



# **Northern Mining News**

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#### From the Executive Director ...

Extending mine lives is critically important for jobs, business spending and tax revenues. Thus, two small increases to the Diavik and Ekati mine lives are most welcome. Agnico Eagle's work on Amaruq also has good potential to extend Meadowbank, and the Vault pit approval will add a smidgen more. Roads and other infrastructure, of course, can reduce costs for all, helping not only to extend mine lives, but support new mines. This issue highlights a number of road projects in both territories. We'll need to support new projects given the unbelievable labour demand identified by the NWT Government; Nunavut won't be much different!

Happy reading! ... Editor

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

### Good news on NWT mine lives – our thanks are in order

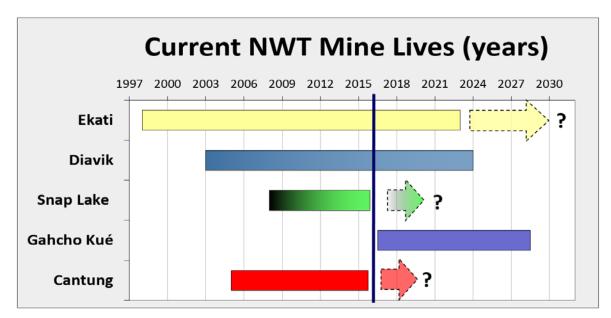
We can all be encouraged by mine life extensions we learned about this past month.

In its 2015 Sustainable Development Report, Diavik Diamond Mines Inc. reported that in 2015, some 2.8 million tonnes were added to the ore reserve through ongoing drilling and evaluation by the mine's geology team within its A154 North ore body. This addition more than offsets the 2.1 million tonnes mined in 2015.

At a mining rate of about 2 million tonnes annually, the new ore reserve of 18.7 million tonnes is expected to add one year to Diavik's mine life, the end of 2024.

Dominion Diamond Corporation also revealed in its 2016 year end news release issued April 13, that "In fiscal 2017, the expected mine life of the Ekati Diamond Mine was extended by three years to 2023 following completion of the Sable pre-feasibility study."

Every little bit helps, and when the mines are this important to our NWT economy, this little bit is actually A LOT measured in people's jobs, local business income and tax revenues! Our thanks to the men and women who continue to explore, to engineer and to optimize our mine operations. We value your efforts!



## Successful winter road, but warmer winter created higher costs

Despite the warmer winter, another successful winter road season is behind us, with approximately 9,600 loads totalling just over 260 thousand tonnes hauled. Eighty per cent of the loads went to the two operating diamond mines – Ekati and Diavik – with the remainder for Gahcho Kué, Snap Lake, and a few smaller customers.

Large, oversize loads were dominated by surface mining equipment, although there was even a tug boat moved up to Diavik to support their construction of their A-21 dike in Lac de Gras.

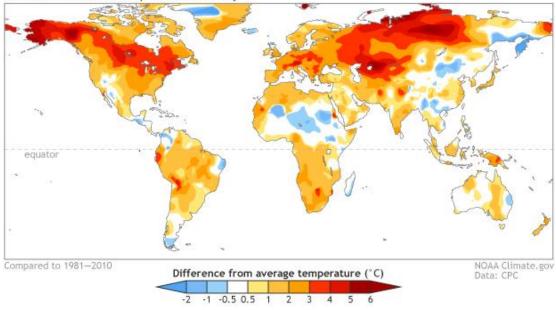
## *NWT* & *Nunavut Chamber of Mines* – *Northern Mining News*



It was a milder winter due to the effects of the 2015-16 El Niño, and <u>data</u> from the National Ocean and Atmosphere Administration (map below) shows some of the highest weather abnormalities over much of the ice road route northeast of Yellowknife.

The warmer winter has had cost effects on at least one of our diamond mines. As revealed in Dominion Diamond's April 13 news release, winter road costs were higher as a result of the warmer winter requiring more trips with lighter loads: *"The impact of the mild weather conditions in Q1 fiscal 2017 ... resulted in the annual winter road to the mine being open for a reduced period of time. More stringent weight restrictions for a period following the opening of the road resulted in an increased number of partial loads which increased freight costs by approximately \$5 million."* 

The uncertainties that climate is creating is one of the main reasons for our industry's support of the NWT and Nunavut Governments' intents to build all weather road access into the Slave Geological Province from the north and the south. (See related stories in this issue on Proposed NWT and NU Roads to Resources, and submission of the Tlicho Road All-Season Road Environmental Application).



Dec 2015-Feb 2016 temperature anomaly

## Proposed NWT and NU Roads to Resources

Three roads are getting public attention as catalysts for the NWT's future economy, with the third road also being of significance to Nunavut.

At a business luncheon in Yellowknife in early April, NWT Member of Parliament Michael McLeod confirmed that the territorial government is seeking \$525 million from the Federal Government to complete the Mackenzie Valley Highway. Combined with \$175 million from the NWT government, the final stretch from Wrigley to Norman Wells could be completed.

At the same luncheon, NWT Premier Bob McLeod reaffirmed the GNWT's interest in the third road they will need Federal funding assistance with, and that is into the Slave Geological province, that rich part of the north that hosts the NWT's current diamond mining industry, as

well as significant potential in a host of minerals and metals.

The Premier told a local reporter, "We are working in conjunction with the Nunavut Government to build a road from Grays Bay to the Slave Geological Province. We see them as strategic infrastructure developments that will facilitate future development, which is the best way to reduce the cost of living."

This third road would also be of national significance, given it would link Nunavut not only to the NWT but with the rest of Canada, a milestone event for a territory that has no highway system, or road links to Canada. As Nunavut Senator Dennis Patterson so stated in his Reply to the Speech from the Throne, the Gray's Bay Road and Port "would



Proposed Future All-Weather Routes



be the first road linking the Canadian highway and rail system to tide water in Nunavut." Nation building indeed.

View the NWT Government's Transportation Strategy here. See the story also in this newsletter, regarding submission of the Tlicho Road project to WLWB.

Also read newsletters produced by the Tlicho Government and the Department of Transportation here.

## **Tlicho All-Season Road Environmental Application Submitted**

The Government of the Northwest Territories (GNWT), with the support of the Tlicho Government and Whati Community Government, has submitted a Type A Land Use Permit application and Type B Water Licence application to the Wek'ezhii Land and Water Board (WLWB) in order to construct an all-season road from Highway 3 (KM 196) to the community government boundary of Whati. This project has been identified as a GNWT commitment under the Proposed Mandate of the Government of the Northwest Territories 2016-2019.

The proposed project consists of constructing an all-season two lane gravel road with an approximate length of 94 km and right-of way width of 60 m. The cleared driving surface will be approximately 8.5 m in width. Culverts and/or two lane bridges will be utilized over water crossings as is necessary. The road has been engineered to meet RLU 80 standards, which equates to a design speed of 80 km/h and a posted speed limit of 70km/h. This design standard will allow for year-round use by commercial and private vehicles according to the size and weight limitations outlined in NWT regulations. Traffic levels for the proposed Tlicho All-season Road (TASR) have been estimated at 20 to 40 vehicles per day. This estimate has taken into consideration any potential traffic volumes of a mine north of Whati if it were to begin production and develop a road that meets the TASR.

The proposed footprint is entirely contained within the Wek'èezhìi area and begins approximately 40 km southwest of Behchoko. Approximately 17 km of the road is located on Tlicho lands. Four to five borrow sources will be developed including their respective temporary access roads in order to provide material for road construction. Two to three temporary 150person camps will be staged within the borrow sources. Only one camp will be in operation at a time. Temporary access roads may also be required in order to access suitable water sources for camp use. There are 15 tributaries along the alignment, which include 4 major bridge crossings: Duport River, an unnamed tributary near KM 45, James River and La Martre River.

Management plans are an important component of the proposed TASR and have been developed to provide suitable mitigation techniques which will be employed during the construction of the proposed TASR to ensure any associated environmental impacts remain minimal. A listing of these plans include: an Emergency Response Plan; Spill Contingency Plan; Waste Management Plan; Wildlife Management and Monitoring Plan; Engagement Plan; Erosion and Sediment Control Manual; Quarry Operations Plan(s); Archaeological Site Find Protocol; Fish and Fish Habitat Protection Plan; Closure and Remediation Plan; and In-field Water Analysis Plan.

The Whati Community Government has been working towards an all-season road for over 30 years. Both the GNWT and Tlicho Government have been working jointly since 2011 to bring this project to fruition. Extensive Tl1chQ community engagement has indicated that there is overall support for an all-season road to Whati as it will improve the quality of life of the residents of Whati. Both the Community Government of Whati and the Tlicho Government are cognizant of the possible negative aspects (such as out-migration of young people, housing availability and crowding, increased access to alcohol and drugs and increased substance abuse, among others) that an all-season road could bring to Whati. By taking a proactive approach and addressing the concerns head on by developing suitable community- based mitigation measures that ensure programs, policies and ongoing engagement are occurring now (See Motion 2015-018 and Special Inter-Agency Committee), these concerns can be effectively mitigated while reducing the cost of living and providing improved employment opportunities to the community.

In research and through the Inter-Agency Committee (2013), key issues were identified and Whati has since focused on developing plans, policies and programs (e.g., Emergency Response Plan, Community Resilience Plan, among others). The mitigations described in the PDR will enable the development of the proposed TASR to proceed with minimal impact to the environment, while successfully connecting a remote NWT community and opening up the potential for potential future economic gains.

#### Tlicho road benefits Fortune's NICO mine project

Once built, the Tlicho road would make the NICO mine project viable, providing all season access for materials and for shipping concentrate out to markets. In a press release from Fortune Minerals, Robin Goad, President and CEO commented, "Our Company has been working with the GNWT and Tlicho government for many years to advance construction of a public highway to the community of Whati near the NICO development. With construction of this road, Whati will have reliable all-season access for community re-supply, while lowering the cost of living, improving, the quality of life and promoting economic development and diversification. The Whati highway will also be a vital link to the NICO mine for its transportation needs as well as provide commutable employment to the nearby communities."



Rendering of proposed NICO pit, mill and camp site in the Northwest Territories. The project is contingent on the Tlicho Road being constructed to Whati, NWT. (Fortune Minerals)

Fortune owns the vertically integrated NICO gold-cobalt-bismuth-copper development, comprised of a planned mine and concentrator in the Northwest Territories and refinery near Saskatoon to process concentrates from the mine to higher value products. The NICO project has already been assessed in a positive feasibility study and has received its environmental assessment approvals in the Northwest Territories and Saskatchewan. The NICO deposit mineral reserves will support a 21-year mine life at a mill feed rate of 4,650 tonnes of ore per day to produce 180 wet tonnes of concentrate per day for shipment to the refinery. Life of mine average annual production is projected to be 41,300 ounces of gold, 1,615 tonnes of cobalt contained in a battery grade cobalt sulphate heptahydrate, 1,750 tonnes of bismuth contained in ingots, needles and oxide, and 265 tonnes of copper.

## Agnico Eagle reports continued strong performance in early 2016

"Our people have a knack. We've gotten good at drilling, buying, mining -- and then drilling some more."

Agnico Eagle Mines Limited (AEM) has reported a quarterly net income of \$27.8 million, or \$0.13 per share, for the first quarter of 2016.

"The year is off to a good start with a more constructive gold price environment and continued strong operating performance from all of our mines. As a result of the strong operating results, we now expect to meet the top end of our production guidance for 2016," said Sean Boyd, AEM's Chief Executive Officer. "At current margins, Agnico Eagle is generating sufficient cash flow to support its expanded exploration and development activities and potentially pay down additional debt," added Mr. Boyd.

#### First Quarter 2016 highlights for Nunavut

AEM has identified Nunavut as a politically attractive and stable jurisdiction with enormous geological potential. With the Company's largest producing mine (Meadowbank), two significant development assets (Meliadine and Amaruq) and other exploration projects, Nunavut has the potential to be a strategic operating platform with the ability to generate strong production and cash flows over several decades.

#### Meadowbank – Reviewing further opportunities to potentially extend the mine life to 2018

The 100% owned Meadowbank mine achieved commercial production in March 2010.

The Meadowbank mill processed an average of 10,390 tpd in the first quarter of 2016, compared to 11,006 tpd in the first quarter of 2015.

Minesite costs per tonne were C\$77 in the first quarter of 2016 compared to C\$71 per tonne in the first quarter of 2015. The increase in costs per tonne was primarily due to lower throughput that resulted from an unscheduled shutdown.

Payable production in the first quarter of 2016 was 72,311 ounces of gold at total cash costs per ounce on a by-product basis of \$788. This compares with the first quarter of 2015 when 88,523 ounces of gold were produced at total cash costs per ounce on a by-product basis of \$655. The lower production and higher costs in the 2016 period compared to the 2015 period are primarily due to lower throughput levels and the processing of lower grade ore (down 14% period-over-period).

Studies are currently underway to investigate additional opportunities to extend production at Meadowbank through year-end 2018.

#### Amaruq Project

AEM has a 100% interest in the Amaruq project. The large property consists of 116,717 hectares, located approximately 50 km NW of Meadowbank. The Company is actively exploring the Amaruq deposit with the goal of potentially developing the deposit as a satellite operation to Meadowbank. The inferred mineral resource estimate as of December 31, 2015 is 3.3 million ounces gold (16.9 million tonnes grading 6.05 g/t gold).

The Company is fully permitted to complete the construction of bridges, bridge abutments, embedded culverts and drainage culverts along the Amaruq Exploration Access Road. Construction of the road commenced in the first quarter of 2016. Road construction is ongoing with nine km completed to date of the expected total length of 62 kms.

An application for an amendment to the Amaruq Exploration Type B Water License was submitted on March 31, 2016 to allow for the development of an exploration ramp and portal and the mining of a bulk sample. The permit approval process for the exploration ramp is expected to take approximately nine months.

The 2016 drill program began at the end of January. Drilling to the end of March has totalled 18,836 metres (84 holes) using up to eight rigs, part of an initial 75,000-metre drill program. Drilling is ongoing with nine rigs on the property. An updated Amaruq mineral resource is expected in the second half of 2016.

#### Meliadine – Type A Water License permit expected by the end of Q2 2016

The Meliadine project was acquired in July 2010 and is the Company's largest advanced exploration/development project based on mineral reserves and mineral resources. The Company has a 100% interest in the 111,757 hectare property, which is linked to the town of Rankin Inlet by a 25 km all-weather access road.

The capital budget for 2016 is \$96 million, with activities focused on further underground development (approximately 3,700 metres), detailed engineering and procurement, construction of essential surface infrastructure and the acquisition of a used camp facility. The goal of the 2016 capital program is to ensure that the project remains on track for a potential 2020 production start-up, which is approximately a one year delay from previous expectations.

On April 15, 2016, the Nunavut Water Board issued the Meliadine Project Type A Water Licence to the Federal Minister of Indigenous and Northern Affairs Canada for approval. The standard approval timeframe for the minister is 45 days. Approval of the licence is therefore expected by the end of May 2016. The Type A Water Licence would allow for the construction and operation of the Meliadine project.

The timing of future capital expenditures at the Meliadine project beyond 2016 and the determination of whether to build a mine at Meliadine are subject to approval by AEM's Board of Directors, which will be based on, among other things, prevailing market conditions and outcomes of the various plans being evaluated.

Read the full release <u>here</u>.

## Peregrine continues to find diamonds – identifies new high grade

Here's a mine in the making from our humble Chamber of Mines' opinion.

Peregrine Diamonds Ltd. has reported the outcome of the 2015 Chidliak Resource Development Program for the CH-6 kimberlite pipe at the their 100% Chidliak Diamond Project, located between Iqaluit and Pangnirtung in Nunavut. The Inferred Mineral Resource estimated for the upper 260 metres of the CH-6 kimberlite pipe has increased substantively:

- Tonnage increased by 40 percent from 3.32 million to 4.64 million tonnes, and
- Contained carats increased by 33 percent from 8.57 million to 11.39 million carats.

The revised resource includes a newly identified zone which currently is estimated to contain 3.15 million carats in 0.76 million tonnes, for an estimated grade of 4.16 carats per tonne. Additional tonnage classified as a Target for Further Exploration of 2.34 to 3.75 million tonnes has also been identified to a depth of 380 metres below surface at CH-6.

Mr. Tom Peregoodoff, Peregrine's President and CEO said "When we planned the 2015 Resource Development Program for the CH-6 kimberlite, the challenge was to design a cost effective program that would make a material



Diamonds from CH-6. Largest stone shown is 0.99 carats.

difference to the Chidliak project. With a simple two hole program and additional microdiamond sampling of existing core, we have exceeded the targeted resource expansions we initially envisaged. The 33 per cent uplift in the CH-6 diamond resource announced today should have a positive material impact on the outcome of the Preliminary Economic Assessment ("PEA"). Work continues on the maiden Inferred Mineral Resource for the CH-7 kimberlite and I look forward to its completion in early May and its incorporation into the PEA."

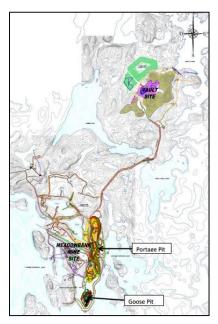
And 10 years ago, who would have thought this part of Nunavut had diamond potential?

Read more <u>here</u>.

## Nunavut Board recommends Meadowbank gold mine pit approval

On April 18, the Nunavut Impact Review Board (NIRB or Board) submitted their Public Hearing Report for Agnico Eagle Mines Ltd.'s (AEM or Proponent) Vault Pit Expansion Project proposal to the Minister of Indigenous & Northern Affairs Canada for approval. Having concluded that the Project should be allowed to proceed, the NIRB has also provided recommended revised and additional terms and conditions of Project Certificate No. 004 consistent with the objectives set out in Section 12.2.5 of the NLCA and as outlined in the attached Report.

The Vault Pit Expansion Project proposal consists of a proposed amendment to the Meadowbank Gold Mine Project for activities and components associated with the existing Vault Pit located approximately 8 kilometres northeast of the main mine



site. The proposal includes the expansion of the Vault Pit to develop two small extensions know as Phaser Pit and the BB Phaser Pit which is an extension of the Vault Pit deposit.

The proposed Vault Pit Expansion Project would extend the life of the mine by approximately 30 days and dewatering activities and construction would commence in 2016 following the amendment to the Project Certificate. All activities associated with the construction, development, and operation of the proposed Phaser and BB Phaser Pits would continue to utilize the currently approved mine facilities.

## Dominion Diamond provides update – lower prices still affecting mine

On April 13, Dominion Diamond issued its annual report for the 2016, and reported a loss for the full fiscal year before income taxes of US\$11.6 million (~C\$15 million) and consolidated net loss attributable to shareholders of US\$34.0 million. Factors affecting the loss included:

- Fiscal 2016 diamond sales were US\$720.6 million, reflecting a decline in prices of approximately 10% during the year as well as a shift to lower value ore sources.
- The expected shift in the mine plan in fiscal 2016 from higher value production from the Koala, Koala North and Fox ore bodies to lower value material from Misery Satellites and Coarse Ore Rejects, while pre-stripping is being completed in the higher value Misery Main and Pigeon open pits.
- Ekati processing volumes were 12% lower as compared to fiscal 2015 due to operational challenges in the process plant in the first quarter of fiscal 2016 as well as a new diamond liberation initiative introduced in the second quarter of fiscal 2016 which included reducing the level of throughput to the plant from 12,000 to 10,500 tonnes per day.

A number of factors project a better upcoming year (see also the table below):

- During the fourth quarter, tonnage processed at the Ekati Diamond Mine was on forecast and the recovered grade exceeded modelled grade for all ore sources reflecting the positive impact of the additional recovery resulting from the liberation initiative.
- The first ore at the Pigeon pipe was mined at the end of November and commercial production commenced in January 2016.

Pipe	Q1 FY17	Q2 FY17	Q3 FY17	Q4 FY17	
Misery Main	First ore	Commercial production(i)	Pre-production sales	Commercial sales	
Pigeon	Continuing production	Pre-production sales	Commercial sales	Continuing production	
Lynx		Waste stripping First ore			
Koala		Continuing production			
Misery SSW		Continuing production			
Sable	Mobilization	Road construction	Preparation for site construction	Site construction	
Jay	Report of Environmental Assessment, mobilization	Feasibility study	Interim land use permit	Water licence, final land use permit	

- The first ore from the Misery Main pipe was mined in February. With a grade of 4.7 carats per tonne and an average value of US\$75 per carat, Misery Main is the richest ore body on the Ekati property and remains on schedule.
- Pre-stripping at Lynx began on schedule in December.
- The Mackenzie Valley Environmental Impact Review Board completed its Report of Environmental Assessment for the Jay Project in February and has recommended that the Jay Project be approved. The Company expects to publish a feasibility study in May 2016.
- A pre-feasibility study was completed for the Sable Project in February, and equipment was mobilized in anticipation of construction. First production is expected in fiscal 2019.
- Exploratory drilling beneath the completed Fox open pit commenced in February.

Read the full release <u>here</u>.

## Diamond markets improving, slightly

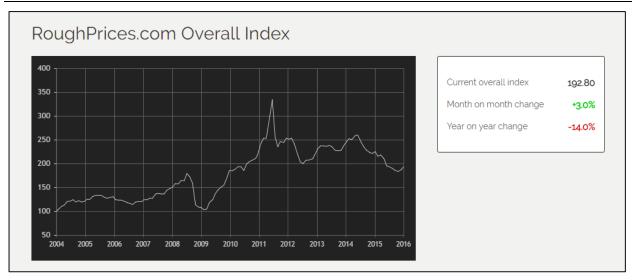
In Dominion Diamond's recent annual report, they provided the following Market Commentary on the past year, which reminds us of how we are connected to the international markets:

After weakening through the fourth quarter, the rough market ended the quarter on a more positive note as the upbeat Christmas season in the US resulted in higher polished diamond sales and substantially reduced inventories in the middle of the pipeline. Most Indian rough diamond manufacturers had reduced their purchases in preparation for the Diwali shutdown in November and returned to the market in January looking to replenish their stocks. Conversely, the Chinese retail market was less upbeat in the lead-up to the New Year there and the levels of polished diamond replenishment are expected to be muted. The Indian retail diamond jewelry market is slowly returning to projected levels but it is still restricted by the effects of a weakening Rupee. Prices were lowered by 5% in the Company's January sale in line with the market. Polished prices in many categories have firmed since then as US retailers look to restock, and the shortage of rough diamonds in the cutting centres resulted in an improvement in some areas of rough diamond pricing during the Company's tender held in early February in India.

Then on April 13, De Beers announced the value of rough diamond sales (Global Sightholder Sales and Auction Sales) for the third sales cycle of 2016. Continued stability in polished diamond prices and sales of polished diamonds at the wholesale level supported a reasonably positive environment for rough diamond demand for the third consecutive sales cycle.

Provisional sales from their third cycle were expected at \$660 million, compared to \$617 million in the last cycle. Philippe Mellier, Chief Executive, of De Beers cautioned however that: "So far, 2016 has seen significantly stronger rough diamond demand than that experienced at the end of 2015 as the actions taken by the industry continue to have a positive effect. However, we are now moving into a part of the year where rough diamond demand has historically been lower as a result of seasonality, so we continue to adopt a prudent mind-set."

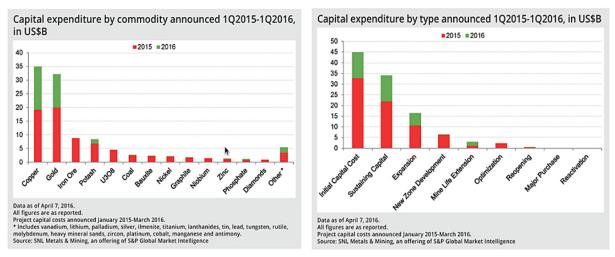
<u>Roughprices.com</u> shows the small uptick in prices in their monthly reporting, pictured.



In the polished end of the business, De Beers released information at the end of April that diamond jewellery demand by US consumers hit a record level of US\$39 billion in 2015. Demand by US consumers increased five per cent on 2014 levels as they benefited from the sustained economic recovery, higher levels of job creation and wage growth. The US remains the world's largest market for diamond jewellery sales and increased its share of global polished diamond demand from 42 per cent to 45 per cent in 2015. Chinese demand growth was also positive in 2015, with a an overall growth rate was three per cent in RMB.

## Are other markets returning too?

According to SNL Metals & Mining in a recent <u>story</u>, "Despite persistent uncertainty in the mining sector, SNL Metals & Mining data shows that the industry's planned capital spending announced since January 2015 has risen to roughly US\$108 billion from US\$60.09 billion recorded in late 2015. While this estimate primarily comprises announced costs, which may never actually be spent, it provides context on where companies currently intend to allocate resources."



That's \$50 billion capital spending in five months, and might make one cautiously optimistic that we are seeing the markets changing. Check out the charts and their detailed story <u>here</u>.

#### Drones on the fly at Diavik

The Diavik Diamond Mine has partnered with Californian-based software company DroneDeploy to develop new methods of drone use for mining operations, using purpose-built software to improve the efficiency of the mine's aerial surveillance operations.

The software tool offers rapid processing of the aerial imagery captured by Diavik's drones and facilitates the production of survey grade maps, three dimensional visualization of site imagery as well as the capacity to calculate volumes from aerial data.

Diavik has two drones in its fleet: a four rotor helicopter drone, or quadcopter, that takes video footage and photos, and an unmanned aerial vehicle, or flying wing, that captures images that the mine's surveyors can convert to video files.

The quadcopter is used in more confined flight areas such as in the open pits and can be manually piloted. The flying wing can cover more area due to longer flight times and is fully automated. Both drones are classified as micro unmanned vehicles due to their small size and light weight (less than two kilograms).



Aerial view of Diavik's A21 dike construction taken by drone (inset shows quadcopter and flying wing drones). Courtesy Diavik Diamond Mines Inc.

"Diavik has implemented the latest in aerial imaging and photogrammetry technology (using photography to measure distances between objects) as part of its A21 pipe development," explains Gord Stephenson, Diavik's superintendent project engineering for the mine's A21 projects. "Surveyors are using this technology to track the A21 construction progress and to calculate and track crushed rock stockpile production volumes for the A21 dike".

"Aside from efficiency, the other key benefit of this technology is safety.

Drones make it possible to survey areas that were historically unsafe or inaccessible such as steep rock faces and unstable ground."

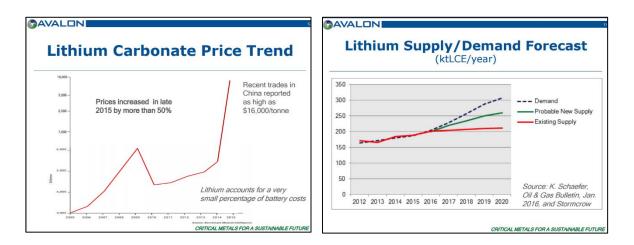
## Will Lithium be the next big thing?

Lithium-ion batteries have been a growing technology, powering many home technology products. But the advancement of lithium batteries is creating opportunity for much more demand for lithium.

In early May, Avalon Advanced Materials issued an <u>INDUSTRY BULLETIN</u> providing some insights into lithium. To quote from the Bulletin: "Recent announcements from major international companies confirm the widespread adoption of lithium ion battery technology in automotive and energy storage applications. This is accelerating and creating increased interest in securing new supplies of lithium." (see Avalon's corporate <u>presentation</u> for Charts and visuals)

The report further speaks further to growing demand:

- Application of lithium ion energy storage technology to utility power (grid) systems is also growing and New York based Lux Research Inc. sees a cumulative annual growth rate of 30%.
- Saudi Arabia has committed to building 9.5 GWh in renewable energy capacity, in all likelihood supported by lithium battery storage, by 2030 at the latest.
- Global aerospace technology giant Lockheed Martin announced recently that it is entering the business toward the integration of lithium ion systems.
- Another giant, Samsung sees lithium ion batteries as "more affordable, usable, efficient and competitive in terms of costs and plans to invest more than \$2.6 billion in batteries for Electric Vehicles and -related parts businesses over the next five years alone.



- Recently BYD, one of the world's largest battery manufacturers and China's largest electric car and bus manufacturer, announced plans to secure supplies of lithium by investing in mining to guard against increasing costs of raw material.
- And of course, Tesla Motors has unveiled a more competitively priced electric car, the Tesla Model 3 and its huge projected sales will require huge battery supply. Thus Tesla's ongoing construction of their Gigafactory in Nevada.

There is little doubt that this rapid expansion in demand will require secure, sustainable and high quality sources of lithium compounds. As Avalon says, it is well-positioned with its advanced Separation Rapids Lithium Project to participate in the growing lithium ion battery supply chain.

But, what's it mean to the NWT and Nunavut?

While it is still early days, we're starting to note a few advances, both in the Slave Geological Province:

- This past winter, a new company called 92 Resources acquired and expanded ground in the Hidden Lake area, known to host lithium-bearing pegmatite dykes. Their project now covers about 1,600 hectares and the company expects to ground sample and map this year to identify and delineate pegmatite dykes rich in the lithium-bearing mineral called spodumene. The most promising dykes would then undergo detailed channel sampling.
- In early May, North Arrow Minerals Inc. announced it has signed a binding letter of intent to sell its lithium mineral claims in Nunavut and the NWT to Athabasca Nuclear Corp. Under terms of the letter of intent, North Arrow will sell its 100% interest in the Torp Lake, Nunavut and Phoenix, Northwest Territories mineral claims for 2,500,000 common shares of Athabasca at a deemed value of \$0.08 per common share. As additional consideration, North Arrow will also receive 1,000,000 common share purchase warrants, each warrant entitling North Arrow to purchase one common share of Athabasca for \$0.20 for a period of two years from the date of closing the transaction.

Watch the "lithium" space in coming months.

## Summit Air Kitikmeot and TMAC Sign 3-Year Transportation Agreement

On April 18, Summit Air Kitikmeot, in partnership with Summit Air, announced the signing of a three-year contract with TMAC Resources Inc. that will provide transportation of mining crews to TMAC's Hope Bay Project south of Cambridge Bay, Nunavut.

The agreement will see one of Summit's twin-engine turbo-propeller ATR-72 service the project on regular flights from Edmonton to site. The ATR-72 aircraft is capable of flying as many as 68 passengers per trip and will commence operations in early-May.

"We are extremely happy with this outcome and would like to thank TMAC publicly for giving an Inuit-owned enterprise the opportunity to support their passenger movements into site," said Frank Ipakohak, President, Summit Air Kitikmeot. "Customers and operators in the Kitikmeot will now have access to the breadth and depth of the Summit Air service offering through this exciting new partnership."

"Today is a significant day for Summit Air and our partners in the Kitikmeot," said Matthew McElligott, Vice President, Business Development, Summit Aviation Group. "We look forward to the opportunity to continue to grow and develop our relationship with TMAC Resources at the Hope Bay Project."



Summit Aviation Group is a member of the Ledcor Group of Companies and includes both Summit Air and Summit Helicopters. They have been delivering remote aviation solutions to Canada's North for over twenty years and is now comprised of one of the most diverse fleets of aircraft in the industry. For more information about Summit Aviation Group, visit <u>http://flysummitair.com/about/</u>.

## Huge NWT labour demand projected over the next 15 years

On April 20, the Government of the NWT (GNWT) released new labour market information on NWT jobs in demand over the next 15 years.

GNWT partnered with The Conference Board of Canada as part of the *Skills 4 Success* Initiative to produce the comprehensive *Northwest Territories Labour Market Forecast and Needs Assessment* and accompanying *Labour Market Information Resource*.

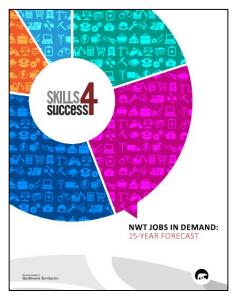
And the needs are significant!

Over the next 15 years, it is forecasted that:

- There will be 28,500 to 36,700 job openings in the NWT, of which 78% will typically require some form of postsecondary education and/or extensive work experience and seniority.
- Approximately 98% of the 28,500 job openings will be to replace workers who will retire or move from the NWT.

This critical information will help northerners make informed decisions so they may maximize the NWT employment opportunities that are and will be available over the coming years.

There is a significant volume of data available to those who



want it <u>here</u>, and for those with lesser needs there is also a great handbook <u>NWT Jobs in</u> <u>Demand: 15-Year Forecast</u> designed to be easy to read, and which lays out key points and provides information on where to get help and support.

## Federal Gov't provides northern training dollars

On April 8, the Honourable MaryAnn Mihychuk, Federal Minister of Employment, Workforce Development and Labour, announced 198 new training projects aimed at helping thousands of Canadians get the skills needed to overcome barriers to employment and join the middle class.

The NWT and Nunavut received a share of the \$65 million, per:

- In the NWT, Youth Skills Link Program administered by the Mine Training Society received \$293,461, and
- In Nunavut, the Adult Learning, Literacy and Essential Skills Program, administered by the Nunavut Literacy Council received \$790,516.

In the NWT, McCaw North Drilling and Blasting is contributing an additional \$420,000 to the almost \$300,000 the MTS received to train 12 people as drillers and blasters, and will provide the hands on, work experience portion of the training at the Ekati diamond mine, where McCaw is a contractor.

#### Mining industry takes high ground on carbon price for climate change

#### Mining Association of Canada releases principles for climate change policy design

MAC and its members, comprising some of Canada's largest mining companies, have issued principles for climate change policy design to support an efficient pan-Canadian approach to addressing this important issue.

"With these principles, we have one of Canada's largest industries coming out in support of a carbon price, identifying it as the most effective and efficient means of driving emissions reductions and making real progress in the global fight against climate change. MAC's support of a carbon price is guided by our principles for climate change policy design, and is based on 16 years of our members' continuous efforts to reduce emissions through technology and innovation and become more energy efficient."

- Pierre Gratton, President and CEO, MAC

To inform the design of a carbon price regime, MAC's *Principles for Climate Change Policy Design* document recommends the following:

- Establish a broad-based carbon price that is applicable to all sectors of the Canadian economy.
- **Be revenue neutral** by investing revenues generated through carbon pricing into the development of lower emission technologies to manage the transition to a lower carbon future, including climate adaptation, and to ensure a level playing field for trade-exposed industries that are emission intensive.
- Address competitiveness and carbon leakage concerns across all sectors to prevent declines in investment, employment, tax revenues and trade.
- Be predictable, flexible and sensitive to changing economic conditions and geographic circumstances, to enable consumers and industry to adapt and to treat regions fairly.

- **Be simple, complementary and effective** to ensure that a national climate change regime works in tandem with existing provincial schemes, avoids duplication, and is simple to understand and administer.
- Support investments in the development and implementation of technologies that lower emissions through capital investments, which could include public-private partnerships.
- **Recognize early action**, acknowledging that some companies have been proactive in reducing their climate footprints and that several provinces have already established climate change mitigation regimes.

MAC and its members released its first climate change position statement in 2000. In the years that followed, the association and its member companies have worked to improve energy efficiency and reduce greenhouse gas (GHG) emissions through measures such as MAC's mandatory Towards Sustainable Mining (TSM) initiative as well as individual company efforts. In 2009, MAC adopted the International Council on Mining and Metals' climate change policy, which recognizes that comprehensive and sustained global action is required to reduce the scale of human-induced climate change and to adapt to its impact.

The time is ripe for governments, industries and all Canadians to get even more creative about meeting our

#### Diavik – Ahead of the Curve

The Diavik Diamond Mine's 9.2megawatt four-turbine wind farm has made Diavik the site of the world's largest wind-diesel hybrid power facility, and represents the first largescale wind farm constructed in the Northwest Territories. The wind farm has reduced the mine's 2014 diesel fuel consumption by 4.9 million litres. For the year, the wind farm has supplied 11% of the mine's power, producing 19.9 gigawatt hours, and offsetting 14,068 tonnes CO e.

emissions goals. The Canadian mining industry sees itself as part of the solution. Our products—whether it be the extra copper needed in electric cars, the nickel and steelmaking coal used to make the steel in windmills, the rare earths and precious metals used in new and emerging battery technologies, or uranium in the generation of carbon-free nuclear energy—are essential to living in a lower carbon world.

MAC's Principles for Climate Change Policy Design document is available by clicking here.

## Mine management changes affect some familiar faces to northerners

This seems to be a month for changes, with familiar faces taking on new roles in our northern minerals industry.

## Jim Gowans – Dominion Diamond Corporation

Dominion Diamond Corporation announced April 13 that Bob Gannicott has retired as Chairman of Dominion Diamond Corporation and that Jim Gowans has been appointed as nonexecutive Chairman of the Board of Directors with immediate effect. Mr. Gannicott will remain as a director of the Company.

Jim Gowans has an impressive record, which includes previous work at the helm of De beers Canada, but to old timers in the north, they will remember him from his years with Cominco, the great Canadian mining company where he started work in 1974 after graduation as a mining engineer. Jim advanced through various technical and managerial positions at Cominco from Mill Superintendent at the Con mine in Yellowknife, Project Engineer for the Polaris Mine Project in Nunavut, and Manager of Engineering for the Red Dog Project in Alaska. Read: lots of northern experience.

Jim is currently President and Chief Executive Officer for Arizona Mining Inc. Prior to that, he held several senior roles with Barrick Gold Corporation, and was Managing Director of the Debswana Diamond Company in Botswana and Chief Executive Officer of DeBeers Canada Inc. where he was instrumental in building the company's Canadian operations.

#### Todd Burlingame – Baffinland Iron Mines

Baffinland Iron Mines has a new Vice President of Sustainable Development. Todd Burlingame has assumed the role and will be replacing Erik Madsen. Todd joined the firm on April 18, and will work primarily out of the Corporate Head office in Oakville.

Todd has over 25 years' experience delivering full suites of bankable environmental and regulatory approvals and Impact and Benefits Agreements for large projects across northern Canada. Projects include Winspear's Snap Lake Diamond Mine, Vale's Long Harbour Commercial Plant, Nalcor's Lower Churchill Hydroelectric project, Chairing two Federal/First Nations co-management boards and, Executive Vice President of Environment and Aboriginal Affairs for Alderon Iron Ore.

Todd joined Baffinland from Golder Associates Ltd. where he was the Director of Environmental and Social Impact Assessment and Atlantic Canada Development. A lifetime northerner, originally from Alaska, Todd holds a B.Sc, in Geology from the University of British Columbia.

#### Erik Madsen – De Beers

Erik Madsen begins a new role in late May with De Beers Canada where he has been appointed as General Manager Sustainability. With roots in the north, Erik has accumulated progressively more expertise and experience, beginning at the Con and Giant gold mines in Yellowknife, and progressing to senior environmental and health and safety roles at the Canada's largest

diamond producer, the Diavik Mine in the NWT. For many years, Erik also managed the Tibbitt to Contwoyto winter road joint venture, maintaining that critical supply line to the NWT's diamond mines. Erik comes to De Beers after a number of years as Vice President of Sustainable Development, Health, Safety & Environment for Baffinland Iron Mines, where he was responsible for permitting and environmental management of the construction and operations of the Mary River iron mine in Nunavut.

In his new role with De Beers, Erik will focus on supporting health and safety efforts, maintaining environment management standards, and







leading regulatory and permitting requirements. He will also support community and stakeholder relations.

#### Dave Ramsay – Fortune Minerals

Fortune Minerals has announced the appointment of former minister of the Government of the Northwest Territories, Mr. David Ramsay to the Company's board of directors. Mr. Ramsay has more than 20 years of elected public office experience in the Northwest Territories, which

included prominent cabinet positions in the Legislative Assembly. Prior to November 2015, he was Minister of Industry, Tourism and Investment that includes the preeminent mining portfolio, accounting for about 50% of private sector GDP in the NWT. Mr. Ramsay has also served as Minister of Justice, Attorney General, Minister of Transportation and the Minister Responsible for the Public Utilities Board for the GNWT. Mr. Ramsay brings important political experience and business acumen to the board while Fortune works with three levels of government on road and power infrastructure initiatives that are important to the success of the Company's NICO gold-cobaltbismuth-copper project.



#### Leona Aglukkaq – TMAC Resources

In February, Mr. Terry MacGibbon, Executive Chairman of TMAC Resources announced that Ms. Leona Aglukkaq had been appointed to the board of directors effective February 25, 2016. Ms. Aglukkaq is a highly experienced politician and government administrator from the Kitikmeot Region, in what is now the Territory of Nunavut.

TMAC's Hope Bay Project is in Ms. Aglukkaq's home region, and as a result, she has a keen understanding of the Hope Bay Project's importance in the economic development of Canada's north. She was first elected as a Member of Parliament in 2008, and in 2009 became the first Inuk in Canadian history to be appointed to Cabinet (as Minister of Health). In addition to her Federal government experience, Ms. Aglukkaq has broad public government

exposure, including international diplomatic experience as a Minister of the Arctic Council (2012-2015), a leading intergovernmental forum promoting cooperation, coordination and interaction among the Arctic states, Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues, in particular on issues of sustainable development and environmental protection in the Arctic. In addition, Ms. Aglukkaq has territorial government experience as both an elected official and a public official in the governments of Nunavut and the Northwest Territories , and in Institutions of Public Government (as defined by the Nunavut Land Claims Agreement), as a Member of NIRB."

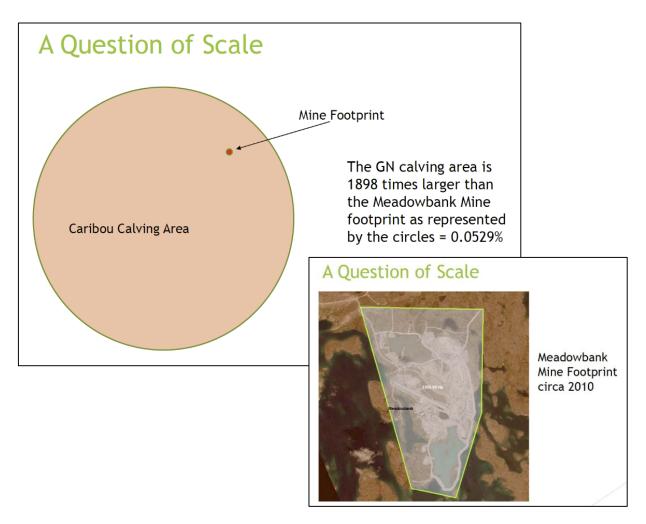


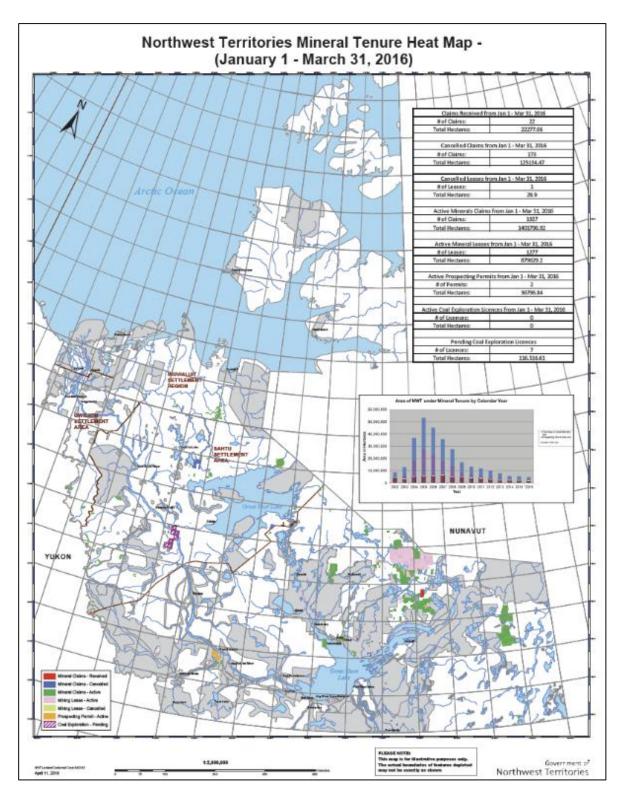
## NU Caribou – NTI gives Nunavut Planning Commission a good perspective

At the Nunavut Land Use Planning caribou workshop in March, Miguel Chenier of Nunavut Tunngavik Inc.'s (NTI) Lands Department made some very provocative points through a questioning approach on what development looks like and what its effects might have on caribou in calving grounds and elsewhere. The presentation came from the perspective of Inuit being the largest non-governmental landholders in the world, and much of its land was selected because of its ability to create benefits for its beneficiaries and for Nunavut from its high mineral potential.

Mr. Chenier's presentation makes many, but two critically important points, that use the concept of win:win, ie, not either/or: "Nunavut can have a meaningful and prosperous future that includes both the caribou <u>AND</u> mining and exploration" [Our emphasis added] and "The future of Nunavut will be determined by the success of both".

We have included two images from the excellent presentation, which provide some great footprint perspective, which we encourage you to view. It can be downloaded <u>here</u>.





#### Continued low exploration reflected in NWT Mineral tenure map

### Diamonds are forever: New diamond exploration research training school

See University of Alberta website here.

From their long-held appeal as jewelry to increasing industrial applications, there is nothing more symbolic of strength and endurance than diamonds. There is also no denying the strength of Canada's roughly \$2-billion annual diamond industry. With two of three Canadian mines in their final phases of production, the time is now to source new exploration sites to ensure Canada remains at the forefront of the industry.

To help train and produce the next generation of highly qualified diamond explorers, the Natural Sciences and Engineering Research Council (NSERC) has announced an investment of \$1.65 million over the next six years to a new Diamond Exploration Research and Training School (DERTS), led by the University of Alberta and with partners at the University of British Columbia.

"There is a desperate need to sustain more discoveries if Canada is going to maintain its position as the world's number three diamond producer by value," says Graham Pearson, principal investigator of DERTS and Canada Excellence Research Chair in Arctic Resources at the U of A. "Diamond mining has put hundreds of millions of dollars into the economy of the North. That economic investment and momentum needs to be sustained going forward in the long term. The discovery of new deposits will be technologically challenging, so we are creating the next generation of industry-ready geoscientists."

Funded through NSERC's Collaborative Research and Training Experience Program (CREATE), DERTS includes industrial collaborations with 10 partners—including heavy-hitters De Beers, Diavik Mines, and Dominion Diamond Ekati Corporation—all committed to working with students on prospecting new mines. "We are directly aligning our research with industry needs," says Pearson. "It is essential that new graduates are able to move seamlessly into industry."

This transition will be facilitated with annual industrial internships, field work and community engagement in the Canadian Arctic, "soft-skills" training, and access to some of the finest research facilities in the world, with training and mentorship by world leaders in diamond research and exploration.

Situated in the "Gateway to Canada's North" with arguably the world's largest assembly of highly specialized diamond research equipment, the U of A—long known for its strength in diamond-related research—is the ideal leader for the new diamond exploration program. "We are uniquely positioned to provide very broad-ranging, highly specialized training," says Pearson of the calibre of faculty and program staff. "We have also partnered with researchers at UBC, meaning we have a team that covers all areas of diamond research."

Launching in September 2016, DERTS will annually host 15 fully-funded students to engage in research related to diamonds and diamond exploration.

Pearson hopes that, in addition to strengthening Canada's industrial longevity, this new graduate program ensures that people everywhere continue to have access to these enduring symbols.

Watch the video here.

### **NWT Regulatory Boards Workshop Presentations available**

The Land and Water Boards would like to thank everyone who participated in the MVRMA Workshop in January. Please see the following <u>link</u> to access the presentations given at the workshop. A summary report will be available in March, 2016.

https://wlwb.ca/sites/default/files/documents/Workshop%20Package%20-%20Combined.pdf

#### **Ekati Diamond Mine newsletter**

Dominion Diamond's latest newsletter is available and carries stories on:

Featured in this newsletter:

- Safety Achievement: 1.2 million hours worked without a recordable injury
- Updates on the Jay and Sable projects
- Results of the Canadian Championship Dog Derby
- The Tlicho Reviving Trails project
- Pre-Trades Demonstration in Kugluktuk

This document will be available on our website shortly: <u>http://www.ddcorp.ca/responsibility</u>.





Dominion Diamond's Ekati mine, 300 kilometres northeast of Yellowknife in the NWT.

## Scotiabank – Commodities Lift Off Unsustainable Lows, But Pace Appears Overheated

- Oil and iron ore prices are likely getting ahead of underlying fundamentals.
- WTI expected to reach \$45-50/bbl by year-end, but interim prices may ease slightly from current levels.
- Chinese exchanges move to blunt potentially speculative activity in overheated metals markets.

#### Some highlights:

Volatility abounds and sharp rallies have elevated most commodities off recent bottoms. Scotiabank's Commodity Price Index lifted off a more than 12-year low in February, rallying 7.8% m/m in March. While the direction of this recent price activity is in line with Scotiabank Economics' view, the frenetic pace of these rallies is aggressive based on our reading of the fundamentals. There is a risk of a short-term correction in prices, though we expect commodity prices will rise further as the year progresses. That said, it is also unlikely that prices re-test the exceptionally low levels reached earlier this year given that they were also likely the result of speculative momentum.

The Metal & Mineral Index advanced by 3.2% m/m in March on the back of significant price gains across the board (Iron Ore +19.7% m/m; Copper +7.7%; Zinc +5.4%; and Nickel +5.0%).

Iron ore (62% Fe delivered to Qingdao) experienced frenzied price momentum, jumping from \$51.44/t at the beginning of March to a high of \$70.46/t mid-April. A good deal of this strength can be chalked up to booming steel prices on the back of Chinese government credit stimulus and restocking before summer construction. However, there have also been exceptionally high trading volumes — recent sessions have seen daily iron ore trading volumes exceed annual imports and the average holding period for these contracts is steadily declining (Chart 6), raising suspicions of increased speculative activity.



The base metals are also being swept up in the generally bullish commodity sentiment as well as benefitting from China's most recent stimulus push. Copper continues to experience near-term weakness but longer-term prospects are strong as developing markets increase electrical distribution network density and carbon conscious global policies push for increased copperintensive renewable energy market share. Codelco, the world's largest copper producer, is aiming to reduce production costs by roughly 9% to \$1.26/lb this year from \$1.39/lb in 2015. Meanwhile, zinc remains a market with fundamental support and prices are forecast to rise materially through 2017. The closing of the Century (Australia) and Lisheen (Ireland) zinc mines as well as Glencore's decision to idle roughly 500 kt of supply until prices recover have left the zinc concentrates market in deficit.

Download the entire newsletter <u>here</u> or click on the report thumbnail.

## **Calendar of Events**

- NAPEG's 2016 Professional Development Conference, "Concept to Reality and Beyond" will address topics such as the Colville Lake Solar/Diesel Hybrid System, Wastewater Treatment and Disposal, Mackenzie Valley Fibre Link Project, Climate Change and Professional Practice, Inuvik Satellite Farm, Diavik Wind Farm, and much more. May 12-13, 2016, Explorer Hotel, Yellowknife, NT. Contact: <a href="mailto:mkennedy@napeg.nt.ca">mkennedy@napeg.nt.ca</a>.
- **Centrallia 2016** is the major global business forum organized by the World Trade Centre Winnipeg. It will take place next May 25-27, 2016 in Winnipeg will have a special focus on the high north and the Arctic. The conference will have a special focus on the high north and the Arctic. To learn more click <u>here</u>.
- inSIGHT North of 60 Actualizing Aboriginal Potential, May 31-June 1, Explorer Hotel, Yellowknife, NWT. This conference brings together Aboriginal Leaders, Government and Industry. The two day highly focused conference will shed insight on overcoming the two most cited challenges: wealth creation and infrastructure development. This is your perfect opportunity to be involved in high-level discussions with key leaders to build a stronger Northern Economy. Visit: www.unlockingaboriginalpotential.com/north-of-60/
- Mining & Communities, Solutions 2016, June 5-8, 2016, UBC Campus, Vancouver, BC. The conference will explore the relationships between mining operations and mining communities as well as the approaches that mining companies take to develop engagement with the communities and the host governments. To learn more click <u>here</u>. There is still time to submit an abstract if you would like to make a presentation at this conference. Submit your abstracts to <u>miningandcommunities@infomine.com</u>. Early bird registration in effect online until April 25, 2016.
- Arctic Energy and Emerging Technologies Conference & Tradeshow, June 13-15, Inuvik, NWT. This new show replaces the decade long, successful Inuvik Petroleum Show. This new event will bring together people from government and industry to learn, network and promote various sources of energy and emerging technologies as it relates to our Arctic living environment. To learn more visit: <u>www.inuvikarcticenergy.com/</u>



#### Member News Releases this past month

Click on the news release headlines which are live links for news releases issued by our member companies this past month.

- 2 May 2016, TerraX agrees to additional non-brokered private placements for \$1,803,000
- 2 May 2016, Canadian Zinc Update on Research Program to Investigate Central Milling Facility in Central Newfoundland
- 2 May 2016, Avalon INDUSTRY BULLETIN: Major industrials jockey for position in rapidly evolving energy storage and electric vehicle markets
- 2 May 2016, Kaizen Discovery announces key management changes
- 2 May 2016, Canterra Provides Update on South Slave Properties
- 2 May 2016, North Arrow Sells Two Canadian Lithium Assets
- 29 April 2016, Agnico Eagle Announces Election of Directors
- 28 April 2016, Agnico Eagle Reports First Quarter 2016 Operating and Financial Results -Continued Strong Operational Performance - Amaruq, El Barqueno and Barsele Drill Programs Yield Positive Results
- 26 April 2016, Kaizen Discovery files updated NI 43-101 technical report for the Pinaya Copper-Gold Project in Peru
- 25 April 2016, Kennady Diamonds Advances Kennady North Project
- 21 April 2016, Summit Air Kitikmeot and TMAC Resources Sign Three-Year Transportation Agreement
- 21 April 2016, Fortune Minerals interviewed re board appointment, Tesla's Model 3, and the NICO project
- 18 April 2016, Fortune Minerals Announces Appointment of Former Minister David Ramsay to the Board of Directors
- 14 April 2016, Dominion Diamond Corporation Files Annual Report on Form 40-F with SEC
- 13 April 2016, Dominion Diamond Corporation Announces Appointment of New Chairman
- 13 April 2016, Dominion Diamond Corporation Reports Fiscal 2016 Fourth Quarter Positive Free Cash Flow in a Challenging Diamond Market
- 13 April 2016, TerraX drills 49.70 m @ 1.00 g/t Au and 30.70 m @ 1.33 g/t Au at Sam Otto Target, Yellowknife City Gold
- 12 April 2016, TerraX agrees to non-brokered private placement for \$936,200
- 12 April 2016, De Beers Rough Diamond Sales for Cycle 3, 2016
- 11 April 2016, Fortune Minerals Announces Permitting Underway for Public Highway to Whati
- 11 April 2016, Kennady Diamonds Advances Kennady North Project
- 7 April 2016, Peregrine Reports 33% Increase in CH-6 Kimberlite Inferred Diamond Resource to 11.39 Million Carats
- « More Recent News Items | Previous News Items »
- 6 April 2016, Agnico Eagle provides notice of release of first quarter 2016 results, conference call and annual and special meeting
- 6 April 2016, Kennady Diamonds Appoints Dr. Rory Moore as President and CEO
- 6 April 2016, Avalon INDUSTRY BULLETIN: Surprising demand for Tesla Model 3 Electric Vehicle underlines need for new lithium supply
- 6 April 2016, Kaizen Discovery receives C\$2.0 million from majority shareholder HPX TechCo as a partial drawdown of loan facility



## **Mines & Promising Northwest Territories Mine Projects**

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

Project Name	Owner(s)	Commodity	Description	Status
Ekati Mine	Dominion	Diamonds	Canada's first and largest diamond	News Release, April 13, 2016: Dominion
—	Diamond		mine, 310 km. NE of Yellowknife.	Diamond Corporation Reports Fiscal 2016
	Corporation, and		Open pit and underground. Mine life	Fourth Quarter Positive Free Cash Flow in a
	Dr. Stewart		to 2020. Workforce in 2014	Challenging Diamond Market.
	Blusson		approximately 1,500.	Some highlights:
				<ul> <li>Fourth quarter capital expenditures</li> </ul>
				include significant investments in the
				Misery Main, Pigeon and Jay pipes at the
				Ekati Diamond Mine and in the A-21 pipe
				at the Diavik Diamond Mine.
				<ul> <li>Fourth guarter diamond sales were</li> </ul>
				\$178.1 million with prices lowered by
				approximately 5% in the Company's
				January sale in line with the market.
				<ul> <li>A price decrease of approximately 5%</li> </ul>
				in the Company's January sale in line
				with the market.
				<ul> <li>Fourth quarter loss before income taxes</li> </ul>
				of \$27.9 million and consolidated net loss
				attributable to shareholders of \$34.9
				million or \$0.41 per share for the quarter
				<ul> <li>The Company has a strong balance sheet</li> </ul>
				with total unrestricted cash resources of
				\$320 million and \$210 million is available
				under its revolving credit facility.
				<ul> <li>Fiscal 2016 diamond sales were \$720.6</li> </ul>
				million, reflecting a decline in prices of
				approximately 10% during the year as well
				as a shift to lower value ore sources.
				<ul> <li>Ekati processing volumes were 12%</li> </ul>
				lower as compared to fiscal 2015 due
				to operational challenges in the
				process plant in the first quarter of
				fiscal 2016 as well as a new diamond
				liberation initiative introduced in the
				second quarter of fiscal 2016 which
				included reducing the level of
				throughput to the plant from 12,000 to
				10,500 tonnes per day.
				<ul> <li>At the Ekati Diamond Mine, significant</li> </ul>
				pre-stripping was completed at the
				Pigeon and Misery Main open pits during
				the year, with the first ore mined from the
				Pigeon pipe in the fourth quarter of fiscal
				2016.
				<ul> <li>Evaluation of the Jay and Sable pipes</li> </ul>
				continued during the year and equipment
				was mobilized in anticipation of
				construction of the Sable project in fiscal
				2017.
				-
				News Release, April 13, 2016: Dominion
				Diamond Corporation Announces
				Appointment of New Chairman
Ekati Jay Project	Dominion	Diamonds	The Ekati Jay project is in	February 1, 2016: Mackenzie Valley Review
	Diamond	2.0	Environmental Assessment. Ekati	Board recommended to the NWT Minister of
	Corporation, and		mine life currently ends in 2020, but if	Lands that the Jay Project be approved
	Archon Minerals		mining of the Jay pipe is approved,	subject to implementation of the measures
	Ltd.		mining could be extended 10 yrs.	described in its Report, which are necessary
	L.U.	1	mining could be extended to yis.	described in its neport, which are necessary

	I	T		and an and and a state to the state
				environment and mitigate the causes of public concern.
				February 23 news release: Jay Pipe Update:
				The Company expects to complete the Jay
				Feasibility Study by May 2016, one month
				later than previously expected. Once the
				Study is complete, the Company will provide
				updated Mineral Resource and Mineral
				Reserve estimates for the Jay kimberlite
				deposit.
<u>Diavik Mine</u>	Rio Tinto & <u>Dominion</u> <u>Diamonds</u>	Diamonds	Canada's largest producer of diamonds, 300 km NE of Yellowknife. Mine life through 2023. Became all underground mine in 2012. Workforce approximately 1,000. To Dec 31, 2013, the mine produced approximately 84 M carats of diamonds from the processing of approximately 22 M tonnes of	<ul> <li>DDI News Release, April 13, 2016</li> <li>Diavik diamonds recovered in calendar 2015 of 6.4 million carats were 9% lower than the original calendar 2015 plan of 7.0 million carats, due to a combination of ore availability issues resulting from lower mining rates from A-154N, lower grades from A-418, and availability of the process plant in the fourth calendar quarter.</li> </ul>
			kimberlite.	·
			Work to develop new A21 open pit	
			has begun and will cost US\$350m	
			over 4 years. A-21 is on track to commence ore production in the	
			second half of 2018. The A-21	
			workforce will peak at approximately	
			200 people.	
			Proven and probable reserves at Dec	
			31, 2014 were 18.7 million tonnes at	
			2.8 carats/tonne for total of 52.8	
Span Lake Mine	Do Room	Diamonda	million carats.	Due to low diamond prices De Deere aut the
Snap Lake Mine (Closed, on care	De Beers	Diamonds	Canada's first all underground diamond mine. 220 kilometres NE of	Due to low diamond prices, De Beers put the
(Closed, on care & maintenance)			Yellowknife. Mine life to 2028.	Snap Lake mine on care and maintenance in December 2014.
& maintenance)			Workforce approximately 750.	Detember 2014.
Cantung Mine	North American	Tungsten,	Cantung is in the mountains of	Nov 19 GNWT News Release: NWT
(Closed, on care	Tungsten	copper	western NWT, ~300 km by road NE of	Government purchases Mactung assets of
& maintenance)			Watson Lake, Yukon.	Cantung to ensure Federal Government
			North American Tungsten (NATC)	Nov 19 NATC news release: NATC Announces Extension of Stay of Proceedings under the
			filed for Court protection under the CCAA on June 9, 2015.	Companies' Creditors Arrangement Act.
			In accordance with the Operating	On November 17, 2015, the Supreme Court of
			Plan, the mill at the Cantung mine	British Columbia made an order approving
			site was shut down on October 26,	the sale of the Company's Mactung property
			2015, and transition of the Cantung	to the Government of the Northwest
			mine to care and maintenance is	Territories. The Government of Canada will
			expected to be completed on or	fund the Company's environmental care and
			about November 18, 2015.	maintenance activities at the Cantung mine
Cabcho Kuć	Do Boors %	Diamondo	Proposed open pit diamond mine	site. In March, media reported that De Beers
<u>Gahcho Kué</u>	De Beers & Mountain	Diamonds	Proposed open-pit diamond mine approximately 180 km ENE of	Canada says 96 former Snap Lake mine
	Province		Yellowknife, NWT. Estimated mine	employees have now been transferred to
			jobs: 400. Mine life increased from	Gahcho Kué. About 40 of those people,
			11-12 years in 2014 Feasibility Study.	including two managers, live in the NWT,
			First production on schedule for Q3	according to De Beers.
			2016. Peak construction workforce	News release, March 14, 2016: Mountain
			700.	Province Updates Gahcho Kué Diamond Mine
				Development
				Overall project more than 87 percent     complete
				<ul><li>complete</li><li>On plan for first production in H2 2016</li></ul>
				Appointment of Mine General Manager
Kennady North	Kennady	Diamonds	Kennady Diamonds controls 100% of	News Release April 11: Kennady Diamonds
	Diamonds Inc.		Kennady North project comprising 13	Advances Kennady North Project
	·			• •

	1		Lesses and det at the test	
			leases and claims immediately to north and west of 4 leases controlled by the Gahcho Kué Joint Venture (see above). Kennady Diamonds aims to identify a resource along the Kelvin – Faraday kimberlite corridor of between a 12 and 15 million tonnes at a grade of between 2 and 2.5 carats per tonne and also to identify new kimberlites outside of the corridor. The Kelvin – Faraday corridor is a target for further exploration. The tonnage estimate is based on the drilling completed to date. The potential quantity is conceptual in nature as there has been insufficient drilling to define a mineral resource and it is uncertain if further exploration will result in the target being delineated as a mineral resource.	<ul> <li>Kelvin North Lobe Bulk Sampling at 540 tonnes</li> <li>Faraday 3 kimberlite defined over 150 meter strike</li> <li>Preliminary economic assessment commences</li> </ul>
<u>Nechalacho</u>	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 in 2015 to attract Project financing and allow construction work to begin by summer 2015.	News Release, February 26, 2016: Avalon Announces Voting Results of Annual and Special Meeting including Approval of Name Change to Avalon Advanced Materials Inc. News Release February 10, 2016: Avalon's Nechalacho Rare Earths Project to remain inactive in 2016, while the Company focuses on Lithium and Tin in southern Canada. Avalon Rare Metals Project work in calendar 2015 consisted mainly of concluding the ongoing metallurgical research, disposal of process waste materials and storage of bulk samples for future use.
<u>NICO</u>	Fortune Minerals Ltd.	Cobalt- gold- bismuth- copper	Proposed open pit and underground mine located 50 km NE of Wha Ti. Estimated mine jobs: 150. Requires access to highway to Wha Ti, still to be constructed.	<ul> <li>News Release, April 11: Fortune Minerals Announces Permitting Underway for Public Highway to Whati. Key Highlights</li> <li>Public highway to the community of Whati advancing</li> <li>Tesla Motors announced 325,000 pre- production orders for its Model 3 car validating electric vehicle growth and positively impacting cobalt demand</li> <li>Discussions for off-take and NICO project financing ongoing</li> <li>Fortune completes second tranche of \$1 million private placement</li> <li>News Release, April 18: Key Highlights:</li> <li>David Ramsay appointed to Fortune's board of directors</li> <li>Public highway to the community of Whati advancing</li> <li>Tesla validates EV demand, positively impacting cobalt market</li> </ul>
Prairie Creek	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. Preliminary Feasibility Study completed in early 2016 supports longer ,17 year mine life. The company's proposal to construct a new airstrip and all-weather road is	News Release, Mar 30, 2016: Canadian Zinc Reports Financial Results For 2015 • Underground Exploration increases Resources • Two MOUs signed for Concentrate Sales • Prairie Creek Updated Preliminary Feasibility Completed News Release, Mar 31, 2016: Canadian Zinc Reports results of 2016 preliminary feasibility study for Prairie Creek Mine, NWT

			undergoing environmental assessment.	• New Mineral Reserve Supports Longer 17 Year Mine Life The updated 2016 PFS based on optimization work completed over the past three years, including the 2015 underground exploration program at Prairie Creek which increased total Measured and Indicated Resource tonnages by 32%, indicates a Base Case pre- tax Net Present Value ("NPV") of \$509 million using an 8% discount rate, with an Internal Rate of Return ("IRR") of 32% and a post-tax
Indin Lake	Nighthawk Gold	Gold	Nighthawk controls over 90% of the prospective Indin Lake Greenstone	NPV of \$302 million, with a post-tax IRR of 26%. News release February 25, 2016: Nighthawk Gold Corp. Announces Proposed Acquisition
			Belt in this historic gold camp with a total ground position now comprising 930 sqkm, 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 mine (eg Colomac)	of Superior Copper Corporation Feb 25: New corporate presentation posted.
<u>Courageous Lake</u>	Seabridge Resources	Gold	Proposed open pit mine 240 km NE of Yellowknife. 6.5 M oz proven and probable reserves. (Positive PFS July 2012). The FAT deposit is one of Canada's largest undeveloped gold projects. Gold resources of 8.0 million ounces in the measured and indicated categories plus an additional 3.4 million ounces in the inferred category.	Seabridge is currently focusing its work on their KSM mine development in British Columbia.
<u>Selwyn</u> (Howards's Pass Project)	Selwyn Chihong Mining Ltd.	Zinc, lead	Proposed underground mine in Yukon on NWT border and access is through NWT. Agreements signed with NWT (Sahtu) Aboriginal land corporations. The proposed Selwyn Project is an open pit zinc-lead mine with a projected mine life of more than 10 years. The mine is being designed to process 35,000 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. Once processed, the concentrate 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 Howard's Pass Access Road was first developed in the 1970s, and runs 79 km's in the NWT from the Nahanni Range Road to the NWT-Yukon border. It goes through two national parks, the Dehcho region's Nahanni National Park Reserve and the Sahtu region's Naats'ihch'oh National Park Reserve. 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 ten years to the mine life.

## Mines & Promising Nunavut Mine Projects

The following table describes a number of leading mineral development projects in Nunavut.

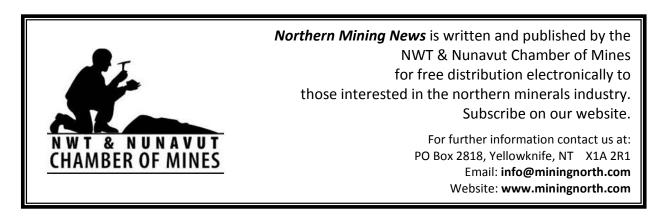
Project	Owner(s)	Commodity	Description	Status
<u>Meadowbank</u> <u>Gold Mine</u>	Agnico Eagle Mines	Gold	In operation since 2010. Open pit mine located in the Kivalliq Region, 300 km west of Hudson Bay and 70 km N of Baker Lake. Mine jobs: 775 Exploring potential satellite deposit, Amaruq, 50km from mine site. Construction of the Amaruq Exploration Access Road commenced in the first quarter of 2016. Road construction is ongoing with nine kilometres completed to date of the expected total length of 62 kilometres. On April 19, the Nunavut Impact Review Board submitted its EIS report to the Minister of INAC concluding that the Vault Pit Expansion Project should proceed.	News Release, April 28, 2016: Agnico Eagle Reports First Quarter 2016 Operating and Financial Results - Continued Strong Operational Performance - Amaruq, El Barqueno and Barsele Drill Programs Yield Positive Results. At Amaruq, the 2016 drill program began at the end of January. Drilling to the end of March has totalled 18,836 metres (84 holes) using up to eight rigs, part of an initial 75,000-metre drill program. The goals of the 2016 exploration program are to infill and expand the known mineral resource areas and to test other favourable targets with a focus on delineating a second source of open pit ore. News Release, April 29: Agnico Eagle Announces Election of Directors
Mary River Iron Mine	Baffinland Iron Mines	Iron	In operation since September 2014; Open pit mine located 936 km N of Iqaluit. Mine jobs: 602 Production from Early Revenue Phase (ERP) began September 8, 2014. 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 14, 2015.	Project is undergoing a new Environmental Assessment for the proposed expansion of mining and shipping to help offset downwards spiraling iron ore prices. Baffinland expect to submit the EIS (Environmental Impact Statement) for Phase 2 of the Project in September 2016. This submission is delayed from April 2016, to allow Baffinland to present a rail alternative with the road transport proposal and provide and assess the most effective means of transporting ore from Milne Port along the northern shipping route.
Doris North/ Hope Bay	TMAC Resources	Gold	Proposed gold mine 130 km S of Cambridge Bay; covers the majority of the Hope Bay Greenstone Belt. Estimated mine jobs: 485 Plans to begin production by the end of 2016.	News Release: February 26, 2016: TMAC Provides Highlights of Financial and Operating Results for the Fourth Quarter of 2015 News Release: February 25, 2016: TMAC Provides Summary of Exploration and Drilling Results at Hope Bay Project for 2015 News Release: February 10, 2016: TMAC Resources announces that it has made its first draw in the amount of US\$50 million under the credit agreement (the "Credit Agreement") entered into with a syndicate of lenders including Sprott Resource Lending Partnership (as Agent) and Morgan Stanley Capital Group Inc., in July 2015 with respect to the US\$120 million senior secured term loan facility (the "Debt Facility").
<u>Meliadine</u>	Agnico Eagle Mines	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 is estimated to be \$911m; initial production life of 9 years. At December 31, 2015, the Meliadine property hosted 3.4 million ounces of proven and probable mineral reserves	News Release, April 28, 2016: Meliadine Type A Water License Permit Expected by the End of the Second Quarter of 2016. The capital budget for 2016 is \$96 million, with activities focused on further underground development (approximately 3,700 metres), detailed engineering and procurement, construction of essential surface infrastructure and the acquisition of a used camp facility. The goal of the 2016 capital

			(14.5 million tonnes of ore grading 7.32 g/t gold), 3.31 million ounces of measured and indicated mineral resources (20.78 million tonnes of ore grading 4.95 g/t gold), and 3.55 million ounces of inferred mineral resources (14.71 million tonnes of ore grading 7.51 g/t gold). In addition, there are numerous other known gold occurrences in the 80-kilometre-long greenstone belt that require further evaluation.	program is to ensure that the project remains on track for a potential 2020 production start-up, which is approximately a one year delay from previous expectations.
<u>Kiggavik</u>	AREVA Resources	Uranium	Proposed uranium mine 80 km W of Baker Lake. Estimated Construction jobs: 750 Estimated mine jobs: 600	May 8, 2015: NIRB recommends project not proceed because company did not provide project start date; awaiting Ministerial response.
Back River	Sabina Gold & Silver Corp.	Gold	Approximately 60KM from Hackett River; adjacent to the Wishbone Greenstone belt. Consists of the George and Goose Lake deposits and holds significant gold resources. Estimated construction jobs: 1,600 Estimated mine jobs: 900	March 11, 2016 News Release: TMAC Resources to Complete Private Placement of Flow-Through Shares. TMAC is completing a private placement of up to 827,206 flow- through common shares at a price of \$10.88 per Flow-Through Common Share for gross proceeds of up to \$9,000,000.
Hackett River	Glencore	Zinc, Silver, Copper, Lead	Proposed open pit mine. One of largest undeveloped VMS massive sulphide deposits in the world. 104 km SSW of Bathurst Inlet. Estimated construction jobs: 800 Estimated mine jobs: 500	PFS initiated in September, 2012. No activity reported in 2015.
Izok Corridor Project (with High Lake & Hood River deposits)	MMG Resources Inc.	Copper, Zinc, Gold, Silver	High Lake is 1710 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	MMG examining alternative designs to reduce costs, add value, and improve economic viability of the project. Company stated publicly that project needs infrastructure assistance to become a mine.
<u>Chidliak</u>	Peregrine Diamonds Ltd.	Diamonds	Located 120 kilometres NE of Iqaluit, the capital of Nunavut, and 180 km S of Pangnirtung. 71 kimberlites have been discovered to date with 8 being potentially economic. In 2015, company announced a 8.57 million carat Inferred Resource for the CH-6 kimberlite and completion of the bulk sampling component of its ongoing Resource Development Program. PEA expected Q2, 2016.	News Release, April 7, 2016: Peregrine Reports 33% Increase in CH-6 Kimberlite Inferred Diamond Resource to 11.39 Million Carats. The Inferred Mineral Resource estimated for the upper 260 metres of the CH-6 kimberlite pipe has increased substantively: • Tonnage increased by 40 percent from 3.32 million to 4.64 million tonnes, and • Contained carats increased by 33 percent from 8.57 million to 11.39 million carats.
<u>Angilak</u>	Kivalliq Energy Corp.	Uranium	340,268 acre property located SW of Baker Lake; Hosts the high-grade Lac 50 Trend deposit	News Release, January 21, 2016, Kivalliq Appoints Yeung as CFO and Dare as Corporate Secretary
<u>Qilalugak</u>	North Arrow Minerals / Stornoway Diamonds	Diamonds	7 km from tidewater; 9 km from Repulse Bay, Melville Peninsula; 7,143 hectares of contiguous mineral claims. Largest kimberlite in Nunavut.	News release June 9: North Arrow Reports Diamond Valuation Results From The Qilalugaq Project. The parcel of 383.55 carats of diamonds greater than +1DTC (~1 mm) was valued at \$13,795 or \$36 per carat and a modelled range of possible values was also produced with a "possible low" model price of \$43 per carat and a "possible high" model price of \$92 per carat.
Committee Bay Gold Project	Auryn Resources (purchased North	Gold	Committee Gold Bay Project Highlights: • High grade gold endowment	February 22 News Release: Auryn provides corporate update. Auryn's ongoing analysis of both the 2015 summer work program and

	Country Gold Corp.)		<ul> <li>Existing exploration infrastructure</li> <li>217,600 hectares with district scale discovery opportunities</li> </ul>	comprehensive review of historical data has led to the identification of a number of large scale multi-kilometer long targets at Committee Bay that will provide the focus of the upcoming 2016 work program.
<u>Coppermine</u>	Kaizen Discovery / Tundra Copper	Copper	Early stage, district-scale exploration play located 24 km SW of Kugluktuk; Total holdings approximately 3,500 km <sup>2</sup>	NIRB screening decision issued July 7, 2015; Proposal may proceed without a Part 5/6 NLCA review.



Agnico Eagle's Amaruq exploration camp in Nunavut. As exploration vice president Guy Gosselin, "It's a brand-new camp, so we can't refer to any studies done in that area. We've been involving the Geological Survey of Canada and are initiating a bunch of masters and PhD studies to understand the new belt."



#### **Project Maps**

