



Indian and Northern
Affairs Canada

Affaires indiennes
et du Nord Canada

Management of Federal Oil and Gas Resources in Canada's Arctic Regions

Northern Oil and Gas Branch

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Arctic Canada Industry Breakfast
Offshore Technology Conference 2007
Houston, TX – May 3, 2007



Canada



Overview

- Northern Frontier Lands Current Regime
- Opportunities and Constraints
- Evolution of Regulatory Regimes
- The Public Interest
- Conclusion



Evolution of the Offshore/Northern Framework

- **1960s and 70s:**
 - Exclusive federal government management of frontier lands, oil and gas management
- **1980s and 90s:**
 - Accords with Newfoundland (1985), Nova Scotia (1986) and Yukon (1992)
 - Settlement of Aboriginal Land Claim Agreements
- **2000s:**
 - Devolution negotiations ongoing with Northwest Territories
 - Devolution discussions with Nunavut
 - Negotiations with outstanding Aboriginal land claimants



Northern Oil and Gas Regime

- Frontier Energy Policy (1985)

North of 60: Indian and Northern Affairs

South of 60: Natural Resources Canada

- Legislation

Canada Petroleum Resources Act

Canada Oil and Gas Operations Act

Aboriginal Land Claims Agreements

- Statutory Responsibilities

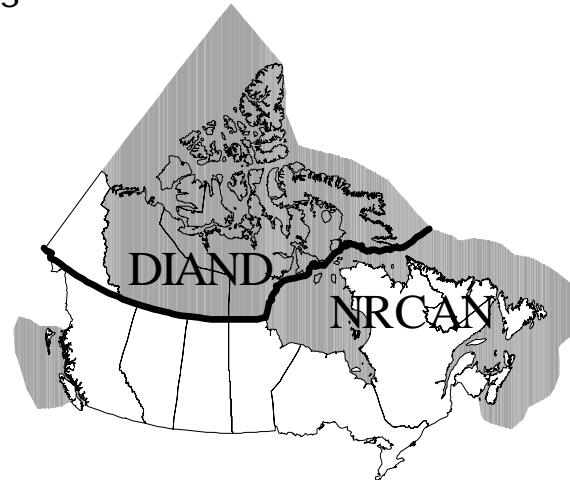
Oil and Gas Resource Management

Rights Issuance and Administration

Rights Registry

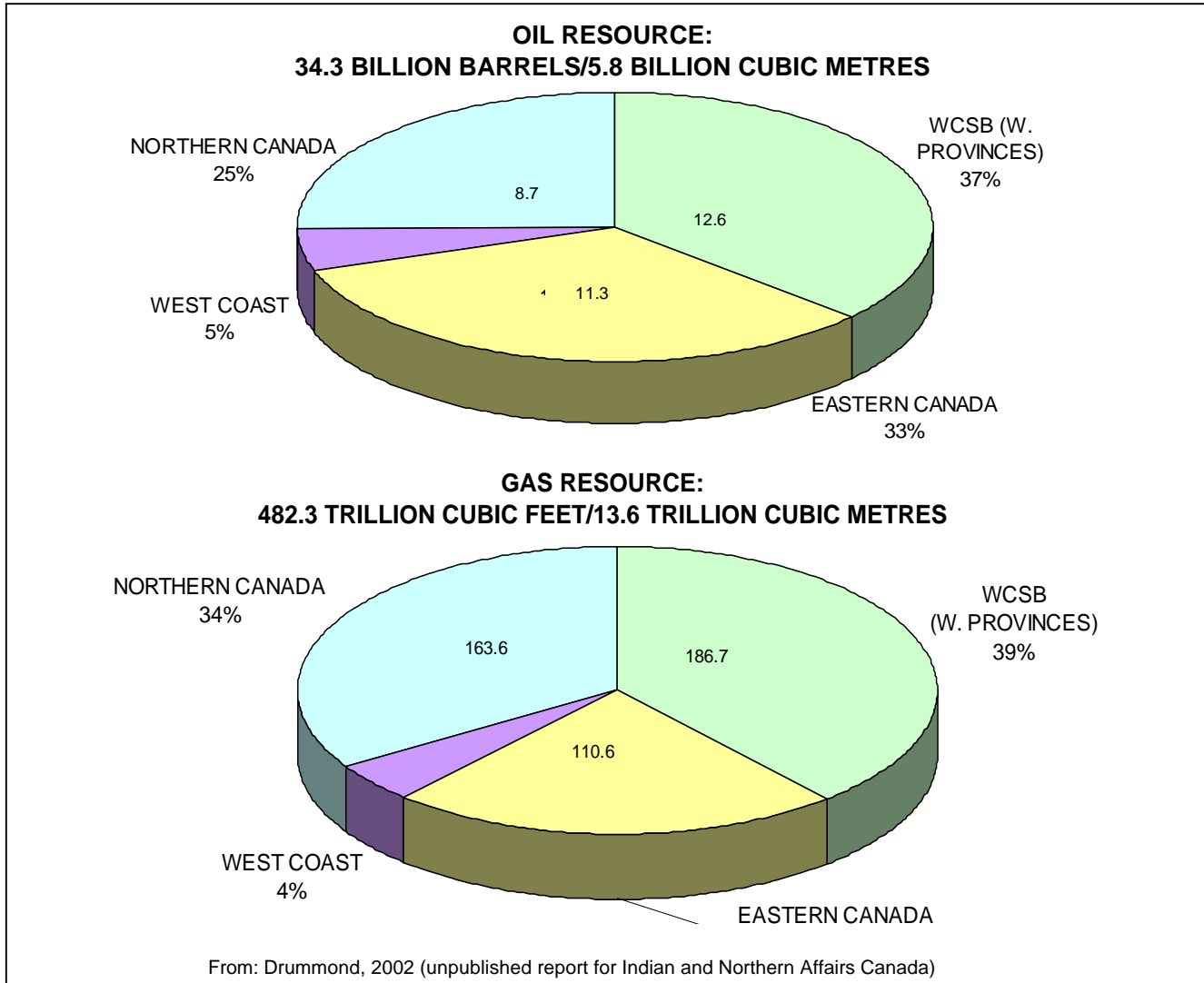
Benefits Administration

Royalty Administration





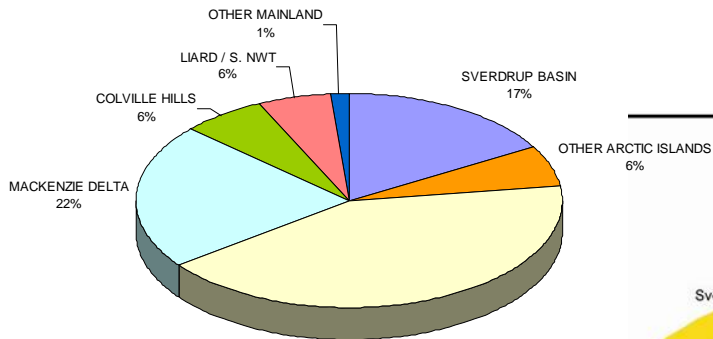
Canada's Remaining Conventional Petroleum (discovered plus potential)



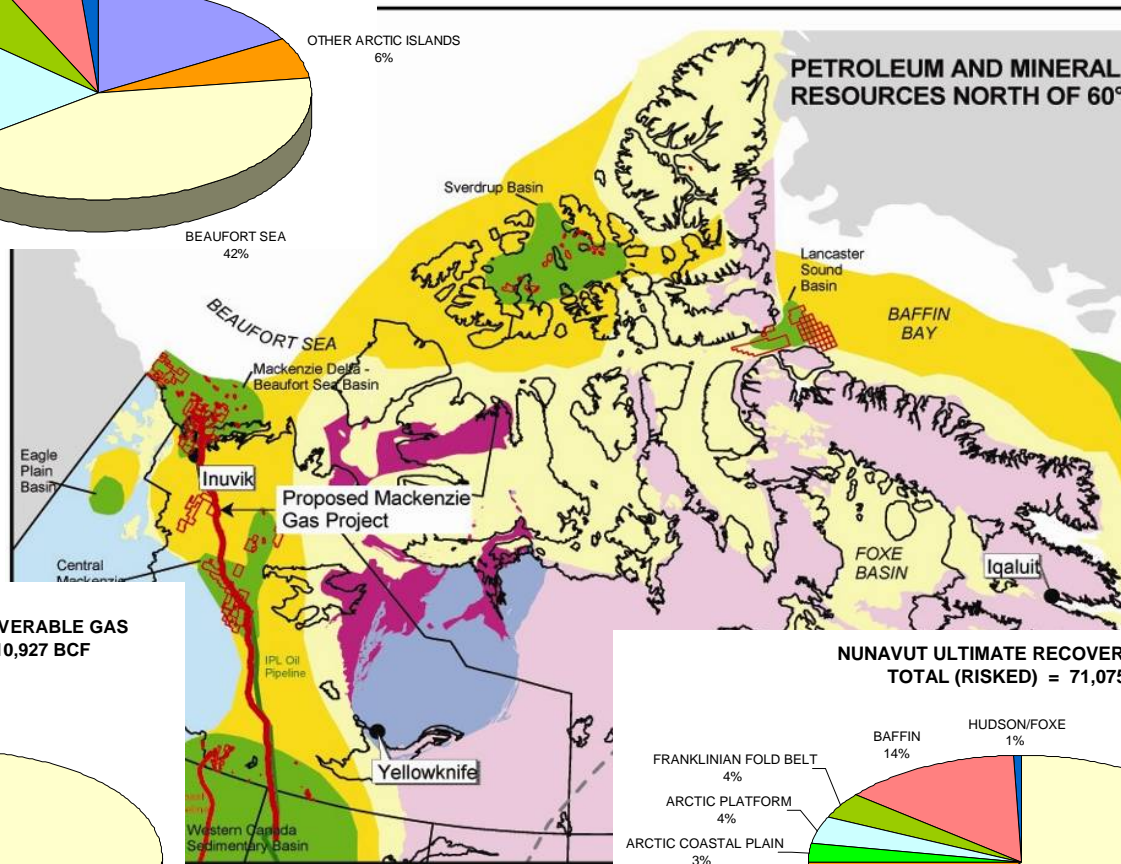


Northern Natural Gas – ultimate potential

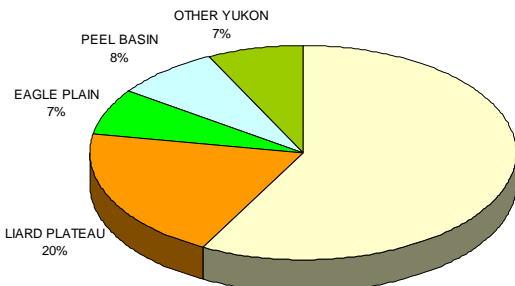
NORTHWEST TERRITORIES ULTIMATE RECOVERABLE GAS
TOTAL (RISKED) = 82,173 BCF



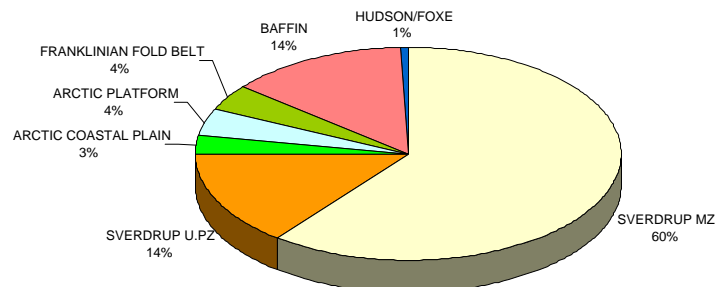
OGMD July 06/from Drummond compilation 2002



YUKON ULTIMATE RECOVERABLE GAS
TOTAL (RISKED) = 10,927 BCF



NUNAVUT ULTIMATE RECOVERABLE GAS
TOTAL (RISKED) = 71,075 BCF

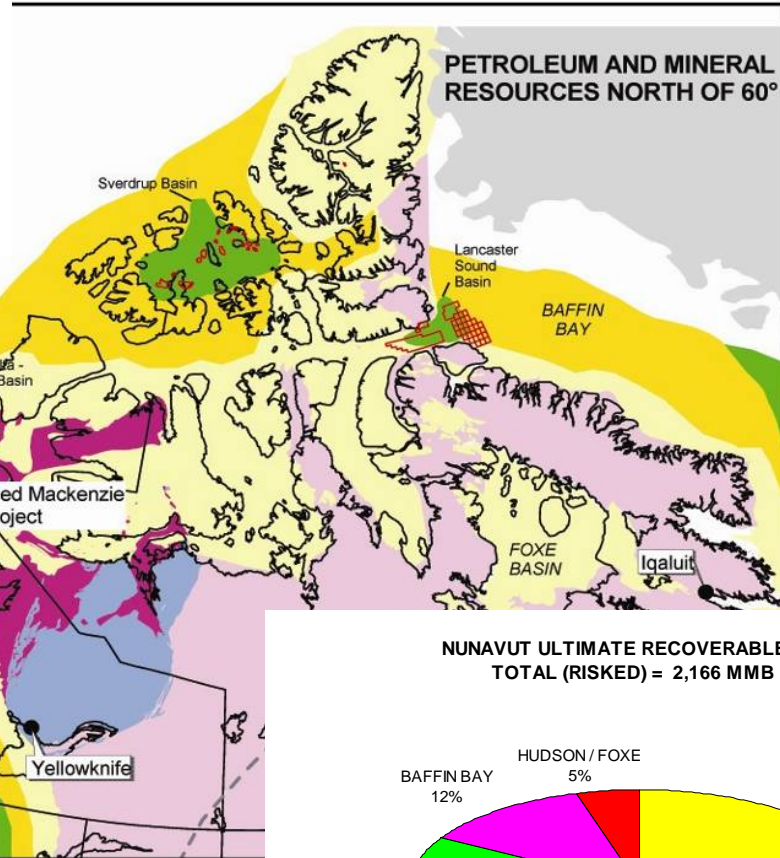
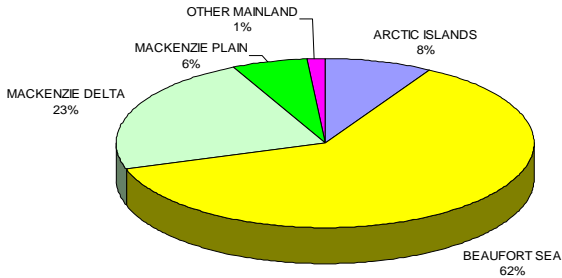




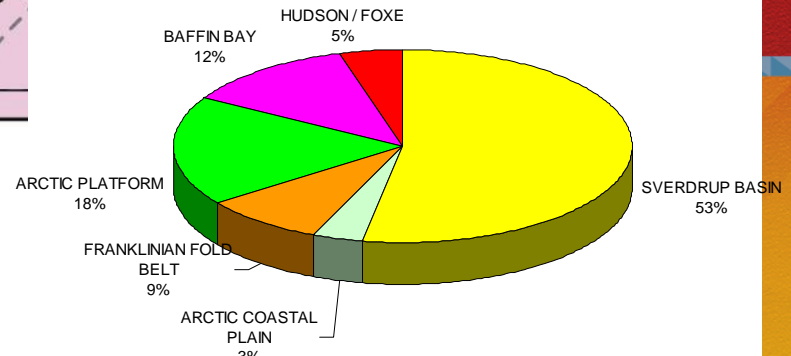
Northern Conventional Oil – ultimate potential

OGMD July 06/from Drummond compilation 2002

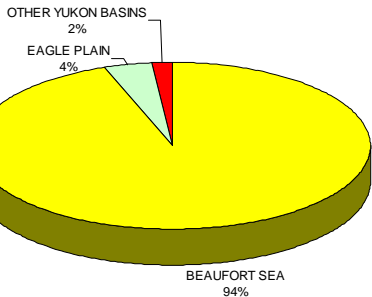
**NORTHWEST TERRITORIES ULTIMATE RECOVERABLE OIL
TOTAL (RISKED) = 5,724 MMB**



**NUNAVUT ULTIMATE RECOVERABLE OIL
TOTAL (RISKED) = 2,166 MMB**



**YUKON ULTIMATE RECOVERABLE OIL
TOTAL (RISKED) = 998 MMB**





CPRA: Rights Issuance

- Market-driven – Call for Nominations
- Bidding process – Call for Bids
- Single bid criterion:
 - Cash
 - or
 - Dollar value of work commitment



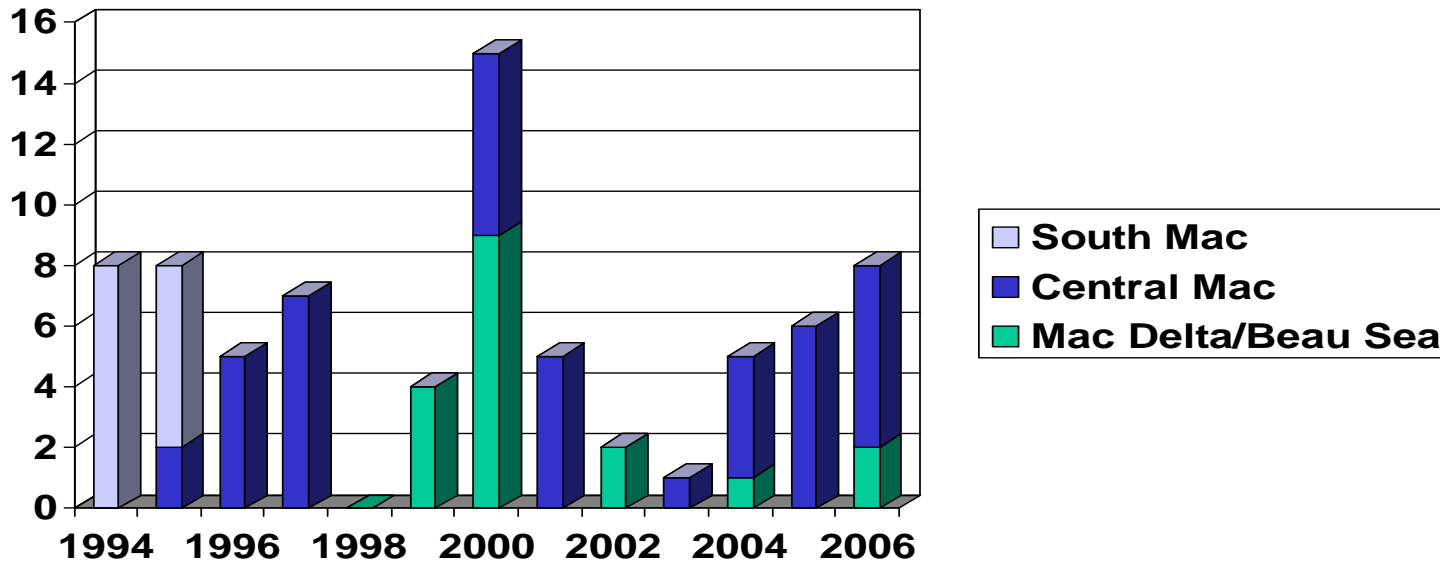
Oil and Gas Dispositions

Oil and Gas Titles:

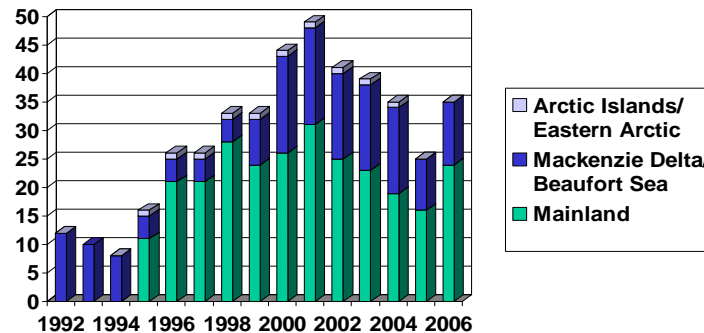
- Exploration Licence
 - Maximum tenure 9 years
- Significant Discovery Licence
 - Indefinite tenure
- Production Licence
 - Maximum tenure 25 years, but renewable if producing



Rights Issuance – New Exploration Licenses



Operations – Number of
Exploration Licences:





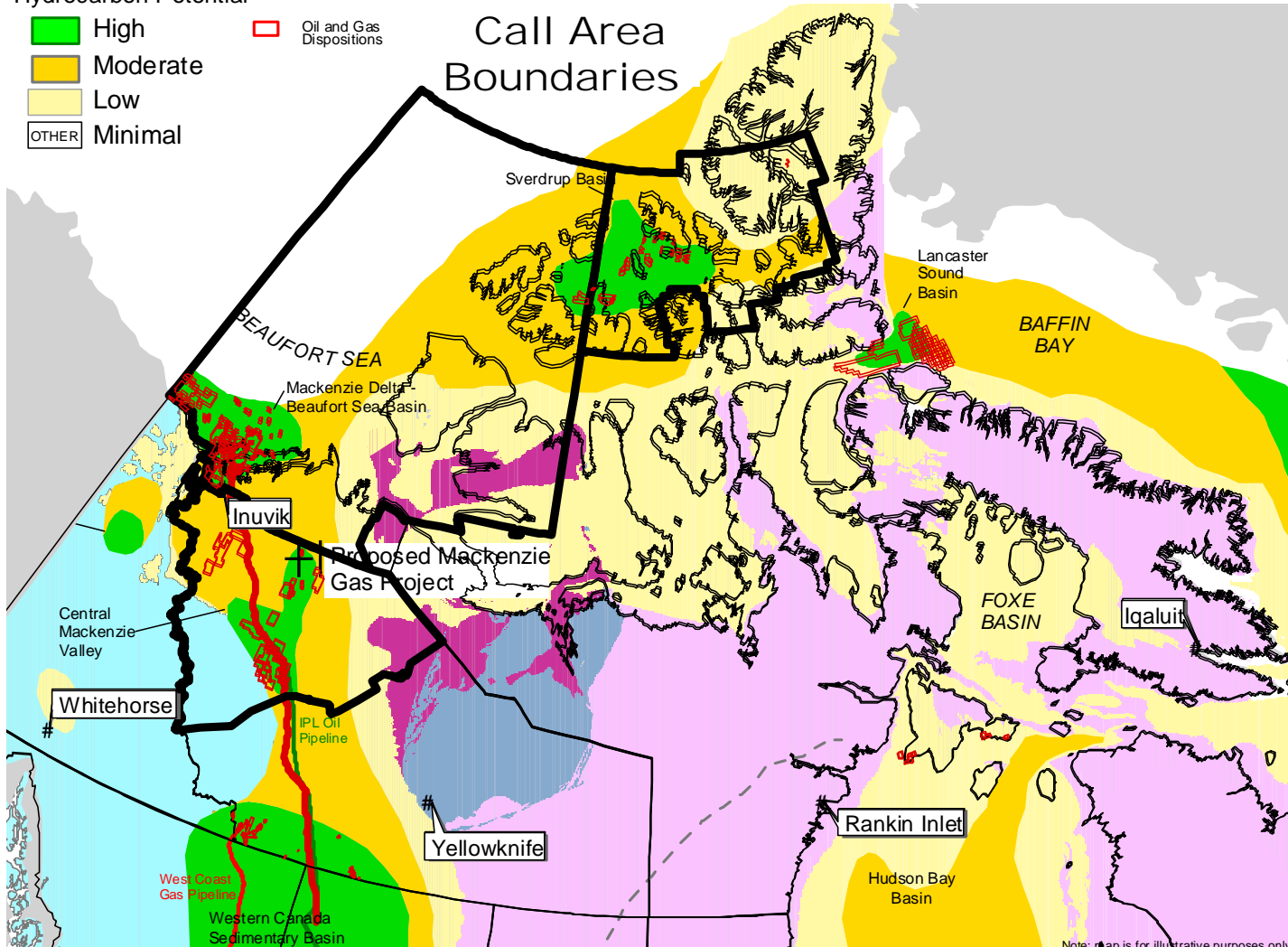
Petroleum and Mineral Resources North of 60°

Hydrocarbon Potential

- High
- Moderate
- Low
- OTHER Minimal

Oil and Gas Dispositions

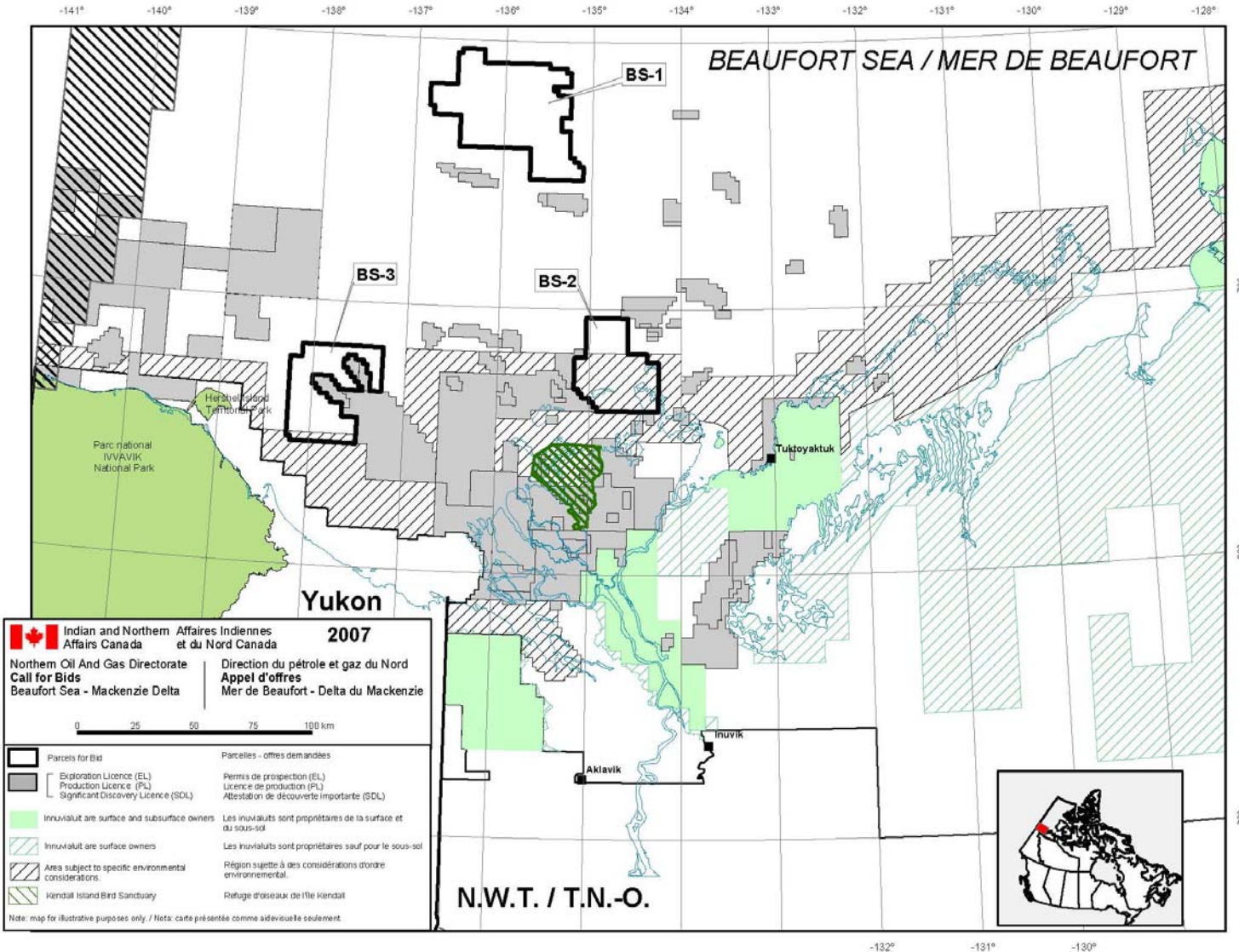
Call Area Boundaries



Note: map is for illustrative purposes only

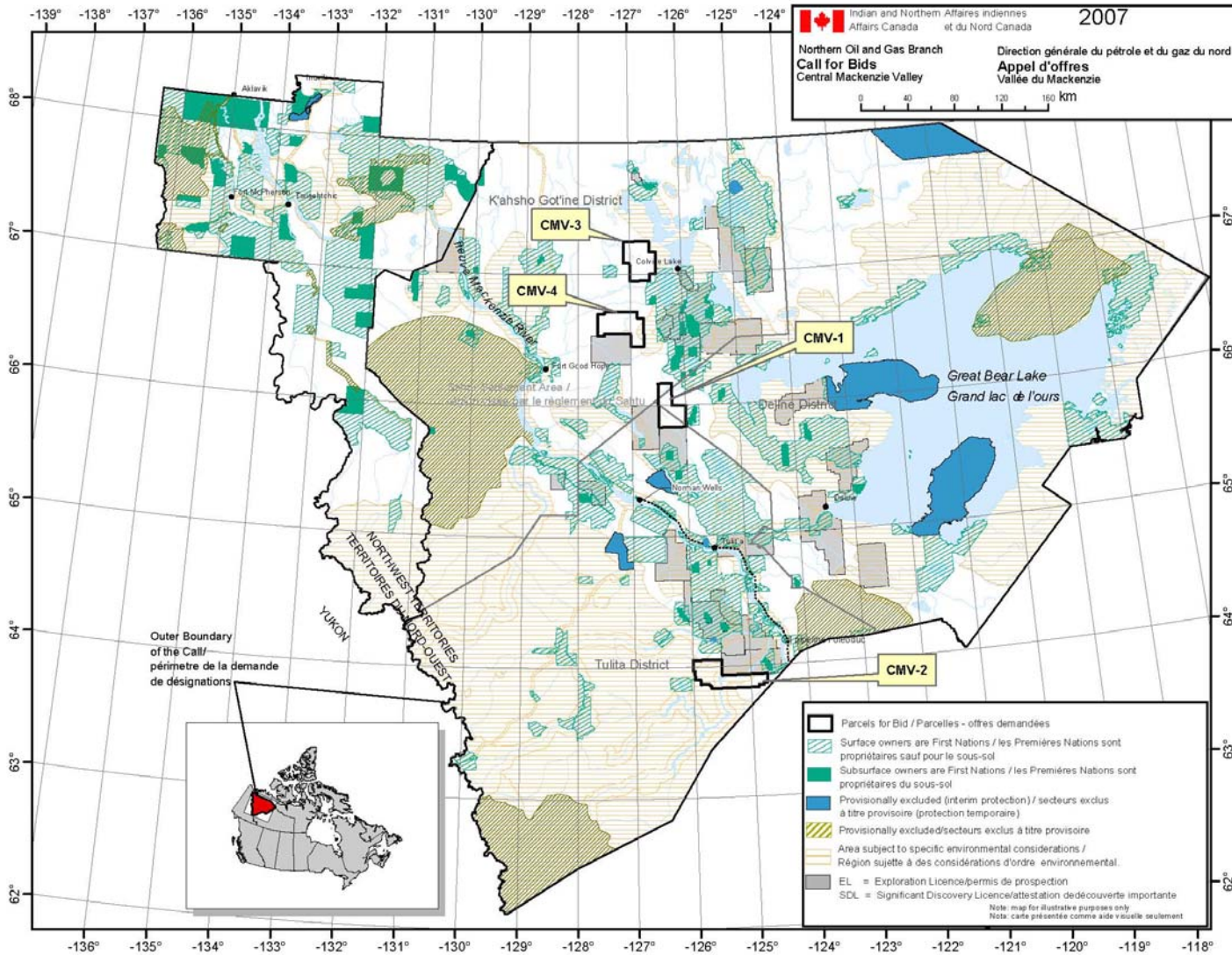


Beaufort-Delta: Crown Leasing



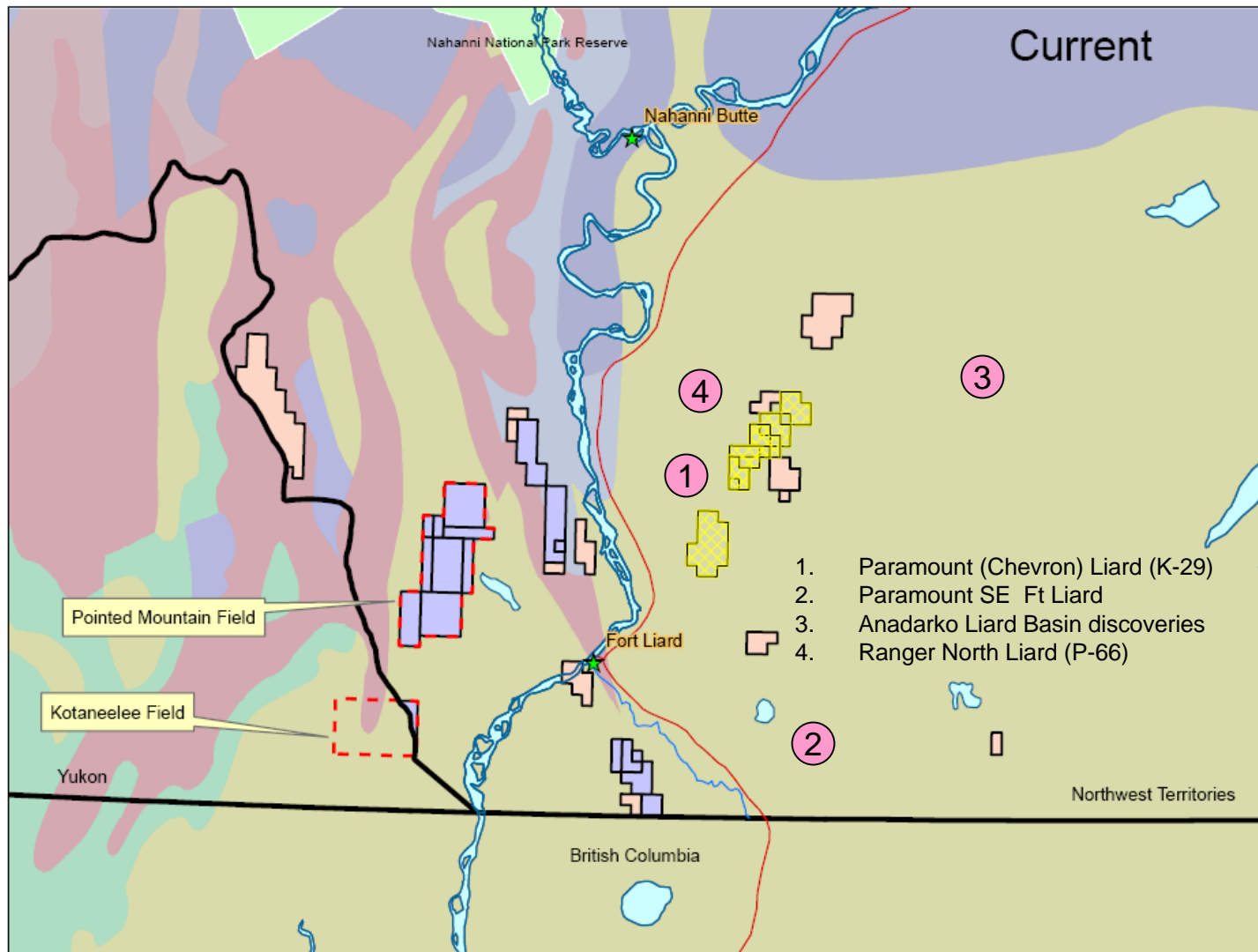


Central Mackenzie Valley: Crown Leasing



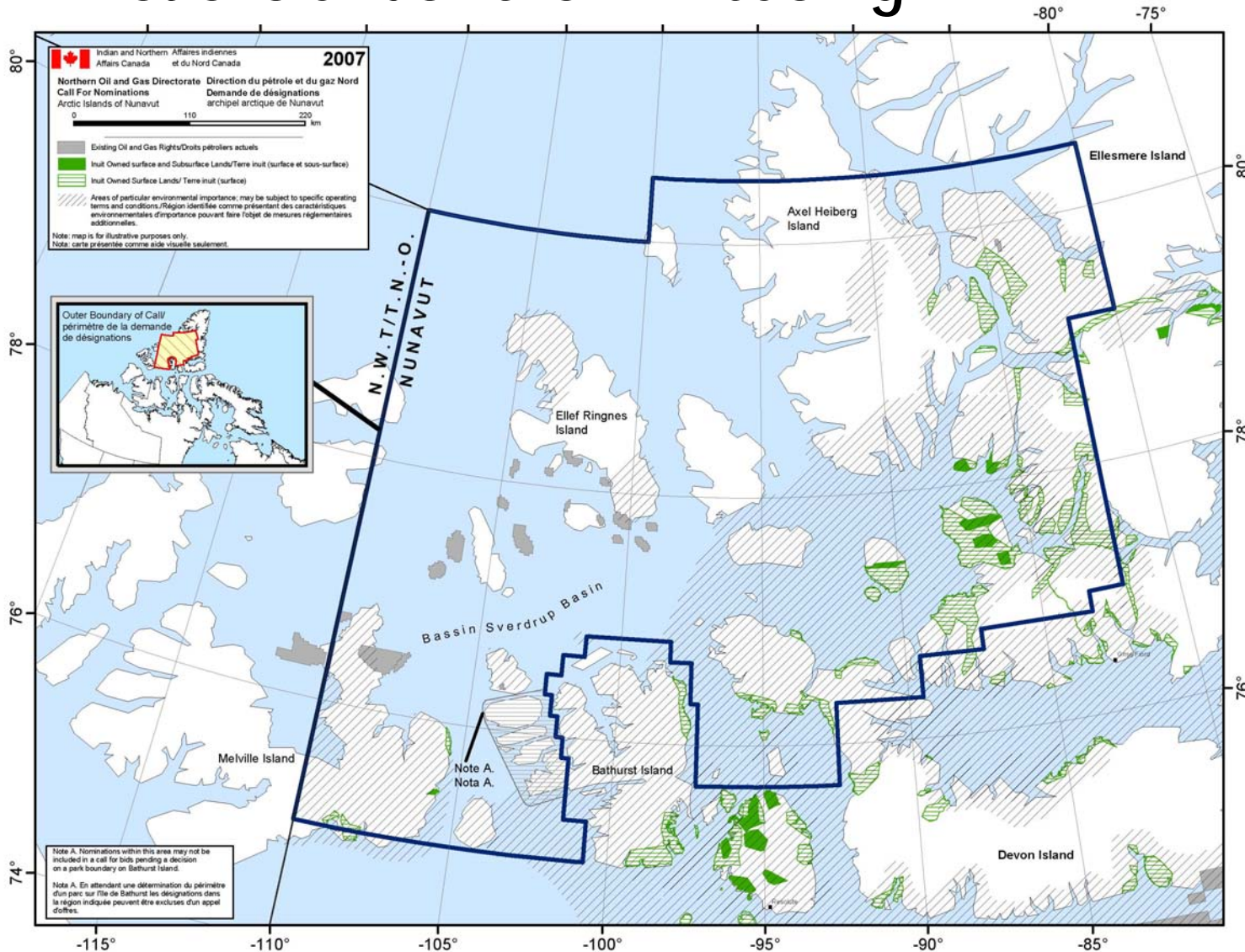


Fort Liard Area, NWT: Crown Leasing





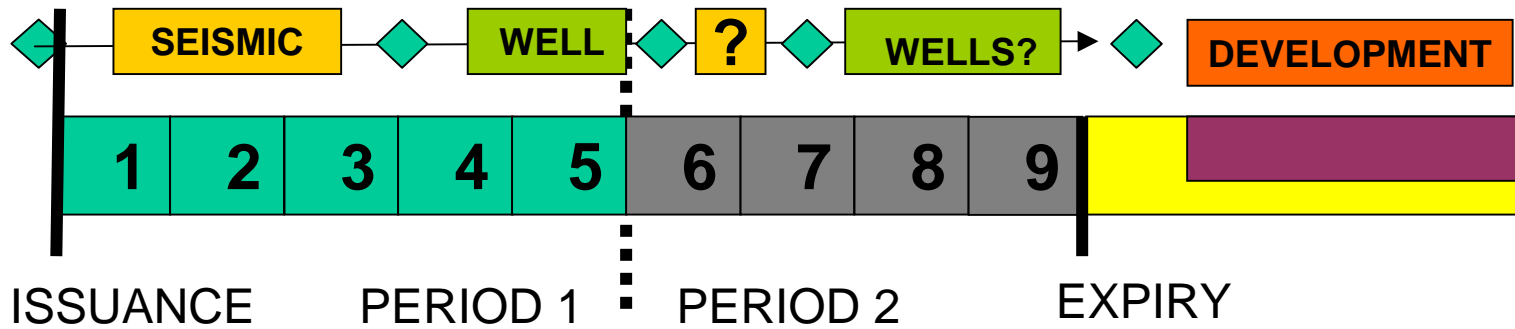
Arctic Islands: Crown Leasing





Life Cycle of an Exploration Licence

(maximum nine-year term)



[But – five years may mean only four to five operating seasons!]

Flexibility in term up to 9 years, periods, work program tailored to exploration region and by policy surrender partial or entire at any time



Fiscal Policy & Royalty Administration

Frontier Lands Petroleum Royalty Regulations:

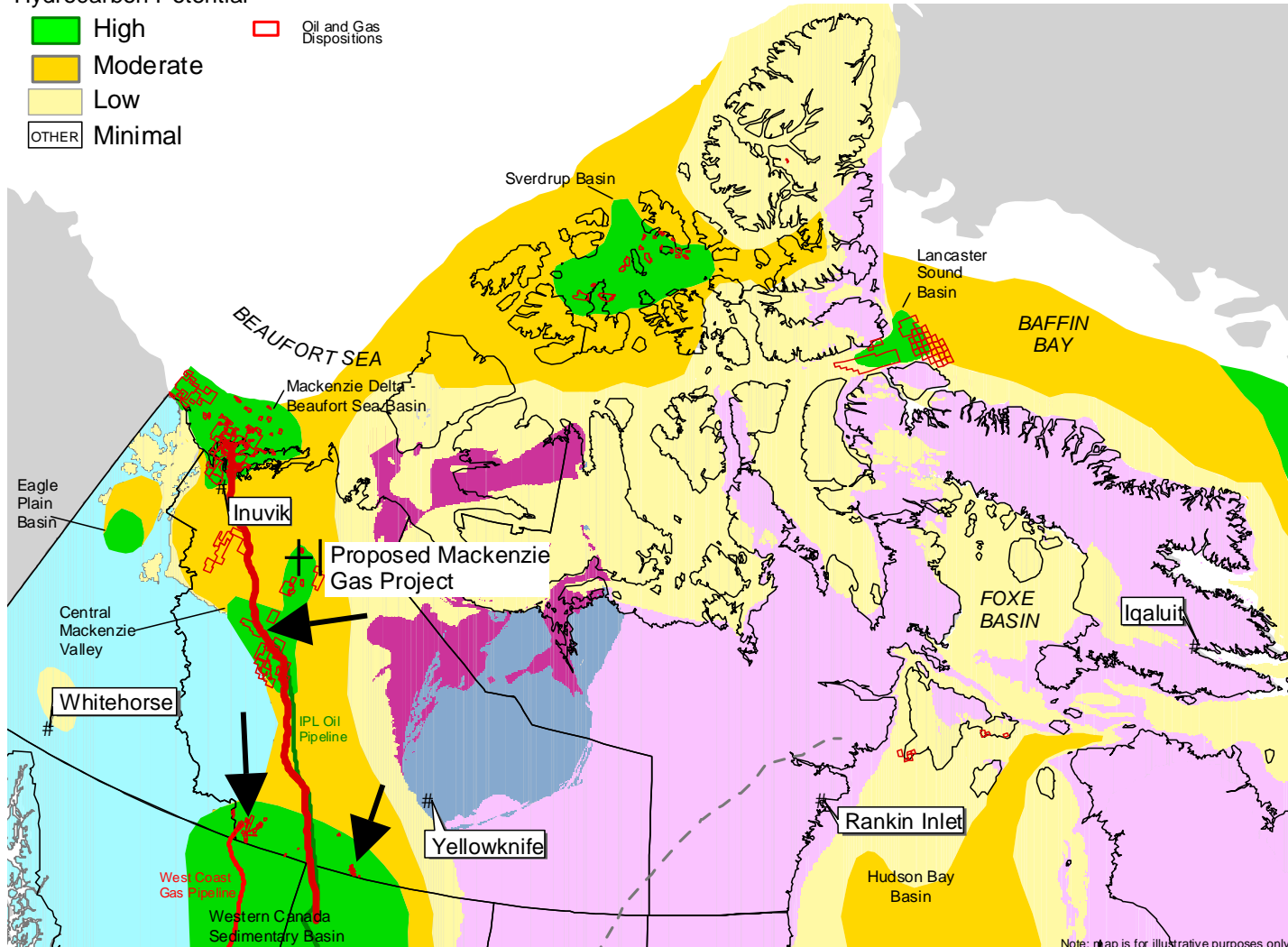
- profit and investment sensitive to encourage northern activity
- very low rates prior to project payout:
 - start at 1% of gross revenues
 - increase by 1 % every 18 production months
 - maximum is 5% of gross revenues
- after project payout, greater of:
 - 30% of net revenues
 - or
 - 5% of gross revenues



Producing Fields

Hydrocarbon Potential

- High
 - Moderate
 - Low
 - OTHER Minimal
- Oil and Gas Dispositions



Note: map is for illustrative purposes only



Northern oil and gas regime provides:

- Opportunity for entry under established terms and conditions (Leasing)
- Fair process and certainty of regime
- Opportunity to pursue development
- Maximum opportunity to manage inherent risks of the game by providing exploration opportunity – regional scale calls for nomination
- Fiscal terms – risk sharing



Benefits

- COGOA: defines "Benefits Plan": for the employment of Canadian and for providing Canadian companies with a full and fair opportunity to compete in the supply of goods and services
- Northern Benefits Guidelines: meet the economic needs of northern communities
- Land claims: provisions specific to claimants



Northern Expectations

- Aboriginal:
 - Land Access & Benefit Agreements
 - Consultation and compensation
- Territorial Government:
 - Socio-Economic Agreement





Regulatory Review – Certificates, Licenses, Permits

National Energy
Board



Office national
de l'énergie

**NORTHWEST
TERRITORIES
WATER BOARD**



**NUNAPPA
SIVUNIUKPAIT
IMMAKUN**



Applications for other licenses, permits and authorizations:

Inuvialuit Land Administration

Land use permit

Indian and Northern Affairs Canada

Land use permit, Crown lands in ISR

Environment Canada

CWS bird sanctuary permit

Fisheries and Oceans Canada

Transport Canada

Natural Resources Canada

GNWT

- MACA, Public Works & Services, ENR
- Aurora College



To sum up...

- Recent trends in Northwest Territories and Offshore point to strengths of northern oil and gas regime
- INAC collaborating with northern boards to strengthen regulatory system
- Encourage investment and economic opportunities from oil and gas exploration in Canada's North



The Public Interest

- Balancing Society's Goals
 - Economic wellbeing and growth
 - Social justice and equity
 - Peace, order and rule of law
 - Sovereignty
 - Environmental quality
 - National unity and cohesion



How to be Proactive

- Corporate social responsibility
- Consult with the stakeholders
 - Early and often
- Engage the concerned officials
- Complete applications
- Be flexible in project design
- The value of corporate image



Conclusion

- Many variants, but one legislative framework
 - Consistent, stable, market-based
- Increasing demands for social and industrial benefits and environmental responsibility
 - Response to Canadians' demands
- The bottom line is changing
 - Good corporate citizens succeed



Thank-you....



- http://www.ainc-inac.gc.ca/oil/index_e.html
 - Prospectus of Exploration Opportunities
 - Annual Reports
 - Link to oil and gas guides (regulatory roadmaps)



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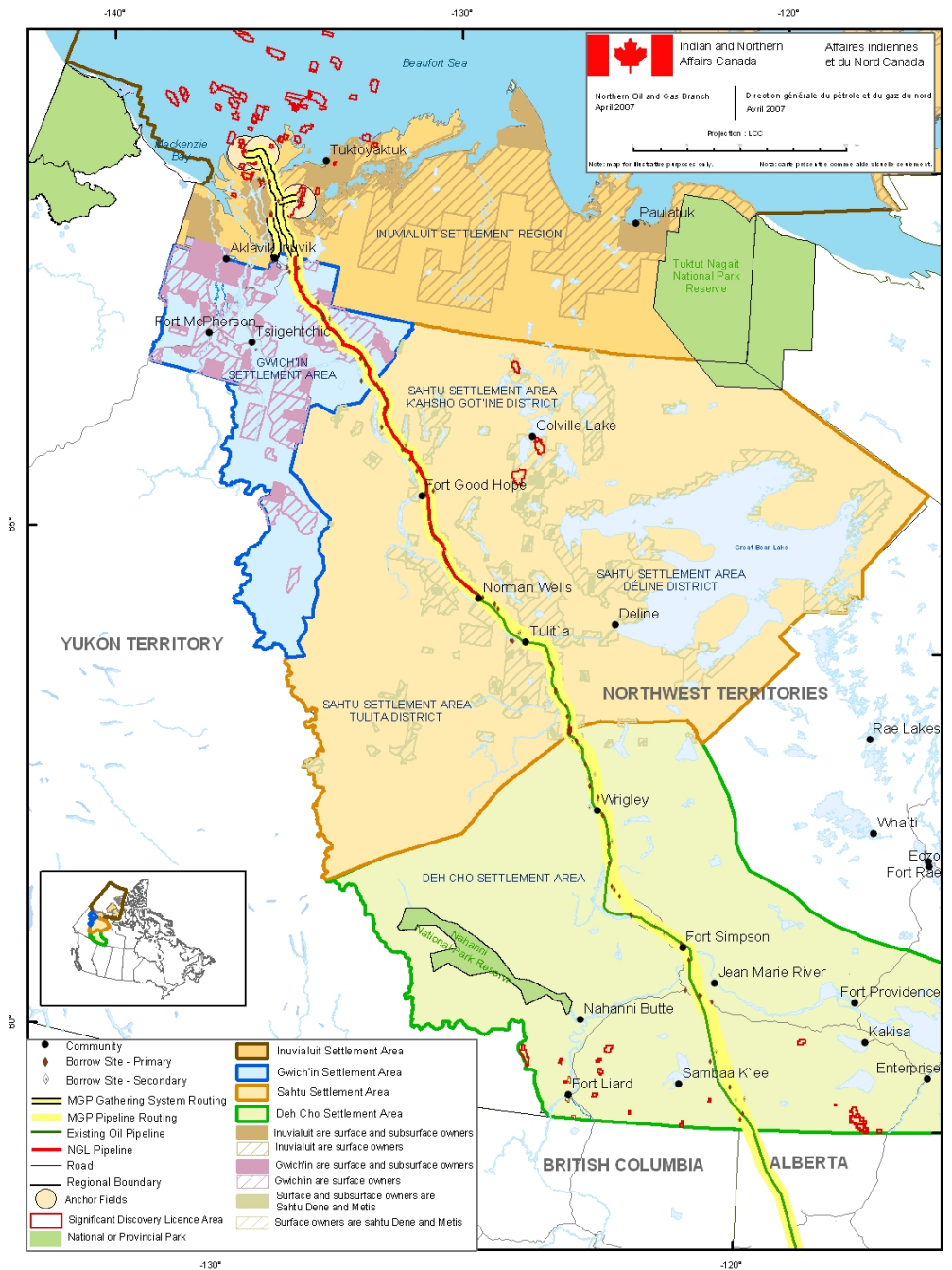
ANNEX

Background Slides

A vertical decorative bar on the right side of the slide, consisting of a red textured upper section, a small image of a red maple leaf on a white background, and a blue and white geometric patterned section.

Canada

Aboriginal Land Claim Areas and Proposed Mackenzie Gas Project





Update – Northern Regulatory System

Drivers of Change

OAG Report
Industry
NWT Board Forum
Internal Departmental
Review
Ministerial Commitments

Main Themes

Administrative Change
Internal repositioning
Legislative and
Regulatory adjustments

Principles

Collaborative & inclusive
Visible
Balanced
Coordinated
Incremental
Respect for each parties'
role



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INAC
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2005 / 2006

A modern, responsive, integrated system, which has the confidence of, and provides operational certainty for, all stakeholders, including Aboriginal groups, industry, environmental groups, residents and all Canadians.

Administrative Change

Identify Board best practices/
Establish distribution process

Assess Board training needs/
Training, where necessary

Develop Board orientation
Manual

Develop policy options
re: pan-northern approach –
intervener funding

Clarify Board roles and
responsibilities

Develop products relating to
Board strategic planning

Improve the departmental
appointments process

Policy and Internal Repositioning

Examine Board roles re:
consultation with Aboriginal
groups

Review opportunities to
Consolidate Board policy,
financial & operational
support

Clarification of key terms in
the MVRMA

Legislative & Regulatory Adjustments

Joint MVRMA Examination
Process

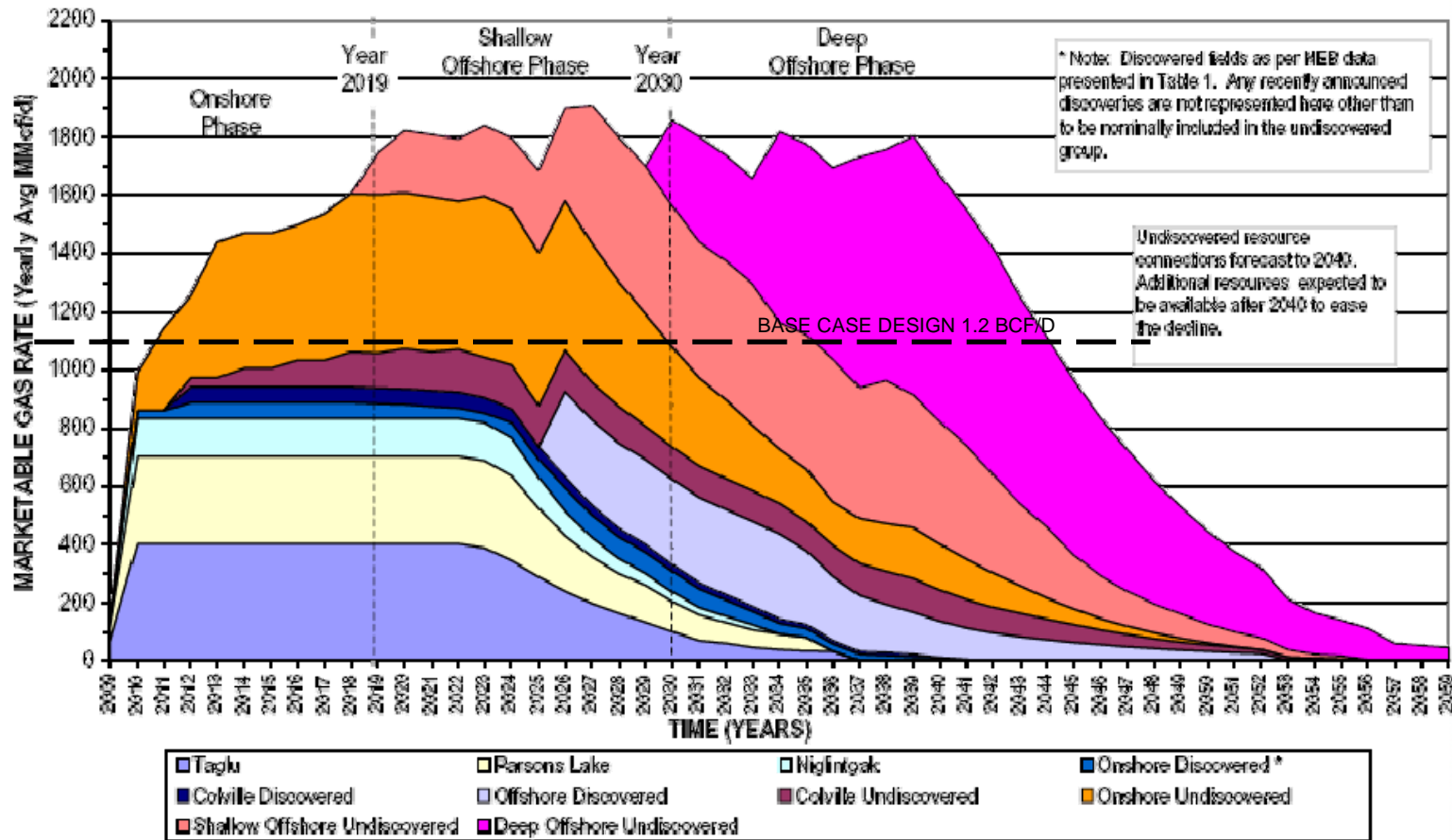
Respond to
recommendations of NWT
Environmental Audit (Part
VI of the MVRMA)

Develop NWT water
standards for use by the
Boards

■ Work completed
■ Work underway



Figure S-3 RESOURCE-BASED NATURAL GAS DELIVERABILITY FORECAST, BEAUFORT-MACKENZIE AND SELECTED NORTHERN CANADIAN BASINS SENSITIVITY CASE (PROponents' FORECASTS FOR ANCHOR FIELDS AND P90 RESOURCE ESTIMATES FOR ALL OTHER FIELDS)



ADAPTED FROM SPOULE 2005





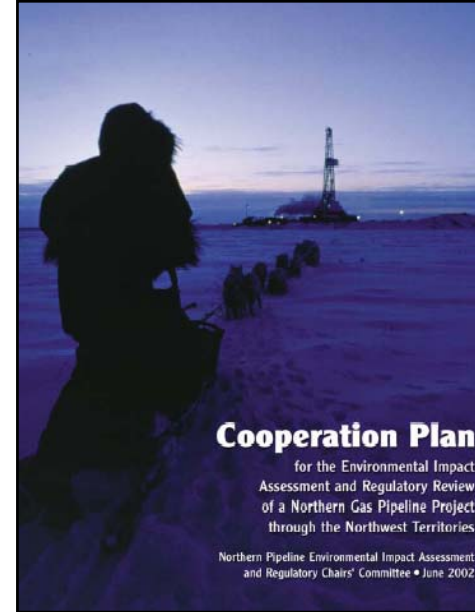
From Plan To Panel

Cooperation Plan (since 2000)

Joint Review Panel (since 2004)
per: IFA, MVRMA, CEAA

- 7 members:

- 3 by MVEIRB (Gwichin, Sahtu, Dehcho)
- 2 by Inuvialuit
- 1 CEAA
- 1 NEB





All Hearings All The Time

JRP mandate:

Environmental

Social

Cultural

3 types of hearings:

Community, General,
Technical

27 communities:

NWT, Yukon, Alberta

NEB mandate:

Engineering & design

Routing & land matters

Development plans

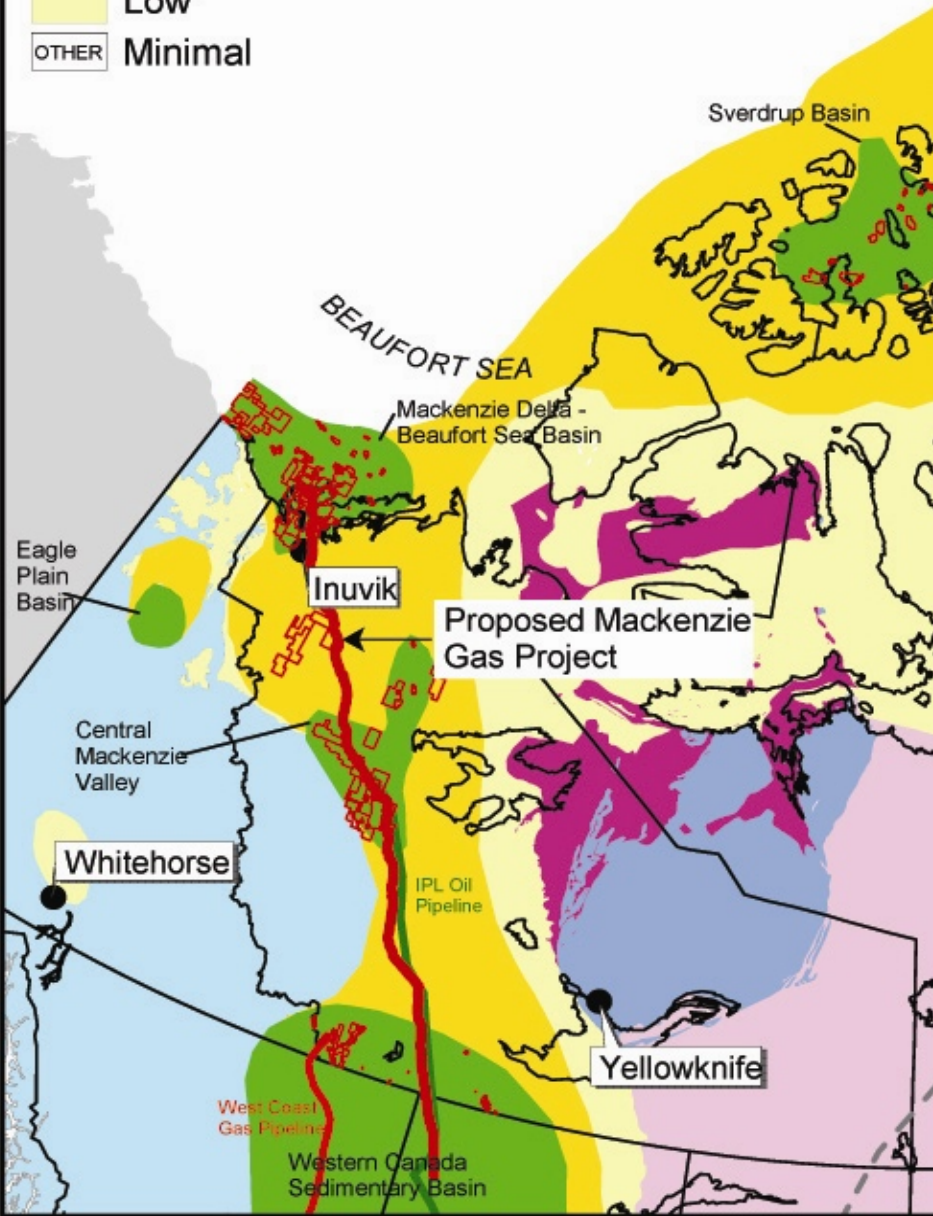
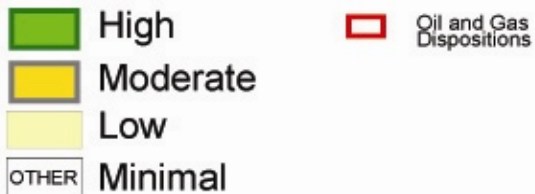
Tolls & tariffs

Regulator for gas fields, gathering
system and two pipelines

12 communities: NWT, Alberta

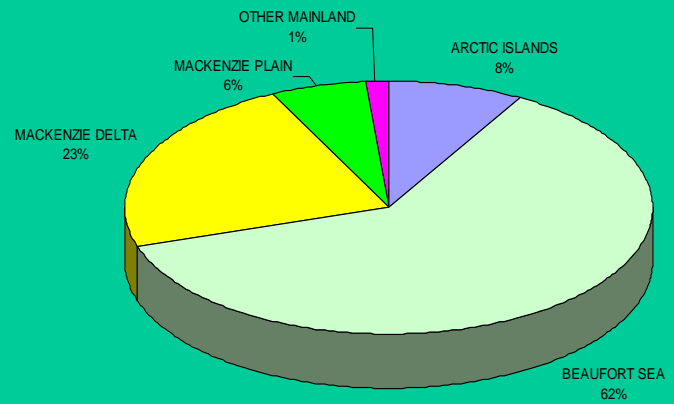
Hearings for Final Argument
yet to be announced

Hydrocarbon Potential

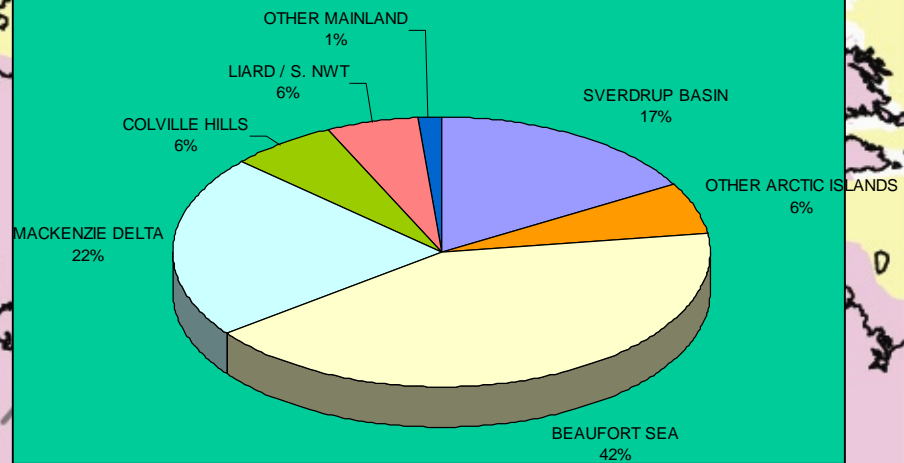


NORTHWEST TERRITORIES AND ADJACENT OFFSHORE – POTENTIAL AND DISCOVERED OIL AND GAS (after Drummond)

6 Billion Barrels

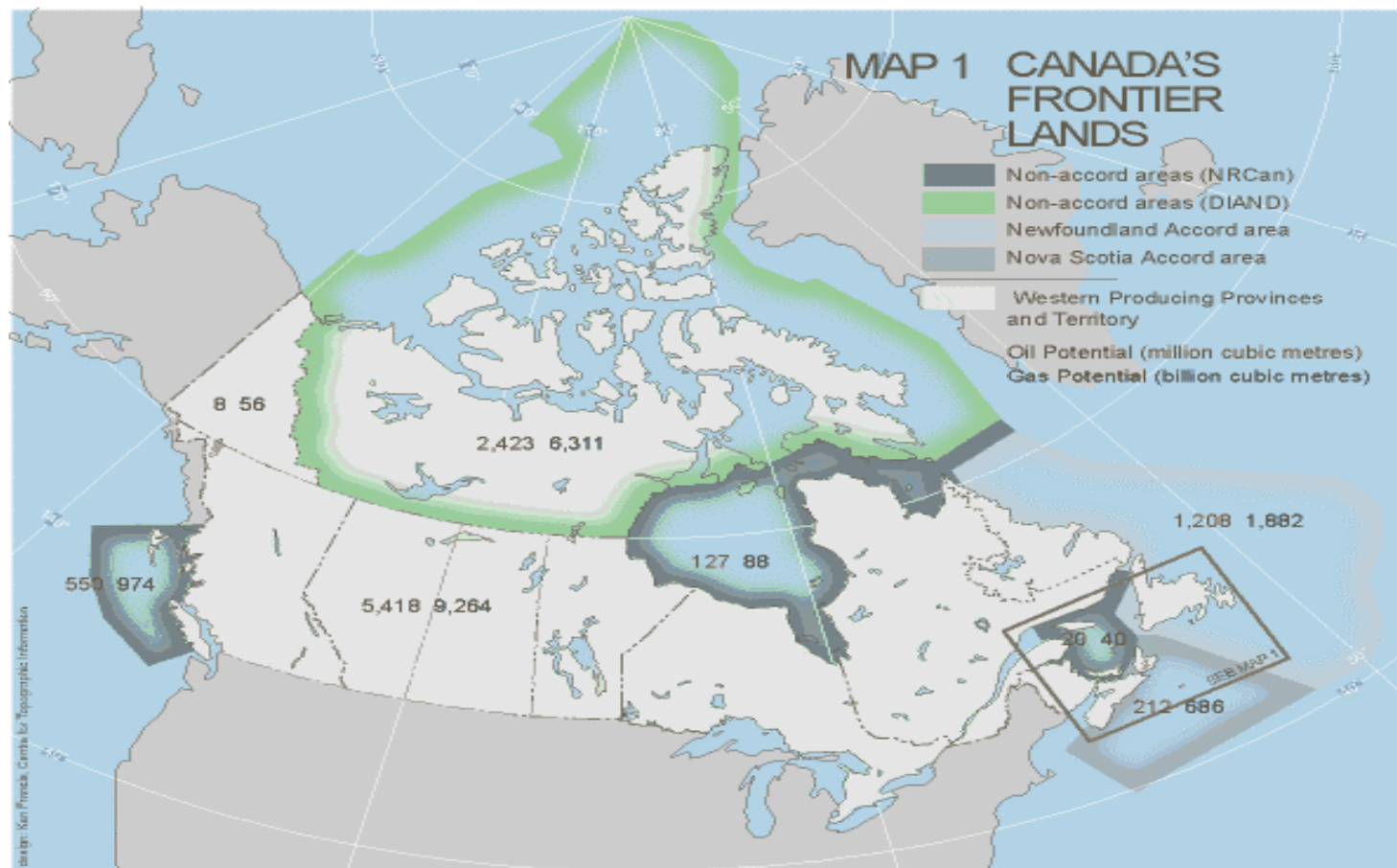


82 Trillion cubic feet

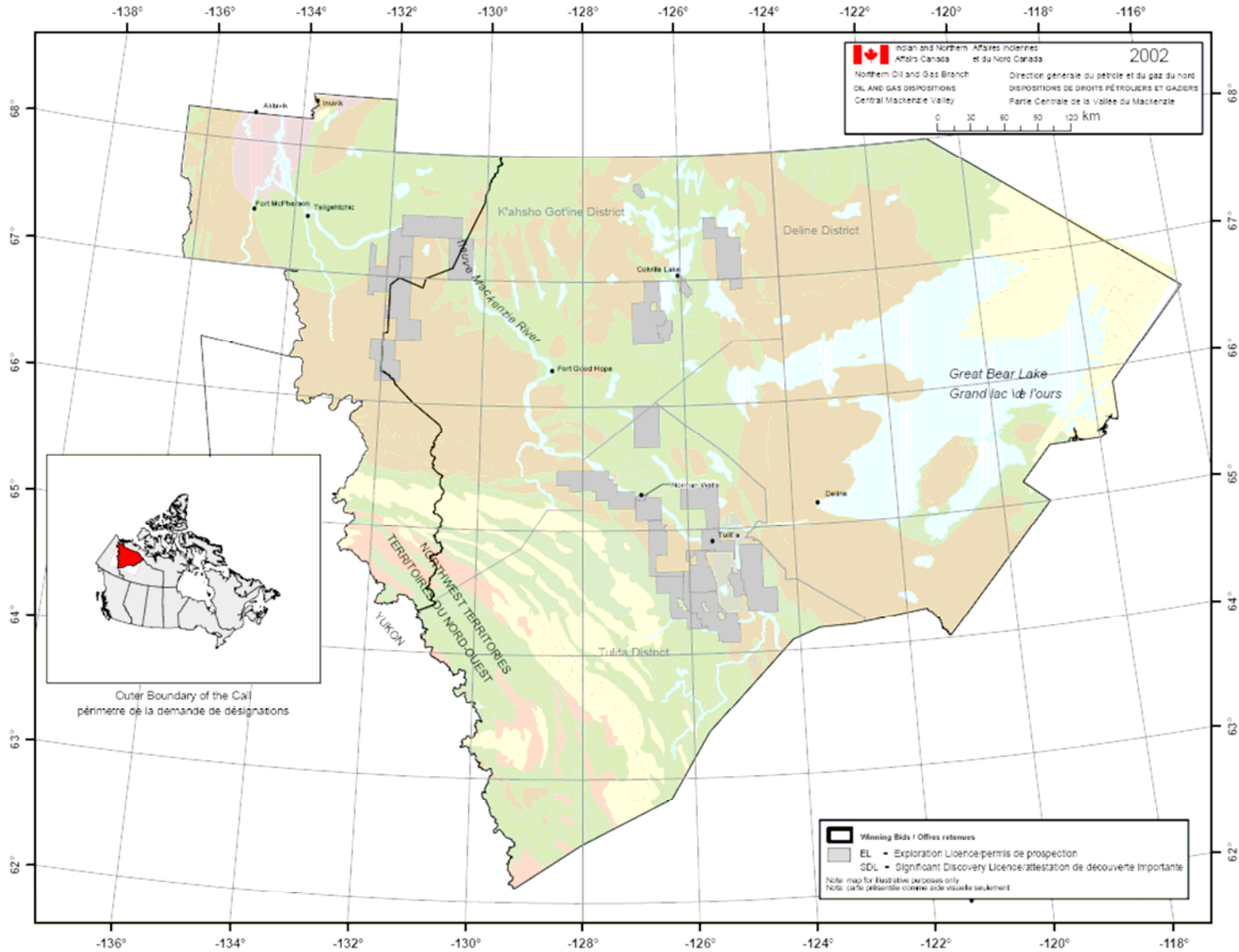


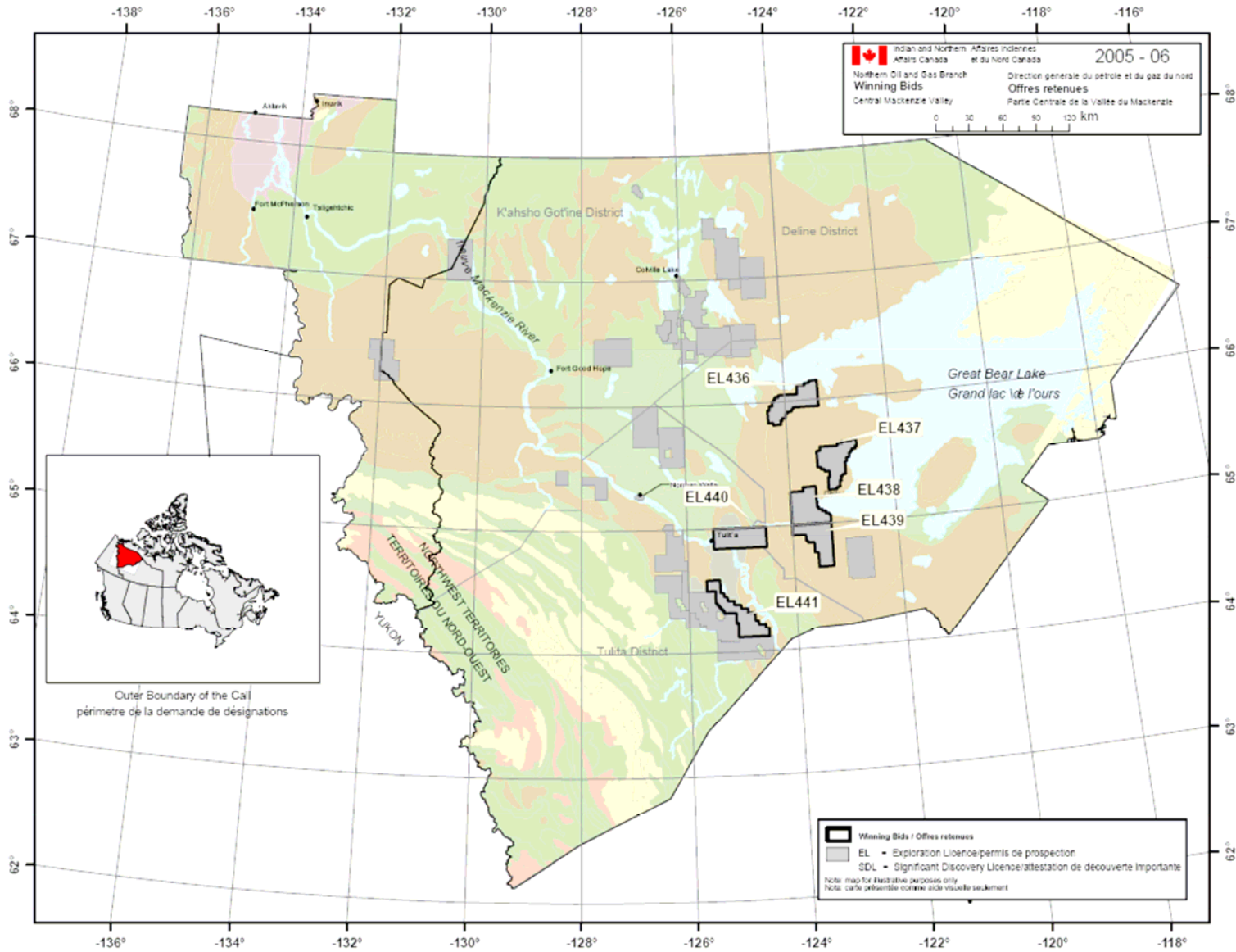


Map 1 - Canada's Frontier Lands



This map is representational only.







From evolution of recent exploration trends NWT can conclude that...

- Exploration interest stimulated by regional geological understanding of potential (unknown represents opportunity)
- Investment sustained by discoveries (eg. Colville Hills, Mackenzie Plain)
- Focus of interest shifts to new basins as new plays/ideas generated (eg. Great Bear Basin)



“Learnings” for Oil and Gas Management

- Difficult to predict where exploration interest will move
- Recognize limited state of geological knowledge and importance of building regional scale knowledge
- Recognize that exploration needs to manage exploration risk by ensuring opportunity is optimised

