

Northern Mining News

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From the Editor ...

Some very encouraging news from De Beers Canada as their exploration work is paying off with some new kimberlite discoveries at Gahcho Kué mine. These finds could potentially extend mine life. And Fortune has discovered a new zone of copper mineralization at its NICO property. TMAC, Agnico Eagle, Osisko, and Sabina releases are also reason for optimism!

New discoveries would help address the alarm bell from the Conference Board of Canada's Annual Economic Forecast. Yukon and Nunavut outlooks are positive but the NWT's future will be one of challenges. Have a look at our report summary on page 3. 'Weaker investment in the NWT mining sector' and 'diamond production has reached its peak and will decline in the next decade' jump out as major warnings about the territory's economic future.

Great to see Nunavut's two gold mines partnering with the Royal Canadian Mint on a collector coin made entirely of Nunavut gold! On the public awareness side, have a look at our latest [Mining North Works! Explore for More publication](#). It's a comprehensive look at 'all things mining' in the North!

Happy reading! ... Editor

Our Mission: To provide leadership on, and advocate for, responsible and sustainable mineral exploration and development in the NWT and Nunavut.



New kimberlite discoveries may add to future of Gahcho Kué Mine

The recently announced discovery of a previously unknown kimberlite pipe at Gahcho Kué Mine is just the latest in a series of discoveries that have the potential to extend operations at the diamond mine, reports De Beers Group.

The [Wilson kimberlite discovery](#) is located within the Tuzo pit design limits. A smaller kimberlite pipe, also near Tuzo and named Curie, was discovered in 2018.

“This latest discovery builds on the success of the resource extension program, which has the potential to extend the life of mine at Gahcho Kué,” said Allan Rodel, Head of Operations, and De Beers Group Managed Operations. “A lot of work needs to be done to understand the potential of the Wilson pipe, but this is the result of great work by a multi-disciplinary team from Gahcho Kué Mine, De Beers Group Technical & Sustainability MRM and Exploration, and joint venture partner Mountain Province Diamonds.”

The new kimberlite is named after Alice Evelyn Wilson, Canada’s first female geologist, the first woman elected as a Fellow of The Royal Canadian Geographical Society (1930) and the Royal Society of Canada (1938) and the first Canadian woman to be admitted to the Geological Society of America (1936). Another new kimberlite is named after Nobel Prize winning physicist and chemist Marie Curie.

These programs have found additional kimberlite connected to the 5034 kimberlite, which was incorporated into the 2019 mine plan. In 2018, more kimberlite associated with 5034 and Hearne pipes were discovered and are being considered for possible inclusion in the 2020 business plan.

Gahcho Kué Mine is an unincorporated joint venture between De Beers Group (51% - the Operator) and Mountain Province Diamonds (49%). The mine officially opened in 2016 and currently has an 11-year life of mine. It is located 280 km northeast of Yellowknife in the NWT.



The Wilson kimberlite discovery is the one of four new discoveries made at Gahcho Kué since 2017. Some 22 km of core has been drilled as part of the Gahcho Kué Resource Extension Program. De Beers Canada photo

Fortune Minerals announces new discovery at NICO

New zone lies on the periphery of the coincident Peanut Lake magnetic, gravity and magnetotelluric geophysical anomalies

Fortune Minerals Limited reports the [discovery of a new zone of copper mineralization](#) at its 100% owned NICO cobalt-gold-bismuth-copper project, located 160 km northwest of Yellowknife, Northwest Territories, Canada. The new zone was identified in bedrock exposed in a pit excavated last spring to provide aggregate for road work and is located 1.6 km southeast along the projection of strike from the main NICO deposit. The new zone is located on the periphery of previously identified coincident magnetic, gravity and electrical resistivity geophysical anomalies at Peanut Lake that are like the ones associated with the main NICO deposit.

Three of four representative grab samples collected from the pit returned grades of 1.66%, 1.55% and 0.78% copper from analyses carried out at ALS Canada Ltd. in North Vancouver.

Fortune's NICO Project is one of the few cobalt development assets outside of the Democratic Republic of Congo to service demand growth in lithium-ion batteries used to power portable electronic devices, electric vehicles and energy stationary storage to make electricity use more efficient. Fortune's NICO Project and its nearby Sue-Dianne copper-silver-gold deposit are the only known Canadian examples of the Iron Oxide Copper Gold (IOCG) mineral deposit class, also commonly referred to as Olympic Dam-type, after the 'super giant' deposit located in South Australia. IOCG deposits in Queensland and South Australia, Carajas, Brazil and Candelaria, Chile are typically associated with large magnetic, gravity and electrical resistivity geophysical anomalies.

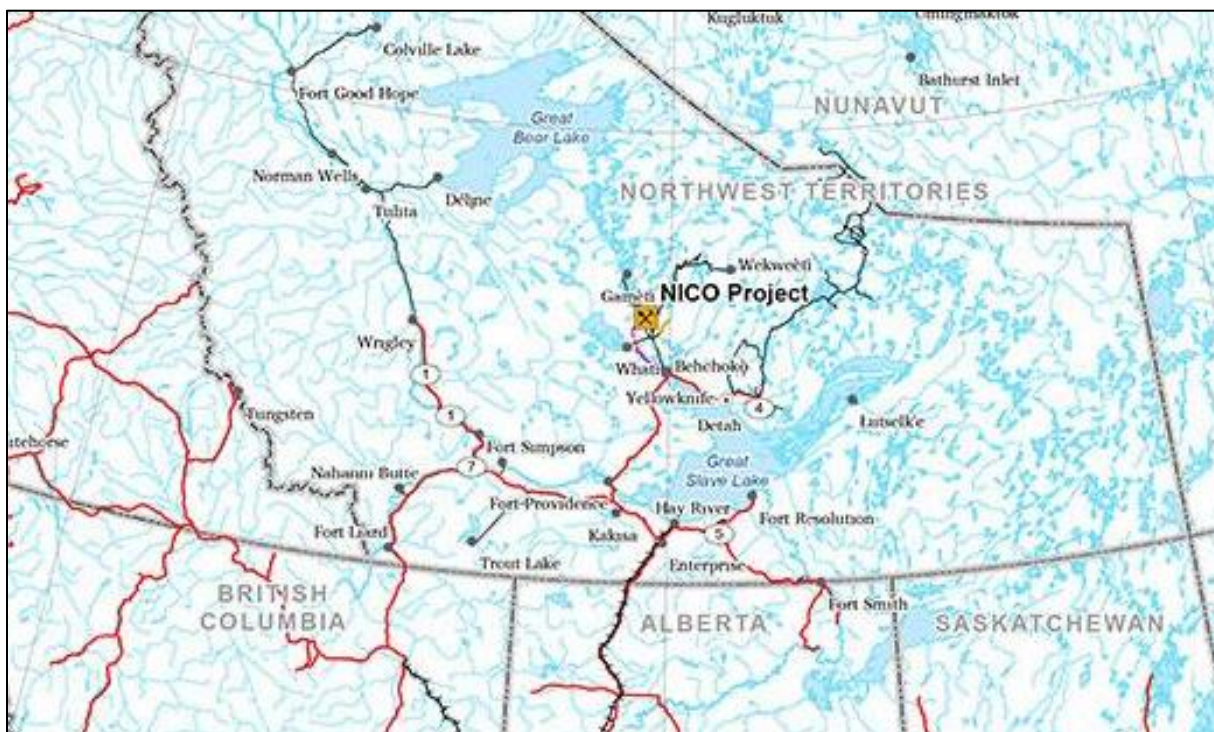
Coincident magnetic, gravity and magnetotelluric geophysical anomalies approximately 1 km in diameter were previously identified west of Peanut Lake in the vicinity of the new copper showing in surveys carried out for Fortune and the Geological Survey of Canada. The magnetic anomaly identified in a 1995 helicopter survey for Fortune has peak amplitude of 10,000 nanoteslas ("nT") and is the strongest magnetic anomaly recognized on the NICO property. Ground gravity surveys conducted for Fortune in 1995 and 1996 also identified a coincident Bouguer anomaly with peak amplitude of 2 milligals. The magnetic and gravity anomalies associated with the NICO deposit have peak amplitudes of 6,000 nT and 3 mGal, respectively. A magnetotelluric survey carried out by the Geological Survey of Canada in 2010 identified a coincident electrical resistivity low indicative of a potential sulphide conductive source.

The Geological Survey of Canada also carried out three-dimensional inversion modelling of the combined magnetic susceptibility, density, and electrical resistivity data from the combined earlier geophysical surveys over the NICO Project property and was published in 2016 in Economic Geology. This modelling defines a near-surface 3D source for the Peanut Lake anomaly, which is largely obscured by overburden and remains unexplained. The 3D modelling conducted over the main NICO deposit was successful in delineating the known deposit. However, it also identified previously unidentified coincident magnetic, density and electrical resistivity anomalies centered approximately 300 metres north of the NICO deposit and 500 metres below the surface near copper showings at Chalco Lake. These unexplained anomalies

are an order of magnitude larger and significantly stronger than the ones associated with the known NICO deposit.

Fortune is conducting additional geological investigations of the NICO Project this summer in the vicinities of the Peanut Lake and Chalco Lake anomalies where small copper showings have also been identified. Work is being done to explain the source of the large anomalies to determine if additional ground based geophysical surveys are warranted and/or to provide better definition for potential future drill testing.

An updated Technical Report for the NICO Project by Hatch Ltd., P&E Mining Consultants Inc. and Micon International Limited to provide an update to the 2014 National Instrument 43-101 Technical Report on the NICO Project Feasibility Study by Micon is expected to be completed in the near future.



The NICO deposit in the Northwest Territories is a primary cobalt deposit that also contains 1.1 million ounces of gold and 12% of global bismuth reserves. Source: Fortune Minerals

Economic outlook good for Nunavut and Yukon, but not NWT

The Conference Board of Canada has released its annual economic forecast for Canada's northern territories. Territorial Outlook Economic Forecast (Summer 2019) reveals that Nunavut and Yukon will see significant economic growth due their growing mining industries, while the Northwest Territories economy will suffer as its industry continues to mature and mines close. The summary of the report's conclusions are in the backgrounder, below.

The mining industry's health in each of the territories is closely linked to the health of mineral exploration, which is required to find new mines to sustain and grow the northern economies.

Mineral exploration in Yukon and Nunavut has strongly outpaced exploration investment in the NWT, which has stalled for the last twelve years (see chart in the [full release](#)).

According to Chamber of Mines President, Gary Vivian, “Nunavut has seen significant exploration over the past 12 years, and consequently a rebirth of its mining industry. Mining is now on an encouraging growth path, providing significant benefits to Nunavut and Canada. In the NWT, however, lacklustre exploration investment continues to be insufficient to sustain our industry. It’s clearly linked to actions within the territory and not to geology or markets. We continue to press governments to improve investor confidence to attract more investment. The very high mineral potential can support generations of mines, but they very much need to improve land access, improve the regulatory environment, and address costs. What’s most disappointing is that this is old news, and despite our efforts to get changes made, the economic forecast for the NWT continues to be poor.”

Findings from the Territorial Outlook Economic Forecast (Summer 2019) report

Nunavut – mining sector in good shape

- Nunavut’s economy will grow at a solid pace over the near and medium terms thanks to strength in the mining sector.
- The outlook for gold mining is optimistic, as prices remain at recent highs.
- Nunavut’s population profile is different from what we see in other parts of the country. Fertility rates are high and labour force growth will be solid, but the unemployment rate will remain sharply higher than in Yukon or the Northwest Territories.
- Most of the new jobs created in Nunavut’s mining industry will go to non-residents, as companies must bring in workers from other parts of Canada due to the shortage of specific mining skills in the resident population.

Northwest Territories – challenging times

- Economic growth will be modest in the near term, hovering in the 2.0 per cent range, but will subsequently ease sharply over the long term due primarily to weaker investment in the mining sector.
- Diamond production has reached its peak and will decline in the next decade. However, two new metal mines will open, offsetting some, but not all, the losses in mining.
- More tepid growth in mining will have repercussions on the other areas of the economy, notably construction activity.
- Weaker economic growth will encourage more workers to exit the territory, leaving a smaller working-age population to cover the costs that come with growth in the number of seniors.
- The only sector of the economy that will record employment growth is non-commercial services, which includes the health care sector.

Yukon – weaker growth this year, but rebound expected in 2020

- Economic growth in Yukon will slow this year but then rebound in 2020.
- New mines coming online will drive growth in 2020.
- The unemployment rate will remain well below 4.0 per cent over the next several years, and labour shortages will become a problem.

- Wages will grow at an average annual pace of 3.0 per cent between now and 2025, much faster than inflation.
- Yukoners are older than their Northern neighbours, and domestic migration will account for most of the population growth over the forecast.

The Territorial Outlook provides the economic and fiscal outlook for each of Canada's three Northern territories, including output by industry, labour markets, and demographics.

A copy of Territorial Outlook Economic Forecast is available, for editorial purposes, by contacting corpcomm@conferenceboard.ca or online [here](#). The Conference Board of Canada is the country's leading independent research organization. Our mission is to empower and inspire leaders to build a stronger future for all Canadians through our trusted research and unparalleled connections.

Thaidene Nene National Park Reserve trumps environmental process

Over the past several years, the Chamber of Mines has been participating as best it could in the process to create the Thaidene Nene national and territorial parks in the southeast NWT.

The Chamber has never taken a position against Thaidene Nene as a park, rather we took the position that we had the obligation to our members to provide our expertise to the park discussion as an industry that knows what is needed to find and develop mines, responsibly and for the benefit of the public.

Most recently, the Chamber participated in two preliminary screening processes for the establishment of a federal Thaidene Nene National Park Reserve (TDNNPR) and an adjoining territorial Thaidene Protected Area, processes being managed by Parks Canada and the NWT government, respectively. These processes are legally required under the Mackenzie Valley Resource Management Act to gauge public and environmental concerns.

Asking questions and seeking clarity is an allowable and required part of the park development process just as it is for any other development process. The Chamber's submissions, along with others contributed to the screening, can be found on the Mackenzie Valley Review Board website [here](#).

We raised our "public concern" with the development, along with several other organizations and individuals. We asked for the park to undergo an environmental assessment (EA) to get more clarity, transparency, and diligence in the park proposal process to determine if there might be better decisions that could be made with more fulsome information and discussion on park establishment details.

Unfortunately, the Review Board has decided not to exercise its discretion under ss. 126(3) MVRMA to order an EA of the establishment of Thaidënë Nene National Park Reserve. Their rationale was released on August 2 and is set out in their "*Reasons for Decision*" document found [here](#).

Essentially, Parks Canada legislated the park before the preliminary screening was done, in essence trumping the process.

Some quotes from MVEIRB decision:

- *Parks Canada's approach to screening appears to be inconsistent with the MVRMA*
- *The Review Board acknowledges the careful planning and negotiations which went into the TDNNPR proposal, but the timing of the legislative process relative to the screening is problematic.*
- *In the view of the Review Board, it is not consistent with the MVRMA to complete a preliminary screening after irrevocable decisions to proceed with a development have already been made. That seems to be that case with TDNNPR. While it might be theoretically possible for Parliament to reverse or repeal its TDNNPR establishment decision, the Board is of the opinion that such an action is effectively impossible.*
- *The Amendments already made to the Canada National Parks Act raise significant legal questions about the value of an EA in this case*
- *A conflict between what an EA might conclude and what has already been approved by Parliament could easily arise.*
- *In the Review Board's view, the difficulties resulting from the timing of the amendments to the CNPA and the preliminary screening are not matters which the Board can resolve. Furthermore, it appears to the Review Board that an EA would be unlikely to resolve concerns about TDNNPR boundaries, as they have already been fixed by Parliament.*
- *In the circumstances, the Review Board's consideration of the concerns raised by the letters has been confounded by Parks Canada's approach to and the timing of the preliminary screening.*
- *Even if the Review Board wanted to do an EA, it is unlikely that an EA could change what Parliament has done, and in the Board's opinion it would be legally problematic to try.*
- *Going forward, the Review Board suggests that a regional strategic environmental assessment, as a type of regional study under Part 5.2 of the MVRMA, should be considered before establishment of specific protected areas, as a way to inform planning and explore the implications for broader well-being.*

While we tried our best, in essence, the Federal government's action to legislate the park into being – while the preliminary screening was still in process – has trumped the screening.

Now, we are awaiting with interest the Review Board's observations on the NWT government's preliminary screening of their proposed Thaidene Nene Protected Area, over which we have also flagged public concern.

Gold from 2 Nunavut mines used for Nunavut 20th anniversary coin

Celebrating Nunavut Day and the 20th Anniversary of the Nunavut Territory, Agnico Eagle hosted a ceremony where the Royal Canadian Mint presented a [new collector coin crafted entirely of Nunavut-sourced gold](#) and featuring the iconic artwork of Inuk artist Germaine Arnaktauyok that first appeared on the \$2 coin released for Nunavut's creation in 1999.

This 20th anniversary Nunavut coin is struck in 99.99% pure gold exclusively sourced from Meadowbank mine near Baker Lake and from TMAC Resources' Doris North mine at Hope Bay.

The gold was refined at the Royal Canadian Mint's state-of-the-art facility and the coin was officially issued for purchase on June 25th. It is the second coin to feature exclusively Nunavut-sourced gold, the first one, called Symbols of the North, was released in 2018.

Recognizing the contribution of Agnico Eagle and TMAC Resources to the creation of this exceptional coin, Mint Vice-President of Sales Lorne Whitmore says he is proud of their relationship with the two mining companies and of the way this special new coin tells its own origin story.



Collector's coin crafted from pure Nunavut gold sourced from Agnico Eagle's Meadowbank mine and TMAC Resources Doris mine. Agnico Eagle photo

"The gold used can be directly traced back to the mines in Nunavut and reflects the commitment to ethical sourcing and business practices of all three project partners," says Whitmore. "The source of gold is a key element of the story, and an important part of what makes it unique."

Agnico Eagle CEO Sean Boyd said, "This truly is a golden era for Nunavut and for Agnico Eagle. Today, we are celebrating the birth of the Nunavut Territory and 20 years of self-governance and determination. And, by the end of this summer, Agnico Eagle will have celebrated the opening of two new gold mines in Nunavut – Meliadine and Amaruq."

He added, "Agnico Eagle shares common values with the Nunavummiut for family, traditions, respect and trust. This 20th anniversary is the perfect opportunity to showcase Nunavut's contribution to Canada's unique values and culture. We will continue to work with our Inuit partners to responsibly develop the Territory's natural resources and contribute to economic and social prosperity to the benefit of all Nunavummiut."

The 20th Anniversary of Nunavut 2019 \$20 pure gold coin features a reverse design by Inuk artist Germaine Arnaktauyok of an Inuk dancer with a drum, which bears a stylized map of Nunavut and a traditional oil lamp (qulliq). The anniversary coin is a reproduction of the design from the Mint's 1999 \$2 circulation coin that first honoured the birth of the Nunavut Territory.

This \$20 coin is 99.99% pure gold source exclusively from Nunavut, with a diameter of 20 millimetres and a nominal metal weight of 3.14 grams. Order yours [here](#).

Mountain Province Diamonds announces Q2 results

Mountain Province Diamonds Inc. [announced production and sales results](#) for the second quarter ended June 30, 2019 from the Gahcho Kué Diamond Mine. The company also released the details for its Q2 2019 earnings conference call and webcast. All figures are expressed in Canadian dollars unless otherwise noted.

Q2 2019 Highlights (all figures reported on a 100% basis unless otherwise stated)

- 10,865,263 total tonnes mined, a 6% increase compared to Q2 2018 (10,285,000).
- 882,374 tonnes of ore treated a 2% decrease from Q2 2018 (899,000 tonnes).
- 1,730,147 carats recovered at an average grade of 1.96 carats per, 10% lower than same quarter Q2 2018 (1,930,500 carats and 2.15 carats per tonne). The grade variance year over year is mainly a function of mining lower grade ore tonnes in Q2 2019 from Hearne and SWC Kimberlites in comparison to higher grades from the 5034 Kimberlite in Q2 2018. In addition, the ongoing plant enhancement modifications and size frequency optimization result in the removal of the very small, lowest value diamonds from the recovery process further contributing, as expected, to fewer carats recovered.
- 1,077,730 carats sold at an average value of \$89 per carat (US\$67 per carat) for total proceeds of \$95.8 million (US\$71.7 million) in comparison to 1,113,724 carats sold at an average value of \$89 per carat (US\$69 per carat) for total proceeds of \$99.1 million (US\$76.8 million) in Q2 2018. It is important to note that most of the carats sold in Q2, 2019 were from the Hearne and SWC kimberlites as per plan, which contain lower average values per carat than the 5034 ore body, that made up most of the production in the previous year. The achievement of similar average values per carat sold year over year is very encouraging and can be attributed to the ongoing engagement with its JV Partner, De Beers Canada to focus on optimizing the process facilities recoverable size frequency distribution.

Q2 2019 production statistics¹

2019 Q2	2018 Q2	YOY	Variance
Total tonnes mined (ore and waste)	10,865,263	10,285,000	6%
Ore tonnes mined	746,583	341,000	119%
Ore tonnes treated	882,374	899,000	-2%
Carats recovered	1,730,147	1,930,500	-10%
Carats recovered (49% share)	847,772	946,000	-10%
Recovered grade (carats per tonne)	1.96	2.15	-9%

¹All figures reported are on 100% basis unless otherwise stated

Q2 2019 diamond sales

At the company's Q2 2019 sales, values for the larger, (greater than 5 carats), better quality diamonds that contribute the majority of the company's revenue, remained stable. However, values for smaller diamonds and lower quality categories have again come under pressure.

Q2 2019 summary

Q2 2019 production results were in line with the company's expectations, with over 10.8 million tonnes of material mined, 6% higher than the same period last year. The total carats recovered and grade in Q2 2019 were 10% lower than the same period last year, but ahead of plan. The lower grade and carats recovered during Q2 2019, as stated in previous announcements, are driven by the grade and carats associated with the source of ore feed for each period. In Q2 2019 the majority of the plant throughput consisted of the Hearne and SWC Kimberlites which contain lower average values per carat than the 5034 Kimberlite, where majority of the production was sourced from in Q2 2018.

The company's sales results in Q2 2019, and year over year value per carat performance demonstrate that the plant process changes are having a positive impact on the average value of the diamonds recovered. Considering that lower quality ore was being mined during Q2 2019 in comparison to Q2 2018, and in addition to a softer diamond market year over year, achieving similar average values per carat in Q2 2019 is very encouraging. The company and its JV partner, De Beers Canada, continue to implement these changes and expect full completion by early Q2 2020. Therefore, the company is well positioned for 2020 and beyond, as it plans to mine larger percentages of the 5034 Kimberlite.

The plant treated 882,374 tonnes and produced over 1.73 million carats in Q2 2019, in comparison to 899,000 tonnes treated and 1.93 million carats recovered in Q2 2018; 2% and 10% lower than the same period last year respectively, but slightly ahead of plan for the first half.



A haul truck at work at the Gahcho Kué diamond mine, a joint venture between De Beers Canada Inc. (51%) and Mountain Province Diamonds Inc. (49%). De Beers Canada photo

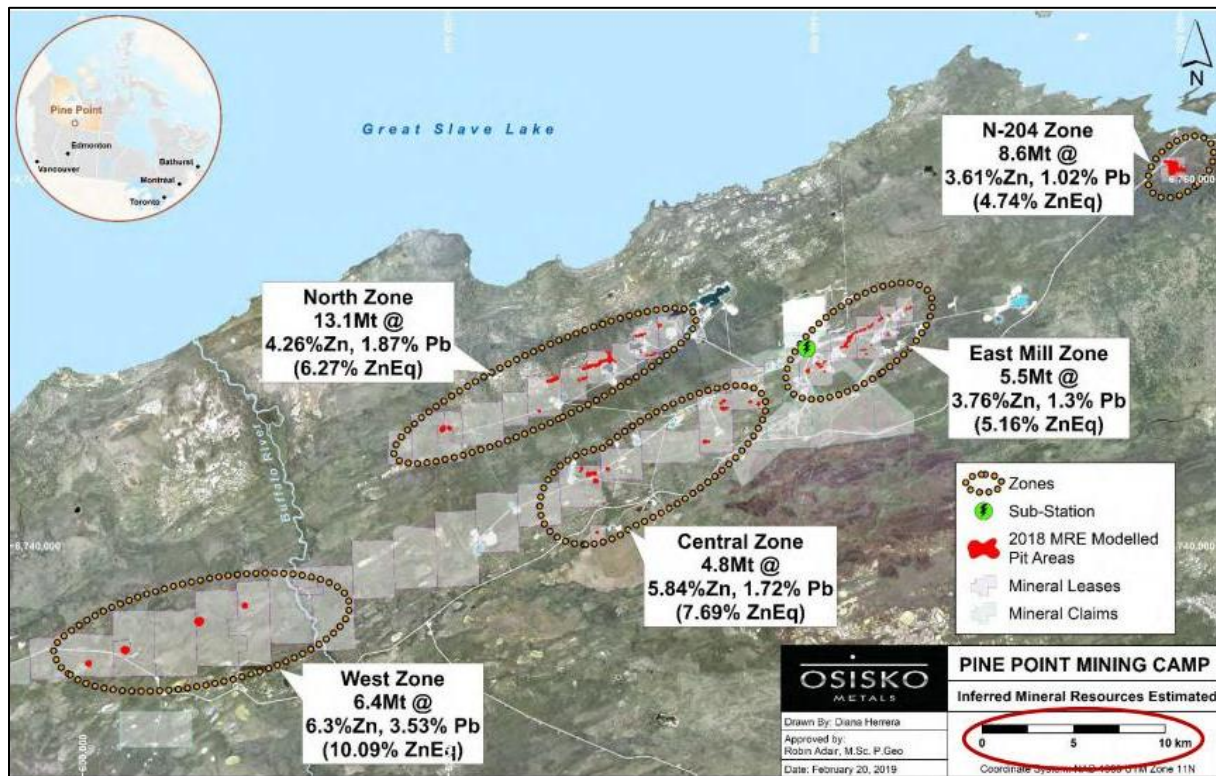
Innovative airborne gravity survey to be flown across Pine Point project

Osisko Metals Incorporated will be flying an [airborne gravity gradiometry \(AGG\)](#) survey this month. The survey will be utilized to identify new prismatic type deposits in conjunction with a newly developed GIS compilation and drill hole database. The mineralization found at Pine Point is typically unresponsive to previously available airborne geophysical tools and the forthcoming AGG survey is a first for the property.

The AGG survey will be operated and processed by CGG Canada Services Ltd. using their Falcon system. The survey will be flown on a helicopter platform known as HeliFalcon. It will fly slower and lower compared to other fixed wing options providing exceptional resolution for detailed mapping. The survey will be flown over the Central, North and East Mill Zone (see Figure 1).

“With the tight line spacing of 50 metres and the ability to fly along the mineralized trends at Pine Point, we believe this survey offers a unique opportunity to make a new discovery in the camp. Previous operators simply did not have the tools we have today to generate targets at Pine Point. Combined with the scale of the trends, the potential to identify more Prismatic Type deposits is very compelling. Historically, Cominco Ltd. focused on the Prismatic type deposits as they were often easier to mine and higher grade relative to the tabular type deposit,” said Jeffrey Hussey, President and CEO of Osisko Metals.

AGG surveys measure the change in density between the lighter host rock and denser sulphide mineralization. The Pine Point mineralization, including previously mined ore, is almost exclusively a combination of sphalerite (zinc sulphide mineral) and galena (lead sulphide mineral).



Results from the airborne gravity gradiometry survey are expected in August. Osisko Metals image

TMAC exploration results include high-grade intercepts at Doris, Madrid North

TMAC Resources Inc. provided second quarter exploration results, which include underground drilling targeted at growing the high-grade Doris North BTB Extension as well as surface results from the winter programs at Doris and Madrid North. Also included are limited initial results from the 2019 summer program.

For the third quarter, underground drilling at Doris North BTB Extension continues, regional exploration programs ramp up, and the Boston Camp has been opened with drilling to commence soon.

Doris North btd extension highlights (drilling from underground)

- TMDBE-19-50043: 330.7 g/t Au over 3.4 metres and 146.8 g/t Au over 1.0 metres
- TMDBE-19-50044: 16.9 g/t Au over 0.4 metres and 81.2 g/t Au over 1.2 metres

Madrid North Suluk highlights (drilling from surface)

- TMMSU-19-00015: 13.9 g/t Au over 13.7 metres and 5.3 g/t Au over 4.5 metres and 9.5 g/t Au over 2.4 metres
- TMMNE-19-00020: 40.2 g/t Au over 0.9 metres
- TMMSU-19-00022: 4.1 g/t Au over 5.0 metres and 3.3 g/t Au over 6.1 metres and 27.5 g/t Au over 3.2 metres
- TMMSU-19-00023: 10.0 g/t Au over 3.0 metres and 14.3 g/t Au over 5.5 metres and 10.8 g/t Au over 9.3 metres

Madrid North patch 7 highlights (drilling from surface)

- TMMP7-19-000028: 8.0 g/t Au over 1.7 metres and 9.5 g/t Au over 2.0 metres and 8.4 g/t Au over 1.3 metres and 50.0 g/t Au over 1.0 metres
- TMMP7-19-000029: 14.4 g/t Au over 7.4 metres and 13.0 g/t Au over 2.4 metres and 9.4 g/t Au over 11.0 metres

“Underground diamond drilling on the Doris North BTB Extension zone continued to expand the high-grade mineralization to the north, in this quarter stepping out a further 60 metres from previous results in the first quarter,” said Jason Neal, President and CEO. .

Also, drilling from surface at Doris intersected consistent mineralization, with visible gold noted, a further 325 metres to the north of the established resources, and at a shallower depth than the Doris North BTB Extension. At this point we do not have information to determine if this a continuation of Doris North BTB Extension, fault offset block, or a new mineralized zone. Expanding the BTB Extension zone adds high-grade mineralization that will be mined in the near future; however, encountering similar mineralization on a significant step out drill hole increases our confidence in the long-term sustainability of Doris operations,” he added.

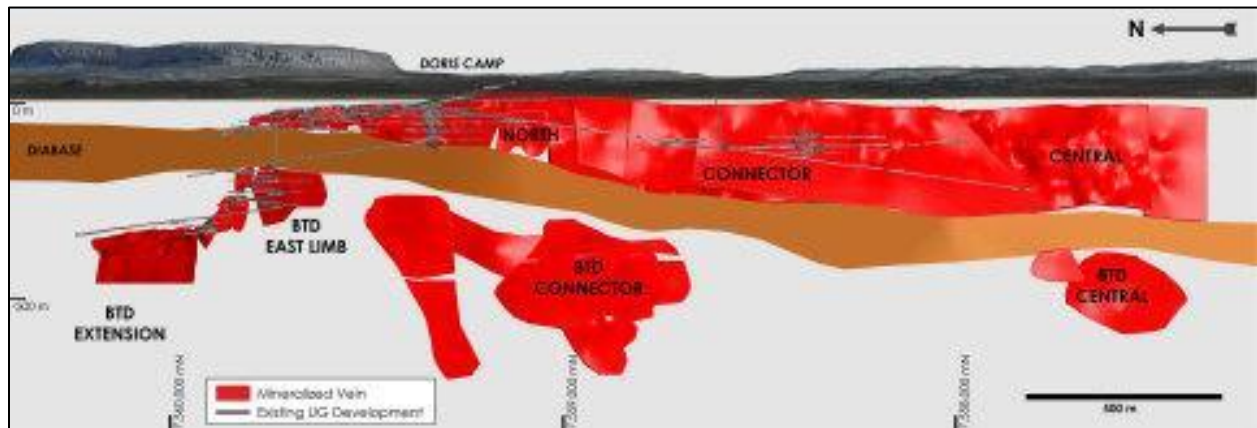
“Boston may be the best of the currently identified deposits at Hope Bay and we are enthusiastic about getting drills turning again for the first time in nearly two years. Our geology

team is now set up at the Boston camp and our summer program is soon kicking off. Our third quarter exploration release will include the initial results from this program.”

For more detail on:

- **Doris – second quarter 2019 exploration drilling**
- **Madrid North: Suluk And Patch 7**
- **Regional exploration programs**

See the full release, which also includes multimedia, [here](#).



*Doris deposit longitudinal section showing the mineralized zones and current lateral development.
(Graphic: Business Wire)*

De Beers Group carbon capture project gets NRCan funding

De Beers Group’s carbon-capture research at the Gahcho Kué mine in Canada has received a funding boost following the award of a \$675,000 grant from Natural Resources Canada’s Clean Growth Program towards pioneering research in partnership focused on delivering carbon-neutral diamond mining. The project in Canada is part of a De Beers Group global research program that includes studies, not only in Canada, but also in Botswana to allow comparisons between different climates and geology.

De Beers Group has been working with leading academics from The University of British Columbia, Trent University, University of Alberta and Institut national de la recherche scientifique (INRS) on researching the potential to store large volumes of carbon in processed kimberlite through mineral carbonation. With laboratory experiments having already proved successful, the grant will support larger-scale field demonstrations at the Gahcho Kué Mine.

Greg Dipple, project lead and professor at the Bradshaw Research Initiative for Minerals and Mining (BRIMM) at UBC, said: “We’ve demonstrated rapid carbon fixation within days to weeks in the lab, but the challenge is to reproduce this success at large volumes. This generous funding from Natural Resources Canada and De Beers Group will allow us to test these technologies at a larger scale at active mine sites.”

Bruce Cleaver, CEO, De Beers Group, said: “We are immensely proud of this collaborative piece of work between industry and academia, and with excellent progress in the project to date

there is great potential to achieve carbon-neutral mining operations at sites where this type of rock is present.”

The project involves injecting carbon dioxide into processed kimberlite rock in order to accelerate the naturally occurring process of mineral carbonation, whereby processed mine rock (material left after the recovery of diamond from source rock, kimberlite) sequesters the



De Beers has received a \$675,000 grant from NRCan's Clean Growth Program for carbon-neutral diamond mining research. De Beers Canada photo

carbon dioxide as a stable and benign carbonate mineral. The research offers great opportunity as the carbon storage capabilities of kimberlite processed while mining is such that only 10 per cent of the rock's storage potential would need to be harnessed to capture the carbon dioxide emissions of a whole mine.

Agnico Eagle reports second quarter 2019 results

Agnico Eagle Mines Limited reported quarterly net income of \$27.8 million, or \$0.12 per share, for the second quarter of 2019. This result includes non-cash foreign currency translation gains on deferred tax liabilities of \$5.9 million (\$0.03 per share), derivative gains on financial instruments, mark-to-market and other adjustments of \$3.3 million (\$0.01 per share) and non-cash foreign currency translation losses of \$4.1 million (\$0.02 per share). Excluding these items would result in adjusted net income¹ of \$22.7 million or \$0.10 per share for the second quarter of 2019. In the second quarter of 2018, the company reported net income of \$5.0 million or \$0.02 per share.

Included in the second quarter of 2019 net income, and not adjusted above, is non-cash stock option expense of \$3.3 million (\$0.01 per share).

In the first six months of 2019, the company reported net income of \$64.8 million, or \$0.28 per share. This compares with the first six months of 2018, when net income was \$49.9 million, or \$0.21 per share.

“The second quarter of 2019 was another period of strong operating performance with production and costs tracking well with guidance. One of the key highlights in the quarter was the declaration of commercial production at our Meliadine mine in Nunavut,” said Sean Boyd,

Agnico Eagle's Chief Executive Officer. "With Meliadine ramping up to full production over the balance of the year and Amaruq on schedule to achieve commercial production in the third quarter of 2019, the company is well positioned for a strong second half from both a financial and operational perspective."

Second quarter of 2019 highlights include:

- Solid operating results – Payable gold production² in the second quarter of 2019 was 412,315 ounces (including pre-commercial production ounces of 29,699 ounces at Meliadine and 2,147 ounces at Amaruq) at production costs per ounce of \$735, total cash costs per ounce³ of \$652 and all-in sustaining costs per ounce⁴ of \$953. Production costs, total cash costs per ounce and AISC per ounce exclude the pre-commercial production ounces relating to Meliadine and Amaruq
- Meliadine mine declared commercial production on May 14, 2019 – Total pre-commercial ounces of gold produced were 47,281 (including 17,582 ounces in the first quarter of 2019). Total capital costs for the development of Meliadine were approximately \$830 million, which is below the original forecast of \$900 million.
- Amaruq project remains on schedule for commercial production – Mining was impacted by slower than expected dewatering activities (related to adverse weather conditions) and a longer than expected caribou migration period. Despite this, the project continues to ramp up, with commercial production expected to be achieved late in the third quarter of 2019. At the end of the second quarter of 2019, a test batch of low-grade Amaruq ore was processed in the Meadowbank mill confirming ore characteristics and recoveries. Full year 2019 production guidance for the Meadowbank complex remains unchanged at 230,000 ounces of gold, including approximately 95,000 to 105,000 ounces from Meadowbank
- Production and cost guidance maintained for 2019 – Total production guidance remains unchanged at 1.75 million ounces of gold (including pre-commercial production from Meliadine and Amaruq). The company anticipates that total cash costs per ounce and AISC per ounce for 2019 will continue to be in the range of \$620 to \$670 and \$875 and \$925, respectively
- Increased Capital Budget for 2019 – Total capital costs for 2019 are now estimated at \$750 million (previous guidance was \$660 million). The increased capital costs are primarily related to lower pre-commercial gold sales credited against capital at Meliadine, the advancement of the Amaruq underground development program (based on positive exploration results to date) and accelerated spending on the Meliadine saline water treatment system
- A quarterly dividend of \$0.125 per share was declared

[See full release with tables](#) which also includes more details on the following:

- Exploration drilling continues to expand known mineralized zones at Amaruq
- Whale Tail deposit conversion and exploration results
- V Zone – drilling extends ore shoot at depth
- Exploration outlines southwest extension at depth in Tiriganiaq

Stornoway announces second quarter 2019 production and sales results

Stornoway Diamond Corporation announces production and sales results at the Renard Diamond Mine for the quarter ended June 30, 2019. Highlights are as follows:

- 460,832 total carats sold in two tender sales for gross proceeds¹ of \$47 million² at an average price of US\$76 per carat (\$102 per carat²). In terms of total carats sold, pricing and gross proceeds, this represents variations of +7%, -9% and -1% over the first quarter, respectively. Second quarter diamond sales represent diamonds recovered during the first quarter.
- Second quarter diamond production was 463,136 carats recovered from the processing of 695,934 tonnes of ore at an average grade of 67 carats per hundred tonnes (“cpht”). Carats recoveries increased by 4% compared to the first quarter, mainly due to greater plant utilization. The average processing rate was 7,648 tonnes per day, above the budgeted rate of 7,000 tonnes per day.

Second quarter sales results

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Patrick Godin, President and CEO of Stornoway, commented “During the second quarter, both mining and processing operations at Renard have demonstrated strong performance, with an average ore hauling rate of 6,813 tonnes per day from the underground mine, and an average processing rate well above the budgeted rate. The average grade recovered is lower than for the first quarter, as a result of mining of lower grade ore blocks from the block cave sequence at Renard 2. The average grade is anticipated to increase for the remainder of the year, as the extraction of higher grade production ore from the Renard 3 kimberlite pipe ramps up, and with the development of the second underground mining horizon of Renard 2, also of higher average grade.”

Second quarter sales results

Two tender sales were completed during the second quarter from diamonds recovered between December 27, 2018 and March 29, 2019. Table 1 summarizes second quarter sales results and compares these results to those of the first quarter of 2019 and to those of the second quarter of 2018. Table 2 provides a breakdown between run-of-mine and supplemental diamonds sold. See the [full release](#).

Sabina continues to expand Nuvuyak discovery with strong gold values

Includes 18.71g/t Au over 3.5m and 10.04g/t Au over 18m from drill hole 19GSE566

Sabina Gold & Silver Corp announced [further results](#) from this year's spring drilling program at its 100% owned Back River Gold Project in Nunavut Canada.

On June 19, 2019 the company announced results of an up-plunge hole at the Vault Zone at Umwelt (hole 19GSE569) which returned 14.97 g/t Au over 21.75m including 28.94 g/t Au over 5.20m. Further drilling during the spring, includes an up-plunge drill hole at the Nuvuyak discovery (hole 19GSE566), and two holes, (19GSE563 and 19GSE565) drilled to test portions of the Llama gold structure.

At Nuvuyak, drill hole 19GSE566 tested a folded section of the main anticline structure approximately 50m up plunge of the original discovery area. Multiple broad zones of mineralized iron formation were intersected from 719m to 836m with a number of gold mineralized intervals highlighting 18.71 g/t Au over 3.50m, 2.59 g/t Au over 19.0m, 4.21 g/t Au over 3.20m and 10.04 g/t Au over 18.00m.

At the Llama Extension target, where aggressive step out drilling has successfully demonstrated over 500m of potential down plunge resource extension from the existing underground NI 43-101 resource, hole 19GSE563 tested a 150m undrilled gap area between the resource and the upper portions of the Llama Extension. This hole drifted lower than planned, only testing an eastern portion of the full structure, but importantly, it returned strong values that confirm continuity of the gold structure with 5.48 g/t Au over 4.95m including 31.38 g/t Au over 0.60m and 3.84 g/t Au over 5.60m including 15.27 g/t Au over 0.85m. Drill hole 19GSE565 tested a down plunge, lower section of the Llama Extension mineral zone to provide additional information on geometry of the structure, and returned numerous intercepts of well mineralized iron formation that include; 6.59 g/t Au over 4.75m including 26.40 g/t Au over 1.10m, 4.24 g/t Au over 10.65m and 9.70 g/t Au over 1.00m.

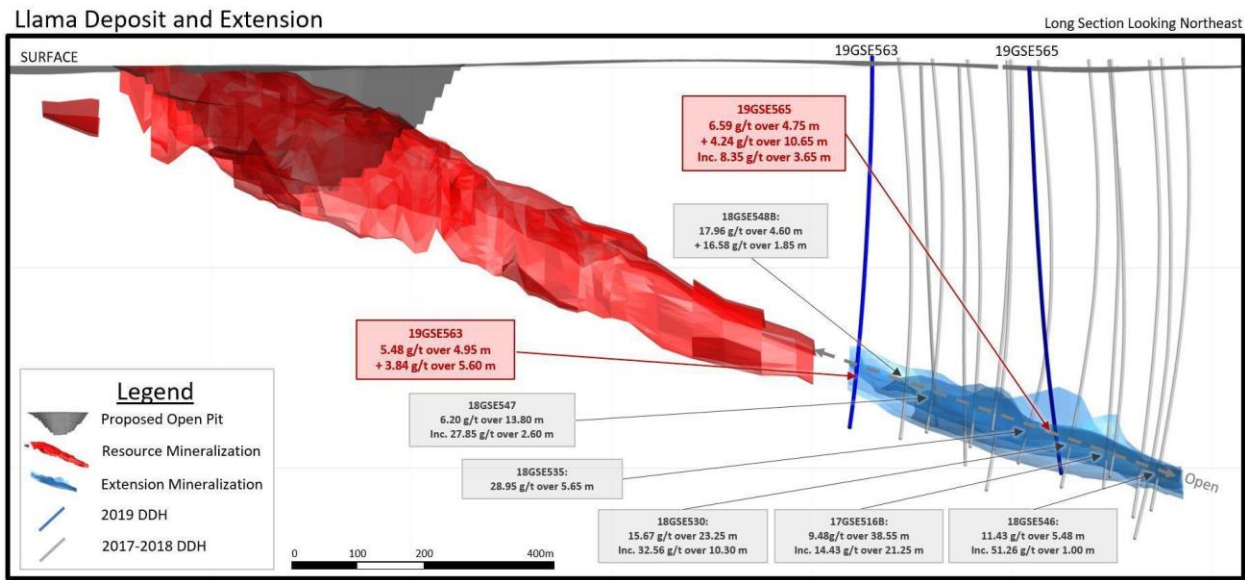
Nuvuyak discovery drilling

The Nuvuyak Zone was discovered in 2018 with drill hole 18GSE545 which returned 11.58 g/t Au over 39.50m – see news release August 20, 2018. The mineral zone which is located approximately 800m down plunge of the Goose Main deposit has now been drilled for over 250m of strike length and exhibits many of the geologic and mineralogic characteristics of the existing Goose Property deposits (Llama, Umwelt and Goose Main) The deposit is open up and down plunge as well as in the down dip direction along the limbs of the anticlinal fold. Examples of select significant intervals from recent Nuvuyak drilling include; drill holes 18GSE559W1 which returned 12.41 g/t Au over 8.70m, 18GSE558 which returned 16.39 g/t Au over 13.20m and 18GSE558W2 which returned 5.81 g/t Au over 34.60m.

Llama extension drilling

Sabina has now tested the Llama Extension target with 16 drill holes over a strike length of greater than 500m. The folded and sulphidized iron formation host structure remains open at depth. Currently, the feasibility only incorporates an open pit operation at Llama with no underground production. Recent drilling suggests the opportunity for future expansion and

addition of an underground mining scenario at the Llama complex. Significant gold mineralization below the planned Llama open pit, including existing NI 43-101 resources and the new Llama Extension, potentially now continues for greater than 1200m down plunge. Examples of select significant intervals from recent Llama Extension drilling along the strike of the new zone includes, drill holes 18GSE535 which returned 28.95 g/t Au over 5.65m, 17GSE516B which returned 9.48 g/t Au over 38.55m and 18GSE546 which returned 11.43 g/t Au over 5.48m.



De Beers Canadian team wins inclusion and diversity award

De Beers Group's Canadian operations have been celebrated on the international stage for their promotion of inclusion and diversity.

The International Association of Business Communicators' (IABC) Gold Quill Award of Merit was presented in Vancouver during the IABC World Conference in June.

The award is for communications work by De Beers Group's three-person Canadian Corporate Affairs communications team to support inclusion and diversity initiatives in 2017 and 2018.

The campaign focused on raising awareness among Canadian employees and included developing and executing plans for grassroots engagement of employees, demonstrating support for the initiative from senior leaders and coordinating events and activities to maintain momentum in this area.

One of the judges reviewing the submission described it as a "thoroughly thought through, well-executed, professional approach to communication that met an important business need for De Beers" that recognized "the challenges in reaching the particular audiences that face a mining operation".

There was also praise for how the company used "a range of approaches, including leadership communication, training Strategic Communications Manager materials, experiential and interactive elements, onsite and print."

Tom Ormsby, Strategic Communications Manager for De Beers Group Managed Operations in Canada, said: “Our goal in developing an effective communications program was to provide employees with the information about why inclusion and diversity is so important both to society and to the future success of the company through diverse views.

“Communicating such a complex issue is never easy, but our team believes in the commitment, which makes it easier to move forward. To also receive recognition in this way from our professional peers affirms that the tools and tactics we developed were appropriate, effective and made a positive impact.”

As a global thematic #HeForShe champion of UN Women, De Beers Group has invested US\$3 million to advance women and girls in its producer countries, including US\$600,000 in Canadian scholarships and other opportunities to encourage women and girls to take science, technology, engineering and maths (STEM) and STEM-like education programs.



The award-winning trio (from left): Tom Ormsby, Candace Thomson, Communications Specialist, and Terry Kruger, Senior Communications Officer. De Beers Canada photo

De Beers interim financial results for 2019

De Beers reported demand for rough diamonds was subdued in the first half. In late 2018, US retail results were impacted by stock market volatility and US-China trade tensions which resulted in both retailers and the midstream starting 2019 with higher than anticipated stock levels. During 2019, demand outside the US continued to be impacted by US-China trade tensions, the Hong-Kong protests and a stronger US dollar, particularly affecting China and the Gulf. In the US, retail store closures and destocking have also impacted demand for polished diamonds and, in turn, midstream demand for rough diamonds. Underlying GDP growth remains supportive of consumer demand growth and is expected to bring midstream and

retailer stocks back to more normalized levels as we move into 2020, subject to an improving macroeconomic environment.

Financial and operational overview

Underlying EBITDA decreased by 27% to \$518 million (30 June 2018: \$712 million) due to the challenging midstream trading environment and slowing consumer demand growth, which has resulted in a decrease in the rough diamond price index and realized price, as well as lower margins in the trading business.

Total revenue decreased by 17% to \$2.6 billion (30 June 2018: \$3.2 billion), with rough diamond sales declining by 21% to \$2.3 billion (30 June 2018: \$2.9 billion). Consolidated rough diamond sales volumes decreased by 13% to 15.5 million carats (30 June 2018: 17.8 million carats), while the average rough price index decreased by 4%. The lower rough diamond sales reflected higher than expected polished stocks at retailers and the midstream at the beginning of 2019, with overall midstream inventory levels continuing to be high throughout the first half. The average realized rough diamond price decreased by 7% to \$151/carats (30 June 2018: \$162/carats), driven by the reduction in the average rough diamond price index and a change in the sales mix in response to weaker conditions.

Mining and manufacturing

In Canada, production decreased by 6% to 2.1 million carats (30 June 2018: 2.3 million carats), due to the planned processing of lower grades at Gahcho Kué. Victor production decreased by 2% as it reached the end of its life during the second quarter of 2019.

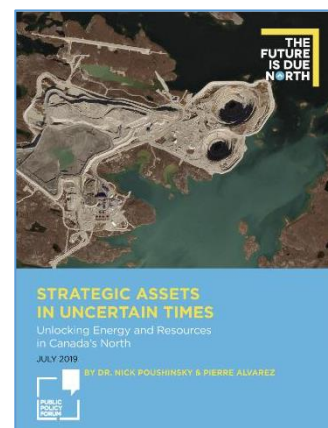
Operational outlook

Rough diamond trading conditions in the midstream are expected to continue to be challenging in the short term as a result of high polished inventory levels. Longer term, the outlook remains positive in light of the expected growth in consumer demand and a reducing supply of diamonds. Production guidance (on a 100% basis, except Gahcho Kué on an attributable 51% basis) has been revised to around 31 million carats, at the lower end of the previous range of 31-33 million carats, in response to the weaker trading conditions described above.

[View release.](#)

Think tank calls for Northern Vision

The Public Policy Forum has produced “[Unlocking Energy and Resources in Canada’s North](#)” focused on lack of northern vision. Some opening lines: *Canada was once seen as a world leader in economic stability and predictability; in the North the potential associated with such stability is diminished by a growing regulatory lag. While progress is being made on Indigenous self-government and finalizing land claims, confusion over who has authority over resource development among federal, territorial and Indigenous governments acts to send mixed messages to investors. The resulting regulatory slowness has resulted in a*



decline in investment, domestically and internationally, at the same time as resource development in other Arctic nations is surging both onshore and off.

With many years' experience working in the North, the authors, Nick Poushinsky and Pierre Alvarez know what they're talking about. Have a look, it's a quick, and a good read.

Another think tank re: Indigenous consultation & resource development

The School of Public Policy at the University of Calgary has released a Communiqué: [*Understanding Consultation and Engagement with Indigenous Peoples in Resource Development*](#). Some opening comments from the document's Summary:

The Federal Court of Appeal overturning approval for the Trans Mountain pipeline expansion in 2018 arguably signaled a new level in the difficult struggle between Canada's resource development and the Crown's duty to consult Indigenous Peoples directly affected by a development project. It may not be the last case where the federal government finds itself unable to adequately meet both of these goals.

This is, at least in part, because Indigenous Peoples have a different understanding of consultation compared to industry and government. Indeed, all three groups frame these challenges in their own way. Until they begin to better understand one another, and particularly until government and industry begin to better understand the Indigenous perspective, the courts will continue to be the only avenue for the resolution of differing views.

A review of documents related to resource development and the duty to consult, sampled from all three groups [public government, Indigenous governments and industry], demonstrates the different worldviews each has on these subjects. One of the most critical issues emerging right now is the "free, prior and informed consent" required by the United Nations Declaration on the Rights of Indigenous Peoples, endorsed by Canada. To business and industry, that looks like a veto that Indigenous Peoples can use to stop any project they do not support. Indigenous groups, however, do not see it as a veto. Since, culturally, they tend towards making decisions by consensus, they are more likely see it as the need for everyone to keep talking until they reach an agreement.

Check it out [here](#).



New Mining North Works! Publication: Explore for More

There's a new publication from the Chamber of Mines' Mining North Works! public awareness program! [Explore for More](#) provides information, imagery, and infographics about 'all things mining' in the Northwest Territories and Nunavut.

The 40-page publication includes introductory details about the North's geology, its rich history, and strong mining legacy. There's information demystifying the mineral resources cycle; a multi-step process spanning years, often decades, which begins with exploration and concludes with closure and reclamation. Keep in mind, throughout this process there's only one phase where a mining company gets to make money – production.

MNW! Explore for More also includes an overview of the two territories' operating mines, why mineral resources work for the North, sections on environmental protection, minerals in our lives, taxes and royalties, and some concluding thoughts about our industry's vision for the future.



This publication, the third under the MNW! banner, along with www.miningnorthworks.com, are the result of a partnership of the NWT & Nunavut Chamber of Mines, which is the lead funder, industry, governments, and various organizations. Previous MNW! publications include career catalogues for [NWT](#) and [Nunavut](#) profiling industry workers.

MNW! would like to acknowledge the Government of the Northwest Territories Industry, Tourism and Investment Department Support for Entrepreneur and Economic Development for providing funding to produce this new publication.

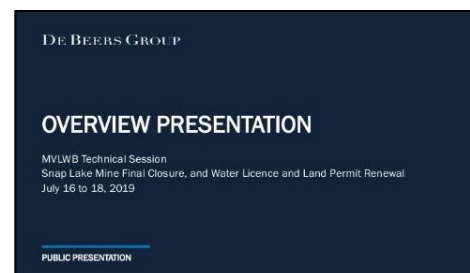
Snap Lake closure activities to begin in 2020

Closure activities at De Beers Snap Lake mine in the NWT are expected to begin in 2020, according a July 16-18, 2019 overview presentation filed with the Mackenzie Valley Land and Water Board.

Closure will begin following approval of the final closure and reclamation plan and issuance of the new water licence, anticipated in Q1 2020. The new water licence would be 15 years and include eight years closure, five years post closure, and two years security return/contingency. Monitoring will continue through closure and post-closure.

For details, see the De Beers Group public [overview presentation](#) filed on the MVLWB public registry. For all files related to the closure proceeding, click [here](#).

Closure will involve rock pile cover, water management, building demolition, revegetation, potential wetlands construction. Post-closure includes monitoring. Mining ended at Snap Lake in December 2015 with the site then shifting to extended care and maintenance.



Welcome new members!

Please join us in welcoming the newest Chamber of Mines members!

- **Bird Heavy Civil Ltd.**, based in St. John's, Newfoundland, is an Indigenous-owned construction and building supply company which provides rental and project management services. Formerly, H.J. O'Connell, the company has decades of experience working in the northern mining. Contact – Darryl Gillingham, Vice-President, Industrial Development & Energy, darryl.gillingham@bird.ca; 709-726-9106; website – www.bird.ca.
- **Orion Fire Distribution Limited**, based in Surrey, BC, is a supplier of promotional products and various other products to mine fire services. Contact – Ken Hansen, General Manager, ken@orionfire.com; 604-372-0113; website – www.orionfire.com.
- **SEI Industries**, based in Delta, BC., manufactures products with applications related to the mineral resources sector. The company specializes in environmental services and providing equipment. Contact – Dev Saini, Marketing Coordinator, dev@sei-ind.com; 604-940-9566; website – www.sei-ind.com.

Calendar of events

- **2019 Geoscience Forum** – The 47th Annual Yellowknife Geoscience Forum will be held Tuesday, November 19 - Thursday, November 21, 2019 and is a joint initiative of the NWT & Nunavut Chamber of Mines and the NWT Government, Industry Tourism, & Investment. Abstracts are now being sought for the 2019 Geoscience Forum. Click [here](#) to get the details. For additional information, contact Conference Coordinator, Cheryl Wourms at the NWT & Nunavut Chamber of Mines, conference@miningnorth.com.
- **AME Roundup 2020** – Mark your calendars for AME mineral exploration Roundup 2020, January 20-23 at the Vancouver Convention Centre. For more information, visit [here](#).
- **Northern Lights 2020**, is a high-profile business and cultural showcase of Nunavut, Nunavik, and Labrador / Nunatsiavut hosted by the Baffin Regional Chamber of Commerce and the Labrador North Chamber of Commerce. It will be held at the Shaw Centre in Ottawa, Ontario, February 5 - 8, 2020. The four-day event is expected to attract 200 exhibitors and 1,200 delegates. For more information, visit [here](#).

Member news releases this past month

- 2 August 2019 [Seabridge Gold closes \\$17.0 million private placement](#)
- 31 July 2019 [North Arrow closes non-brokered C\\$1.25 million private placement financing](#)
- 31 July 2019 [De Beers Canadian team wins inclusion and diversity award](#)
- 31 July 2019 [Nighthawk expands drilling at Colomac zones 2.0 and 3.0](#)
- 31 July 2019 [TerraX completes phase one drilling at Sam Otto, commences drilling at North Giant](#)
- 29 July 2019 [Rover Metals engages FronTier Flex Marketing](#)
- 29 July 2019 [Blue Star Gold Corp. exercising option for 100% of Ulu gold project in Nunavut and announcing private placement with insider participation and related transactions](#)
- 25 July 2019 [De Beers interim financial results for 2019](#)
- 24 July 2019 [Osisko Metals grants stock options](#)

- 24 July 2019 [Seabridge Gold secures \\$17.0 million private placement](#)
- 24 July 2019 [Agnico Eagle reports second quarter 2019 results](#)
- 23 July 2019 [De Beers Group carbon capture project receives research funding from natural resources Canada's clean growth program](#)
- 22 July 2019 [Rover Metals private placement update](#)
- 18 July 2019 [Fortune Minerals announces new discovery at NICO](#)
- 18 July 2019 [Sabina Gold & Silver continues to expand Nuvuyak discovery with strong gold values over broadly mineralized iron formation](#)
- 18 July 2019 [Blue Star Gold updates activities and progress on permitting for 2019 field program](#)
- 17 July 2019 [Innovative airborne gravity gradiometry survey to be flown across Pine Point Project](#)
- 17 July 2019 [Mountain Province Diamonds announces second quarter 2019 results](#)
- 16 July 2019 [Osisko Metals announces closing of fully-subscribed \\$10 million private placement](#)
- 15 July 2019 [TMAC Resources' second quarter exploration results](#)
- 15 July 2019 [North Arrow starts summer exploration at Loki Diamond Project, Lac de Gras, NWT](#)
- 11 July 2019 [North Arrow announces non-brokered C\\$1.19 million private placement financing](#)
- 11 July 2019 [Auryn Closes \\$1.9 million flow-through funding](#)
- 10 July 2019 [Stornoway announces second quarter 2019 production and sales results](#)
- 9 July 2019 [A golden way to celebrate Canada's Arctic heritage and the 20th anniversary of Nunavut](#)
- 8 July 2019 [Auryn commences drilling at Committee Bay gold project](#)
- 8 July 2019 [TerraX commences summer drill program at Yellowknife City gold project](#)
- 8 July 2019 [North Arrow and Dominion discover kimberlite, LDG joint venture diamond project](#)
- 4 July 2019 [Silver Range Resources Ltd. announces a shareholder holding in excess of 10% of its currently issued share capital](#)
- 4 July 2019 [North Arrow reports start of drill program at LDG joint venture diamond project](#)
- 4 July 2019 [New kimberlite discoveries may add to future of Gahcho Kué Mine](#)

Presentations

[TMAC June 2019 Annual Meeting](#)

Exploration & development news briefs

Auryn Resources Inc. has [commenced drilling at its Committee Bay gold project](#) in Nunavut. The fully funded core drill program is anticipated to test up to four targets based on a combination of geological observations and data analyzed with machine learning. It will consist of approximately 3,000 meters.

"We are very excited to have drills turning again at Committee Bay, where we feel there are significant opportunities to discover world-class high-grade gold deposits. We believe the addition of machine learning to aid in the already extensive targeting process will help our exploration team in the search for high-grade discoveries," said Ivan Bebek, Executive Chairman & Director.

The company plans to drill along the 15-kilometer strike length of the Aiviq – Kalulik structural corridor, which has all the geological characteristics necessary to host major gold deposits with respect to alteration and structural preparation (Figure 1). To enhance the targeting efforts in the field, Auryn will be running induced polarization

surveys to identify both chargeability and conductivity targets along the corridor.

Auryn Resources Inc. announced that it has [closed its previously announced non-brokered flow-through private placement](#) of 633,334 flow-through common shares (the "FT Shares") at a price of CAD \$3.00 per FT Share (the "Offering") for gross proceeds of CAD \$1.9 million.

The company intends to use the net proceeds from the Offering to fund its summer exploration program at the Committee Bay gold project in Nunavut.

The FT Shares will qualify as "flow-through shares" (within the meaning of subsection 66(15) of the Income Tax Act (Canada)) and will be sold on a charitable flow-through basis. The gross proceeds of the sale of the Offering will be used to fund "Canadian exploration expenses" (within the meaning of the Income Tax Act (Canada)) to be incurred by no later than December 31, 2020 for renunciation to investors in the Offering effective December 31, 2019.

The FT Shares sold under the Offering will be subject to a four-month hold period and will not be offered or registered in the United States.

Blue Star Gold Corp. exercised its [option to acquire a 100% undivided interest in the Ulu Gold Property](#). To achieve this, Blue Star has amended its previous option agreement dated the 8 January 2018 with Mandalay Resources Corporation.

Blue Star's consideration to acquire 100% interest in the Ulu is:

- To pay \$450,000 in cash to Mandalay in lieu of issuing 15 million Blue Star common shares, with such payment being made upon the closing of the transfer of the Ulu and associated permits.
- Assume all environmental liabilities, past and present, of the Ulu property, including all current and future obligations to any regulatory agency.
- To arrange for a third party cash payment of \$200,000 for the 5 million Blue Star common shares presently held by Mandalay upon the Closing of the property transfer.

Mandalay's consideration is:

- To transfer to Blue Star a 100% interest in the Ulu and associated permits upon regulatory approval of the transfers.
- Assignment of its rights to the remediation security, currently standing at approximately \$1.68 million and held by the Nunavut Water Board.
- To transfer all right, title and interest in all structures, property and equipment located on the property.

Blue Star Gold Corp. intends to [drill this year on its priority gold targets within the company's 100%-owned Hood River concessions](#) in the Kitikmeot region of western Nunavut (the "Hood Property") and to map and sample in detail certain high-grade gold occurrences for future drilling programs.

Since our last update of March 21, 2019, the company has continued the planning and permitting of its inaugural drill program on its Hood Property. Blue Star is pleased to report that the Nunavut Impact Review Board ("NIRB") completed its review process, issuing its positive Screening Decision Report, dated June 14, 2019. Immediately following the NIRB decision, Blue Star commenced land use licencing with the surface landowner, the Kitikmeot Inuit Association ("KitiA") and to renew and amend the existing water licence administered by the Nunavut Water Board ("NWB").

On July 15, 2019, Blue Star received a land use permit to enable a team of senior geological and archeological consultants accompanied and assisted by two members from the hamlet of Kugluktuk to visit the North Fold Nose gold zone ("NFN") where the 2019 exploration program

will be focussing. The field studies are preliminary and expected to be done in less than a week. The purpose of study is two-fold. The archeologist will be assessing the work area to determine whether heritage resources exist in the vicinity, and if needed that any potential effects to these resources are suitably mitigated. The geological team will at the same time be prospecting the NFN; sampling surface occurrences, locating historical BHP drill collars and assessing options for seasonal camp sites.

The company's application to the NWB was initiated on June 18, 2019 for amending and renewing the existing authorization for its planned exploration program, to include locating a new camp site and commencing the 2019 exploration and drill program. On July 15, 2019, the NWB issued a renewed and amended water licence, 2BE-HRP1924, for the Hood River Project, clearing the way for the next and final step being the issuance by the KitiA of a land use licence allowing for camp establishment and commencement of exploration drilling.

Nighthawk Gold Corp. provided [additional drill results from the Colomac Gold Project](#) centrally located within its Indin Lake Gold Property, Northwest Territories, Canada. Drilling was expanded to target specific high-priority areas within Zones 2.0 and 3.0 of the Colomac Main sill where thirteen holes were completed for 4,503 metres, with all holes intersecting mineralization (Table 1, Figure 1).

Nighthawk's exploration strategy has evolved since the initial drill program at Zone 2.0 (see press release dated June 20, 2012), where the focus is now on the discovery and delineation of higher-grade shoots within the sill. All 38 drillholes reported to-date (12,824 metres) of the planned 35,000 metre to 40,000 metre drill program for 2019, have intersected mineralization. The success in locating and tracing new areas of higher-grade mineralization along the Colomac Main sill continues to validate the company's belief in the deposit's capacity to host discrete corridors of elevated grade (typically significant widths of over 2.0 gpt with internal higher-grade cores), some of which are broad domains of contiguous mineralization along strike and to depth that remain largely unexplored. This exploration strategy has been extremely successful leading to several new discoveries and is considered crucial to resource growth going forward.

Dr. Michael Byron, President and Chief Executive Officer said, "This latest drilling followed-up on recent discoveries of higher-grade mineralization in Zones 2.0 and 3.0. Our goal was to extend these known occurrences down-plunge and to test other highly prospective opportunities. Outcomes have been exceptional, resulting in a new discovery in Zone 2.0 and the successful expansion of three previous discoveries. We are extremely encouraged by our continued success in identifying new prospects and remain confident in our ability to track them along strike and to depth. This part of the sill has seen limited

exploration to-date but clearly shows the potential to deliver ounces.

North Arrow Minerals Inc. announced it has [closed the non-brokered private placement announced on July 11, 2018](#). The company has issued 17,904,286 units priced at \$0.07 per unit (the "Units") for gross proceeds of \$1,253,300. Each Unit issued under the private placement consisted of one common share in the capital of the company and one transferable common share purchase warrant (a "Warrant"). Each Warrant entitles the holder thereof to purchase one additional common share of the company at a price of \$0.10 for a period of five years up to July 31, 2024.

Insiders and advisors of the company participated in the private placement on the same terms and conditions as non-arm's length subscribers, subscribing for a total of 10,025,000 Units for aggregate proceeds of \$701,750.

Proceeds from the private placement will be used to advance North Arrow's Canadian diamond projects including the continued planning, permitting and funding of a 10,000t bulk sample of the Q1-4 diamondiferous kimberlite at the Naujaat Project, Nunavut, and ongoing exploration at the Loki diamond project in the Lac de Gras region of the Northwest Territories. Exploration drilling also continues at the company's LDG Joint Venture Diamond Project in the Lac de Gras region of the Northwest Territories.

In connection with the private placement, the company paid finders fees of \$15,099. All securities issued in the private placement are subject to a hold period expiring on December 1, 2019.

The company also announces it has received TSX Venture Exchange approvals related to warrant extension and

North Arrow Minerals Inc. reports it has been notified by joint venture partner and operator Dominion Diamond Mines [that kimberlite has been discovered in the first drill hole of the summer exploration drilling program](#) at the LDG Joint Venture Diamond Project, Northwest Territories. The drill hole (2700 /-450) was oriented to test an OhmMapper resistivity anomaly coincident with gravity and magnetic lows. The hole intersected kimberlite at approximately 40m down hole and remains in kimberlite at approximately 64m downhole with drilling still underway. A more detailed description of the kimberlite will be forthcoming upon completion of the program. For more details, please see the image and description for 'Grid 4 target' in North Arrow's news release dated July 4, 2019.

The ongoing drilling is part of a summer work program scheduled to also include LIDAR surveying, prospecting, till suitability mapping and sampling. The program is expected to run through to the end of July and is part of a \$2.8M 2019 exploration program designed to focus on kimberlite discovery in this prospective 147,200 hectare joint venture property located adjacent to the south of the Diavik

Diamond Mine. The 2019 exploration program is being fully funded by Dominion after which it is expected North Arrow will retain an approximate 21% interest in the project.

North Arrow Minerals Inc. announced the start of a [summer exploration program at its 100% owned Loki Diamond Project](#) in the Lac de Gras region of the Northwest Territories, approximately 30 km southwest, and 24 km west of the Ekati and Diavik diamond mines, respectively, and immediately adjacent to the west of North Arrow's LDG Joint Venture Diamond Project with Dominion Diamond Mines. This three-week program will consist of prospecting, till sampling, and ground geophysics to confirm and prioritize targets for follow up exploration drilling in the winter of 2020. This exploration is supported, in part, by a grant from the Northwest Territories' Mining Incentive Program.

Ken Armstrong, President and CEO of North Arrow, commented, "In 2018 North Arrow discovered kimberlite 465 on the Loki Project. At the time, the first new kimberlite discovery in the Lac de Gras region in over 5 years. Since then, the pace of discovery in the region has increased with the reported discovery of at least seven more kimberlites, including last week's announcement of kimberlite in the first hole of a drilling program at North Arrow's LDG Joint Venture Diamond Project with partner Dominion Diamond Mines. These recent discoveries show that this important diamond district remains highly prospective for the discovery of new diamond deposits. North Arrow's summer exploration program at Loki is the first step in potentially adding to this list of recent discoveries by confirming targets for drill testing during the winter of 2020." Please see North Arrow news releases dated April 5, 2018 and July 8, 2019 for details on North Arrow's kimberlite discoveries mentioned above.

North Arrow Minerals Inc. announced that it has [arranged a non-brokered private placement](#) of up to 17,000,000 units priced at \$0.07 per unit (the "Units") for gross proceeds of \$1,190,000. Each Unit to be issued in the private placement will consist of one common share in the capital of the company and one transferable common share purchase warrant (a "Warrant"). Each Warrant will entitle the holder thereof to purchase one additional common share of the company at a price of \$0.10 for a period of five years following the closing of the private placement. It is anticipated that key existing shareholders and insiders of the company will participate in the private placement on the terms described herein.

Proceeds from the private placement will be used to advance North Arrow's Canadian diamond projects including the continued planning, permitting and funding of a 10,000t bulk sample of the Q1-4 diamondiferous kimberlite at the Naujaat Project, Nunavut. Exploration drilling has also started at the company's LDG Joint Venture Diamond Project in the Lac de Gras region of the Northwest Territories (please see news release dated July

8, 2019 for details). Mobilization is also underway for a three-week exploration program at the company's Loki Diamond Project, located adjacent to the west of the LDG joint venture.

The company may pay finders' fees under the offering in accordance with applicable securities laws and the policies of the TSX Venture Exchange. All securities issued in the private placement will be subject to a statutory four month hold period. Closing of the private placement is subject to negotiation and execution of definitive documentation and receipt of all regulatory approvals, including approval of the TSX Venture Exchange.

Osisko Metals approved the granting of an [additional 100,000 incentive stock options](#) to a new Director, to acquire a total of 100,000 common shares of Osisko Metals Incorporated. The option grant is exercisable for a period of 5 years at a price of \$0.57 per share.

The options grant is subject to a vesting period of 3 years and all common shares issuable pursuant to the exercise of options are subject to a hold period of four months and one day from the date of the option grant.

Osisko Metals announce that it [has closed its previously announced "best efforts" brokered private placement](#), pursuant to which the Corporation sold an aggregate of 13,553,114 common shares of the Corporation that will qualify as "flow-through shares" (within the meaning of subsection 66 (15) of the Income Tax Act (Canada)) ("Flow-Through Shares") for aggregate gross proceeds of approximately \$10 million (the "Offering"). Under the Offering, 6,410,257 Flow-Through Shares were issued at a price of \$0.78 per Flow-Through Share for gross proceeds of approximately \$5 million and 7,142,857 Flow-Through Shares were issued at a price of \$0.70 per Flow Through Share for gross proceeds of approximately \$5 million.

Rover Metals Corp. engaged FronTier Flex Marketing to provide investor relations services.

FronTier Flex Marketing (FronTier) is an investor relations and marketing group with a home office in Toronto, Canada. FronTier will assist the company by increasing market awareness for the company using a number of financial market communications initiatives, including facilitating in-person introductions for the company with institutional and retail brokers in Toronto and other financial capitals, and through media distribution on national television, radio and multiple on-line channels.

Under the terms of the engagement, FronTier has been retained for a twelve-month period at \$90,000 (plus applicable sales tax) per the contract plus direct expenses. Rover Metals will grant 300,000 stock options to FronTier at an exercise price of CAD \$0.065 cents, vesting monthly over twelve months, expiring four years from the date of grant. Judson Culter, CEO at Rover Metals, states: "Rover's management team is looking forward to working with FronTier and creating awareness for our Toquima Gold and

Silver Project and our Cabin Lake Gold Project." [View release.](#)

Rover Metals raised CAD \$390,000 under its current private placement financing. The company sent a formal request to the Toronto Venture Exchange on Friday July 19, 2019 for approval to close the first tranche of its \$0.06 Unit Financing.

This email is a courtesy reminder to investors that the first closing date is nearing. It is anticipated that Rover will try to raise \$800,000 under the current financing.

The use of proceeds of the current financing will be to advance exploration work at the Toquima Silver and Gold project located in central Nevada, USA as well as to provide general working capital. The company remains very optimistic about the prospect of developing a gold resource at Toquima. Additionally, Kinross' Round Mountain Mine stops producing ore in approximately six month's time (at the current run rate) bringing the development opportunity for Toquima to the forefront (Toquima is located approx. 15 miles from Round Mountain).

Rover is also seeking to compliment its existing Board of Directors with the appointment of a new strategic director in the coming weeks.

It is anticipated that the company will also seek a flow-through financing in Q4 to finance exploration activities at its high grade gold Cabin Lake project in the Northwest Territories of Canada.

Seabridge Gold Inc. [secured a non-brokered private placement](#) from a single purchaser for one million common shares of the company at a price of \$17.02 per share for gross proceeds of \$17,020,000. No commissions are payable on this transaction. The proceeds from the financing will be used to fund general working capital requirements.

The private placement is expected to close on or about August 2, 2019 and is subject to customary closing conditions including, but not limited to, the approval of the TSX and the NYSE. The financing is being made by way of private placement in Canada and the issued shares will be subject to a four-month hold period in Canada. Seabridge has granted the private placee an option to increase the size of the private placement by an additional 200,000 common shares exercisable until August 22, 2019.

Silver Range Resources Ltd. announces that W. Douglas Eaton, through ECEE Money Limited ("ECEE"), a private company controlled by Mr. Eaton, has [acquired control and direction over 1,000,000 common shares](#) of Silver Range. Prior to the acquisition of these shares, Mr. Eaton held, directly and through ECEE, 7,219,823 common shares of Silver Range, which represented 9.76% of the issued and outstanding common shares of Silver Range. As a result of the acquisition of these additional 1,000,000 shares, Mr. Eaton currently has control and direction over

8,219,823 common shares of Silver Range, representing 11.11% of its currently issued and outstanding common share capital.

Mr. Eaton has acquired control and direction of these Silver Range shares for investment purposes. Depending on market conditions and other factors, Mr. Eaton may from time to time acquire and/or dispose of securities of Silver Range or continue to hold his current position.

TerraX Minerals Inc. announced the 2019 [summer drill program moves to Berry Hill](#) at the Yellowknife City Gold (“YCG”) project. Phase 1 at Sam Otto South has been completed with approximately 1200m of drilling over 1km of strike extension. All holes intersected targeted shear zones and assays are pending. TerraX will return to Sam Otto South later this summer to follow up with more aggressive step out holes intended to build strike extension to the south for an additional 2km.

Drilling activity has moved to the Berry Hill zone within the Barney Deformation Corridor (BDC) on trend with the North Giant Extension (Figure 1). Approximately 900 meters of diamond drilling will test a prospective zone based on surface sample results and positive historical data that accompanied historical core acquired in late 2018. The goal is to define a multi-kilometer long gold bearing system that trends north from the last known workings of the Giant mine at the GKP zone (Figure 1).

David Suda, President and CEO stated, “This part of our summer program at Berry Hill is an early look at the potential to define gold structures trending at least 8 km onto TerraX property from the North Giant extension (NGX). We are working to define the continuation of a trend that produced over 8M ounces of high-grade gold in the past.”

Upon completion of drilling at Berry Hill, TerraX will commence approximately 2500 meters drilling at the high-grade Crestaurum target. The company will announce more detailed plans in the coming weeks.

TerraX Minerals Inc. announce that the 2019 [summer drill program at the Yellowknife City Gold project](#) (“YCG”) has commenced. Phase 1 has begun at Sam Otto South to test the 3.5 kilometer strike extension of the already defined gold structures at Sam Otto Main. Approximately 3500 meters of diamond drilling will test and extend the strike and continuity of the 2018 step-out discovery hole at Sam Otto South (Figure 1). The goals of the first phase of the summer drill campaign are to define a large multi-kilometer long gold bearing system and the geometry of high-grade lenses. The Sam Otto corridor will be tested based on surface mapping and sampling as well as geophysical interpretation of ground magnetics (Figure 1).

David Suda, President and CEO stated, “We are excited to report that on Friday, July 5th 2019, TerraX resumed drilling at the YCG project on one of our highest priority targets. The opportunity at Sam Otto South is the potential to increase the overall strike by a factor of four and to delineate higher grade structures previously unseen at this target. Positive results could represent a material step change in our ability to deliver a significant resource.”

In addition to the ongoing program at Sam Otto, TerraX plans to commence Phase 2 drilling at the high-grade Crestaurum deposit and BDC (Barney Deformation Corridor - North Giant Extension) targets in August 2019. TerraX continues mapping and analyzing existing data sets from both targets to ensure accuracy of drill collar locations. More detailed work plans for drilling at these two targets will follow in the coming weeks.

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Mines & promising Northwest Territories mine projects

The following table describes leading mineral development projects in the NWT.

Project Name	Owner(s)	Commodity	Description	Status
Ekati Mine	Dominion Diamond Mines ULC , and Dr. Stewart Blusson	Diamonds	Canada's first and largest diamond mine, 310 km. NE of Yellowknife. Open pit and underground. Mine life potentially to 2041. Workforce in 2017, 1,734. The Ekati mine consists of two joint ventures, the core zone joint venture and the buffer zone joint venture, in which the company has interests of 88.9% and 72.0%, respectively. Reserves at 31 January 2017 were 68.9 million tonnes at 1.5 carats per tonne for 105.4 million carats. Inferred mineral resources were 20.6 million tonnes at 1.0 carats per tonne for 19.8 million carats. Additionally, Fox Deep indicated and inferred resources of 51.0 million tonnes at 0.4 carats per tonne for 18.7 million carats.	Media release, 22 March 2019 Canadian Championship Dog Derby and Dominion Diamond announce race schedule
Diavik Mine	Rio Tinto (operator) & Dominion Diamond Mine ULC	Diamonds	Canada's largest producer of diamonds, 300 km NE of Yellowknife. Mine life to 2025. Became all underground mine in 2012. Workforce in 2017, 1,233. New A21 open pit development will cost US\$350m over 4 years. A21 commence ore production in the first half 2018. Reserves at Dec 31, 2017 were 15.1 million tonnes at 2.8 carats/tonne for total of 42.5 million carats.	Media release, 1 October 2018 Diavik Stars of the Arctic dazzle in rough diamond tender
Gahcho Kué Mine	De Beers Canada Inc (51% and operator) and Mountain Province Diamonds Inc. (49%)	Diamonds	Located approximately 280 km NE of Yellowknife, NWT. Open pit mine with life of 12 years. Mine reached commercial operation in Q1 2017. Workforce in 2017, 483. Plan is for three open pits to mine 5034, Hearne and Tuzo ore bodies producing average of 4.5 million carats/year. Hearne began production in April 2018. Reserves at 31 March 2014 (production commenced Q3 2016) were 35.4 million tonnes at 1.6 carats per tonne for 55.5 million carats.	Social media post 31 July 2019 De Beers Canadian team wins inclusion and diversity award Media release 25 July 2019 De Beers interim financial results for 2019 Media release 23 July 2019 De Beers Group carbon capture project receives research funding from natural resources Canada's clean growth program Media release 4 July 2019 New kimberlite discoveries may add to future of Gahcho Kué Mine
Prairie Creek	NorZinc Ltd.	Zinc-lead-silver	Proposed underground mine 120 km W of Ft. Simpson. Estimated mine jobs: 220 All permits now in place to construct and operate the mine. Feasibility Study completed in 2017 supports 15-year mine life. Subject to completion of financing, and 2.5-year construction phase, production proposed for mid-2020. In 2017, the Mackenzie Valley Environmental Impact Review	Media release 27 June 2019 NorZinc provides corporate update

			Board recommended approval of the proposed all season road. Over the past eight years Canadian Zinc has successfully completed numerous environmental assessments related to exploration and development of the Prairie Creek Mine. Canadian Zinc has obtained all the significant regulatory permits and social licences required to complete construction and development and undertake mining and milling at Prairie Creek, including construction and use of a winter access road to the mine site.	
NICO	Fortune Minerals Limited.	Cobalt-gold-bismuth-copper	Proposed open pit and underground mine located 50 km NE of Whatì. Estimated mine jobs: 150. Mine life, 20 years. In March 2018, The Mackenzie Valley Environmental Impact Review Board has recommended that the Tlicho all-season road be approved. The approval is subject to measures designed to mitigate potential environmental, social, and cultural impacts. The Government of the Northwest Territories, Department of Transportation and Tlicho Government received this conditional approval on March 29, 2018, enabling construction of the 97-kilometre Tlicho Road to connect the community of Whatì to the territorial highway system.	Media release 18 July 2019 Fortune Minerals announces new discovery at NICO
Kennady North	Mountain Province Diamonds Inc.	Diamonds	Kennady North project comprises 13 leases and claims immediately to north and west of 4 leases controlled by the Gahcho Kué Joint Venture (see above). Project aims to identify a resource along the Kelvin – Faraday kimberlite corridor of between 12 and 15 million tonnes at a grade of between 2 and 2.5 carats per tonne and to identify new kimberlites outside of the corridor. The Kelvin – Faraday corridor is a target for further exploration. Potential quantity is conceptual as there has been insufficient drilling to define a mineral resource and it is uncertain if further exploration will result in target being delineated as a mineral resource.	Media release 17 July 2019 Mountain Province Diamonds announces second quarter 2019 production and sale results and provides Q2 conference call details
Indin Lake	Nighthawk Gold Corp	Gold	Nighthawk controls over 90% of the prospective Indin Lake Greenstone Belt in this historic gold camp with a total ground position now comprising 930 sq km, approximately 220 km north of Yellowknife, NT. The Indin Lake Greenstone Belt is one of Canada's most underexplored gold camps. The property contains 14 known gold deposits and showings, 3 are historic mines (eg Colomac)	Media release 31 July 2019 Nighthawk expands drilling at Colomac zones 2.0 and 3.0

Pine Point	Osisko Metals Incorporated	Lead-zinc	Proposed open pit mine east of Hay River, NT. 10 open pits mined sequentially with 321 jobs. PEA quotes 13-year mine life. Osisko Metals has begun active exploration to advance the project. The objective of the 2018 drill program is to upgrade approximately 50 million tonnes of unclassified near-surface historical resources (Cominco Ltd.) to NI43-101 Inferred Mineral Resources as quickly as possible in areas amenable to open pit mining. The 2018 program consists of approximately 700 drill holes (323 now completed) within the Main Trend, a 20- kilometre long, portion of the PPMC that is located on the south shore of Great Slave Lake in the NWT, near infrastructure and paved highway access and with 100km of haulage roads already in place.	Media release 24 July 2019 Osisko Metals grants stock options Media release 17 July 2019 Innovative airborne gravity gradiometry survey to be flown across Pine Point Project Media release 16 July 2019 Osisko Metals announces closing of fully-subscribed \$10 million private placement of flow-through shares
Courageous Lake	Seabridge Gold Inc.	Gold	Proposed open pit mine 240 km NE of Yellowknife. 6.5 M oz proven and probable reserves in 91.0 million tonnes at 2 g/t (2016 Annual Report). Positive PFS July 2012. The FAT deposit is one of Canada's largest undeveloped gold projects. Seabridge is currently focusing on their KSM mine and other BC projects.	Media release, 2 August 2019 Seabridge Gold closes \$17.0 million private placement Media release 24 July 2019 Seabridge Gold secures \$17.0 million private placement
Selwyn Project (Howard's Pass Project)	Selwyn Chihong Mining Ltd.	Zinc, lead	Proposed base metal mine in Yukon on NWT border and access is through NWT. Agreements signed with NWT (Sahtu) Indigenous land corporations. The project will process multiple open pit mines over an approximate 10+ year mine life and includes a mineral processing plant, tailing management facility and the required on-site infrastructure. The mine is being designed to process 38,500 tonnes per day (tpd) of ore which, after processing, is expected to result in 2,500 tpd of zinc and 600 tpd of lead concentrate, which would be trucked to the Port of Stewart for export. Selwyn Chihong estimates the proposed mine will create approximately 1500 jobs during construction and approximately 750 during operation.	Selwyn Chihong Mining's proposed upgrade of a road to its lead-zinc mining project in Yukon's Selwyn Mountains will undergo an environmental assessment. Parks Canada has referred the 79km Howard's Pass Access Road (HPAR) to Environmental Assessment under the MVEIRB, which accepted the referral in July 2015. The HPAR was developed in the 1970s and runs from the Nahanni Range Road to the NWT-Yukon border. Passing through 2 national parks. Yukon media reported in Feb 2016 that Selwyn Chihong has decided to slow their project down due to the current low zinc prices and will not to take the project to the permitting stage this year. According to External Affairs VP Maurice Albert, SC has opted for a traditional drilling program and hopefully add another 10 years to the mine life.
Nechalacho	Avalon Advanced Materials Inc.	Rare earth metals	Proposed underground mine 100km SE of Yellowknife. Estimated mine jobs: 200. The company remains optimistic that rare earth demand will recover sufficiently to advance the project.	Media release 25 June 2019 Avalon completes collaborative development agreement on Nechalacho Rare Earth Elements Project, Yellowknife, NWT

Mines & promising Nunavut mine projects

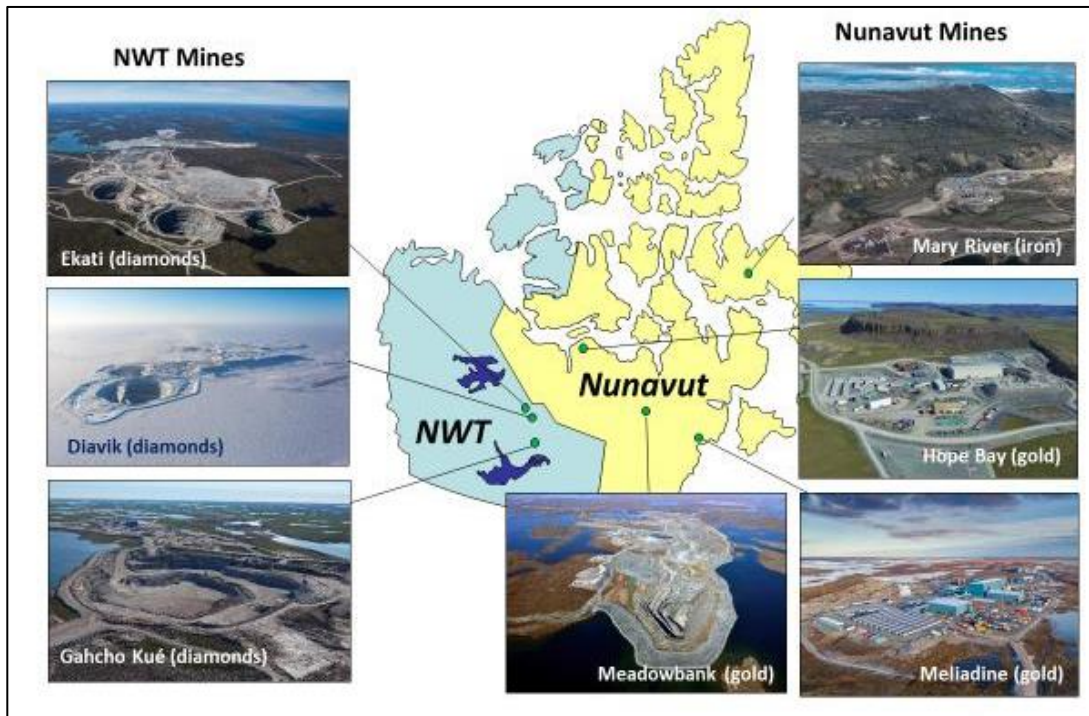
The following table describes leading mineral development projects in Nunavut.

Project	Owner(s)	Commodity	Description	Status
Meadowbank Gold Mine	Agnico Eagle Mine Ltd.	Gold	In operation since 2010. Open pit mine located in the Kivalliq Region, 300 km west of Hudson Bay and 70 km N of Baker Lake. Mine jobs: 775 AEM announced they will develop Amaruq satellite deposit, 50km from mine site and add 7 years to mine life, beginning in 2019. Construction of the Amaruq Exploration Access Road commenced in first quarter 2016. Road construction is ongoing with nine kms completed to date of expected total length of 64kms.	Media release 24 July 2019 Agnico Eagle reports second quarter 2019 results
Mary River Iron Mine	Baffinland Iron Mines Corporation	Iron	In operation since September 2014; Open pit mine 936 km N of Iqaluit. Mine jobs: 602 Production from Early Revenue Phase (ERP) began September 8, 2014. The company has proposed a Phase 2 project with increased production and shipping. AANDC Minister has approved application for exemption from NPC negative conformity determination, July 2015.	Media release 17 April 2019 Baffinland employees ratify a partnership agreement with the International Union of Operating Engineers – Local 793 Media release 16 April 2019 Baffinland supports successful technical meetings for phase 2 permitting process
Hope Bay (Mine began commercial production May 15, 2017)	TMAC Resources Inc.	Gold	Gold mine 130 km S of Cambridge Bay. TMAC's property covers the majority of the Hope Bay Greenstone Belt. Workforce in 2016: 335 First gold poured in first quarter 2017 and achieved commercial production in second quarter 2017.	Media release 15 July 2019 TMAC Resources' second quarter exploration results include high-grade intercepts at Doris and Madrid north
Meliadine Gold Mine (Mine began commercial production May 14, 2019)	Agnico Eagle Mines Ltd.	Gold	Proposed open pit and underground gold mine, 25 km NE of Rankin Inlet. Estimated construction jobs: 1,000 Estimated mine jobs: 700 IIBA signed June 2015. Initial capital cost estimate \$911m; mine life 14 years. On February 15, 2017: Agnico Eagle approved Meliadine and Amaruq projects for development with production beginning in 2019. The high-grade Meliadine gold project has 3.4 million ounces of gold in proven and probable reserves* (14.5 million tonnes at .32 g/t) and a large mineral resource.	Media release 30 May 2019 Agnico Eagle achieves commercial production at the Meliadine Mine
Back River	Sabina Gold & Silver Corp.	Gold	Approximately 60km from Hackett River; adjacent to the Wishbone Greenstone belt. Consists of George and Goose Lake deposits and holds significant gold resources. Estimated construction jobs: 1,600 Estimated mine jobs: 900 Sabina's Feasibility Study on its 100% owned Back River Gold Project presents a project designed on a fit-for purpose basis, with the potential	Media release 18 July 2019 Sabina Gold & Silver continues to expand Nuvuyak discovery with strong gold values over broadly mineralized iron formation

			to produce ~200,000 ounces a year for ~11 years with a rapid payback of 2.9 years (at a US\$1,150 gold price and a 0.80 exchange rate). Initial CAPEX of \$415 million. EA complete	
Kiggavik	Orano Canada Inc.	Uranium	Proposed uranium mine 80 km W of Baker Lake. Estimated Construction jobs: 750 Estimated mine jobs: 600	25 July 2016, INAC, on behalf of responsible ministers for authorizing if Kiggavik Project should or should not proceed, accept NIRB's determination it not proceed at this time.
Izok Corridor Project (with High Lake & Hood River deposits)	MMG Ltd.	Copper, Zinc, Gold, Silver	High Lake is 1,710-hectare, copper-zinc-silver-gold property, 190 km ESE of Kugluktuk. Izok is high-grade zinc-copper-lead-silver deposit, 255 km SW of Kugluktuk. Estimated construction jobs: 1,140 Estimated mine jobs: 710	Nunavut Government announced that the Grays Bay Port and Road project did not qualify for federal Transport Corridor funding. Company stated publicly that project needs Grays Bay Road and Port project infrastructure to become a mine.
Chidliak	De Beers Group	Diamonds	Located 120kms NE of Iqaluit, Nunavut, and 180 km S of Pangnirtung. 74 kimberlites discovered with 8 potentially economic on 317,213-hectare site. Positive Phase One PEA, updated May 2018 highlights: <ul style="list-style-type: none"> •After-tax payback of 2.2 years •Life of mine 13 years •Resource at CH-6 and CH-7 exceeds 22 million carats •Pre-production capital requirement ~\$455m, incl \$95m for access road from Iqaluit, \$55m in contingency •Pre-tax NPV(7.5) of \$1069 million and a pre-tax IRR of 38.6% •After-tax NPV(7.5) of \$679 million and an after-tax IRR of 31.1% •Average LOM strip ratio of 6.6:1 (average across the combined CH-6 and CH-7 open pits); Mining to a depth of 300 mbs at CH-6 	Media release, 13 September 2018 Peregrine Diamonds announces completion of plan of arrangement
Angilak	ValOre Metals Corp. (formerly Kivalliq Energy)	Uranium	340,268-acre property located SW of Baker Lake; Hosts the high-grade Lac 50 Trend deposit	Media release, 14 December 2018 ValOre defines new gold in till target areas and extends geophysical coverage to 110 km on Baffin Island, Nunavut Media release, 3 December 2018 ValOre announces rights offering
Naujaat Diamond Project	North Arrow Minerals	Diamonds	7 km from tidewater; 9 km from Repulse Bay, Melville Peninsula; 7,143 hectares of contiguous mineral claims. Largest kimberlite in Nunavut.	Media release 13 May 2019 North Arrow initiates study of bulk sample diamond recovery plant Naujaat Diamond Project, Nunavut
Committee Bay Gold Project	Auryn Resources Inc. (purchased North Country Gold Corp.)	Gold	<ul style="list-style-type: none"> • High grade gold endowment • Existing exploration infrastructure • 217,600 hectares with district scale discovery opportunities 	Media release 11 July 2019 Auryn Closes \$1.9 million flow-through funding

Project maps

The northern mining industry's 7 operating mines



We are surrounded by even more potential

