

# Canada–United States Northern Oil and Gas Research Forum Key Recommendations

## Introduction

### Oil and Gas Research in the North

Oil and gas management is an urgent science and policy issue facing both Canada and the United States. With declining reserves of conventional oil and gas, there is increasing interest in arctic offshore energy. There are new opportunities for resource extraction in a time of increased energy demands, yet there are considerable challenges to working in an ecologically important, logistically difficult, and physically changing environment.

Sound oil and gas management depends on sound science, and the research community and government agencies have responded by increasing emphasis on research that informs management decisions. As northern neighbors, the U.S. and Canada have a strong legacy of successful collaboration. Although our collective knowledge of the region has grown significantly over the past decades, there are critical areas where better information would improve decision-making.

### About the Research Forum

The 2010 Canada–U.S. Northern Oil and Gas Research Forum was held to present and discuss technical, engineering, and scientific research on offshore drilling safety, oil spill prevention and management, ice engineering and transportation issues, and the environmental effects of oil and gas exploration and development in the North. This multidisciplinary conference brought together 239 participants from government, industry, academia, aboriginal groups, and nongovernmental organizations. The following pages summarize the four key recommendations from the forum.

# Recommendations

## Recommendation 1: Improve Meaningful Communication & Collaboration Between Disciplines, Stakeholder Groups, and Across National Borders

The U.S. and Canada have a long and successful history of cooperation, but we still have a long way to go in the scientific arena. Improved collaboration between academia, government agencies, industry, and stakeholders will help avoid redundancy, provide more efficient use of limited funding and personnel, and ensure that science activities have the broadest possible application, including for management and regulatory decisions.

### Specific Recommendations

- Incorporate local stakeholders early in the research process to help define priority research needs, to develop decision-support tools, and to integrate indigenous knowledge. This could be facilitated through supporting a “science officer” in local communities.
- Develop Canada–U.S. Memoranda of Understanding for high-level scientific collaborations, and set aside agency funds for international collaboration between projects. This could be facilitated through the Arctic Council.
- Promote ongoing agreements, such as the joint response plans between Canada and U.S. coast guards ([http://www.akrrt.org/Archives/Exercise\\_Reports/AAR\\_CANUSNORTH\\_1999-1.pdf](http://www.akrrt.org/Archives/Exercise_Reports/AAR_CANUSNORTH_1999-1.pdf)).
- Develop joint outreach programs, including public communication through a newsletter, lectures and programs at northern k–12 schools, and travel support for students to attend relevant conferences.
- Provide public outreach from the beginning to end of activities.
- Continue to host meetings such as the Canada–U.S. Northern Oil and Gas Research Forum to bring together people with different perspectives to share knowledge and discuss solutions.

### Success Story

**The Inuvialuit Final Agreement (IFA)**—After ten years of negotiations, the government of Canada and the Inuvialuit signed the IFA in 1984. The goals of the IFA are to preserve Inuvialuit cultural identity and values within a changing northern society; enable the Inuvialuit to be equal and meaningful participants in the northern and national economy and society; and protect and preserve the arctic wildlife, environment, and biological productivity. The IFA implemented a system of co-management with a heightened level of community participation in resource management and increased institutional accountability.



## Recommendation 2: Improve Data Gathering, Management, Access, and Discovery

There are a wealth of scientific data relevant to northern oil and gas issues, yet most of it is uncoordinated and inaccessible, and the scientific community has consistently cited the lack of data integration as a barrier to improved knowledge. The Canadian and U.S. governments should ensure the best and most accurate information is available for resource management and decision-making.

### Specific Recommendations

- Develop a multidisciplinary web clearinghouse or portal that links to distributed information and data, as a (one stop shop) for finding data on the North.
- Develop common data policies.
- Agree to common monitoring protocols and standards.
- Release industry environmental data.
- Synthesize current data to reveal gaps in information, and synthesize information in a way useful to support decision-making by regulators, government, industry, local governments, and other stakeholders.
- Develop an online database showing where research projects are being conducted in the North.

### Success Story

**Geographic Information Network of Alaska (GINA)** (<http://www.gina.alaska.edu/>)

A high priority of the North Slope Science Initiative (NSSI) has been establishing a resource that allows discovery and dissemination of information to support science-based research and management decision-making on the North Slope. GINA has developed a web-based information exchange called the North Slope Science Catalog to provide a one-stop-shop that facilitates the discovery and download of scientific information. The catalog provides data archiving, discovery, and distribution; project tracking, and data visualization.

## Recommendation 3: Develop Decision Support Tools

Decision support tools are interactive software tools that help decision-makers analyze information to solve problems. The issues of northern oil and gas development are ripe for development of decision support tools that integrate current science information to aid in cumulative impacts assessment, development decisions, and spill response.

### Specific Recommendations

- Provide agency funding opportunities to develop decision support tools and resources.
- Convene a governmental body that can serve as a clearinghouse for decision support tools.

### Success Story

**The Petroleum and Environmental Management Tool (PEMT)** (<http://www.aadnc-aandc.gc.ca/eng/1100100036632/1100100036636>). The PEMT, developed by Aboriginal Affairs and Northern Development Canada, displays generalized information on environmental and socioeconomic values and sensitivities for selected arctic regions in Canada, including the Beaufort Sea and Mackenzie Delta, the High Arctic, and the Eastern Arctic. The PEMT aggregates relevant information to inform decisions about oil and gas exploration and land management.

## Recommendation 4: Advance Priority Science and Technology Areas

The scientific community and industry have made great progress in understanding northern systems and in developing oil and gas technology. Critical gaps still remain, however, in two priority areas: ecosystem-level studies and spill prevention and response.

### Specific Recommendations

- Adopt ecosystem approaches to examine the complex, interconnected arctic system at multiple spatial and temporal scales, including long-term monitoring across regional scales. These approaches can build on efforts such as the Arctic Council's Circumpolar Biodiversity Monitoring Program (CBMP).
- Further develop spill prevention and response technology with a priority focus on prevention.

### Success Story

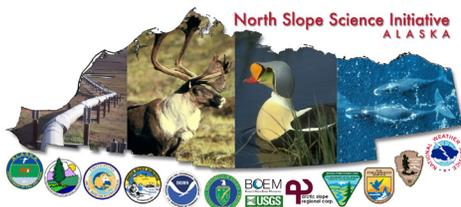
#### Beaufort Regional Environmental Assessment (BREA) ([www.BeaufortREA.CA](http://www.BeaufortREA.CA))

BREA is a research initiative that will produce relevant regional environmental and socio-economic information for project-level environmental assessments and improve regulatory decision-making for oil and gas activities. BREA will demonstrate regulatory efficiency in Canada's North by identifying and addressing recurring oil and gas issues from a regional approach and by making this information accessible and decision-ready for regulators, as well as ensuring community preparedness.

Other available products from the Forum include the following, which are all available through a products webpage at: <http://www.arcus.org/meetings/2010/northern-oil-and-gas-research-forum/products-and-resources>

- Program and Abstracts
- Forum Presentations
- Poster Gallery
- Annotated Compilation of Websites Presented at the Forum
- Participant Contact List

Canada 



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