



Mackenzie Valley Environmental Impact Review Board

Box 938 , 5102-50th Avenue, Yellowknife, NT X1A 2N7
www.mveirb.nt.ca

From: Sherry Sian Fax: 867-766-7074
EAO Phone: 867-766-7063
Date: November 10, 2003 Pages: 26 + this page
To: Consolidated Goldwin Ventures, Fax:
North American General
Resources Corp., and
New Shoshoni Ventures,
CC: MVLWB
Subject: Gartner Lee Ltd.'s Presentation for the Public Hearing (EA-03-002, EA-03-003, EA-03-004)

NOTES:

Sherry

This transmission may contain information that is confidential and privileged. It is intended solely for the use of the addressee and is protected by legislation. If you have received this fax transmission in error, please call (867) 7667050 (collect) and destroy any pages received. Thank you.

226

Cumulative Effects Study: Drybones Bay and Wool Bay

Aims/Goals:

- Establish framework to evaluate projects in the Drybones Bay and Wool Bay area
- Established the framework and context for the MVEIRB to complete a cumulative effects assessment
- Establish the “state-of-the-environment”
- Establish the current land uses
- Evaluate how proposed projects will affect the cultural landscape and cultural resources on a sub-regional basis
- Find solutions/ tools effective in the Mackenzie Valley that allow for adequate evaluation of project impacts on the cultural landscape



Cumulative Effects Study: Drybones Bay and Wool Bay

- Management climate
 - Land claims unsettled
 - Competing land use interests
 - Single project focus for management legislation (i.e., MVRMA, TLA)
 - Government and communities have experienced in regional resource management (i.e., caribou management boards, wildlife management boards)



Cumulative Effects Study: Drybones Bay and Wool Bay

- Approach to the work
 - Focused on the concerns raised (i.e., culture, society, and traditional land use)
 - Looked at the relationship between biodiversity, landscape and cultural diversity
 - Sought out available information - no new primary research
 - Found out what has happened, what is happening and what will be happening on the land



Cumulative Effects Study: Drybones Bay and Wool Bay

- Cumulative impact models
 - Options for cumulative effects management applied in other jurisdictions (Axys 2000):
 - **Land Use Focus:** A Land Use Plan is implemented before any development is allowed in a region, and enforced while developments occur in a region.
 - **Resource Focus:** The effects on one or more species are directly managed.
 - **Project Focus:** Individual projects are assessed, but in a coordinated fashion that changes project requirements for each subsequent application.
 - Resource management focus taken in this study
 - Determined state-of-the-environment
 - Selected valued environmental components to reflect social, cultural or traditional land use



Cumulative Effects Study: Drybones Bay and Wool Bay

- Land use focus
 - A Land Use Plan documents the expectations of how residents want the land to be used (this approach has been used in other jurisdictions)
 - Essential for understanding significance of changes
 - Offers means to resolve conflicting expectations (i.e., Gwich'in Land Use Plan)
 - Usually requires a legislative basis for enforcement



Cumulative Effects Study: Drybones Bay and Wool Bay

- Resource focus
 - Cumulative effects study from the perspective of the valued environmental component(s)
 - Can take broader regional focus without an existing land use plan or resource management plan
 - Step up from a project focussed cumulative effects analysis



Cumulative Effects Study: Drybones Bay and Wool Bay

- Project focus
 - Basis for most cumulative effects analysis in Canada
 - Undertakes CEA work on a project-by-project basis and looks at the incremental changes that each project makes



Cumulative Effects Study: Drybones Bay and Wool Bay

Resources focus: the
valued environmental
components



Gartner Lee

Cumulative Effects Study: Drybones Bay and Wool Bay

- Valued environmental components
 - Bathurst caribou
 - Moose
 - Furbearers
 - Waterfowl
 - Fish
 - Plants - medicinal, food, tools, shelter
 - Heritage resources
 - Spiritual resources - landscape and place names
- VECs chosen on the basis of their ability to reflect change in landscape, traditional land use and cultural/spiritual values



Cumulative Effects Study: Drybones Bay and Wool Bay

What is the state-of-the-environment?



Gartner Lee

Cumulative Effects Study: Drybones Bay and Wool Bay

- What we found out
 - Physical landscape
 - Biological landscape
 - Cultural landscapes



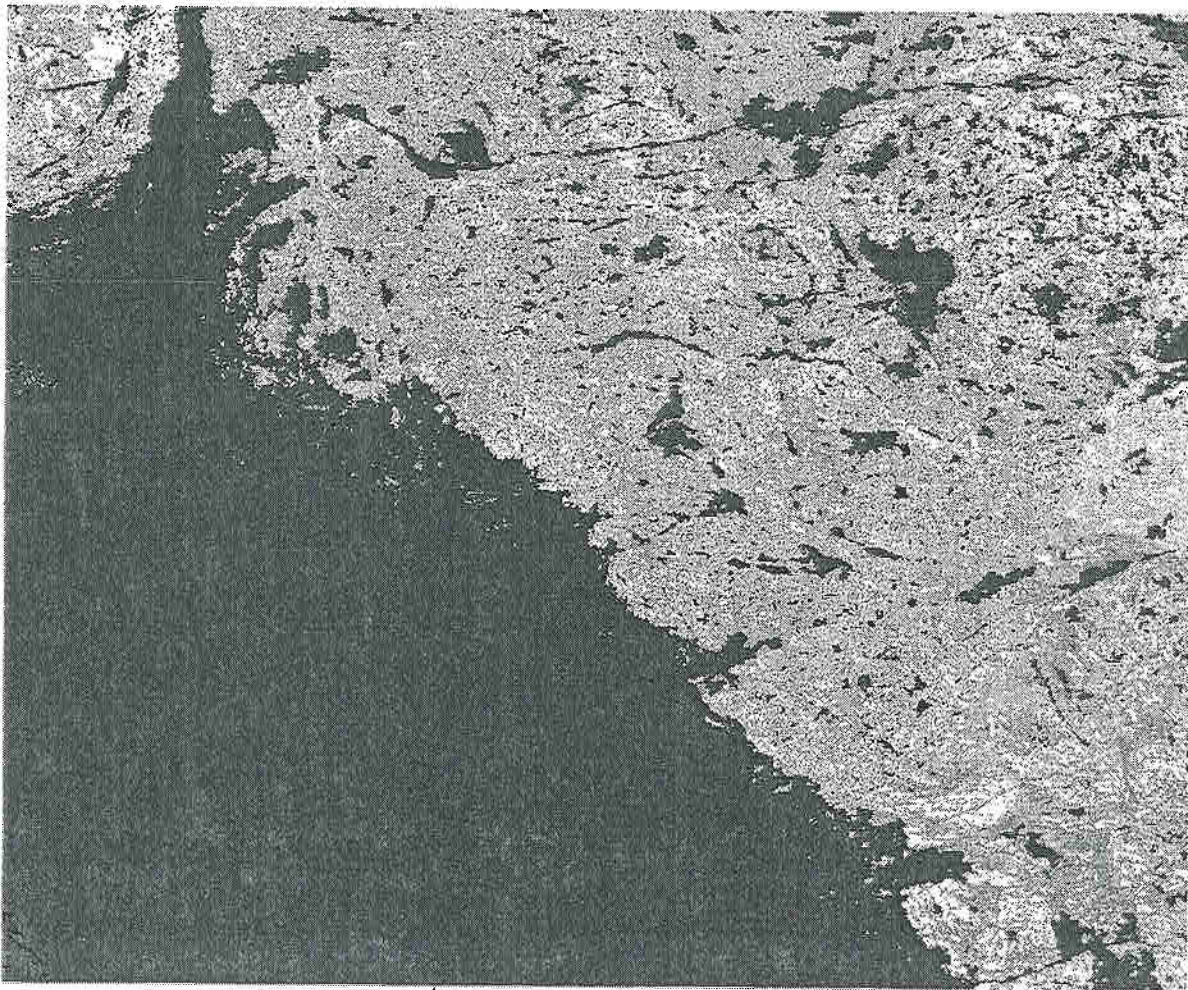
Cumulative Effects Study: Drybones Bay and Wool Bay

- Physical landscape
 - Exposed bedrock in uplands
 - Continuous and discontinuous permafrost
 - Peat-fill depression
 - Hummocky
 - Kimberlite and other mineral sources



Cumulative Effects Study: Drybones Bay and Wool Bay

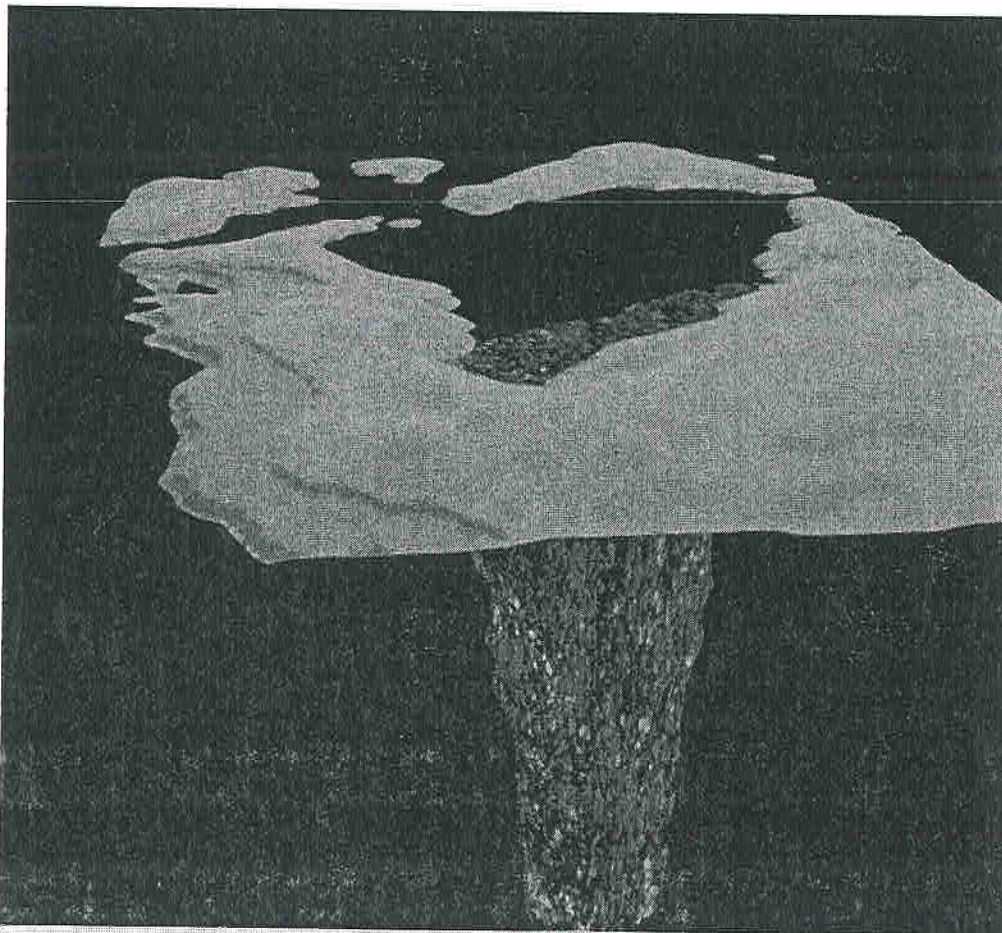
- Drybones Bay and Wool Bay



Gartner Lee

Cumulative Effects Study: Drybones Bay and Wool Bay

- Example of kimberlite pipe



Gartner Lee

Cumulative Effects Study: Drybones Bay and Wool Bay

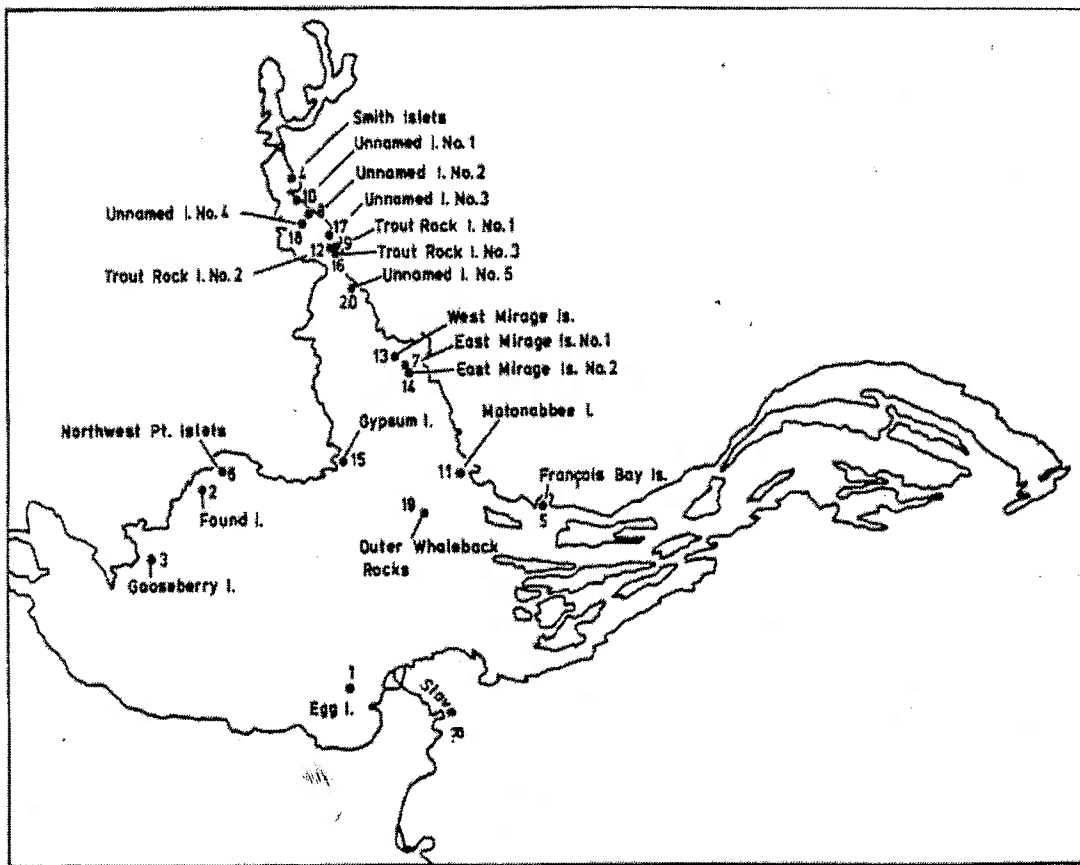
- Biological landscape
 - Plants
 - Black spruce, jack pine, tamarack, creeping juniper, sedges, alder
 - Submerged macrophytes
 - Common and rare medicinal plants and berries
 - Animals
 - Caribou - Bathurst herd
 - Moose
 - Furbearers - lynx, mink,
 - Colonial waterbirds, warblers, raptors, etc.
 - Fish - 25 species including white fish, lake trout, northern pike, walleye, burbot



Cumulative Effects Study: Drybones Bay and Wool Bay

- Colonial waterbird nesting sites

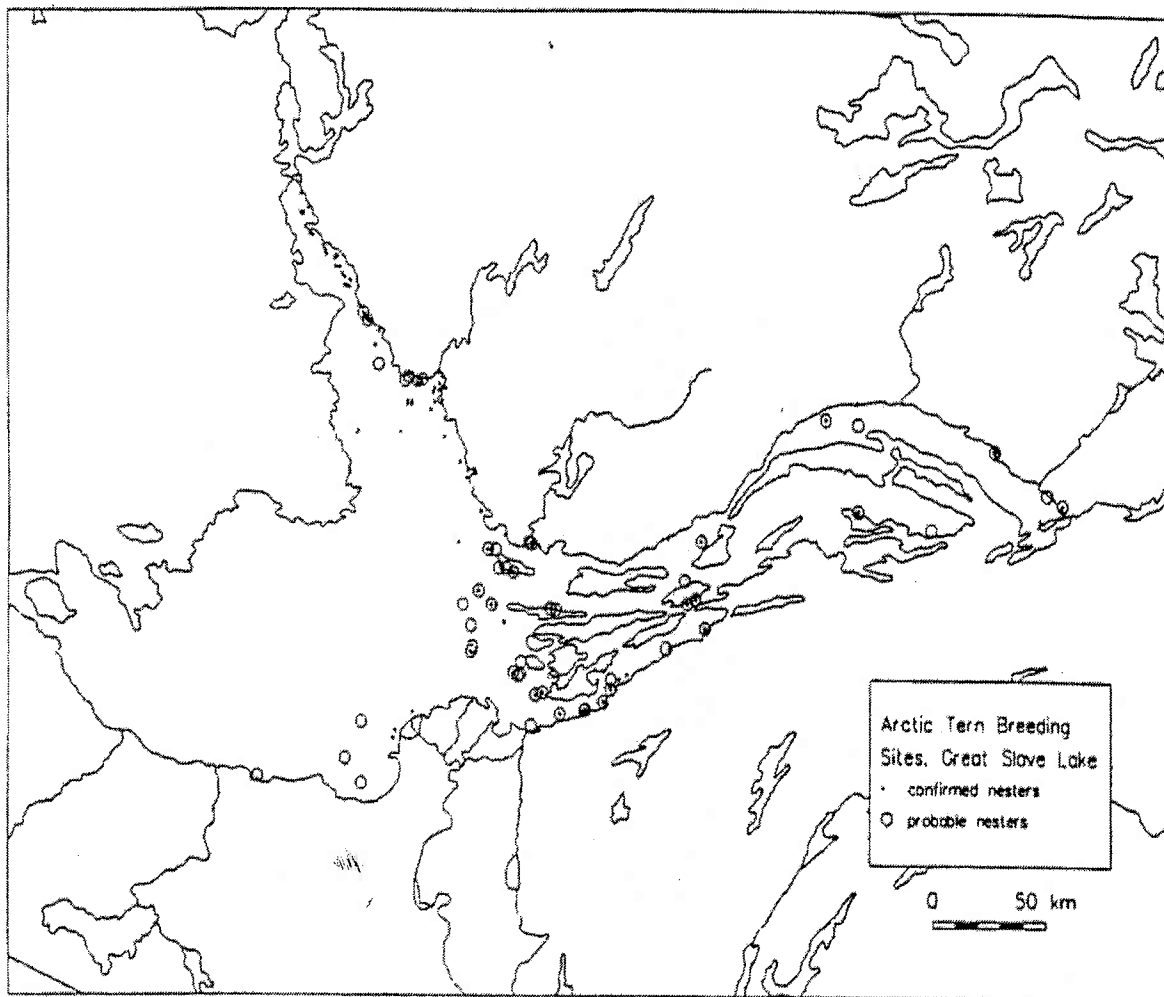
Figure 16
Locations of the 20 largest nesting sites (numbers correspond to Table 2)



Cumulative Effects Study: Drybones Bay and Wool Bay

- Arctic Tern Breeding sites

Figure 13
Distribution of Arctic Terns



Cumulative Effects Study: Drybones Bay and Wool Bay

- Cultural landscape - pre-contact to 1867
 - Dene have been inhabiting the area since before first contact
 - Rich in resources as shown by use: hunting (caribou, moose), fishing, trapping (furbearers) and medicinal plants and berry picking
 - Traditional lifestyle remained virtually intact for the Yellowknives, Dogrib and Metis but trade for goods increasing
 - Non-aboriginal population small and usually localized to forts or expeditions (i.e., search for Franklin, old Fort Providence (1790-1821), missionaries)



Cumulative Effects Study: Drybones Bay and Wool Bay

- Heritage resources (summer 2003)

Jackfish Cove	3	<ul style="list-style-type: none"> • 1 cabin site • 1 grave site • 1 tent site
Moose Bay	3	<ul style="list-style-type: none"> • 1 sunken boat site • 1 tent ring site • 1 commercial fishing camp site
Drybones Bay	35	<ul style="list-style-type: none"> • 7 cabin sites (3 old, 4 modern) • 4 camp sites (2 old, 2 modern) • 1 cairn site • 1 possible canoe manufacturing site (canoe weights?) • 2 cemetery sites • 1 clay chimney site / mission site? • 1 commercial fishing camp? • 1 cross site? • 1 drill site • 1 hide-drying/stretching site • 1 quarry site • 1 quarry and shelter site • 1 quarry and work stations • 6 tent sites (some with other boulder features) • 1 tent site and survey marker • 3 tent and quarry site (some with other boulder features) • 1 canoe building site and tent site • 1 boulder alignment site (possibly toboggan or support for hunting blinds)
Burnt Island	5	<ul style="list-style-type: none"> • 4 tent sites • 1 Exploration camp (east of Burnt Island)
Cabin Islands	5	<ul style="list-style-type: none"> • 1 modern cabin site • 1 cemetery site • 1 boulder feature site (possibly tent outline or moose hide-stretching circles) • 1 village site (several cabins) • 1 isolated find: white quartz scraper
North of Matonabee Point	3	<ul style="list-style-type: none"> • 1 cabin site (3 cabins) • 1 cabin and tent site (1 cabin, 3 tent outlines) • 1 tent site
Old Fort Providence	3	<ul style="list-style-type: none"> • 1 grave site • 2 canoe building sites? (one is possibly tent site)
Wool Bay	11	<ul style="list-style-type: none"> • 1 tool-making site • 1 canoe building site • 1 prospector's cairn and work areas • 1 mission site • 1 cemetery site • 6 tent sites
Total	68 sites¹	



Gartner Lee

Cumulative Effects Study: Drybones Bay and Wool Bay

- Cultural landscape: 1867 - present
 - Increasing missionary presence
 - Increased reliance on trade goods
 - Introduction of mission schools
 - Oil and gas discovery; gold discovery
 - Signing of treaties
 - Increase in regional population, particularly non-aboriginal
 - Establishment of permanent communities (e.g., Yellowknife)
 - Less living on the land - in-migration to communities
 - Decrease of aboriginal language use
 - 50:50 aboriginal:non-aboriginal population



Cumulative Effects Study: Drybones Bay and Wool Bay

- Cultural landscape: present

Land and water activity (land use permits - active or expired)	Number or Noted	Land and water activity (surface disposition)	Number
Quarry	1	Cottages	2
Exploration (Land use applications)	9	Trapping cabins	1
Exploration (completed)	6	Commercial Fish Plants	2
Access trail	1	Navigational Aids	2
Other activities (not necessarily requiring licence, permit or authorization)		Values-at-risk (unregistered cabins)	N/A
Cutlines (exploration)	Yes		
Camping - recreational/ traditional	Yes		
Fishing - recreational/ traditional	Yes		
Hunting - recreational/ traditional	Yes		
Trapping - recreational/ traditional	Yes		
Berry picking - recreational/ traditional	Yes		

Cumulative Effects Study: Drybones Bay and Wool Bay

- Current status of the VECs
 - Caribou numbers are declining (revision based on RWED Bathurst Caribou survey 2003)
 - No information on moose numbers. Assumed stable.
 - No information on furbearer numbers. Assumed stable.
 - Waterfowl numbers stable.
 - No information on fish populations or habitat needs, but numbers assumed stable.
 - No detailed information on plants. YKDFN undertook berry and medicinal plant survey.
 - The NSMA have also undertaken preliminary traditional land use surveys of the area.
 - Limited information on heritage resources. Restricted to shoreline.
 - No information on spiritual resources available.



Cumulative Effects Study: Drybones Bay and Wool Bay

- Development Assessment Report(s)
 - Potential changes that could result from the proposed developments
 - Changes similar to the changes that have already taken place (i.e., habitat alteration, temporary disturbance to wildlife, temporary changes to water quality)
 - Possible interference with archaeological resources
 - Potential cumulative effects of these changes may relate to cultural landscape effects



Cumulative Effects Study: Drybones Bay and Wool Bay

- Development Assessment Report(s)
 - Results of developer proposals and CES while preliminary, indicate further incremental change to the current landscape
 - Still required
 - confirmation of cutlines
 - confirmation of operating season
 - confirmation of final project descriptions
 - mapping of other land use information
 - Concern about full mine development if exploration proves viable



Cumulative Effects Study: Drybones Bay and Wool Bay

- Challenges/ To Dos
 - Incomplete information on the VECs
 - Archaeological survey incomplete. Work undertaken this summer indicates need for more archaeological research.
 - Moose and furbearer surveys from this summer need to be added to these results.
 - Interpret the results of the Bathurst caribou survey and the incremental changes to caribou habitat.
 - Spiritual resource survey needs to be undertaken.



Cumulative Effects Study: Drybones Bay and Wool Bay

- Challenges/ To Dos
 - Defining the limits of acceptable change to a cultural landscape and to cultural resources (Table 17)
 - Managing impacts to the cultural landscape and cultural resources (e.g., regional management plans, protected areas, zones of restriction around archaeological resources)
 - Implement regional level solutions through a project specific process, in the absence of regional programs (i.e., land use plans)

