

# Northern Mining News

Volume 5, No. 8

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## From the Executive Director ...

As our Prime Minister declared during his 7<sup>th</sup> northern visit this summer, “The North’s time has come my friends.” We are confident that he is correct given the signs of advancing activity in both territories.

In this issue we provide more positive information around projects that have now submitted detailed documents to trigger their environmental assessments, or have announced positive feasibility study work.

And a fun story on how Yellowknife is now on the map – the Martian map that is!

Happy reading. ... TWH

***Our Mission:*** *To be the leading advocate for responsible and sustainable mineral exploration and development in the NWT and Nunavut.*

**Prime Minister Says: *The North's time has come.***

Canada's Prime Minister Stephen Harper took time again this year to make his seventh annual tour of Canada's North in August. He continues to make strong comments in support of northern development, a few of which are captured below:

- "We will not just be one of the world's older economic powers. We are determined Canada will be one of the world's next generation of economic powers as well."
- "Because that great national dream — the development of northern resources — no longer sleeps. It is not down the road. It is happening now. The North's time has come, my friends."
- "Our government is committed to ensuring that Northerners benefit from the tremendous natural resource reserves that are found in their region," Harper said in a news release. "For the benefits to flow, it is necessary to get resource projects up and running in an effective and responsible way and to put agreements in place with territorial governments to ensure that revenues generated by these initiatives stay up North."
- "Greater predictability, timelier reviews, and a reduced regulatory burden are improvements our Government is delivering on that will position the North for increased job creation and long-term economic growth."

Provided as Background to his tour release, his office acknowledged the following:

*Few countries are as blessed with natural resource deposits as large as those in Canada's North including: diamonds (Ekati, Diavik, Snap Lake, Jericho); gold (Meadowbank); base metals and silver (Wolverine, Minto, Keno Hill); and tungsten (Cantung). In addition, one-quarter of Canada's discovered resources of conventional petroleum are in the North and remain undeveloped, as well as about one-third of the country's estimated potential.*

*Canada's energy and other natural resources are important assets given global economic demand. The natural resource sectors directly employ close to 800,000 Canadians. In the North, mining and energy alone account for one-quarter of territorial GDP and employ approximately 5,000 people, the majority of whom are northern residents.*

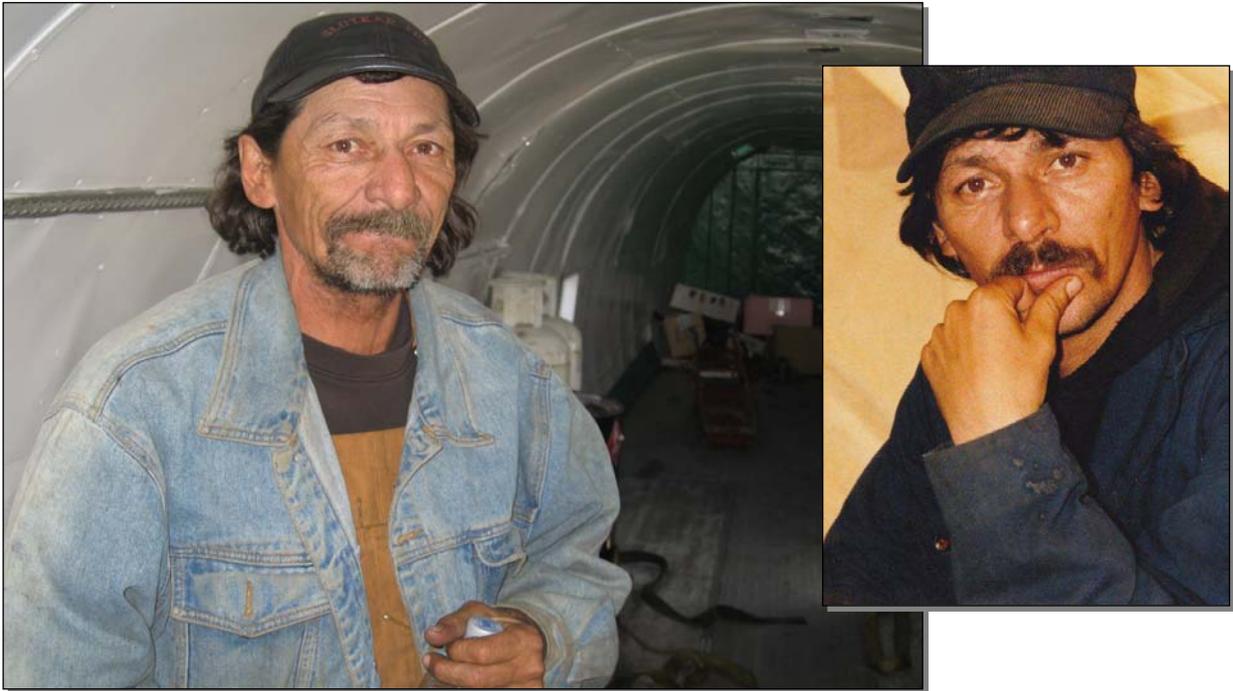
*There are currently 24 advanced projects in the North representing \$38 billion in potential new investment that require federal regulatory approvals. If developed, these projects would directly support an estimated 8,000 full-time jobs, most of which would be filled by northern residents. Thousands more jobs would be created in mining, manufacturing, transportation and other business sectors in the North and across Canada.*



## **Long Time Bushman Passes Away Suddenly**

Jimmy Essery, a long time northern bushman, passed away suddenly September 1 through a boating accident on Prosperous Lake, east of Yellowknife.

Jimmy came to the north in the 1970s, and spent much of his time working in the bush, setting up exploration camps, staking claims and prospecting. He also worked at Buffalo Airways where his skill at building remote ice strips was much admired and appreciated.



Jimmy's long time friend Trevor Teed said: "I remember the fear, elation and thankfulness we shared when he froze his feet on the barrens in Nunavut during 1980." At the time, Jimmy had been caught in a blizzard and survived by burrowing into a snowdrift. He suffered the loss of a number of toes as a result, but survived the ordeal. "He was physically tough and had a spirit and endurance level that wasn't met by many people that I have seen in my life," says Trevor.

Jimmy was 58.

## **Diavik Mine Life Confirmed to 2023 with Production From Additional Pipe**

Harry Winston Diamond Corporation – 40% owner of the Diavik mine – has released an updated life-of-mine plan for the Diavik Diamond Mine, including current estimates for anticipated annual production by pipe, with associated operating costs, and capital costs through 2023. The further development of the underground mine has given the joint venture partners an increased understanding of future production levels, the best mining methodology, and better clarity on cost structures. In addition, Harry Winston's assessment of this updated life-of-mine plan gives an estimated net present value of approximately \$2.6 billion for 100% of the Diavik

Diamond Mine (including all reserves and resources), or approximately \$2.1 billion for 100% of the Diavik Diamond Mine, based only on proven and probable reserves.

Mining to date has been from 3 pipes, and this updated mine plan assumes, among other things, the development of an additional diamond pipe called A-21, which is subject to a step-wise approval process by the joint venture partners.

- The first step of a detailed preliminary assessment and advanced engineering has been completed.
- The next step, being final feasibility and completion of engineering has been approved for a budget of \$5.8 million in the current calendar year.
- This will be followed by the crushing and screening of the required rock products for berm construction (A21 is also under the lake and needs to be isolated by a dike structure, or berm, to allow open pit mining) using existing infrastructure at a cost of approximately \$46 million with approval by the joint venture partners to be sought at the end of this year.
- The final approval would be for berm and cut-off wall construction as well as pit development and pre-stripping to deliver ore in 2017.

Assuming the two owners, Rio Tinto and Harry Winston, approve the A-21 plan, construction could start in 2013 and the first ore produced early in 2017. The capital cost is estimated at \$514 million.

It is currently expected that 2023 will be the final year of mining and processing. While all the diamond bearing pipes do extend deeper, additional economic ore may be limited in volume and might not add longevity to the mine life.

That being said, regional exploration on the Diavik property continues. Several dozen kimberlites have been found and many of them are diamondiferous. Their consideration in future will involve additional factors such as proximity to the Diavik Diamond Mine site, accessing the island on which the Diavik facilities are located, and/or project economics if a stand-alone operation is necessary. None of the exploration activities have any impact whatsoever on the Diavik Diamond Mine mineral resources and mineral reserves at this time, and are not considered in this plan.

Since 2003, the Diavik Diamond Mine has produced approximately 69 million carats of diamonds from the processing of approximately 18 million tonnes of kimberlite.

### **Tyhee Announces Positive Gold Mine Feasibility Study**

Tyhee Gold Corp. has announced positive results from an independent Feasibility Study (“FS”) prepared by SRK Consulting, Knight Piésold and Lyntek Inc. on its Yellowknife Gold Project (YGP) in Canada’s Northwest Territories. The Executive Summary of the full FS, out of their Denver, Colorado offices, will be available shortly on the Company’s website and on SEDAR ([www.sedar.com](http://www.sedar.com).)

At a base-case gold price of \$1,400 per ounce (“/oz.”) and a projected 4,000 tonnes-per-day (tpd) processing plant comprised of a conventional gravity-flotation-cyanide process and incorporating open-pit and underground mining methods on the Ormsby, Bruce Lake, Clan Lake and Nicholas Lake deposits, the YGP is estimated to return a pretax net present value (“NPV”) at a 5% discount rate of approximately \$216 million and an internal rate of return (“IRR”) of 20% based on initial estimated capital cost of \$193 million (including a 10% contingency.)

Final Engineering and Procurement are slated to begin 4th quarter, 2012, continuing through 2013. Construction is proposed to begin 1st quarter, 2014 subject to ongoing permitting, with production estimated to commence 3rd quarter 2015.

Commenting on the results of the study, Brian Briggs, P. Eng., President and CEO of Tyhee, said, “I am very pleased with the results of the Feasibility Study. It is a dramatic improvement on the Prefeasibility Study and demonstrates that this project is operationally feasible and once in operation will generate a significant cash flow for the Company, benefiting our shareholders. As we now move into final engineering, we will evaluate the opportunities identified in this study to further enhance the economics of the project. These include process changes that could lead to sharply improved recoveries on Nicholas Lake as well as further optimization of mine scheduling.”

Proven and Probable mineral reserves for the Yellowknife Gold Project are estimated at 20,433,000 million tonnes at an average grade of 2.03 grams per tonne gold, containing 1,334,000 ounces of gold, resulting in a mine-life of approximately 15 years. The 4 deposits are located from 50 to 90 kilometres north of Yellowknife.

### **Advanced Explorations Announces Positive Iron Mine Feasibility Study**

On Aug. 10, Advanced Explorations Inc. announced positive results of its Feasibility Study conducted on the C Zone of its Roche Bay Iron Project. Highlights of the Roche Bay Iron Project Feasibility Study include:

- 5.5 million tonnes per year start-up production based upon 501 million tonnes @26.35% Fe (indicated)\*
- High quality, low impurity, 66% Fe concentrate production with demonstrated potential to produce 68% + concentrate
- Mine life of 15 years (C Zone)
- Low mine stripping ratio of 0.92:1 over life of mine (LOM) reducing overall mine costs and mine footprint per tonne of ore
- Pre-Tax Net Present Value (“NPV”) of U.S. \$642 million at a discount rate of 8% and a concentrate selling price of U.S. \$104/tonne of iron concentrate (FOB Roche Bay)
- Start-up mine cash flow (net) of U.S. \$2.9 billion
- Pre-Tax Internal Rate of Return (“IRR”) of 16%
- Capital cost (“CAPEX”) of U.S. \$1.2 billion (excluding contingency)
- Operating Cost (“OPEX”) of U.S. \$49.13/tonne of iron concentrate (averaged over the life of mine)

- Reduced infrastructure costs due to the proximity (6 km's) of ore body to natural, deep water harbour (no rail, extended power lines, or slurry pipelines and no dependency on third parties to provide these services).

The Roche Bay Iron Project is situated on the east coast of the Melville Peninsula, approximately 60km southwest of the community of Hall Beach, and approximately 240 km west of Iqaluit, Nunavut. The C Zone ore body is located approximately 6 km from tidewater where the project has a natural deep water harbour (+20m depth) capable of accepting large Cape-size vessels. The proximity to tidewater provides for significant operational and construction advantages. The objectives of the current Feasibility Study for the Roche Bay C Zone project include the definition of an initial start-up operation comprising a 5.5 million tonne Fe concentrate production facility producing a high quality, globally marketable concentrate, ideally suited for pellet plants and other customer markets.

The complete report will be filed by the authors on SEDAR.

### **MMG Triggers Environmental Review of Izok / High Lake Mining Project**

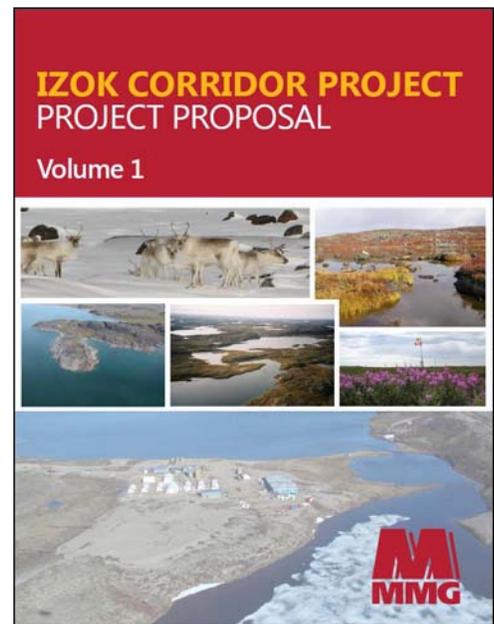
On September 4, MMG submitted the Izok Corridor Project Proposal to the Nunavut Impact Review Board (NIRB) and key authorizing agencies commencing the environmental assessment and regulatory review process as per the Nunavut Land Claims Agreement.

The proposal sets out the preliminary mining and environmental considerations for the Izok Corridor Project based on the 2011 pre-feasibility study. The Project encompasses zinc-copper deposits located near Izok Lake and High Lake in the Kitikmeot region of Nunavut.

"The Izok Corridor Project is an important component of MMG's zinc strategy as a number of major mines, including our own 500,000 tonne per annum Century mine, wind down production over the next five years," said Mr Michael Nossal, MMG's Executive General Manager, Business Development. "With global zinc supply expected to decline by up to 1.8 million tonnes over the next five years, the Izok Corridor Project represents an opportunity to meet medium- to long-term demand requirements for zinc-based products by industrial, commercial and residential sectors worldwide," he said.

The Project Proposal is one of the initial regulatory requirements for the project. Following a successful pre-feasibility study completed in the second half of 2011, MMG initiated a definitive feasibility study in 2012. The definitive feasibility study is expected to take 18-24 months and represents an investment of over US\$50 million. In addition, regional exploration is ongoing.

The pre-feasibility study determined the preferred development option of establishing processing operations at the proposed Izok mine, including a two-million-tonne per annum concentrator, which would also process the ore from the High Lake mine.



The proposed transportation route is likely to be a 350-kilometre all-weather road that would connect the proposed Izok mine to a new port at Grays Bay with the capacity to ship 650,000 tonnes of concentrate per annum, and permit the back-haul of High Lake ore to the Izok mill.

"MMG is committed to responsible and sustainable development, and our focus remains on open relationships with our local communities and on minimising potential impacts to the environment," said Mr Nossal.

"We have already started to inform and engage communities in the Kitikmeot Region of Nunavut and will complete another full year of environmental baseline data collection."

"The Izok Corridor Project is expected to provide a number of economic benefits to Nunavut including the creation of employment, business opportunities, skills development and the payment of taxes to the federal, territorial and Inuit governments."

"We will continue to work closely with the NIRB, regulators and local stakeholders on the details of the Project Proposal as part of our ongoing feasibility work on the project," he said.

The Project will employ approximately 710 people during the operational phase, with 400 people on site at any one time due to the fly in/fly out rotational schedule. The average on-site workforce during construction is expected to be about 670 people.

### **Sabina Triggers Environmental Review**

In July, Sabina Gold and Silver Resources Corporation also filed their Project Proposal to initiate the Environmental Assessment. The document is available on the NIRB website here. It describes a project that would provide:

The proposed Back River Project includes the development of mineral deposits in areas referred to as the Goose and George Properties, with associated infrastructure including all-weather and winter access roads connecting the properties as well as the Marine Laydown Area in southern Bathurst Inlet.

Within the Goose and George Properties there are several mineral targets and information to date has identified eight deposits that could be mined economically: three deposits at the Goose Property (Goose, Umwelt, and Llama) and five deposits at the George Property (Locale 1, Locale 2, Lone Cow, GH, and Slave). Currently open pit and underground mining methods are under consideration for mineral extraction at all deposits. The optimal mining methods will be determined as part of the ongoing pre-feasibility and future feasibility studies.

Ore will be mined and trucked to a central processing plant at the Goose Property. Gold will be recovered and dore bars will be produced by conventional techniques which include crushing and grinding of the ore, and gravity, flotation, and leaching of the concentrate. Ore from all Goose and George Properties will be processed at this one location and waste rock will be stored in designated storage areas on surface or backfilled in mine workings. Tailings from the mill will be stored in a single Tailings Storage Area in the vicinity of the mill. The mine and mineral processing plant would operate for up to 15 years or longer and employ up to 900 people across the Project. About half of these employees would be on site at any one time because of the fly in/fly out rotational schedule.

A Marine Laydown Area in southern Bathurst Inlet would be used for annual resupply and seasonal transport during the open-water season to bring in equipment, supplies and fuel.

The Project would also include camps, laydown areas, maintenance and mechanical repair shops, warehouses, fuel storage tanks, airstrips, winter and all-weather roads within each Property and connecting the Properties and Bathurst Inlet. Most of these facilities would be removed at the end of mine life. Roads, airstrips, tailings storage and waste rock storage areas cannot be removed and would be returned to an agreed-upon land use with regulators and the communities.

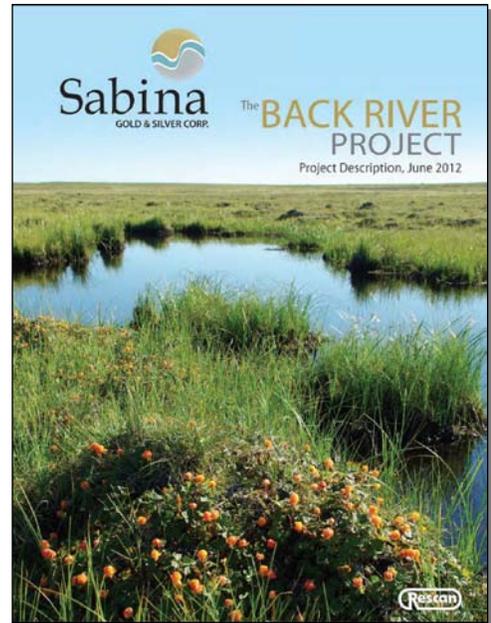
Project life is expected to encompass: 2 years initial construction, followed by 10 to 15 years of production and up to 5 years closure.

Construction will require upwards of 1,600 people depending on the stage.

Preliminary operational workforce requirements will total up to 950 people, of which about 900 will work on rotation at the Back River Property. Onsite positions will include management, human resources, professional and science, office, administration and support, installation, maintenance and repair, construction and extraction, production, transportation and health and safety. The additional staff may be located in some of the Kitikmeot Communities, North Vancouver and Yellowknife.

The closure period will also be variable; however, generally 40 positions are anticipated. Additional details will be available in the future from the pre-feasibility study.

Sabina is developing a mine plan that uses scientific and engineering information, public input and traditional knowledge. Location of the roads, tailings storage area, waste rock storage areas, mineral processing plant and camps will be finalized based on this input. Sabina is committed to construct, operate, close and reclaim the mine site in a manner that meets or exceeds regulatory requirements, minimizes environmental and social impacts and provides opportunities for economic and social development in Nunavut.



### **Diamond Prices Weakening – Some Projects Affected**

Over the past two months, diamond prices have been weakening. Diamonds are luxury products and the economic uncertainties of Europe and the economic slowdown in China are no doubt contributing. In an effort to bolster the marketplace, De Beers reduced prices by an estimated average of 8 percent at its Diamond Trading Company in late August. There are ramifications in the north, and two companies have reflected on the lower prices:

- Harry Winston, 40% owner of the Diavik mine, released its second quarter results on September 2, reporting “rough diamond sales for the quarter decreased 31% to \$61.5 million, versus \$89.6 million in the comparable quarter of the prior year. The decrease in sales resulted from a combination of a 24% decrease in volume of carats sold during the quarter and a 10% decrease in achieved rough diamond prices. The 24% decrease in the quantity of carats sold was primarily the result of the Company's decision to hold some inventory until stability returns to the rough diamond market.”
- Shear Diamonds, owner of the former producing Jericho Mine in Nunavut, announced September 4 that it was suspending production of diamonds from stockpiles “as a result of continuing weak world diamond prices. Shear and Tache jointly have deferred end user sales of the parcels that had been shipped to Taché in the hope that diamond prices would recover relatively quickly.”

### **Nunavut Draft Land Use Plan Released for Comments**

The Nunavut Planning Commission (the Commission) has prepared and made public a [Draft Nunavut Land Use Plan](#) (DNLUP). The DNLUP is a first generation land use plan and as with all land use plans, it is a living document. Land use plans are improved and changed over time to ensure that the values and priorities of residents are current and to consider new information as it becomes available.

The purpose of the DNLUP is to guide and direct resource use and development in the territory, as required under the Nunavut Land Claims Agreement (NLCA). The DNLUP will be amended and built upon over time as information becomes available.

The Commission will host workshops on the DNLUP in every Nunavut municipality, as well as with communities in Northern Quebec and the Athabasca and Manitoba Denesuline. Additional workshops will be held with other planning partners.

#### *Be Part of the Plan!*

The Commission is inviting comments on the DNLUP from all interested parties, and will spend the next year gathering feedback. The DNLUP and the schedule for community visits are available on the Commission's website [www.nunavut.ca](http://www.nunavut.ca). Join the Nunavut Planning Commission Acting Chairperson Paul Quassa and Facilitator James Eetoolook as they lead discussions on the Draft Nunavut Land Use Plan.

Following the community visits, all feedback on the DNLUP will be reviewed at a public hearing, final revisions will be made and the plan will be submitted to government for approval. Following approval, all project proposals must conform to the rules of the Plan.

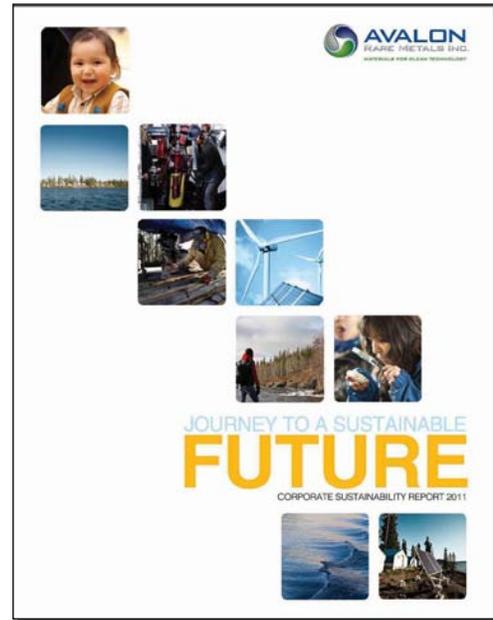
### **Avalon Issues 2011 Sustainability Report**

Avalon Rare Metals has issued its inaugural Corporate Sustainability Report 2011, entitled *Journey to a Sustainable Future*.

The Report has been prepared within the framework of the Global Reporting Initiative (the “GRI”), Version 3.1. The GRI sets out the principles and performance indicators that help

organizations measure and report their economic, environmental and social performance. GRI is purported to be the most comprehensive sustainability reporting guidelines available today. The Report also incorporates a self assessment of 2011 performance and sets targets for 2012 against the Mining Association of Canada’s ‘Toward Sustainable Mining’ indicators.

In January 2011, Avalon embarked upon its Corporate Social Responsibility (“CSR”) reporting with its *CSR Roadmap*. The Roadmap introduced the Company’s strategy for managing the business in a sustainable manner. In releasing this year’s Report, Mark Wiseman, Avalon’s Vice President Sustainability commented, “Producing a comprehensive sustainability report compliant with the GRI guidelines was a very ambitious undertaking for a relatively small company like Avalon. We are confident that all the time and effort that went into its preparation will clearly demonstrate the Company’s strategic commitment to sustainability and provide a solid foundation for building a socially and environmentally responsible mineral production business.”



The Sustainability Report can be downloaded [here](#).

### Plain Talk on NWT Devolution

Aboriginal Affairs and Northern Development Canada (AANDC) has released their latest newsletter *Plain Talk*, devoted to explaining devolution. AANDC is the federal department leading NWT Devolution negotiations for Canada.

NWT Devolution is an historic step in the political and economic development of the Northwest Territories and a key part of the Government of Canada’s Northern Strategy. The signing of the Devolution Agreement-in-Principle (AiP) in January 2011 was a key milestone in the process. To help residents better understand NWT Devolution, this edition of *Plain Talk* provides a brief overview of the AiP, the issues that are still being negotiated and the Government of Canada’s objectives as it negotiates towards a final agreement.

The Government of Canada’s Northern Strategy has included a strong focus on providing Northerners with more control over their own economic and political destiny. Current negotiations to reach a final devolution agreement for lands and resources in the Northwest Territories is a key part of achieving that objective.

You may wonder what NWT Devolution is or how it will actually change the way governments operate. The roots of the current



devolution negotiations go back as far as 1898. That is the year the provinces of Alberta and Saskatchewan were carved out of what was then a much larger Northwest Territories. At that time, the Northwest Territories (which included what would later become Nunavut) was governed from Ottawa by a Commissioner and a Council appointed by the federal government.

NWT devolution negotiations are specifically dealing with issues related to the transfer of administration and management of land and resources from the Government of Canada to the territorial government. Devolution negotiations **ARE NOT**:

- meant to correct or revise any perceived problems or gaps in existing federal programs
- a way to address any issues the parties may have with fiscal relationship between the federal and territorial government or the transfers that form part of this relationship
- a Land Claims negotiation.

The newsletter can be downloaded here: <http://www.aadnc-aandc.gc.ca/eng/1345135767118>

### **Canadian Zinc and NWT Transportation Sign Collaboration Agreement**

The Government of the Northwest Territories (GNWT) continues to advance its co-operation with Canadian Zinc Corporation (“CZN”) to further the August 2011 Socio-Economic Agreement between GNWT and Canadian Zinc with regard to the development of the Prairie Creek Mine.

On August 13th, 2012 Honourable Bob McLeod, Premier of the NWT, together with David Ramsay, Minister of Industry, Tourism and Investment and Glen Abernethy, Minister of Justice and Human Resources, were accompanied by Herb Norwegian, Grand Chief of the Dehcho First Nations (DCFN) on a visit to the Prairie Creek Mine. They toured the facilities and witnessed the increased site activities as the mine moves forward toward production.

The Premier, Ministers, and Grand Chief were particularly interested in the ongoing training programs for the local residents of the region. The Government of the Northwest Territories has committed financial and in-kind support toward the Prairie Creek Mine’s *More than a Silver Lining* training program. The \$4.2 million Silver Lining training program is funded by the Government of Canada and managed by the Mine Training Society, in partnership with CZN and the GNWT.

The Dehcho First Nations also supports the program through the provision of an income allowance for all DCFN members participating in the training.

Herb Norwegian, Grand Chief of the Dehcho First Nations commenting on the Aboriginal training programs said: *“Here is an opportunity to get some education and get to work. It’s the first step to working your way to the top.”*

So far in 2012 the local Silver Lining training program has trained 62 individuals, with many of the graduates joining the staff at the Prairie Creek Mine, Canadian Zinc’s Fort Simpson office, or service providers to the Project. These training programs included Office Administration, Mineral Exploration Field Assistant, Environmental Monitors, Heavy Equipment Operators, Diamond Drill Helper, Advance Medical First Responder, and Camp Cook.

Following the visit to Prairie Creek, Canadian Zinc and the GNWT Department of Transportation signed a Collaboration Agreement to ensure effective co-operation related to the public transportation infrastructure that will support the Prairie Creek Mine project.

Transportation Minister David Ramsay says the Collaboration Agreement will help ensure that both public needs and mine activities are supported. *“We have agreed to work closely with Canadian Zinc to ensure public safety by identifying areas of Highway 7 and the Nahanni Butte access road that require enhancement or upgrading,”* he said. *“This co-operation will help the Department to plan future work on these roads to maintain and enhance these roads effectively.”*

Canadian Zinc plans to use the existing Northwest Territories public transportation system to bring goods, fuel and equipment by road to the Mine and to transport its mineral products from the Mine to world markets. As part of this collaborative agreement, to assist in priority setting, CZN will provide reports to the Department of Transportation on its anticipated road transportation requirements for the construction and operation of the Prairie Creek Mine.



Canadian Zinc COO & Vice President Exploration Alan Taylor presents a cheque for flood relief to Nahanni Butte Chief Clayton Konisenta and Councillor Tammy Matou on August 13. The community is still recovering from a terrible flood this summer. (Courtesy Canadian Zinc.)

### Chamber Says New National Park in Sahtu Strikes Reasonable Balance

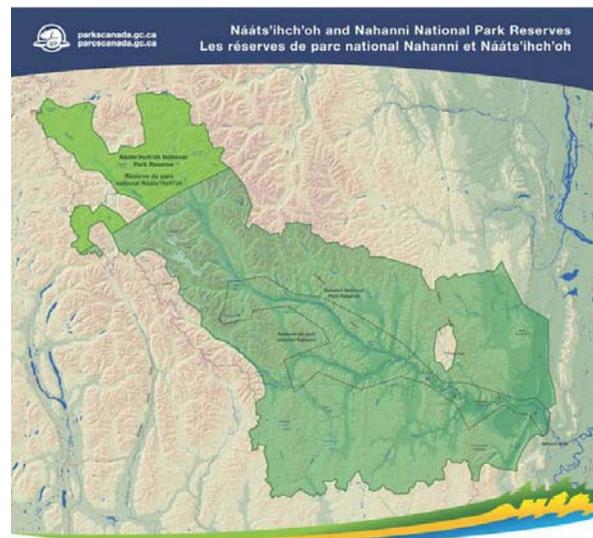
On August 22, Prime Minister Stephen Harper announced the establishment and boundaries of Canada’s 44th national park, Nááts’ihch’oh (pronounced ‘Naats-each-choh’) National Park Reserve, in the Northwest Territories. The creation of this new park will ensure the protection of the South Nahanni River, one of the planet’s great wilderness rivers. The announcement was made during the Prime Minister’s seventh annual Northern Tour, taking place from August 20th to August 24th, 2012.

Prime Minister Harper also joined with the Sahtu Dene and Metis of the Tulita District in announcing the signing of an Impact and Benefit Plan that ensures they will have a significant role in the conservation and presentation of Canada’s newest national park. The lands and waters protected in Nááts’ihch’oh are places of spiritual and cultural importance to the Sahtu Dene and Metis. The Impact and Benefit Plan was negotiated in accordance with the Sahtu Dene and Metis Comprehensive Land Claim Agreement.

The Chamber of Mines supports the Prime Minister’s announcement to create the new Naats’ihch’oh National Park Reserve as a reasonable and balanced approach by the Government of Canada.

“The Chamber of Mines strongly supports the development of park boundaries based on the exclusion of resource-rich areas with significant mineral potential so that northerners and all Canadians can take full advantage of future economic opportunities,” said Chamber President Pamela Strand. “It’s those non-renewable mineral resources that are the anchor of the NWT’s economy, and will provide socio-economic opportunities for future generations. They also need protection albeit for development.”

The Mineral and Energy Resource Assessment undertaken by the Geological Survey of Canada (GSC) as part of the park establishment process documented many areas of high and moderately-high mineral potential within the Mackenzie Mountains Cordillera, the region that



*Naats'ihch'oh Park makes the Nahanni one of the largest areas in Canada protected by National Park Reserve designation.*

surrounds and includes the Naats'ihch'oh Park Reserve area. The GSC identified very high potential for a variety of mineral deposit types including SEDEX, carbonate-fault related, intrusion, and disseminated gold. Several mineral deposits have already been discovered within the area, including Lened, Mactung and Howard's Pass. We are pleased that the GSC's work has been taken into account by Parks Canada in recommending various boundary options and by the Government of Canada in making the final boundary decision.

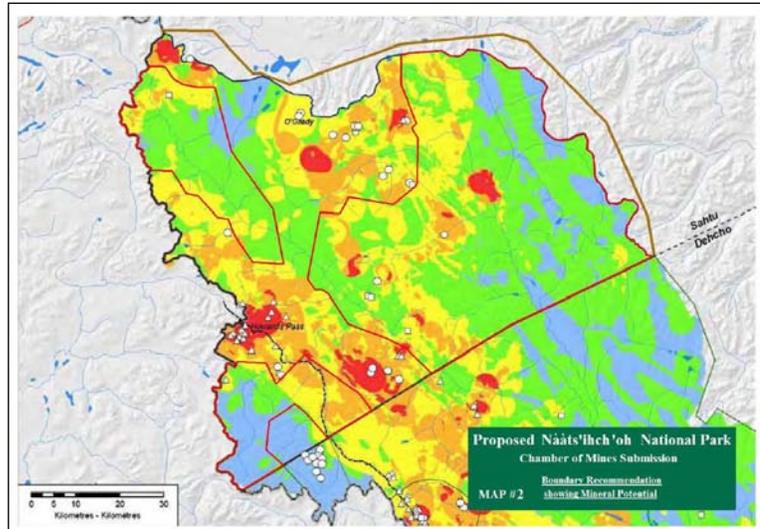
The establishment of Naats'ihch'oh complements the already established and adjoining Nahanni National Park Reserve. Together, they now create a nearly 35,000 square kilometre contiguous national park to protect the environmental, wildlife and geographic values of the Nahanni watershed, making it one of Canada's largest national park areas.

Creation of the park means ownership and control of the 4,850 square kilometres within Naats'ihch'oh will stay with the Federal Government via Parks Canada. The excluded and surrounding lands will come under the purview of the Sahtu Land Use Plan, now in preparation, and along with the completion of resource devolution to the NWT Government will provide more flexibility and control to local land management.

“Our northern economy relies on non-renewable resources. They are our economic strength and will continue to be important to the North’s future. So it’s tremendously important to future generations that we strike the right balance,” said Ms. Strand. “We believe the Prime Minister’s announcement has done that.”

The Chamber of Mines 2010 recommendations on the Naats’ihch’oh boundary are on its website here:

<http://www.miningnorth.com/docs/Naats'ihch'oh%20Submission%20Complete%20April%2030,%202010.pdf>.



Mineral potential in Naats'ihch'oh area. Red is highest potential.

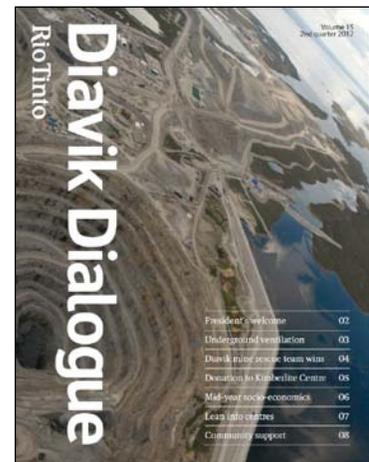
### Latest Diavik Diamond Mine Newsletter Available

The Diavik Diamond Mine has released its latest quarterly newsletter. Headlines in this issue include:

- Underground ventilation
- Diavik mine rescue team wins
- Donation to Kimberlite Centre
- Mid-year socio-economics
- Lean info centres
- Community support

The newsletter can be downloaded here:

[http://diavik.ca/documents/2012\\_Dialogue\\_Volume\\_15\\_Issue\\_2.pdf](http://diavik.ca/documents/2012_Dialogue_Volume_15_Issue_2.pdf)



### Mackenzie Valley Land & Water Boards – Advancing Engagement Policy

The Gwich’in, Sahtu, Wek’eezhii, and Mackenzie Valley Land and Water Boards (Land and Water Boards, or the Boards) would like to take this opportunity to thank those who submitted comments on the Boards’ draft *Engagement Policy* (the Policy) and *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits* (the Guidelines).

Since 2011, the Mackenzie Valley Land and Water Board (MVLWB) has been working with the Mackenzie Valley Review Board to examine the Boards’ roles and responsibilities with respect to statutory consultation and their contributions to broader section 35 Crown consultation. The MVLWB/Review Board Joint Consultation Steering Committee has completed its analysis which

is currently being incorporated into the next draft of the Policy. Concurrently, the Engagement Working Group is reviewing and considering the comments received from reviewers as it begins work on revising the Guidelines. The Land and Water Boards are also preparing a draft reference bulletin regarding how a Board will manage a request for ruling on the adequacy of Crown consultation.

It is anticipated that the Boards will distribute revised drafts of the Policy and Guidelines, and the draft Reference Bulletin for review in the fall of 2012. Review submissions are available on the Board's websites. Please note that only formal submissions are posted (including those provided on letterhead and general comments sent by email).

### **MARS Landing Site Named Yellowknife**

*Opportunity* has landed! The new Mars Lander that is, and it has landed at Yellowknife, Mars.

*Curiosity* chief scientist John Grotzinger, of Caltech in Pasadena, told reporters on August 10, "If you ask, 'What is the port of call you leave from to go on the great missions of geological mapping to the oldest rocks in North America?' — It's Yellowknife."

According to NASA scientists, the Mars landing region was divided into 150 square quadrangles or quads of interest, each about 1-mile (1.3-kilometres) wide. This will allow groups of team members to focus their analysis on a particular part of the surface. The quad where *Opportunity* landed has been named Yellowknife in honour of the old rocks found in and around the capital of the Northwest Territories, and because the city has long served as the jumping-off point for geologists interested in studying the city's 2.7 billion year old rocks and those of North America's oldest – the 4-billion-year-old rocks of the Acasta Gneiss – found a few hundred kilometres to the north of Yellowknife, Earth.



Prospector, Walt Humphries from Yellowknife, Earth discusses sample of Acasta Gneiss – the oldest rock on Earth – with ambassador from our newest sister city, Yellowknife, Mars. (photo courtesy Bill Braden Photography, Yellowknife, Earth that is!)

## NWT Government’s Respect, Recognition, Responsibility

The GNWT has made a formal commitment to a set of principles and key actions to strengthen and renew relationships with its Aboriginal government partners. “Respect, Recognition, Responsibility: The Government of the Northwest Territories’ Approach to Engaging with Aboriginal Governments” was developed based on discussions with Aboriginal governments and community leaders. It has been produced in all NWT official languages.

“We need to build strong relationships at all levels – leaders, senior managers and all staff,” said Bob McLeod, Minister of Aboriginal Affairs and Intergovernmental Relations. “Aboriginal governments are our partners as we work together to serve the people we represent. Our government is committed to a new approach to building greater collaboration and participation, so we can all achieve our shared goals in a spirit of mutual respect, recognition and responsibility.”

“Respect, Recognition, Responsibility” affirms that the GNWT will:

- continue to recognize and respect the constitutionally protected rights and treaty rights of Aboriginal peoples, as well as existing Aboriginal rights agreements;
- be open, flexible and responsive in working with the diverse governance structures of regional Aboriginal governments and understanding the unique interests and challenges of each region and community; and
- will make every effort to share information and knowledge, help build capacity, enhance our government’s participation at Annual General Assemblies and other important events, and establish regular formal meetings with each Aboriginal government in the NWT.

The Aboriginal Engagement Strategy supports the 17th Legislative Assembly’s priority of strengthening relationships with Aboriginal governments, as outlined in *Believing in Our People and Building on the Strengths of Northerners*.

## Call for Abstracts – 2012 Yellowknife Geoscience Forum

The 40<sup>th</sup> annual Yellowknife Geoscience Forum will be held **Tuesday November 13<sup>th</sup> through Thursday November 15<sup>th</sup>**. This conference provides an intimate setting for the exchange of information on Mineral and Petroleum Exploration, Mining Activities, and Government and Academia Geoscience Research in Canada’s north. The 2011 Yellowknife Geoscience Forum attracted over 800 delegates from industry, academia, and the Government.

The technical program, organized by the NWT Geoscience Office, consists of both oral and poster presentations. The technical program web page will be available in early September at [www.nwtgeoscience.ca/forum/](http://www.nwtgeoscience.ca/forum/) and will be updated regularly. The NWT & Nunavut Chamber of Mines organizes the Forum registration, trade show and social events. More information can be found at [www.miningnorth.com/](http://www.miningnorth.com/).



**Technical program topics** will include the following, and may include other general interest topics (TBA):

*Geoscience Research, Mineral Exploration, Environmental Sciences, Mining & Communities, and Energy in Canada's North.*

If you are interested in making a presentation and require more information, please contact the Abstract Submissions or the Technical Program Chairs, Luke Ootes and Doug Irwin.

**Abstracts are required for both oral and poster presentations** and will be compiled in the conference abstract volume; this document will be posted to the program web page one week before the conference starts. Abstracts must be submitted before **5 PM Mountain Time, Friday October 12<sup>th</sup>** using the **online Abstract submission page** at [www.nwtgeoscience.ca/forum](http://www.nwtgeoscience.ca/forum). Also refer to [www.nwtgeoscience.ca/forum](http://www.nwtgeoscience.ca/forum) for abstract formatting and specifications.

Note: Both a poster and oral submission for the same subject will not be accepted; please choose either oral or poster

**Registration forms** for the conference are available by contacting Cheryl Wourms at the Chamber of Mines, email: [officemanager@miningnorth.com](mailto:officemanager@miningnorth.com).



 <p><b>NWT &amp; NUNAVUT CHAMBER OF MINES</b></p> <p><i>Established 1967</i></p>	<p><b>Northern Mining News</b> is written and published by the NWT &amp; Nunavut Chamber of Mines for free distribution electronically to those interested in the northern minerals industry.</p>
	<p>For further information contact us at: PO Box 2818, Yellowknife, NT X1A 2R1 Email: <a href="mailto:info@miningnorth.com">info@miningnorth.com</a> Website: <a href="http://www.miningnorth.com">www.miningnorth.com</a></p>

## **Welcome New Members!**

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

**Worley Parsons** is a provider of quality engineering and project services to the minerals, metals and chemicals industries and has achieved particular recognition for the delivery of complex processing plants. The group has particular success integrating multi-discipline engineering expertise and experience with licensed technology and operational know-how to deliver innovative solutions to customers. Contact: [www.worleyparsons.com](http://www.worleyparsons.com).

**Avalon Rare Metals** is a Canadian mineral development company with a primary focus on the rare metals and minerals, headquartered in Toronto, Ontario. Their proposed mining project southeast of Yellowknife is currently undergoing environmental assessment. Contact: <http://avalonraremetals.com/>.

## **Calendar of events**

- **Nunavut Trade Show**, September 25-27, 2012, Iqaluit, Nunavut. Visit: [www.nunavuttradeshow.ca](http://www.nunavuttradeshow.ca)
- **Northern Governance Conference: Pathways to Prosperity**, October 10-12, 2012, Yellowknife, NT at the Explorer Hotel. Contact: <http://ngec2012.com/>
- **Workforce Planning in Mining Conference**, October 25-26, 2012, Toronto, ON. Contact: [http://www.marcusevansch.com/WPN\\_Event](http://www.marcusevansch.com/WPN_Event)
- **2012 Yellowknife Geoscience Forum**, November 13-15, 2012, Yellowknife, NT. Plan to attend the north's largest conference. Visit: [www.miningnorth.com/geoscienceforum](http://www.miningnorth.com/geoscienceforum).
- **Canadian Aboriginal Minerals Association Conference**, November 18-20, 2012, Sheraton Centre Hotel, Toronto. Theme: *Community Gems, Faceted Outcomes*. Visit: [www.aboriginalminerals.com](http://www.aboriginalminerals.com).
- **Kivalliq Trade Show**, November 19-22, 2012, Rankin Inlet, NU. Visit: [www.kivalliqtradeshow.ca](http://www.kivalliqtradeshow.ca)
- **Aboriginal Mining Education Forum**, November 20-21, 2012 at the Hyatt Regency, Toronto, ON. For more information and to register go to: [www.aboriginalmining.ca](http://www.aboriginalmining.ca)
- **Nunavut Mining Symposium**, April 8-11, 2013, Iqaluit, Nunavut. Visit: <http://www.nunavutminingsymposium.ca/>

## Mines & Promising NWT Mine Projects

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

Project Name	Owner(s)	Commodity	Description	Status
Ekati Mine	BHP Billiton, Chuck Fipke and Stu Blusson	Diamonds	Canada's first and largest diamond mine, 310 km. NE of Yellowknife. Open pit and underground. Mine life to 2019. Workforce approximately 1,500.	2011 Year in Review report released. BHP Billiton is conducting review of diamonds business and potential sale.
Diavik Mine	Rio Tinto and Harry Winston	Diamonds	Canada's largest diamond producer, 300 km NE of Yellowknife. Open pit and underground, but will be all underground in 2012. Mine life to 2023. Workforce approximately 1,000.	1 million tonne underground production reached in May. Mine life now confirmed to 2023 with production from additional pipe, called A21. Rio Tinto is conducting review of diamonds business and potential sale. The plan for calendar 2012 foresees production of ~ 8.3 million carats from mining 2.0 million tonnes of ore and processing of 2.2 million tonnes of ore.
Snap Lake Mine	De Beers	Diamonds	Canada's first all underground diamond mine. 220 kilometres NE of Yellowknife. Mine life to 2028.	Commenced commercial production on January 16, 2008 and the Official Mine Opening took place on July 25, 2008.
Cantung Mine	North American Tungsten	Tungsten, copper	Cantung is in the mountains of western Northwest Territories, ~ 300 km by road NE of Watson Lake, Yukon. Mine life to 2014.	June news release reports significant new underground exploration results in "Amber Zone".
Nechalacho	Avalon Rare Metals	Rare earth metals	Proposed underground mine 100km SE of Yellowknife. Estimated mine jobs: 200	EA Update: Mackenzie Valley Review Board is reviewing responses to information requests. Avalon and the Deninu K'ue First Nation have signed Accommodation Agreement
NICO	Fortune Minerals Ltd.	Cobalt-gold-bismuth-copper	Proposed open pit and underground mine located 50 km NE of Wha Ti. Estimated mine jobs: 150	Various documents and technical reports are being filed for the environmental assessment process so as to support 5 days of public hearings in July.
Yellowknife Gold	Tyhee NWT Corporation	Gold	Proposed open pit and underground mine of 4 deposits about 90 km NE of Yellowknife. Estimated mine jobs: 238	Brian Briggs appointed full-time president, CEO and Director. Positive feasibility study announced August 15. Environmental Review underway.
Prairie Creek	Canadian Zinc Corporation	Lead-zinc-silver	Proposed underground mine 120 km west of Ft. Simpson. Estimated mine jobs: 220	Project in permitting and licensing. Preliminary Feasibility Study results issued June 27.
Gahcho Kue	De Beers & Mountain Province	Diamonds	Proposed open-pit diamond mine approximately 180 km ENE of Yellowknife, NT. Estimated mine jobs: 360	EA Update: Developer and parties preparing responses to January 2012 information requests responses. De Beers anticipates submission by end of March 2012. Technical sessions tentatively scheduled for May.
Pine Point	Tamerlane Ventures	Lead-zinc	Company proposes underground mine east of Hay River, NT using freeze technology for water management. Estimated mine jobs: 225	Company has requested change to adit and decline from shaft to test mine the R-190 deposit. Resource is Defined, Permitted for Construction, Extensive Infrastructure
Courageous Lake	Seabridge Resources	Gold	Proposed open pit mine 240 km northeast of Yellowknife	Positive Preliminary Feasibility Study released July 24 with 6.5 million oz proven and probable reserves. 2012 exploration budget of \$8.5 million. Annual report released in May.
Selwyn Project	Selwyn Chihong	Zinc, lead	Proposed underground mine in Yukon on NWT border and access is through NWT. Agreements signed with NWT (Sahtu) Aboriginal land corporations.	Feasibility study to be done in 2012. Resource updated in August and surpasses 180 million tonnes. In early Sept, Selwyn suspended its Strategic Review Process as it contemplated the effects of "the worst economic times in recent memory" and potential sale of the project.

## Mines & Promising Nunavut Mine Projects

The following table describes a number of leading mineral development projects in Nunavut. Very preliminary estimates have been provided for workforce size if the projects were to become mines.

Project	Owner(s)	Commodity	Description	Status
Meadowbank Gold Mine	Agnico-Eagle Mines	Gold	Open pit mine located in the Kivalliq Region, 300 km west of Hudson Bay and 70 km N of Baker Lake. Mine jobs: 450	NTI received first royalty payment in 2012. July Q2 reports record quarterly gold production of 98,403 ounces.
Mary River	Baffinland Iron Mines	Iron	Proposed open pit mine with railway and port; 936 km N of Iqaluit with 5 known deposits. Estimated construction jobs: 3,500 Estimated mine jobs: 715	Final hearings for Environmental Assessment completed in July, 2012. Final NIRB decision expected mid-September.
Kiggavik	AREVA Resources	Uranium	Proposed uranium mine 80 km W of Baker Lake. Estimated Construction jobs: 750 Estimated mine jobs: 1,300	Areva anticipates submitting response to DEIS IR's by January 31, 2013.
Jericho Diamond Mine	Shear Diamonds Ltd.	Diamonds	Project to reassess viability of reopening the former diamond mine, 255 km SSE of Kugluktuk. Estimated mine jobs: 150-200	Shear suspends stockpile production due to low diamond prices, September 4, 2012.
Meliadine Gold	Agnico-Eagle Mines	Gold	Possible gold mine, 5 deposits, the largest of which is the Tiriganiaq deposit, 25 km NE of Rankin Inlet. Estimated construction jobs: 600 Estimated mine jobs: 350 - 400	Plan to complete feasibility study in 2013; NIRB approved EA exemption of "Phase 1 – All Weather Road" on May 23, 2012. Road located on IOL.
Hackett River	XStrata Zinc Canada	Zinc, silver, copper, lead and gold	One of largest undeveloped VMS massive sulphide deposits in the world. 104 km SSW of Bathurst Inlet. Estimated mine jobs: 300	Camp opened February 20, 2012; Pre-feasibility study team being assembled.
Back River	Sabina Gold & Silver Corp.	Gold	Approximately 60KM from Hackett River. Propose to mine multiple deposits by open pit and underground. Workforce up to 900.	2012 exploration budget approved at \$60M. Project Description submitted to NIRB in July to trigger EA.
Izok Corridor Project (with High Lake)	MMG Resources Inc.	Copper, Zinc, Gold, Silver	Mining of Izok and High Lake ESE of Kugluktuk. Single processing facility at Izok, 350 km all-season road to port at Gray's Bay. Shipping to Europe and Asia. Total jobs 710 with 400 on site.	On Sept. 4, MMG submitted Project Proposal to NIRB to trigger official environmental assessment process.
ULU & Lupin	Elgin Mining Inc.	Gold	Located SE of Kugluktuk. Lupin mine: past production; 3.7 million oz. ULU deposit: indicated mineral resource; 751,000 tonnes	Elgin purchased both properties from MMG Resources in July, 2011. Winterization of work camp at Lupin; Drilling at Ulu began April, 2012. New CFO appointed.
Roche Bay	Advanced Exploration	Iron	Over 500 mt of Indicated Resources within 6 km of a natural deep water harbour at Roche Bay. Estimated construction jobs: 450 Estimated mine jobs: 370 - 380	Positive Feasibility Study announced August 10, 2012, confirms NPV of \$642 million (pre-tax)
Chidliak	Peregrine Diamonds Ltd.	Diamonds	Located 180 km S of Pangnirtung. Contains 59 known diamond-hosting formations.	Peregrine announced Joint Venture agreement with DeBeers, September 5, 2012.
Doris North/ Hope Bay	Newmont Mining Corp	Gold	Proposed gold mines 130 km S of Cambridge Bay; covers the majority of the Hope Bay Greenstone Belt. Estimated mine jobs: 300	Work postponed indefinitely while project under review; Company has approved "Care and Maintenance" funding for the Hope Bay site.

Project Maps

