“Mining” Can Equal Opportunities for Indigenous Communities in Mi’kma’ki

Robert (Bob) Stewart, P.Geo.

Workshop Presentation Condensed from a March 8, 2023 CANDO Webinar:
Mining = Opportunity for Indigenous Communities in Nova Scotia by Dave Lefebure

Acknowledgements

- Gerald Gloade, Educator, Mi'kmawey Debert Cultural Centre; Tim Fedak, Geology Curator, NS Museum
- Unama'ki Institute of Natural Resources (UINR)
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- Mike Parsons, Research Scientist, Geological Survey of Canada (Atlantic)
- Tom Setterfield, Exploration Geologist, TNS Consulting
- Henry Schenkels, Nova Scotia Prospector
- Robert (Bob) Stewart, Nova Scotia Geoscientist

At Your Service – My Role Today

- highlight Indigenous opportunities related to “mining” with an emphasis for Economic Development Officers
- try to explain today’s “mining” in everyday language
- share some applied concepts for today’s consideration
  - *Etuaptmumk:* Two Eyed Seeing (TES), (Murdena and Albert Marshal, Cheryl Bartlett)
  - *Netukulimk*: the use of the natural bounty provided by the Creator for the self-support and well-being of the individual and the community by achieving adequate standards of community nutrition and economic well-being without jeopardizing the integrity, diversity or productivity of the environment (UINR).
  - *Sustainable Development*: development that meets the needs of the present without compromising the ability of future generations to meet their own needs

    (United Nations World Commission on Environment and Development, Brundland Report, 1987)

Presentation Outline

1. Today's "Mining" Cycle
2. Indigenous "mining"-related opportunities including community-related "mining" agreements
3. Nova Scotia mineral exploration and "mining" overview
4. End workshop with a "SWOT" discussion for the future.

“Mining” Cycle Explained

- Modern “Mining” requires responsible professionals for most leadership jobs. (Geoscientists, Engineers, Accountants, Lawyers, Supervisors, etc.)
- “Mining” Professionals’ Paramount Duty Is To “The Public”.
- “The Public’s” welfare includes community safety and well-being and the environment. (echos Netukulimk)
- Seek “Mining” advice from competent “Mining” Professionals

Why is “Mining” Not Well Known

- “Mining” focuses on public safety and the job at hand
  - Access to these industrial sites is restricted for safety.
    - Mining is typically the safest heavy industry in Canada.
- “Mining” is generally not taught in school.
- “Mining” activity is much less common now.
- Consumers rarely consider what their consumer products are made from and where they’re sourced

Why Talk About “Mining”?

Five reasons:

1. Indigenous companies, jobs and contracts in the “mining” cycle.
   - Mining is the #2 employer of Indigenous people in Canada after governments
2. Indigenous community agreements in “mining”
   - Potential for significant benefits under the Constitution and UNDRIP legislations
3. Historical and Active “mining” spans Mi’kma’ki
   - In and under rural, suburban and urban locations and the inshore
   - An ever-changing but traditional use of the Land for many generations
   - “Mining” is the oldest development industry. Paradigm changes defined new societies.
4. “Mining” perceptions often based on “non-mining” sources
   - Listening to professionals & elders is a traditional part of Etuaptmumk / Two Eyed Seeing
5. Opportunity is knocking on the door.
   - Now is the best time for Canadian Indigenous Communities “mining” opportunities.

What are mineral resources?
What is “mining” ?
“If you can’t grow it, you have to mine it”

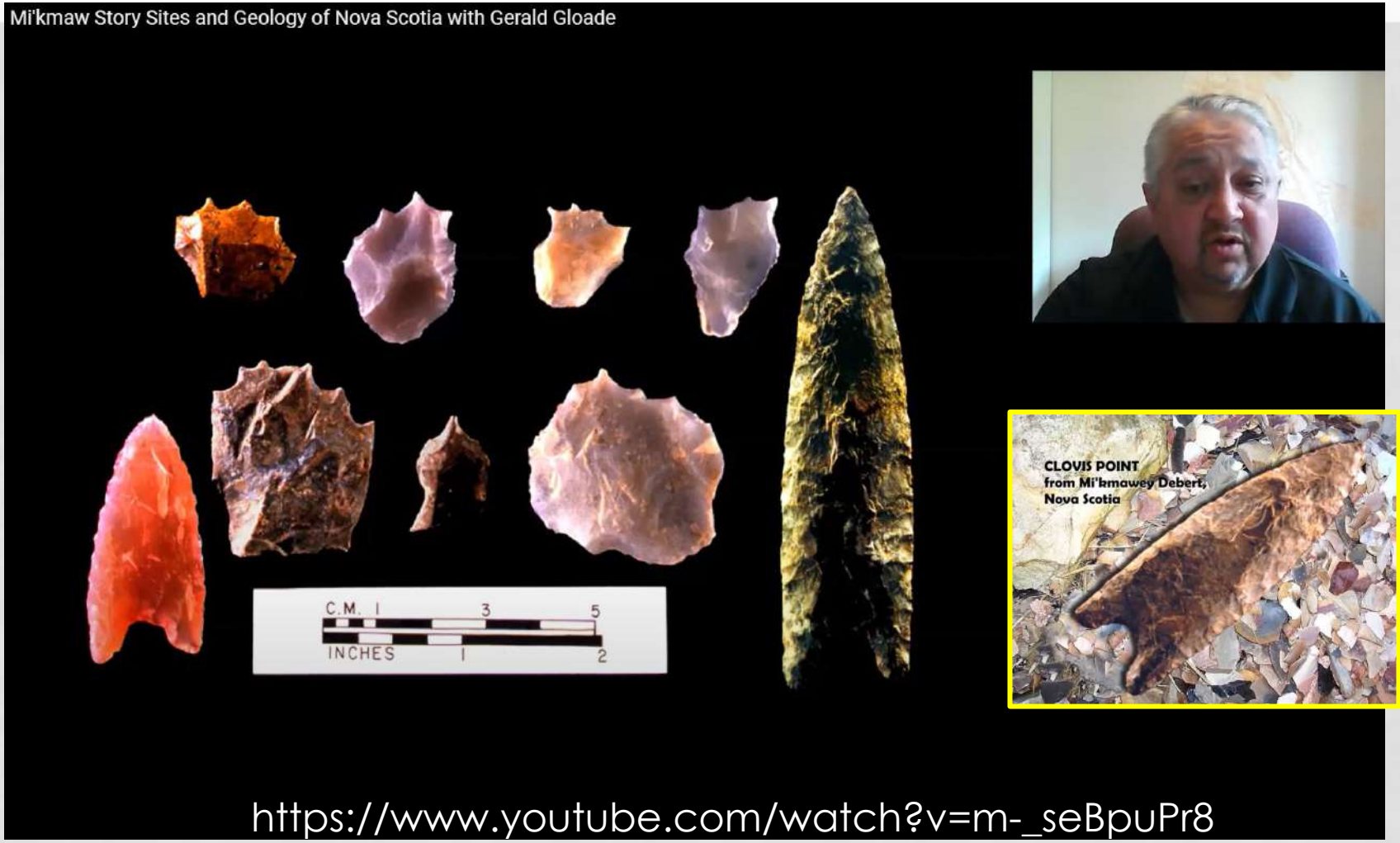
- Unlike forestry and agriculture where you can see your fixed natural resource, mining has the same elusive risk of hunting or fishing but you are much more likely to come home empty-handed from prospecting and early stage exploration activities. Mineral deposits are fixed in location but now they are now deeply (>200 metres) hidden requiring **“mineral resource exploration”**

- **All** early stage, mineral resource exploration activities require an exclusive “Mineral Exploration License” **plus** stakeholder permissions.

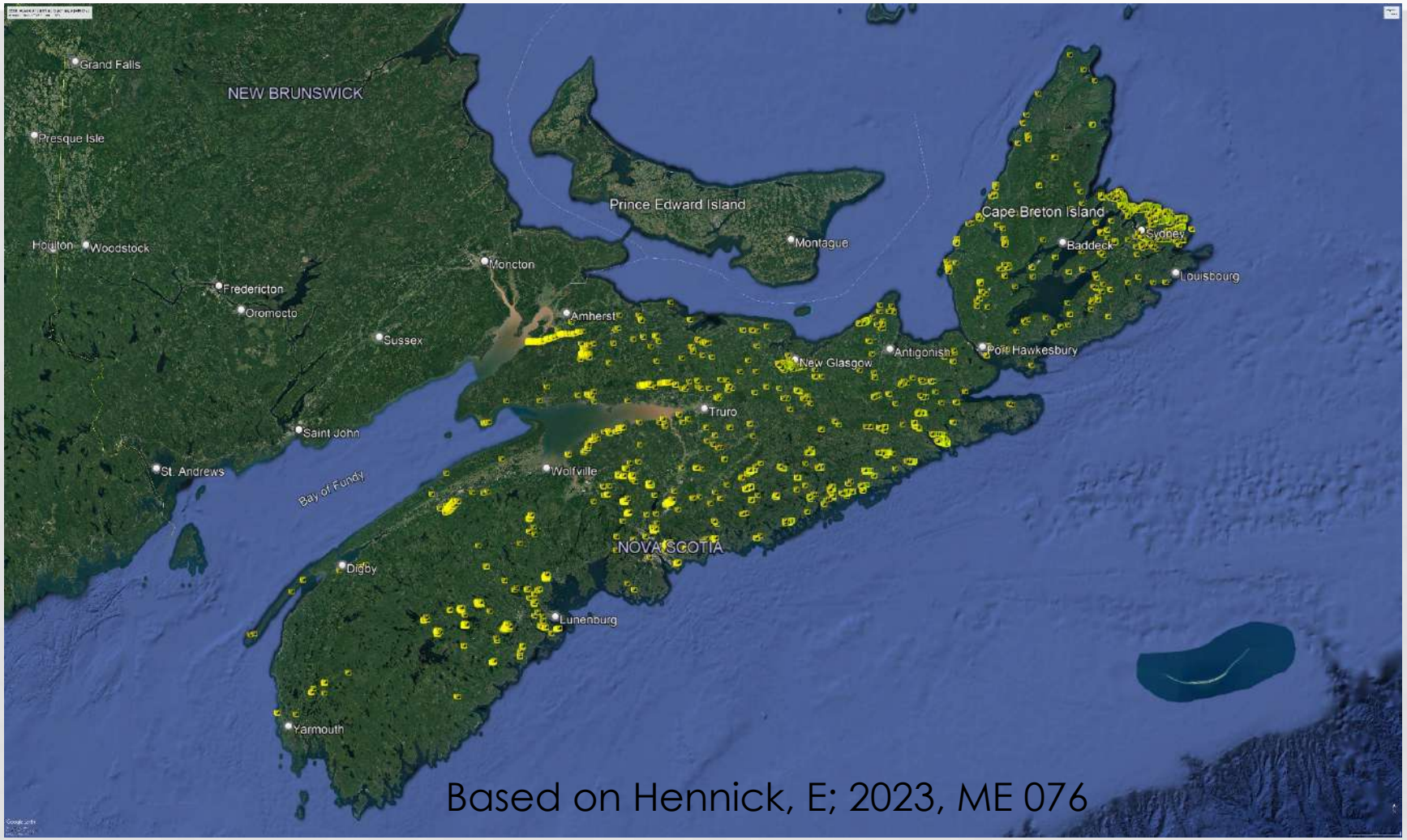
- Early stage activities include prospecting, panning, walking, driving, mapping, sampling and surveying. Many of these activities require minimal training or costs.

- “Mining” technically/legally involves any activities that disturb the ground in the pursuit of mineral exploration and development even if there is nothing removed for sale (trenching, test-pitting, mechanized excavating, diamond drilling, percussion drilling, bulk sampling, cutting trees or survey lines, building roads or any other disturbance).

Mi’kmaq “Mining” Artifacts dated to ~13,000 Years Ago

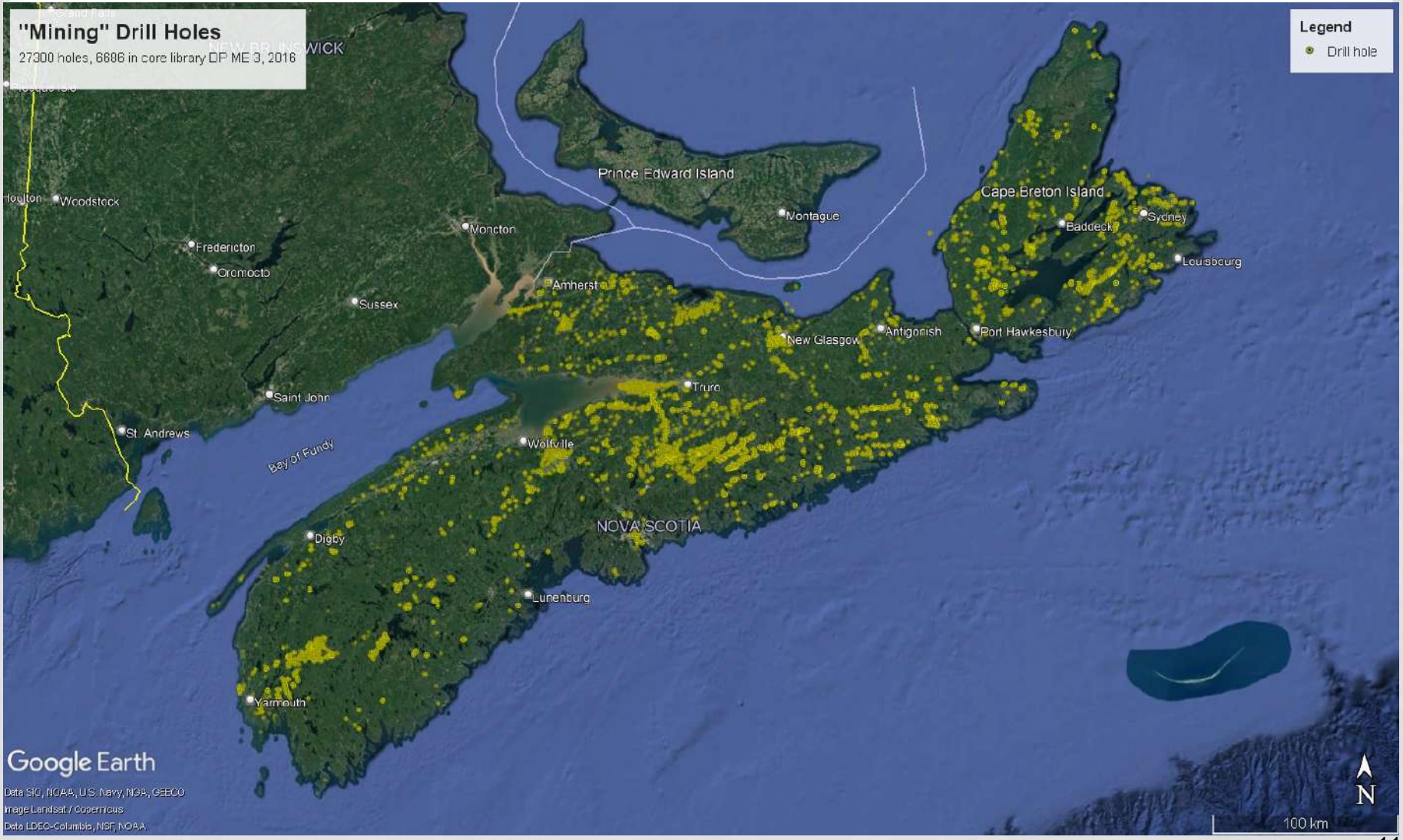


8500+ Mapped Historical Mine Openings Across Nova Scotia



Based on Hennick, E; 2023, ME 076

“Mining” Drillholes



Mining and Mineral Exploration Activity in Nova Scotia

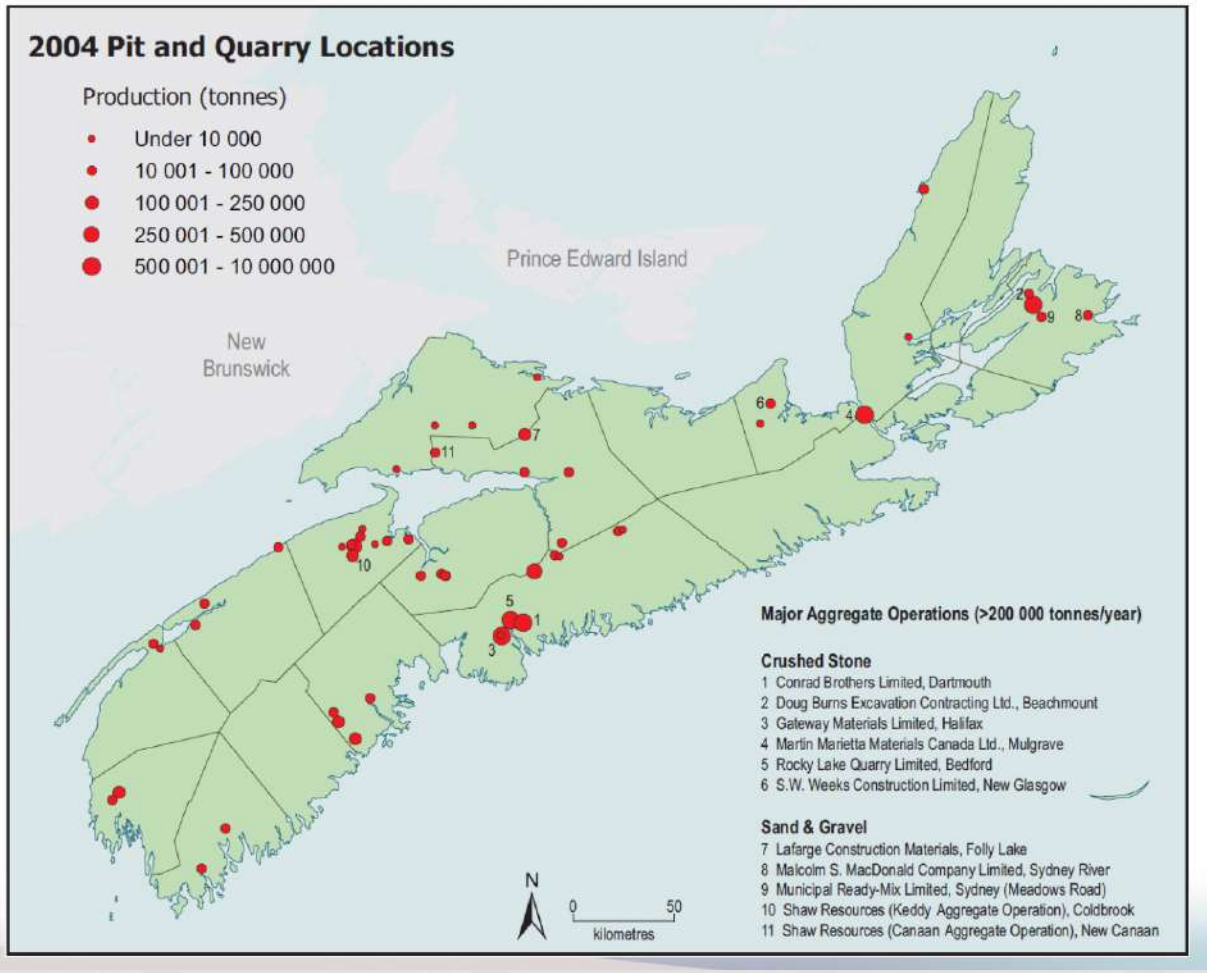
- Prospecting activities
- $58m exploration (2022)
- 12 mining operations
  - 6? Mining operations on care & maintenance
- $415m mine production (2021)
- 5 advanced stage mine developments
- Numerous aggregate pits and quarries

Figure 3. Active mines, and care and maintenance mine sites in 2020.

Information Circular ME 71 Mineral Management Division, June 2022 and Nova Scotia Roundup Handout

Major Aggregate Operations Quarries and Pits

- Local pits and quarries supply gravel, sand, and crushed stone
- Used for house and building foundations, roads and highways, and other types of infrastructure
- Many more small pits than shown here as cost to transport material restricts distance to market (some operate only as needed)
- Can start as very small, low capitalization pits



from Nova Scotia Dept. of Natural Resources, ME 2013-003

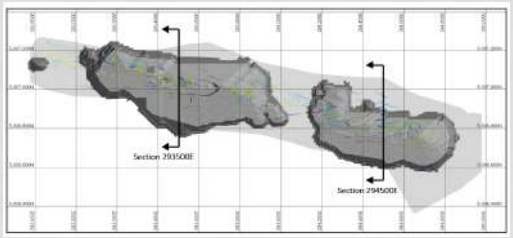
Today's "Mining" Cycle

Prospecting & Early Exploration

Indigenous Business Opportunities

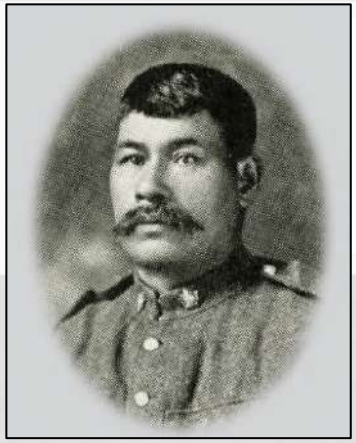
Reclamation

Mineral Exploration



Mine Development

Mining



Prospectors

Joe Cope
Mi'kmaq prospector

Joe discovered tungsten in Goffs, Halifax County

Described in the Chronicle-Herald as "one of Nova Scotia's best-known citizens" when he passed away in 1951 at the age of 93

- Have discovered many mineral deposits
- Searching for a discovery to sell or option to a company
- Work alone or in pairs spending own money
  - Hike through the bush, walk new logging roads, follow creek beds, etc.
  - Collect rock and soil samples
  - Use a rock hammer, gold pan, other tools

Photo from Tom Setterfield

Early Exploration

Airborne Geophysical Survey

- Geophysical Survey – the collection of data from above or below the earth's surface using a sensing instrument to measure characteristics like magnetism & conductivity

Early Exploration

Collect Rock and Soil Samples to Identify Target Areas

Early Exploration

For Prospective Targets Use Trenching to See & Sample The Bedrock

Medium-size Trench

Large Trench

- Prospectors dig trenches by hand; companies use excavators
- Collect and analyse mineral or metal content over a specific interval
- Very useful prior to drill testing

Henry Schenkels photo on left, online photo on right

Reclamation of an Exploration Trench

Henry Schenkels photos

Diamond Drill Site and Initial Reclamation of Site

Drilling

Reclaimed, prior to reseeding

Tom Setterfield photos

Henry Schenkels photos

Mineral Exploration

Drill Core Placed in Core Boxes

- Geologists record observed rock, alteration and mineralization features in the drill core. Some intervals will be assayed to determine quality.
- Significant mineralization discoveries can proceed to studies leading to mine development.

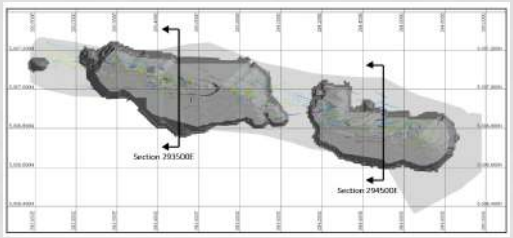
Today's "Mining" Cycle

Prospecting & Early Exploration

Indigenous Business Opportunities

Reclamation

Mineral Exploration



Mine Development

Mining

Mine Development

Mine Development Path Metal Mines

More Extensive Environmental Assessments

Bulk Sampling

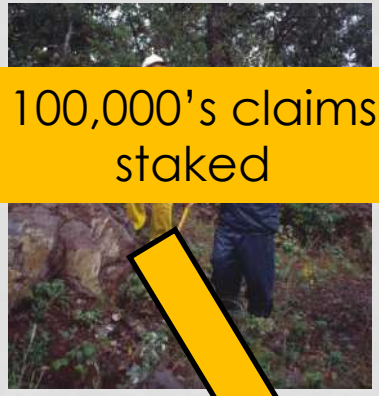
- Complete economic feasibility studies
- Raise funds
- Get government permits

Justify Mine

Prepare for Mining

Life Cycle of Metal Mining: Very High Risk To The Mining Stage

Prospecting & Early Exploration



100,000's claims staked

1000's of mineral exploration properties

Mineral Exploration

Indigenous Business Opportunities

Several mine development projects

Mine Development

Maybe one metal mine

Mining

Wide Variety Mine Jobs - Many High Paying

Mine Workings

Surveyor`s helper

Miner

Driller

Heavy Equipment Operator

Shift Foreman

Etc.

Mill/Shop

Trades helper/ apprentice

Warehouse assistant

janitor

Technicians

Certified trades

Etc.

Offices

Students

Secretarial

Admin

Engineers

Geologists

Technicians

Accountant

Etc.

Camp

Janitorial

Kitchen

Cook

Admin

Repairs

Safety

Security

Etc.

Roads, Etc.

Snow removal

Road work

Trucking

Gravel pit Supplies

Diesel fuel

Explosives

Etc.

from Nova Scotia Dept. of Natural Resources, ME 2013-003

The mining industry in Nova Scotia ranks "number one" in terms of average weekly wages paid among the various resource sectors

Over 160 different "mining" jobs

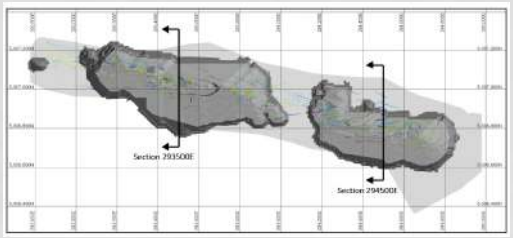
Today's "Mining" Cycle: Mining and Reclamation Are De-Risked

Prospecting & Early Exploration

Indigenous Business Opportunities

Reclamation

Mineral Exploration



Mine Development

Mining

Modern Mine Closure and Reclamation Nova Scotia

- Mining is a **temporary use of the land**
- Prior to any mining, companies are encouraged to **consult** with local communities to determine land use upon closure
  - The mining company then endeavours to incorporate these community values into the reclamation plan
- An **engineering plan** is developed to provide an estimate of the cost of reclamation and allows companies and government to plan for the future
- The financial resources needed to carry out the plan, called a **reclamation security**, are provided by the mine operator to government prior to the beginning of mining

The following slides show examples of effective mine reclamation.

Progressive Mine Reclamation
Stellarton Coal Mine

Reclamation of mine sites is required in Nova Scotia. This activity can create economic and commercial development opportunities.

29.

- Reclamation identified as an integral component of mining.
- The former Westville open pit coal operation now provides a land base suitable for recreational or light commercial use.
- 10 acres of parkland has been created and donated to the community.

from Nova Scotia Dept. of Natural Resources, ME 2013-003

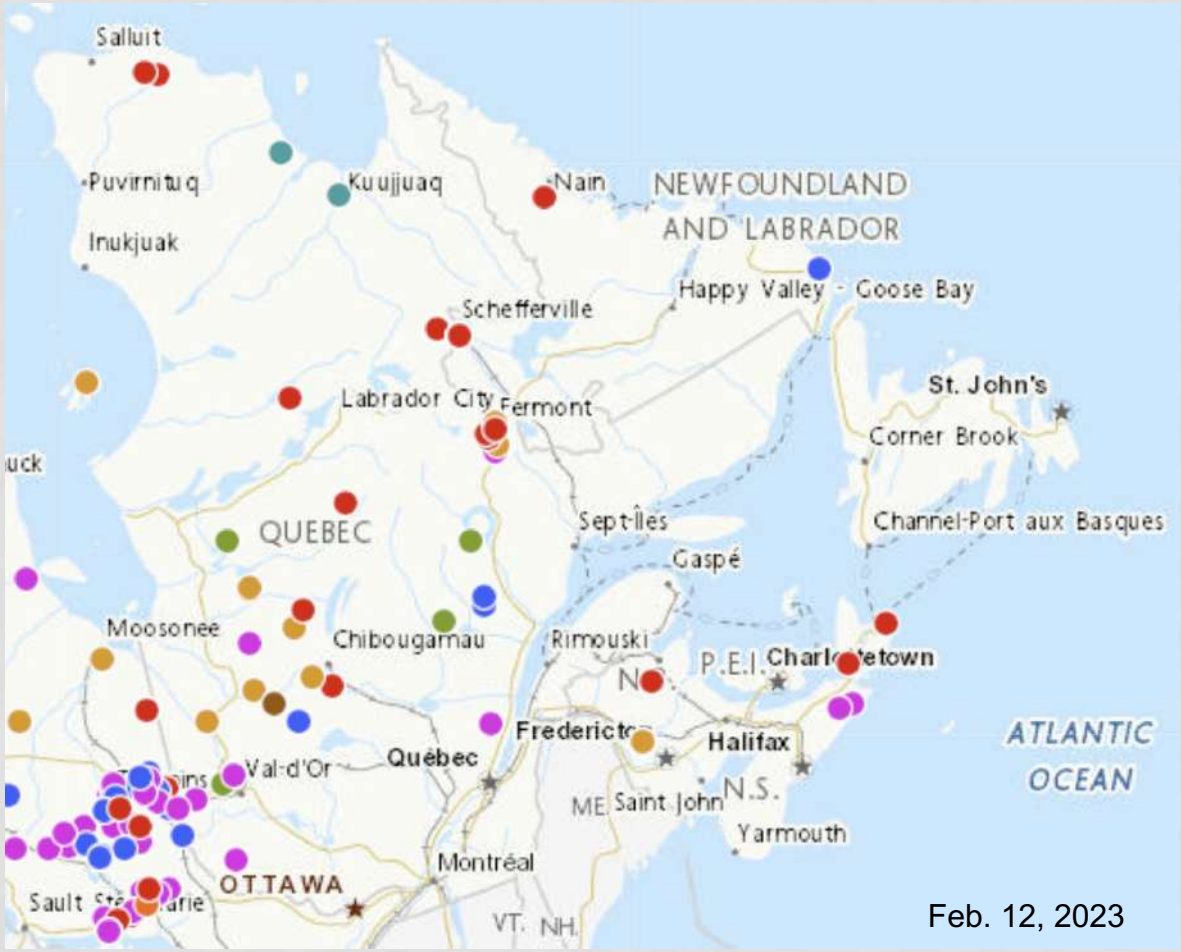
Indigenous “Mining”-Related Opportunities

- Understand how your community has already engaged
- Engage in the “mining” cycle as an individual
- Engage in the “mining” cycle as an indigenous business

Indigenous Community Active Mining Agreements

Active Agreements

- Impact and Benefits Agreement
- Socio- Economic Agreement
- Exploration Agreement
- Participation Agreement
- Cooperation Agreement
- Memorandum of Understanding
- Letter of Intent
- Surface Lease Agreement
- Other Agreement Type



https://open.canada.ca/en/map/indigenous-mining-agreements

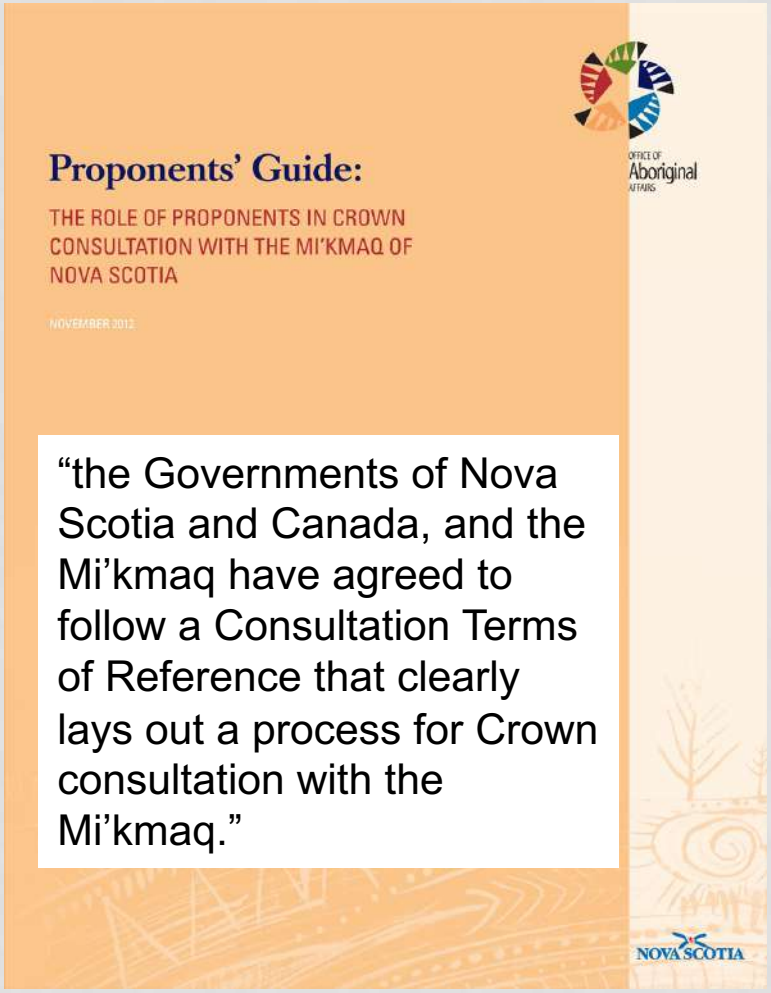
Community Agreements

- Companies exploring and developing mineral resources approach the Assembly of Nova Scotia Mi'kmaw Chiefs for consultation and partnering agreements.

- Kwilmu'kw Maw-klusuaqn (KMK) is the legal team that has worked on 89 "mining" consultations which represent about 10% of their total consultations.

- **Indigenous services and employment are commonly included in agreements arising from consultation.**

Mi'kmaq-Industry Engagement Protocol Since 2011



"the Governments of Nova Scotia and Canada, and the Mi'kmaq have agreed to follow a Consultation Terms of Reference that clearly lays out a process for Crown consultation with the Mi'kmaq."

Table of Contents

Proponents Guide November 2011 ecopy.pdf (novascotia.ca)

Reviewing “Mining” In Mi’kma’ki

An Overview

Mines Are Of Many Sizes

small

large

Nova Scotia Mines Production

NS Mineral Resource Products

Worth $326.9 million in 2019*

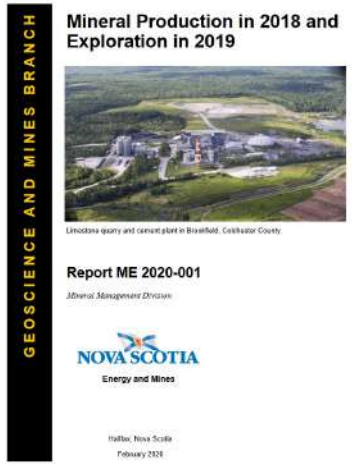
Industrial Minerals

gypsum, salt, limestone, silica sand

Aggregate and Rock Quarries

gravel, sand, crushed rock, rip rap, stone

* not included



annual government publication

Nova Scotia is a key producer

- Canada - largest producer of gypsum
- Canada – significant producer of salt

Coal

steel-making coal

(worth 23% of total value)

Metals

Gold

(worth 45% of total value)

Touquoy Mine and Mill Site

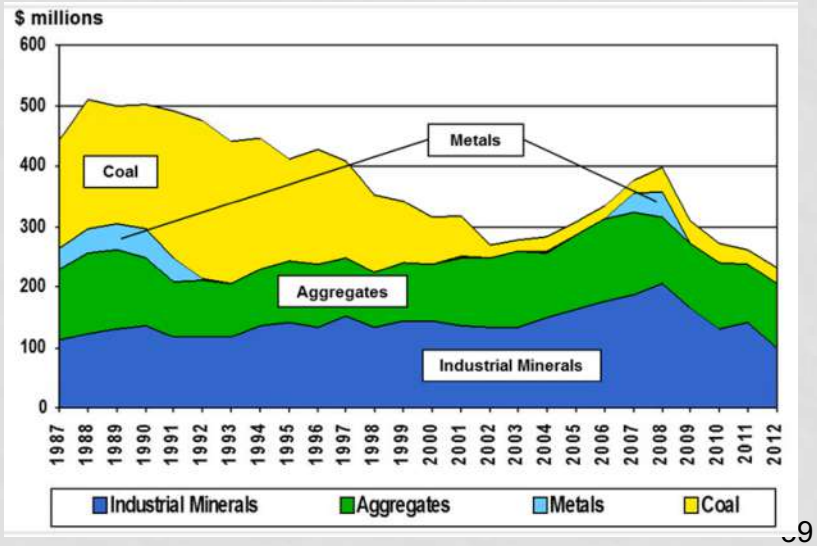
Atlantic Mining NS, Inc. Gold Mine, Moose River Gold Mines, Halifax County.

Nova Scotia Coal Mines

- The origin and early development of many towns and villages in Nova Scotia can be attributed to coal mining
  - More than 300 underground and open pit coal mines have produced ~400 million tonnes of coal since 1720
- Nova Scotia high-quality coal used for making steel
  - 170 tonnes of coal required to produce the average wind turbine

A wind turbine generates electricity near Glace Bay, Cape Breton, Nova Scotia

Value of Nova Scotia Mining Production 1987-2012



https://novascotia.ca/natr/meb/data/pubs/13ofr03/ofr_me_2013-003.pdf

Aggregate Now Derived Mainly From Crushed Rock

- Shifted to crushed rock materials due to the depletion of sand and gravel deposits in many areas
- Produce millions of tonnes per year for Nova Scotians
- Also millions of tonnes for export, primarily to the US eastern seaboard and the Gulf of Mexico
  - Rely on deep water ports to be competitive

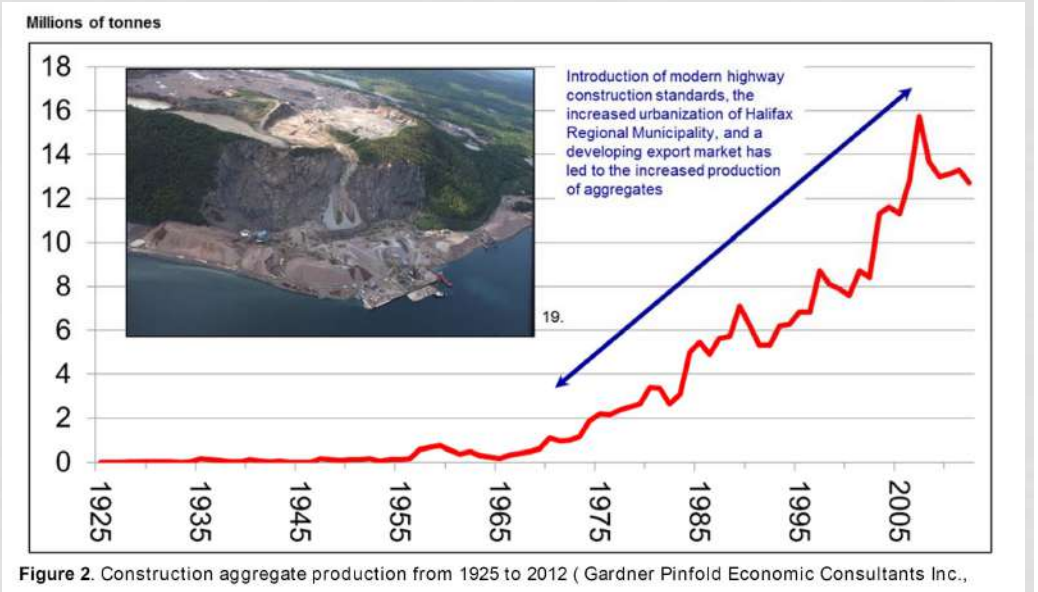


Figure 2. Construction aggregate production from 1925 to 2012 (Gardner Pinfold Economic Consultants Inc.,

Nova Scotia Salt Mines

- Nova Scotia production averages about one million tonnes per year
  - Annual fluctuations are directly related to the severity of winter weather and related demand for the de-icing of roads
- Pugwash underground salt mine operated since 1959
  - Salt is extracted by room-and-pillar mining
- The Nappan solution salt mine has been in operation since 1947
  - Wells are drilled into the salt formations, and heated water is used to dissolve the salt, creating a brine solution
  - The brine is brought to the surface
  - Sent through a processing plant, which evaporates the water and produces high-purity salt


Pugwash Salt Mine


Nappan Salt Mine

Gypsum Mines

- Supply gypsum for the manufacturing of wallboard and cement in domestic markets
- Brierly Brook a medium sized quarry
- Nova Scotia is home to the world's largest gypsum mine at East Milford

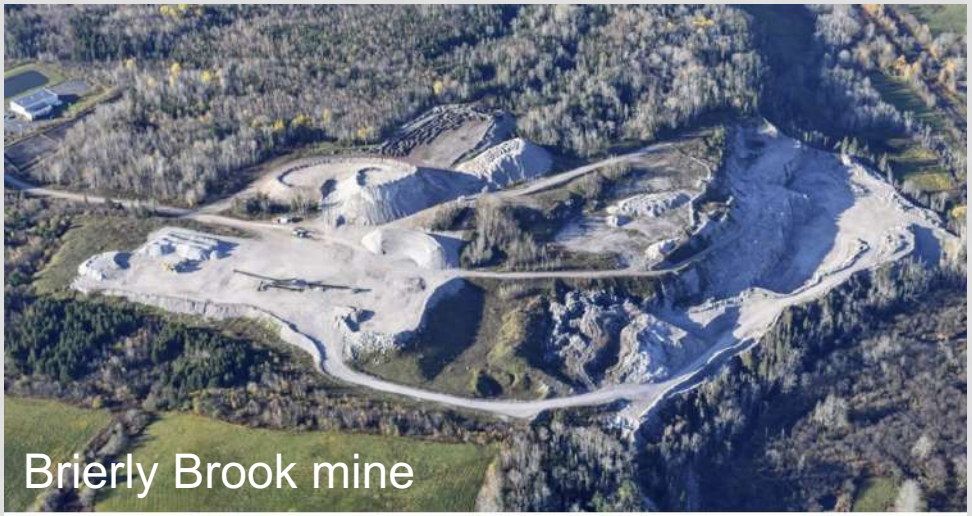


Figure 9. Brierly Brook Gypsum Quarry, Antigonish County.

https://novascotia.ca/natr/meb/data/pubs/13ofr03/ofr_me_2013-003.pdf

Pleasant Valley Mine
Limestone Cement Plant and Quarry

- Only operating cement plant in Atlantic Canada, located in Brookfield, Nova Scotia
- Lafarge Canada's plant has switched to Portland Limestone Cement (PLC) production
- New reduced-carbon process will reduce the percentage of clinker required, thus reducing the need for fuel and consequently the production of CO_2
- This plant offers products used in all types of construction

Industrial Mineral Products Manufactured in Nova Scotia

- Clay products
- Portland cement
- Ready mix concrete
- Brick and mortar
- Agricultural Lime & Gypsum
- Building stone and slate
- Salt products

from Nova Scotia Dept. of Natural Resources, ME 2013-003

Leadership

How should “mining” be part of the future?

Leaderships' Roles in "Mining Exploration and Development in Canada

Indigenous leaderships:

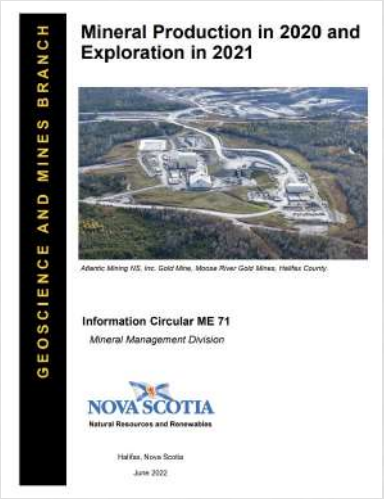
- Assert rights and concerns through consultation and agreements
- Build Indigenous community's and company's capacity to participate

Federal leadership:

- Assist Indigenous leaderships in their capacity building
- Regulate mineral development through legislation, policies and environmental assessments

Provincial and Territorial leaderships:

- Administer all natural resources including minerals
- Generate maps and reports for the public's welfare
- Promote mineral resource opportunities to attract investment
- Regulate exploration activities
- Regulate mineral resource developments
- Enforce safety regulations and assist in "mining" training
- Require reclamation plans bonds for surface disturbances



Canadian Economic Opportunity

Generational Economic Opportunity

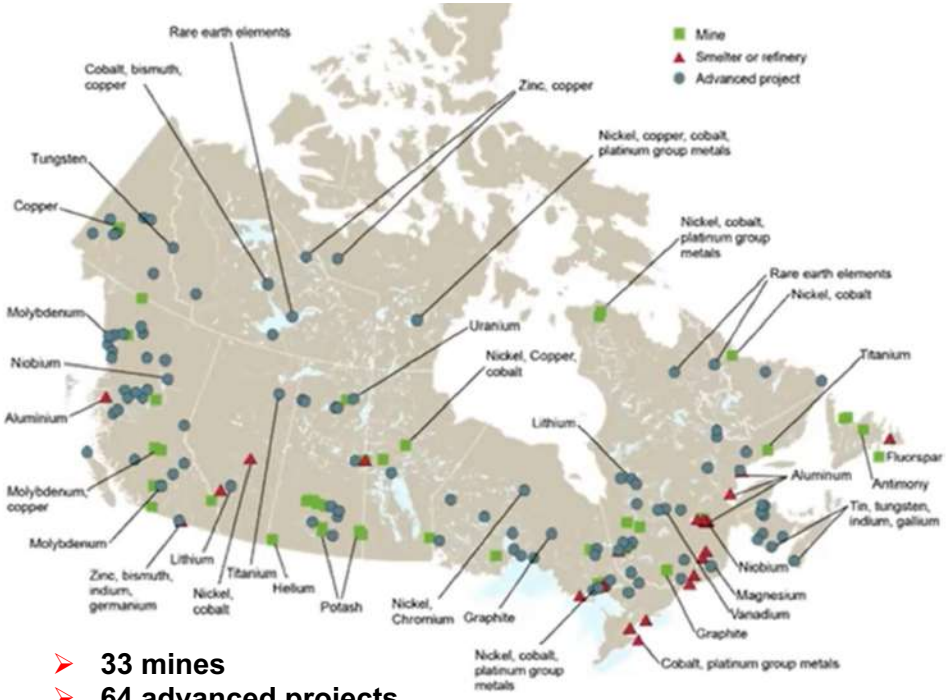
Leveraging Canada's advantages:

- ✓ World-class mineral resource wealth
- ✓ Longstanding mining expertise
- ✓ Extensive technology and manufacturing capabilities
- ✓ Abundant clean energy resources
- ✓ Strong environmental, social and governance (ESG) credentials

Domestic critical minerals can fuel Canadian manufacturing, **employment opportunities**, reduce import dependency, and build economic security.

Focus on 6 priority minerals to develop full Canadian value chains – **from mines to manufacturing** – including recycling waste and end-of-life products

Critical mineral deposits and processing facilities



- **33 mines**
- **64 advanced projects**
- **18 smelters or refineries**

Natural Resources Canada | Ressources naturelles Canada

Canada

Connection to Indigenous Peoples

Advancing Economic Reconciliation through the Strategy

8

What We Know

- Respecting s. 35 rights and UNDRIP is imperative for existing and new developments
- Indigenous peoples are involved in mining through direct employment and businesses in the mining supply and services sector
- Potential for positive and negative impacts on social and environmental conditions of communities

What We're Hearing

- Capacity building and access to capital is required to facilitate Indigenous participation and equity ownership in critical mineral value chains/major projects
- Canada must work with Indigenous partners and industry to mitigate social and environmental impacts throughout the project life cycle
- Ongoing engagement and consent-based relationships with Indigenous peoples is essential
- Opportunities for Indigenous partners to gain equity ownership stakes in major projects

What We're Exploring

- Opportunities for ongoing engagement on the implementation of the Strategy, supported by B2022 funding
- Benefits sharing to foster Indigenous-industry partnerships through the development of a National Benefits Sharing Framework
- Connections to broader reconciliation efforts (MMIWG, UNDRIP implementation)

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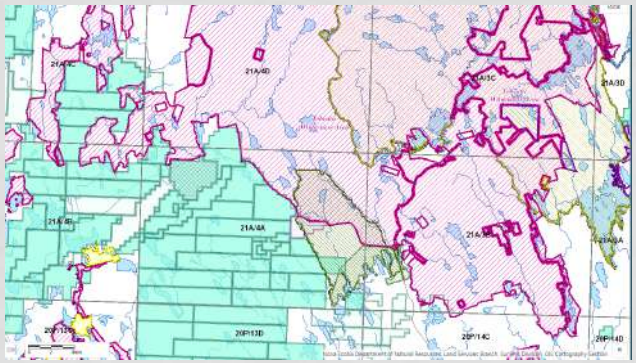
Canada

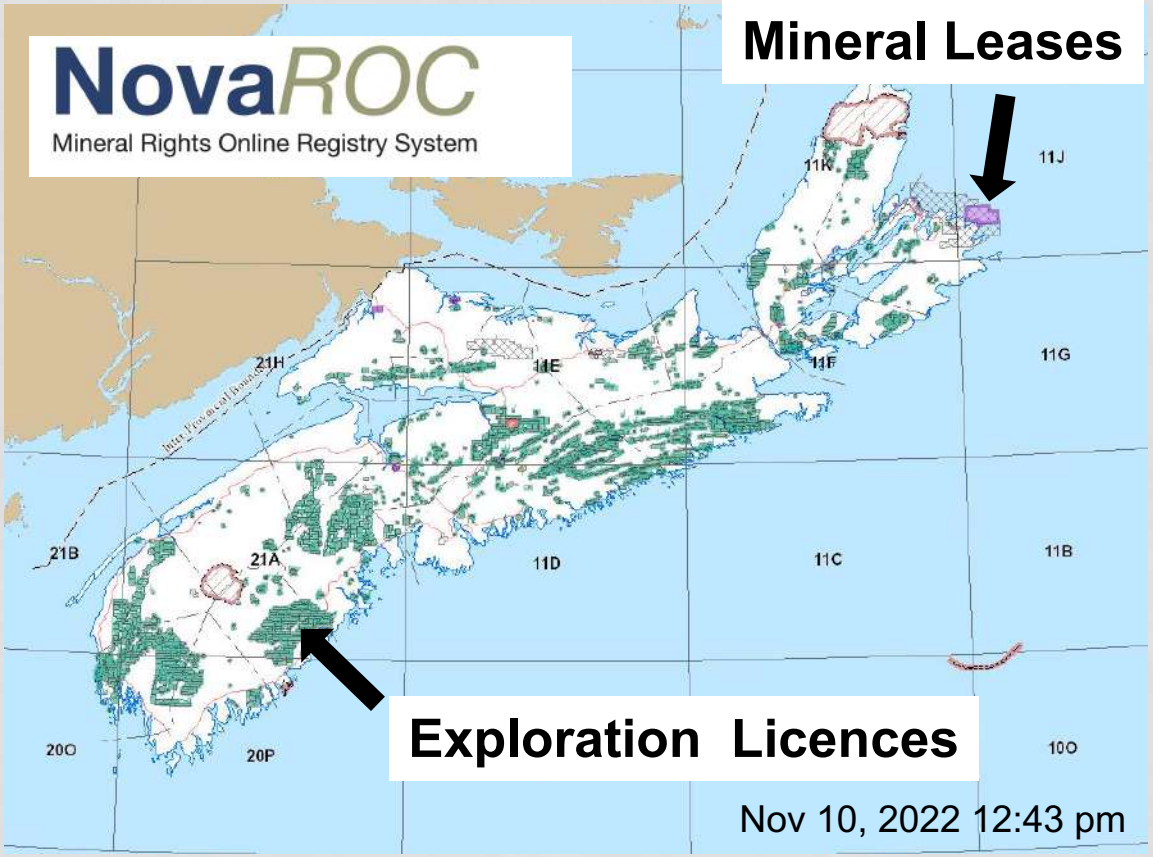
Emerging Opportunities

- World-class geological and mineral potential
- Under-explored using modern technology for 60 years
- Shallow mines and drill holes support deeper potential
- Mineral exploration license activity reflects these points

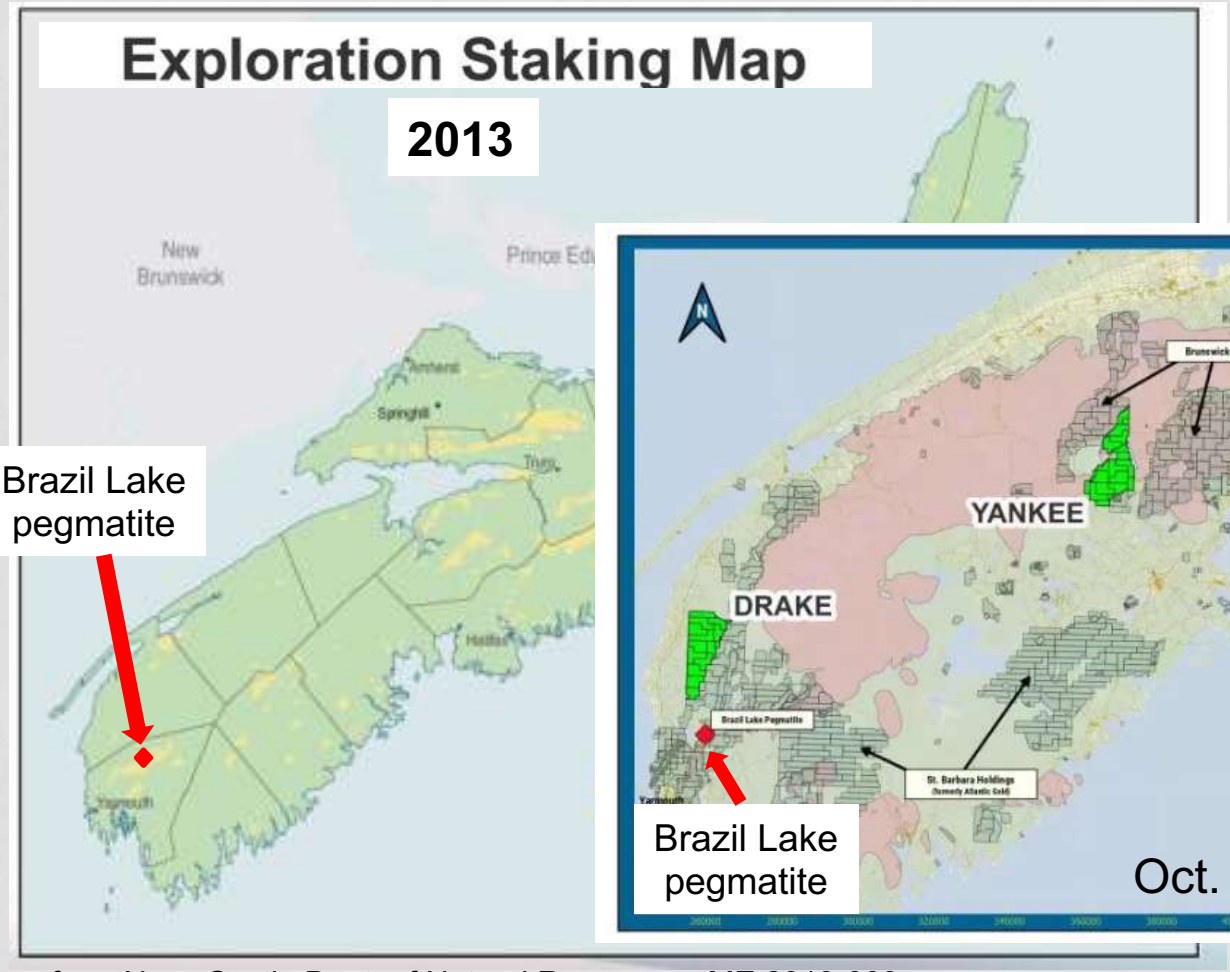
Location of Mineral Tenures in Nova Scotia

- Open to all to see the information
- Shows numerous data layers, including Crown and private land and protected areas
- Can zoom in for detail

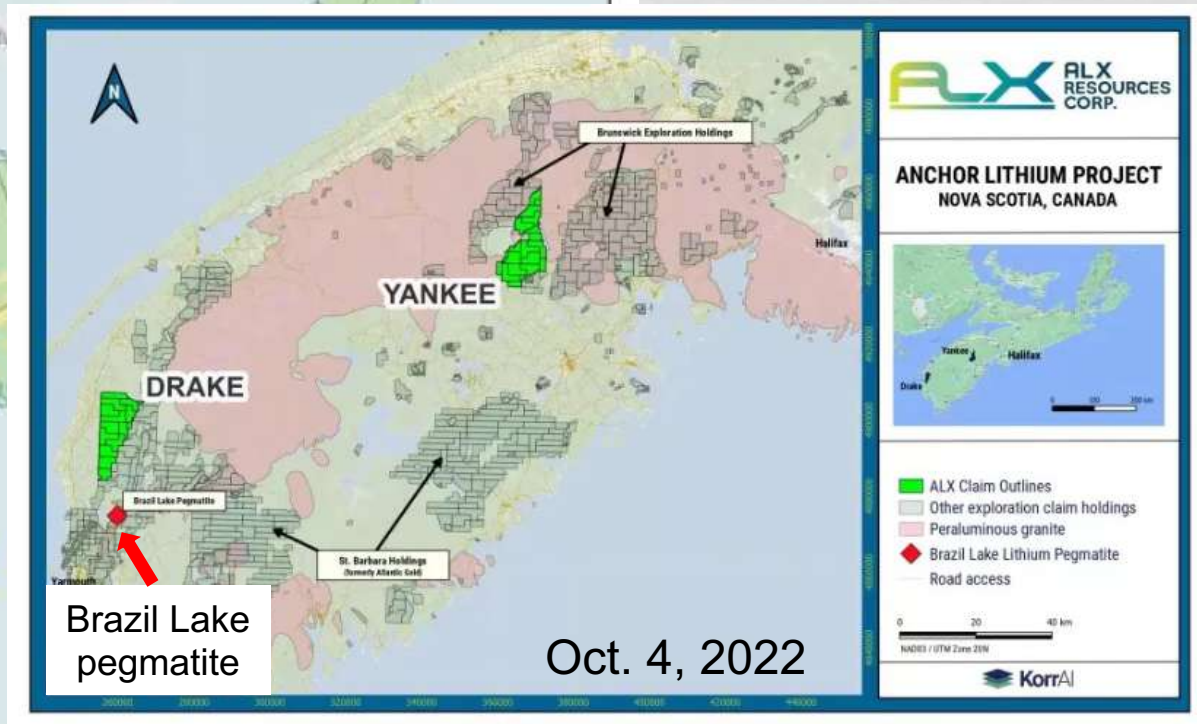




Exploration Boom
Nova Scotia's Lithium Rush



https://www.juniorminingnetwork.com/junior-miner-news/press-releases/1196-tsx-venture/al/128899-alx-resources-corp-stakes-anchor-lithium-project-in-nova-scotia-canada.htmlResources



from Nova Scotia Dept. of Natural Resources, ME 2013-003

Nova Scotia's Commitments

Reducing GHG emissions to at least 53% below 2005 levels by 2030

Minimum 30% zero-emission personal vehicles by 2030

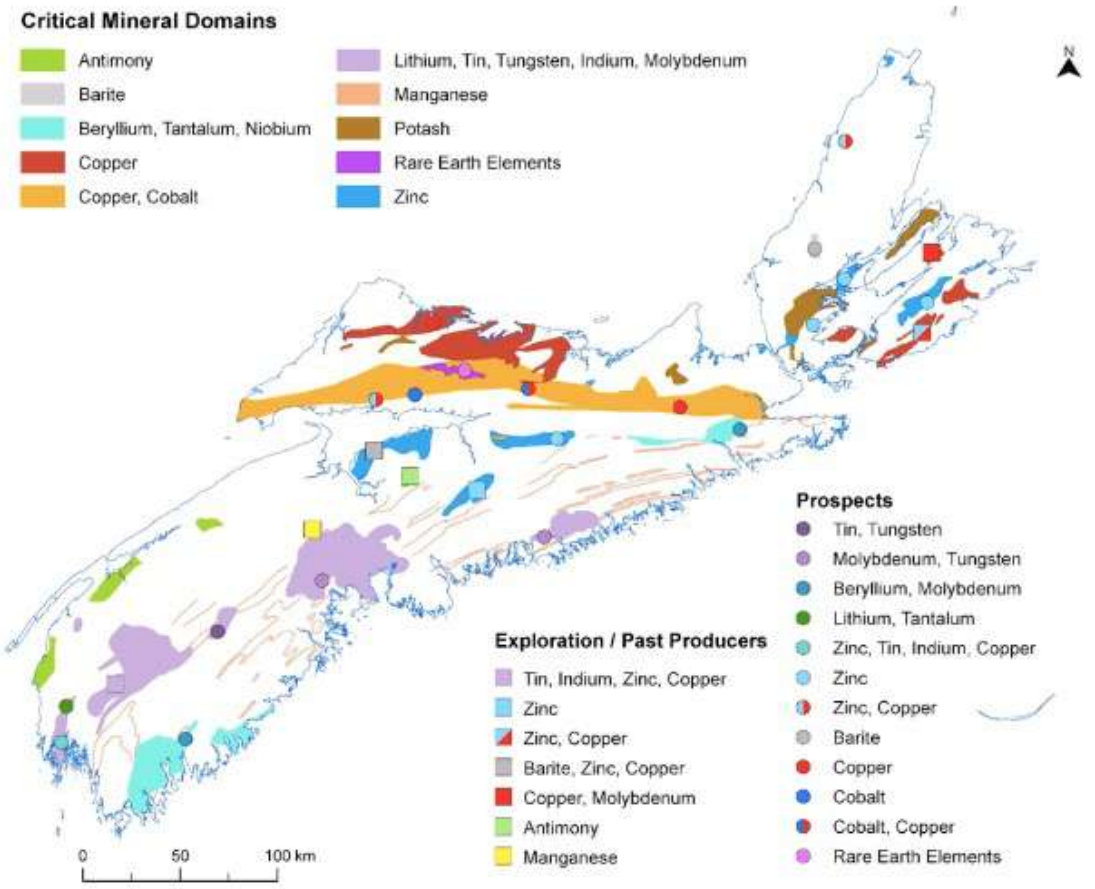
80% of all electricity from renewable sources by 2030

Achieving our climate objectives **will** require critical minerals

NOVA SCOTIA

Critical Mineral Potential in Nova Scotia

Examples of Areas with Critical Minerals



Nova Scotia Developing a Strategy
Potential for Critical Mineral Production
Includes engagement with Indigenous partners to develop plans

Critical Minerals in Renewable Energy Applications

Rare earth elements (REE), Copper, Zinc

Lithium, Cobalt Manganese, Graphite

Gallium, Germanium, Indium, Tin Tellurium

Potential to find in Nova Scotia

NOVA SCOTIA

Point Tupper Project
Windfarm with Hydrogen and Ammonia Plant

HALIFAX, NS, Feb. 7, 2023 /CNW/

- EverWind Fuels Company has received Environmental Approval for the initial phase of its energy project from the Minister of Environment and Climate Change, Government of Nova Scotia
- To be located on Point Tupper, on southern Cape Breton, Nova Scotia
  - Deep water, ice-free port, access to hydroelectric grid, windy
- Plans to use wind power to produce green fuels for shipment to Europe
- The complete project is estimated to cost $6 billion
- Ultimately plans to produce 1 million tonnes per annum of hydrogen and ammonia (NH_3).

EVERWIND FUELS

https://everwindfuels.com/

Point Tupper Project
Mi'kmaw Participation

First Nation equity partnerships

BAYSIDE CORPORATE

"For generations, Mi'kmaw were prevented from participating in and benefitting from the economic development of our natural resources. This project provides an opportunity to make the dreams of our grandparents a reality."

Bayside Corporate

Membertou
WELCOMING THE WORLD

"Since time immemorial, the Mi'kmaw have been stewards of this land. EverWind recognized from the beginning that this project should be informed by two-eyed seeing practices. We are working in partnership with them to develop a project that aligns with Mi'kmaw values of respecting and protecting the environment while balancing the needs of people and nature."

Membertou Mi'kmaw Nation

POTLOTEK FIRST NATION

"Green Hydrogen will be produced from this wind farm at the EverWind facility in Richmond County. In Potlotek, we are proud to be partners in a project that will revitalize the economy in our region, while also ensuring direct benefits for our own community"

Potlotek Mi'kmaw Nation

"Securing clean energy for generations to come is both a strong moral decision, and one that supports economic reconciliation through a meaningful partnership with EverWind."

Chief Terry Paul
CEO of Membertou

https://everwindfuels.com/

Mi'kmawey Debert

CULTURAL CENTRE

The Confederacy of Mainland Mi'kmaq

Turning Threats to Opportunities

- Gerald Gloade's story about Piktuk emphasized the threat for the public but also showed someone working to mitigate the threat in order to protect the public.
- My professional work corroborates the ancestral knowledge presented by Gerald and the opportunity it represents.
- These are challenging times.
- Old and new risks and threats surround us.

WORKSHOP ROUND-UP

How should “mining” be part of our future?

- Strengths
- Weaknesses
- Opportunities
- Threats

- “Mining” can build a better society
- “Mining” needs community support
- “Mining” cycle offers initiatives and more
- “Mining” is crucial for positive change

Mining Information Sources

Nova Scotia

Department of Natural Resources and Renewables

Geoscience and Mines Branch: https://novascotia.ca/natr/meb/mineral-resources/mining.asp

Geoscience atlas: https://novascotia.ca/natr/meb/geoscience-online/maps-interactive.asp

Mineral resource land-use atlas: https://novascotia.ca/natr/meb/geoscience-online/about-mineral-resourc.asp

Maps, reports and data, Natural Resources and Renewables Department Library: https://novascotia.ca/natr/meb/maps/

Nova Scotia Mineral Production Report 2019: https://novascotia.ca/natr/meb/data/pubs/19re01/19re01.pdf

NovaRoc - Nova Scotia's online registry of claims: https://novaroc.novascotia.ca/novaroc/page/home.jsf

NovaScan – Nova Scotia's online search engine for geoscience publications: https://gesner.novascotia.ca/novascan/DocumentQuery.faces

Newfoundland and Labrador government mining and mineral development website: https://www.gov.nl.ca/iet/mines/#1

Other

Mining Association of Nova Scotia (MANS): https://tmans.ca/

National

Guide to exploration and mining for Aboriginal communities, Mining essentials: Training for Aboriginal Peoples: https://www.nrcan.gc.ca/our-natural-resources/indigenous-natural-resources/indigenous-participation-mining/indigenous-participation-mining-information-products/7817

Interactive map of Indigenous mining agreements: https://open.canada.ca/en/map/indigenous-mining-agreements

The Atlas of Canada - Minerals and Mining: https://atlas.gc.ca/mins//en/index.html

Canadian Institute of Mining, Metallurgy and Petroleum: https://www.cim.org/

Centre of Training Excellence in Mining: https://www.bc-ctem.ca/

Minerals and Metals Facts: https://www.nrcan.gc.ca/our-natural-resources/minerals-mining/minerals-metals-facts/20507

Minerals and Mining Publications: https://www.nrcan.gc.ca/maps-tools-and-publications/publications/minerals-mining-publications/18733

Mining Association of Canada: https://mining.ca/

Mining Industry Human Resources Council: https://mihr.ca/

Prospectors and Developers Association of Canada: https://www.pdac.ca

Watch or download other mining webinars from the Cando website for examples of Indigenous companies or partnerships related to mining.

The End

- Contact cards available

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“An Analogy Between 21st Century Fishing And Mineral Exploration”

Robert Stewart P.Geo.

Serious Fishing Is Like Mineral Exploring
W5: Who-What-Where-When-Why

-5 person team
-Big fish / big deposits
-Proven Fishing Grounds/ Mining camps
-Early, first experienced professionals using the right tools
-Profit/Loss sharing among stakeholders

Getting There (4:50 - 6:25 AM)

- preparations are all done, know where and when to go
- all permits are in place
- leader put together the right team with the right tools
- team has positive “go-get-em” attitude

6:25AM Get to fishing grounds
Already 50 boats there,
They’ve been fishing all night…
…no problem, they’re not after what we’re after

What The Other Guys Are After…

Fish – On …….6:28AM

…….6:35AM….Lost fish

6:38AM Fish-On Again

7:08AM Fish Caught....

8:06AM – Spot & Hook Next Fish

..using technology to “fish” smarter
(GIS, GPS, Target Finder)

9:06 AM ….First Fish Boarded

A Big Fish: 800 pounds,3m

A Moment To Celebrate Then Back to Work

12:48 PM 3rd Fish Landed

..tuna gone out to sea, boat full, head to port

1:50PM – PAYOFF

1486 pounds dressed…(C$12-24/lb)..
..Headed for Japan…(>US$40/lb)

SUCCESS ANALYSIS

- right people
- right tools
- right place
- right time
- right thing to do

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Thanks to Cando for the opportunity to share this presentation.

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“Mining” Tenure in Nova Scotia

Mineral tenure in Nova Scotia is primarily regulated by

- the *Mineral Resources Act* and its *Mineral Resources Regulations*

Ownership of Minerals

- Title to minerals in Nova Scotia, together with the right to explore, mine and produce minerals, is presently vested with the Provincial Crown and cannot be privately held
- Exploration, exploitation and production of minerals require licenses and leases issued by the Province, unless otherwise exempted under other legislation
- “Minerals” are defined under the Act as comprising solid inorganic or fossilized organic substances.
- Ordinary stone, sand, gravel, peat, gypsum, and limestone are generally exempted from this definition

Mineral Tenures

- Several forms of “mining” tenure:
  - **Exploration license** permits a licensee to explore for minerals and extract minerals for testing purposes
  - **Mineral lease** is required for the production and mining of minerals by the holder of the relevant exploration licenses
  - Pits and quarry permits.
- Land access, surface disturbance and other permits required as well

https://coxandpalmerlaw.com/publication/mineral-and-mining-rights-in-nova-scotia/ 2022

NOVA SCOTIA

Geoscience & Mines Branch Maps, Publications and Advice