

Northern Mining News

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From the Editor ...

Congratulations to all the new Northwest Territories MLAs! As noted in our recent release, newly elected members of the 19th Legislative Assembly will face some major economic challenges as our diamond mines mature. The Chamber looks forward to working with all members of the Legislative Assembly to help overcome the challenges the NWT is facing with the unnecessarily declining mineral resources industry. The mineral tenure 'heat map' on page 14 in this issue provides an indicator of the situation. At risk is annual mine spending in the North alone at over \$800 million, and thousands of mining jobs. We hope it's an easy call to action from the newly elected politicians.

Sometimes, the numbers can be difficult to put into perspective. For example, how does one describe the property and fuel taxes paid by the mines to the Government of the Northwest Territories? Here's one way; it's more than enough to have paid for the new territorial hospital recently constructed in Yellowknife. Just saying!

Happy reading! ... Editor

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

Newly elected NWT MLAs face a daunting economic picture

The results of Northwest Territories Election have brought some interesting results, including:

- Of the 19 positions, two thirds of the MLAs are new;
- Nine of the MLAs are women, the largest cohort ever in the NWT's history;
- Only one previous Cabinet Minister was re-elected;
- Three of the previous MLAs were acclaimed; and
- Two seats in Yellowknife were so close as to require a recount of ballots.

The NWT & Nunavut Chamber of Mines, on behalf of the minerals industry, looks forward to working with all members of the newly elected 19th Assembly of the Northwest Territories.

In leading up to the election, the Chamber of Mines provided [a guide to candidates](#) running in the election, and with the NWT Chamber of Commerce held public forums in Yellowknife to determine the positions of all candidates on economic development and the minerals industry. The [record of the debates](#) shows many are strongly supportive of the minerals industry. Videos of these September 10-12 debates were posted by the Chamber of Commerce here:

<https://www.facebook.com/nwt.chamber>.

The minerals industry is the largest private sector contributor to the economy, and with indirect benefits, contributes over 40% of the Gross Domestic Product. [Annual diamond production](#) exceeds \$2 billion, which pays for thousands of jobs, and hundreds of millions annually in business spending and in various taxes and royalties. However, these benefits are at risk as current mines mature, and proposed new mines are insufficient to offset the loss. Additionally, [annual exploration](#) investment intended to sustain and grow mining continues to falter, now for 12 years, and has led to a weakening outlook for mining benefits. Economists with the Conference Board of Canada have made “grim” projections for the NWT.

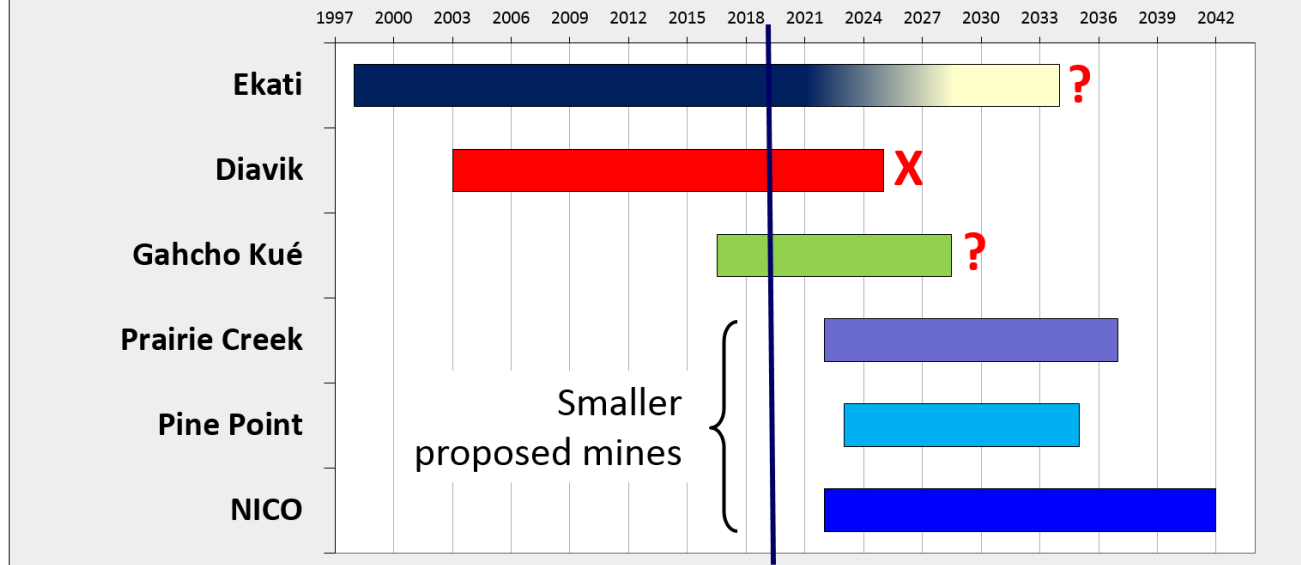
The newly elected 19th Assembly is now faced with the impending economic decline, and with appropriate actions to strengthen mining and exploration and to diversify the economy, can hopefully turn this around. This can be bolstered with commitments by the Federal Government to invest in new road and power infrastructure to serve communities and the minerals industry. “We are hopeful the 19th Assembly will accept this challenge with gusto,” said Chamber President, Gary Vivian. “Our Chamber of Mines looks forward to helping the newly elected Assembly in taking steps quickly to rejuvenate investment and reverse the expected decline in mineral production and its significant benefits to the NWT,” he added.

View the Chamber's release [here](#).

Backgrounder Accompanying the Release

NWT DIAMOND MINE BENEFITS		
	2018	Cumulative (1996-2018)
Northern Employment	1,540	29,566
Northern Business Spending	\$839.7 million	\$14.6 billion

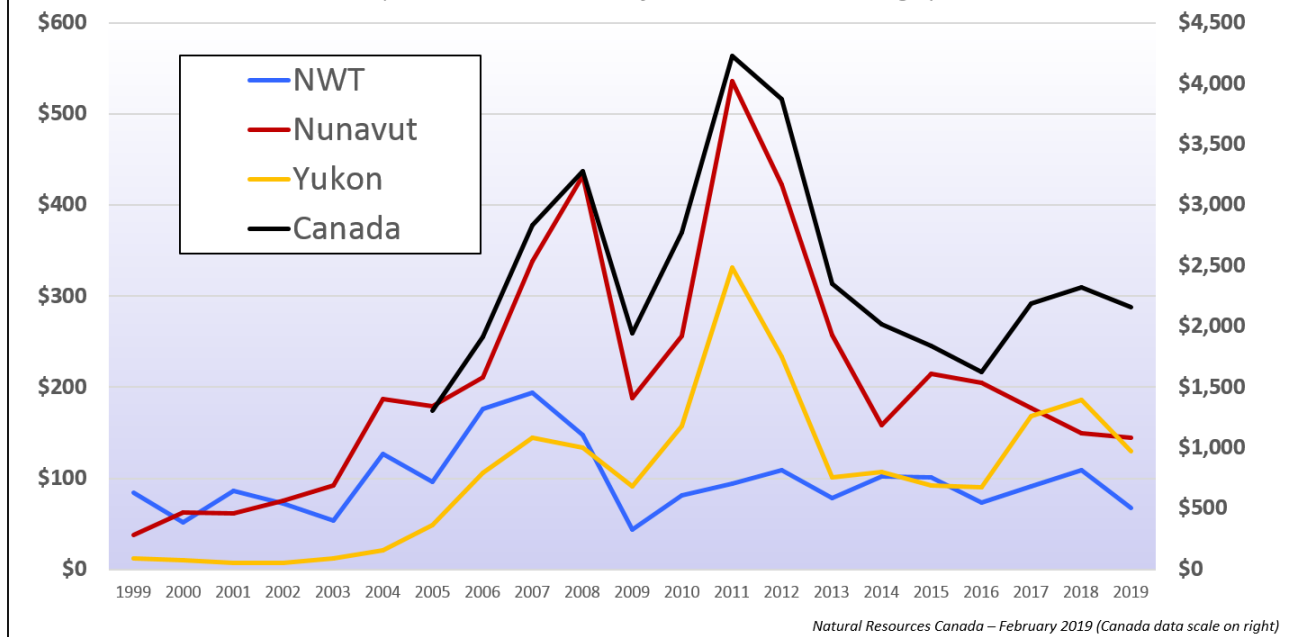
Proposed new mines won't offset diamond mine closures



- Note: Proposed new mines may be subject to change.

Languishing NWT Mineral Exploration Investment (millions)

(Territories data scale on left; Canada data scale on right)



Natural Resources Canada – February 2019 (Canada data scale on right)

Chamber of Mines posts industry information for election candidates

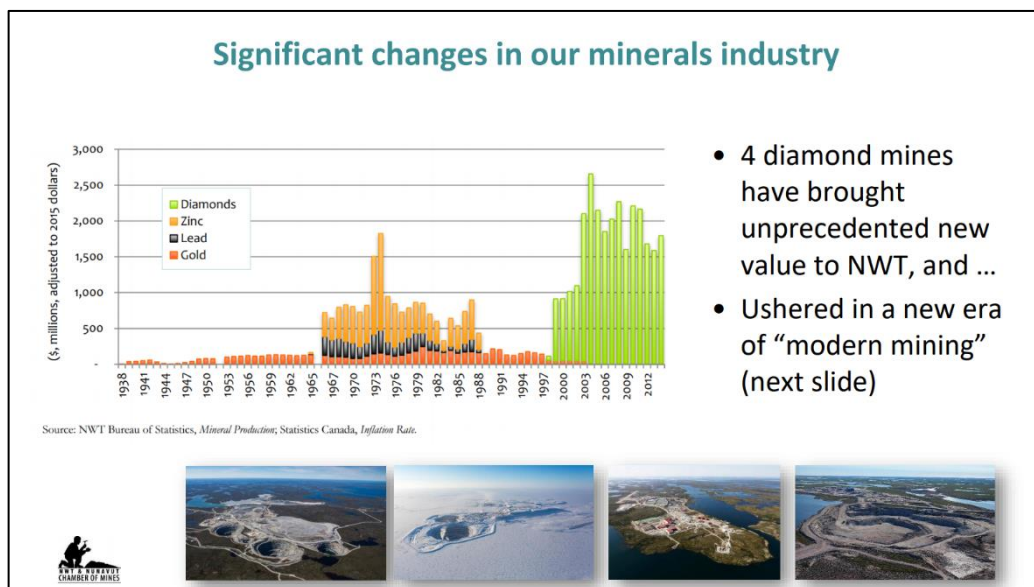
In September, the NWT & Nunavut Chamber of Mines produced two documents to guide candidates who ran in the NWT election.

Chamber of Mines [Backgrounder and Guide for Election Candidates](#) consisted of visual slides explaining why industry is so important to the NWT, described the significant opportunity and potential which exists in the territory, and closed with recommendations on how to address the challenges to sustain and grow opportunities.

[Information for candidates in the 2019 NWT election](#) provided detail on 7 focus areas including:

- access to land
- infrastructure deficit
- high costs
- regulatory costs and delays
- Indigenous governments' expectations and demands
- public awareness; and
- recommendation to launch a visionary investment confidence strategy

President of the Chamber of Mines, Gary Vivian said: "Economists from the Conference Board of Canada continue to forecast challenging economic times because existing mines are maturing. We are hopeful candidates will take advantage of our guides to help them build an economic plan to strengthen the minerals industry and in so doing, the entire NWT economy." Also prior to the election, the Chamber, with the NWT Chamber of Commerce hosted several candidate forums from September 9-11 in Yellowknife. Click [here for the NWT Chamber of Commerce/Chamber of Mines forum candidates answers](#). View the Chamber's release [here](#).



Slide from information guide for election candidates.

Nine Canadian women share US\$43,200 in De Beers Group scholarships

De Beers Group has awarded US\$43,200 in post-secondary scholarships to nine Canadian women as part of its commitment to advancing women and girls in countries where it has operations.

The scholarships, each worth US\$4,800, will help seven recipients in the NWT, one in Nunavut and one in Northern Ontario pursue education in science, technology, engineering and math (STEM) and STEM-like disciplines during the 2019-2020 school year. The recipients are enrolled in a variety of fields, including engineering, biomechanics, nursing and science. They are eligible to receive up to two additional years of funding through the program.

“By reducing financial barriers and showcasing the importance of education in communities where we operate, especially in STEM and STEM-like fields, we hope to encourage more women to consider careers which are traditionally dominated by men,” said Mpumi Zikalala, Managing Director of De Beers Group Managed Operations. “Diversity is a cornerstone for healthy and successful communities and companies alike.”

The recipients were selected from among more than 400 applicants from across Canada who applied through Scholarships Canada. Funding for the scholarships was provided by De Beers Group as part of a three-year, US\$600,000 commitment to support education for women and girls in Canada through UN Women, announced in 2017.

An additional US\$84,000 in De Beers Group scholarships is available to an additional 12 women studying at the University of Waterloo and the University of Calgary in 2019-2020. Once awarded, this will bring the company’s total scholarship investment supporting women in STEM in Canada to over US\$183,000.

As well, De Beers Group funding has helped send 20 teenaged girls from the NWT, Nunavut and Northern Ontario to the University of Waterloo’s Impact Summer Camp for Indigenous Girls in 2018 and 2019. As a Global HeForShe Thematic Champion for UN Women, De Beers Group is providing US\$3 million to support a variety of programs for women and girls in Southern Africa and Canada.

In Canada, De Beers Group is operator of the joint venture Gahcho Kué Mine in the Northwest Territories, is advancing the Chidliak Project in Nunavut, and is actively exploring for new diamond mining opportunities. The Victor Mine in Northern Ontario and Snap Lake Mine in the NWT are in early stages of closure. [View De Beers release.](#)



De Beers, through its scholarship program is supporting northern women pursuing STEM studies. De Beers Canada photo

Gahcho Kué mine rescue team wins overall national western regional title

The Gahcho Kué Mine Emergency Response Team has added the title of [National Western Region Overall Surface Winner](#) to its impressive list of accomplishments following a strong performance at the biennial mine rescue competition held in Fernie, BC.

The seven-member team earned the overall title by winning two of the seven surface events, including the challenging Surface Smoke Search and First Aid challenges, placing second in the Fire competition, and scoring well in all other categories.

Ten of the top mine rescue teams from across western Canada and the northwestern United States took part September 6 and 7. This was the second time the Gahcho Kué team has participated in the event. In 2017 in its first full year of mining operations, the team won the Surface Smoke Search obstacle. “I was extremely proud to witness the level of professionalism, skill and hard work by all members of the Gahcho Kué team during the competition,” said Lyndon Clark, Mine General Manager. “Their performance exemplifies the level of commitment to safety and success shown by everyone who works at Gahcho Kué.”

This brings to 14 the total awards won by members of the Emergency Response Team, crewed by volunteers from across the operation. Since the mine opened in 2016, the team has won four national western region trophies and 11 NWT/Nunavut mine rescue awards, including winning the overall Surface Mine Rescue competition champions in 2018 and 2019.

Gahcho Kué Mine is located in the Northwest Territories (NWT), 280 km northeast of Yellowknife. The mine is a joint venture between De Beers Group (51% - the operator) and Mountain Province Diamonds.



*Gahcho Kué's mine rescue team won the biennial western regional surface mine competition in Fernie, BC.
Be Beers Canada photo*

Nighthawk extends mineralization at Colomac and Treasure Island

Nighthawk Gold Corp. updated the latest drill results from both its flagship Colomac Gold Project and the Treasure Island Gold Project, located within the north central region of its 100% owned Indin Lake Gold Property, Northwest Territories, Canada. Results for nine holes (4,276.89 metres) drilled at Colomac's Zone 1.5 and two holes (690 metres) recently completed at Treasure Island are reported (See Table 1, Figures 1, 4 in the [release](#)).

"We are excited to resume our drilling program at Treasure Island and to follow up on our very successful 2018 program which delivered many noteworthy intercepts and discoveries. We consider Treasure Island as one of our key regional prospects and given that its extensive broad mineralized envelope hosts internal higher-grade domains, we believe that we are well on our way to realizing a first-class asset to compliment Colomac," Dr. Michael Byron, president and chief executive officer.

Drilling Highlights:

Colomac Zone 1.5

- Hole C19-17 tested an area 70 metres south of C19-08 (Colomac's best intercept to-date, see press release dated May 28, 2019), returning 58.50 metres of 1.93 grams per tonne ("gpt") gold ("Au") (32.00 metres true width), including 13.55 metres of 4.58 gpt Au gold, and including 4.55 metres of 10.26 gpt Au.
- Hole C19-21 was drilled 30 metres south of C19-17 and intersected 62.25 metres of 1.47 gpt Au (33.00 metres true width), including 19.25 metres of 2.20 gpt Au, and including 6.00 metres of 2.65 gpt Au and 6.75 metres of 2.80 gpt Au.
- Forty-seven drillholes have now been reported for Colomac representing 17,100.89 metres of the 2019 drilling to-date. All holes have intersected mineralization.

Treasure Island

- Hole T19-01 intersected 6.25 metres of 12.08 gpt Au, including 2.50 metres of 28.61 gpt Au, and T19-01B reported an upper intersect of 27.25 metres of 1.41 gpt Au, including 9.25 metres of 2.37 gpt Au, and including 3.50 metres of 4.21 gpt Au, and a deeper intersect of 6.50 metres assaying 10.20 gpt Au, including 3.75 metres of 16.38 gpt Au, effectively extending the western boundary of the Main Zone.
- T19-01 and T19-01B intersected mineralization west of all previous drilling and tracked the zone from surface to 200 metres vertical depth, earmarking its western extension as being wide open for further expansion.
- Drilling has defined the system as being upwards of 200 metres wide and 700 metres long, where it remains largely open along strike and to depth.
- Nineteen holes (5,814 metres) have been drilled at Treasure Island in 2019 of which two are presented. Assay results for the remaining seventeen holes will be released as they become available.

Sabina summarizes exploration results and resource growth potential at Goose

Discovery of over 25% more plunge length (950 meters) of mineralized iron formation.

Sabina Gold & Silver Corp reports considerable progress in demonstrating potential for continued resource growth at its 100% owned Back River Gold Project in Nunavut Canada since the last National Instrument 43-101 (“NI 43-101”) compliant Back River Resource Estimate delivered in 2014.

Sabina’s Back River Project encompasses a highly prospective 80km gold district with a property wide NI 43-101 Resource Estimate (2014) of 5.3 million ounces of gold grading 5.87 g/t in the Measured and Indicated categories and an additional 1.9 million ounces of gold grading 7.43 g/t in the Inferred category. This resource includes a reserve of 2.5 million ounces of gold grading 6.30 g/t in the Proven and Probable categories (see tables in the [release](#)).

The company is currently focused on advancing initial production at Back River on the 8km Goose Property while also continuing to explore for opportunities that may enhance the already robust Project economics. The economics of the 2015 Feasibility Study (FS) were based on an US\$1,150 gold price with an 0.80 exchange rate (CAD:USD) and resulted in a post tax NPV of C\$480 million and an internal rate of return (IRR) of 24.2%. Using the same parameters and exchange rate as the 2015 FS, the Project delivers a post tax NPV of C\$923 million and an IRR of 37.6% at a US\$1500 gold price. Exploration work at the Goose Property since the 2014 Resource Estimate has focused on new discovery and resource extension and optimization at the Goose Main, Umwelt, and Llama Deposits, the new Nuvuyak discovery and to a lesser extent the Echo Deposit (see Figure 1.0 below). This work was undertaken with the objectives of further improving the economics and life span of future mine operations.

Progress highlights at the Goose Property include;

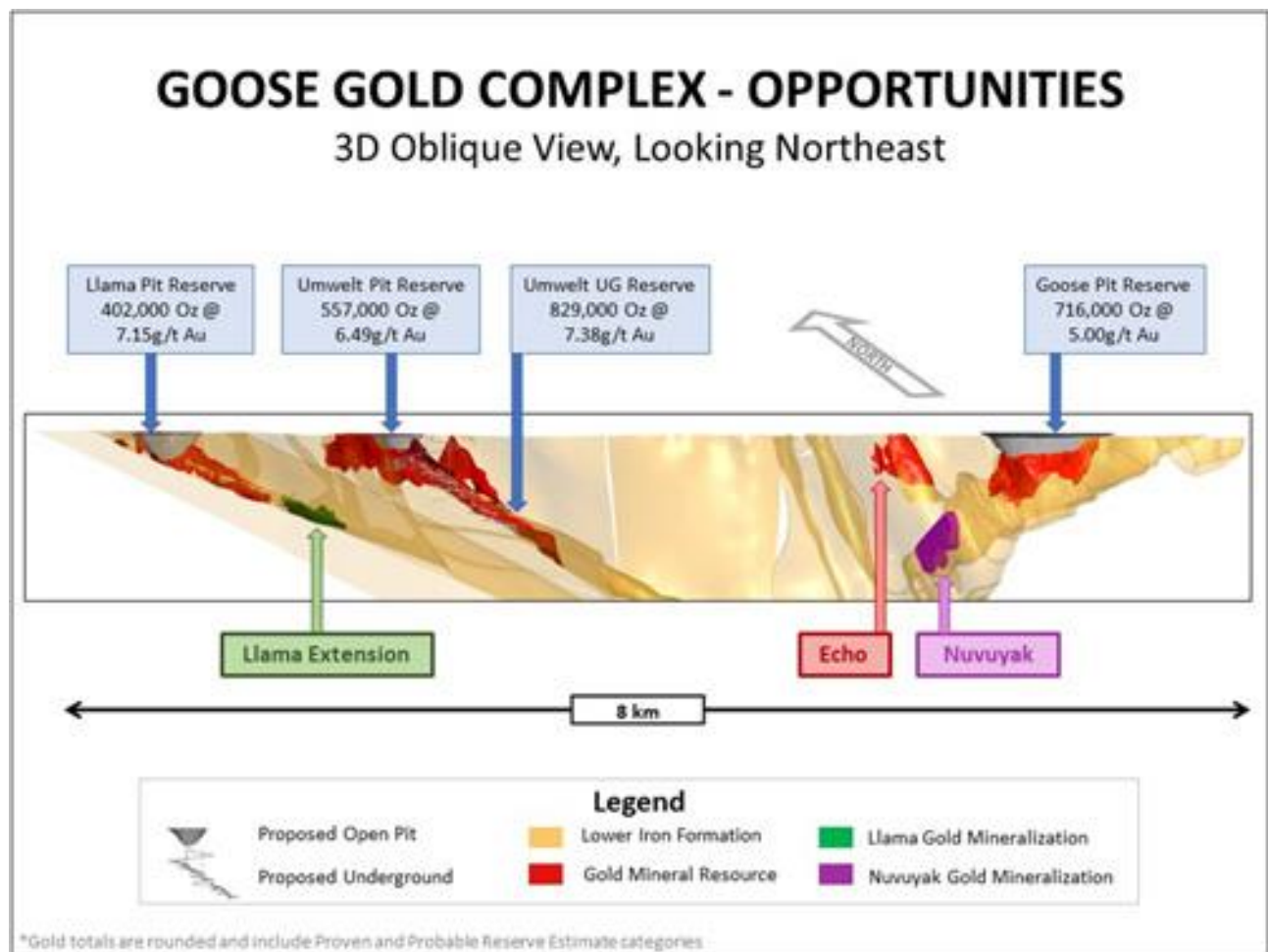
- The significant extension of the Llama underground gold structure. Mineralization from the bottom of the Llama open pit reserve now extends for greater than 1200m down plunge. Recent successes include the extension from the existing Llama underground resource adding an additional plunge length of approximately 580m as well as the discovery of higher grade mineralization over numerous drill holes within this plunge extension. The mineralizing structure at Llama underground remains open to depth.
- The new discovery of a significant zone of gold mineralization, the Nuvuyak Zone, located approximately 1000m west of the Goose Main deposit. The Nuvuyak gold zone has now been tested by 14 drill holes which confirm a strongly mineralized, folded iron formation package over a plunge extent of 370m, open both up and down plunge. The Nuvuyak gold zone is analogous in size and mineral robustness to the other Goose Project deposits and is the most important discovery since the Umwelt discovery in 2010.
- The definition and expansion of a thickened, high grade corridor of mineralization within the Umwelt underground, initially at the Vault Zone and more recently in the up plunge direction. Recent drilling and modeling shows that the high grade zone or corridor extends through Vault, up and down plunge with excellent potential for significant optimization through additional drilling. See Figure 2.0 below.

- Discovery of over 25% more plunge length of mineralized iron formation at the Goose Property. Between Llama Extension and Nuvuyak, Sabina has identified an additional combined 950m of gold mineralized iron formation along plunge.

“The work we’ve done at Goose over the last three years highlights opportunities, not only for extended mine life, but also to potentially enhance project economics by developing higher grade underground opportunities earlier in the mine plan,” Said Bruce McLeod, President & CEO. “While more work needs to be completed to define these opportunities, we are very excited about the development optionality the project provides, particularly given the high grade underground mineralization we are encountering. We believe that this could ultimately translate into a longer mine life than contemplated in our feasibility study.”

See the [release for more details on:](#)

- Llama Underground - Llama Extension
- Nuvuyak Discovery
- High Grade Corridor - Umwelt Underground
- Echo Deposit



Click [here](#) for Sabina's September 2019 A Gold Miner in the Making corporate presentation. Slide courtesy Sabina

Osisko Metals announces Pine Point collaboration agreements

Osisko Metals Incorporated announced it has entered into two separate collaboration agreements regarding the Pine Point project with the Deninu Kue First Nation and the Northwest Territory Metis Nation.

These parties have entered into the agreements in order to promote a cooperative and mutually respectful relationship governing the proposed exploration and development activities in the area of Pine Point.

The agreements reflect the intention to work with each Indigenous community regarding education and training, employment, business and contracting opportunities, information sharing, site visits and also broad outlines of topics for future agreements.

“We are very happy to announce these two agreements with the Indigenous communities that live near the portion of the Pine Point Project located east of the Buffalo River. This is where Cominco Limited operated the mining complex for close to twenty-five years and where most of our pit-constrained zinc-lead mineral resources are located,” Jeff Hussey, president & CEO said.

“The motivation behind these agreements is to establish a collaborative approach as we continue to advance the Pine Point project; it is an important step in building meaningful collaboration with local communities. We also look forward to continuing discussions with other local communities regarding the project,” he added.

TMAC adds Thomas Boehlert to board of directors

TMAC Resources Inc. announces that Thomas Boehlert has joined the Board of Directors as the second appointee of Resource Capital Funds.

Terry MacGibbon, Executive Chairman, stated, “I would like to welcome Thom to the Board of TMAC. Both the Board and management are looking forward to working with Thom. We appreciate RCF’s continued support and welcome RCF nominating such a strong Director of Thom’s calibre.”

Mr. Boehlert most recently served as Executive Vice President and Chief Financial Officer of Bunge Limited from 2017 to 2019. Prior to joining Bunge Limited, he was the President and Chief Executive Officer of First Nickel Inc. from 2011 to 2015 and Executive Vice President, Chief Financial Officer of Kinross Gold Corporation from 2006 to 2011. Mr. Boehlert previously worked as Executive Vice President, Chief Financial Officer of Texas Genco in 2005, Direct Energy in 2004, and Sithe Energies, Inc, from 2000 to 2003. Prior to Sithe Energies, Mr. Boehlert was an infrastructure and energy project finance banker at Credit Suisse for 14 years. Mr. Boehlert holds a Bachelor of Arts in accounting from Indiana University and a Masters of Business Administration from New York University.

Nominations now open for NWT Mining and Exploration (MAX) Awards!

Nominations are now open for the third annual Northwest Territories Mining and Exploration (MAX) Awards.

The MAX awards are a partnership of the Government of the Northwest Territories and the NWT & Nunavut Chamber of Mines. The awards celebrate and encourage excellence within the NWT's largest industry. Nominations are being sought in the following categories:

- Distinguished Service
- Economic Leadership
- Environmental & Social Responsibility
- Indigenous Achievement
- Special Achievement

Nominations deadline is October 25, 2019. Nominations can be submitted through the GNWT Department of Industry, Tourism and Investment's [MAX Awards Nomination Portal](#) or at the Chamber of Mines office in Yellowknife.

The awards will be presented at the November 21 MAX awards banquet held during the 47th Annual Yellowknife Geoscience Forum.

For details on 2018 recipients, visit the Chamber's web site [here](#) or see the release [here](#). For images of the 2018 award recipients click [here](#).



*At last year's MAX awards, Gren Thomas receives the Distinguished Service Award from Caroline Cochrane, NWT MLA Range Lake.
Pat Kane photo courtesy Government of the NWT*

NorZinc announces new financing

NorZinc Ltd. announced that RCF VI CAD LLC, an affiliate of Resource Capital Fund VI L.P., has agreed to purchase a 1% net smelter return royalty (over the company's Prairie Creek zinc-lead-silver mine in the Northwest Territories) for C\$8 million. The issuance of the royalty will be subject to shareholder approval as required by the Toronto Stock Exchange. It is anticipated that this new non-equity-dilutive royalty will provide funding through the completion of permitting of the Mine.

Don MacDonald, President & CEO of NorZinc Ltd. stated, "The Royalty financing shows continuing support by our largest shareholder for the Mine, the company, and its management and it will allow us to continue development of the Mine at full pace. Upon receipt of the All Season Road permit, the company intends to complete the next stage of financing, allowing the company to keep to the development schedule outlined in August 2018." Mr. MacDonald also

said “Although the Mine will primarily produce zinc and lead, it is anticipated to produce significant silver as a by-product. The heightened interest in silver producing assets in recent months has greatly enhanced the importance of silver to the Mine’s revenue and financing opportunities”.

See the [full release](#) for details on the following:

- RCF Royalty Financing and Interim Short Term Loan
- C\$8 Million Royalty
- US\$6 Million Short Term Loan
- Shareholder Approval and Royalty Closing

Chamber of Mines employment opportunity – administrative assistant

We are seeking an [Administrative Assistant](#) to initially fill a permanent, three-quarter time position in our Yellowknife office. With mentoring, the successful candidate will be considered to succeed the current Office Manager.

Duties include finance and bookkeeping, reception, providing Board and membership support, annual conference assistance, and general administrative duties. Post-secondary education in business administration, marketing, public relations, communications or other related field, and 3 to 5 years’ experience in office finance and administration or the equivalent experience is preferred.

The successful candidate will be creative, resourceful, flexible, and self-motivated with proven abilities with the MS Office suite of Word, Excel, Outlook, and financial software, preferably in QuickBooks. They will have proven written and verbal communication skills, excellent interpersonal, public relations and marketing skills, be a good organizer and time manager, and be service oriented.

The Administrative Assistant will report to the Office Manager. Salary will be commensurate with experience and education and includes a benefits package. The [full job description](#) is available on the NWT & Nunavut Chamber of Mines web site, www.miningnorth.com, under Jobs. Interested candidates should email a resume by October 18, 2019 to finance@miningnorth.com.

Mine Training Society elects new executive and appoints new GM

The Mine Training Society is pleased to announce the appointment of its new executive team effective from October 2019.

Iris Catholique has been named the Chairperson while Vice-Chairperson will be Henry Zoe. Alan Harman will be Secretary-Treasurer.

Effective October 1, 2019, Shari Caudron will take on the role of General Manager, whilst the incumbent, Ms. Hilary Jones assumes the role of Associate General Manager until the end of December 2019 when she retires.

Shari Caudron, former President/CEO of Collaborative Innovations Inc is a professional Community Development Facilitator, born and raised in Hay River, NWT.

Shari's expertise is in building innovative partnerships between First Nations, government, industry, community and educational institutions for economic development, employment readiness and social development. With over twenty years of experience in public relations and business development, Shari's passion is to empower communities to work in partnership to develop and implement long term strategies for community wellness and economic development. *Article reprinted courtesy MyYellowknifeNow/Arthur C. Green*



*MTS General Manager Shari Caudron.
Image courtesy Arthur C. Green/Submitted*

Happy 15th Anniversary!

Congratulations to the [Mine Training Society](#), which turned 15 on September 4. The MTS has come a long way since the early days, from their origins as the 'bank of the Mine Training Society', to becoming much more proactive as demanded by their mandate, which includes maximizing an Indigenous and northern workforce to the greatest extent possible.

Since 2004, the MTS has received over \$38.9 million in federal funds, \$1.6 million from the GNWT, \$1.0 million from CanNor, \$1.1 million from industry partners, and \$1.0 million from Indigenous partners, as well as \$41 million in in-kind contributions for a total of \$124 million to develop and deliver [job readiness, pre-employment and programs](#) for Indigenous people of the North. The MTS has facilitated employment for 7% of the NWT working labour force.

For more details, check out their [2018 Annual Report](#).



Call for NAPEG award nominations

Do you have a project that should be recognized for its excellence? Do you know an engineer or geoscientist who deserves recognition? Is there a significant project in Nunavut or Northwest Territories that should be recognized and awarded? If so, please consider submitting a nomination for a [NAPEG Award](#).

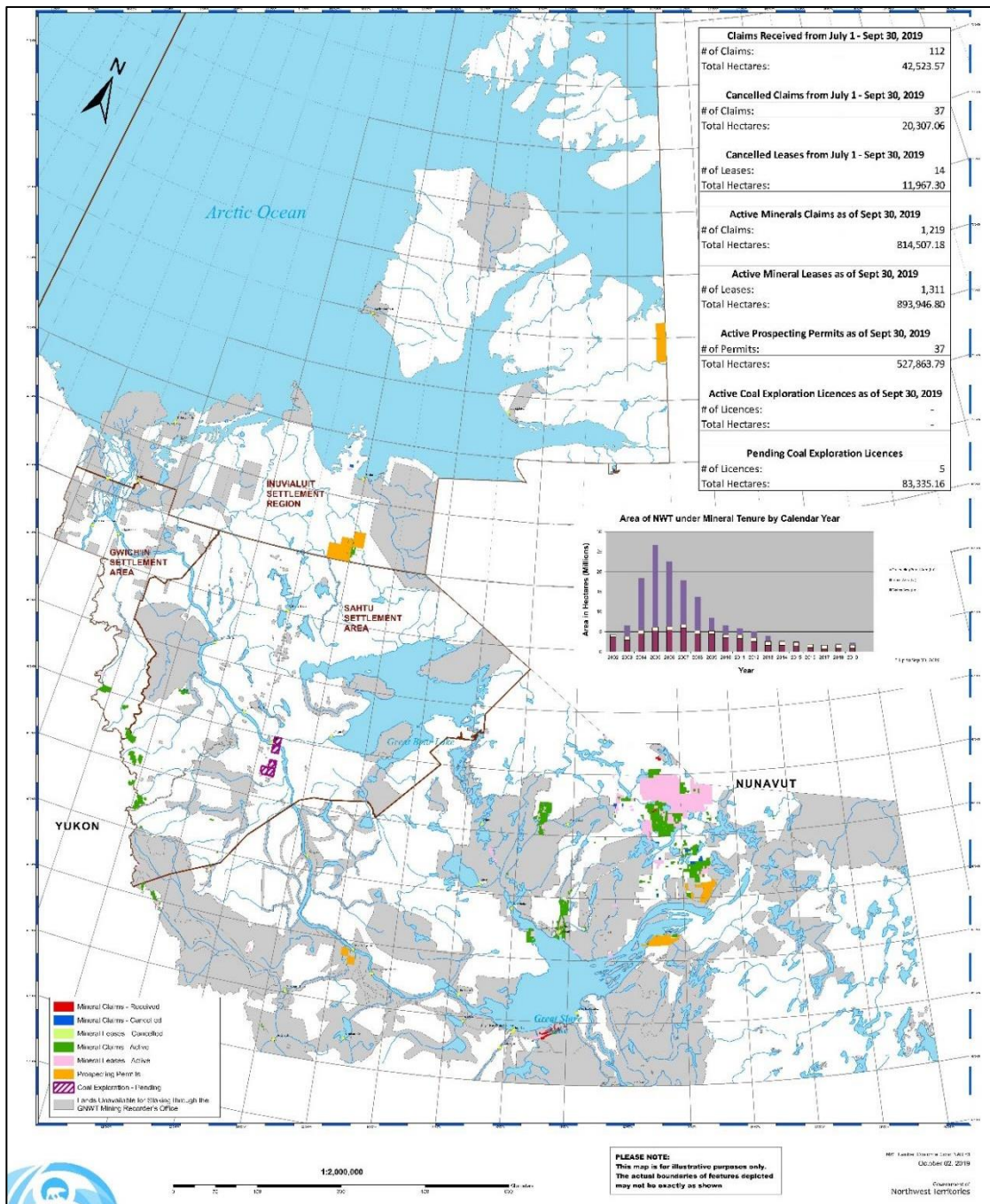
You can find a [nomination form](#) on the NAPEG website or call the NAPEG office for a copy of the nomination form. To see who has been recognized in the past, you can review the 2019 Annual Report. It shows both the 2019 recipients and past award recipients. We need your help to make the 2020 Awards Banquet particularly outstanding. The 2020 Annual General Meeting (AGM) will be the 40th AGM for NAPEG. Established in 1979, NAPEG held its first AGM in 1980. Plan to celebrate with us at The Explorer Hotel in Yellowknife from March 11-13, 2020. The AGM will be on Wednesday, March 11, 2020 at 5:00 pm.

NWT Mineral tenure heat map (July 1 – Sept 30)

Every quarter, the NWT Mining Recorder's Office produces a 'Heat Map' of mineral tenure activity to update mineral land tenure (claims, leases and permits).

At the end of September, 1.66% of the area of the NWT was under mineral tenure compared to 1.48% in 2018. This is significant downturn since 2005 when nearly 20% was in tenure.

The grey areas on the map are closed to mineral exploration and development.



Welcome new members!

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

- **Cheetah Canada Inc. (2703164 Ontario Inc.)** is an exploration company located in Yellowknife. Contact – David Connelly, Strategic and Engagement, dconnelly@ileroyale.com; 867-765-0445; web site – www.vitalmetals.com.au/. Vital Metals is an explorer and developer, focused on progressing highly prospective mineral projects in West Africa and Germany, and now Canada.
- **FAUN Trackway Inc.**, located at Isle of Anglesey, North Wales, is a transportation company and equipment provider offering field and operational support services. The company has over 75 years' experience in the design and manufacture of premium products and tailored solutions including an aluminum aircraft movement surface for commercial use. They also have aluminum solutions for road and water access. Contact Robert Kendall, alternate.runway.materials@bell.net; +44 (0) 1248 725304; web site – www.faustrackway.co.uk.
- **FluorDriver**, located in Nisku, Alberta, is a construction/building supply company that also offers energy/engineering, field and operational support and project management services. Through its owner companies, Fluor and JV Driver, two of North America's leaders in the engineering, construction, maintenance, turnaround and fabrication sectors, the company operates across Canada and the United States. Contact – Keith Roy, Regional Program Manager, kroy@jvdriver.com; 780-980-5837; web site – www.fluordriver.com/en/.
- **Kasteel Construction and Coatings Inc.**, located in Yellowknife, Northwest Territories, is a construction/supply company. Kasteel maintains top notch safety standards, as recognized by its Certificate of Recognition (COR) program since 2013 through the Northern Safety Association (NSA). Contact – Angie Renard, Business Manager, angie@kasteel.ca; 867-873-2800; web site – www.kasteel.ca.
- **North Creative**, located in Yellowknife, Northwest Territories, is a promotional/marketing company providing design, marketing, branding, and advertising services. The company also, with its partners, provides video, photo, and print materials' services. Contact – Hannah Eden, Partner, Accounts, hannah@northagency.ca; 867-669-6211; web site www.northagency.ca.
- **Underhill Geomatics Ltd.**, located in Yellowknife, Northwest Territories, is an engineering firm providing mapping, GIS and surveying services as well as a products supplier. In operation since 1913, Underhill provides services throughout BC, Yukon, Northwest Territories, Nunavut, Canada and worldwide. Contact – G.C. Carl Friesen, Vice-President, Managing Partner, cfriesen@underhill.yk.ca; 867-668-2048; web site – www.underhill.ca.

Calendar of events

- **The 47th Annual Yellowknife Geoscience Forum** will be held Tuesday, November 19 - Thursday, November 21, 2019 and is a joint initiative of the NWT & Nunavut Chamber of Mines and the NWT Government, Industry, Tourism and Investment. For additional information, contact Conference Coordinator, Cheryl Wourms at the NWT & Nunavut Chamber of Mines, conference@miningnorth.com.
- **7th Annual Energy and Mines World Congress** takes place Dec 2-4 in Toronto and features ground-breaking case studies and sessions on renewables, LNG, small modular reactors, green hydrogen and electrification for mines. The NWT & Nunavut Chamber of Mines is proudly supporting this event again this year for its focus on reliable, affordable and low-carbon energy for remote and grid-tied mines. This year's event also features a full-day on Decarbonizing Material Movement - Towards Zero-Emissions Mine Fleets focusing on key developments electrification, hydrogen fuel cells, trolley assist and automation. Mining operators have the option to apply for a limited number of guest passes. Click [here](#) to view the form or enter miningnorth20 to receive 20% off registration.
- **AME Roundup 2020** – Mark your calendars for AME mineral exploration Roundup 2020, January 20-23 at the Vancouver Convention Centre. For schedule at a glance, click [here](#).
- **Northern Lights 2020**, is a high-profile business and cultural showcase of Nunavut, Nunavik, and Labrador/Nunatsiavut hosted by the Baffin Regional Chamber of Commerce and the Labrador North Chamber of Commerce. It will be held at the Shaw Centre in Ottawa, Ontario, February 5 - 8, 2020. The four-day event is expected to attract 200 exhibitors and 1,200 delegates. For the schedule, click [here](#).

Exploration & development news briefs

Stornoway Diamond Corporation announced it has received notice that the Continued Listings Committee of the Toronto Stock Exchange ("TSX") has determined to [delist the Corporation's common shares and convertible debentures](#) effective at the close of market on October 18, 2019. The Corporation does not intend to appeal the decision. The common shares and convertible debentures remain suspended from trading.

As previously announced, on September 9, 2019, the Corporation and its subsidiaries Stornoway Diamonds (Canada) Inc., Ashton Mining of Canada Inc. and FCDC Sales and Marketing Inc. obtained an initial order (the "Initial Order") from the Superior Court of Quebec (Commercial Division) (the "Court") for protection under the Companies' Creditors Arrangement Act ("CCAA") in order to restructure their business and financial affairs. Further to the Initial Order and in light of the ongoing restructuring process, the Corporation no longer intends to file continuous disclosure documents under the Corporation's profile on the System for Electronic Document Analysis and Retrieval (www.sedar.ca).

Deloitte Restructuring Inc. is the court-appointed monitor pursuant to the Initial Order. Information about the CCAA

proceedings, including the monitor's reports, are available on the monitor's website at <https://www.insolvencies.deloitte.ca/en-ca/pages/Stornoway-Diamond-Corp.aspx>.

TerraX Minerals Inc. is pleased to announce the [extension of gold mineralization at Sam Otto](#) by an additional 600 meters of strike with results from 1182 meters of drilling in six holes (Figure 1). These results combined with the drilling of three holes in 2018, the Sam Otto South zone now extends for 1.2 kilometers, and remains open in all directions. Gold mineralization of the Sam Otto trend has been defined for a minimum of 2.5 kilometers along the 5 kilometer Sam Otto structural corridor.

Phase 1 drill highlights from the Sam Otto South zone include: 7m of 2.93 g/t gold (within a broader interval of 40 m of 0.6 g/t Au) 14m of 1.36 g/t gold (within a broader interval of 34m of 0.64 g/t Au), 11m of 1.24 g/t gold, and 9m of 1.2 g/t gold (Figure 2).

Message from David Suda, CEO:

"The opportunity at Sam Otto has improved considerably with these results by extending gold mineralization to 2.5

kilometers of strike length. We are very much looking forward to the remaining results from Sam Otto and the nearby high grade target at Crestaurum. These targets are in close proximity to one another and represent the opportunity for TerraX to deliver an attractive resource next to excellent infrastructure in the town of Yellowknife.”

Gold mineralization encountered within the Sam Otto South target is located in shear zone structures 100 - 200 meters in width with strong sericite alteration and shearing. These geological characteristics are consistent with what is observed at the Sam Otto Main zone, clearly demonstrating the bulk tonnage of the 3.5 kilometer Sam Otto South structure.

The nine drill holes from the 2018 and 2019 campaigns in the Sam Otto South zone together with surface channel samples have shown that higher grade lenses (27m of 2.14 g/t, for e.g.) are at a 10 - 15 degree angle to the main north - south trending structure and alteration zone. An additional three drill holes have been completed this summer with results pending to test for geometric continuity of the higher grade lenses at depth. TerraX is planning aggressive step out drilling along the Sam Otto structure next winter as it will provide 100% access along the trend.

TerraX Minerals Inc. announced an agreement to [acquire ‘Gold Matter Corporation’](#) a privately held company in a share for share transaction.

The founder and one of the principal investors is Gerald Panneton. Upon TSX-V approval Gerald will join TerraX as Executive Chairman and his long term colleague Louis Dionne will join as a director. Together they bring a wealth of experience and success primarily demonstrated in building Detour Gold. We expect Gerald will bring significant technical purview and support as well as outstanding fundraising ability. As CEO I am proud of our team and the project to have attracted the validation of someone with Mr. Panneton’s profile and experience.

“The \$2.6 billion raised to build the Detour Lake Gold Mine from acquisition to production in only six years is a testament to Mr. Panneton’s value creation and capital raising ability,” said David Suda. “The Yellowknife camp with its multiple high-grade zones has all the potential to become the next Detour Lake and beyond,” said Gerald Panneton.

Member news releases this past month

- 30 September 2019 [NorZinc announces new financing](#)
- 30 September 2019 [TerraX to acquire Gold Matter Corporation, appoint Gerald Panneton as executive](#)
- 30 September 2019 [Osisko Metals announces Pine Point collaboration agreements](#)
- 27 September 2019 [TMAC adds Thomas Boehlert to board of directors](#)
- 18 September 2019 [Stornoway common shares and convertible debentures to be delisted From TSX](#)
- 10 September 2019 [Gahcho Kué mine rescue team wins overall national western regional title](#)
- 9 September 2019 [TerraX extends gold mineralization another 600m in phase 1 of drilling at Sam Otto](#)
- 5 September 2019 [Sabina summarizes exploration results, potential for resource growth at Goose](#)
- 5 September 2019 [Nighthawk extends mineralization at Colomac and Treasure Island](#)

Member presentations

[Sabina’s A Gold Miner in the Making corporate presentation September 2019](#)

[Mountain Province Diamonds corporate presentation September 2019](#)





Signs of seasons past, and to come. 2019 winter drilling in Nunavut. Photo by Sabina Gold & Silver

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Mines & promising Northwest Territories mine projects

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

Project Name	Owner(s)	Commodity	Description	Status
Ekati Mine	Dominion Diamond Mines ULC , and Dr. Stewart Blusson	Diamonds	Canada's first and largest diamond mine, 310 km. NE of Yellowknife. Open pit and underground. Mine life potentially to 2041. Workforce in 2018, 1,625. The Ekati mine consists of two joint ventures, the core zone joint venture and the buffer zone joint venture, in which the company has interests of 88.9% and 72.0%, respectively. Reserves at 31 January 2017 were 68.9 million tonnes at 1.5 carats per tonne for 105.4 million carats. Inferred mineral resources were 20.6 million tonnes at 1.0 carats per tonne for 19.8 million carats. Additionally, Fox Deep indicated and inferred resources of 51.0 million tonnes at 0.4 carats per tonne for 18.7 million carats.	Media release, 22 March 2019 Canadian Championship Dog Derby and Dominion Diamond announce race schedule
Diavik Mine	Rio Tinto (operator) & Dominion Diamond Mine ULC	Diamonds	Canada's largest producer of diamonds, 300 km NE of Yellowknife. Mine life to 2025. Became all underground mine in 2012. Workforce in 2018, 1,113. New A21 open pit development budgeted at US\$350m over 4 years. A21 grand opening celebrated August 2018. Reserves at Dec 31, 2018 were 11.5 million tonnes at 2.4 carats/tonne for total of 27.4 million carats.	Media release, 1 October 2018 Diavik Stars of the Arctic dazzle in rough diamond tender
Gahcho Kué Mine	De Beers Canada Inc (51% and operator) and Mountain Province Diamonds Inc. (49%)	Diamonds	Located 280 km NE of Yellowknife, NWT. Open pit mine with life of 12 years. Mine reached commercial operation in Q1 2017. Workforce in 2018, 527. Plan is for three open pits to mine 5034, Heame and Tuzo ore bodies producing average of 4.5 million carats/year. Mining started with 5034 orebody and production from Hearne began in April 2018. Reserves at December 31, 2018 (production commenced Q3 2016) were 31.1 million tonnes at 1.54 carats per tonne for 47.9 million carats. Initial mine plan extends to fiscal year 2028.	Media release 10 September 2019 Gahcho Kué mine rescue team wins overall national western regional title for surface mining
Prairie Creek	NorZinc Ltd.	Zinc-lead-silver	Proposed underground mine 120 km W of Ft. Simpson. Estimated mine jobs: 220 All permits now in place to construct and operate the mine. Feasibility Study completed in 2017 supports 15-year mine life. Subject to completion of financing, and 2.5-year construction phase, production proposed for mid-2020. In 2017, the Mackenzie Valley Environmental Impact Review	Media release, 30 September 2019 NorZinc announces new financing

			Board recommended approval of the proposed all season road. Over the past eight years Canadian Zinc has successfully completed numerous environmental assessments related to exploration and development of the Prairie Creek Mine. Canadian Zinc has obtained all the significant regulatory permits and social licences required to complete construction and development and undertake mining and milling at Prairie Creek, including construction and use of a winter access road to the mine site.	
NICO	Fortune Minerals Limited.	Cobalt-gold-bismuth-copper	Proposed open pit and underground mine located 50 km NE of 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 22 August 2019 NWT Government holds ground-breaking ceremony for Tlicho All-Season Road
Kennady North	Mountain Province Diamonds Inc.	Diamonds	Kennady North project comprises 13 leases and claims immediately to north and west of 4 leases controlled by the Gahcho Kué Joint Venture (see above). Project aims to identify a resource along the Kelvin – Faraday kimberlite corridor of between 12 and 15 million tonnes at a grade of between 2 and 2.5 carats per tonne and to identify new kimberlites outside of the corridor. The Kelvin – Faraday corridor is a target for further exploration. Potential quantity is conceptual as there has been insufficient drilling to define a mineral resource and it is uncertain if further exploration will result in target being delineated as a mineral resource.	Media release 13 August 2019 Mountain Province receives NASDAQ notification regarding minimum bid price Media release 6 August 2019 Mountain Province Diamonds announces second quarter and half year 2019 results
Indin Lake	Nighthawk Gold Corp	Gold	Nighthawk controls over 90% of the prospective Indin Lake Greenstone Belt in this historic gold camp with a total ground position now comprising 930 sq km, approximately 220 km north of Yellowknife, NT. The Indin Lake Greenstone Belt is one of Canada's most underexplored gold camps. The property contains 14 known gold deposits and showings, 3 are historic mines (eg Colomac)	Media release 5 September 2019 Nighthawk extends mineralization at Colomac and Treasure Island

Pine Point	Osisko Metals Incorporated	Lead-zinc	Proposed open pit mine east of Hay River, NT. 10 open pits mined sequentially with 321 jobs. PEA quotes 13-year mine life. Osisko Metals has begun active exploration to advance the project. The objective of the 2018 drill program is to upgrade approximately 50 million tonnes of unclassified near-surface historical resources (Cominco Ltd.) to NI43-101 Inferred Mineral Resources as quickly as possible in areas amenable to open pit mining. The 2018 program consists of approximately 700 drill holes (323 now completed) within the Main Trend, a 20-kilometre long, portion of the PPMC that is located on the south shore of Great Slave Lake in the NWT, near infrastructure and paved highway access and with 100km of haulage roads already in place.	Media release 30 September 2019 Osisko Metals announces Pine Point collaboration agreements
Courageous Lake	Seabridge Gold Inc.	Gold	Proposed open pit mine 240 km NE of Yellowknife. 6.5 Moz 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 13 August 2019 Seabridge Gold files Q2 report to shareholders, financial statements and MD&A
Selwyn Project (Howard's Pass Project)	Selwyn Chihong Mining Ltd.	Zinc, lead	Proposed base metal mine in Yukon on NWT border and access is through NWT. Agreements signed with NWT (Sahtu) Indigenous land corporations. The project will process multiple open pit mines over an approximate 10+ year mine life and includes a mineral processing plant, tailing management facility and the required on-site infrastructure. The mine is being designed to process 38,500 tonnes per day (tpd) of ore which, after processing, is expected to result in 2,500 tpd of zinc and 600 tpd of lead concentrate, which would be trucked to the Port of Stewart for export. Selwyn Chihong estimates the proposed mine will create approximately 1500 jobs during construction and approximately 750 during operation.	Selwyn Chihong Mining's proposed upgrade of a road to its lead-zinc mining project in Yukon's Selwyn Mountains will undergo an environmental assessment. Parks Canada has referred the 79km Howard's Pass Access Road (HPAR) to Environmental Assessment under the MVEIRB, which accepted the referral in July 2015. The HPAR was developed in the 1970s and runs from the Nahanni Range Road to the NWT-Yukon border. Passing through 2 national parks. Yukon media reported in Feb 2016 that Selwyn Chihong has decided to slow their project down due to the current low zinc prices and will not to take the project to the permitting stage this year. According to External Affairs VP Maurice Albert, SC has opted for a traditional drilling program and hopefully add another 10 years to the mine life.
Nechalacho	Avalon Advanced Materials Inc.	Rare earth metals	Proposed underground mine 100km SE of Yellowknife. Estimated mine jobs: 200. The company remains optimistic that rare earth demand will recover sufficiently to advance the project.	Media release 25 June 2019 Avalon completes collaborative development agreement on Nechalacho Rare Earth Elements Project, Yellowknife, NWT

Mines & promising Nunavut mine projects

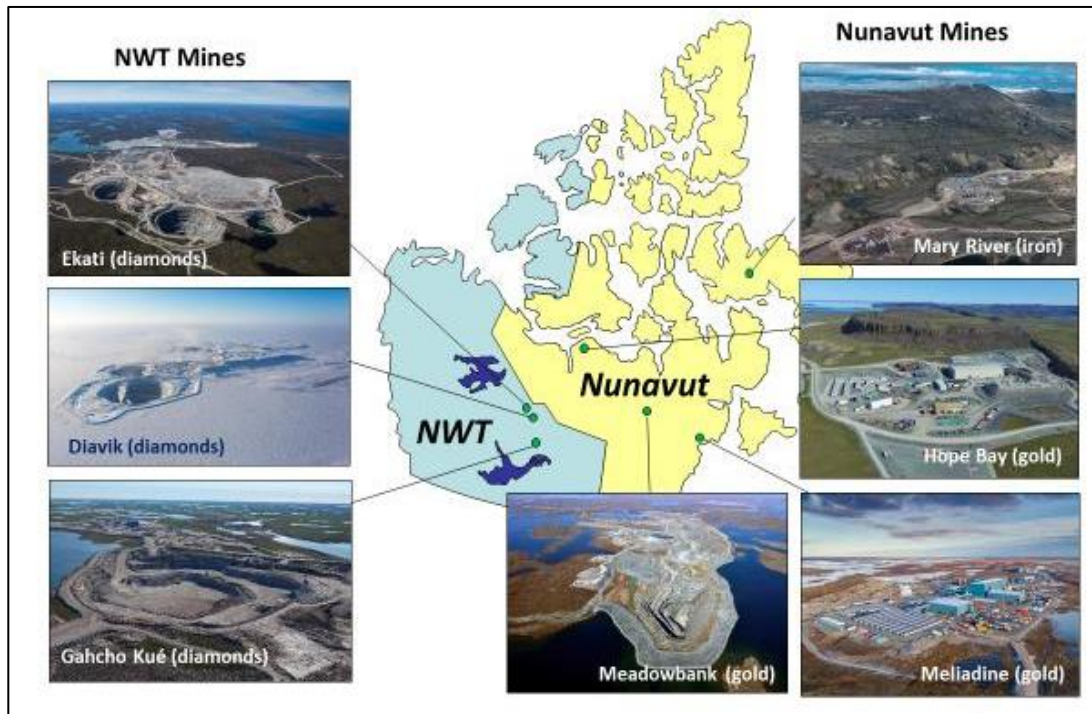
The following table describes leading mineral development projects in Nunavut.

Project	Owner(s)	Commodity	Description	Status
Meadowbank Gold Mine	Agnico Eagle Mine Ltd.	Gold	In operation since 2010. The mine produced its three millionth ounce of gold in 2018. Open pit mine located in the Kivalliq Region, 300 km west of Hudson Bay and 70 km N of Baker Lake. Mine jobs: 1,311 PYs 50km from Meadowbank mine site Amaruq project adds 7 years to mine life; commercial production expected to be achieved late in third quarter of 2019. At the end of the second quarter 2019, a test batch of low-grade Amaruq ore was processed at Meadowbank mill confirming ore characteristics and recoveries.	Media release 28 August 2019 Agnico Eagle commemorates opening of Amaruq with \$1M donation
Mary River Iron Mine	Baffinland Iron Mines Corporation	Iron	In operation since September 2014; Open pit mine 936 km N of Iqaluit. Mine jobs: 1,411 PYs Production from Early Revenue Phase (ERP) began September 8, 2014. The company has proposed a Phase 2 project with increased production and shipping. AANDC Minister has approved application for exemption from NPC negative conformity determination, July 2015.	Media release 17 April 2019 Baffinland employees ratify a partnership agreement with the International Union of Operating Engineers – Local 793 Media release 16 April 2019 Baffinland supports successful technical meetings for phase 2 permitting process
Hope Bay (Mine began commercial production May 15, 2017)	TMAC Resources Inc.	Gold	Gold mine 130 km S of Cambridge Bay. TMAC's property covers the majority of the Hope Bay Greenstone Belt. Workforce in 2018: 516 PYs First gold poured in first quarter 2017 and achieved commercial production in second quarter 2017.	Media release 27 September 2019 TMAC adds Thomas Boehlert to board of directors
Meliadine Gold Mine (commercial production May 14, 2019)	Agnico Eagle Mines Ltd.	Gold	Meliadine mine declared commercial production on May 14, 2019. 25 km NE of Rankin Inlet. Estimated construction jobs: 1,000 Mine jobs: 1,099 PYs IIBA signed June 2015. Total capital cost ~\$830m, below \$900m forecast; mine life ~15 years. On February 15, 2017: Agnico Eagle approved Meliadine and Amaruq projects for development with production beginning in 2019. The high-grade Meliadine gold project has 3.4 million ounces of gold in proven and probable reserves* (14.5 million tonnes at .32 g/t) and a large mineral resource.	Media release 30 May 2019 Agnico Eagle achieves commercial production at the Meliadine Mine
Back River	Sabina Gold & Silver Corp.	Gold	Approximately 60km from Hackett River; adjacent to the Wishbone Greenstone belt. Consists of George and Goose Lake deposits and holds significant gold resources. Estimated construction jobs: 1,600	Media release 5 September 2019 Sabina Gold & Silver summarizes exploration results and potential for resource growth at Goose property

			Estimated mine jobs: 900 Sabina's Feasibility Study on its 100% owned Back River Gold Project presents a project designed on a fit-for purpose basis, with the potential to produce ~200,000 ounces a year for ~11 years with a rapid payback of 2.9 years (at a US\$1,150 gold price and a 0.80 exchange rate). Initial CAPEX of \$415 million. EA complete	
Kiggavik	Orano Canada Inc.	Uranium	Proposed uranium mine 80 km W of Baker Lake. Estimated Construction jobs: 750 Estimated mine jobs: 600	25 July 2016, INAC, on behalf of responsible ministers for authorizing if Kiggavik Project should or should not proceed, accept NIRB's determination it not proceed at this time.
Izok Corridor Project (with High Lake & Hood River deposits)	MMG Ltd.	Copper, Zinc, Gold, Silver	High Lake is 1,710-hectare, copper-zinc-silver-gold property, 190 km ESE of Kugluktuk. Izok is high-grade zinc-copper-lead-silver deposit, 255 km SW of Kugluktuk. Estimated construction jobs: 1,140 Estimated mine jobs: 710	Media release 14 August 2019 Grays Bay Road and Port a 'game changer' for Nunavut and Izok Corridor
Chidliak	De Beers Group	Diamonds	Located 120kms NE of Iqaluit, Nunavut, and 180 km S of Pangnirtung. 74 kimberlites discovered with 8 potentially economic on 317,213-hectare site. Positive Phase One PEA, updated May 2018 highlights: • 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 4 July 2019 New kimberlite discoveries may add to future of Gahcho Kué Mine
Angilak	ValOre Metals Corp. (formerly Kivalliq Energy)	Uranium	340,268-acre property located SW of Baker Lake; Hosts the high-grade Lac 50 Trend deposit	Media release, 14 December 2018 ValOre defines new gold in till target areas and extends geophysical coverage to 110 km on Baffin Island, Nunavut Media release, 3 December 2018 ValOre announces rights offering
Naujaat Diamond Project	North Arrow Minerals	Diamonds	7 km from tidewater; 9 km from Repulse Bay, Melville Peninsula; 7,143 hectares of contiguous mineral claims. Largest kimberlite in Nunavut.	Media release, 3 September 2019 North Arrow closes sale of Loki Diamond Project royalty for \$266,000 Media release 7 August 2019 North Arrow to raise \$266,000 selling Loki royalty; completes till sampling program
Committee Bay Gold Project	Auryn Resources Inc. (purchased North Country Gold Corp.)	Gold	• High grade gold endowment • Existing exploration infrastructure • 217,600 hectares with district scale discovery opportunities	Media release 11 July 2019 Auryn Closes \$1.9 million flow-through funding

Project maps

The northern mining industry's 7 operating mines



We are surrounded by even more potential

