 100 percent interest, except for a 1-kilometer area that borders Chidliak in which it shares ownership with BHP Billiton.

At the 5,270-square kilometer (2,035 square miles) Cumberland Project about 100 kilometers (62 miles) north of Chidliak on the Cumberland Peninsula of Nunavut, Peregrine planned a C\$300,000

“Our goal is to deliver the first diamond mine on Baffin Island. We will work to achieve this goal by rapidly advancing the known kimberlites with economic potential as well as continuing to explore for additional diamondiferous pipes. Unresolved indicator mineral trains and the presence of kimberlite float at multiple localities not currently linked to sources give us confidence that more kimberlites will be discovered next season.”

—Eric Friedland, CEO, Peregrine Diamonds Ltd.

program of sampling, mapping and prospecting for 2011. The junior owns a 100 percent interest in the Cumberland property.

At the 2,360-square-kilometer (911 square miles) Nanuq Project 300 kilometers (186 miles) north-northeast of Rankin Inlet, a summer exploration program of drilling, sampling and ground geophysics was underway in June with anticipated 2011 spending of about C\$2.0 million. At

the adjacent 330-square-kilometer (127.4 square miles) Nanuq North Project, a limited drill program was scheduled for 2011 with anticipated exploration expenditures of C\$250,000 of which Peregrine’s share is C\$125,000.

New prospects at Jericho

Shear Diamonds Ltd., meanwhile, is wasting little time chasing the potentially lucrative exploration and development opportunities represented by the defunct Jericho Diamond Mine Complex.

In July Shear reported completing five of six angled delineation drill holes planned for 2011 into the Jericho Kimberlite Complex to help resolve the kimberlite contacts as well as aid in understanding the geological domains as Shear revises the geological model for Jericho. Four of the five drill holes intersected kimberlite outside the current geological model, which the explorer said suggests upside tonnage potential.

“The goal for 2011 is to refine and augment the existing geological model for the Jericho Kimberlite Complex as well as discover new kimberlites nearby,” said Shear President Pamela Strand, P.Geol. “The results from our first hole are extremely

encouraging. Obtaining this new information from the delineation program will increase Shear’s confidence in the ongoing evaluation work on the Jericho Kimberlite Complex.”

Once the delineation drilling is completed and a final water license is issued, Shear said it would move the drill to the surrounding claims, known as the Carat Property, to test priority exploration targets suggestive of kimberlite based on ground magnetic and horizontal loop electromagnetic surveys currently underway. As of July, a total of 296 line-kilometers of magnetic surveys had been completed over 27 targets, along with 60 line-kilometers of HLEM surveys over 11 targets. Drill target selection was ongoing, with lake-based targets a priority for the remainder of the spring 2011 season.

Shear also engaged Mineral Services Canada to develop a new geological model using historical drill core for petrographic analysis. Twelve kimberlite types and 13 domains were defined. Shear believes this model better reflects the kimberlite emplacement processes at work within the Jericho Kimberlite Complex.

see **DIAMOND HUNT** page 25

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continued from page 23

DIAMOND HUNT

In early October, the company also reported recovery of 200.85 carats of diamonds from 22.1 wet metric tons of recovery reject and coarse-processed kimberlite from trial tests performed in a recently restarted recovery portion of the Jericho mine. Fourteen stones larger than 0.5 carats were recovered, and Shear completed a new geological interpretation and three-dimensional model for the Jericho Kimberlite Complex.

“The recoveries are an important part of proving Jericho’s real potential, and speaks to the lost grade from past operations. We are excited to see that the diamond recoveries from the recovery rejects tailings pile are in line with audits done by both Tahera and Shear,” said Shear Chairwoman and CEO Julie Lassonde. “Diamond recoveries continue during our plant trial, which has seen periodic stoppages to address the inevitable issues which arise in re-commissioning a circuit

that has been dormant for the past three years. Shear’s ultimate goal is to generate cash flow from diamond sales in the coming months and continuing through all of 2012.”

More work at Hammer

In early October, Stornoway Diamond Corp. said it completed 21 short delineation holes with its 25 percent partner North Arrow Minerals Inc. in 2011 at the Hammer Project for a total of 1,800 meters of core drilling and 930 meters of kimberlite for logging and diamond recovery.

The Hammer Project located about 500 kilometers (310 miles) north of Yellowknife, Northwest Territories within the Coronation Gulf/North Slave Diamond District of Nunavut, covers 1,014 hectares (2,506 acres). The Hammer kimberlite, discovered by surface pitting in 2009, appears to have an elongated surface expression of about 0.4 hectares (1 acre), a confirmed depth extent of at least 200 meters, and to be composed of olivine-rich variably bedded

volcaniclastic kimberlite. A single micro-diamond was recovered from a 6-kilogram hand sample recovered from the surface pits. Past surficial sampling work has suggested the presence of other kimberlite bodies adjacent to Hammer that have yet to be discovered.

Stornoway also collected additional till samples in these areas and discovered kimberlite float boulders during ground prospecting. About 200 kilograms of core sample has been submitted for microdiamond recovery, and an additional 3.4 metric tons of core will be processed for macro-diamond recovery.

Stornoway holds variable interests in a half-dozen other Nunavut diamond project, but it focused most of its C\$5.6 million exploration budget in 2011 on growing resources at its advanced Renard Project in northern Quebec. However, the company Oct. 25 said it is advancing its exploration portfolio towards multiple drill programs in 2012.

Exploring EM targets

In August Diamonds North Resources

Ltd. began a 2011 exploration program at its flagship Amaruk Property in the Pelly Bay Diamond District of northeastern Nunavut, where in recent years it has discovered 29 kimberlites, of which 90 percent contain diamonds.

The company said the work involved detailed till sampling in close proximity to high-priority targets identified from electromagnetic data it recently received for the eastern side of the Amaruk property.

The explorer believes that EM data is extremely important for identifying kimberlite targets in Canada and has played a lead role in discovering economic kimberlites at the Ekati and Diavik diamond mines as well as high-value kimberlites at the Gahcho Kué Diamond Project. Until recently the only effective geophysical kimberlite targeting tool available in the area has been magnetic data. “For the first time we are able to extract kimberlite targets using EM which could provide a major breakthrough,” said Diamonds North President and CEO Mark Kolebaba. ●

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Advertiser Index

- Air Liquide
- Alaska Analytical Laboratory..... 20
- Alaska Dreams
- Alaska Earth Sciences..... 17
- Alaska Frontier Constructors..... 12
- Alaska Interstate Construction (AIC)..... 26
- Alaska Steel Co..... 6
- Arctic Foundations..... 22
- Austin Powder Co. 20
- Calista Corp..... 6
- Chiulista Services..... 22
- Constantine Metal Resources
- Construction Machinery..... 28
- Everts Air Cargo..... 7
- Fairbanks Gold Mining/Fort Knox Gold Mine... 17
- Fairweather LLC
- GCI Industrial Telecom
- General Refining Corp..... 18
- Gold Canyon Mining
- Jackovich Industrial & Construction Supply..... 7
- Judy Patrick Photography 27
- Kiska Metals..... 3
- Last Frontier Air Ventures 20
- Lynden..... 2
- MRO Sales
- Nature Conservancy, The
- Northern Air Cargo
- Oxford Assaying & Refining Corp..... 21
- Pacific Rim Geological Consulting..... 5
- PND Engineers Inc..... 21
- Salt+Light Creative
- Taiga Ventures/PacWest Drilling Supply 27
- URS Corp.
- Usibelli Coal Mine 9

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• BRITISH COLUMBIA

Junior cuts bonanza grades at Brucejack

Explorer focuses on production feasibility of gold-silver project; signs pact with Seabridge Gold on adjacent Snowfield property

By ROSE RAGSDALE

For Mining News

Pretivm Resources Inc. reported considerable exploration progress this field season at its high-grade gold Brucejack Project in northern British Columbia. The explorer Oct. 17 said it concluded exploration drilling at Brucejack for the season, with 176 holes completed totaling 72,144 meters.

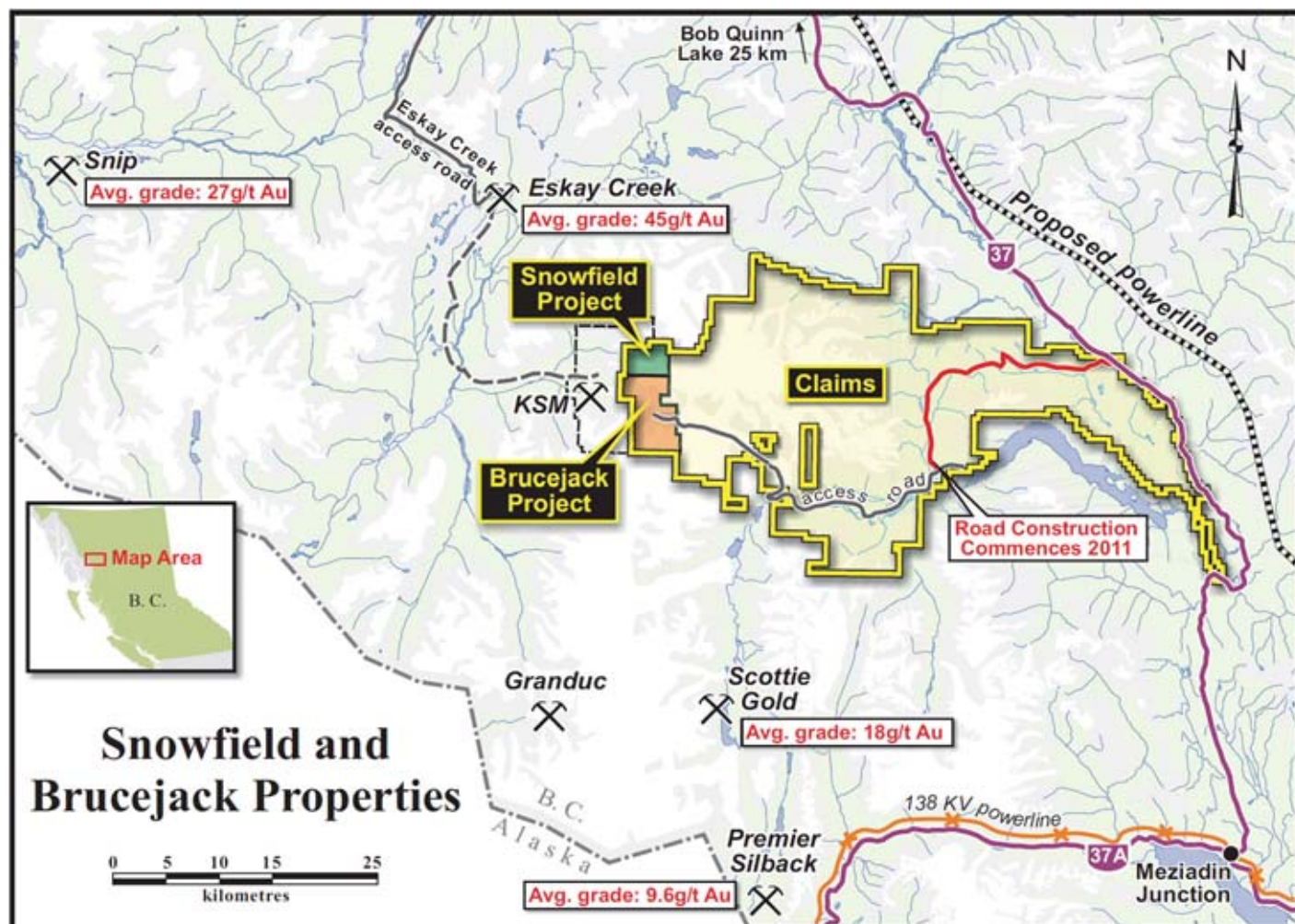
Pretivm also reported in September that ongoing drilling at Brucejack continued to demonstrate continuity of high-grade gold mineralization on the property, and visible gold continues to be encountered.

Among drilling highlights:

- Hole SU-230 intersected 1.0 meters with uncut grades of 7,420 grams of gold and 3,800 g/t silver (3.3 feet averaging 216.4 ounces gold and 110.8 ounces of silver per ton); and

- Hole SU-226 intersected 0.5 meters with uncut grades of 1,465 grams of gold and 863 grams of silver per tonne (1.6 feet averaging 42.7 ounces gold and 25.2 ounces silver per ton).

- The bonanza-grade intercept in hole SU-230 was intersected within a 6.5-meter interval with cut grades of 76.8 g/t gold and 478.5 g/t silver (uncut grades of 1,349 g/t gold and 740 g/t silver). This interval is located about 40 meters from a high-grade interval from hole SU-195 with uncut grades of 5,740 g/t gold and 2,750 g/t silver over 0.5 meters. Both holes were drilled on the eastern-most section of the Valley of the Kings Zone at Brucejack, which remains open to the east and down dip.



Pretivm Oct. 27 also reported 12 additional intersections averaging more than 100 g/t gold, including an intercept from hole SU-260 averaging 17,750 g/t gold and 7,780 g/t silver over 0.5 meters, reflecting the second-highest grade gold intersected to date on the property.

Drilling in other zones on the Brucejack property also continued to encounter high-grade gold within broader intervals of significant gold values. A highlight is hole SU-215 in the Galena Hill Zone, which intersected 55.0 meters grading 4.7 g/t gold and 47.5 g/t silver, including 0.5 meters

with uncut grades of 462 g/t gold and 311 g/t silver

Pretivm also continued to define the high-grade structures in the Gossan Hill Zone. Hole SU-201 intersected 1.5 meters with an uncut grade of 168.5 g/t gold. Hole SU-207 intersected 48.5 meters grading 7.7 g/t gold, which included higher-grade intervals of 0.5 meters with an uncut grade of 350 g/t gold, and 1.5 meters with an uncut grade of 224 g/t gold.

Drilling in the Golden Marmot Zone, located 3.5 kilometers (2.2 miles) north of the Valley of the Kings zone, has identified a new high-grade structure. Hole SU-197, the first hole drilled in the Golden Marmot Zone, intersected 1.3 meters grading 23 g/t gold within a wider zone of 17.3 meters grading 2.8 g/t gold.

Pretivm began the 70,000-meter drill program it planned for 2011 in May, and encountered one of the highest-grading gold intersections to date on the property in one of the first holes drilled. Hole SU-115, drilled in the Valley of the Kings zone, intercepted 0.6 meters with uncut grades of 18,755 g/t gold and 9,312 g/t silver.

Assay results for 54 holes, including 43 from the Valley of the Kings Zone, are still pending.

2010 acquisition from Silver Standard

A newly created junior, Vancouver, B.C.-based Pretivm purchased the Snowfield and Brucejack adjoining properties, which also are adjacent to Seabridge Gold Inc.'s KSM Project for C\$450 million from Silver Standard Resources in October 2010.

Brucejack is primarily a gold-silver deposit that also may contain variable amounts of base metals such as copper, lead and zinc, with a mineral resource estimate totaling containing 8.2 million ounces of measured and indicated gold resources (297.0 million metric tons grading 0.86 g/t gold and 12.17 g/t silver) and 12.6 million ounces of inferred gold resources (542.5 million metric tons grading 0.72 g/t gold

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see PRETIVM page 27

continued from page 26

PRETIVM

and 8.67 g/t silver) at a cut-off grade of 0.30 g/t gold-equivalent.

The Snowfield deposit, however, is a near-surface, low-grade, bulk-tonnage, porphyry-style deposit containing 25.9 million ounces of measured and indicated gold resources (1,370.1 million metric tons grading 0.59 g/t gold) and 9 million ounces of inferred gold resources (833.2 million metric tons grading 0.34 g/t gold) at a cut-off grade of 0.30 g/t gold-equivalent, with additional silver, copper, molybdenum and rhenium resources.

The properties are located about 64 kilometers, or 40 miles, north of Stewart, B.C., and just east of the Alaska panhandle.

Cooperative pact with Seabridge

Pretivm, led by mining industry veteran Robert Quartermain, issued 44.2 million shares in December in an initial public offering that attracted considerable interest from investors. The company's working capital at June 30 totaled about C\$35.3 million and with another C\$15.08 million raised subsequent to the end of the quarter, said it expected to have sufficient working capital to fund its planned exploration programs and administrative overheads through 2012.

In May, Pretivm reported that it signed mutual cooperation and confidentiality agreements with Seabridge Gold Inc. to cooperate in advancing Pretivm's Brucejack and Snowfield projects and Seabridge's KSM project, which together represent the largest undeveloped gold resource in North America.

In addition to standard provisions, the agreements provide for the preparation of an engineering study examining the eco-

nomics of combining and operating Pretivm's Snowfield project and Seabridge's KSM project as a single operation. The study is expected to be completed by year's end.

Pretivm, meanwhile, acquired additional claims to support potential project infrastructure at the Brucejack Project. The junior's claims now total more than 90,000 hectares (222,000 acres) for that property and extend as far eastward as Highway 37. Work continues on rehabilitation and extension of an access road from Brucejack to Highway 37. The road is expected to be completed in late 2012.

PEA eyes 16-year mine life

In early June, Pretivm reported a NI 43-101-compliant preliminary assessment examining the economics of an underground mining operation at Brucejack using the higher-grade gold and silver resources defined to date. Previous operators dating back to the 1960s have conducted significant exploration at Brucejack, including 908 drill holes (as of September 2011) covering 120,000 meters and permitting for underground mine development. The PEA contemplates an average processing rate of 1,500 metric tons per day over a 16-year mine life, an estimated capital cost, including contingencies, of US\$281.7 million, and average annual production for the first 10 years of 173,200 ounces of gold and 1.12 million ounces of silver. The base case estimated pre-tax net present value (5 percent discount) is US\$662 million, with an internal rate of return of 27.1 percent, using US\$1,100/oz gold and US\$21/oz silver. Using spot metals prices at the time of completion of the PEA of US\$1,536.30/oz gold and US\$37.89/oz silver, the estimated pre-tax NPV (5 percent discount) is US\$1.416 billion with an internal rate of return of 48.3 percent.

The PEA contemplates the use of diesel power for the Brucejack high-grade project. A power line study has just been completed which examines alternatives for routing electric power into the Brucejack Project. The study covered potential interconnections to the transmission line from the Long Lake hydroelectric power project, to the existing transmission line between Meziadin and Stewart, and to the proposed Northwest Transmission Line. The results of the study will be incorporated into an update of the PEA which is to commence this quarter and is expected to be completed in the first quarter of 2012.

Winter work ahead

The junior also reported that the Brucejack camp is being expanded and winterized for year-round operations. A crew and equipment have been mobilized to begin de-watering the 5,300 meters of historic West Zone underground workings. Once the workings have been de-watered, alternatives for underground access to the Valley of the Kings Zone high-grade gold mineralization will be assessed for potential underground drilling and/or bulk sampling.

Condemnation and geotechnical drilling also has been conducted in support of a feasibility study. Two condemnation holes have been drilled at the mill site, and a drill has been mobilized to begin further condemnation drilling at the site of the Highway 37 concentrate processing facility. Geotechnical drilling has included 10 holes totaling 610 meters.

Completion of an update to the Brucejack mineral resource estimate is anticipated later in 2011. Updated core-box.net 3-D drill models for the Brucejack exploration zones, including a new drill model for the Valley of the Kings Zone are available on the company's website. ●



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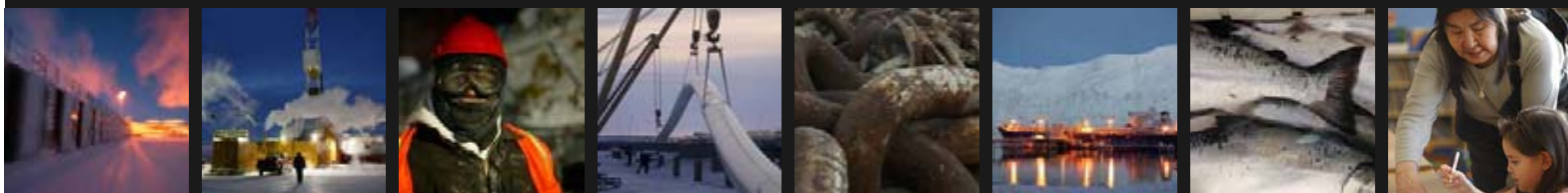


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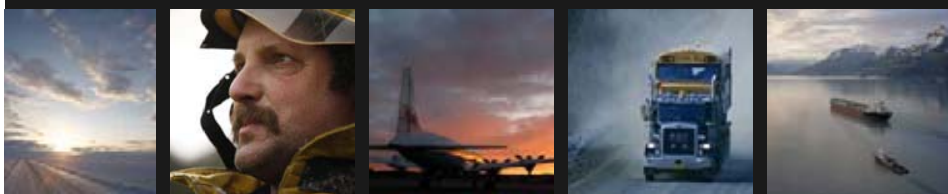
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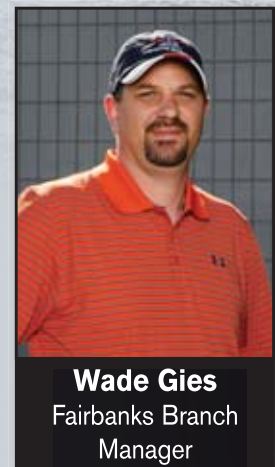
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