

Northern Mining News

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From the Executive Director ...

Welcome to our December newsletter. As we wrap up 2018, it's a chance to reflect on the year that was and look ahead to 2019.

We've added a few charts to show visually the state of our industry in 2018.

Exploration spending continued its downward trend in both the NWT and Nunavut. This is worrisome because it's exploration today that finds the mines we need 20 years from now, in time to replace closing mines. Nunavut needs to take notice now of what's happening in the NWT, where exploration has been down for 12 years, and is now creating deep economic concerns as mines mature. We will continue to advocate for action by territorial, Indigenous, and federal governments to work hard to improve investor confidence in both territories.

Mineral production is still good, and both the NWT and Nunavut saw production value increases. The NWT is still a strong global diamond producer, until Diavik mine closes in less than 6 years. Nunavut will see mining at Meadowbank cease this year, but 3 new mining projects – Amaruq, Meliadine & Back River, will see future production increases.

Looking ahead for residents and businesses of both territories, we are working to seek improved investor confidence in both territories in 2019. We want to see more progress on things like infrastructure, regulatory processes, land claims, and access to land – things that support an environment which welcomes and increases confidence for exploration and mining investment. Our first start was with the City of Yellowknife, who needs to plan appropriately given the worrisome future of the NWT minerals industry.

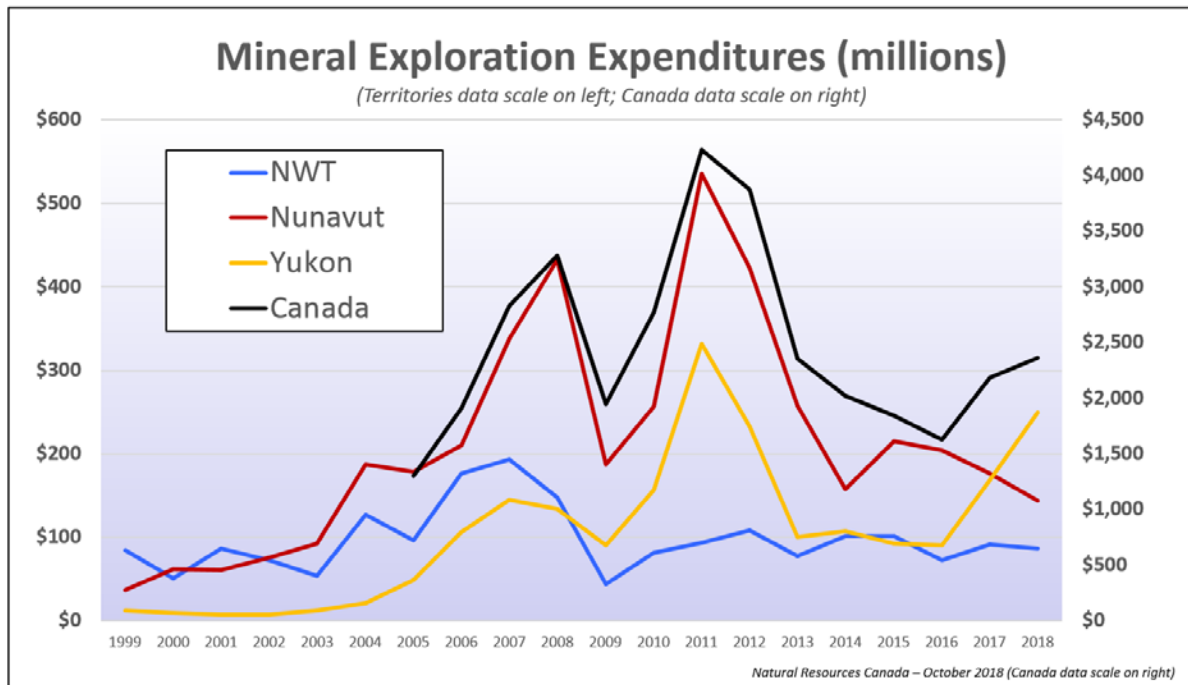
At stake is an industry that has created thousands of jobs, invested billions in the North, and paid billions in taxes! Who wouldn't like to see that continue?

Happy reading! ... Editor

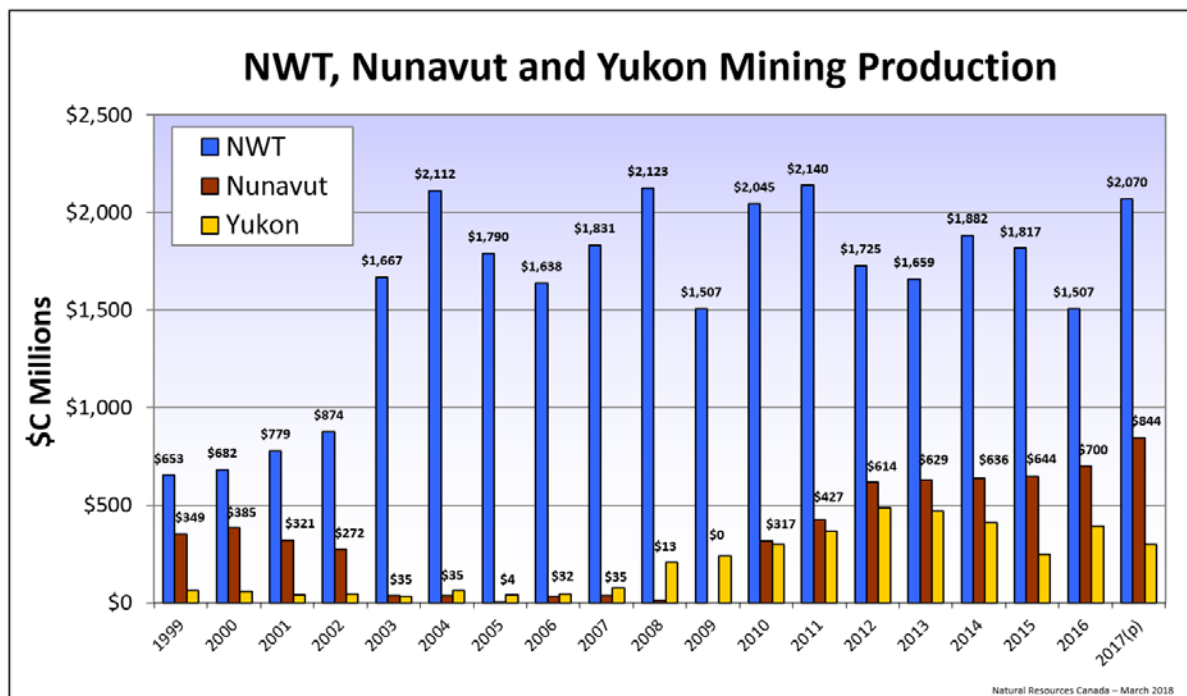
Our Mission: To provide leadership on, and advocate for, responsible and sustainable mineral exploration and development in the NWT and Nunavut.

A look back at 2018 in Charts

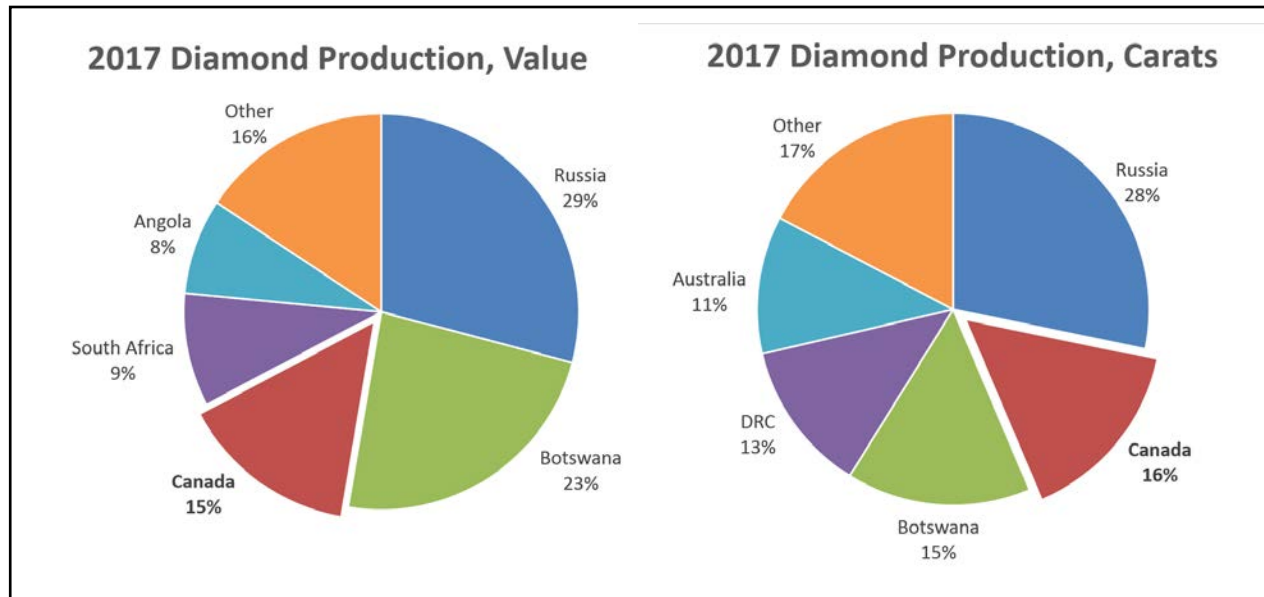
Here are some visual snapshots of the NWT and Nunavut minerals industry in 2018.



Mineral exploration declines in the NWT and Nunavut continue to be worrisome, as the consequences of low exploration today will only appear 20 years from now, just when we need new replacement mines.



Mineral production was a good news story in 2018 in both the NWT and Nunavut as mines increased production.



The Northwest Territories produced the bulk of Canada's diamonds in both value and carats, keeping Canada in a top global position. Kimberley Process data for 2018 will be released in 2019. (Source: [Kimberley Process](#))

Chamber asks City of Yellowknife to Proclaim Support for Mineral Industry

(NEWS RELEASE, Yellowknife, NT – January 8, 2019) Presenting to Yellowknife City Council and an overflowing room of supporters yesterday, the Chamber of Mines urged the Council to include actions to support a healthy mineral industry in building their first strategic plan.

The Northwest Territories and Yellowknife economies are at risk due to a maturing diamond mining industry, insufficient new projects to replace future mine closures, and exploration investment that continues to languish. The Conference Board of Canada reached the same conclusion in its 2018 Territorial Economic Outlook Forecasts, as did the NWT Premier's Indigenous Summit in October, and the Indigenous Leaders Economic Forum in December. As NWT Premier McLeod stated: "... the NWT is facing significant economic challenges and steps need to be taken immediately."

As the largest mineral industry beneficiary, the City of Yellowknife has a vested interest in regaining a robust and healthy mineral industry. In 2017, the city was home to over 1,000 mining industry employees, and the majority of the \$800 million spent by the mines that same year was through Yellowknife based service and supply companies. Yellowknife continues to be the mineral exploration hub for the NWT and western Nunavut, however declining investment over the past 12 years has seen the NWT lose out on over \$1.4 billion in exploration. This has taken its toll on local air charter, diamond drilling, expediting, retail, Indigenous, service and geological consulting businesses.

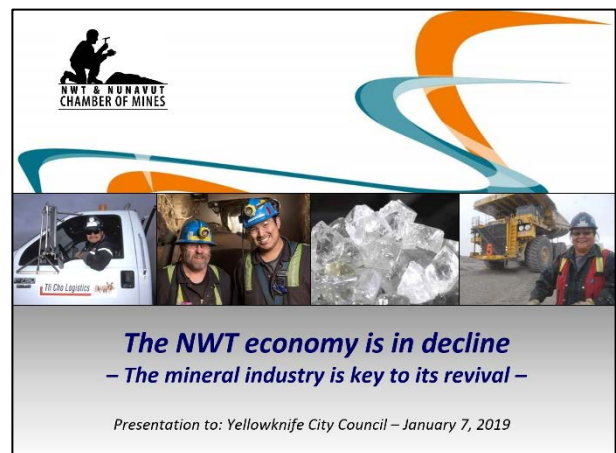
The Chamber asked Council to establish a pillar in its strategic plan to support the mineral industry and include the following elements:

- Seek infrastructure investment, in particular the Taltson-Snare transmission line to provide cheaper, greener power for residents, businesses and the mineral industry;

- Curb spending to control taxes, given the strong potential for future revenue decreases from the mineral industry and downward pressure on appraised property values;
- Rejuvenate and promote Yellowknife as the road, air, logistics and support centre for the NWT and Nunavut mineral exploration industry; become the employment and business hub for the NWT and western Nunavut mining industry;
- Support increased awareness of career opportunities and the mineral industry's importance including related education at the high school and polytechnic level;
- Lobby and collaborate with governments for transmission infrastructure support, for Yellowknife's success is governments' success too.

The Chamber asked the City to incorporate these recommendations in its upcoming strategic plan, and to further reaffirm its mining roots and mining future by officially proclaiming their support for the mineral industry, as other cities have done.

Click on the thumbnail or [here](#) to view the Chamber's presentation.



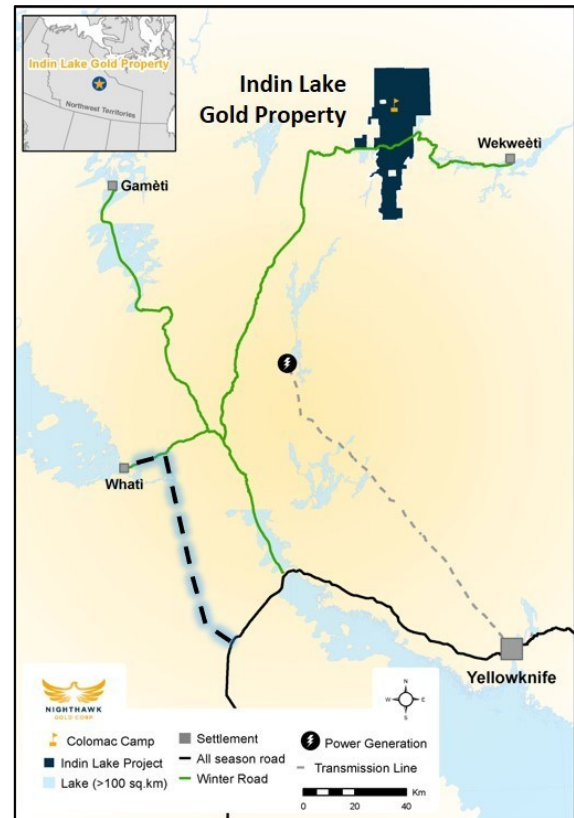
Executive Director Tom Hoefer, President Gary Vivian and directors Paul Gruner and David Connelly sought support for the mineral industry from Yellowknife City Council. (Photo courtesy billbradenphoto.)

Nighthawk provides update on the approved all-season road in NWT

Nighthawk Gold is pleased to provide [an update on the approved construction](#) and operation of a permanent 97 km two-lane gravel highway on a former winter road alignment from Hwy 3, roughly 40km south of Behchoko, to the Community of Whati.

"This is an important project for the Northwest Territories, and particularly residents of the Tlicho First Nation as the road will allow transportation efficiencies to reduce the cost of living within the region, foster social opportunities by linking up some of the more remote communities such as Whati, and ultimately result in better winter road access to our Indin Lake Gold Property," said Michael Byron, president & CEO. "We are encouraged to see the commitment of all three parties to promote infrastructure development and road access, especially when considering any future mining scenarios at our flagship Colomac Gold Project. As well, there is substantial mine waste rock stockpiled on surface from the former operation that could potentially be used as material for any additional road construction in the future," he added.

"We see this as an evolutionary step in the right direction to provide attractiveness to industry in the exploration and development of natural resources. We are very pleased to see the territories' continued focus on future development to support its communities and industry."



In late October, the responsible ministers adopted the recommendations of the Mackenzie Valley Environmental Review Board on the environmental assessment of the proposed Tlicho all-season road, which allows the project to proceed through to the regulatory and permitting phase. In mid-November, the preferred proponent was selected for road construction and a 25-year operating tenure for road maintenance. All parties are finalizing design details and permit applications, with financial close expected by mid-February.

All required permits are expected by early fall, which should see formal ground work start alongside receiving the main permits (water licence and land use permits), with an anticipated construction time of two years.

Additional TASR Project Information

The road construction is being funded through a public-private partnership, with the federal government providing 25% of the capital costs. The remainder is being funded by the Government of the Northwest Territories. The territorial government is working in partnership with the Tłı̨chǫ First Nation government to advance the project.

- Replacing the southern section of the existing winter road will adapt to the impacts of climate change, provide uninterrupted access to the community of Whati and increase the winter road window-of-access to the communities of Gameti, Wekweeti, and Nighthawk's Indin Lake Gold Property
- Transportation efficiencies will reduce the cost of living for the region and embrace social opportunities
- The capital ceiling in the Request for Proposals (RFP) is \$200 million
- All-weather access will attract further interest from industry in exploration and development of natural resources
- Road construction and maintenance will result in significant employment and training opportunities for Tlicho residents that support the development of a strong northern workforce

For more information on the TASR project and other infrastructure initiatives from the Government of the Northwest Territories, please visit their website at <https://www.inf.gov.nt.ca/en>.

North America's largest diamond recovered at Diavik

552 carat yellow diamond beats previous record held by a diamond from the same mine

Dominion Diamond Mines, a world leading producer of responsibly mined diamonds, [announces recovery of the largest known gem quality diamond ever found in North America](#). The 552 carat yellow Canadamark diamond was unearthed in October at the Diavik Diamond Mine, approximately 230 kilometres south of the Arctic Circle in Canada's Northwest Territories. The find far surpasses the previous record held by the Diavik Foxfire at 187.7 carats, which was also recovered at the same mine in 2015. Dominion owns 40 per cent of Diavik. The other 60 per cent is owned by operator Rio Tinto.

"This incredible discovery showcases what is truly spectacular about Canadamark diamonds," said Kyle Washington, Dominion Diamond Mines chairman. "The color and texture of the diamond are a unique example of the journey that natural diamonds take from their formation until we unearth them. Our Diavik Mine has produced some of the most beautiful diamonds in the world, and this one certainly tops the list."

The astonishing gemstone was uncovered while passing through the initial screening process at Diavik's recovery plant. Abrasion markings on the stone's surface attest to the difficult journey it underwent during recovery, and the fact that it remains intact is remarkable.

Measuring 33.74mm x 54.56mm and weighing 552.74 carats, a diamond of this size is completely unexpected for this part of the world and marks a true milestone for diamond mining in North America and Canadamark diamonds overall.



Weighing 552 carats, this fancy yellow rough diamond, recovered from the Diavik Diamond Mine, is North America's largest rough diamond. Dominion Diamond photo

Its color, texture and structure are also unique from a geological perspective and may be studied further. The diamond will not be sold in its rough form.

Due to the significance of the discovery, Dominion will select a partner in the coming weeks who will cut and polish the stone.

The size and highly technical nature of this stone means that only a handful of master cutters in the world are qualified to polish it, ensuring that the stone's beauty, color and brilliance are maximized.

Dominion expects to achieve a significant main stone once the diamond is polished, that will be Canadamark certified.

As the diamond is still undergoing evaluation, it is too early to determine the ultimate value of the diamond.

Earrings cut from another large Diavik stone – Foxfire – sell for US\$1.57 million

A set of pear shaped diamond earrings, created from the 187.66 carat Diavik Foxfire rough diamond, have fetched \$US1.57 million.

The earrings were sold December 5 at Christie's magnificent jewels [auction](#) in New York.



The 77.71 carat earrings cut from Foxfire sold for US\$1.6 million (Rio Tinto photo)

The jewellery includes 37.87 and 36.80 brilliant-cut pear shape polished diamonds accented by 1.53 carat and 1.51 carat stones of the same cut.

Purchase price for the earrings was US\$1,572,500. The buyer also got a replica of the Foxfire rough stone as well as a trip for two to the Diavik Diamond Mine at Lac de Gras, NWT.

[Foxfire](#) was recovered at Diavik in 2015 and was, at that time, the largest gem-quality rough diamond ever reported in North America. The rough stone was extensively tested by the Gemological Institute of America and studied by researchers. Foxfire was a real 'rock star' and showcased at Kensington Palace in London in 2015, displayed at Canada House in London, and was on display for three months in 2016 at the Smithsonian National Museum of Natural History in Washington.

Sabina updates Back River gold project, de-risking activities completed

Sabina Gold & Silver is pleased to provide a project update for the company's 100% owned Back River Project in Nunavut.

In support of the path to production, Sabina has been focused on a series of value and detailed engineering programs on the Back River project with the objectives of investigating opportunities, setting key design criteria, improving the accuracy of the engineered and design elements, updating the project execution strategy, improving the accuracy of the capital cost estimate, and improving the overall execution schedule.

One of the changes that has resulted is that the company intends to enter into a fixed price contract for design and construction of the Processing Plant and negotiation of the terms of the EPC contract including process and schedule guarantees are underway. Sabina plans to manage the balance of the Project rather than enter into an engineering, procurement and construction management contract with a third party, as contemplated in the feasibility study. This strategy enables greater certainty over costs, schedule and design quality.

In 2018, the company also completed significant pre-development activities at the site focused on advancing and de-risking future development, including:

- Completion and commissioning of the marine laydown area (port)
- Completion of two cargo sealifts
- Ongoing geotechnical drilling in key infrastructure sites
- Detailed surveying of the winter ice road (WIR) route for better refinement
- Procurement of construction equipment, bulk fuel storage and other infrastructure
- Commencement of earthworks at Goose site, including quarry expansion, heavy equipment upgrades and initial road and bridge construction

“2018 has seen significant de-risking work on the Back River Project both in design and construction,” said Bruce McLeod, president & CEO.

“While we intend to minimize risk on the processing plant by going with a fixed price EPC contract, self-management is a key strategy to developing this project, which we successfully demonstrated with the construction of our Port facility on time and on budget. We believe in our approach in tackling the more challenging components of the Project, such as logistics, prior to a production decision, as these activities continue to add value to the project and the company. Prudent capital management is critical to the success of the project., we will remain disciplined in our approach to financing by continuing to focus on activities that add value and de-risk the project.”



In 2018, Sabina completed numerous predevelopment activities. Click [here](#) for their latest corporate presentation. Sabina photo.

For detailed information on:

- Project execution
- Capital cost estimate
- Processing
- Infrastructure, Logistics and Procurement

See the release [here](#).

In other news, on December 21, Sabina announced [closing of its share offering which generated \\$25.3 million](#).

The offering was comprised of 18,340,000 common shares of the company at \$1.20 per share as well as an over-allotment for 2,751,000 common shares at \$1.20 per share (representing 15% of the common shares offered pursuant to the offering) which was exercised in full by the underwriters for total gross proceeds of \$25,309,200.

In addition, pursuant to a participation rights notice delivered to Zhaojin International Mining Co., Ltd., Zhaojin has elected to exercise its participation right in relation to the offering to purchase, by way of private placement, 2,317,443 Common Shares of the company at C\$1.20 per share for total gross proceeds of \$2,780,932, to close prior to December 31, 2018.

The purpose and timing of this offering is to enable Sabina to make financial commitments in 2019 to support activities over the coming months that will maintain the project's first gold production schedule.

The net proceeds of the offering will be used to continue to de-risk the Back River project by completing the following activities:

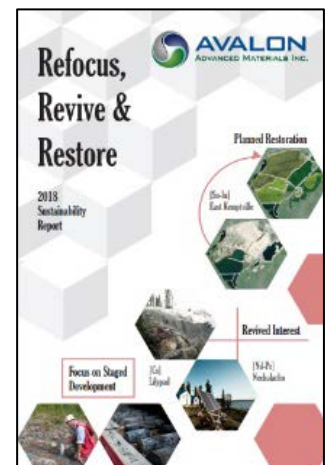
- Construction of the winter ice road from the port at Bathurst Inlet to the Goose Site in early 2019. Preparation of the winter ice road development started earlier this week with the initial opening of the camps, the building of an air strip in support of a heavy lift cargo campaign in January 2019, and the preparation of the on-site ice road equipment
- Following construction of the winter ice road, haulage of materials and large construction equipment purchased earlier this year, currently staged at the Port, to the Goose Site
- High-priority pre-development civil earthworks at the Goose Site
- Detailed engineering of the process plant required to secure a fixed price design and construction contract for the processing plant
- Advancement of remaining licenses, and for working capital and general corporate purposes

The Dec 21 announcement was preceded by Sabina's [December 12 media release](#) indicating that due to strong demand the it has increased the size of the previously announced offering to 18,340,000 common shares.

Avalon releases annual sustainability report

Avalon Advanced Materials Inc. announced release of its [seventh annual comprehensive sustainability report](#), along with the release of its 2018 annual filings and that it has closed its previously announced \$500,000 convertible security funding.

The 2018 Sustainability Report entitled Refocus, Revive & Restore highlights the company's health and safety, social, environmental and economic matters. It also incorporates a self-assessment of Avalon's 2018 fiscal year sustainability performance and sets targets for 2019 against the applicable Towards Sustainable Mining indicators defined by the Mining Association of Canada. The 2018



sustainability report prepared in accordance with the Global Reporting Initiative Standards, core option and is available from the company's website.

"Sustainability is integral to our mission of building a profitable cleantech materials supply chain business that embraces high performance in areas of safety and social and environmental responsibility. Transparently reporting to our stakeholders is a strategic advantage that we believe will ultimately lead to enhanced shareholder value through better access to markets for our cleantech materials products and reduced risks of delays in receiving necessary permits and approvals. We will continue to pursue sustainability in all areas of our business and promote improved mineral industry practices with investors, potential partners and government, said Don Bubar, president and CEO.

Baffinland schedules phase two information sessions in January

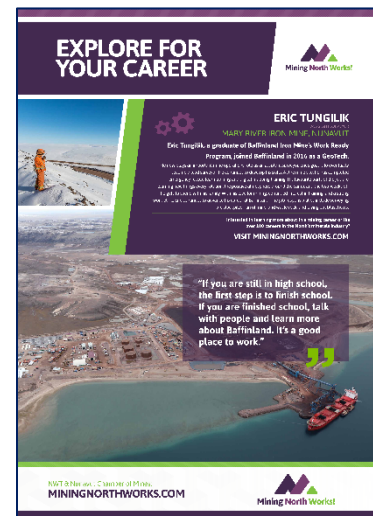
Baffinland representatives will be in the North Baffin communities to [host open houses](#), give presentations, and answer questions about its exciting phase two project proposal.

The company will be discussing the design of the project, environmental management, project benefits and the Nunavut Impact Review Board environmental assessment process. Doors will open at 6:30 pm followed by a presentation from Baffinland staff and a question and answer period.

"It's an opportunity for you to get to know us, ask questions about Baffinland's plan to grow the Mary River project, and to provide your feedback," the company said.

Date/Time/Community/Location

January 7: 6:30p.m. – 10:00 p.m. Hall Beach Community Hall
January 8: 6:30p.m. – 10:00 p.m. Igloolik Community Hall
January 9: 6:30p.m. – 10:00 p.m. Arctic Bay Community Hall
January 10: 6:30p.m. – 10:00 p.m. Pond Inlet Nasivvik High School
January 11: 6:30p.m. – 10:00 p.m. Clyde River Community Hall



Click poster for profile of Baffinland employee Erik Tungilik.

Report: The Global Diamond Industry 2018: A Resilient Industry Shines Through

Three key trends are shaping the future of the diamond industry.

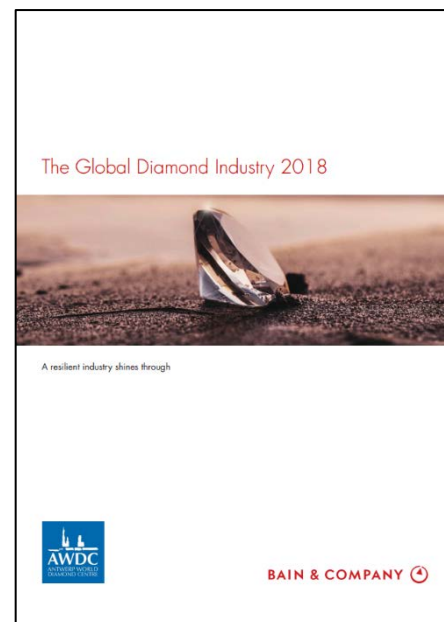
The eighth annual report on the global diamond industry has been released. Prepared by the Antwerp World Diamond Centre (AWDC) and Bain & Company, this year's edition covers industry developments in 2017 and the first half of 2018 and takes a close look at key industry trends.

The comprehensive document can be found [here](#). It begins with important developments along the value chain, and in subsequent sections, reviews factors that influenced rough diamond production and sales, midstream performance and global diamond jewelry demand in major markets.

The report also provides an update on the long-term outlook for the diamond industry through 2030. The 2030 supply-demand forecast considers announced production plans, recent changes in mining operations, potential additional sources of supply, expected changes in global and regional macroeconomic parameters, and potential effects of lab-grown diamonds.

Readers looking for a brief overview of this report can find key points below:

- Following a period of high volatility, 2017 was strong for the diamond industry, with approximately 2% growth across all segments of the value chain. In 2018, revenues are expected to grow again, even accelerating in the mining and jewelry retail segments. Volatility persisted in 2018; the final outcome for the year will be determined by sales performance during the holiday season.
- Rough diamond mining companies delivered unprecedented production growth of nearly 20% in volume in 2017. The production increase came mostly from mines with lower-quality assortments. Mining company revenues grew by 2% overall, indicating a positive trajectory for the second year in a row. In 2017, some major producers reported decreases in their EBIT margins, mostly due to currency appreciation in production countries. However, mining companies' profitability bounced back in the first half of 2018.
- Midstream profitability remained positive with margins of about 1% to 3%. Assuming the demand for diamond jewelry continues to rise through the end of 2018, overall profitability of the cutting and polishing segment is expected to improve. Midstream inventories increased in 2017–18, particularly in lower-quality and small-size assortments, as midstream players prepared to ride another demand surge for those categories in 2018. India continued to grow its leadership position in the cutting and polishing segment due to lower labor costs, a favorable regulatory environment and relatively better access to financing. Even though financing availability remains an issue in the midstream segment, transparent and financially healthy companies report little impact on their ability to secure funding.
- In line with positive luxury market trends, global diamond jewelry sales grew 2% in US dollar terms in 2017, fueled by strong macroeconomic fundamentals in the US, resurging demand from Chinese millennials, and increasing sales in the self-purchasing category in China. The demand for diamond jewelry is expected to accelerate in 2018. However, if the trade war between the US and China continues, it may have a negative effect on the growth prospects for global demand in the short to medium term.
- Three key industry trends are shaping the future of the diamond industry.



- One of the most important opportunities is the increasing influence of digital technologies. Emerging and maturing digital technologies are affecting all parts of the value chain, enabling diamond producers, midstream players and retailers to increase efficiencies within their operations. Marketing efforts that use digital technology can also deliver superior customer experiences.
- The second trend is the growing presence of lab-grown diamonds. Lab-grown diamonds are clearly here to stay. De Beers Groups' launch of a lab-grown fashion jewelry retailer called Lightbox Jewelry, and the US Federal Trade Commission ruling on diamond terminology were major news in 2018. Lightbox does not provide grading reports for its products, as it states that grading reports exist as a record of a diamond's rarity and, therefore, its value—with products that can be mass-produced to a particular recipe, Lightbox notes that grading reports could confuse consumers about the value of their lab-grown stones. The effects on natural diamond demand and price will depend on consumers' perceptions and preferences. If the natural diamond industry can differentiate its stones from lab-grown diamonds (perhaps positioning lab-grown diamonds as fashion jewelry rather than luxury items), the effect on natural diamond demand by 2030 will be limited up to 5% to 10% in value terms. Given the pace of declining production costs and wholesale and retail prices, we expect lab-grown stones to become accessible to a wider consumer audience, potentially increasing demand for diamonds in general. In the short to medium term, growth of lab-grown diamonds will be limited by manufacturing capacity, access to technology and intellectual property, and availability of funding.
- The third key trend is the shifting preferences of younger generations of consumers. Younger generations of consumers are causing industry players to rethink their sales and marketing strategies. The self-purchase product category continues to grow as millennial and Generation Z's female spending power increases. Younger generations are also more inclined to consider the opinions of social influencers, customer reviews and "likes" when making purchasing decisions. Social media shopping is expected to increase significantly as the spending power of Gen Z rises. Many retailers are already strategizing how the shifts in preferences will change their approaches to marketing and operations.
- The long-term outlook for the diamond market remains positive. Rough diamond supply is projected to be negative 1% to 1% annually in volume terms. We expect demand for natural rough diamonds to stay flat or grow up to 2% annually through 2030 in real terms (2% to 4% in nominal), backed by strong fundamentals in the US and the continued growth of the middle class in China and India. Our outlook incorporates possible demand substitution from lab-grown diamonds, which is estimated to be 5% to 10%. It also reflects fundamental long-term supply and demand factors rather than short-term fluctuations.

Read all about it! 2018 Mining North magazine is out (members' directory too)

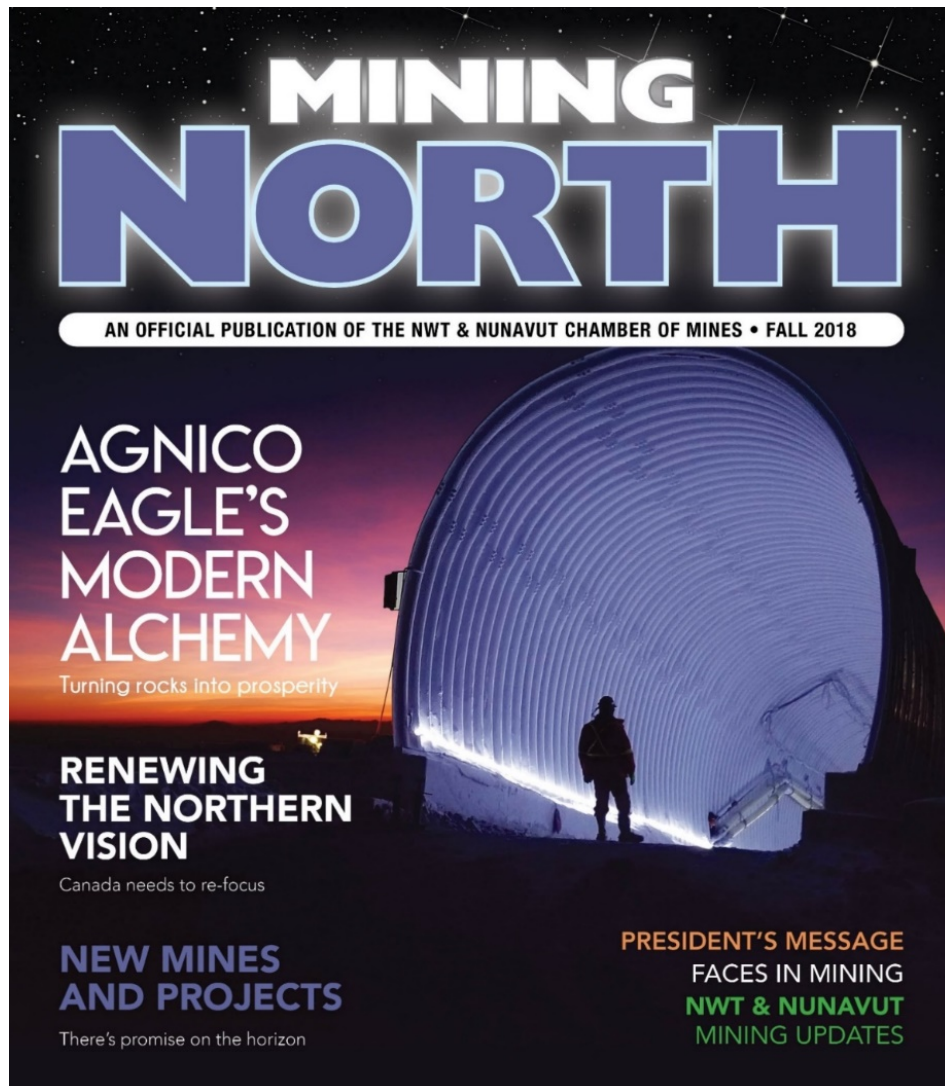
Released at the 2018 Yellowknife Geoscience Forum, our annual glossy magazine, MININGNORTH is chock full of updates on exploration and mining activities from this past year, some great profiles of people in our industry, some thought provoking articles on how to renew Canada's northern vision, and the infrastructure challenge. There are maps too of where our members are working.

Check out the bonus members directory and see who supports the chamber.

View MININGNORTH [online](http://www.miningnorth.com) through the chamber website. Go to www.miningnorth.com and on the home page under *Other Postings*, watch for this stunning cover to appear (it's the portal at Agnico Eagle's Meliadine mine currently under construction). Simply click on the magazine icon, or the cover thumbnail here, and enjoy reading!

Feel free to tweet any stories/pages that you like.

Happy reading!



Exploration & development news briefs (see [Chamber website](#) for more information)

Dunnedin Ventures Inc. announced [diamond recovery results from kimberlite pipe KH10-11](#) and plans to advance its diamond assets at its 100% owned Kahuna Diamond Project in Nunavut. Highlights include:

- Kimberlite pipe KH10-11 is confirmed to be diamondiferous but low grade
- Dunnedin's advisor Chuck Fipke recommends focusing pipe exploration efforts on the Josephine Target Area ("JTA") during 2019 and is prioritizing targets for drilling
- The company reports significant extensions to the strike length of its high-grade diamond dikes
- Industry-leading kimberlite dike experts have been retained to advise on the expansion of the existing high-grade diamond resources and the advancement of other proven diamondiferous dikes
- K10-11 Kimberlite Pipe & Focus of Future Kimberlite Pipe Exploration

Kimberlite pipe KH10-11 was identified during a geophysical data review in early 2018 and drilled during the summer program using rotary air-blast ("RAB") drilling. A representative 152.8-kilogram composite from hole 18-RAB-032 was selected between 12.2 and 109.7 metres depth and sent to CF Mineral Research Ltd. ("CFM") in Kelowna, British Columbia for analysis. Processing returned one diamond in the 0.212 – 0.300 mm sieve fraction. Results confirm the pipe is diamondiferous but likely low grade and further sample processing is not warranted at this time. Details of the drilling at KH10-11 and a map are in the company's news release dated July 19, 2018.

Osisko Metals announce an [updated inferred mineral resource estimate](#) for its 100% owned Pine Point project, located near Hay River, in the Northwest Territories of Canada. The MRE was prepared by BBA Inc. and incorporates an open pit mining scenario with cut-off values based on estimated long-term metal prices, mining costs, metal recoveries, concentrate transport and smelter costs. Highlights

- The pit constrained resource is based on optimized pit shells using a zinc price of US\$1.10/lb and a lead price of US\$0.90/lb. The lower cut-off grade varies across the property and ranges between 1.70% ZnEq and 2.00% ZnEq.
- The in-pit Inferred MRE is divided into five geographic zones, each zone composed of individual deposits (see Pine Point Property Map and Table 1). The MRE incorporates 42 new pits and expansions of 2 historical pits

- Pine Point's main core (East Mill, Central and North Zones) contains approximately 23.4 Mt grading 6.30% ZnEq or 2.3 billion pounds of zinc and 0.9 billion pounds of lead
- At the deposit scale the grade and tonnage show little variability at lower cut-off grades (see Table 2). The in-pit MRE is very robust and is relatively insensitive to metal prices
- Osisko Metals will continue the infill campaign in early 2019 and begin a substantial exploration program in mid-2019 to test the excellent brownfield mineral potential along the entire 65km Pine Point trend. A new MRE is planned for H2 2019 with the aim of converting a significant proportion of current resources to the Indicated category

ValOre Metals Corporation [announced results](#) from the 2018 summer exploration program at the 100% owned Baffin Gold Property in Nunavut Territory, Canada. The Baffin Gold Property has one of the largest undeveloped greenstone-iron formation gold belts in Nunavut, totalling 405,083 ha and covering 160 km of the Foxe Fold Belt on central Baffin Island. Sampling results from the company's 2018 season have significantly expanded gold-in-till target areas, while new airborne geophysics has highlighted underlying geological settings and possible structural controls for mineralization over much of the property.

2018 highlights:

- Results from 438 till geochemical samples infilled the 2017 work and outlined three, kilometre-scale areas with anomalous gold in underexplored, prospective geology west of the high-grade Brent and Ridge occurrences;
- Results from 31 rock samples confirmed high-grade gold at Durette, an area of complex folded Bravo Formation iron formation and metavolcanics;
- Highlight grab rock samples from 2018 include:
 - 42% of rock samples taken in 2018 (13) assayed > 5g/t
 - 67.9 g/t Au - Durette quartz-arsenopyrite vein
 - 46.4 g/t Au - Brent quartz-arsenopyrite vein
 - 29.2 g/t Au - Durette quartz-arsenopyrite vein
- 6,984 line kilometres of airborne horizontal gradient magnetics was flown on two grids

ValOre now has near-continuous geophysical coverage over 110 kilometres of strike on the property.

Calendar of events

Association for Mineral Exploration Roundup, Vancouver, January 28-31, 2019.

PDAC 2019 convention, March 3-6, 2019, at the Metro Toronto Convention Centre.

Member news releases this past month

- 21 December 2018 [Sabina completes \\$28.1 million financing, derisking for Back River](#)
- 20 December 2018 [Nighthawk updates approved all-season road in NWT](#)
- 16 December 2018 [Incident at Mary River Mine](#)
- 14 December 2018 [ValOre defines gold in till targets, extends Baffin geophysical coverage](#)
- 13 December 2018 [Dunnedin reports KH10-11 results, exploration, retains diamond experts](#)
- 13 December 2018 [Dominion Diamond announces recovery North America largest diamond](#)
- 12 December 2018 [Sabina announces increase of bought deal financing to C\\$22.0 million](#)
- 6 December 2018 [Osisko releases Pine Point resource, 38.4M tonnes grading 6.58% ZnEq](#)
- 6 December 2018 [Baffinland Iron Mines holding Christmas feasts in the North Baffin Region](#)
- 4 December 2018 [Sabina provides Back River update, significant derisking activities in 2018](#)
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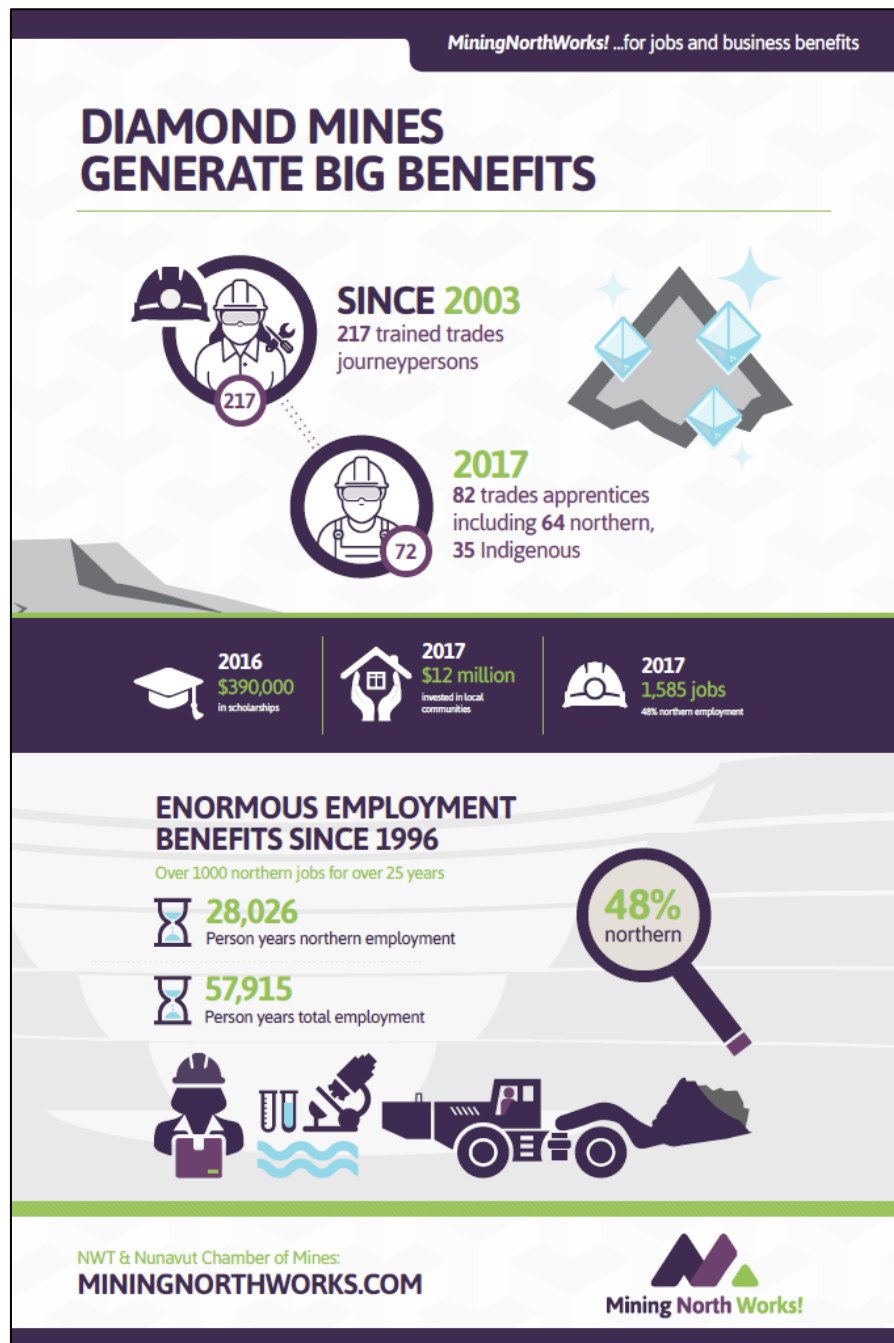
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MiningNorthWorks!

Chamber of Mines Public Awareness Manager Doug Ashbury is working hard on our new public awareness program, called [MiningNorthWorks!](http://www.miningnorthworks.com). The brand is a play on words, in that mining in the north is working to create benefits, working responsibly, working in two territories ... you get the picture.

To learn more about all things mining, check out our [MiningNorthWorks!](http://www.miningnorthworks.com) program (www.miningnorthworks.com). Please pass it on to associates, staff, neighbours and friends!



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.	Media release, 13 December 2018 Dominion Diamond Mines announces the recovery of the largest diamond ever found in North America at Diavik
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, 27 November 2018 Mountain Province announces 2019 guidance, provides year-end update Media release, 19 November 2018 Mountain Province announces Tom McCandless as VP exploration Media release, 12 November 2018 Mountain Province announces quarter results
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, 9 November 2018 NorZinc reports results for Q3 and operations update Media release, 8 November 2018 NorZinc welcomes Anita Perry to its board of directors

			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, 30 October 2018 Fortune reports government approvals for the Tlicho All-Season Road
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. 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.	
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, 20 December 2018 Nighthawk updates approved all-season road build in NWT
Pine Point	Osisko Metals	Lead-zinc	Proposed open pit mine east of Hay River, NT. 10 open pits mined	Media release, 6 December 2018 Osisko Metals releases Pine Point in-pit inferred

			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.	resource: 38,400,000 tonnes grading 6.58% ZnEq
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, 14 November 2018 Seabridge files third quarter report and financial statements and MD&A Media release, 9 November 2018 Seabridge Gold secures \$14 million private placement
Selwyn (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, 3 December 2018 Avalon releases annual sustainability report, filings, closes financing

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, 24 October 2018 Agnico Eagle reports third quarter 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, 16 December 2018 Incident at Mary River Mine Media release, 6 December 2018 Baffinland Iron Mines holding Christmas feasts in the North Baffin Region
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, 12 November 2018 TMAC receives project certificate for Boston-Madrid project Media release, 8 November 2018 TMAC provides exploration update at Doris and Madrid North Media release, 8 November 2018 TMAC reports record Q3 operating and financial performance
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, 24 October 2018 Agnico Eagle reports Q3 results; production guidance Increased for 2018 and 2019; Nunavut development projects continue to advance as planned; drilling extends Amaruq mineralization at depth 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	Media release, 21 December 2018 Sabina completes \$28.1 million financing, support continued derisking for Back River Media release, 12 December 2018 Sabina Gold & Silver announces increase to previously announced C\$20.0 million bought deal financing to C\$22.0 million

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			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 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	Media release, 4 December 2018 Sabina provides development update on Back River project significant derisking activities
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, 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	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
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, 19 November 2018 North Arrow updates NWT and Sask diamond projects Media release, 14 November 2018 Member's Corporate Presentation: North Arrow, November 2018 Media release, 13 November 2018 North Arrow reports microdiamond results from kimberlite ML8 at Mel
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, 13 November 2018 Auryn drills gold-bearing hydrothermal system at Committee Bay

Project maps

