

# MINERALS SECTOR OVERVIEW: 2010

Industry Highlights  
and  
Government Initiatives

# Minerals Sector Overview: 2010

## **MARKET OVERVIEW**

## **INDUSTRY SNAPSHOT**

- **Mining Operations**
- **Developing Projects**
- **Exploration**

## **DEPARTMENT ACTIVITIES**

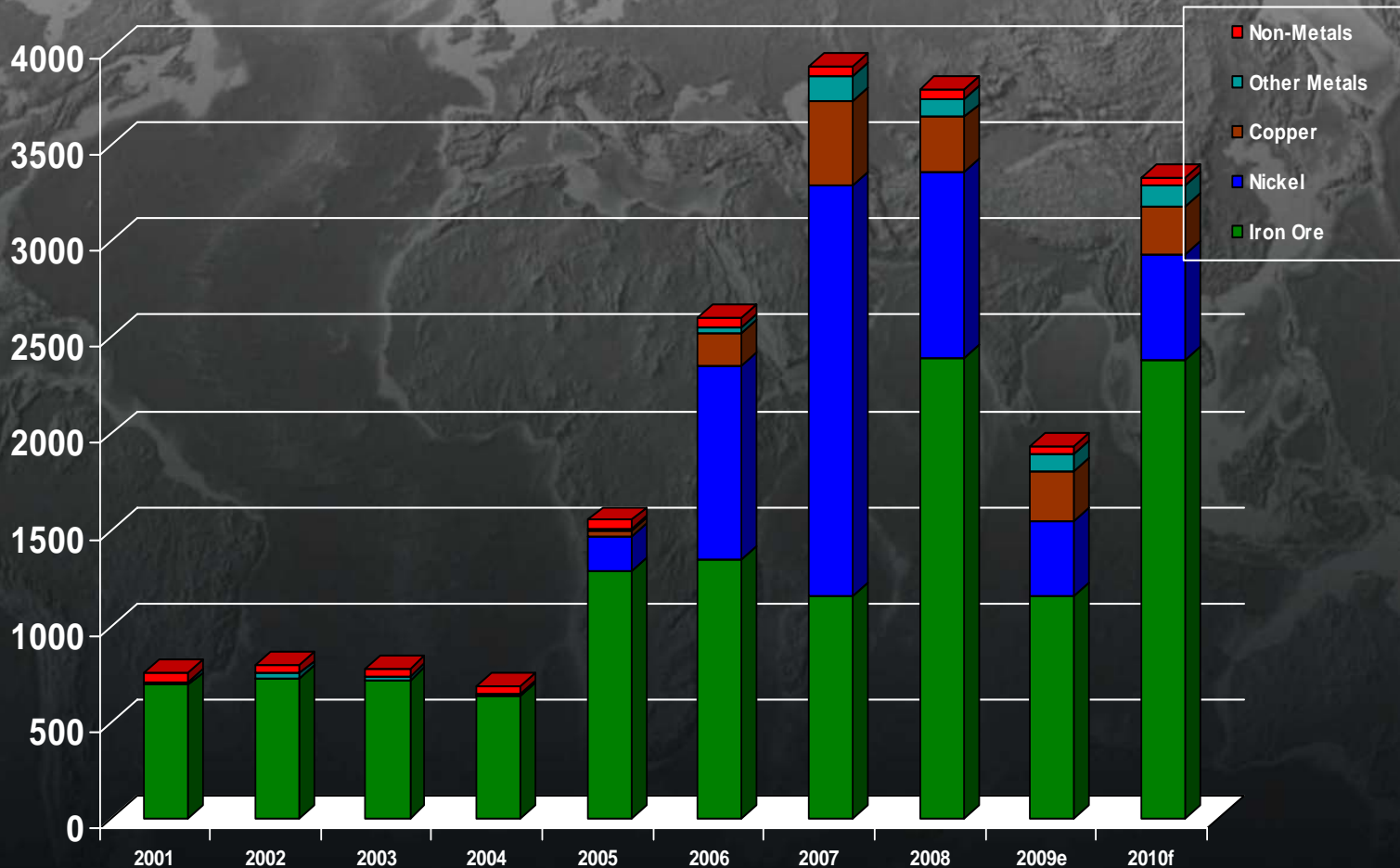
## **OUTLOOK**

# MARKET OVERVIEW

- Recovery continues ... in Canada, at least
- Led by demand from China (India emerging)
- Continued price increases for iron ore
- Gold price continues to rise
- Rare metals in vogue

# Minerals Sector Overview: 2010

## Gross Value of Mineral Shipments by Commodity



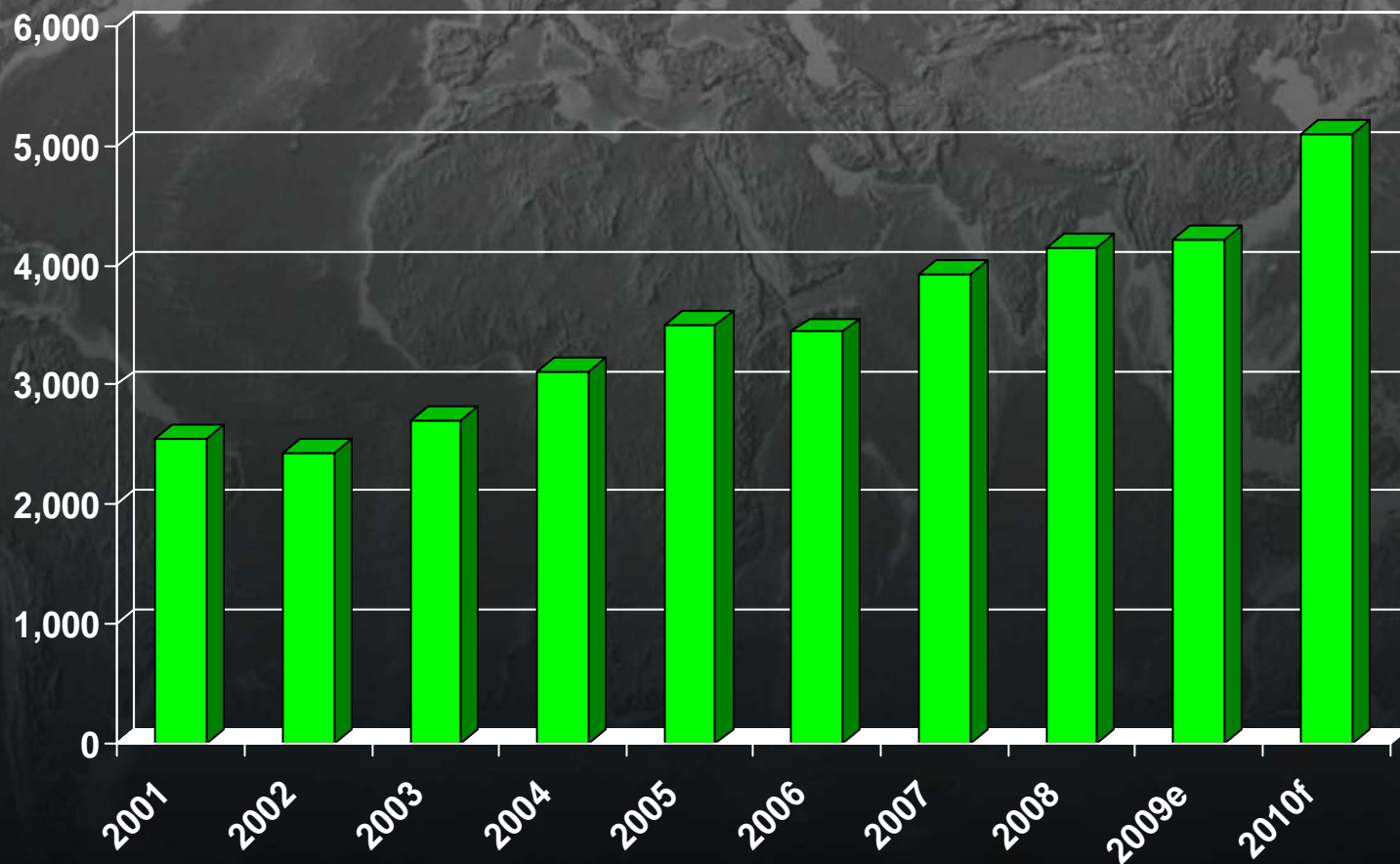
Sources: Department of Natural Resources and NRCan

p: Preliminary; f: Forecast



# Minerals Sector Overview: 2010

## Mining Industry Average Employment - now at a 20 year high -

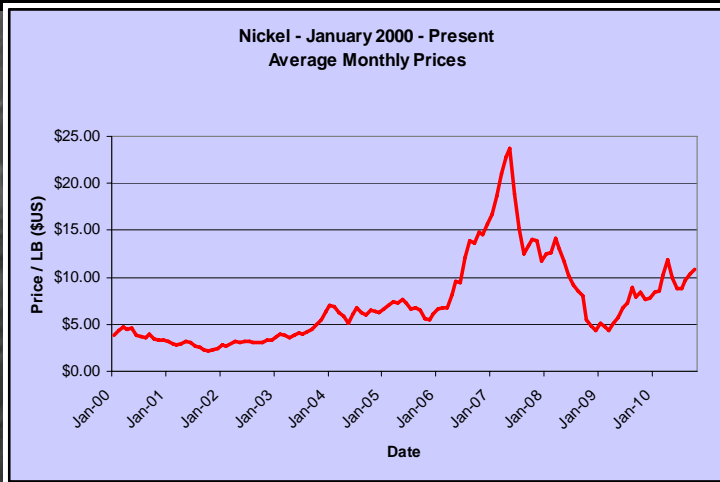


Sources: Department of Natural Resources and NRCan  
e: Estimate f: Forecast

# Commodity Prices are Recovering

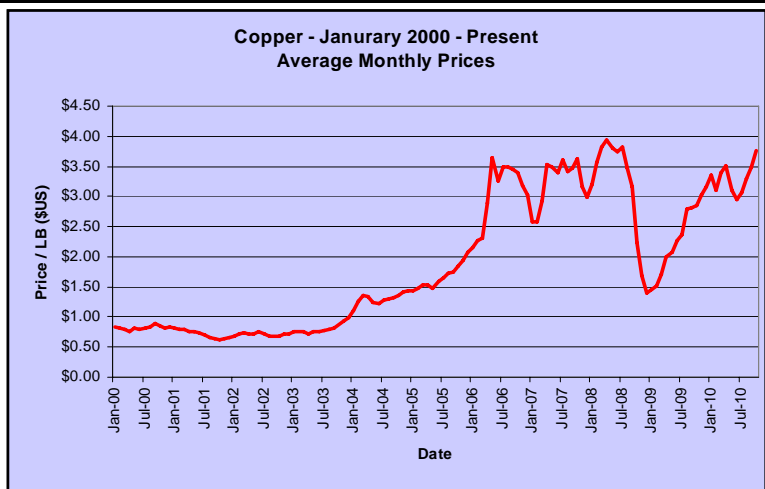
## NICKEL

Vale: Voisey's Bay



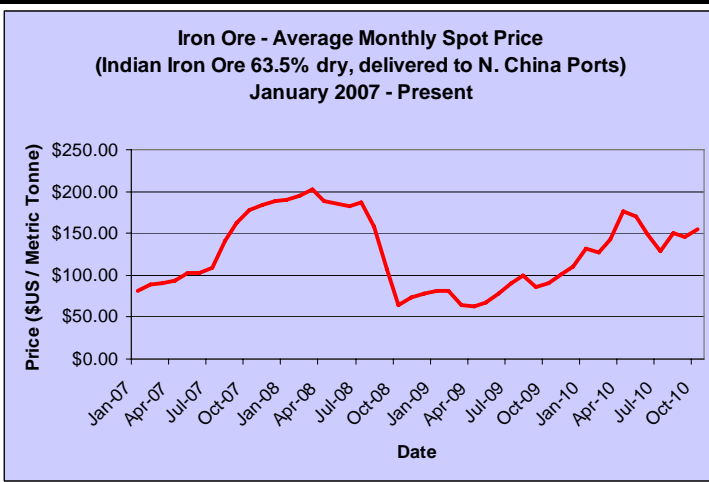
## COPPER

Teck: Duck Pond



## IRON ORE

IOC, Cliffs: Lab West



Spot price

# Minerals Sector Overview: 2010

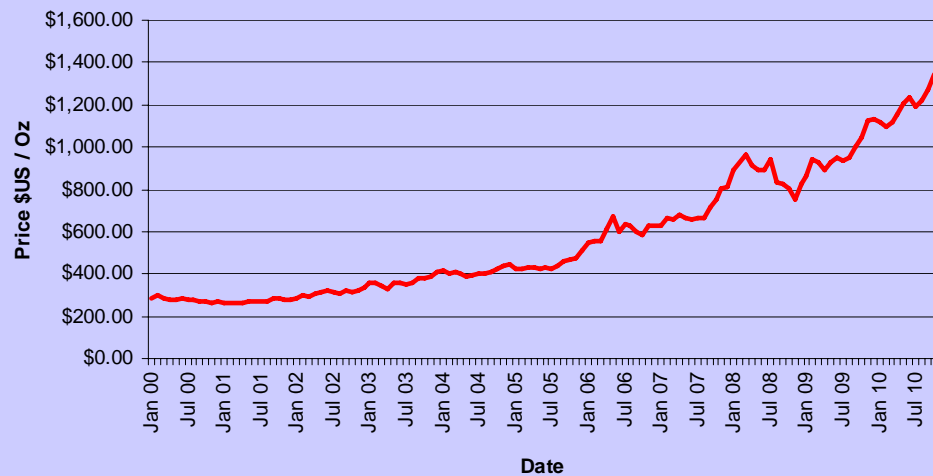
## ANTIMONY

China Minmetals: Beaver Brook

Antimony - January 2000 - Present  
Monthly Average Price



Gold - January 2000 - Present  
Monthly Average Price



## GOLD

Anaconda: Pine Cove



Minerals Sector  
Overview: 2010

# INDUSTRY SNAPSHOT





# Minerals Sector Overview: 2010

**IOC**  
Fe, Dolomite  
Shabogamo - St  
Wabush Mines  
Fe

Labrador City /  
Wabush

Nain

**TUC - Anorthosite**  
**Voisey's Bay**  
Ni-Cu-Co

Schefferville

Makkovik

Happy Valley -  
Goose Bay

Cartwright

## Producing Mines:

## Labrador

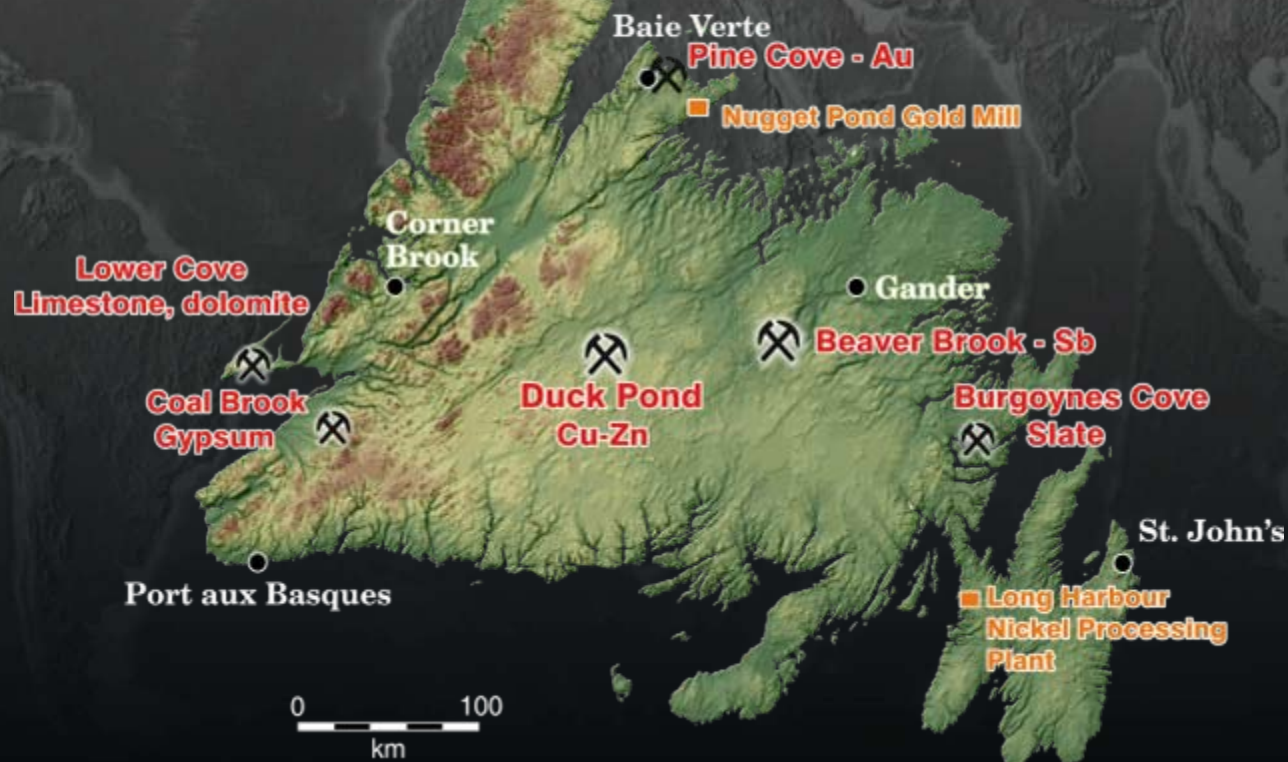
*3 mining operations*  
*2 dormant operations*

0 150  
km

# Minerals Sector Overview: 2010

## Producing Mines: Island of Newfoundland

8 operations





# Mining Operations

**Iron Ore**

**Nickel**

**Copper**

**Zinc**

**Gold**

**Industrial Minerals**

**Antimony**

# IRON ORE

## Iron Ore Company of Canada



IOCC annual production resumes its \$435 million expansion program to increase production to 22 million tonnes of concentrate

Expansion to eventual 26 million tonnes as part of phase III expansion

IOCC announces opening of St. John's office



# IRON ORE

## Wabush Mines



- Recovering from recession – building production to 4.05 mt
- \$85M invested in upgrades, including manganese reduction lines, will extend life of mine and improve product quality once in full production

# NICKEL

## Vale Inco Newfoundland & Labrador Limited



- Strike now in 15<sup>th</sup> month (November 2010)
- Production restarted but substantially below normal levels

# Commercial Nickel Processing Plant – Long Harbour –

- Site clearing and port demolition started April 2009
- Steel erection in progress
- ~ 700 employed at construction site
- On track for completion in early 2013



- Target production - 50,000 tonnes nickel/year
  - Operational employment - 450



# Long Harbour: steel arriving





# COPPER-ZINC

## Teck Resources Limited



Mining the heart of the underground ore body  
Reviewing potential for lead concentrate production  
Planning for 'Boundary deposit' production in 2013



# GOLD

## Anaconda Mining Inc.

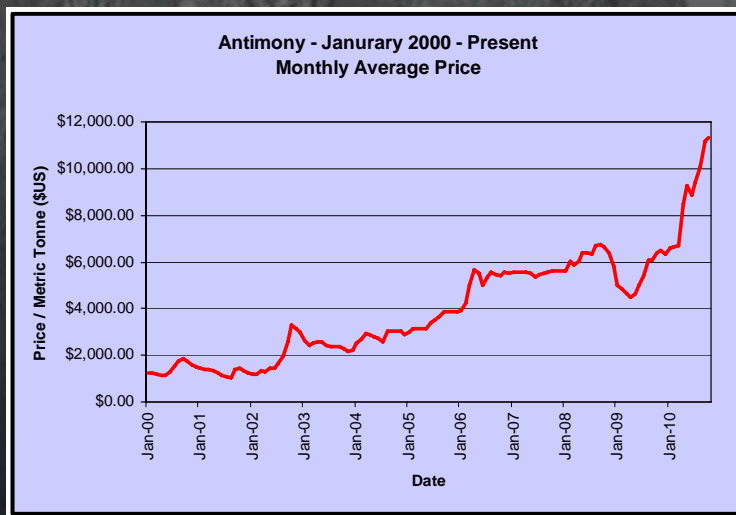


Pine Cove mine now in commercial production



# ANTIMONY

## China Minmetals/BBAM



Beaver Brook antimony mine in full production.

This is the first Chinese-owned and operated mine in Newfoundland & Labrador.

# INDUSTRIAL MINERALS & DIMENSION STONE

- A better year for Atlantic Minerals
- Closure of Atlantic Barite operations at Buchans
- Temporary shutdown of TUC anorthosite quarry Ten Mile Bay
- Shabogamo silica shut down due to uncertain markets





**Minerals Sector  
Overview: 2010**

# Developing Projects



# IRON ORE: NEW PROJECTS IN LABRADOR WEST



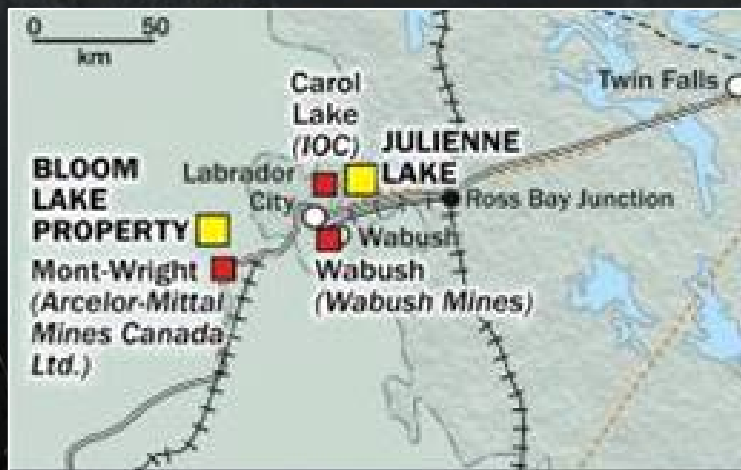
- **Labrador Iron Mines**  
– released from EA:  
1–2 Mt/yr
- Rail spur under construction
- **New Millennium Capital: 4 Mt/yr** – in EA
- Both projects in consultation with Aboriginal groups on benefits issues



## Labrador Iron Mines construction



## Bloom Lake Railway Consolidated Thompson



- First new Labrador railway in 45 years
- First shipment of Bloom Lake ore (Quebec) to QNS&L railway on July 27
- Shipments to increase from 8 mt to 16 mt



# FLUORSPAR: REACTIVATING ST. LAWRENCE

Canada Fluorspar Inc.



Released from EA

Planned production in 2012

9.1 million tonne resource at 42%  
 $\text{CaF}_2$

# MING MINE REACTIVATION

Rambler Metals and Mining Plc.



**Positive feasibility study for  
Ming Mine (copper-gold)**

**Released from EA –  
production planned for  
mid-2011**

**Financing in place**



## **MICHELIN URANIUM PROJECT**

**Aurora Energy Resources Inc.**



**Positive Preliminary Economic Assessment for proposed Michelin Uranium Project in central Labrador.**

**Plans call for open-pit and underground mining at the Michelin and Jacques Lake deposits, and a milling facility at Michelin**

**M&I 6.0 million tonnes U<sub>3</sub>O<sub>8</sub> at ~0.08%**



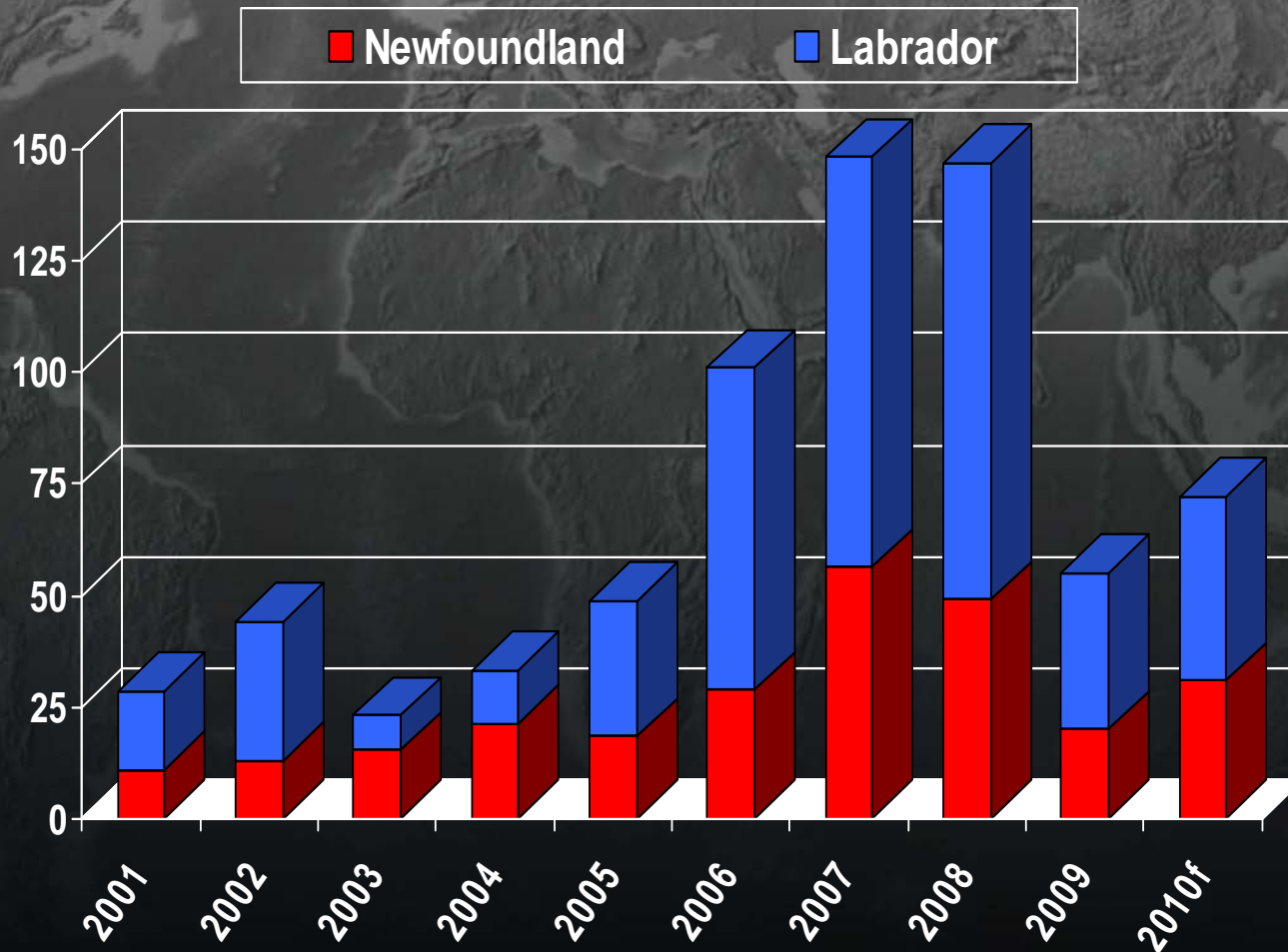
# Minerals Sector Overview: 2010

## Exploration



# Minerals Sector Overview: 2010

## Mineral Exploration Expenditures



Sources: Department of Natural Resources and NRCan  
e: Estimate f: Forecast

# Minerals Sector Overview: 2010

## FRASER INSTITUTE RANKINGS



**For past 3 years, the Province has been ranked at one of the top 10 jurisdictions in the world for mineral exploration and development**



# Main Exploration Trends

## LABRADOR

**Iron ore** – Labrador Trough

**Rare metals** – Throughout Labrador, parts of Newfoundland

## NEWFOUNDLAND

**Gold** – Central and Western Newfoundland

**Base metals (copper, zinc)** – Central Newfoundland

# Advanced exploration projects

Significant activity in 2010

## GOLD

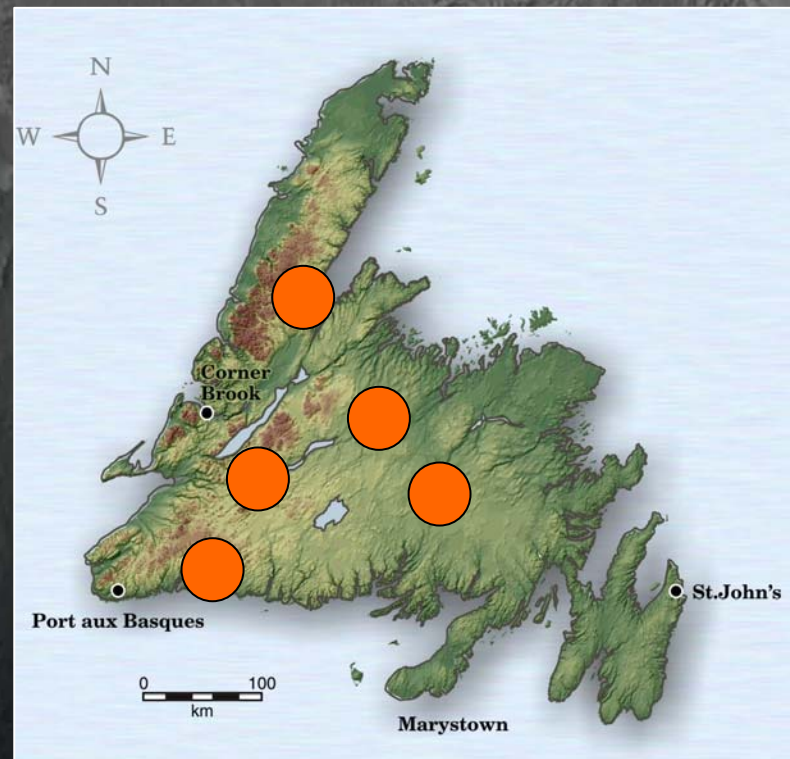
Marathon & Mountain Lake:  
*Valentine Lake*

Northern Abitibi:  
Viking

Crosshair and Paragon:  
Golden Promise

Golden Dory and Paragon:  
Mosquito Hill

Castillian: Hope Brook





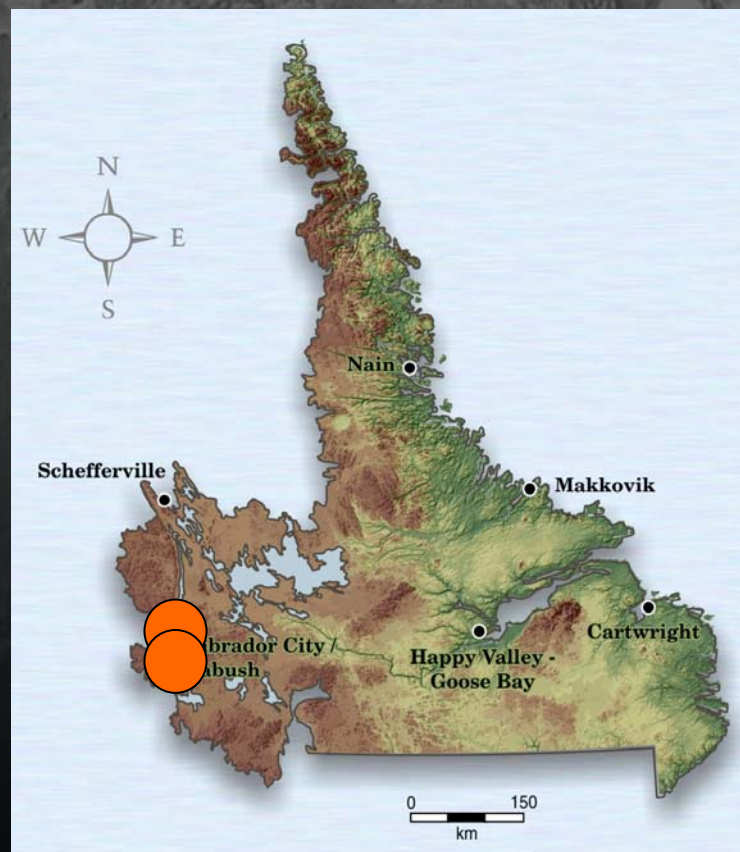
# Advanced exploration projects

Significant activity in 2010

## IRON ORE

Alderon: Kami Project

Provincial Government:  
Julienne Lake (EML)





# Advanced exploration projects

Significant activity in 2010

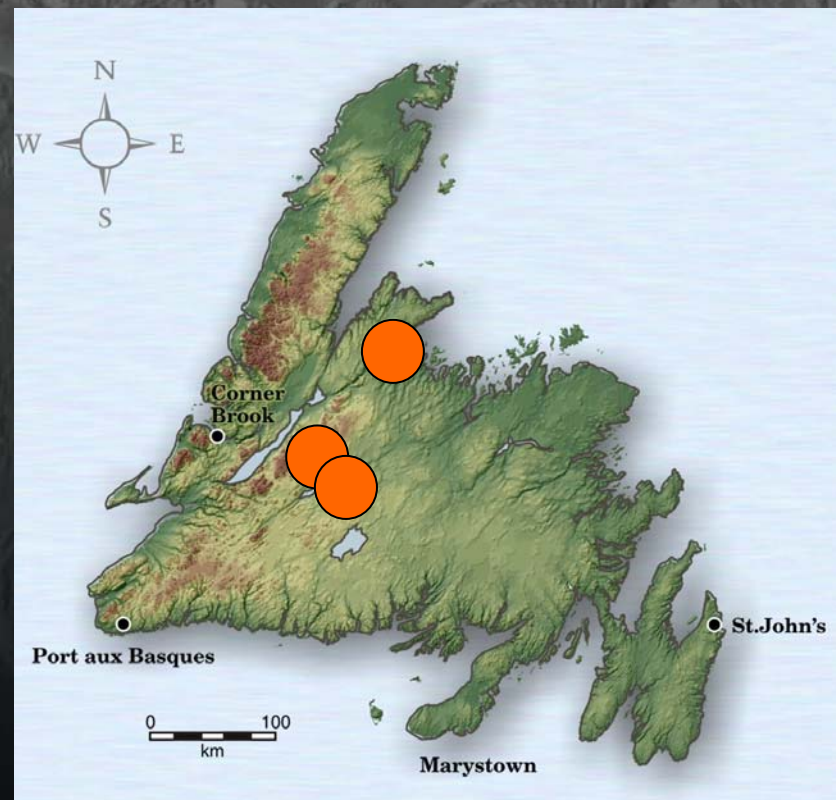
## BASE METALS Mainly Central Newfoundland

Thundermin/Cornerstone:  
*Little Deer*

Paragon:  
*Lemarchant*

Buchans Minerals:  
*Buchans*

Teck Resources:  
*Duck Pond area*



# Advanced exploration projects

Significant activity in 2010

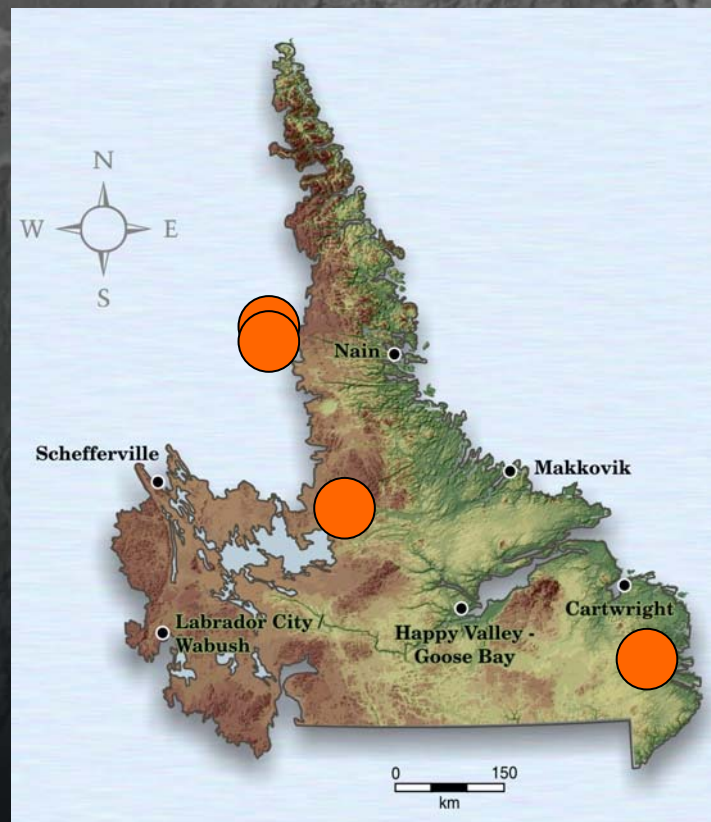
## RARE METALS: (Rare Earths) MAINLY IN LABRADOR

Rare Earth Metals Inc.  
Red Wine District

Search Minerals Inc.  
Port Hope Simpson

Midland Exploration Inc./  
JOGMEC  
Strange Lake

Quest Rare Minerals Ltd.  
Strange Lake





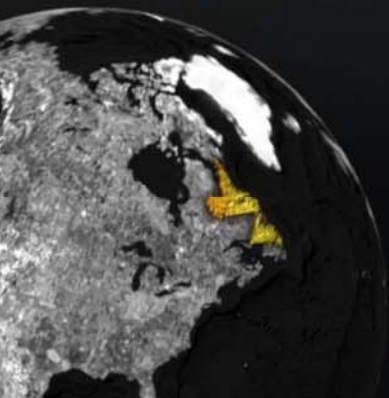
# Some other exploration projects





**Minerals Sector  
Overview: 2010**

# Department Activities



# **Government activities**

## **Managing the province's mineral resources**

**Collect & disseminate information on geology  
and mineral resources of NL**

**Provide targeted programs & services to stimulate  
& grow the mining sector**

**Administer:**

- exploration for mineral resources**
- exploration and development of quarry materials**
- development and closure of mines  
and quarries**

**Rehabilitate abandoned mines**

# Geological Survey Field Projects

## In 2010

4 projects in Labrador

6 projects in  
Newfoundland

9 smaller projects

Plus ongoing  
promotions, outreach,  
publications and data  
management  
programs





# Mineral Incentive Program

Junior Exploration Assistance (\$2.2m)

Prospector Assistance (\$400k)

Natural Stone Assessment (\$250k)



Prospector training courses and support for Matty Mitchell Room

# Minesite Rehabilitation

- Budget of \$5 million for reconstruction of main tailings dam, and covering of exposed tailings to reduce dusting and health hazards
- Cooperative exercise with the Dept. of Environment & Conservation





# Minerals Sector Overview: 2010

## Outreach



Expo Labrador



Women in Mining



Mining in Society



## Newfoundland & Labrador Mining Week 2010

Mining Newfoundland & Labrador  
October 31 - November 6, 2010

Mining in Society 2010 Show  
Johns Cove GEO CENTRE  
Sunday, Oct 31, 2 - 5 pm  
Monday, Nov 1 & Tuesday, Nov 2, 9 am - 5 pm

Women in Mining Forum  
Johns Cove GEO CENTRE  
Celestial Gallery  
Tuesday, Nov 2, 11 am - 1 pm

The Lore and Allure of Diamonds  
The Geological Survey Annual Public Lecture  
by Dr. Hamish Sandeman  
Delta St. John's Hotel and Conference Centre | Salon B  
Thursday Nov 4, 7:30 pm

PDAC Mining Matters Teacher Workshops  
Delta St. John's Hotel and Conference Centre  
Brownsville Room  
Friday, Nov 5, 8:30 am - 4:30 pm

Mineral Resources Review 2010  
Delta St. John's Hotel and Conference Centre  
Thursday, Nov 4 - Saturday, Nov 6

For more information, please visit:  
<http://www.mr.gc.ca/miningweek10/default.asp>



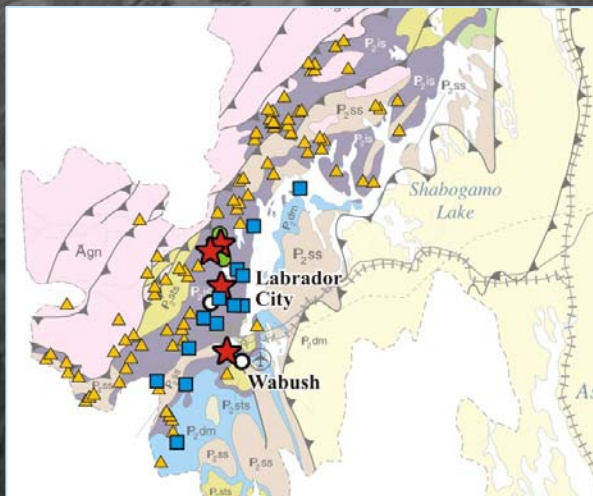


# Promotions & Investment Attraction



**PDAC, ROUND-UP, Quebec Exploration**  
**中国国际矿业大会/China Mining**

# Julienne Iron Project



- Crown-owned iron resource that is currently EML (Exempt Mineral Land)
- Currently (November 2010) being drilled ~ 8000 m as part of a \$2.1 million budget
- Aim is to provide a better resource estimate prior to any decision as to how to proceed further with the deposit
- Previously estimated to contain about 460 mt



# Minerals Strategy

- Part of Budget 2010
- Release of Discussion Paper pending
- Will be followed by public and industry consultations



# Outlook 2011-2012

- Continued recovery
- Continued growth of iron ore sector with IOC expansion & 2 new iron mines
- Re-opening of the Ming and possibly St. Lawrence mines
- 4 new mines: ~ 600 direct jobs
- Peak construction at Long Harbour site
- Gold and rare metal projects attracting increased attention; copper stays strong