

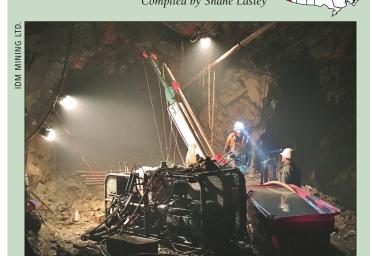
Page Freeman: new players kicking the tires of big Alaska metals projects

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NORTHERN NEIGHBORS Compiled by Shane Lasley



Underground drilling is testing expansion targets adjacent to the reserves at Red Mountain with the goal of extending the life of the mine proposed for this gold project in northwestern BC.

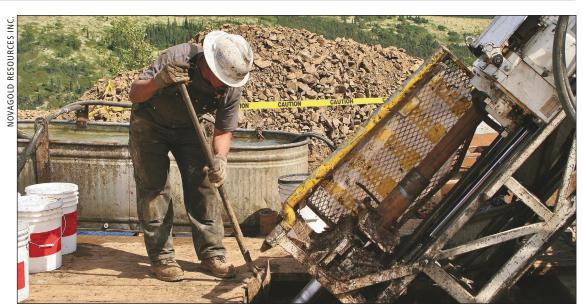
Red Mountain shows feasibility

IDM Mining Ltd. June 26 said the results of a feasibility study for its Red Mountain confirms the positive economics for developing a high-grade underground gold mine at this gold project near Stewart in northwestern British Columbia. The proposed 1,000-metric-ton-per-day year-round operation is expected to average roughly 78,000 ounces of gold per year over the nearly six year mine-life considered in the feasibility study. Initial capital expenditure to fund construction and commissioning is estimated at C\$135.7 million, with a life-of-mine cost of C\$202.4 million. Life of project direct cash cost is estimated at US\$539 per ounce of gold recovered; net of the silver by-product, costs drop to US\$492/oz. At a gold price of US\$1,250/oz and an exchange rate of C\$1 to US76 cents, the Red Mountain is calculated to generate a post-tax net present value (5 percent discount) of C\$104 million; an internal rate of return of 32 percent; and is expected to payback initial capital in 1.9 years. "This study demonstrates a high-margin, low-capex underground gold mine with a short development timeline, producing over 90,000 ounces of gold per year over the first two years of operation, with a life of mine average annual production of 78,000 ounces," said IDM President and CEO Robert McLeod. "With these positive results now in place, our highest priority is the ongoing exploration and resource expansion drilling adjacent to current reserves, with the objective of extending the potential mine life for Red Mountain." McLeod said the development of a mine at Red Mountain would be great for the economy of his home town of Stewart. ""The project enjoys significant support locally and regionally and our goal remains to have approvals in place for a shovel-ready project by mid-2018," said IDM Executive Chairman Michael McPhie.

Wellgreen M&I resource growth

Wellgreen Platinum Ltd. June 26 reported a roughly 10 percent increase in the measured and indicated resources at its Wellgreen nickel-platinum group metal-copper project in southwestern Yukon. Since the publication of a resource estimate in 2014, an additional 74 holes have been completed at Wellgreen. Incorporating the results from this work, Wellgreen now hosts 362 million metric tons of measured and indicated resource averaging 0.26 percent (2.08 billion pounds) nickel; 0.14 percent (1.09 billion lb) copper; 0.015 percent (121 million lb) cobalt; 0.23 grams per metric ton (2.69 million ounces) platinum; 0.24 g/t (2.84 million oz) palladium; and 0.04 g/t (468,000 oz) gold. Wellgreen said this roughly 10 percent increase over the 2014 resource estimate would have been closer to 25 percent if the same costs, metals prices and recoveries were used. The inferred class of mineralization declined in tonnage by approximately 86 percent. Nickel grades, however,

see NORTHERN NEIGHBORS page 10



Drilling has outlined a deposit at Donlin containing 39 million ounces of gold in the measured and indicated resource category at an average grade of 2.2 grams per metric ton gold. Donlin Gold LLC – equally owned by subsidiaries of Novagold and Barrick – will have drills turning at the project this year, the first such program since 2011.

DEVELOPMENT

Back to Donlin Gold

With permitting nearly complete, partners carry out optimization drilling

By SHANE LASLEY

Mining News

If this year's US\$8 million drill program is any indication, Barrick Gold Corp. and Novagold Resources Inc. are getting serious about building "the largest pure gold mine in the world" at their Donlin Gold project in Southwest Alaska.

"Donlin Gold's size, grade, production profile, exploration potential, mine life, community support and jurisdictional safety render it a unique asset in the gold industry," said Novagold President and CEO Greg Lang. "Both partners envision Donlin Gold to be a pacesetter in the mining sector and are completely aligned in their objectives to optimize the project."

This will be the first significant field program at the 40-million-ounce gold project since Donlin Gold LLC – equally owned by subsidiaries of Novagold Resources Inc. and Barrick Gold Corp. – completed a feasibility study in 2011 and submitted the project for permitting the following year.

Optimizing Donlin

The Donlin Gold mine project outlined in the feasibility study is projected to average roughly 1.5 million ounces annually during the first five years of operation and 1.1 million oz annually over a projected 27-year mine-life.

At US\$1,200/oz. gold, the base case price used in the study, this operation is calculated to generate after-tax cash flow averaging US\$949.5 million annually for the first five years and US\$500.7 million annually over the life of the mine.

Under this scenario, the partners would be paid back the roughly US\$6.7 billion needed to build the mine in 9.2 years.

While this project has been working its way through the permitting process, Barrick and Novagold have been studying ways to optimize the world-class gold project.

"The work focused on ways to capitalize on the flexibility inherent in Donlin Gold's unique characteristics, identifying opportunities such as employing modular construction, automation of certain mining activities and implementation of innovative ideas for infrastructure development and logistics, among others, which will continue to be thoroughly assessed," Lang informed shareholders on June 26.

The optimized execution plan resulting from this work is expected to push down the nearly US\$7 billion in upfront capital needed to develop Donlin and potentially the operating costs.

"We are encouraged by the prospects to further optimize the Donlin Gold project, which has the potential to be the largest pure gold mine in the world – in one of the safest jurisdictions of the world," said Barrick President Kelvin Dushnisky.

Development decision

Following the 2017 field work, Barrick and Novagold will finalize an updated feasibility study for Donlin. With this information in-hand and the permitting nearly complete, a formal decision on developing a mine at the Alaska gold project will likely be made shortly thereafter.

This year's program, which will include both geological and geotechnical drilling, will collect information needed to inform and potentially implement the Donlin Gold upgrades.

"As permitting activities approach their conclusion, we believe that the approved field work will reaffirm Donlin Gold's status as the asset best positioned to capitalize on the resumption of the long-term bull market in gold," said Lang.

The environmental impact statement for Donlin, the key piece to the permitting process in the United States, is on pace to be finalized around March, 2018. It is expected that it will take the U.S. Army Corps of Engineers, the lead agency for the Donlin Gold EIS, another three or four months to write a record of decision.

All other permits needed for construction to begin are also expected to be issued by that time.

Donlin Gold also continues to advance permitting for a 312-mile pipeline to transport gas from Cook Inlet to the mine site. The partners are timing pipeline permits to coincide with the expected permits for mine development.

If all comes together according to plan, Donlin Gold LLC could be ready to begin developing the largest pure gold mine in the world by the end of next year.



Drills tap more GS oxide gold

Freegold Ventures Ltd. has released results from an additional 10 holes of its 27-hole oxide resource expansion drill program at the Golden Summit project about 25 miles north of Fairbanks, Alaska. On June 27, the company reported that hole GSDL 17-16 cut 69 meters averaging 1.14 grams per metric ton gold. The

oxide portion of this this intercept was 54 meters, starting at a depth of 1.5 meters. GSDL 17-17 and GSDL 17-18, the two northernmost holes drilled during the program, both cut gold mineralization. Hole 18 cut 64.5 meters of 0.51 g/t gold from a depth of six meters. GSDL 17-13, reported by Freegold on June 22, cut 52.5meters averaging 0.56 g/t gold from a depth of 1.5 meters. In mid-June,

On June 27, the company reported that hole GSDL 17-16 cut 69 meters averaging 1.14 grams per metric ton gold.

the company reported results from the first 11 holes of this initial phase of 2017 drilling at Golden Summit. Highlights from those holes included 39 meters of oxidized material averaging 0.72 g/t gold in hole GSDL 17-10; and 56.5 meters averaging 0.51 g/t gold in GSDL 17-11. In 2016, Freegold published a preliminary economic assessment that evaluates a 20,000-metric-ton-per-day operation at Golden Summit – a 10,000 tpd heap leach facility to process the oxide material and 10,000 tpd bio-oxidation plant for the sulfide material. The area being considered for mining hosts 61.5 million metric tons of indicated resource averaging 0.69 grams per metric ton (1.36 million oz) gold; and 71.5 million metric tons of inferred resource of averaging 0.69 g/t (1.58 million oz) gold. The oxide portion of this deposit, which is found largely within the upper 60 meters of the overall resource, hosts 16.2 million metric tons of indicated resource averaging 0.66 g/t (345,000 oz) gold; and an inferred resource of 9.6 million metric tons averaging 0.59 g/t (183,000 oz) gold. The 27 holes completed during the 2017 spring program at Golden Summit were drilled at 50-meter spacing to determine if the oxide resource could be expanded to the north. The results from six holes are pending.

—SHANE LASLEY



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COLUMN

Miners get busy in elephant country

Exploration drilling and field prospecting programs, many of them driven by newcomers, have popped up across Alaska this summer

By CURT FREEMAN

Special to Mining News

he summer solstice has come and gone, but the Alaska mining industry has paid little attention to the decreased amount of daylight because it is high summer in the high latitudes, time to be out completing work programs that have been in the planning since last fall. Exploration drilling programs have sprouted in the Brooks Range, Interior, Alaska Range, Southeast, Southwest and the Alaska Peninsula. In addition, the sounds of tire-kicking are being heard over a wide area of the state with most of the interest focused on gold, silver, copper, lead and zinc prospects. Many of those thumping those tires are new to the Alaska mining scene, coming to elephant country to look for elephants. We will likely hear more from these new players later in the year.

Western Alaska

Equal partners NOVAGOLD RESOURCES and BARRICK GOLD announced a US\$8 million budget for project optimization at their 39-millionounce Donlin gold project. The partners determined that a more cost-effective project execution plan could substantially reduce upfront capital costs related to mine construction and have approved a drill program designed to collect geologic and geotechnical data this year to accomplish that goal. On the permitting front, the U.S. Army Corps of Engineers is working with cooperating agencies to complete a final environmental impact statement, with anticipated publication in early 2018. Work also continues with state and federal agencies to advance all other required permits for the project.

COPPERBANK RESOURCES CORP. reported the start of a diamond drilling program on its 100 percent controlled Pyramid project located on Aleut Native Corporation lands on the Alaska Peninsula. The planned drilling program will comprise a minimum of 1,500 meters and will focused on areas of higher grade such as in the Main Zone around hole 11PY016 which returned 155 meters of 0.71 percent copper, 0.18 grams per metric gold and 0.018 percent molybdenum starting at 94 meters. This hole bottomed in 34 meters of 0.844 percent copper. This area also contains hole 12PY019, which intersected 70 meters at

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CURT FREEMAN

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0.717 percent copper and 0.1 g/t gold from 22 meters, including 42 meters at 1 percent copper and 0.16 g/t gold from 24 meters to 66 meters. The North Zone also will be further tested to verify the lateral extensions of the known mineralization particularly around hole 11PY007, which intersected 0.56 percent copper and 0.13 g/t gold over 104 meters starting from 6.0 meters.

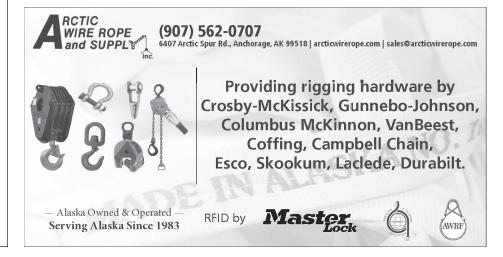
REDSTAR GOLD CORP. reported initial results of its 2017 exploration efforts at its Unga gold project near Sand Point. Following a ground-based magnetics and induced polarization survey completed in April, the company recently completed an initial 12-hole, 2,287.8-meter drilling program. Drilling was performed along approximate 100-meter centers, with a goal of tracing Shumagin-style breccias/veining previously drilled at the Shumagin Gold Zone along strike to the southwest, as well as to complete additional infill drilling to further confirm continuity of mineralization. The Shumagin Gold Zone has now been traced by drilling for roughly 1,350 meters, an increase of 42 percent over known strike length at the end of 2016. Assays are pending on this work.

Interior Alaska

FREEGOLD VENTURES LIMITED

reported initial results from its 27-hole oxide-zone core drilling program north of the current resource area at its Golden Summit gold project in the Fairbanks District. Significant results include 39 meters grading 0.72 g/t gold in hole GSDL17-10; 56.5 meters grading 0.51

see **FREEMAN** page 9



PETROLEUM NEWS • WEEK OF JULY 2, 2017

NORTH OF 60 MINING

continued from page 8

FREEMAN

g/t gold in hole GSDL17-11; 52.5 meters grading 0.56 g/t gold in hole GSDL17-13; and 54 meters grading 1.40 g/t gold in hole GSDL17-16. The 50-meter spaced drilling was designed to test the upper 70 meters of ground north of current resources. Hole GSDL 17-16, in which visible gold was noted in drill core, intersected a high-grade, east-west trending vein in an area previously untested for gold mineralization. In addition, holes GSDL 17-17 and 17-18, the northernmost holes drilled during this program, intersected intrusive mineralization in an area where intrusive mineralization has not previously been encountered. Additional assays are pending.

ENDURANCE GOLD CORP. announced that it has commenced its summer exploration program at its Elephant project. The planned programs include 20 line kilometers of magnetics and induced polarization surveys over the South Zone, North Zone and Central Zone. In addition, soil and rock sampling, trenching and prospecting will be conducted on the Elephant, Trout and Wolverine prospects. Results from the ground geophysical program will be used to plan a drill program, which the company hopes to commence in the fall. The combined targets cover over 6 kilometers of strike and include kilometer-scale gold in soil with values greater than 100 partsper-billion gold with rock grab samples

Endurance Gold Corp. also announced that it has signed an option to acquire 100 percent interest in nine claims adjoining the company's McCord gold project near Livengood and has staked an additional eleven new claims, bringing the property to 5,178 acres in size. The project has only been evaluated by the vendor for its placer gold potential. An previous auger drilling program discov-

up to 11.98 g/t gold.

ered one location in the McCord Creek valley where the auger drilling recovered fine gold, gold-in-quartz, gold-in-oxide wad, and significant quantities of cinnabar in concentrates recovered from auger drill holes down to 20 feet in depth. The gold show limited wear, suggesting it was close to its original lode source. The company plans to evaluate concentrate samples collected by the vendor and conduct a soil sampling program on the newly acquired portions of the property. Prior programs completed by the company have identified seven gold and multi-element soil anomalies, the two largest of with values exceeding 10 ppb gold, are about 1,500-by-400 meters and 1,100- by-500 meters in size.

CONTANGO ORE, INC. announced updated mineral resource estimates from the Tetlin project, a joint venture with a wholly owned subsidiary of Royal Gold, Inc. The measured and indicated resources for the combined Main Peak and North Peak deposits were calculated with resource cones at a gold price of US\$1,200 per ounce, with a cut-off grade of 0.5 g/t gold and at US\$1,400 gold with a cut-off grade of 0.43 g/t gold. At the 0.5 g/t gold cut-off, the revised estimate includes a measured resource of 484,000 metric tons grading 6.25 grams of g/t gold, 16.73 grams per metric ton silver and 0.15 percent copper. Indicated resources at the same cut-off came in at 10,117,000 metric tons grading 3.51 grams per metric ton gold, 14.06 grams per metric ton silver and 0.6 percent copper. Adding in additional mineralized materials, which Canadian and Australian companies call inferred resources but which U.S. companies lump into the catch-all called "mineralized materials", the total gold resources at Tetlin, using the 0.5 g/t gold cut off comes to 15,650 metric tons grading 2.98 g/t gold, 14.68 g/t silver and 0.16 percent copper containing 1,502,000 oz. gold and 7,387,000 oz. silver. The new resource constituted a 59 percent increase in total gold

resources over the previous resource estimates of early 2014. The companies indicated that summer 2017 efforts, which began in May, are targeted towards more exploratory prospects in the general area of the Main and North Peak deposits.

Northern Alaska

TRILOGY METALS INC. and funding partner South32 Limited reported the start of its Bornite deposit drilling program at its Upper Kobuk Mineral project, a business relationship owned and controlled by Trilogy and NANA Regional Corporation Inc. The US\$10 million, 12,000-meter core drilling program will be focused on drilling the extensions of zones last drilled in 2013, including hole RC13-224 which intersected two mineralized intervals, starting at 513.3 meters and ending at 754.6 meters for a combined 236.0-meter composite interval with a weighted average grade of 1.90 percent copper.

Trilogy also announced that it has retained Ausenco Engineering Canada Inc. to complete a pre-feasibility study on its Ambler volcanogenic massive sulfide deposit, also part of the Upper Kobuk Mineral project, a business relationship owned and controlled by Trilogy and NANA Regional Corporation, Inc. The company also engaged Amec Foster Wheeler to complete mine planning and SRK Consulting (Canada) Inc. to complete tailings and waste design, hydrology and environmental studies. The prefeasibility work is targeted for completion in early 2018. The company is proposing a 10,000 metric-tons-per-day, open- pit mining operation with a typical crush-grind-float flow-sheet producing significant tonnages of copper and zinc concentrates and lessor lead concentrate containing significant quantities of precious metals. This summer, the contractors will work with the company's team members to complete the site investigation work to determine the optimal location for the mill and power plant, tailing

and waste design, and other supporting infrastructure and facilities.

GOLDRICH MINING COMPANY announced that Goldrich NyacAU Placer LLC has commenced mining at the Chandalar gold project in the Chandalar District. Mining of pay gravel is expected to continue through mid-September. The forecast for 2017 production is about 13,500 oz. of fine gold at a cost of roughly \$700 per ounce. The company also plans to conduct a 122-hole sonic drill program expected to total 7,700 feet with an average hole depth of 63 feet. The drill plan is designed to further define mineralized placer material between Line 8.6 to Line 12 as well as test for potential mineralized material from Lines 13 to 17.5. Each line is about 500 feet apart and drill lines will be spaced roughly 250 feet apart.

Southeast Alaska

CONSTANTINE METAL

RESOURCES LTD. announced commencement of a 7,000 meter, US\$7 million program with two drills at its Palmer volcanogenic massive sulfide project near Haines. Inferred mineral resources at the project total 8.1 million metric tons grading 1.41 percent copper, 5.25 percent zinc, 0.32 g/t gold and 31.7 g/t silver. The majority of 2017 drilling is dedicated to discovery of new mineral deposits with the balance for expansion and upgrade of the existing South Wall-RW Zone resource, and geotechnical studies. Property-wide airborne electromagnetic geophysical surveying, geological mapping and prospecting work are also included in the summer exploration plans, data from which will be used to help guide future drilling. Priority exploration targets include the Cap, Nunatak, HG, and JAG prospects that collectively define a several kilometers long, stratigraphically linked corridor of mineralization that is parallel to the South Wall-RW Zone trend.



continued from page 8

NORTHERN NEIGHBORS

increased by 20 percent and copper grades fell by roughly 14 percent. Near-surface peridotite hosted mineralization remains open to the south in certain areas of the deposit and higher-grade mineralization remains open below and east of the eastern end of the resource pit. These areas will be the target of future exploration drilling. In the meantime, the company is looking to produce a higher-grade bulk concentrate from Wellgreen material and will continue its investigation into producing separate concentrates for the copper and nickel. "Our work thus far indicates separate concentrates could significantly improve the overall potential economics of the project and that work is intended to begin in the fall of 2017 and to be completed prior to the release of a new PEA (preliminary economic assessment) or advancing to a prefeasibility study, as this information is expected to change the pit shape, mine plan and other factors," said Wellgreen President and CEO Diane Garrett. The company said the next step is to physically produce separate concentrates, which it plans to complete with a mini-pilot-plant during a second phase later this year.

Benz set to drill Mel zinc-barite property

Silver Range Resources Ltd. June 22 provided an update on work at its South Kitikmeot gold project, which includes seven properties between Sabina Gold & Silver's Back River Project west to the historical Lupin Mine in Nunavut. In May, Silver Range completed ground geophysical surveys over the Billie and Holliday Zones at the Uist property. These zones were identified by Silver Range in 2016,



Located just south of the Alaska Highway in southwestern Yukon, Wellgreen is a road-accessible project with 2.1 billion pounds of nickel; 1.1 billion lb copper; 121 million lb cobalt; 2.7 million ounces of platinum and 2.8 million oz palladium in the measured and indicated resource categories.

where surface samples returned grades as high as 64 grams per metric ton gold. A magnetic survey mapped an iron formation on the property and a horizontal loop electromagnetic survey identified three conductive zones within the iron formation. Silver Range said these conductive targets will be tested by shallow drilling or trenching in a follow-up program. In early June, Silver Range staked the Qannituq, a property adjacent to Sabina's Llama deposit, where recent drilling cut 8.3 meters averaging 6.52 g/t gold about 300 meters lower than the current resource. Silver Range said Qannituq is underlain by the same group of metasediments that hosts gold mineralization at the Llama, Umwelt and Goose deposits at Back River. Silver

Range is currently compiling geological and geophysical data in preparation for field work at Qannituq later this season.

Group Ten explores Yukon PGE claims

Group Ten Metals Inc. June 22 said it has begun 2017 exploration at its nickel-copper-platinum group elements properties in southwestern Yukon. This work, which is expected to be carried out in July, includes mapping, prospecting and surface sampling at the Ultra, Spy and Catalyst projects. The work at Spy, which is roughly 25 miles (40 kilometers) the Wellgreen nickel-PGE-copper project, will focus primarily on defining the orientation of the

Spy ultramafic sill and sighting optimal locations for a potential drill program later this year. The broader program aims to further define known showings and test additional prospective ground and geophysical/geochemical anomalies across each of the three projects. In addition, the company is completing advanced due diligence on a number of properties it is considering for acquisition. This evaluation is focused on quality, undervalued assets in established, world-class districts of politically-stable jurisdictions with excellent access and infrastructure.

Silver Range adds to NU gold properties

Benz Mining Corp. June 21 said it plans to complete up to 8,000 meters of drilling this year at its Mel zinc-lead-barite property in southeastern Yukon. The primary objective of this program is to confirm and expand a resource estimate calculated for Mel in March. According to this estimate, the main zone at Mel hosts 5.28 million metric tons of inferred resource averaging 6.51 percent zinc, 1.86 percent lead and 45 percent barite. "The main goals are to confirm the continuity of grades and widths of mineralization within the Mel Main zone and to demonstrate areas with potential to expand the current resource, and secondarily to identify other targets within the property," said Benz Vice President of Exploration Michael Gareau. Slated to start mid-July, the initial phase of the company's 2017 program at Mel will include soil sampling, mapping, and excavator trenching designed to identify targets for 3,000 meters of drilling expected to start in August. Depending on the results from the first to phases, the company will drill another 5,000 meters this fall.

