



Mining: Our Common Future

*NAPEG Professional Development Conference
Tom Hoefer: May 16, 2013*

What I want to leave you with

- Background on our industry
- Current mining status
- Advancing projects
- Putting on the make-up
- Some technical opportunities

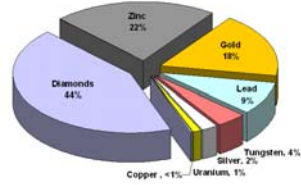


The North's tremendous mineral potential

- 8 geological provinces
- Diverse mineralogy
 - Gold, silver, diamonds, lead, zinc, uranium, tungsten, rare earths, cobalt, bismuth, nickel, copper, etc.
- Under-mapped & under-explored
- Great mineral potential
 - Fraser Institute ranked NWT & NU geology as 6th & 7th most attractive of 93 global jurisdictions



Mining creates wealth: Over \$38 billion mined since 1932



Past Producing Mines: Con • Giant • Pine Point • Cantung • Discovery • Rayrock • Outpost Island • Supercrest • Eldorado • Ruth • Terra • Hope • Silver Bay • Colomac • Tundra • Camlaren • Contact Lake • Ptarmigan • Tom • Mon • Salmita • Negus • Thompson-Lundmark • Rich • El Bonanza • Ryon • Bullmoose

Mining has contributed to Infrastructure

- Highways, eg, to Yellowknife, Pine Point & Ft. Resolution
- Railway (to Hay River & Pine Point)
- All 3 NWT hydro-electric facilities
- Microwave communications
- Ports (at Nanisivik and Polaris)

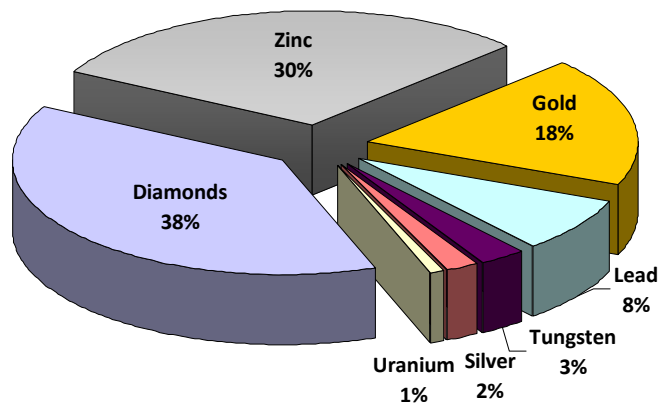


Contributes new technologies too

- Energy
 - High efficiency diesel power
 - Leading wind
- Engineering
 - Dikes
 - Ice roads

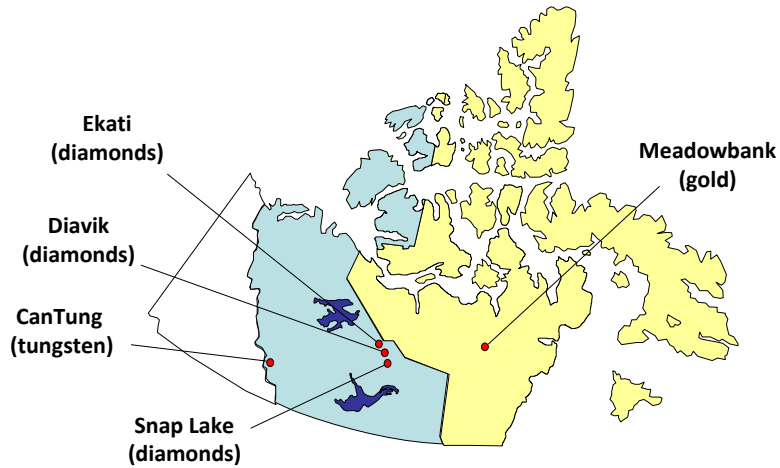


Updated: NU and NWT mineral production – Over \$60 billion mined since 1932 –



Current & Past Producing Mines: Ekati • Diavik • Snap Lake • Meadowbank • Con • Giant • Lupin • Polaris • Nanisivik • Pine Point • Cantung • Discovery • Rankin Nickel • Rayrock • Outpost Island • Supercrest • Eldorado • Ruth • Terra • Norex • Silver Bay • Colomac • Tundra • Camlaren • Contact Lake • Ptarmigan • Tom • Mon • Cullaton Lake • Salmita • Hope Bay • Negus • Thompson-Lundmark • Rich • El Bonanza • Ryon • Bullmoose

Current production from 5 mines



- **Past Producing Mines:** Con • Giant • Lupin • Polaris • Nanisivik • Pine Point • Cantung • Discovery • Rankin Nickel • Rayrock • Outpost Island • Supercrest • Eldorado • Ruth • Terra • Norex • Silver Bay • Colomac • Tundra • Camlaren • Contact Lake • Ptarmigan • Tom • Mon • Cullaton Lake • Salmita • Hope Bay • Negus • Thompson-Lundmark • Rich • El Bonanza • Rycon • Bullmoose

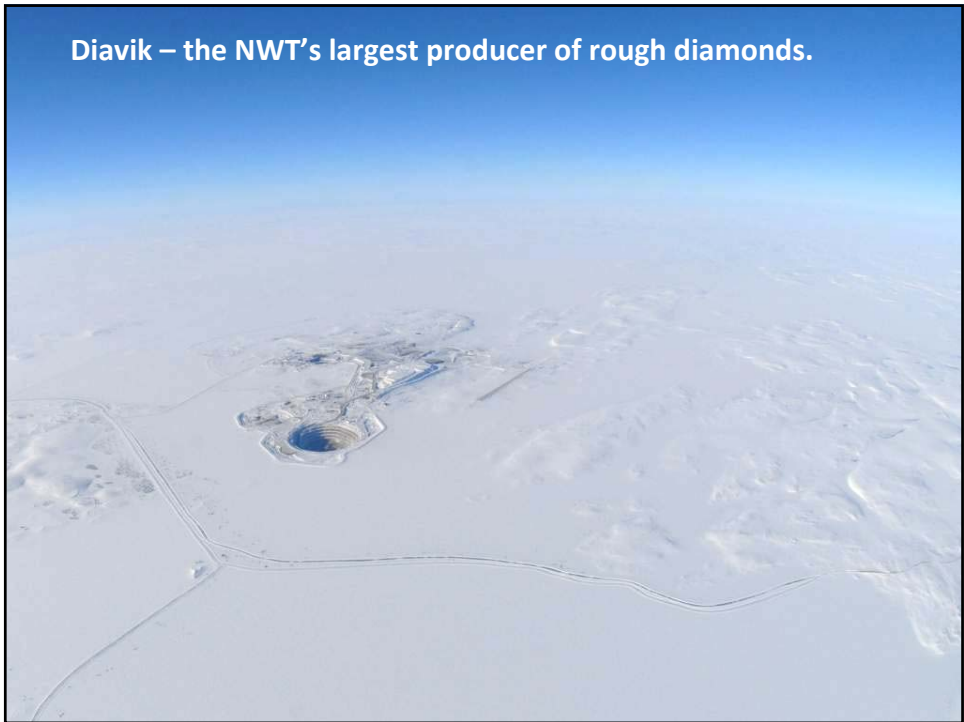
Ekati – Canada and the NWT's first and largest diamond mine.



Diavik – the NWT's largest producer of rough diamonds.



Diavik – the NWT's largest producer of rough diamonds.



Snap Lake – our first all underground diamond mine



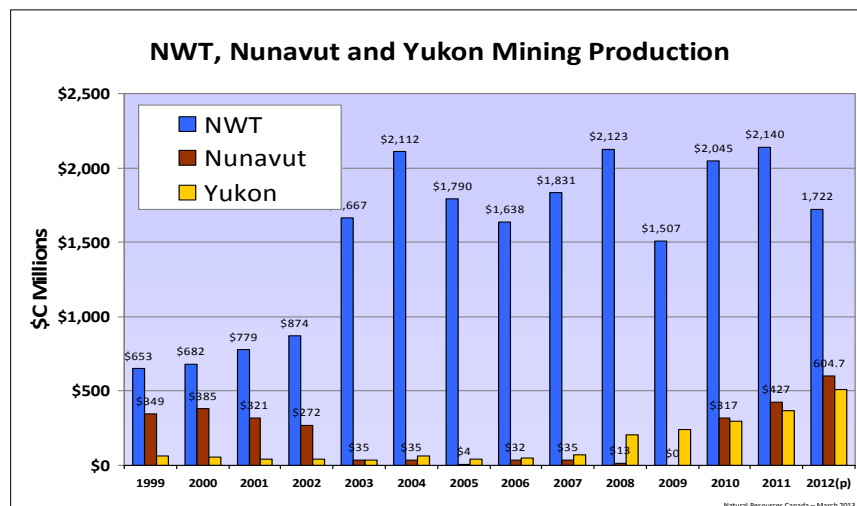
Cantung mine – the Western World's largest producer of tungsten concentrate



Meadowbank mine, NU – Celebrating 1 million ounces gold



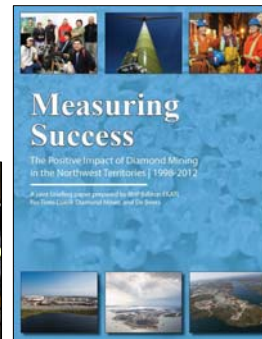
Mining production is significant



- NWT – diamond market fell; tungsten production up
- Nunavut – Meadowbank gold production increases

Mining benefits continue to increase

- 1998 – 2012: diamond mines exceeded expectations
 - 19,000 person years northern jobs – 50% Aboriginal
 - Over \$9.3 billion northern business - \$4 billion Aboriginal
- Nunavut’s gold mine is creating similar local benefits
- Mining is the largest employer of Aboriginal people

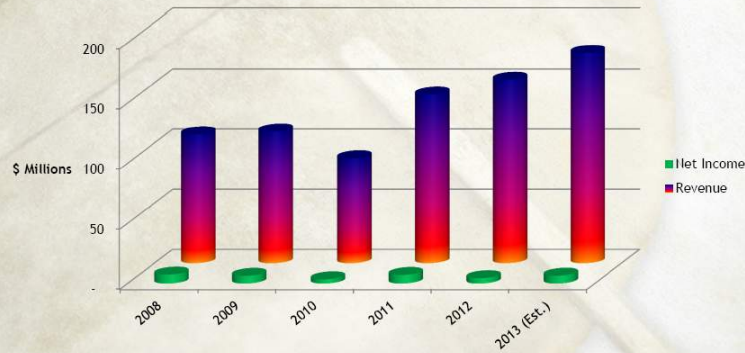


Download at: www.miningnorth.com

Huge Aboriginal business growth & success

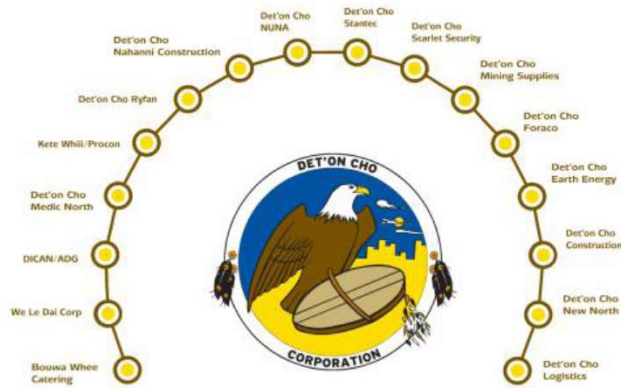
- Selection of new Aboriginal companies in past 15 years
 - Tli Cho Logistics
 - Tli Cho Landtran
 - Tli Cho Cement
 - Tli Cho Air
 - Tli Cho Road Constructors
 - Tli Cho Orica Explosives
 - Denesoline Western Explosives
 - Metcon
 - Kete Whii Ltd.
 - Kete Whii Procon
 - Sodexho Alliance
 - Exploration Medical Services
 - Kitikmeot Cementation
 - Lac De Gras Constructors
 - Nishi Khon SNC Lavalin Inc.
 - North Slave Logistics
 - Nuna Logistics
 - SecureCheck
 - Lac De Gras Constructors
 - Nishi Khon / SNC Lavalin Inc.
 - Ekati Services
 - I&D Management Services Ltd.
 - Det'on Cho Earth Energy
 - Det'on Cho DNX
 - Bouwa Whee
 - Det'on Cho Foraco
 - Det'on Cho Hazco
 - Det'on Cho Nahanni Construction
 - Det'on Cho New North
 - Det'on Cho NUNA
 - Det'on Cho Pure Earth Elements Environmental Solutions
 - Det'on Cho Scarlet Security
 - Det'on Cho Stantec
 - Det'on Cho Training and Conference Centre
 - Det'on Cho Logistics
 - Det'on Cho Medic North
 - Det'on Cho Mining Supplies
 - DICAN / ADG
 - Kete Whii / Ledcor
 - Kete Whii / Procon
 - Akaitcho Helicopters
 - Dene-Emco Ltd.
 - Denesoline/Aboriginal Engineering Ltd.
 - Denesoline/Air Tindi Joint Venture
 - Denesoline/Arcan Constructio
 - Denesoline/De Beers Labour Contract
 - Denesoline/Discovery Mining Services – Logistics Expediting
 - Denesoline/Deton Cho/Procon
 - Denesoline/Deton Cho/Ledcor
 - Denesoline/Dyno Nobel
 - Denesoline/ESS Compass
 - Denesoline/McCaw Drilling and Blasting
 - Denesoline/Nuna Logistics
 - Denesoline/Tlicho Logistics
 - Lutsel K'e Air Services
 - A.T.B. Construction
 - Trinity Helicopters

Tli Cho Investment Corporation Revenue and Earnings History



- 23 member companies
- 450 employees
- Over \$180 million annual revenues

Detoncho Corporation

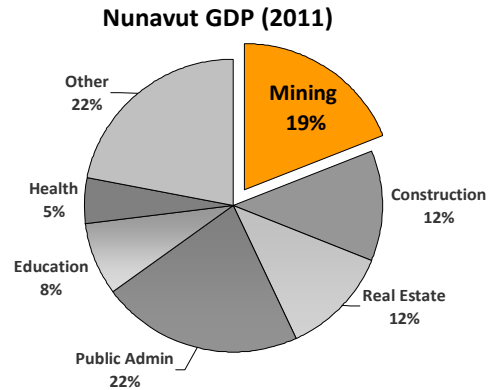


- 16 member companies
- Over 300 employees
- Annual earnings over \$87 million



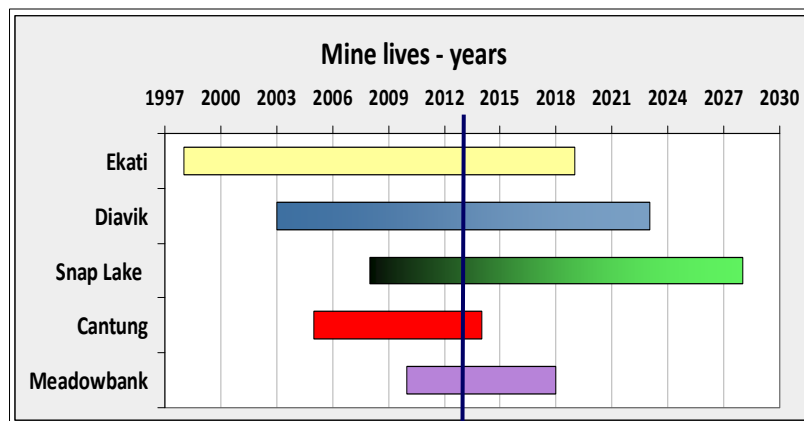
Mining is the largest private sector contributor in Nunavut and NWT

- One mine in Nunavut already makes largest private sector economic contribution
- And does not include exploration
- Mining also contributes to other sectors, eg, real estate, transportation and construction
- NWT is even larger



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Future of current mines (don't last forever)

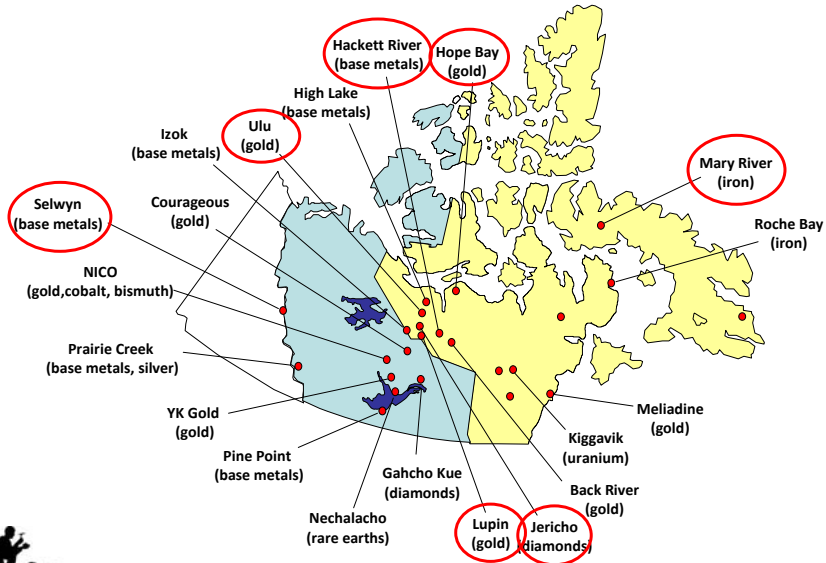


- NWT: Ekati sold to Dominion Diamonds
- NU: Meadowbank mine life increased by 1 year



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Advanced projects – our mines of tomorrow?



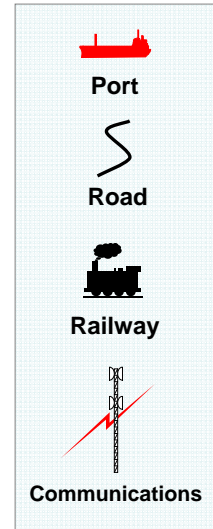
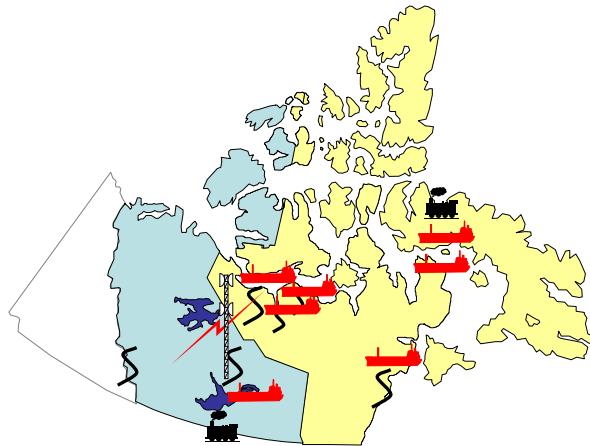
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The Optimist's view: value of advanced projects

- Nunavut mines – potentially 10 new mines
 - Capital investment – over \$10b
 - Jobs at peak (overlap) – over 7,000
 - Total person years employment – nearly 100,000
 - Total life of project expenditures – \$35b
- NWT mine – potentially 6 new mines
 - Capital investment – about \$2b
 - Jobs at peak – about 1,650
 - Total person years employment – about 25,000
 - Total life of project expenditures – about \$12b

CAUTION: Actual project timing and opportunities are subject to market prices & conditions, regulatory approvals and timing, investor approval, etc. Chamber will update regularly.

New infrastructure opportunities, too



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We are on the right track

Prime Minister Stephen Harper, 2012:

That great national dream – the development of northern resources – no longer sleeps. The North's time has come my friends.

Conference Board of Canada, 2012:

Canada's mining potential is bright over the next decade – particularly in the territorial North.

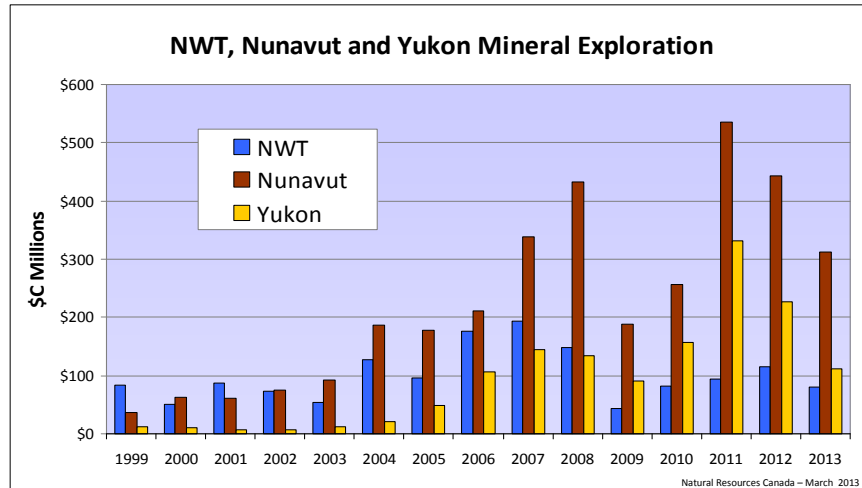
Fraser Institute Survey 2013:

... the Northwest Territories had the greatest improvement in score and rank amongst Canadian jurisdictions.



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Mineral exploration investment



- Exploration strong in Nunavut & Yukon
- Catching up in NWT (missed the recent boom, eg, NU & Yukon)
- **BUT ... now all caught up in national/international market challenges**



Current market challenges

- Market price uncertainty, eg, diamonds & gold
- Junior investment capital crisis – lose 500?
- Big corporations retrenching

Rio Tinto CEO Tom Albanese fired over \$14bn debacle

WEATHERING THE STORM
Responding to the Capital Crisis in the mineral exploration industry

Presentation to IGWG Finance & Taxation Committee
March 6, 2013
Inspectors & Developers Association of Canada

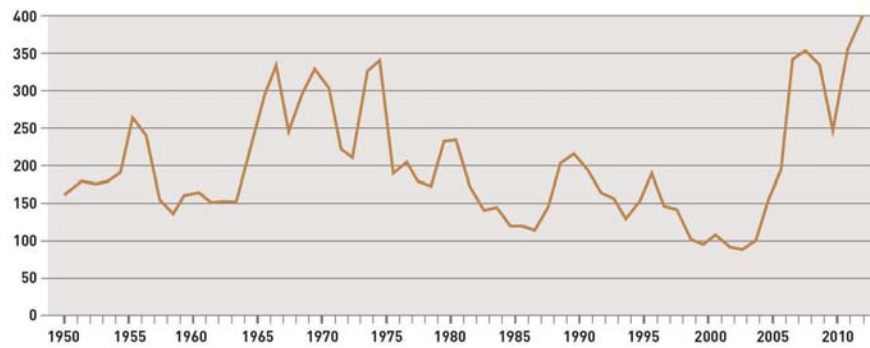
Gold price February – May 2013



Why are the Canadian Resource Juniors in this Mess? Cyclical Issues that may change with time

- Institutional investors no longer believe in the super-cycle and have withdrawn, leaving a vacuum no longer occupied by retail investors.
- Retail investors have not had a chance to recover from the Bie-X Betrayal by participating aggressively in a similar scale but real discovery play under the new 62-101 reporting regime. All discovery exploration plays are lottery tickets and the glass is stuck on half empty.
- Retail investors shy away from resource feasibility demonstration plays because they lack the valuation skill set and are reluctant to deal with geological and macroeconomic issues.
- Companies with ounces in the ground or gold production no longer serve as a proxy for gold and are instead valued on the basis of cash flow.
- The juniors have been hijacked by pundits pushing an apocalyptic gold bug narrative that is useless to gold mines, encourages the purchase of bullion or ETF gold, and discourages spending on fundamental outcomes such as new discoveries or the mine feasibility of a deposit.

One reality of the market place that we know



"This too shall pass!"



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**We can't change the marketplace, but ...
we can change ourselves**



... let's be ready when the market rises again.



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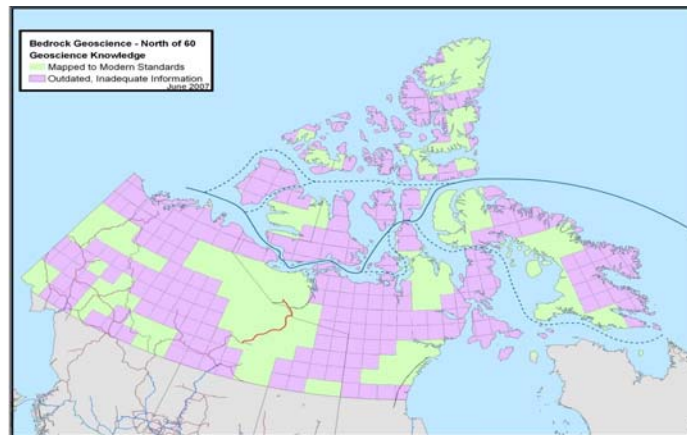
Taking action to provide investment certainty

- We are being strategic
 - NWT Mineral Strategy
 - NWT and NU Economic Opportunities Strategies
 - NWT Energy Strategy
- Improving regulations: NUPPAA, NWTSRBA, MVRMA
- Facilitating projects:
 - CanNor-NPMO, Kwe Beh and Akaitcho - Chamber MOU
- Advancing Land Use Plans
 - Tlicho, Sahtu, Dehcho, Nunavut
- Building capacity: education, training, business
- (Hopefully) providing landlord stability: NWT Devolution



Attract investment: reduce exploration costs

- Fill gaps in the maps – geoscience funding
- Provide exploration assistance like provinces & Yukon



60% of North (pink) lacks modern geological mapping

Enhance mining with cheaper power

“There are lots of resources up there [diamond deposits at Lac de Gras], but a lot of those are not currently on mine plans because of operating costs.

And that’s mainly linked to energy cost.

Once you’ve solved that, you’ve got diamond mines for the next 50 years easily”

... Ricus Grimbeek, former president of Ekati diamond mine
Globe and Mail *“The North Scrapes Bottom”* 15 April 2010



Cheap Hydro Power Opportunity?

- Link Taltson & Snare grids, add la Martre River
- Provide cheaper power for communities and mines
 - **Communities:** Yellowknife, Behchoko, Wha Ti, Wekweti, Gameti
 - **Mines:** Pine Point, Nechalacho, NICO, Courageous Lake, Lac de Gras, Tyhee

Cheaper energy opportunity?

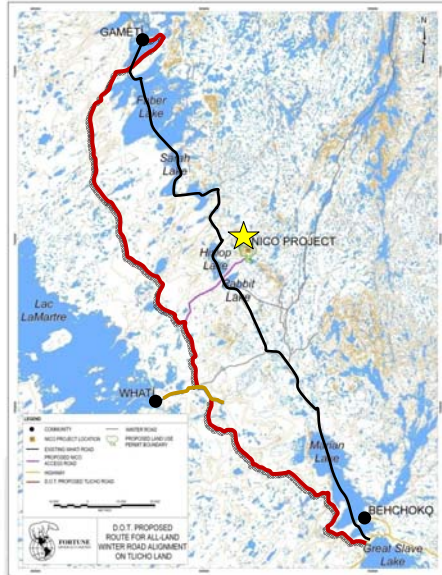
- Power from Liquefied Natural Gas (LNG)
- Advanced Exploration, Nunavut Government, and Agnico-Eagle Mines are looking at LNG in Nunavut



Enhance mining: Cheaper Transportation

- Roads
 - Replace Marion Lake ice road with Tlichó all-weather road
 - Slave Province seasonal overland road
 - Kitikmeot access to NWT projects
- Air transport

All weather Tlicho Road to replace ice road

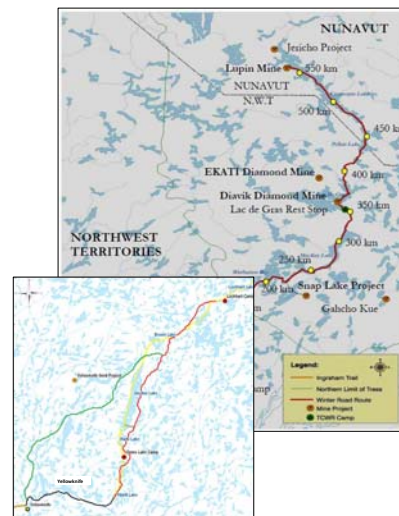


- New all-land winter road from Behchoko to Whati and Gameti
 - more reliable road for community re-supply
- Provide access to Fortune's NICO (Au-Co-Bi-Cu) project
 - Fortune will assist Tlicho & NWT Governments upgrade the new winter road route between Behchoko & Whati & the NICO mine to an all-season road

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Seasonal overland road – ice road support

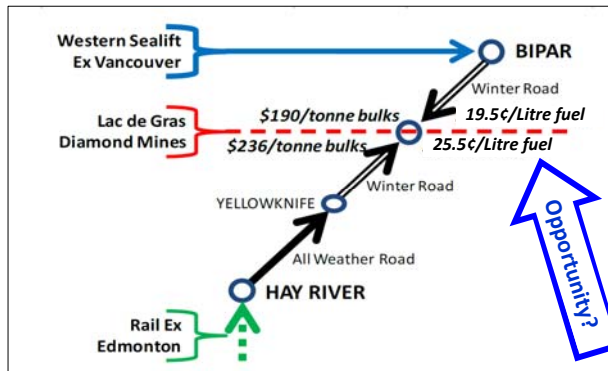
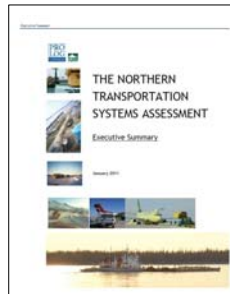
- Climate change related
- Replace southern portion of our famous ice road with seasonal overland road
- Would support diamond mines and other Slave Geological Province projects
- GNWT is investigating



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Kitikmeot Port & Road an import opportunity?

- Procon study for Transport Canada
 - Cheaper access to the NWT through Kitikmeot, NU
- Ramifications?



Cheaper Transportation Option?

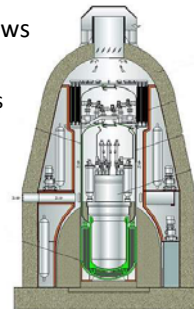


- Current Status
 - First flight completed successfully - August 2012
 - Integrated roll-out model established
 - Next product, AIRLANDER 50, in detailed design phase
 - First batch of AIRLANDER 50 available in 2017
 - Canada likely to be our first location for a Regional Centre

Cheaper Energy Option? the Nuclear Battery

SMART = Small Modular Adaptable Reactor Technology

- 6 megawatts electric or co-gen 2.5 MWe and 20 MWt
- No on-site fuel or waste storage
- Up to 20 years between refuelling – energy price stability
- Zero emissions operation – No SO_x, NO_x, VOCs, GHGs or PM
- Operates with air cooled condensers. No water required
- Modular installation allows for additional units as load grows
- Can be fuelled with domestically mined uranium
- One SMART™ nuclear battery will displace over 210 million litres of diesel fuel and 600,000 tons of CO₂



Conclusion

- We have tremendous mineral potential
- Our mines are providing tremendous benefits
- We have many potential mines advancing
- Markets in flux, but ...
- We are taking appropriate actions to support investment certainty
- We can do more to enhance our common future!

Mining: Our Common Future!

