

Northern Mining News

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From the Executive Director ...

The Chamber was pleased to have had opportunity to meet with the Government of Canada's Special Senate Committee on the Arctic. Our key message – rejuvenate a northern mining vision! We hope the committee took our message to heart and sees that resources remain the key to unlocking the vast potential of the North. We continue to believe success will only come through partnership. For the latest on the diamond mines' benefits, see our just released socio-economic data; the contributions keep growing and adding to our economy.

There's been some acquisition news from TerraX (acquiring Tom and Sickle properties) and De Beers has closed its deal to buy Peregrine with its Chidliak diamond deposit. As well, Fortune is upbeat about cobalt concentrate from NICO.

And more big diamonds from the North – have a look at the latest 'specials' from Diavik.

Congratulations to Sabina on its type A water licence for Back River. A big milestone as the project continues to move through the regulatory phase. Also, great to see Baffinland get federal go ahead for its production increase!

On the exploration side, North Arrow is drilling its new kimberlite at the Mel property, Mountain Province reports results at Gahcho Kué, and Osisko Metals has several releases with results from its drilling activity at its Pine Point property.

Happy reading! ... Editor

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

Chamber message to Senate Committee: “Rejuvenate a Northern Mining Vision”

Northern mining today is creating meaningful benefits for northerners and Canadians, however with only six mines operating in this vast and northern one third of Canada, the country is missing great opportunities to do more. This was a key message delivered through the Chamber’s *Rejuvenating a Mining Vision for the North presentation* delivered in September to the Government of Canada’s Special Senate Committee on the Arctic.

“Mineral development is the biggest contributor to our northern economies, providing significant Indigenous and northern benefits, and also creating huge returns for the provinces and Federal government,” said NWT & Nunavut Chamber of Mines President Gary Vivian. “But our minerals industry could be doing so much more if there was an exciting new vision and a robust action plan to support it. We told the Senators that the proposed *Arctic Policy Framework* and the *Canada Minerals and Metals Plan* could be just the tools to do that.”

Currently, the NWT and Nunavut host only six operating mines with an overall footprint of much less than one hundredth of one per cent of the area of the two territories, an area the size of Europe. From this small footprint, the territories’ mines have collectively created nearly 70,000 person years of jobs and \$24 billion in spending since 1996, with billions of dollars paid in taxes and royalties to public and Indigenous governments. “Our industry has accepted governments’ invitation to invest in exploration and mining to turn rocks into benefits, but the high costs and land access challenges are especially daunting in the North” said Vivian. For more detail on the industry’s contributions to the North, see *page three* or visit miningnorthworks.com/benefits/.


The Chamber’s brief to the Committee explains that access to land for exploration and mining is growing restrictive, and in the NWT not all land claims have been settled. In the face of Canada’s largest infrastructure deficit, mines today must provide their own transportation with roads, sea ports and airports, and supply their own electricity with diesel generators and wind.

“We reminded Senators that this was not always the case, that Canada was once a strong participant in northern mineral development, providing financial support for transportation and power infrastructure and even exploration,” said Vivian. Unfortunately, we’ve seen a 40-year gap in Federal partnership, and now need to make up for lost time.”

The Chamber’s recommendations to Senators include urging Canada to strengthen its support for mining, to provide significant long term annual investment into game-changing infrastructure, to improve access to land, to double the mineral exploration tax credit, and to remove the carbon tax on the diesel-dependent north until viable alternatives are available. “We really need help from the Federal government – all governments for that matter – if we are to successfully unlock and grow the benefits of mining,” says Vivian. [View release](#)

It wasn't always this way ...
Federal Government partnership in Northern mining infrastructure

- 1948 – Snare Hydropower for Yellowknife gold mines
- 1959 – Roads to Resources, highways to mining towns
- 1961 – Great Slave Lake Railway for Pine Point zinc-lead mine
- 1966 – Taltson Hydropower for Pine Point mine
- 1974 – Townsite, dock, airport for Nanisivik zinc-lead mine
- 1975 – Ice-breaking cargo ship to service Nanisivik & Polaris mines
- **40 YEAR FEDERAL INVESTMENT GAP FOR NORTHERN MINING**
- 2017 – Tlicho road with indirect benefit for NICO mine project



Diamond mines continue to deliver significant benefits to the NWT

The Northwest Territories' diamond mines continue to provide significant socio-economic benefits in the areas of training, employment, and business benefits. Socio-economic data, compiled by the NWT & Nunavut Chamber of Mines from the mine's annual socio-economic agreement reports, provides the following annual and cumulative highlights:

2017 Employment and Spending

- 3,450 person-years of employment, of which 1,585 (46%) are northern
- 813 northern Indigenous employment (51% of northern workforce)
- 509 (15%) of the total jobs are filled by women
- \$1.2 billion in total spending, of which \$834 million (68%) is northern spending and \$325 million is northern Indigenous

1996-2017 Cumulative Employment and Spending

- 57,915 person years of employment, of which 28,026 (48%) is northern
- 13,924 northern Indigenous (50% of northern workforce)
- \$19.7 billion in total construction and operations spending, of which \$13.7 billion (70%) is northern and \$5.9 billion is northern Indigenous

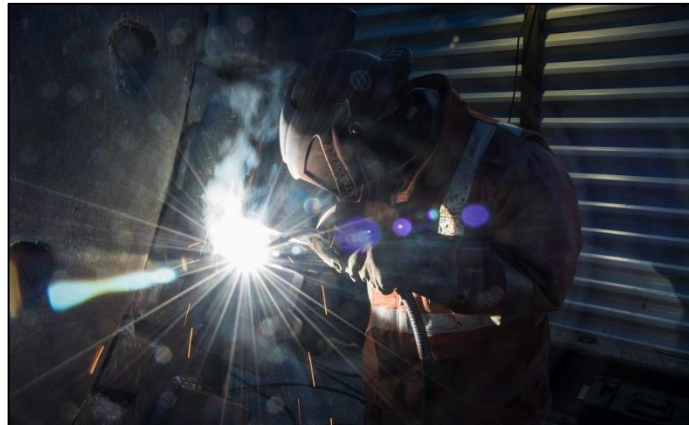
Trades Apprentices

- In 2017, the mines supported 82 trades apprentices, of which 64 are northern (78%)
- Since 1996, a total of 217 individuals have achieved trades certifications at the diamond mines

“There is no doubt that mining is delivering unprecedented northern benefits,” said Chamber President Gary Vivian. “In addition to jobs, business spending and training, the diamond mines have also contributed billions of

dollars in community contributions and in taxes and royalties paid to public and Indigenous governments. With continued progress on infrastructure investment, and regulatory and land access improvements, mining in the north is truly a sunrise industry. Our mining potential is huge.” Click [here](#) for the Chamber's media release. To learn more about the benefits the mines provide, please see their recent socio-economic reports here:

- [Ekati Diamond Mine](#)
- [Diavik Diamond Mine](#)
- [Gahcho Kué Diamond Mine](#)



Yellowknife-based and Indigenous-owned, Paul Brothers Nextreme, provides welding services at Gahcho Kué Mine. 80 per cent of their 35 full-time employees are northern residents. Photo courtesy De Beers

Mountain Province Diamonds reports additional kimberlite identified through Gahcho Kué exploration program

In September, Mountain Province Diamonds Inc. updated the exploration program currently under way in the immediate vicinity of the Gahcho Kué mine. The most recent drilling has now identified additional kimberlite in the corridor between 5034 and Tuzo, with true intercepts up to 72 meters in thickness. The Curie target has also been confirmed to have kimberlite intercepts up to 52 meters with the full extent of all the additional kimberlite still to be determined.

The detailed exploration program has focused on three objectives; drill test for extensions to the Hearne kimberlite between the north and south lobes, drill test the corridor between 5034 and Tuzo, particularly around the North Pipe kimberlite, and drill test the Curie ground gravity target located between the Tesla and Tuzo kimberlites.

Additional kimberlite breccia between the north and south lobes at Hearne was previously confirmed, extending vertically from 40 metres depth from the surface and to at least as deep as 220 metres depth (see news release July 11, 2018). Drill testing of the corridor between 5034 and Tuzo has focused on the zone between the 5034 pipe and the North pipe and an area immediately northeast of the North pipe. Drilling has confirmed kimberlitic material between the north lobe of 5034 and the North Pipe, as well as in the corridor extending northeast of the North Pipe towards Tuzo. This new kimberlitic material extends vertically from 248 meters to 350 meters depth. At the Curie target, kimberlite was intersected at a vertical depth of only 18 meters, with the deepest intercept at 119 meters depth.

The Curie kimberlite lies within the proposed open pit mine plan for the Tuzo kimberlite, and midway between Tuzo and the Tesla kimberlite. A summary of results from the drill programs is provided in the table in the [media release](#).



The De Beers/Mountain Province Gahcho Kué diamond mine. Top is the mine's 5034 open pit with the newer Hearne pit, bottom right, which began production earlier this year. Click [here](#) for a video of the first blast in the Hearne pit. Photo courtesy De Beers

Said Stuart Brown, the company's President and Chief Executive Officer, "Our continued success in this near-mine exploration program is very encouraging. The earlier work on the additional kimberlite identified on the Southwest Corridor kimberlites is scheduled to be classified in the last quarter of 2018 in time for inclusion for the 2019 mine plan. The ranges for potential addition to the resource (100% basis) are 1.5 to 2.8 million tonnes and 2.2 to 4.2 million carats. Work on developing the model and resource estimates for Hearne and the 5034 North Lobe/North Pipe Extension additional kimberlites is scheduled to be completed in Q1 2019 and will in time potentially be incorporated into a modified mine plan, when completed. These significant kimberlite discoveries are well within the present mine plan area and there is little doubt that, if economic, will contribute tonnage to extend the mine life at Gahcho Kué."

Fortune announces successful tests on cobalt concentrate from Nico

Fortune Minerals has received successful results of metallurgical test work verifying that it can produce an upgraded and essentially arsenic-free cobalt concentrate for the NICO Cobalt-Gold-Bismuth-Copper development in the NWT.

Gold can also be recovered by Fortune from its metal concentrates at the mine site allowing the company to control the gold revenue stream, while producing separate cobalt and bismuth concentrates for sale to third party processors after arsenic that is typically penalized is removed.

The 100% owned NICO Project is a development stage primary cobalt asset with significant gold and bismuth by-products. Fortune has already received environmental assessment (EA) approval and the major permits for the mine and concentrator in the Northwest Territories as well as EA approval for a refinery in Saskatchewan.

Fortune engaged Dundee Sustainable Technologies Inc. to conduct a metallurgical test work program to assess the application of its "Pyrolysis Roast" and "Arsenic Stabilization" processes on metal concentrates produced from the NICO Project.

The objective of this work was to demonstrate that Fortune can remove the arsenic and create metal concentrates that are more attractive to the market and can be processed in existing metal recovery circuits operating around the world. A commercial plant utilizing DST's arsenic stabilization by vitrification process has also been constructed for a metal processing facility that will be commissioned later this year.

Key results of test work:

- Successful removal of 99% of the arsenic in NICO bulk concentrate to lower than 0.2%
- Metal grades in the concentrate increased by 20-30% due to mass reduction from selective removal of arsenic and sulphur during pyrolysis
- No cobalt, gold, or copper losses from pyrolysis
- Gold can be successfully recovered by cyanidation of the bulk concentrate
- Recovery of bismuth has already been proven with secondary flotation
- Recovery of bismuth oxide by pyrolysis has now also been demonstrated as an option
- Successful separation and capture of arsenic from sulphur liberated during pyrolysis
- Arsenic removed from the concentrate was successfully stabilized using vitrification
- Fused arsenic glass passes TCLP tests for safe disposal

Fortune is focused on developing the NICO cobalt-gold-bismuth-copper project in the Northwest Territories and a related refinery the Company plans to construct in Saskatchewan. Fortune also owns the Sue-Dianne copper-silver-gold deposit located 25 km north of the NICO Project and a potential future source of incremental mill feed to potentially extend the life of the NICO Project mill. [View release](#)



Click image for Sept corporate presentation.

Sabina reports positive NIRB recommendation for Back River Project water licence

Sabina Gold & Silver Corp announced the Nunavut Water Board has provided a [positive decision for the type A water Licence](#) for the 100%-owned Back River Gold Project in Nunavut.

On August 9, 2018, the company completed its final public hearing with the NWB and related intervenors. On September 21, 2018, the company received a copy of the NWB's recommendation to the Minister of Intergovernmental Affairs, Northern Affairs and Internal Trade that the project's type A water licence should be issued with proposed terms and conditions.

Receipt of this licence represents a key step in the environmental permitting process and will enable activities at site including mine construction and operations and sets closure bonding amounts. The licence includes development of the Umwelt Open Pit and Underground, as well as the Llama and Goose Main Open Pits as envisioned in the current development plans. The licence also includes the ability to develop the Llama and Goose Main undergrounds as well as the Echo open pit and underground should Sabina choose to do so in the future.

The Nunavut Waters and Nunavut Surface Rights Tribunal Act provides the Minister with 45 days to review and respond on the NWB's recommendation. If no comment is received from the Minister within this time, the recommendation is deemed approved and the NWB may then issue the licence. If the Minister requires additional time to review and respond to the file, a 45 day extension may be requested of the NWB.

"This is another major de-risking milestone under our belts," said Bruce McLeod, President and CEO "The Type A Water Licence is a critical permit to enable operations at the project, yet it also enables us to continue to do the pre-development activities required to advance the proposed Goose Mine. This positive recommendation is the culmination of significant environmental work by our team and we look forward to receiving the license by the end of Q4/2018. In addition, we continue with our exploration efforts at the Project, following up on our recently announced Navuyuk discovery and continue to de-risk the Project with prudent capital allocation."

Other permits and work authorizations are also required including federal land leases and navigation protection approvals which are expected in Q4/2018, a Letter of Authorization from Fisheries and Oceans Canada for the company's fishery offset program expected in Q2/2019 as well as a Schedule 2 listing under the Metals and Diamond Mines Effluent Regulations for the company's tailing storage facility, expected in H1/2020.

Back River could produce ~200,000 ounces a year for ~11 years with a rapid payback of 2.9 years.

The Project received its final Project Certificate on December 19, 2017. The Project is now in the final permitting and licensing phase with a Type A Water License expected by the end of 2018.

In addition to Back River, Sabina also owns a significant silver royalty on Glencore's Hackett River Project. The silver royalty on Hackett River's silver production is comprised of 22.5% of the first 190 million ounces produced and 12.5% of all silver produced thereafter.

Diavik Stars of the Arctic dazzle in rough diamond tender

Rio Tinto and Dominion Diamond Mines have revealed three of the finest large rough diamonds from their Canadian diamond mine that will be tendered to diamond specialists from around the world.

Collectively known as the Diavik Stars of the Arctic, the three rough diamonds showcase a rare combination of size, quality, and colour from the Diavik Diamond Mine.

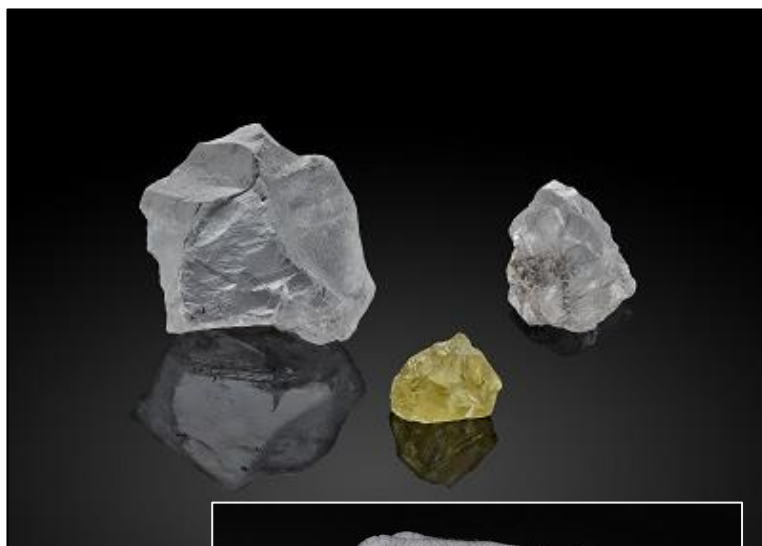
The Diavik Stars of the Arctic will headline Rio Tinto's forthcoming specials tender, which showcases rough over 10.8 carats. Taking their inspiration from constellations across the night skies of the North, The Diavik Stars of the Arctic comprise:

- Vega of the Arctic™, 177.71 carats, one of the largest and most valuable gem quality rough diamonds ever produced in Canada
- Altair of the Arctic™, 59.10 carats, a beautiful white gem quality rough diamond
- Capella of the Arctic™, 24.82 carats, a dazzling yellow diamond

“Diavik diamonds are over two billion years old and it has taken 15 years of production to unearth these extraordinary diamonds, underscoring the ongoing importance of the Diavik orebody in the context of the global diamond industry,” said Patrick Boitumelo, Diavik President and CEO.

The Diavik mine produces predominantly gem quality diamonds destined for high end jewellery in all major consumer markets around the world. The discovery of Lot 3, Capella of the Arctic, a large yellow diamond is very rare, with the mine on average producing only five of these diamonds each year, in effect less than 0.001 per cent of annual production.

The Diavik Stars of the Arctic will be showcased in Antwerp and Israel to large diamond specialists from around the world before bids close on October 25. [View release](#)



The Diavik Stars of the Arctic are named for northern constellations, with the largest, top left weighing 177.7 carats. Photos courtesy Rio Tinto

Feds approve Baffinland ore production increase

Baffinland responds to positive variance of Nunavut Impact Review Board decision by the Federal Ministers

On October 2, Baffinland Iron Mines [responded](#) to the recent decision by the Minister of Intergovernmental and Northern Affairs and Internal Trade and the Minister of Crown-Indigenous Relations for the positive variance of the Nunavut Impact Review Board's (NIRB) review of Baffinland's proposed plan to expand to six million tonnes of production.

"I first would like to thank the Nunavut Impact Review Board for their original report on our application to expand our operation and further develop the Milne Inlet Port. The findings in their report identified key improvement areas within our application that we have since addressed and provided an opportunity for Baffinland to continue to build stronger relationships with our partners, including the Qikiqtani Inuit Association, the Government of Nunavut, the North Baffin communities, and all Nunavummiut," said Brian Penney, President and CEO.

The positive variance decision by the Ministry was, in part, based on the strong relationships between the North Baffin communities, the Qikiqtani Inuit Association, and Baffinland, and the importance of the mine for Nunavut and all of Canada. Employing approximately 2,000 employees and contractors, Baffinland is the largest private employer in the Baffin region.

Baffinland's application to the NIRB also included the construction of a 15 million litre fuel tank and a 380-person camp and associated infrastructure developments at Milne Inlet. The Ministers' decision accepted the positive recommendation of the NIRB to proceed with these application components.

Baffinland and the QIA sign amended Mary River Project IIBA

On October 3, Baffinland Iron Mines Corporation and the Qikiqtani Inuit Association (QIA) signed the Amended Mary River Project Inuit Impact Benefit Agreement (IIBA), strengthening the company's commitments to the Qikiqtani communities. The Amended Agreement supersedes the original Mary River IIBA, originally signed in September 2013, and comes into force upon final signature. Baffinland and QIA have jointly committed to increasing the benefits of the Mary River Mine to Nunavummiut by enhancing the focus on Inuit training and employment.

This will be done through:

- Increased skills and training opportunities to provide Nunavummiut with the skills they need to gain meaningful employment at the Mary River Mine including:
 - Increased financial commitments to training and skills development
 - Development of a state of the art training facility in Pond Inlet
 - Implementation of enhanced pre-employment training opportunities to prepare Inuit for employment at the mine

- Programs designed to specifically increase Inuit employment in all aspects of Baffinland’s organization
- Improved support for all residents of the Qikiqtani communities

The signing of the Amended IIBA represents another major step in our commitment to deliver on our promise to bring employment and training opportunities to the Qikiqtani region,” said Brian Penney, Baffinland president and CEO. “It also reflects the strong relationship between Baffinland and QIA, as we continue to find new ways to work in partnership and understand how we can continue to move forward and make a real difference for all Nunavummiut.”

The Amended Agreement is based on mutual benefit for both Baffinland and Inuit. This Agreement ensures the positive benefits of the Mine accrue directly to Inuit.

[View release.](#)



Baffinland Iron Mines Corporation President and CEO Brian Penney (center left) is pictured with P.J. Akeagok, President of the Qikiqtani Inuit Association, following the signing of the Amended Mary River Project Inuit Impact Benefit Agreement. The Amended Agreement includes new programs and commitments to maximize Inuit involvement at the Mary River Mine.

Canadian Zinc Changes Name to NorZinc Ltd.

On September 11, NorZinc Ltd. (TSX:NZC; OTCQB:CZICF) **announced** that the company had changed its name from Canadian Zinc Corporation (previous TSX symbol CZN) and will begin trading on the Toronto Stock Exchange under the new name NorZinc Ltd. and the new symbol “NZC” effective today. A new US symbol for the OTCQB trading has been requested.

The new corporate name is part of a rebranding initiative that will see the company evolve from a base and precious metal exploration and development company into a zinc, lead and silver (Zn-Pb- Ag) mining company focused in Canada’s north. The company’s flagship asset is the Prairie Creek Zn-Pb-Ag Mine, which remains 100% owned by subsidiary Canadian Zinc Corporation. A new website for NorZinc will be launched in the coming months.

Background on the Prairie Creek Project

The Prairie Creek Mine in the Northwest Territories, Canada was initially developed in the 1980’s, but never placed into production. There is significant existing infrastructure including a 1,000 ton per day mill, 5 kilometres of underground workings, 1,000 metre gravel airstrip, administration, warehouse and workshop buildings with supporting infrastructure including a 7 million litre diesel fuel tank storage farm and over 50 kilometres of exploration roads.

Since 1992, Prairie Creek has undergone significant exploration including 296 surface and underground drillholes totaling 78,587 metres. Prairie Creek has been the subject of two preliminary feasibility studies and a Feasibility Study that was completed in 2017 (“2017 FS”).

The 2017 FS indicates Prairie Creek has the following reserves and resources:

Reserves

Classification	Tonnes (t)	Zinc (%)	Lead (%)	Silver (g/t)	ZnEq (%)
Proven	1,712,000	10.4	8.5	156	26.2
Probable	6,359,000	8.2	8.0	116	22.2
Total	8,071,000	8.6	8.1	124	23.1

The Mineral Reserves are as of August 2, 2017, and based on a design cut-off grade of 11% ZnEq for longhole open stoping (“LHOS”), 11% ZnEq for mechanized drift-and-fill (“DAF”), an incremental stoping cut-off grade of 10% ZnEq, and 6% ZnEq cut-off grade for development ore. Cut-off grades are based on a zinc metal price of US\$1.00/lb, recovery of 75% and payable of 85%; a lead metal price of US\$1.00/lb, recovery of 88% and payable of 95%; and a silver metal price of US\$18/oz, recovery of 92% and payable of 81%. Exchange rate used is C\$1.25= US\$1.00. Average planned dilution, unplanned dilution and mining recovery factors of 13%, 11% and 95%, respectively, for LHOS; and 18%, 6% and 98%, respectively, for DAF are assumed.

Resources (including Reserves)

Classification	Tonnes (t)	Zinc (%)	Lead (%)	Silver (g/t)
Indicated	7,222,000	8.7	8.5	123
Measured & Indicated	8,704,000	9.5	8.9	136
Inferred	7,049,000	11.3	7.7	166

Mineral Resources are stated as of 10 September 2015. Mineral Resources include those Resources converted to Mineral Reserves. Stated at a cut-off grade of 8% ZnEq based on prices of US\$1.00/lb for both zinc and lead and US\$20/oz for silver. Average processing recovery factors of 78% for zinc, 89% for lead, and 93% for silver. Average payables of 85% for zinc, 95% for lead, and 81% for silver. $ZnEq = (grade\ of\ Zn\ in\ \%) + [(grade\ of\ lead\ in\ \% * price\ of\ lead\ in\ US\$/lb * 22.046 * recovery\ of\ lead\ in\ \% * payable\ lead\ in\ \%) + (grade\ of\ silver\ in\ g/t * (price\ of\ silver\ in\ US\$/Troy\ oz / 31.10348) * recovery\ of\ silver\ in\ \% * payable\ silver\ in\ \%)] / (price\ of\ zinc\ in\ US\$/lb * 22.046 * recovery\ of\ zinc\ in\ \% * payable\ zinc\ in\ \%)$. \$ Exchange rate = 1 C/US. Numbers may not compute exactly due to rounding.

The 2017 FS indicates a base case Pre-Tax Net present value (“NPV”) of \$344 million using an 8% discount rate, with an Internal Rate of Return (“IRR”) of 23.8%, and a post-tax NPV of \$188 million with an IRR of 18.4%. Corresponding pre-tax and post-tax payback periods from the mill start-up are 4.4 and 4.6 years respectively. The base case metal price assumptions used in the

model are: Zn US\$1.10/lb., Pb US\$1.00/lb. Ag US\$19.00/oz., with a foreign exchange rate of C\$1.25=US\$1.00. Using the base case metal prices and exchange rate of C\$1.375 = US\$1.00 would increase the pre-tax NPV8% to \$501M and the IRR to 29.5%. Using a zinc price of US\$1.20 per lb., with all other base case inputs and a foreign exchange rate of C\$1.25 = US\$1.00, the pre-tax NPV8% would be \$410M with an IRR of 26.2%.

The 2017 FS includes the use of an All Season Road (“ASR”) for the transportation of inventory to, and concentrates from, the mine site. In September 2017, following completion of an Environmental Assessment (“EA”) conducted by the Mackenzie Valley Environmental Review Board (“MVRB”), the MVRB sent its recommendation of approval of the ASR, with the conditions contained in its EA Report to the Responsible Ministers for their review and authorization. In January 2018, the Responsible Ministers suspended their review and required the company to provide answers to additional information requests and conduct additional consultation with Indigenous groups. Following completions of these requirements the Responsible Ministers indicated a decision on the recommendation for approval of the ASR permit will be forthcoming in October. After positive approval the next stage would be drafting the permit with the Mackenzie Valley Land and Water Board (“MVLWB”).

Plans for 2018 and 2019

2018 Achievements

- Process agreement signed with indigenous groups
- Final stage leading to the EA approval of ASR cleared
- \$20 million equity financing completed and US\$10 million debt repaid
- New CEO hired
- Restructuring of company to facilitate Prairie Creek project financing completed
- Summer site program of pre-construction de-risking commenced
- Third party environmental and permitting review consultant retained

2018 Objectives

- Obtain final federal and territorial approval of EA for ASR
- Commence MVLWB permit drafting process
- Rebranding of NorZinc and new marketing program underway
- Complete internal environmental and permitting review
- Launch new NorZinc website
- Complete 2018 site de-risking program
- Hire project manager for Prairie Creek mine
- Complete new resource estimate for Lemarchant property in Newfoundland

2019 Objectives

- Sign all agreements with Indigenous groups related to ASR, including environmental management agreement
- Obtain final permit for ASR
- Complete detailed engineering for all major construction or refurbishment activities
- Finalize financing package for development of Prairie Creek mine
- Negotiate contracts for construction

De Beers group completes acquisition of Peregrine Diamonds in Nunavut

On September 13, De Beers Group completed its [acquisition of Peregrine Diamonds](#) adding the Chidliak project to its holdings.

Under the previously announced plan, De Beers Canada has acquired all outstanding securities of Peregrine at a purchase price of C\$0.24 per share, for a total cash consideration of C\$107 million. The acquisition includes the high quality Chidliak diamond resource located in Canada's Nunavut Territory and other properties elsewhere in Nunavut and the Northwest Territories.

The transaction, which was announced on 19 July 2018, was approved by Peregrine's security holders on 31 August 2018 and by the Supreme Court of British Columbia in its final order dated 10 September 2018. The common shares of Peregrine have been approved for delisting from the Toronto Stock Exchange and will be delisted at the end of trading on 14 September 2018.

"We are very pleased to complete the addition of the Chidliak resource to De Beers Group's world-leading diamond resource portfolio, and to extend our presence in Canada. We look forward to developing the resource further and are excited about its potential for contributing to our future diamond production," said Bruce Cleaver, CEO, De Beers Group, said:

"We are very excited about the Chidliak cluster, an asset with very strong development potential. Having built and operated three diamond mines in Arctic-like conditions in the past 15 years, our expertise in bringing projects of this nature to fruition is unparalleled. We look forward to accelerating our understanding of this property and how we can move it forward," said Kim Truter, CEO, De Beers Canada.



De Beers has completed its acquisition of Peregrine Diamonds which includes the Chidliak project, located on the Hall Peninsula of southern Baffin Island, Nunavut. In July 2018, Peregrine's updated preliminary assessment, projected about 16.7 million carats are recoverable over a projected 13 year mine life. Photo courtesy De Beers

North Arrow drills new kimberlite at Mel diamond project, Nunavut

North Arrow Minerals Inc. reports completion of an exploration drilling and till sampling program at the company's 100% owned Mel Diamond Project, Nunavut. The program represents the first ever exploration drilling of this new kimberlite field and also included work focused on generation of new targets through till sampling and geophysical surveys. The Mel Project is well located, approximately 20 km from tidewater and work was conducted from an exploration camp established approximately 140 km south and 210 km northeast of the Hamlets of Hall Beach and Nauyasat, respectively. Highlights of the program include:

- Kimberlite intersected in five holes that reached their target depth;
- 787.5 total metres of drilling completed in six holes;
- Diamondiferous kimberlite ML8 extended by drilling to over 170m in strike length;
- Discovery of kimberlite ML345, approximately 1.5 km south of ML8;
- 224 kg of kimberlite collected from ML8 and presently undergoing microdiamond analysis;
- Magnetic surveys completed over 14 ground grids;
- Collection of 447 till samples to better define existing and new targets within the 56,075 ha property.

"The drilling of kimberlites ML8 and ML345 has confirmed that the Mel Project represents a new diamondiferous kimberlite field in Canada. Over 200 kg of kimberlite is presently undergoing microdiamond analyses and further samples of drill core will soon be submitted for additional microdiamond, mineral chemistry and petrographic analyses. Importantly, the 2018 exploration program also included collection of 447 till samples, doubling the number of samples collected from the Project. Results from these samples will help to define existing and new kimberlite indicator mineral (KIM) anomalies ahead of the 2019 exploration season. The Mel exploration camp remains in place and will support renewed exploration drilling of new and established targets in 2019," said President and CEO Ken Armstrong.

Ground geophysical and till sampling surveys were also completed as part of the exploration program. A total of 100 line km of magnetic surveys were completed over 14 grids covering targets associated with KIM trains in the northern part of the project. Till sampling focused on providing complete coverage of the entire Mel Project area, with focus on the claims staked during the fall of 2017.

[View release](#)



For more on the Mel project, including a photo gallery of the project's exploration camp, core samples, and scenic landscape images, click [here](#). Photo courtesy North Arrow Minerals

De Beers sponsorship doubles attendance at STEM camp for Indigenous girls

Partnership with UN Women HeForShe and the University of Waterloo helps expand program

Like most young teens her age, Madison Beck is beginning to plan her life after high school. The 15-year-old Grade 10 student from Hay River, NWT wants to become a surgeon.

She knows that there is a lot of hard work and hurdles to overcome in order to make her dreams come true.

Madison and her sister Emerson, 11, were among nine girls and eight caregivers from the NWT who attended the IMPACT Camp in August at the University of Waterloo in Ontario, sponsored by De Beers Group.

Participants in Grades 7-9 came from Hay River, Yellowknife, Lutsel K'e, Norman Wells and Behchoko. The annual camp also included 10 girls from Indigenous communities in Ontario.

The three-day camp included cultural and science-based activities at the university, hosted by the University of Waterloo. In addition to the activities at the university, the NWT group also toured Google's Canadian headquarters and the Perimeter Institute, both in Waterloo.

"I was a little nervous about going into the (medical) field," said Madison. "One of the leaders at the camp is going to be a nurse and she provided a lot of great ideas, like I never would have thought to go to a pre-medical camp."

For Emerson, the camp opened her eyes to the fact that while science is important to success, it can also be a lot of fun.

"I wasn't so good in science at school before," she explained. "But I learned a lot more about science and can relate to it better now."



By 2021, De Beers Group will have spent over \$600,000 (US) toward breaking down barriers for women and girls in Canada, providing over 40 single and multi-year scholarships and sending teen girls from the communities where we work to the Impact Camp. Photo courtesy De Beers

Their mother Andrea traveled to the camp with the girls and said it was eye-opening to experience opportunities available outside of the NWT and demonstrated that gender should not be a barrier to success.

“We don’t get a lot of exposure to things like this,” said Andrea.

That exposure and support was the purpose of sponsoring girls to attend the IMPACT Camp, said De Beers Canada CEO Kim Truter.

“We know that females are underrepresented in the STEM fields, with indigenous females from communities where we operate in the NWT and northern Ontario facing additional economic and other barriers that make it even more difficult to succeed, so this investment is designed to level the playing field as much as possible,” said Truter. “These students will take this positive experience back to their schools and home communities and keep the discussion going, which may inspire other young female students to consider furthering their science education as a career path that they may not have considered before.”

De Beers Canada also participated in the camp with two female employees attending as camp leaders. Megan Rodel, a mining engineer, said the camp was an excellent way to connect the students to the sciences at a critical time in their education.

“I know from personal experience that pursuing a science-based education can be exciting and challenging at the same time, which is why this camp is so valuable in answering questions and knocking down any myths early for the students, so they can be successful if this is the path they choose,” said Rodel.

Kelly Brenton, Superintendent of Indigenous Relations & Sustainability, coordinated the De Beers portion of the program and described the participants as “sponges ... soaking in all in.”

“It was a powerful time,” she said. Whether it was leading to code a robot’s movement or viewing Saturn and its iconic rings through a telescope, “they learned a lot.”

This week, De Beers Group marked the one-year anniversary of the company’s commitment to be a global leader for inclusion and diversity as a HeForShe Thematic Champion for UN Women.

Sending girls to the University of Waterloo Impact Camp is one of the ways De Beers is working to make a difference. During 2018, the company has invested \$76,000 (US) in the Impact Camp and to support eight scholarships split between Waterloo and the University of Calgary.

In 2019, that financial investment will grow to \$220,000 (US) and will see an additional 21 scholarships awarded to women across the country to support their studies in Science, Technology, Engineering and Math (STEM) and STEM-like fields.

TerraX purchases the Tom Mine and Sickle properties

TerraX Minerals Inc. has purchased a 100% interest in the Tom Mine (6 sq km) and Sickle (2 sq. km) properties from Altamira Gold Corp. These properties increase the area of the Yellowknife City Gold Project from 772 square kilometers to 780 square kilometres.

As part of the agreement, TerraX will pay Altamira a total of \$25,000 cash and 250,000 shares of TerraX. Altamira will retain a 2% NSR royalty. The agreement is subject to the approval of the TSX-V exchange and is expected to close shortly.

“While results from our summer exploration program continue to fill our pipeline of focused targets; our team continues to build the world class land package. We are pleased to have completed and amicable transaction with Altamira,” said David Suda, the Chief Executive Officer and President of TerraX.

The Tom Mine was a gold producer in the Yellowknife gold district from 1985-1997. The Tom and C vein systems were accessed by ramp to 122 vertical metres over 300 metres of strike length. The Tom Mine production was milled at the Ptarmigan Mine (January 12, 2018 press release) so separate production records for the Tom Mine are not available. The Tom Mine gold ore has the same characteristics as the Ptarmigan Mine which is free milling with reported recovery of 94%. When the mine closed in 1997 the veins were still open at depths below the current mine workings.

(Source: The Operational History of Mines in the Northwest Territories, R. Silke, 2009; and Treminco Resources Limited, Annual report 1990). The southern portion of the property is contiguous with the Ptarmigan Gold Mine property. TerraX has no liability for any remediation of the previous mine site.

The Sickle property is underlain by the Walsh Lake sediments, which are host to

TerraX’s Mispickle Zone ([September 22, 2016, press release](#)). Several historic gold showings occur on the property with gold values up to 4 g/t.

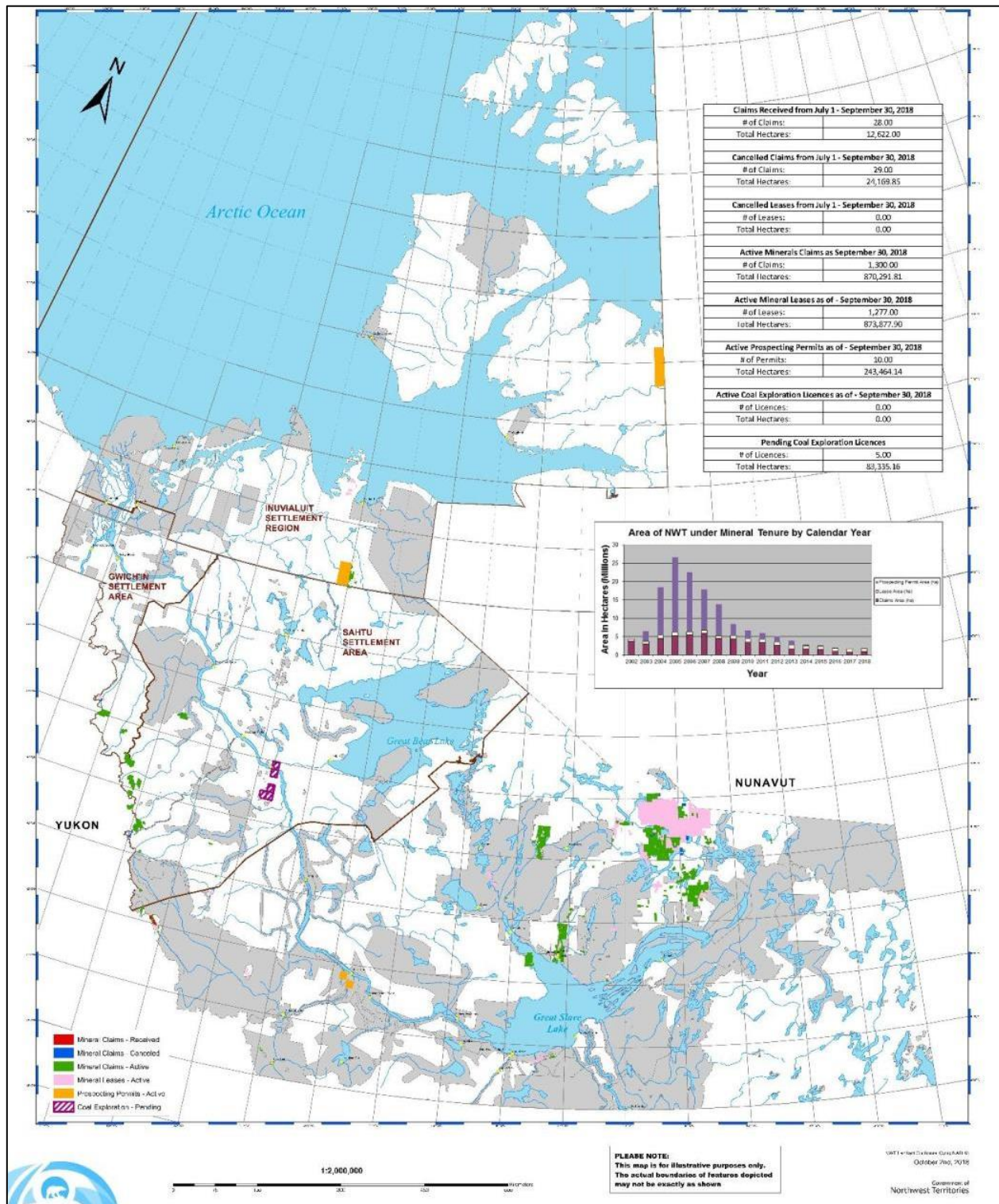
Joseph Campbell, the Executive Chairman of the Board of TerraX, stated “The purchase of the Tom Mine property gives TerraX access to another gold bearing vein system like the past producing Ptarmigan Mine, which TerraX owns. The property is also near paved road access to Yellowknife and high-tension powerlines that are connected to the past producing Ptarmigan Gold Mine. The purchase of the Sickle property gives TerraX an additional 5 kilometers of strike length in the gold bearing Walsh Lake sediments.”

[View release](#)



Treminco opened the Ptarmigan and Tom mines in 1985.

NWT mineral tenure heat map (July-Sept 2018)



Community elders impressed at fish tasting program near De Beers mines

For more than a decade, Elders from several communities in the Northwest Territories have helped De Beers Canada monitor the health of fish in lakes near our operations.

The traditional knowledge fish tasting program has been held regularly at the Snap Lake Mine site since 2008 and occurred annually at the Gahcho Kué Mine since 2016. The event supplements science-based monitoring to ensure fish near the mine sites remain healthy and safe to eat. The Gahcho Kué event was held Aug. 28 at the Ni Hadi Xa (NHX) monitoring cabin on Fletcher Lake and at Snap Lake on Sept. 6. NHX is the collaborative environmental monitoring agency struck between De Beers and five Indigenous communities.

Elders catch fish used in the tasting in Snap Lake for that location, while fish caught for the Gahcho Kué tasting program are caught by Elders in Kirk Lake, downstream from the mine. Participants are selected by community liaisons in each community and many have taken part for several years.

“This year’s Gahcho Kué fish tasting event exceeded all expectations,” said Guylaine Ross, a De Beers Environment and Permitting Data Analyst who helped coordinate the activities. “Our main focus was to get the Elders safely to the cabin and enjoy a day out on the land. We had a lot of help planning and organizing the event, resulting in overall success.”

At Gahcho Kué, the fishers caught nine lake trout. Elders were asked to examine the fish for colour, texture, and firmness. Several fillets were then boiled in water without any salt, oil or butter and participants were asked to taste the boiled fish.

Elders reported that the fish tasted good and that they were typical of trout found in shallow lakes on the Arctic tundra. Samples were taken by the Gahcho Kué Mine environment team for scientific studies.



Gahcho Kué Mine environmental technician Mason Elwood, second from left, and Elders from Indigenous communities examine one of nine trout caught from Kirk Lake as part of the mine’s third annual fish tasting event. Photo courtesy De Beers

Participants also enjoyed a meal on the land and had time to pick wild berries before heading back to their communities.

The Snap Lake fish tasting event was a success with 18 Elders from local communities with Impact Benefit Agreements attending the event at the mine site on September 6. Six lake trout were caught and dissected, and all of the fish were cooked – one in boiling water without additional flavor for the taste test and the others over an open fire, pan fried in lard or battered and fried.

Lutsel K'e Dene First Nation elder Ernest Boucher dissected three of the six trout and commented that the fish looked to be in good health and were large – some of the fish had smaller fish in their stomachs which showed they were eating well. Francois and his peers also commented on the good colour and texture of the meat.

Tlicho Elder and interpreter Violet Mary Mackenzie made bannock and everyone enjoyed time on the land around the fire with the beautiful fall foliage in the background.

Many Elders took fish and bannock home for their families.

For the environment staff at the mine site, the knowledge gleaned from the Elders is an important part of the aquatic monitoring programs at the site.

“The fish all seemed to be really good and the Elders liked the quality and the texture of the meat,” said Shawn Taylor, environmental officer at Snap Lake. “The feedback we got was as good as it can get, really, especially when it comes from the Elders who have been fishing all their lives, and who bring their knowledge learned over many generations of fishing in these Northern lakes.”

Results of the fish tasting are reported in the annual Aquatic Effects Monitoring Program reports for Gahcho Kué and Snap Lake.



Nunavut's newest gold mine – Meliadine – is taking shape north of Rankin Inlet.

Calendar of events

- **17th North American Caribou Workshop (NACW)**, “WORKING TOGETHER”, Oct 29 to Nov 2, 2018, Delta Ottawa City Centre, Ottawa, Canada. Click [HERE](#) to register
- **46th Annual Yellowknife Geoscience Forum**, the North’s largest combined tradeshow and conference, November 20-22, 2018 in Yellowknife, NT. Online delegate registration is now open, click [here](#).
- **Energy & Mines World Congress**, December 10-11, 2018, Toronto
<http://worldcongress.energyandmines.com/>
- **PDAC 2019**, the world’s premier mineral exploration and mining conference, March 3-6, 2019, at the Metro Toronto Convention Centre. The Chamber of Mines will be there. Visit us at booth 1008. <https://www.pdac.ca/convention>

Welcome new members!

On behalf of our members, we would like to welcome the following new members to the Chamber of Mines. We encourage your support of their business. Please join us in a warm welcome to:

- **Arctic Fuel** is based in Baker Lake, Nunavut and provides support services, fuel hauling, and heavy equipment. The company offers construction and energy-related services, as well as expediting and logistics services. Their web site is www.arcticfuel.ca and contact is Glenn McLean at mclean649@hotmail.com
- **Forward Mining** is a construction/building supplies company based in Yellowknife. The company also offers project management and does road and bridge building and structural steel work. Their web site is www.forwardmining.ca and contact is Jason Mauchan at info@forwardmining.ca
- **Kivalliq Chamber of Commerce** is based in Rankin Inlet, Nunavut, and advocates for Kivalliq businesses including the mining industry. The chamber’s contact is Patrick Tagoona at patrick@qiniq.com
- **NextEra Energy Canada**, based in Toronto, is an energy services company focussed on a wind and energy storage product to assist mines in reducing diesel fuel usage. Their web site is www.nexteraenergycanada.com and contact is jennifer.tuck@nee.com
- **Operating Engineers Training Institute of Ontario**, an education, training services provider, is based in Morrisburg, Ontario and offers heavy equipment training to clients interested in the mining industry. The institute also has a loader and haul truck training partnership with Baffinland. Their web site is www.OETIO.com and contact is Carla St. Louis at cstlouis@oetio.com
- **Qikiqtaaluk Business Development Corp.** is based in Iqaluit and offers consulting/research, energy services, hotel services, and project management. For mining, the corporation offers construction, camp services, renewable energy, and logistics services. Visit their website [here](#). Contact is Dave Lintaman at dlintaman@qcorp.ca
- **Tuttarvik Solutions Inc.** is based in Iqaluit and offers education/training and equipment/logistics as well as project management services. Their web site is www.tuttarvik.com and contact is Kumarasamay Venugopan at kvenu@tuttarvik.com

Exploration & Development News Briefs *(see Chamber [website](#) for more information)*

Nighthawk Gold reported [drill results for eighteen holes](#) (5,508 metres) recently completed at high-grade Zone 1.5, part of its 100% owned Colomac Gold Project. Sixteen of the eighteen holes intersected gold mineralization (Table 1) helping to define the zone's near surface dimensions and continuity down plunge to depth (Figure 1), highlighted by hole C18-05 which returned 84.30 metres of 2.91 grams per tonne gold ("gpt" "Au"), including 24.55 metres of 5.05 gpt Au, and 4.25 metres of 8.11 gpt Au.

Highlights:

- Hole C18-05 intersected 84.30 metres (41.00 metre true width) of 2.91 gpt Au, including 24.55 metres of 5.05 gpt Au, and 4.25 metres of 8.11 gpt Au
- Hole C18-08C intersected 31.20 metres (19.00 metre true width) of 1.24 gpt Au, including 10.70 metres of 2.50 gpt Au, and 5.00 metres of 4.87 gpt Au
- Hole C18-14 intersected 45.25 metres (32.00 metre true width) of 1.36 gpt Au, including 10.25 metres of 3.30 gpt Au, and 2.25 metres of 7.37 gpt Au
- Hole C18-13 intersected 25.25 metres (17.00 metre true width) of 1.46 gpt Au, including 13.50 metres of 2.32 gpt Au, and 3.75 metres of 3.66 gpt Au
- Confirmed that Zone 1.5 mineralization can be traced to surface
- Zone 1.5 dimensions extend upwards of 300 metres in strike, to a vertical depth of 660 metres, and a true width of 30 to 60 metres in the near surface and upwards of 155 metres at depth
- High-grade mineralization remains open down plunge to depth

Nighthawk Gold reported drill results from seven holes (2,325 metres) recently completed within high-grade Zone 3.5, part of its 100% owned Colomac Gold Project. Drilling focused on expanding the high-grade mineralization that was intercepted in the company's 2012 program and which returned several extensive gold intercepts. Zone 3.5 lies within the southern portion of the Colomac sill, 2.8 kilometres south-southwest of high-grade Zone 1.5. Current drilling targeted and intersected the northward extension of the zone, highlighted by hole C18-09 which tracked mineralization further down plunge to the north intersecting 68.00 metres of 2.24 grams per tonne gold ("gpt" "Au"), including 32.00 metres of 3.59 gpt Au, and 6.40 metres of 5.70 gpt Au.

Highlights:

- Hole C18-04 intersected 41.85 metres (10.00 metre true width) of 2.81 gpt Au, including 22.80 metres of 4.04 gpt Au, and 6.15 metres of 5.60 gpt Au
- Hole C18-06 intersected 71.50 metres (27.00 metre true width) of 1.53 gpt Au, including 23.75 metres of 2.46 gpt Au, and 9.65 metres of 3.58 gpt Au
- Hole C18-07 intersected 36.50 metres (17.00 metre true width) of 1.84 gpt Au, including 25.75 metres of 2.25 gpt Au, and 16.75 metres of 2.55 gpt Au

- Hole C18-09 intersected 68.00 metres (19.00 metre true width) of 2.24 gpt Au, including 32.00 metres of 3.59 gpt Au, and 6.40 metres of 5.70 gpt Au – with a further downhole intersection of 31.75 metres (9.00 metre true width) of 2.46 gpt Au, including 13.00 metres of 3.26 gpt Au, and 4.50 metres of 4.34 gpt Au
- Hole C18-12B intersected 85.50 metres (22.00 metre true width) of 1.15 gpt Au, including 25.50 metres of 2.49 gpt Au, and 9.75 metres of 4.48 gpt Au
- Confirmation of the steep northern plunge to high-grade Zone 3.5
- Zone appears to widen at depth to upwards of 80.00 metres true width
- Mineralization remains open down plunge, with resource expansion potential to depth

Zone 3.5

Nighthawk previously drilled Zone 3.5 in 2012 (see press releases dated August 30, 2012; September 19, 2012; and October 10, 2012), a total of thirteen holes were drilled (4,635 metres) all of which intersected mineralization. The 2012 drilling tested for the existence of a higher-grade zone within the southern portion of the Colomac sill, and explored the zone's continuity of mineralization along strike and to depth. That work established the northward expansion of Zone 3.5 (see press release dated August 20, 2012), and the discovery of another possible higher-grade gold zone plunging to depth beneath Zone 3.0. Results also verified the broadening of Zone 3.5 to the north, and its possible convergence with Zone 3.0. [View release, intersects' images and tables.](#)

Osisko Metals announced October 1, assay results from 9 drill holes completed in the East Mill Zone located in the Pine Point Mining Camp. Drill hole EM-18-PP-133 intersected 12.71% Zinc and 6.97% Lead (19.68% Lead + Zinc) over 6.30 metres. Three other holes also intersected significant zones of mineralization: hole EM-18-PP-136 intersected 3.96% Zinc and 2.29% Lead (6.25% Lead + Zinc) over 5.33 metres, hole EM-18-PP-147 intersected 6.36% Zinc and 0.80% Lead (7.16% Lead + Zinc) over 7.85 metres, and hole EM-18-PP-148 intersected 7.65% Zinc and 1.33% Lead (8.98% Lead + Zinc) over 8.98 metres.

All intersections are within a flat lying tabular-style deposit known as L-36 and all intercepts are located above 40 metre vertical depths. (See 2018 Summer Drill Campaign East Mill L-36).

Osisko Metals announced Sept 17 assay results from 7 near-surface drill holes completed in the East Mill Zone at the Pine Point Mining Camp. Drill hole EM-18-PP-132 intersected 3.54% Zinc and 16.95% Lead over 6.23 metres and hole EM-18-PP-134 intersected 4.21% Zinc and 7.31% Lead over 5.62 metres. While mineralization at Pine Point is predominantly rich in Zinc, with a typical ratio of approximately 3 to 1 zinc to lead, these intersections are in an area of particularly anomalous high-grade lead similar to hole EM-18-PP-113 which graded 7.00% Zinc and

18.00% Lead (see NR dated September 10, 2018) in the historical K-32 deposit. All intersections are within a flat lying tabular-style deposit known as L-36 and all intercepts are located above 40 metre depths. (See 2018 Summer Drill Campaign Central Zone L-36). [View release](#).

Osisko Metals announced September 10 assay [results from 18 drill holes](#) completed in the East Mill Zone at the Pine Point Mining Camp. Drill hole EM-18-PP-112 intersected 6.42% Zinc and 1.81% Lead over 10.50 metres and hole EM-18-PP-123 intersected 11.13% Zinc and 3.27% Lead over 6.52 metres. A high-grade lead intersection was also intersected in Hole EM-18-PP-113 that graded 7.00% Zinc and 18.00% Lead over 6.00 metres. While mineralization at Pine Point is predominantly rich in Zinc, similar anomalous high-grade lead intersections can occur locally and represent further upside to our infill drill campaign. All intersections are within a flat lying tabular-style deposit known as K-32 and all intercepts are located above 42 metre depths. (See 2018 Summer Drill Campaign Central Zone K-32). The objective of the 2018 drill program is to upgrade approximately 50 million tonnes of unclassified near-surface historical resources within known deposits (Cominco Ltd.) to NI43-101 Inferred Mineral Resources as quickly as possible in areas amenable to open pit mining. This will then be used as a resource base for future economic studies. The 2018 program consists of approximately 700 drill holes (466 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 Northwest Territories, near infrastructure and paved highway access and with 100km of haulage roads already in place.

Osisko Metals [announced](#) that it has closed its placement of 10,870,000 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) and section 359.1 of the Taxation Act (Québec) at a price of \$0.92 per flow-through share for aggregate gross proceeds of \$10,000,400. The gross proceeds from the offering will be used by the corporation to incur eligible "Canadian exploration expenses" that will qualify as "flow-through mining expenditures" as such terms are defined in the Income Tax Act (Canada) related to the Corporation's projects in Québec. All Qualifying Expenditures will be renounced in favour of the subscribers of the Flow-Through Shares effective December 31, 2018.

Osisko Metals announced that [Cathy Singer has been appointed](#) to the company's board of directors immediately following the company's annual meeting of shareholders. Cathy has over 30 years of business and securities law experience. She is currently a partner at Norton Rose Fulbright Canada LLP, where she has practiced for the past 17 years and where she has held various roles in management from time to time. Prior to Norton Rose, Cathy was a partner at Fasken's and, during that period, spent two years at the Ontario Securities Commission on secondment as its General Counsel.

Cathy's practice and experience is broad-based, including mergers and acquisitions, corporate finance, related party transactions and corporate governance matters as a trusted advisor to her clients in the mining, industrial and investment fund sectors.

Sabina Gold & Silver announce results from six drill holes completed at the Llama Extension zone where drilling has principally focused on expanding the up-plunge extent of the mineral zone towards the known Llama underground resource (Figure 1.0 & Figure 2.0) at the company's 100% owned Back River Project. Five of the six drill holes completed during the current summer drilling campaign have successfully targeted the Llama gold structure over a strike extent of approximately 200 m up-plunge from the previous 2017 and 2018 drilling that returned a number of high grade intercepts over significant lengths (see previous news releases: Sept 5, 2017, April 2, 2018 & May 8, 2018). Selected significant values from these six drill holes are listed below in Table 1.0 and include 17.96 g/t Au over 4.60 m from drill hole 18GSE548B and 6.20 g/t Au over 13.80 m from drill hole 18GSE547. A single drill hole, 18GSE546, drilled 26 m along strike in the open down-plunge direction from current drilling, returned values of 11.43 g/t Au over 5.48 m and continues to demonstrate that the gold structure is open at depth. The [release](#) also included additional information on the Llama extension zone and summer drilling.

Silver Range Resources announced that it has entered into an agreement with Rover Metals Corp. and Panarc Resources Ltd. amending the terms of Rover's option to acquire a 100% interest in the Up Town Gold Property. The Amending Agreement extends the timeframes within which Rover must incur expenditures on the Property and make payments to Silver Range. Pursuant to the Amending Agreement, Rover must make the following payment to Silver Range in order to exercise the First Option (as defined in the Option Agreement) and acquire a 75% undivided interest in the Property:

- \$45,000 by September 9, 2018;
- another \$45,000 by April 30, 2019 (payable in cash or shares at the option of Rover); and
- a further \$120,000 by February 2020.

The Amending Agreement also provides for an amendment to the terms upon which Rover can exercise the Second Option (as defined in the Option Agreement) to acquire an additional 25% undivided interest in the Property. Rover can exercise the Second Option by issuing to Silver Range on or before September 30, 2020 the lesser of (a) 4.5% of its outstanding common shares, on a fully-diluted basis, or (b) 2,500,000 common shares. The Up Town Gold project is an Archean lode-gold prospect located in Yellowknife, Northwest Territories. It adjoins the historic 8.1 million ounce Giant Mine gold deposit and TerraX Minerals' (TSX-V:TXR) Yellowknife City Gold Project. The 3,227 hectare property hosts ten high-grade gold occurrences.

Talmora Diamond announced earlier this summer that it has signed an Option Agreement granting **Olivut Resources Ltd.** the right to earn a 50% interest in Talmora's Horton Project, located in the Inuvialuit Settlement Region of Canada's Northwest Territories, by spending \$1,200,000 over two years and making a \$200,000 payment to Talmora. The Horton Project includes magnetic targets previously sampled by Talmora and a newly acquired Prospecting Permit covering a large magnetic anomaly at the focus of a kimberlite indicator mineral and ICP pathfinder element train recently identified in government assessment report records. Olivut is the operator with experience drilling kimberlites on its HOAM project. A summer field season of helimag and follow-up drilling is planned to test multiple targets over the next several months. The company believes the Horton Project area could be the source of the numerous (18) macro diamonds found in regional samples as well as the positive indicator mineral chemistry found regionally. The helimag survey will provide additional detail for drilling. Although Talmora has been active in the area, it has not been able to conduct meaningful exploration on the Horton Project due to a lack of funding during a prolonged negative market environment. New research and geological information has added further support to a very compelling exploration project. Talmora will retain a 100% interest and will independently explore two adjoining Prospecting permits and a number of claims on which very little work has been done.

TerraX Minerals announced further assay results from the company's summer field program on the Yellowknife City Gold project. High grade gold assays from grab sampling have extended the strike of the Gull and Rater Lake zones. As previously reported these new targets are in the same mafic volcanic geology that also hosted the Giant and Con mines and are within TerraX's Core Gold exploration area. The highlight assays are 171.0 g/t Au, 5.60 g/t Au, 5.29 g/t Au, and 4.49 g/t Au on the Rater Lake zones, and 72.0 g/t Au, 52.5 g/t Au, 29.0 g/t Au, and 12.95 g/t Au on the Gull Lake Zone. These gold zones are interpreted as being the continuation of the Giant Mine gold system. The Rater Lake structure has been followed for 300 meters north, and then appears to be offset to the west on the Akaitcho Fault, possibly continuing as the Gull Lake structure for another 1200 meters north. A second sub-parallel zone appears on the south side of Rater Lake with high grade values up to 171 g/t Au. (see map available here). The multiple gold bearing structures in this area enhance the expanding resource potential of the Northbelt Core Gold Area. Assay values from grab sampling at Gull and Rater Lakes range from nil to a high of 171.0 g/t Au. Sampling included insertion of certified standards and blanks into the stream of samples for chemical analysis. Samples were prepared at ALS Chemex's laboratory in Yellowknife and shipped to their Vancouver facility for gold analysis by fire assay and other elements by ICP analysis. ALS is a certified and accredited laboratory service. It should be noted that, due to their selective nature, assay results from grab samples may not be indicative of the overall grade and extent of mineralization on the subject area.

Member news releases this past month

- 2 October 2018 [Baffinland responds to positive variance of Nunavut Impact Review Board decision](#)
- 1 October 2018 [Osisko Metals intersects 19.68% zinc+lead over 6.30 metres at Pine Point](#)
- 1 October 2018 [Diavik Stars of the Arctic dazzle in rough diamond tender](#)
- 27 September 2018 [Osisko Metals Executive Chairman Robert Wares donates \\$5 million to McGill](#)
- 24 September 2018 [North Arrow drills new kimberlite at Mel Diamond Project, Nunavut](#)
- 24 September 2018 [Sabina Gold & Silver reports positive Nunavut Water Board recommendation on Type A water licence for Back River Project, Nunavut](#)
- 20 September 2018 [North American construction group acquires 49% of Nuna Logistics](#)
- 19 September 2018 [TerraX purchases the Tom Mine and Sickle properties](#)
- 18 September 2018 [Sabina Gold & Silver grows the Llama Extension to over 400 meters along strike](#)
- 18 September 2018 [Nighthawk intersects 84.30 metres of 2.91 gpt gold \(uncut\), including 24.55 metres of 5.05 gpt gold, and 4.25 metres of 8.11 gpt gold at Colomac Zone 1.5](#)
- 17 September 2018 [Mountain Province reports additional Gahcho Kué kimberlite identified](#)
- 17 September 2018 [Osisko Metals intersects 20.48% zinc+lead over 6.23 metres at Pine Point](#)
- 17 September 2018 [Fortune announces successful tests to produce upgraded and clean cobalt concentrate from the Nico Project](#)
- 14 September 2018 [TerraX expands Giant/Con gold system in Gull and Rater Lake areas, samples up to 171 g/t Au](#)
- 13 September 2018 [Peregrine Diamonds announces completion of plan of arrangement](#)
- 13 September 2018 [De Beers Group completes acquisition of Peregrine Diamonds](#)
- 12 September 2018 [Osisko Metals announces closing of \\$10M financing of flow-through shares](#)
- 11 September 2018 [Canadian Zinc changes name to NorZinc Ltd., begins trading on TSX as NZC](#)
- 11 September 2018 [Osisko Metals appoints new board member](#)
- 11 September 2018 [Nighthawk Intersects 68.00m 2.24 Gpt Gold \(uncut\), including 6.40m 5.70 Gpt and expands Colomac's Zone 3.5 down plunge](#)
- 10 September 2018 [Osisko Metals intersects 8.23% zinc+lead over 10.50 metres at Pine Point](#)
- 6 September 2018 [Silver Range announces amendment to option agreement on Up Town gold property](#)
- 6 September 2018 [Canadian Zinc complete corporate reorganization](#)

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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 , 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.	Socio-economic report, April 2018, Dominion Diamond 2017 socio-economic report released Media release, 1 November 2017, Dominion Diamond announces completion of plan of arrangement which saw the private corporation, The Washington Group of Companies, acquire Dominion Diamond Corporation and its interests in the Ekati and Diavik diamond mines.
Diavik Mine	Rio Tinto (operator) & Dominion Diamond Mines	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 (51% and operator) and Mountain Province (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.	Media release, 13 September 2018 De Beers Group completes acquisition of Peregrine Diamonds
Prairie Creek	NorZinc (formerly Canadian Zinc Corporation)	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 Board recommended approval of the proposed all season road.	Media release, 11 September 2018 Canadian Zinc changes name to NorZinc Ltd., begins trading on TSX as NZC Media release, 6 September 2018 Canadian Zinc complete corporate reorganization

			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 minesite.	
NICO	Fortune Minerals Ltd.	Cobalt-gold-bismuth-copper	Proposed open pit and underground mine located 50 km NE of Whati. 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 Whati to the territorial highway system.	Media release, 17 September 2018 Fortune announces successful tests to produce upgraded and clean cobalt concentrate from the Nico Project
Kennady North	Mountain Province Diamonds	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. The tonnage estimate is based on the drilling completed to date. 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 September 2018 Mountain Province reports additional Gahcho Kué kimberlite identified
Indin Lake	Nighthawk Gold	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, 18 September 2018 Nighthawk intersects 84.30 metres of 2.91 gpt gold (uncut), including 24.55 metres of 5.05 gpt gold, and 4.25 metres of 8.11 gpt gold at Colomac Zone 1.5 Media release, 11 September 2018 Nighthawk Intersects 68.00m 2.24 Gpt Gold (uncut), including 6.40m 5.70 Gpt and expands Colomac's Zone 3.5 down plunge

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Pine Point	Osisko Metals	Lead-zinc	<p>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.</p>	<p>Media release, 1 October 2018, Osisko Metals intersects 19.68% zinc+lead over 6.30 metres at Pine Point</p> <p>Media release, 27 September 2018 Osisko Metals Executive Chairman Robert Wares donates \$5 million to McGill University</p> <p>Media release, 17 September 2018 Osisko Metals intersects 20.48% zinc+lead over 6.23 metres at Pine Point</p> <p>Media release, 12 September 2018 Osisko Metals announces closing of \$10M financing of flow-through shares</p> <p>Media release, 11 September 2018 Osisko Metals appoints new board member</p> <p>Media release, 10 September 2018 Osisko Metals intersects 8.23% zinc+lead over 10.50 metres at Pine Point</p>
Courageous Lake	Seabridge Gold Inc.	Gold	<p>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.</p>	<p>Media release, 9 August 2018, Seabridge Gold files second quarter report to shareholders and its financial statements and MD&A</p>
Selwyn (Howard's Pass Project)	Selwyn Chihong Mining Ltd.	Zinc, lead	<p>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.</p>	<p>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.</p> <p>The HPAR was developed in the 1970s and runs from the Nahanni Range Road to the NWT-Yukon border. Passing through 2 national parks.</p> <p>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.</p>
Nechalacho	Avalon Advanced Materials Inc.	Rare earth metals	<p>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.</p>	<p>Media release, 29 June 2018, Avalon completes share financing and private placement</p>

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 Mines	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 minesite and add 6 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, 25 July 2018, Agnico Eagle reports Q2 results; production guidance, Amaruq permit, Meliadine on budget and on schedule; drilling continues to extend mineralization at multiple sites 16 July 2018 Agnico Eagle updates Nunavut projects; water licence granted for Whale Tail, production on schedule, Amaruq exploration expands, sealift season commences at Meliadine
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.	2 October 2018 Baffinland responds to positive variance of Nunavut Impact Review Board decision
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, 13 August 2018, TMAC reports improved second quarter 2018 results and demonstrates 2,000 tonnes per day capacity
Meliadine	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, 25 July 2018' Agnico Eagle reports Q2 results; production guidance, Amaruq permit, Meliadine on budget and on schedule; drilling continues to extend mineralization at multiple sites Media release, 16 July 2018, Agnico Eagle updates Nunavut projects; water licence granted for Whale Tail, production on schedule, Amaruq exploration expands, sealift season commences at Meliadine The Meliadine project was approved for development on February 16, 2017 and is now under construction.
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-	Media release, 24 September 2018 Sabina Gold & Silver reports positive Nunavut Water Board recommendation on Type A water licence for Back River Project, Nunavut Media release, 18 September 2018 Sabina Gold & Silver grows the Llama Extension to over 400 meters along strike

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			for purpose basis, with the potential 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. Environmental assessment complete	
Kiggavik	AREVA Resources Canada Inc.	Uranium	Proposed uranium mine 80 km W of Baker Lake. Estimated Construction jobs: 750 Estimated mine jobs: 600	25 July 2016, Federal Minister of Indigenous and Northern Affairs Canada, on behalf of responsible ministers for authorizing whether the Kiggavik Project should or should not proceed, accept NIRB's determination that the Project should 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	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, including \$95m for the access road from Iqaluit and \$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, 16 August 2018, ValOre completes 2018 exploration at Baffin Gold Property, Nunavut
Qilalugaq	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, 24 September 2018 North Arrow drills new kimberlite at Mel Diamond Project, Nunavut
Committee Bay Gold Project	Auryn Resources (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, 9 July 2018, Auryn to commence drilling at Committee Bay Gold Project

Project maps

