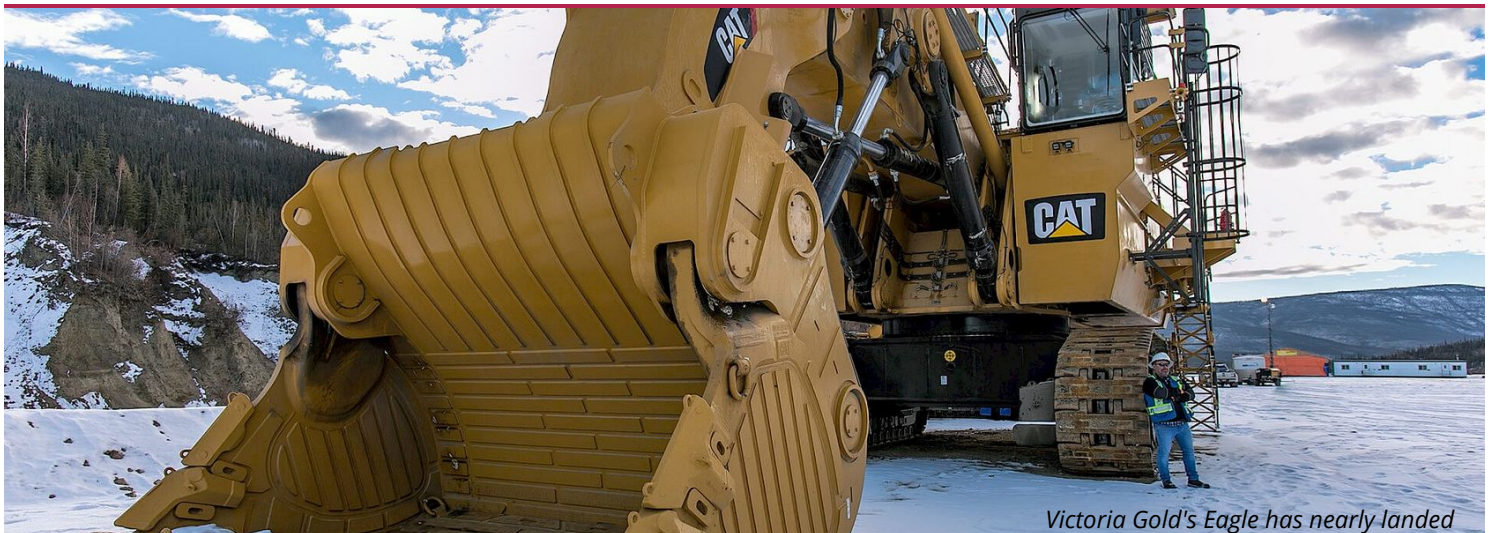


Yukon mining's watershed summer

As the summer sun melts away the last vestiges of ice from the long and bitterly cold Yukon winter, the Canadian Aboriginal territory is once again humming with anticipation and activity as explorers get to work on planned field activities while Canada's newest substantial gold mine – the Yukon's largest ever – prepares for first production.



Exploration / Development > Discovery

The milder weather won't be the only thing adding fervour to the exploration fieldwork.

Comments

There's more wind in gold's sails. And renewed hope the prolonged bear-hug on mining risk capital could finally be broken.

Share

Henry Lazenby In Vancouver

In terms of movers and shakers active in Canada's historic Yukon Territory today, Victoria Gold (TSXV:VIT) is making the biggest move as construction of its 200,000oz/y Eagle project, about 375km from territorial capital Whitehorse, edges towards the finish line.

CEO John McConnell said the project continued to track ahead of schedule, allowing the operations team to confidently advance leach pad ore delivery.

"With gold approaching an all-time high in Canadian dollar terms, 70% of our costs in Canadian dollars, and first gold production in September, Victoria is perfectly timed to become Canada's next gold producer," McConnell said.

The company is currently completing the remaining mechanical, electrical and instrumentation installations at the secondary and tertiary crusher, as well as the overland conveyor. Commissioning activities are well advanced at the primary crusher, conveying systems, and gold recovery plant.

The US\$289 million (C\$370 million) project's original schedule had the first ore delivery to the heap leach pad in August, but McConnell believes the team can beat this schedule by nearly one month with first ore reporting to the pad during the first half of July.

"With the acceleration of the construction schedule, over three million tonnes of ore will be delivered to the heap leach pad by year end," he said.

While one mine starts a new life, another is seemingly rising from the ashes.

In early June, the mothballed Minto copper mine was sold to UK-based Pembridge Resources for US\$20 million. Staged payments to the mine's former owner and operator, British Columbia-based Capstone Mining, will depend on the mine going back into production, and the price of copper.

The deal has been a long time in the making, with Capstone announcing a US\$37.5 million cash-and-scrip deal to sell the mine to Pembridge early last year. The deal ultimately fell through, mostly because of a lower copper price in the second half of 2018. Pembridge has already raised \$10 million to restart operations, which it expects to achieve by the end of this year.

Meanwhile, several Yukon-focused explorers are looking for strong results from new campaigns.

White Gold (TSXV:WGO) said it had started work on its planned 17,000m diamond drill programme at the JP Ross and White Gold properties. The explorer has set aside C\$13 million for its summer activities, backed by partners Agnico Eagle Mines and Kinross Gold.

CEO David D'Onofrio said White Gold was keen to replicate the success of the 2018 campaign.

"The goal of this diamond drill programme is threefold: to continue to expand Golden Saddle/Arc's established resources, to follow up on JP Ross's exciting high-grade Vertigo discovery last season and to grow the recently acquired and underexplored VG deposit.

"We have also commenced the regional exploration programme across our extensive land package, focused on generating a strong pipeline of discoveries and resource growth," he said.

Last summer's drill results on the Vertigo target ranged from trace to 22.47g/t gold over 30.46m from surface, and 56.25g/t over 3.05m from 3.05m depth, within a broader intercept of 17.34g/t gold over 10.67m.

With its coffers bolstered by a recent oversubscribed C\$3.68 million private placement, Barrick Gold-backed ATAC Resources (TSXV:ATC) said work on its summer exploration campaign started early in June at Rau, on the western end of the Racla gold property. This year's programme will follow-up on high-grade gold, copper and silver results from 2018, as well as other opportunities close to the Rackla Pluton.

ATAC has been very successful in identifying new mineralised targets through soil-sampling, prospecting, hand-pitting and mapping. Most targets discovered to date have been identified in this manner, yet significant portions of the property remain unsampled.

"ATAC is excited to embark on a systematic exploration programme at the Rau property that we believe will lead to a meaningful discovery," said CEO Graham Downs.

Work will entail ground-based induced-polarisation and magnetic surveys over a 12sq.km area covering the Bobcat target and the Rackla Pluton.

The company plans about 4,000m of diamond and rotary air-blast drilling on priority targets.

The Bobcat target returned several multi-gram gold and multi-percent copper grab samples last year, including 6.07g/t gold with 7.41% copper and 7.37g/t gold with 5.9% copper.

Geophysics will target improving the resolution of existing airborne magnetic data and define areas of inconsistent below-surface chargeability. This will feed into concurrent mapping and prospecting to prepare for follow-up drilling in July and August.



ATAC has been very successful in identifying new mineralised targets

The prospectivity of the territory is further illustrated by Alexco Resource Corp (TSX:AXR) results in the historic Keno Hill district.

Alexco is focused on moving the project towards a final production decision and operations start-up is expected before the end of 2019. To this end it is working to complete a prefeasibility study, followed by a decision to complete underground development of the Flame & Moth deposit along with recommissioning of the mill and surface infrastructure.

Over the past 10 years Alexco has maintained a strong and systematic exploration focus at Keno Hill, leading to discovery so far of 68Moz of silver in indicated resources and a further 18Moz inferred. In the past three years alone, Alexco's geologists have added more than 20Moz of indicated silver at an average grade of 800g/t or 26oz/t to the resource base, mainly owing to success at Flame & Moth and Bermingham.

The company has just closed another US\$6 million financing at \$1.00 which it will put towards Keno Hill development.

Also active in the Keno Hill district is Metallic Minerals (TSXV:MMG), which plans follow-up drilling on priority targets at its Keno Silver project, next to Alexco's holdings. The 186sq.km property covers the eastern and southern portions of the district.

The company believes 10 of the 12 known productive mineralised trends continue onto its holdings "in preferred host rocks". Of these, five historic mines had average recovered grades above 5,000g/t silver.

Follow-up drilling this summer will entail a more indepth look at the Caribou, Homestake and Formo targets, which have the highest potential to be advanced to the resource stage in the near term. Metallic also plans to conduct follow-up drilling at recent discovery sites at Gold Hill, Bounty, Duncan, Silver Basin, Vanguard and Silver Queen. The company also plans to undertake comprehensive data mining of 110 years of historic information on the district with modern exploration tools, which has delivered encouraging results on the easternmost reaches of the Keno silver district.

Another Yukon project with an established resource is Banyan Gold's (TSXV:BYN) Hyland project, which hosts 8.6Mt grading 0.85g/t gold-equivalent for 236,000oz, with a further 288,000oz grading 0.83g/t inferred.

But it is at Aurex-McQuesten that Banyan is spending its time and effort this summer.

Sandwiched between Alexco's Keno Hill and Victoria's Eagle mine, the project will be the focus of about 1,000m of diamond drilling in a programme partly funded by the Yukon government's mineral exploration programme.

CEO Tara Christie said about 400m of the proposed drilling would be focused on infill drilling of a potential high-grade zone at McQuesten, which previously returned wide (80-100m), near-surface intercepts of about 1g/t gold.

The 2019 drillholes will further refine the geological model for McQuesten by defining the extent and distribution of these higher-grade intervals.

"The goal of the infill drilling will be to identify the controls on the distribution of higher-grade gold intervals within the about 90m-thick calcareous clastic metasediments of the McQuesten Block 1," Christie said.

She added the company had options to generate value from the Aurex-McQuesten projects, with Victoria Gold starting production about 40km away and Alexco maintaining a mill 10km to the north-east that could be reactivated.

Boots on the ground

Another junior with significant drilling plans this summer is Western Copper and Gold (TSX:WRN) which will drill 10,000m at its Casino copper-gold project, mainly infill on the inferred resource area in a 22-year openpit outlined its January 2013 feasibility study. The company will deploy two diamond drill rigs to drill holes between 150-400m deep. It expects drilling to be completed by the end of September.

"We are excited to be drilling again at the Casino project and optimistic that the expected updated resource will take one of the largest, economic, copper-gold deposits located in one of the most mining friendly jurisdictions in the world - Yukon - and make it larger, more economic, and more robust," said CEO Paul West-Sells.

Meanwhile, Golden Predator (TSXV:GPY) is looking forward to more precious metal production in the Yukon this summer following the start-up of its test processing plant.

It has started to process the 9,800t bulk sample taken from its 3 Aces orogenic deposit last year, following the winter hiatus. The company plans to complete processing the 2018 material over the coming months and conduct another bulk sample at 3 Aces as part of its 2019 exploration programme.

Also on the base metals front, Vancouver-based Fireweed Zinc (TSXV:FWZ) has just announced core drilling had started at Macmillan Pass where it is focusing on the Tom North target and where three of the planned wide-spaced drill holes have already been completed.

The company said in May instead of advancing to complete a pre-feasibility study, it would focus on regional exploration to get a better idea if there was greater scale potential. It also plans to undertake reverse circulation drilling on Target R to test a gravity-magnetic and soil anomaly discovered in 2018. Target R is 2.5km north of the existing Tom West mineral resource.

Later this summer, Fireweed will target the Jason North target for RC drilling, which comprises another geological-geochemical-geophysical target just north of the large Jason Main resource.

Meanwhile, Rockhaven Resources (TSXV:RK) has established one of the highest-grade gold resources in the Yukon at its Klaza project. Following an updated technical report last August, the deposit now hosts 4.47Mt grading 6.3g/t, for



Core drilling on Fireweed Zinc's Macmillan Pass project has started

907,000oz of gold equivalent. Klaza also has about 725,000oz grading 3.9g/t gold-equivalent inferred.

The company plans next to put about 4,000m in 19 holes to better delineate zones that run in parallel with the current mineral resource and to prepare those zones for closer-spaced drilling to add new openpit and underground resources.

Rockhaven also plans to undertake about 5,000m of infill drilling over 38 holes to enhance its modelling of the deposit and to better evaluate the near-surface mineralisation in the Eastern zones. The company says the updated resource models will provide a geological framework to evaluate deeper mineralisation.

Another contender for resource success is K2 Gold (TSXV:KTO), whose chairman is Kaminak Gold founder John Robins. The company has five gold projects in the Yukon and Alaska, with the Wels the designated primary target. Its 2018 summer exploration produced outcropping finds at Pekoe, North Saddle and Chai. According to Robins, the geology is now being recognised as "probably orogenic", which therefore shares similarities to Goldcorp's (ex-Kaminak) Coffee project.

"This property looks geologically similar to Coffee in the early days of exploration; the main difference is that at Wels there appears to be higher gold grades in surface, trench and drill sampling," he said.

The company plans to spend about C\$750,000 on a diamond drill campaign on Wels this summer, with prospecting and trenching.

In Yukon's storied Dawson district, project generator Go Cobalt (CNE:GOCO) has acquired the Monster iron oxide copper-gold project which has reportedly had strong showings of copper, cobalt, silver and gold. Results from a gravity survey earlier this year showed the company was closing in on a new target, the Beast, which comprises 1.5km of wide, surface mineralisation.

Rock samples taken from these anomalous zones have visible cobaltite and erythrite, both different types of cobalt mineralisation.

Data further indicates that the Goblin and Cobalt Cirque showings in the Arena target area are underlain and connected by a gravity high. The east-west oriented fault set was recently recognised by lineament analysis and magnetic intensity to be a first-order control on mineralisation.

The company is planning detailed surveying and geophysics on the Monster property, focusing on Best, arena and Bloom targets to help generate drill targets for the 2020 field season.

Advantage Alaska

Across the national border in Alaska, explorers are also eager to get back in the field.

Earlier in June, Australia's Nova Minerals (ASX:NVA) rallied on its decision to drill-test the Oxide prospect at Estelle. Early indications from a pre-drill IP survey suggested the target might be part of an even larger gold system than previously believed, Nova said.

The strongest IP response came from the Oxide South alteration zone that was identified during last year's mapping programme. There is a moderate anomaly associated with drilling that intercepted 387m at 0.4g/t gold in historic drilling, and another associated with 41.4m at 1.14g/t.

Estelle is believed to have geological similarities with the 9.2Moz Fort Knox mine and the 6Moz Dublin Gulch project, and perhaps the 105Moz Pebble copper-gold-molybdenum-silver deposit. The 112sq.km project is next to the 9.5Moz gold-equivalent Whistler project.

The junior has an exploration target for Oxide alone of between 115-249Mt grading 0.6-0.67g/t for a total of 2.2-5.3Moz.

A drill crew is already on the first location, and will undertake up to 8,000m of diamond drilling, plus RC drilling as required, coming behind the IP crews in order to target the alteration zone. Surface sampling and geologic mapping will also target two additional prospects at RPM and Shoeshine following the IP and magnetic surveys.

Meanwhile, Canadian outfit Constantine Metal Resources (TSXV:CEM) has reported a positive preliminary economic assessment for its majority-owned Palmer zinc-copper-silver-gold project in south-eastern Alaska. The PEA has outlined an initial capex of US\$278 million, an after-tax NPV (7% discount) of \$266 million and an IRR of 21%, on a 100% basis.

The PEA envisages an 11-year mine life with a zinc cash cost, including sustaining capital and net of by-product credits, of 11c per pound. Life of mine production was estimated at 1.07 billion pounds of zinc, 196Mlb copper, 18Moz silver, 91,000oz gold and 2.89Mt of barium sulphate.

Constantine CEO Garfield MacVeigh said North American development-stage zinc-copper projects were "in scarce supply", particularly ones with high operating margins and resilience to low metal prices, as the Palmer PEA had demonstrated.

The company is increasingly focusing on Palmer and plans to spin-out its gold assets in Alaska and Timmins into a subsidiary HighGold Mining, which it intends to list on the TSX Venture Exchange.

Graphite One (TSXV:GPH) recently said it had started a pilot programme on its Graphite Creek project, with the first step to ship about 12,000lb of raw graphitic material to its US-based industrial partner for processing into advanced graphite materials.

The pilot programme is expected to produce data for the company's pre-feasibility study that will contemplate a mining and processing scenario, as well as production of coated spherical graphite and other advanced materials at a processing plant which location is yet to be determined.

Tectonic Metals, another company backed by the former Kaminak team, has announced plans to become a public company on the TSX Venture Exchange by raising C\$5 million through a special warrants offering. Proceeds will be used to advance three Alaska projects, Tibbs in the Goodpaster district, Seventymile in the Seventymile district and Northway in the southern Fortymile district, as well as the MCQ project in Yukon.

At Northway, the Area 6 target hosts a 1,200m-long soil anomaly that has returned samples with as much as 0.05% copper and 0.253g/t gold. The copper and gold in the soils are said to be coincident with IP and magnetic anomalies that provide a clear drill target at Area 6. At exploration Area 7, an 800m-long gold-in-soil anomaly returned assays with as much as 2.12g/t gold. Area 7 has another geophysical anomaly covering a 3,000-by-5,000m area that will guide drilling this summer.

At the Seventymile prospect, the company is testing a new exploration model over the western end of the 40km belt. The high-grade shear-zone hosted model was tested over a small area in 2018 and plans are in the works to expand that work this summer.

Efforts will focus on the Flanders and Flume prospects using top-of-bedrock soil sampling and possible rotary air blast drilling to explore favourable lithologic contacts. The Tibbs prospect hosts gold mineralisation like that at the nearby Pogo mine.

Another mover in the state is Millrock Resources (TSXV:MRO) which has acquired several large blocks of ground after an equity investment by Alaska newcomer EMX Royalty Corp (ASX:EMX). The funding allowed Millrock to stake new claims in the Goodpastor district.

At the eastern end of the Pogo trend the company staked the historic Scott, Boundary, and Cal-Surf prospects which returned significant gold, arsenic and bismuth in surface samples related to northeast and northwest-oriented high-angle faults.

Drilling conducted on the Boundary and Cal Surf prospects by previous operators intersected gold-bearing intervals. On the Shaw Creek trend, the newly staked claims cover stream sediment, soil, and rock samples containing gold, arsenic and bismuth anomalies that appear to be associated with intrusive rocks near splays off the Shaw Creek fault.

These claims cover the historic Eagle prospect and adjoin Gold Reserve's LMS prospect, the only other prospect in the district with a compliant resource of 8.32Mt grading 1g/t for 267,000oz gold.

Early stage

Meanwhile, Freegold Ventures announced the start of its 2019 exploration programme at the Shorty Creek copper-molybdenum-gold prospect in the Livengood district. The 2019 programme, fully funded under an agreement with a South32 subsidiary, will consist of induced polarisation surveys, geochemical

surveys and a minimum 2,000m core drilling programme designed to provide an initial test of the exploration targets outside of the previously drilled Hill 1835 target area.

Field operations started in mid-May and drilling is expected to start in mid-July.

Australian explorer PolarX (ASX:PXX) has outlined its plans for summer drilling at Alaska Range. It recently secured the backing of Lundin Mining, which took a 14.3% stake in the company as part of an option to earn 51% of Stellar at Alaska Range.

At the Saturn prospect, 3D inversion modelling of the aeromagnetic survey has highlighted a steeply plunging intrusive cluster measuring 2,000-by-1,000m, with a 3,000m vertical extent. This magnetic anomaly is next to the high-grade copper-gold mineralisation at the Zackly prospect. The Saturn magnetic anomaly is surrounded by a zone where the magnetic response has been destroyed, a feature seen around some copper-gold porphyry systems where magnetite-destructive hydrothermal alteration has occurred.

PolarX has staked 30 more state mining claims covering the southern extent of the down-plunge target at Saturn. An IP survey to define drill targets at the Saturn target will start shortly with drilling planned for the third quarter of 2019. The company also indicated additional drilling was planned at Zackly to increase the size of the current resource, particularly around the thick, high-grade near-surface intersections.

White Rock Minerals (ASX:WRM) and JV partner Sandfire Resources (ASX:SFR) have completed a 500sq.km airborne electromagnetic and magnetic survey at the Red Mountain volcanogenic massive sulphide project in the Bonfield district. White Rock said preliminary evaluation of time-domain electromagnetic data indicated numerous conductivity features related to the geology and structure of the district and associated massive sulphide occurrences.

Following interpretation of the airborne data, the partners will conduct follow-up satellite spectral analysis, ground geological prospecting, surface geochemical sampling and ground based electrical controlled-source audio magnetotellurics geophysical surveying ahead of drill testing.

Further, Canada's Trilogy Metals (TSX:TMQ) and funding partner South32 (ASX:S32) announced an update for the Arctic volcanogenic massive sulphide deposit and the Bornite copper-cobalt deposit at their Upper Kobuk minerals project; a JV between Trilogy and NANA Corp.

The partners have completed district-wide VTEM and ZTEM airborne



the permitting process

electromagnetic surveys as the first step in its \$2 million district-scale exploration programme for 2019.

The survey data is currently being processed to identify and prioritise targets for follow up geologic mapping, soil geochemistry and drilling. The company is working closely with the Alaska Industrial Development and Export Authority, which is permitting the Ambler Mining District Industrial Access project to provide road access to the district.

The preliminary draft environmental impact statement (EIS) process is on schedule and has been made available to all stakeholders. The draft EIS is expected to go out for public comment on July 19. A 45-day public comment period is scheduled with public meetings to be scheduled at various locations.

Junior Grande Portage Resources (TSXV:GPG) in May announced a new compliant resource estimate for its Herbert gold project near Juneau.

At a cut-off grade of 2.5g/t gold, the deposit has an indicated resource of 606,500oz gold in 1.88Mt grading 10.03g/t gold on average. It also hosts an inferred resource of 251,700oz grading 14.15g/t gold.

The resource estimate was based on 154 drill holes and six channel cuts containing 3,463 samples assayed for gold, plus 1,171 unassayed intervals that were assumed to be zero grade.

New to the Alaska scene is Decade Resources, which in May announced initial results from sampling of the Crest gold property in the Hyder-Stewart area of southeast Alaska. Initial float-rock grab samples returned grades ranging from 3.67-2,034g/t gold and two to 599g/t silver. The property is at the west edge of the Golden Triangle of north-western British Columbia and 7km south of the Premier gold mine.

According to Decade, the property is underlain by the Texas Creek Batholith, a Jurassic age intrusion that hosts the Mitchell intrusions at Seabridge Gold's Kerr-Sulphurets-Mitchell. This intrusive suite is related to mineralising events in the Stewart area and in the Sulphurets-Mitchell valleys.

The suite of rocks is also associated with gold mineralisation at Brucejack, Premier gold mine-Silver Coin deposit and the Scottie gold mine, as well as numerous porphyry copper-gold occurrences in the district.

Decade plans further sampling to locate the source of the anomalous rock samples as well as to evaluate the remainder of the property.

