

Policy Recommendations for Reforming Canada's Approach to Licensing and Regulating Offshore Oil and Gas in the Arctic

September 2011







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Oceans North Canada is a project of the Pew Environment Group's International Arctic Program, working to protect life in the Arctic.

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SUGGESTED CITATION

Porta, L. and Bankes, N. 2011. Becoming Arctic-Ready: Policy Recommendations for Reforming Canada's Approach to Licensing and Regulating Offshore Oil and Gas in the Arctic.

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FOREWORD

nuit Nunaat—the Inuit homeland in the circumpolar Arctic—is experiencing change at unprecedented rates and with imperfectly understood impacts.

Three forces, in particular, are driving much Arctic policymaking and decision making in the region:

- Global and regional climate shift, reducing Arctic ice coverage and obstacles to human activity, including marine navigation and resource exploration and exploitation.
- The belief that the Arctic contains much of the world's untapped hydrocarbons and other minerals.
- An increasingly confident and central Inuit voice, invoking and applying emerging international human rights standards and domestic constitutional guarantees in relation to indigenous peoples, to insist that Inuit are necessary participants and partners in determining the future of the Arctic in every sphere and at every level.

A key contemporary illustration of the intimate relationships among these forces is the set of positions adopted by Inuit leaders in 2011, *A Circumpolar Inuit Declaration on Resource Development Principles in Inuit Nunaat.*

Inuit, like others, are aware of what is at stake in the Arctic with respect to resource development in all its dimensions and phases. The potential risks—environmental, economic and social—are enormous. And so are the potential benefits. This is true for all forms of major resource development. For oil and gas development in marine areas, the potential risks and benefits are amplified and compounded.

There are those who favour an aggressive and rapid rate of resource development in the Arctic, and those who favour a much more cautious approach. There are those who would want to prohibit altogether, or postpone indefinitely, certain types or approaches to development. Different camps of opinion exist both within and outside the Inuit world. That is to be expected. The politics of Arctic development have always been lively. They will become livelier still.

Whatever variations exist in starting-point perceptions as to the best policymaking and decision making for the Arctic, we need broad consensus on two things: Policymaking and decision making must be as informed as possible, and as transparent and accountable as possible. In both these respects, Inuit, other Canadians and the larger international community must be grateful to the Pew Environment Group and its Oceans North Canada campaign for launching its major initiative into Arctic Ocean issues.

In the wake of the BP blowout in the Gulf of Mexico, and in the face of some major choices for Canada with respect to oil and gas development in the Beaufort Sea and Mackenzie Delta, this particular piece of research and analysis by Pew's Oceans North Canada—*Becoming Arctic-Ready: Policy Recommendations for Reforming Canada's Approach to Licensing and Regulating Arctic Oil and Gas*—is both apt and timely. We need policies and decisions that are both principled and pragmatic. High-quality research and analysis such as this is a precondition to achieving those objectives.

I recommend this report to all who are interested in the Arctic and who seek a sound, responsible and equitable path for its governance and development.

Mary Simon

President, Inuit Tapiriit Kanatami

Mary Simon is president of Inuit Tapiriit Kanatami, the national organization representing Inuit from Nunavut, Nunavik in Northern Quebec, Nunatsiavut in Labrador and the Inuvialuit region of the Northwest Territories.

In the late 1970s, Simon was first vice president and then president of the Northern Quebec Inuit Association the organization responsible for implementing the James Bay and Northern Quebec Agreement, the first comprehensive Inuit land claims agreement in Canada.

Simon was one of the senior Inuit negotiators during the Canadian constitutional discussions of the early 1980s, which led to the recognition of Aboriginal rights in the Constitution Act, 1982, as well as subsequent constitutional discussions, including the Charlottetown Accord.

She went on to serve on the executive council of the Inuit Circumpolar Conference (ICC, now Inuit Circumpolar Council), the international body representing Inuit from Canada, Greenland, Alaska and Russia. She was elected president of the ICC in 1986 and served two terms. She served briefly as a member of the Nunavut Implementation Commission in 1993 and was policy co-director of the Royal Commission on Aboriginal Peoples.

From 1994 to 2003, Simon was Canada's Ambassador for Circumpolar Affairs, becoming the first Inuk to hold an ambassadorial position. She was the principal architect of Canada's northern policy and helped negotiate the creation of an eight-country council, now known as the Arctic Council.

EXECUTIVE SUMMARY

anada is on the verge of approving the first deepwater oil and gas drilling in its Arctic waters. The first exploration wells on a geological structure are the riskiest part of offshore oil and gas development because of the chance of catastrophic blowouts like the Deepwater Horizon in the Gulf of Mexico in 2010. Yet Canada has not implemented many important recommendations made in 1990 by a review board that examined a shallow-water oil drilling proposal in the Arctic. Major gaps identified at that time included an inability to contain and clean up a major oil spill in the Arctic's icy, remote waters; assessing potential liability; and consulting Inuit about proposed offshore oil development in areas that are of critical importance to them.

The National Energy Board (NEB) is scheduled to conclude its *Public Review of Arctic Safety and Environmental Offshore Drilling Requirements* in December 2011. The public review was set up in part to consider proposals to weaken its same-season relief well rule, Canada's strongest protection against a catastrophic oil blowout continuing all winter under the ice before it can be stopped. In the wake of the Gulf of Mexico oil spill last year, the review was broadened to assess other Arctic offshore drilling requirements.

However, the NEB oversees only part of the process. Indian and Northern Affairs Canada (INAC) decides which areas of the Arctic Ocean will be open to oil and gas development and grants licences for exploration and production. Despite a request by Inuit leaders for a halt to new licensing after the Gulf oil spill in order to review how to proceed responsibly with hydrocarbon development, the department issued three offshore Arctic oil licences in 2010 and 2011.

Becoming Arctic-Ready analyzes Canada's regulatory and licensing framework for offshore oil and gas in the Arctic—finding significant gaps at each of the five stages of hydrocarbon development—and makes 11 specific recommendations for government, including:

- Engage in meaningful consultation with Inuit groups at key stages of the process, from participation in early environmental assessments to decisions about oil-spill preparedness and royalty sharing.
- Require strategic environmental assessment of a proposed licensing area in the Arctic Ocean before calling for industry nominations for places it wishes potentially to explore.
- Require that operators meet minimum Arctic-based standards for drilling performance and environmental protection before bids on offshore licences are accepted and ensure that companies have the financial resources to meet worst-case oil-spill liability requirements.
- As part of authorizing exploration, require Arctic-tested standards for offshore oil-spill preparedness and response capacity and maintain the intent of the same-season relief well policy to protect the Arctic and its people from multiyear blowouts.
- Add a mechanism for government review and cancellation (with payment of compensation) of existing tenure rights on long-term leases in justifiable circumstances such as dramatic environmental changes, industrial accidents or national security issues.

Taken together, the recommendations provide a blueprint for creating an Arctic-ready future for offshore oil and gas in Canada.

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INTRODUCTION

anada is on the verge of approving the first deepwater Arctic oil and gas drilling in its history. Risks of a major environmental and human disaster dramatically increase as hydrocarbon development moves from onshore to nearshore to deeper offshore waters. Drilling the first exploration well is the most dangerous step of the entire hydrocarbon development process because more well blowouts occur at this stage than at any other (Ross *et al.* 1977). Is Canada's regulatory and licensing system ready for drilling in the Arctic Ocean?

This question was last faced in 1990. After the Exxon Valdez oil tanker spill in Alaska, the Environmental Impact Review Board (EIRB), a joint Inuvialuit-federalterritorial body, conducted a public review of the Kulluk drilling program in the Canadian Beaufort Sea.¹ The Kulluk program planned to drill in much shallower waters than the current proposals for exploratory drilling. The board concluded that industry and government² were ill-prepared to deal with oil spills in Arctic waters and recommended that the program be rejected. The board's critique was sweeping, encompassing issues of spill-preparedness planning, spill-response capacity, scientific analysis, logistics, liability and consultation with Inuit. The board called for a series of reforms to address the licensing and regulatory system's shortcomings (EIRB 1990).

The Beaufort Sea Steering Committee, formed to investigate issues that arose during the Kulluk review, published eight volumes of detailed recommendations on the steps needed to make Canada ready for offshore oil and gas drilling in the Beaufort Sea (Beaufort Sea Steering Committee 1991). However, after the Kulluk decision, interest in Arctic drilling in Canada waned, and the government missed an opportunity to enact many of the needed reforms.

Today, renewed interest in hydrocarbon development in Canada's Arctic Ocean means industry, government and the peoples of the North face many of the questions left unanswered from the Kulluk review:

- How can industry and government contain a large oil spill in Arctic waters?
- What methods should be used to mitigate the environmental damage caused by a spill?
- What rules, including seasonal cutoff dates for drilling, should be used to govern the application of Canada's same-season relief well policy?



Figure 1: Trend toward Deeper Offshore Oil and Gas Lease Blocks in the Canadian Beaufort Sea, 1986–2011

- How should this same-season relief well policy be applied as development moves into deeper waters, where drilling a single well can take two or three drilling seasons?
- How can valued ecosystem components best be identified and protected?
- How should an operator's potential liability be estimated, and what financial assurance should an operator provide for that liability?
- What level of consultation with Inuit is required to maintain sustainable communities in the North and meet the Crown's promises and obligations?

In December 2011, the National Energy Board (NEB), Canada's regulatory body for oil and gas development infrontier areas,³ is scheduled to conclude its *Public Review of Arctic Safety and Environmental Offshore Drilling Requirements*. The public review was initiated to resolve regulatory ambiguity about the board's same-season relief well policy. The review was broadened to assess other Arctic offshore drilling requirements in the wake of the Deepwater Horizon oil spill last year in the Gulf of Mexico.

In the past 17 years, the NEB has regulated one shallow-water Arctic well.⁴ It has never overseen drilling in deeper Arctic waters. Yet recent bids won by industry in the Beaufort lie at depths of more than 1,000 metres (Figure 1). The NEB review offers an opportunity to answer many key questions and lay out the reforms needed to make the NEB better prepared to regulate deepwater Arctic drilling.

However, the NEB review is examining only part of the government system in place for Arctic offshore oil and gas development. Indian and Northern Affairs Canada (INAC)⁵ oversees the licensing side of the development process. After the Deepwater Horizon blowout, Inuit organizations asked INAC to stop new Arctic leasing in order to answer fundamental questions about how to responsibly develop Arctic offshore oil and gas (Cournoyea 2010; Simon 2010, reproduced in Appendix). Declining this request, INAC continued granting offshore Arctic acreage and issued three marine exploration licences in 2010 and 2011 in the Beaufort Sea.

To view the whole picture, this report examines both aspects of the government's oil and gas development regime: licensing (overseen by INAC) and regulatory (overseen by the NEB). In addition, in order to make policy recommendations on how to make Canada's offshore oil and gas regime ready for the realities of the Arctic, two unique, region-specific attributes are considered throughout:

1) The harsh Arctic environment poses special challenges for offshore hydrocarbon development and production, necessitating a licensing and regulatory framework that addresses specific Arctic factors.

2) Canada's Arctic offshore oil and gas drilling program takes place in regions where Canadian law requires licensing and regulation to incorporate significant Inuit participation in policymaking and decision making (see box, next page).

Although this report applies to the entire Canadian Arctic, much of the material used for the analysis comes from the Canadian Beaufort region, where most offshore oil and gas activity has occurred to date and which is the current area of industry's most active interest. Because of this geographic focus, the report also frequently refers to the Inuvialuit Final Agreement, the Inuit land claim agreement that applies to this region.⁸ Offshore oil and gas interest in other regions of the Canadian Arctic will raise the same kinds of broad concerns found in the Beaufort and also involve specific considerations based on the terms of those land claim agreements.

Moreover, the governments of the Northwest Territories and Nunavut continue to press Ottawa to "devolve" to them provincial-type responsibilities for hydrocarbon development. They want to influence the manner, scale and pace of development as well as receive resulting rents, taxes and royalties. Northern governments emphasize that their citizens bear virtually all of the risks of development but enjoy few of the resulting fiscal benefits. Regardless of the outcome of these "devolution" discussions, there is still a fundamental need in all regions of the Canadian Arctic to have an Arctic-ready offshore oil and gas licensing and regulatory system.

his report contains two sections. Section I presents an analysis of each phase of Canada's current licensing and regulatory regime, highlighting strengths and weaknesses. In Section II, the report describes policy reforms that the government should consider to facilitate responsible hydrocarbon development in Canada's Arctic Ocean. Taken together, they provide a road map for Canada to become Arctic-ready for offshore oil and gas.

ARCTIC ENVIRONMENT

The Arctic Ocean is a highly dynamic and rapidly changing ecosystem characterized by a cold, dry climate and ice-dominated environment (Cobb *et al.* 2008). Five Arctic-specific realities require special attention in the government's Arctic oil and gas policy system:

- Distinctive physical oceanographic features such as polynyas, floe leads, stamukhi zones and underwater pingos form key habitats and attract some of the largest concentrations of waterfowl, seabirds and marine mammals on the planet. Emblematic Arctic species include polar bears, beluga whales, bowhead whales, narwhal and walrus (Cobb et al. 2008).
- Baseline data and understanding of ecosystem function and Arctic species and their environment are less complete than for many other marine ecosystems where offshore oil and gas development is under way (Arctic Council 2004).

ARCTIC PEOPLE

Thousands of Canadian Inuit live in the Arctic, participating in the cash economy while still deriving significant benefit from traditional activities that depend on the natural wealth of the Arctic Ocean. In all parts of the Canadian Arctic, land claim agreements between Inuit and the government have established powerful Inuit governance and co-management structures which establish objectives, conditions and instruments for developing a sustainable northern economy while ensuring that the region's wildlife will be available to support future generations.⁶Inuit rights are well-anchored in Canadian law, both through an overall constitutional duty of the Crown to consult and through the specific rights acquired by Inuit through settled land claim agreements.⁷

- The Arctic is warming at rates greater than other parts of the planet, causing shifts in baseline populations and ecosystem function that are poorly monitored and understood (Arctic Council 2004).
- Ice and extreme weather conditions pose very specific challenges to key components of Arctic offshore oil and gas development and regulation, including oil-spill preparedness and response, best operating practices, compliance and monitoring, transportation, and site decommissioning and remediation (Arctic Council 2009).
- As a frontier area, Canada's Arctic has very little industrial infrastructure with which to respond to oil and gas emergencies and requires significant support from distant oil and gas producing areas (SL Ross Environmental Research Ltd. *et al.* 2010).

Therefore, Canada's oil and gas licensing and regulatory process in the Arctic needs to incorporate:

- An up-to-date understanding of what is required by rapidly evolving constitutional law on the duty to consult and accommodate Aboriginal interests at each stage of hydrocarbon licensing and regulation.
- The institutional capacity needs required for Inuit governance and co-management structures to adequately participate in Arctic oil and gas decision making.

SECTION I

Conventional Planning in an Unconventional World: Canada's Current Arctic Ocean Licensing and Regulatory Regime

he NEB's current Public Review of Arctic Safety and Environmental Offshore Drilling Requirements has focused primarily on whether its same-season relief well policy should be removed, modified or left in place. This policy was adopted in 1976 to guard against a multiyear blowout from an exploratory or production well. The policy requires that an operator possess the capability to respond to a well blowout by finishing a relief well before the end of the same drilling season. Industry is pushing to remove the "sameseason" part of the rule on the basis that improved technology can provide equivalency by preventing blowouts. Supporters of the current policy point out that it was designed to ensure the capability (and continued industry innovation⁹) for *responding* to catastrophic blowouts.

The debate about same-season relief well capability has eclipsed a larger and more important issue: how to make Canada's entire licensing and regulatory regime Arctic-ready. Answering this question involves much more than ruling on same-season relief well capability.

Canada's current Arctic Ocean offshore oil licensing and regulatory regime has five basic phases:

- 1) Call for nominations.
- 2) Call for bids and issuance of the exploration licence.
- **5)** Authorization and assessment procedures to conduct exploratory activities.
- 4) Issuance of a significant discovery licence and/ or production licence.
- 5) Authorization and assessment procedures to produce hydrocarbons.

Below, each phase of the Arctic offshore licensing and regulatory process is described and analyzed. Policy options for making each stage Arctic-ready are summarized with sequentially numbered RECOMMENDATIONS that are further developed in *Section II*.

PHASES	AGENCY	LAWS (IN ADDITION TO FEDERAL-INUIT LAND CLAIM AGREEMENTS)
1. Call for Nominations	INAC	None
2. Call for Bids and Exploration Licence	INAC	Canada Petroleum Resources Act, Canadian Oil and Gas Operations Act
3. Exploration Activities	NEB	National Energy Board Act, Canadian Environmental Assessment Act, the Canada Oil, and Gas Operations Act, the Canada Oil and Gas Drilling and Production regulations, the Canada Oil and Gas Installation regulations, the Territorial Lands Act, the Arctic Waters Pollution Prevention Act, the Migratory Birds Convention Act, the Species at Risk Act, the Fisheries Act, and the Canadian Environmental Protection Act.
4. Significant Discovery/Production License	INAC	Canada Petroleum Resources Act, National Energy Board Act
5. Hydrocarbon Production Activities	NEB	National Energy Board Act, Canadian Environmental Assessment Act, the Canada Oil, and Gas Operations Act, the Canada Oil and Gas Drilling and Production regulations, the Canada Oil and Gas Installation regulations, the Territorial Lands Act, the Arctic Waters Pollution Prevention Act, the Migratory Birds Convention Act, the Species at Risk Act, the Fisheries Act, and the Canadian Environmental Protection Act.

Figure 2: Five Phases of Canada's Arctic Offshore Hydrocarbon System

Phase 1: Call for Nominations

Process: INAC initiates hydrocarbon development in Canada's Arctic Ocean by asking industry to nominate blocks of ocean floor in a geographic area. INAC determines the area open for nomination and block size limits. After industry nominations, INAC's minister can further alter the proposed block size. Unlike other stages of hydrocarbon development in Canada's Arctic, no formal restrictions or regulations guide the call for nominations beyond those set by INAC and Canada's general legal framework.

Problems: Two main weaknesses prevent the call for nominations phase from being Arctic-ready.

1) No strategic environmental assessments are conducted before or during the call for nominations.

A strategic environmental assessment is defined by the Arctic Council as "a systematic process for evaluating the environmental consequences of a proposed policy, plan or program initiative in order to ensure that they are included and appropriately addressed at the earliest appropriate stage of decision-making." The Arctic Council articulates three key reasons for conducting these kinds of assessments: to integrate environmental concerns into the first stages of decision making; to capture a wide scope of the project that sets the stage for later, more specific environmental impact assessments; and to begin collecting baseline scientific knowledge of the region under investigation (Arctic Council 2009).

Other Arctic jurisdictions such as the United States, Norway and Greenland require strategic environmental assessments before opening up areas to offshore oil and gas.¹⁰ Likewise, Canada's regulatory regime for offshore hydrocarbons in Newfoundland and Labrador uses strategic environmental assessments when considering new areas for potential development.¹¹

In contrast, Canada has not systematically conducted strategic environmental assessments before INAC has opened up Arctic offshore areas by issuing a call for nominations. Where it has engaged in the Beaufort on regional planning to identify regulatory and information gaps,¹² these efforts have not fulfilled the evaluation and integration components the Arctic Council described as key functions of a strategic environmental assessment. Nor have they in all cases preceded new leasing. As laudable as these efforts have been, therefore, they have not provided the full benefits a strategic environmental assessment would provide for both government and Inuit hoping to answer questions about the possible effects of hydrocarbon development either in a region as a whole or at site-specific scales.

2) The government does not provide meaningful consultation with Inuit about decisions made during the call for nominations phase.

In addition to depriving itself of an opportunity to synthesize and integrate scientific information about environmental factors before opening an Arctic region to offshore oil and gas consideration, the government's failure to conduct strategic environmental assessments also makes meaningful consultation with Inuit at this first stage very difficult. Inuit organizations need the kind of data integration and analysis generated by a strategic environmental assessment to make informed decisions.

This lack of a systematic process for evaluating the environmental consequences of proposed actions in the first phase cannot be adequately remedied by more information in subsequent stages. Important strategic decisions go into identifying potential development zones through INAC's call for nominations that shape all subsequent stages. The call for nominations phase includes strategic planning for the utilization of resources and defines the scope of development activity. The failure to systematically analyze and evaluate environmental consequences at this stage cannot be remedied by additional data gathering in later stages.

These decisions can have serious consequences for Inuit as indicated by the Inuvialuit Regional Corporation's 2010 letter asking INAC to delay any new calls for nomination within its settlement area pending resolution of fundamental safety and environmental issues. INAC's pro forma letter turning down the request seems far from the meaningful consultation required by law, as described by Canada's courts in numerous recent decisions.¹³ Solutions: To ensure that the call for nominations process is Arctic-ready, two policy reforms are needed:



RECOMMENDATION 1: Strategic environmental assessments should be triggered before issuing a call for nominations in a new offshore Arctic area.



RECOMMENDATION 2: The government should enter into early, formal and meaningful consultation with Inuit during the call for nominations.

Phase 2: Call for Bids and Issuance of the Exploration Licence

Process: Based on the call for nominations, INAC sets specific terms and conditions for industry bidding on specific hydrocarbon blocks. After industry bids, the minister selects a winner who must adhere to a benefits statement of principles¹⁴ that includes consultation with Inuit and satisfies the terms and conditions of settled land claims. This phase culminates with INAC granting exclusive rights to drill and test for petroleum through a nine-year exploration licence.

Problems: The call for bids phase suffers from two weaknesses.

1) The government does not require a pre-bid screening process to determine whether potential

operators have the ability to manage offshore acreage in line with industry best practices and government regulations, or adequate financial resources to meet operator liability for accidents in Arctic waters.

In Canada, successful completion of the bidding process leads directly to INAC granting an exploration licence without screening the applicant for the ability to follow industry best practices in the Arctic based on past drilling performance and environmental protection, oil-spill prevention and preparedness, and human safety records.

Instead, this evaluation of fitness is conducted when an operator files an application for exploratory drilling, years after obtaining an exclusive exploration licence. This long delay strains the regulatory system, because by the time an operator files a drilling application (in Phase 3, described below), a significant social contract is in place between government and operator and millions of dollars have been spent or pledged.

Screening applicants for the ability to operate using Arctic best practices before accepting bids would enhance certainty and set realistic expectations for both the government and industry. In Greenland, the Mineral Resources Act establishes selection criteria that must be met for an operator to obtain exploration rights. The act requires that a potential operator be evaluated against a number of important aptitudes, such as expertise and knowledge; experience operating in congruent conditions; financial background; work history; and safety, health and environment systems (Greenland Mineral Resources Act).

As with best operating practices, the NEB evaluates

LIABILITY

For offshore oil and gas development in the Canadian Beaufort, the Inuvialuit Final Agreement requires an operator to be able to prove financial responsibility—under a standard of absolute liability—for a worst-case scenario oil spill or blowout. This absolute liability includes both actual losses to Inuit plus future losses and habitat restoration and remediation. Similarly, the Nunavut Land Claims Agreement calls for absolute operator liability with regard to the damage to natural resources during development.

Responding to the 2010 oil well blowout in the Gulf of Mexico has cost the operator more than US\$40 billion in less than two years.¹⁵ Clearly, the current requirement in the Oil and Gas Spills and Debris Liability Regulations (SOR/87-331) that caps an operator's absolute liability for Arctic Ocean operations at \$40 million would not be adequate in a worst-case scenario.¹⁶ To create a stable investment climate and become Arctic-ready, the government needs to clarify how liability will be assessed and paid for in a way that encourages industry to prevent accidents, provides the ability to respond to a worst-case oil spill and honours the letter and spirit of Inuit land claims.

Delaying meaningful consultation with Inuit until later stages of development not only creates legal issues for the Canadian government, it also is bad practice from an operational point of view.

an operator's ability to meet liability requirements only after the submission of an application for drilling an exploratory well, years after granting an exploration licence. Having the financial resources to deal with a wide range of possible industrial accidents should be a crucial element of any operator's proof of Arctic readiness. Delaying this evaluation increases pressure on the regulatory system to approve drilling and increases the risks to the Arctic environment and northern peoples.

Evaluating the operator financial capacity to meet potential liability at the pre-bidding stage would clarify the government's methodology on operator liability much earlier in the process (see box, page 6). The absence of a clear government position on liability was a primary reason for the EIRB's Kulluk finding that "nothing the Board has heard enables it to make any sensible recommendation dealing substantively with [the applicant's] potential liability in the event of a worst-case blowout, one of the obligations mandatorily imposed on the Board by the IFA [Inuvialuit Final Agreement]" (EIRB 1990). If the NEB and INAC do not act preemptively to deal with liability and instead choose to wait for the environmental assessment bodies to rule on this issue, they may find themselves in the same position as the Kulluk panel that concluded:

> "Perhaps no other element of the review has proven to be more disconcerting and disturbing to the Board than the inescapable conclusion that, based upon the information available to the Board, the regulatory authorities of the Government of Canada responsible for offshore oil and gas exploration, have failed to discharge their mandated obligations in a responsible and effective manner" (EIRB 1990).

2) Inuit are not formally consulted on either the call for bids or granting of an exploration licence despite the importance of these decisions.

Much is at stake in the call for bids phase and much is decided at that time. INAC disposes of specific areas to specific operators. Operators commit to spend tens to hundreds of millions of dollars for exploration activities. Industry's strategic plans are created, deepened and begin to unfold. INAC grants exploration licences—the precondition for offshore drilling activities. Despite all this, INAC's call for bids, as with its call for nominations, contains no formal mechanism for Inuit consultation.

Delaying meaningful consultation with Inuit until later stages of development not only creates legal issues for the Canadian government, it also is bad practice from an operational point of view for three reasons.

- First, it increases the risk to industry that proposals may need to be changed later in the process in response to community input that could have been accommodated earlier.
- Second, it reinforces the dynamic of industry setting the agenda and others reacting to it. Formalized Inuit participation happens within the review process for specific development activities but by this time industry already has obtained tenure from the Crown.
- Third, the lack of early consultation can create conditions for confusion and regulatory missteps later in the process. Meaningful consultation during the call for bids phase would add clarity and objectivity to the entire development process.

Solutions: To ensure that the call for bids and issuance of the exploration licence is Arcticready, three additional policy reforms should be considered:

RECOMMENDATION 3: Create a pre-bid screening threshold to ensure that those holding exploration licences have the capacity, systems and experience to manage deepwater acreage in line with Arctic best practices and government regulations, and possess the financial resources necessary to meet the absolute liability for a worst-case scenario.

RECOMMENDATION 4: Review federal policy to clarify how the liability calculations required by Inuit land claim agreements are met by the government's current cap on operator liability.

RECOMMENDATION 5: Create formal structures for meaningful consultation with Inuit at this stage.

Phase 3: Authorization and Assessment Processes for Exploratory Activities

Process: Under the nine-year exploration licence, the operator conducts a comprehensive seismic survey to identify high priority/interest areas, drills one or more exploratory wells and—if exploration results warrant it—applies to the NEB for a declaration of significant discovery.¹⁷

Each activity conducted during the exploratory phase triggers a corresponding set of regulatory processes and environmental requirements that are outlined in settled land claims and by the NEB, as well as in other relevant laws and regulatory regimes. In addition, the operator must obtain a Certificate of Fitness from the NEB's chief safety officer before "drilling, installation or production can begin."¹⁸

Problems: As applied in the Canadian Arctic, this phase suffers from three key regulatory weaknesses.

1) The NEB's regulatory regime does not require offshore spill preparedness and response capacity to be Arctic-ready.

As noted above, drilling the first exploratory well on a geological structure is the most hazardous activity during the hydrocarbon development process. A major well blowout is more likely at this time than any other (Ross *et al.* 1977). The NEB's authorization process for drilling evaluates capability of operators against three relevant competencies: (a) spill preparedness planning, (b) roles and responsibilities in spill response and (c) capacity for response (Dagg *et al* 2011). Government reform is needed in each of these areas to ensure Arctic-readiness.

a) Spill Preparedness Planning

Three areas need to be strengthened in order to bring the NEB's spill-preparedness planning up to Arctic standards. First, the NEB needs to develop regulations outlining specific standards that will give industry detailed guidance on preparing for Arctic oil spills. Currently, the Safety Plan and Environmental Protection Plan Guidelines issued jointly by the NEB and the Nova Scotia and Newfoundland Boards (NEB 2011a; NEB 2011b) require that plans to deal with safety and environmental emergencies must be provided to the NEB as part of an application for an authorization. The NEB's website instructs that "company contingency plans must be formulated to ensure drilling related equipment is available to cope with any foreseeable emergency situation during a drilling program or production operation" (NEB no date). But nothing in the guidelines clarifies how the NEB or an operator can assess whether these plans are feasible under Arctic conditions.

An example of the kind of information that the NEB needs to factor into these regulations is found in a report recently commissioned by the NEB to estimate spill-response effectiveness in the Western and Eastern Arctic. The study estimated that in the Beaufort Sea, oil-spill response countermeasures could be deployed only 35 to 78 percent of the time because of such environmental impediments as wind, waves, poor visibility and darkness. The same study found that no spill-response countermeasures were possible 27 to 100 percent of the time in the West Central Davis Strait area in the Eastern Arctic between July and December (SL Ross Environmental Research Ltd. 2011).

Second, the NEB needs to conduct regular planned and unplanned spill simulations to evaluate the integrity of preparedness planning. In its Kulluk decision 20 years ago, the EIRB identified the absence of testing as a significant gap:

> "[A] surprise exercise to test the effectiveness of contingency plans, and to demonstrate countermeasures and cleanup capabilities, must be conducted annually in the Beaufort Sea. The exercise must be conducted in realistic operating conditions" (EIRB 1990).

The same-season relief well policy is the strongest element of Canada's current regulatory regime.

Although other northern jurisdictions conduct such simulations,²⁰ to date the NEB has not conducted any unplanned exercises to test operator spill-preparedness planning.

Third, key science and traditional knowledge gaps need to be filled so that spill-preparedness plans can indicate biologically and culturally important areas for priority protection. A recent industry and government report found that such gaps in Canada's Beaufort Sea included information related to physical and chemical oceanography, plankton, benthos areas, marine mammals, and marine and anadromous fish. It concluded that although "numerous studies have been completed to date there is recognition that data gaps remain which may result in the potential delays and restrictions to offshore development" (SL Ross Environmental Research Ltd. 2010).

b) Roles and responsibilities in spill response

For offshore drilling in the Canadian Arctic, the operator is responsible for spill prevention and response, and the NEB is the chief administrative body for coordinating spill response.²¹ Placing the onus on the operator to act as the primary response organization is common around the world. In addition to requiring the operator to have the ability to respond effectively, the government must also evaluate its own capacity for cleaning up catastrophic spills. In the BP spill in the Gulf of Mexico, for example, the industry operator required assistance from the U.S. Coast Guard and Navy for three months to stop the flow of oil in spite of the significant spill-response resources and infrastructure on hand.

As noted above, NEB guidelines do not ensure that operators are adequately prepared for oil spills. In the case of a major spill in the deepwater Arctic, government resources likely would be required. Yet an independent government audit of the Canadian Coast Guard, the most likely front-line responder in the Arctic, found: The Coast Guard has not conducted a comprehensive assessment of its response capacity since 2000. The Coast Guard is unable to determine how much oil-spill response equipment it should have and whether it has appropriate capacity to address risks" (Office of the Auditor General of Canada 2010).²²

Before exploratory drilling can safely begin in the Arctic, the NEB needs to ensure that government resources are in place to supplement operator response capability in the case of a major spill.

c) Capacity for response

The NEB relies on the Canada Oil and Gas Drilling and Production Regulations to ensure that the necessary spill-response capacity is in place. However, these regulations do not require the operator to have the capacity readily available to respond to and contain a worst-case scenario, nor do they provide guidance on what spill-response techniques and technologies are best suited for the Arctic offshore environment.

Other Arctic countries, by contrast, require industry to have much greater demonstrable capacity to react to a major spill. In the United States, federal regulations require that operators have the ability to recover oil in a worst-case scenario that takes into account specific limitations on equipment efficiency (30 CFR 254.44). Norway calls for spill-response equipment to be adapted to "the type of pollution and site specific conditions" (Dagg et al. 2011). The United Kingdom uses a three-tiered emergency classification system and supporting time response criteria. The worst scenario (Tier 3) calls for resources to be in place within 18 hours (U.K. Department of Energy and Climate Change 2009).

The NEB is also silent on the topic of response techniques and technologies best suited to the Arctic's offshore environment, and scientific consensus is lacking on the efficacy of industry's three primary recovery technologies—mechanical recovery, *in situ* burning and chemical dispersants—in icy Arctic waters. Although significant research has been done in all three areas, important and unanswered questions

Operators in some cases have drilled wells with only nominally sameseason relief well capability.

remain, especially concerning their application in Arctic conditions (*see box, below*).

Solutions:

RECOMMENDATION 6: The NEB should create offshore spill-preparedness and response-capacity standards designed and tested for Arctic conditions.

2) The NEB has not provided clear guidelines about its same-season relief well policy

The same-season relief well policy is the strongest element of Canada's current regulatory regime. Adopted in 1976, the policy requires that an operator demonstrate the capability to drill a relief well in the event of a blowout before the end of the drilling season. It was created to ensure that Canada's Arctic was not exposed to the risk of a multiyear blowout as industry ventured into deeper water. Without the ability to stop a blowout in the same season, oil could continue spilling under the ice for nine months or longer, until the next drilling season.

Industry has had trouble meeting this precautionary standard, especially as it pushes into deeper Arctic waters. For example, in its submission to the NEB review, one company documented that only 26 percent of wells drilled in deeper water in the Beaufort Sea and 50 percent of shallow-water wells were finished in a single drilling season. "In hindsight," the report concludes, "the high number of multi-season wells experienced on the Shelf Edge was indicative of the challenges facing the ability to provide [same-season relief well] capability" (Chevron 2010).

The NEB has not provided clear guidelines that give industry the incentive to develop technology to meet the intent of the standard. As a result, operators in some cases have drilled wells with only nominal same-season relief well capability. In other cases,

RECOVERY UNPROVED

Mechanical recovery is the physical removal of oil from the surface of the water. It is generally industry's first response option and employs vessel-based booms and skimmers. Because these were designed for open-water recovery efforts—and not for icy Arctic waters (Bronson *et al.* 2002)—the presence of sea ice significantly reduces their effectiveness (Abdelnour and Comfort 2001). In addition, these boat-based methods may be unavailable at times because of poor visibility from dense fog, high seas and freezing temperatures (Nuka Research 2010). Consequently, the effectiveness and suitability of current mechanical recovery technologies remain unproved for offshore Arctic waters.

In situ burning is setting fire to surface oil slicks and commonly represents industry's secondary response option. Like mechanical recovery, *in situ* burning was designed for open water recovery operations, and testing has not provided adequate data to establish its efficacy in real-world Arctic conditions that often include sea ice and freezing conditions (Potter and Buist 2010).

The use of **chemical dispersants** is industry's final response measure. The utility of chemical dispersants for the Arctic offshore is also uncertain because data about its effectiveness in icy waters is lacking (SL Ross Environmental Research Ltd. 2011). In addition, chemical dispersants could have impacts on the Arctic marine ecosystem. To date, no coordinated monitoring or assessment programs have documented how subsea chemical dispersant application would impact the Arctic water column or marine mammals and fish populations (SL Ross Environmental Research Ltd. 2011). A recent U.S. government study in the Arctic concluded that significant scientific and technical research needs to be done before dispersants can be considered a pragmatic response option for Arctic waters (Holland-Bartels and Pierce 2011).

Should the government permit offshore drilling in the Arctic if it will take nine months or more to kill a blowout?

same-season relief well capability itself was redefined to meet the specific needs of a given project. Industry understood these unwritten rules as the NEB's "oral policy"—a policy that let operators begin drilling offshore without strict same-season relief well capability.²³

Industry is now pushing for a removal of the "sameseason" requirement for relief well drilling. The NEB's current public review is partly the result of this push. In their submissions to the review process, oil and gas companies make two arguments—one economic and the other technological—against a strict interpretation of the same-season relief well policy.

The economic argument is straightforward. It holds that strictly enforcing same-season relief well capability would prohibit *a priori* the ability to drill deepwater wells in the Beaufort Sea and thus stifle resource development. As one company told the NEB:

"Defining relief well capability as the capability to drill a relief well and control a blowout in the same season in which the original well was being drilled would essentially preclude the drilling of deepwater wells, which require multi-season operations. Any deepwater well, including a relief well, would require a multi-season drilling operation in the deepwater Beaufort Sea" (Imperial Oil 2010).

Industry's technological argument proposes a focus on preventing a blowout rather than responding to one. Technological innovation on the preventative side, industry claims, can equal (or exceed) sameseason relief well capability. One company, for example, wrote to the NEB "that a more credible approach to achieving safety and environmental protection objectives will be to focus on preventative measures and mitigations against a blow-out in the design and execution of the original well" (BP 2010). Another company's NEB submission concurs and proposes that a combination of "multiple levels of effective and redundant prevention equipment" and "a backup blowout preventer and marine riser on site for capping or relief well use" be deemed equivalent to the same-season relief well capability (Imperial Oil 2010).

The problem with the first argument—economic necessity—is that it fails to answer a basic question of Arctic readiness: Should the government permit offshore drilling in the Arctic if it will take nine months or more to kill a blowout? The second argument that innovation in blowout prevention means that the ability to respond to one is unnecessary—flies in the face of recent experience in much more benign seas than the Arctic. Despite the best planning, catastrophic blowouts do occur, and an adequate response must be planned for. Removal of the same-season requirement for relief well drilling without real equivalency on the response side would be stepping away from, rather than toward, Arctic-readiness.

Solution:



RECOMMENDATION 7: The NEB should maintain the intent of its same-season relief well policy to require that a blowout can be stopped during one season.

3) Inuit environmental assessment bodies often do not have sufficient resources for adequate review and should not serve as surrogates for government consultation with Inuit.

All five settled land claims in Canada's Arctic create mechanisms for Inuit involvement in environmental assessments. Examples include the EIRB established for the Canadian Beaufort and the Nunavut Impact Review Board set up for Nunavut. Reviews by these bodies are triggered when an operator submits a proposal for a development activity. (As noted above, these project-specific assessments differ from strategic environmental assessments—regional exercises conducted in advance of particular project activities.)

Environmental assessments provide a critical link between the hydrocarbon licensing and regulatory structures. However, to become Arctic-ready, Canada needs to address two problems related to the use of Inuit land claims-based environmental assessment bodies. First, these bodies face myriad development proposals that must be examined under very tight fiscal and personnel constraints. The government should increase the capacity of these institutions where necessary to ensure that they have the people, skills and tools to conduct meaningful environmental assessment and review of offshore hydrocarbon exploration and production.

Second, the NEB appears to rely on environmental assessments conducted by these organizations as a surrogate for Inuit consultation about specific proposals. Yet while environmental assessments, designed to evaluate the potential of a given development to cause significant environmental impact, may go some way in meeting government's consultation and accommodation obligations to Aboriginal peoples, additional efforts tailored to their interests will ordinarily be required.²⁴ No formal consultation now occurs between the government and Inuit before or during the environmental assessment process. Government should conduct independent consultations with Inuit organizations and communities during this stage.

Solution:



RECOMMENDATION 8: Inuit environmental assessment capability should be strengthened by providing additional resources, and the government should conduct its own Inuit consultations surrounding the assessments for exploratory activities.

Phase 4: Issuance of a Significant Discovery Licence and/or Production Licence

Process: Marking the end of a successful exploration phase, an operator can apply for a declaration of significant discovery and a significant discovery licence to receive exclusive rights to drill and test for hydrocarbons for an indefinite term.²⁵ When a "commercial discovery" has been made that is economically viable to bring to production, an operator can apply for a declaration of commercial discovery, which, if granted, sets the stage for issuing a production licence valid for 25 years and can be automatically renewed if the well is still producing hydrocarbons.²⁶

Problem: The Canadian government does not have a mechanism to review and cancel (subject to payment of compensation) significant discovery or production licences under justifiable circumstances.

Global climate change is reshaping the Arctic marine environment in substantial and dramatic ways. Ice conditions, weather, and marine and shoreline species are impacted by these new conditions. Many of the existing licences in Canada's Arctic (such as those at the entrance to Lancaster Sound²⁷) were issued in the 1970s and 1980s, before climate change was a subject of rigorous scientific analysis. Since then, scientists have gained a better, though evolving, understanding of ecologically sensitive areas that need enhanced conservation status. Settled land claims have empowered Inuit communities to document what traditional ecological knowledge teaches about Arctic marine environments.

As noted earlier, in order for an overall oil and gas program to be Arctic-ready, our level of understanding about the Arctic Ocean ecosystem needs to be enhanced over time. Without a mechanism to review and change long-term or indefinite licences in light of new scientific data, the government has little ability to respond to fundamentally new understandings about the Arctic Ocean or to review licences in light of lessons learned from events such as the Deepwater Horizon disaster in the Gulf of Mexico.

The ability to review and, if appropriate, cancel (subject to payment of compensation) long-term hydrocarbon interests is an important element of oil and gas and oil sands policy in Alberta and provides flexibility to governments and certainty to industry as to the rules to be followed.²⁸ Moving forward, Canada should include similar provisions in the regulations or in new licences granted for Arctic offshore oil and gas.

Solution:

RECOMMENDATION 9: The government should create a provision to review and cancel licence tenures in justifiable circumstances upon payment of appropriate compensation.

Phase 5: Authorization Procedures to Produce Hydrocarbons

The NEB regulates all activities for actually producing offshore oil and gas during this stage. Production activities also must comply with relevant laws and regulatory regimes such as the Canadian Environmental Assessment Act, Canada Oil and Gas Operations Act, Canada Oil and Gas Drilling and Production regulations, Canada Oil and Gas Installation regulations, Territorial Lands Act, Arctic Waters Pollution Prevention Act, Migratory Birds Convention Act, Species at Risk Act, Fisheries Act and Canadian Environmental Protection Act.

Problems: The production phase of Arctic offshore oil and gas operations suffers from two main weaknesses:

1) Inuit do not stand to benefit from the successful production of offshore hydrocarbon in proportion to what they risk.

Although the Canadian Arctic is one of many places in which offshore hydrocarbons can be pursued, for Inuit it is the only home they have. Over thousands of years, Inuit have developed a unique reliance on the Arctic marine environment for food and cultural wellbeing. Of all the players involved in an Arctic offshore oil and gas program, Inuit communities bear the greatest risk from chronic or catastrophic environmental harm caused by such activities. Yet under the current system, benefits to Inuit from offshore oil and gas are not proportionate to these risks.²⁹

In both the Inuvialuit Final Agreement and the Nunavut Land Claims Agreement, benefit provisions are principally triggered by the use of Inuit lands. Because the seabed where offshore drilling occurs in the Arctic is considered Crown land, no formal benefits plans or participation agreements are required for offshore production unless Inuit lands are required for secondary or tertiary aspects of the operation.³⁰

Industry still has an incentive to conclude agreements with indigenous communities regardless of formal obligations because such agreements can foster support for projects, reduce friction and provide some sort of social licence to operate. Nevertheless, the absence of a legal trigger to negotiate benefit agreements in relation to offshore production fails to balance the risks and the benefits of those operations for Inuit. An Arctic-ready offshore oil and gas production scheme should recognize the need for this balance.

2) Production can begin without the capacity to implement a set of Arctic-ready best practices for compliance monitoring, transportation and decommissioning.

The issues raised earlier for the exploration phase—including oil-spill preparedness and response capacity and the requirement to kill a blowout in a single season—also apply to the production phase. In addition, three other issues need to be addressed to make the production phase Arctic-ready.

a) Compliance-monitoring capacity to meet new offshore demands

Canada's Oil and Gas Drilling and Production Regulations and the NEB's Environmental Protection Plan Guidelines require industry to present plans for internal and external audits of its practices as part of its applications for authorization. In addition, the NEB conducts site visits and inspections as key components of its compliance-monitoring scheme. Because the NEB has regulated just one shallow-water well in the Arctic, offshore production—especially in the Arctic deepwater currently targeted by industry will necessitate an increase in the NEB's resources and personnel dedicated to compliance monitoring through site inspections.³¹

b) Transportation

Aside from exploratory drilling, the transportation of hydrocarbons from production to market presents the greatest risk of a major oil spill. The lack of pipeline infrastructure means that Arctic operators would likely rely on tanker transport (Mariport Group Ltd. 2007). Oil tanker shipping routes from the Beaufort Sea would go west around Alaska and through the Bering Strait or east through the Northwest Passage. Both are long voyages through remote, icy waters.

Neither the NEB nor Transport Canada has developed guidelines or standards that incorporate the unique challenges and dangers of transporting hydrocarbon in Arctic waters.³² To become Arcticready, the NEB and other regulators such as Transport Canada need to provide strong leadership, operator guidelines and transportation standards to minimize the risk to the region and its people.

c) Well abandonment, decommissioning and site remediation

Before production is approved, current regulations require operators to submit to the NEB a plan for decommissioning and restoring production sites (Canada Oil and Gas Drilling and Production Regulations). However, the NEB does not provide strong guidelines to industry on how to tailor decommissioning plans to the special requirements of the Arctic. In some cases, this lack of standards has hurt Arctic communities, which have to live with unforeseen consequences of previous hydrocarbon production. For example, one operator in the Western Arctic has left a drilling platform in the waters between

a national and territorial park for more than 20 years. Another platform was abandoned in the harbor of Tuktoyaktuk, the largest Inuvialuit community on the Beaufort coast.

Solutions: To ensure that authorization procedures to produce hydrocarbons are Arctic-ready, two policy reforms are required:



RECOMMENDATION 10: Inuit benefits plans and royalty sharing agreements should be negotiated in line with the risks Inuit communities bear.

RECOMMENDATION 11: A set of Arctic-ready best operating practices should be created for compliance monitoring, transportation, and decommissioning and remediation.

SUMMARY

The Government of Canada charges INAC and the NEB with the responsibility to implement its licensing and regulatory regime for offshore hydrocarbon development in the Arctic Ocean. At each of the five stages of hydrocarbon licensing and regulation, important policy gaps need to be filled. Until that is accomplished, neither the agencies nor the Canadian system for offshore hydrocarbons will be Arctic-ready.

Section II of this report outlines what reforms are needed to the current licensing and regulatory framework to become Arctic-ready. It presents options and ideas that in most cases will need to be cooperatively developed by government, industry and Inuit in order for Canada to manage its Arctic responsibilities in line with the region's needs and values.

SECTION II

Recommendations: Road Map for an Arctic-Ready Offshore Oil and Gas Future

his is a pivotal time for Canada's Arctic offshore oil and gas program. The first application for drilling a deepwater exploration well in the Canadian Beaufort Sea awaits the conclusion of the NEB's review. Two more operators are in line with interests in adjacent deepwater areas. The Deepwater Horizon disaster has highlighted the risks of offshore oil drilling in general. Exploratory drilling in the Arctic Ocean poses even greater risks, and the consequences of a major spill are potentially much more severe. Canada should seize this opportunity to enact significant reforms to the licensing and regulatory sides of its Arctic offshore hydrocarbon program. The following recommendations present a strategy for Canada to achieve Arctic-readiness.

Phase 1: Call for Nominations



Integration and synthesis of scientific information about the possible effects of offshore oil and gas development projects are crucial for informed decision making. Coupled with data gaps and unanswered questions about Arctic marine ecology, this lack of analysis and evaluation increases the risks associated with offshore hydrocarbon development. As recognized internationally and within Canada, strategic environmental assessments are an important tool for understanding how the environmental consequences of a proposed action at both regional and site-specific scales can positively inform all later stages of the regulatory process. Such assessments are especially needed in the Arctic where the effects of climate change together with the cumulative impact of industrial development made possible by melting of permanent sea ice are unique factors. Strategic environmental assessments will allow government decision makers and Inuit to have the information they need to reach informed conclusions and are critical for the Crown to fulfill its duty to consult Inuit. For these reasons, strategic environmental assessments should be triggered before all calls for nominations.

RECOMMENDATION 2: The government should enter into early, formal and meaningful consultation with Inuit during the call for nominations.

Recent court decisions have made clear that licensing and regulatory bodies must provide a level of consultation with Aboriginal peoples that fits the magnitude of the specific development circumstances. In the case of offshore drilling in Canada's Arctic Ocean, the stakes could not be higher. INAC should build structures of consultation that formally bring Inuit in affected land claim agreement areas into decision making at this stage.

In implementing this recommendation, the government also should explore with Inuit options for consultation and communication across the Canadian Arctic as well as within land claim agreement areas. Lessons learned in one Arctic jurisdiction need to be shared in other areas. Information must be disseminated as widely as possible so that all Arctic peoples have the tools and opportunities to engage in meaningful consultation about issues with potential trans-regional impact.

Phase 2: Call for Bids and Issuance of the Exploration Licence

RECOMMENDATION 3: INAC should institute pre-bid threshold requirements for environmental performance and financial resources to respond to a worst-case oil spill or blowout.

Before bids on offshore hydrocarbon blocks are accepted, INAC should require that operators meet Arctic-based industry best practices for drilling performance and environmental protection, oilspill prevention and preparedness, and human safety. In addition, INAC should establish threshold requirements for the ability of bidders to meet financial obligations, including absolute liability for a worst-case oil spill or blowout as required in Inuit land claims.



RECOMMENDATION 4: The government should conduct a federal policy review clarifying liability calculations for Arctic offshore oil and gas spills.

In Inuit land claim agreements, operators are accountable absolutely for damages to Inuit from past and future loss of wildlife and habitat and are required to pay for remediation and restoration. Yet federal regulations cap the absolute liability of an operator in the Arctic at \$40 million, an amount that could easily be eclipsed. The government should clarify in a federal policy review or similar study how liability should be calculated and assessed to ensure that the necessary financial security is provided to meet liability based on a worst-case scenario oil spill.



RECOMMENDATION 5: INAC should conduct meaningful Inuit consultation during the call for bids phase.

To meet its legal obligations, INAC needs to build meaningful consultation with Inuit into the call for bids phase. Inuit organizations need to be involved in the selection of biddable areas, the vetting of potential operators using threshold requirements (described above) and the issuance of exploration licences. Consultation at this stage should consider information about the full range of potential industrial activities and potential accidents, including a worst-case scenario.

Phase 3: Authorization and Assessment Processes for Exploratory Activities



The NEB should lead an initiative to develop and implement Arctic spill-planning and response standards. To accomplish this, the agency should:

- 6. 1. Strengthen its spill-preparedness planning guidelines by incorporating practices from other Arctic and non-Arctic jurisdictions into regulation.
- 6.2. Conduct a comprehensive annual spillresponse exercise under realistic Arctic conditions and an unplanned on-site exercise at least every three years.
- 6.3. Guarantee that the region has spill-response capacity to deal with a worst-case scenario.
- 6.4. Develop guidelines that outline acceptable spill response and environmental remediation techniques and technologies for Arctic waters.
- 6.5. Stimulate a new culture of industrial innovation to create Arctic-tested spill-response measures.
- 6.6. Create regional task forces of trained local residents to act as first responders and industry watchdogs.

RECOMMENDATION 7: The NEB should maintain the intent of the same-season relief well policy to protect the Arctic and its people from multiyear blowouts.

The same-season relief well policy is the strongest element of Canada's current regulatory regime. Although there is ambiguity on how to implement the same-season relief well policy for deep offshore lease areas, the intent of the policy has remained constant: to ensure that a catastrophic well blowout in Canada's Arctic Ocean can be killed in a single season. By definition, equivalency to this rule cannot be achieved by guaranteeing prevention because that is inconsistent with historical experience that oil spills and blowouts will happen despite the best prevention plans. The NEB should either enforce a strict interpretation of its current same-season relief well policy or design a real equivalency that will ensure a blowout can be killed in one season rather than extend into multiple seasons.



RECOMMENDATION 8: Inuit environmental assessment capability should be strengthened by providing additional resources, and the government should conduct its own Inuit consultations surrounding the assessments for exploratory activities.

Inuit have the most to lose if a worst-case scenario oil spill should occur in the Arctic Ocean.

Inuit environmental assessment authorities must be ready to meaningfully assess and review offshore oil and gas exploration activities. INAC and the NEB should complete a skills and resource gap analysis and provide funds to increase capacity where gaps are identified to ensure these organizations have the tools to effectively fulfill their land claim obligations.

In addition, the NEB should directly consult Inuit organizations about Arctic offshore exploration activities and provide a resource for community questions and concerns related to the regulatory process. Relying on industry to consult with Inuit communities improperly outsources the government's duty to consult Inuit during the crucial exploration phase.

Phase 4: Issuance of a Significant Discovery Licence and/or Production Licence

RECOMMENDATION 9: The government should create a provision to review and cancel (subject to payment of compensation) licence tenures in justifiable circumstances.

The indefinite and long tenures granted by significant discovery licences and production licences limit government's ability to guarantee these tenures remain in the public's interest over time. The government needs to be able to effectively react to emerging and unforeseeable circumstances in the Arctic such as dramatic environmental changes, industrial disasters or national security issues. Therefore, the government should establish a mechanism to review and cancel (subject to payment of compensation) licences under justifiable circumstances.

Phase 5: Authorization Procedures to Produce Hydrocarbons

RECOMMENDATION 10: Inuit benefits plans and royalty-sharing agreements should be negotiated in line with the risks Inuit communities bear. The ratio of risk to reward for Inuit under the current policies governing benefits in the Canadian Arctic offshore is out of balance. Inuit have the most to lose if a worst-case scenario oil spill should occur in the Arctic Ocean. The government should devise a new benefits scheme that aligns with these Arctic realities. Such a scheme could include increased Inuit royalty-sharing provisions negotiated through future devolution agreements, a revision of the Canada Benefits Plan, or another mechanism determined by the Government of Canada, Inuit and industry.

RECOMMENDATION 11: A set of Arctic-ready best operating practices should be created for compliance monitoring, transportation, and decommissioning and remediation.

The NEB should create a new set of Arcticready best operating practices to ensure safe and responsible hydrocarbon development for Canada's Arctic offshore. In addition to the components in Recommendation 6 above, best operating practices also should be created for:

- 11.1. Compliance monitoring: The NEB should increase its resources and personnel dedicated to monitoring and compliance activities for Arctic offshore hydrocarbon production and infrastructure.
- 11.2. Transportation: Working with other appropriate agencies, the NEB should develop guidelines and standards to enable operators to mitigate the dangers of transporting hydrocarbons through Arctic waters.
- 11.3. Well abandonment, decommissioning and site remediation: The NEB should develop Arcticspecific guidelines and standards for disposal of nonproducing oil and gas platforms and supporting infrastructure, plus remediation of Arctic sites when production is finished.

CONCLUSION

An Arctic-Ready Future for Canada?

ncreased interest in Arctic Ocean hydrocarbon resources stretches well beyond Canada's borders. In the United States, industry is pushing for permission to drill offshore exploration wells in the U.S. Beaufort and Chukchi seas. In Greenland, Norway and Russia, oil and gas operations are moving forward as climate change and technological innovation make new drilling feasible.

As one of the five stewards of the Arctic Ocean, Canada has an obligation to help lead the world to safe and environmentally responsible offshore hydrocarbon exploration and development that respects the rights and livelihood of its Inuit and broader citizenry (Canada *et al.* 2008). This report has identified key issues, challenges and critical recommendations for reform that would give Canada the tools to meet its environmental and human obligations.

When Canada devised its same-season relief well policy in the 1970s, it set a standard for the world to follow commensurate with the new risks of moving from shallow to deepwater drilling. In some other important ways, as detailed in this report, Canada's offshore oil and gas system lags behind those of other Arctic nations. The world will be carefully watching the deliberations and decisions emanating from the NEB review examining the regulation of Arctic offshore oil and gas. In addition, other government actions are needed to reform Canada's licensing system for the Arctic. Will Canada take steps toward—or away from creating an Arctic-ready licensing and regulatory regime for offshore oil and gas?

Though divided by political boundaries, the Arctic Ocean is a single geographic expression, contains a common cultural heritage, similar ecosystems and marine life. This is a historic moment. Canada has the opportunity to lead the way to environmentally safe oil and gas development in the Arctic Ocean. To accomplish this, the country needs strong leadership, precautionary decision making and effective risk management. Business as usual doesn't reflect the Arctic values that help define Canada. Bold reform will resonate around the world and set high standards for other countries to follow. Canada's legacy in the Arctic hangs in the balance.

ENDNOTES

- 1 The EIRB is a public body created by the 1984 Inuvialuit Final Agreement charged with the evaluation of applications for development activity in the Inuvialuit Settlement Region.
- 2 Throughout the report, unless otherwise noted, "government" refers to the Government of Canada.
- 3 The NEB regulates such frontier lands as the Arctic and offshore areas not covered by other territorial, provincial or federal management agreements.
- 4 The Canada Oil and Gas Lands Administration regulated 88 offshore oil and gas wells in the Beaufort Sea in the 1970s and 1980. During this time, well depths averaged 26 metres, and the deepest well was 67 metres. Results did not merit industry production (Masterson *et al.* 1991). In 1994, the NEB's authority was expanded to include regulation of oil and gas activity in Canada's Arctic frontier areas. Since then, the NEB has regulated one shallow-water well in the Beaufort Sea—Devon's Pakota well at 12 metres depth (Voutier *et al.* 2008).
- 5 On May 18, 2011, Prime Minister Stephen Harper announced that INAC would henceforth be called the Department of Aboriginal Affairs and Northern Development. As this change of name is being "phased in," this report continues to refer to INAC.
- Five settlement land claims in Canada have Arctic coastal and marine territory: James Bay and Northern Quebec Agreement (1977), Inuvialuit Final Agreement (1984), Nunavut Land Claims Agreement (1995), Labrador Inuit Land Claims Agreement (2005) and Nunavik Inuit Land Claims Agreement (2008). Examples of Inuit co-management or governance institutions set up under these agreements include: the Inuvialuit Game Council, the Nunavut Impact Review Board (NIRB) and the Nunavik Marine Region Review Board.
- 7 Although beyond the scope of this policy analysis, the consideration of Aboriginal rights is a dynamic and fast-growing area of Canadian law. The general principles established by the Supreme Court and provincial appellate courts include:

• Federal, provincial and territorial governments must consult Aboriginal people whose rights may be affected by proposed government decisions or actions.

• The duty to consult is a constitutional mandate flowing from the honour of the Crown.

• The Crown's duty to consult is not exhausted or negated by the negotiation of a modern land claim agreement such as the Inuit agreements discussed in this paper.

• The content of the duty to consult and any necessary accommodation varies depending upon the strength of the Aboriginal right to interest and the possible impact of the proposed government decision or action. In some cases, mere notification may suffice; other cases may require something closer to consent.

• In discharging its duty, the government must be able to demonstrate how it has responded to information gained through the consultation process.

In general, see *Haida Nation v. British Columbia* (Minister of Forests), 2004 SCC 73 and *Beckman v. Little Salmon/Carmacks First Nation*, 2010 SCC 53. Throughout this paper, the phrase "duty to consult" and "meaningful consultation" should be read to include all of these facets.

- 8 Inuvialuit are Inuit of Canada's Western Arctic region.
- 9 Such lack of innovation was highlighted in the Deepwater Horizon Oil Spill Commission's Report: "Twenty years after the Exxon Valdez spill in Alaska, the same blunt response technologies—booms, dispersants, and skimmers—were used, to limited effect." p. ix.
- In the United States, the National Environmental 10 Policy Act requires that an environmental impact statement be "integrated early" in the planning for development activities. "Before areas are opened for licensing" in Norway, "an extensive EIA [environmental impact assessment] must be carried out. This EIA is similar to a strategic environmental assessment (SEA). The process is initiated and funded by the authorities.' In Greenland, the Bureau of Minerals and Petroleum conducts a strategic environmental impact assessment (SEIA). "The SEIA identifies knowledge and data gaps, highlights issues of concern, makes recommendations for mitigation and planning and identifies restrictive and mitigative measures and monitoring requirements that must be dealt with by the companies applying for oil and gas licences in Greenland" (Arctic Council 2009).
- SEAs have become an important piece of the regulatory regime in Newfoundland and Labrador. Since 2002, the Canada-Newfoundland and Labrador Offshore Petroleum Board has conducted a number of regional SEAs as it considers opening new areas in anticipation of increased interest in hydrocarbon development (Canada-Newfoundland and Labrador Deepwater Petroleum Board 2011).
- 12 In 2004, the Inuvialuit Game Council requested that the government initiate a regional environmental assessment to help determine the cumulative effects of individual offshore oil and gas projects. In 2008, the resulting Beaufort Sea Strategic Regional Plan of Action-a government-Inuvialuit effort-called for a coordinated and integrated strategic approach in the region, summarized many of the key questions that such an approach would need to answer, and provided specific recommendations on how to address them (Beaufort Sea Strategic Regional Plan of Action Steering Committee 2008). In 2010, the government initiated the Beaufort Regional Environmental Assessment, a five-year research program to collect data on specific issues related to offshore oil and gas development (INAC undated). Although the research generated will help address some of the data gaps identified for the Beaufort Sea, it does not fulfill the integration, synthesis and sitespecific functions of a strategic environmental assessment as defined by the Arctic Council nor the integrated strategic approach articulated in the Beaufort Sea Strategic Regional Plan of Action. Nor is there any clear policy direction that such an assessment would be consistently required in other areas before nominations are called for.
- 13 The Supreme Court has made clear that meaningful consultation must take place at the strategic planning stage for utilization of resources. *Haida Nation* 2004. As discussed above, in the case of Arctic offshore oil and gas this likely entails more than government briefing sessions to Inuit organizations when important decisions are being contemplated.

- 14 These plans do not include rent, royalties or revenue from oil and gas production. Rather, they focus on providing suppliers of goods and services with full and fair opportunities, ensuring priority for opportunities is given to qualified individuals resident in directly affected regions, and ensuring the economic viability and international competitiveness of the project. Benefits plans at this stage (call for bids) tend to be a pro forma statement of principles. They are usually expanded at the production stage.
- 15 "BP profits dip as Deepwater Horizon costs continue to mount." *Guardian*. April 27, 2011.
- Offshore oil and gas regulators such as the 16 Canada-Newfoundland and Labrador Offshore Petroleum Board and the NEB may require an operator to post additional security on a case-by-case basis to cover fault-based liability (Senate Committee on Energy, the Environment and Natural Resources, 2010 p. 39). The two offshore boards have developed a joint policy on this but it does not appear that the NEB has developed a written policy on how it will exercise this discretion. Looking at the liability issue for offshore oil and gas, a Senate committee recently recommended "a comprehensive review of the issue of liability, including whether the thresholds should be adjusted to reflect current economic realities" (Senate Committee on Energy, the Environment and Natural Resources 2010, p. 46).
- 17 According to Section 2 of the Canada Petroleum Resources Act, a "significant discovery" is defined as "a discovery indicated by the first well on a geological feature that demonstrates by flow testing the existence of hydrocarbons in that feature and, having regard to geological and engineering factors, suggests the existence of an accumulation of hydrocarbons that has potential for sustained production."
- 18 Other laws and requirements triggered during the exploration phase include the Canadian Environmental Assessment Act, Canada Oil and Gas Operations Act, Canada Oil and Gas Drilling and Production Regulations, Canada Oil and Gas Installation Regulations, Territorial Lands Act, Arctic Waters Pollution Prevention Act, Migratory Birds Convention Act, Species at Risk Act, Fisheries Act and Canadian Environmental Protection Act (Institute for Energy and the Environment 2010, p. 7.)
- 19 Canada Oil and Gas Drilling and Production Regulations require an operator to develop and implement a management system, which must contain a safety plan and an environmental protection plan (NEB 2011a; NEB 2011b). Environmental protection plans must also contain "contingency plans, including emergency response procedures, to mitigate the effects of any reasonably foreseeable event that might compromise safety or environmental protection" (emphasis added). The contingency planning stipulation of the environmental protection plan requires industry to develop emergency response plans, spill-response plans and spill-response exercises, which address specific offshore hydrocarbon emergencies. As noted above, these guidelines are not specific to Arctic conditions.

- 20 The United States includes specific emergency preparedness content in regulation, and mandates that emergency preparedness plans be tested every three years. The United Kingdom requires spill-response plans to be tested annually (Dagg *et al.* 2011).
- 21 Under the Canada Oil and Gas Operations Act, operators are responsible for "all reasonable measures consistent with safety and the protection of the environment to prevent any further spill, to repair or remedy any condition resulting from the spill and to reduce or mitigate any danger to life, health, property or the environment that results or may reasonably be expected to result from the spill" (Section 25[3]).
- 22 The commission examining U.S. offshore drilling in light of the Deepwater Horizon blowout highlighted similar concerns about U.S. Coast Guard readiness to respond to a spill in the Arctic (Deepwater Horizon Oil Spill Commission 2011). In July 2011 testimony to Congress, U.S. Coast Guard Adm. Robert J. Papp Jr. stated that the U.S. government is not prepared to respond to an oil spill in the Arctic: "If this were to happen off the North Slope of Alaska, we'd have nothing. We're starting from ground zero today.' ("U.S. not ready to respond to Arctic oil spills: Coast Guard chief." Platts News Service, July 27, 2011. Accessed Aug. 9, 2011. www.platts.com/ RSSFeedDetailedNews/RSSFeed/Oil/6320097.)
- 23 Imperial Oil Resources Ventures Ltd. writes in its Dec. 2, 2009, letter in response to the NEB's rejection of its application for advanced ruling: "We believe that the submitted application is in full compliance with the NEB's oral policy on same season relief well [SSRW] capability, based on equivalency. ... The NEB has been able to issue many drilling approvals without the benefit of a formal written version of the SSRW capability policy. From conversations earlier this year, Imperial understood that the NEB could effectively respond should Imperial submit a specific application and that a response by year end 2009 would be possible to meet Imperial's business deadlines?

https://www.neb-one.gc.ca/ll eng/livelink.exe/ fetch/2000/90463/589151/594086/ 594001/585543/A1Q8Z5_-_Letter. pdf?nodeid=585544&vernum=0.

- See for example Qikiqtani Inuit Association v Canada (Minister of Natural Resources) 2010 NUCJ 12 http://www.canlii.org/en/nu/nucj/ doc/2010/2010nucj12/2010nucj12.html, where the Court rejected Canada's argument that the NIRB screening and process set out in the NLCA discharged the government's duty to consult. Accordingly the Court granted QIA's request for an injunction to prevent seismic testing in Lancaster Sound in 2010, concluding that "[I]t is not clear that the NIRB screening process is a consultative process in the meaning of the common law duty to consult. The NIRB is not tasked with the responsibility of consulting; it is tasked with the responsibility of reviewing applications." In other cases, the Courts have concluded that the Crown can use an EIA process to discharge its duty to consult: see Taku River Tlingit First Nation v British Columbia, (2004) 3 SCR 50.
- 25 "The absence of a time limit reflects the common reality that a discovery may be of a size and in a location which make it uneconomic to develop for the time being. This in turn allows the developer to decide when to initiate development and apply for a production licence, possibly as other discoveries are made in the region or new infrastructure is developed" (INAC 1999).
- 26 In addition, the minister may extend the term of the production licence. As with operations conducted during previous phases, industrial activities before and after the issuance of a significant discovery licence or production licence must comply with relevant laws and regulations.
- 27 In 2009, Parks Canada signed a memorandum of understanding with Inuit organizations committing to a process for creating a national marine conservation area for Lancaster Sound. an area highly valued by Inuit communities as one of the world's greatest migratory pathways for whales and other marine mammals. By law, such areas preclude offshore oil and gas drilling and deepwater mining. In 2010, acting Minister of the Environment John Baird proposed boundaries encompassing more than 40,000 square kilometres. Because oil and gas leases from the 1970s just outside the entrance of Lancaster Sound-now owned by Royal Dutch Shell-remain on the books, the government boundary proposal excluded important marine habitat. The final boundary for this globally important marine area will be negotiated by the government and Inuit.

- 28 The draft Lower Athabasca Regional Plan established by the Alberta Land Stewardship Act, SA 2009, c.A-26.8, contains mechanisms for the Crown to cancel oil sands leases (subject to compensation) in order to create new protected areas in certain circumstances. The applicable compensation provisions are contained in the Mineral Rights Compensation Regulations. www.canlii.org/en/ab/laws/regu/altareg-317-2003/latest/alta-reg-317-2003.html.
- 29 Although this report describes specific Inuit issues related to offshore oil and gas development in Canada, Inuit have international standing in bodies such as the Arctic Council through the Inuit Circumpolar Council (ICC). The ICC recently published a declaration on resource development, including offshore oil and gas, laying out a rationale for meeting legitimate Inuit needs from offshore oil and gas revenue as a first priority (ICC 2011).
- The Inuvialuit Final Agreement contains no 30 revenue-sharing provisions for offshore oil and gas in its settlement area (the Canadian Beaufort). The NLCA provides for resource revenue sharing (Article 25) with respect to production on Crown lands within the settlement area, but this provision is restricted in two important ways. First, the settlement area in Nunavut excludes much of the deepwater Arctic Ocean within the Nunavut Territory that has been the most interesting to oil and gas companies. And second, revenue is capped at 50 percent of the first \$2 million and only 5 percent thereafter of any royalties received annually by the federal government. The Nunavik Inuit Land Claims Agreement contains a similar nominal royalty scheme.
- 31 In 2010, the NEB conducted 218 "compliance activities" throughout its jurisdiction. Of these, 27 were environmental inspections and 29 were safety inspections (NEB 2010). The report does not indicate how many of these were related to the offshore Arctic versus NEB's other, non-Arctic jurisdictions.
- 32 The off-take system will be regulated by the NEB under the Canada Oil and Gas Operations Act as part of the production approvals process. However, vessel safety and operation will be regulated by Transport Canada under the Canada Shipping Act.

WORKS CITED

- Abdelnour and Comfort. 2001. Application of ice booms for oil-spill cleanup in ice infested waters. (Fleet Technology Ltd., Kanata, Ontario). www. boemre.gov/tarprojects/353/353%20aa.PDF
- Arctic Council. 2004. Impacts of a Warming Arctic: Arctic Climate Change Impact Assessment. Cambridge University Press.
- Arctic Council. 2009. Arctic Offshore Oil and Gas Guidelines.
- Beaufort Sea Strategic Regional Plan of Action Steering Committee. 2008. Beaufort Sea Strategic Regional Plan of Action. www.jointsecretariat.ca/pdf/ BSStRPA%20RPA%20April%2018.pdf.
- Beaufort Sea Steering Committee. 1991. A Report to the Minister of Indian Affairs and Northern Development Regarding Issues Arising from the Environmental Impact Review Board Reviews of the Isserk and Kulluk Drilling Program (Vancouver, B.C.).
- BP Exploration Operating Co. Ltd. 2010. Review of Policy on Same Season Relief Well Capability for Drilling in the Beaufort Sea, Submitted to the National Energy Board (Hearing Order MH-1-2010).
- Bronson, M., *et al.* 2002. Ice Effects on a Barge-Based Oil Spill Response System in the Alaskan Beaufort Sea (Arctic and Marine Oil Spill Program Technical Seminar).
- Canada, Denmark, Norway, the Russian Federation and the United State of America. 2008. The Ilulissat Declaration. http://arctic-council.org/filearchive/ Ilulissat-declaration.pdf.
- Canada-Newfoundland and Labrador Offshore Petroleum Board. 2011. Strategic Environmental Assessment. www.cnlopb.nl.ca/env_strategic.shtml.
- Chevron. 2010. Submission to National Energy Board Policy Hearing for Same Season Relief Well Capability for Drilling in the Beaufort Sea. Submitted to the National Energy Board (Hearing Order MH-1-2010).
- Cobb, D., et al. 2008. Beaufort Sea Large Ocean Management Area: Ecosystem Overview and Assessment Report (Fisheries and Oceans Canada). www.beaufortseapartnership.ca/documents/ EOAR2008March.pdf.
- Cournoyea, N. May 18, 2010. Letter to the Honourable Chuck Strahl and Gaétan Caron.
- Dagg, J., *et al.* 2011. Comparing the Deepwater Drilling Regulatory Regimes of the Canadian Arctic, the U.S., the U.K., Greenland and Norway (Alberta: Pembina Institute). www.pembina.org/pub/2228.
- Deepwater Horizon Oil Spill Commission. 2011. Deep Water: The Gulf Oil Spill and the Future of Offshore Drilling. www.gpoaccess.gov/deepwater/index.html.
- Environmental Impact Review Board. 1990. Public Review of the Gulf Canada Resources Limited Kulluk Drilling Program, 1990-1992. www.eirb.ca/reviews/ project_database.html.
- Holland-Bartels, L., and B. Pierce (eds.). 2011. An evaluation of the science needs to inform decisions on Outer Continental Shelf energy development in the Chukchi and Beaufort Seas (Alaska: U.S. Geological Survey Circular 1370). http://pubs.usgs. gov/circ/1370.

- Imperial Oil Resources Ventures Ltd. 2010. Submission Regarding the Relief Well Policy for Offshore Drilling in Arctic Water. Submitted to the National Energy Board (Hearing Order MH-1-2010).
- Indian and Northern Affairs Canada. (undated). Beaufort Regional Environmental Assessment. www.ainc-inac.gc.ca/nth/og/sci/brea-eng.asp
- Indian and Northern Affairs Canada. 1999. Primer on Oil and Gas Resource Management in Canada's North—1999 Update. www.ainc-inac.gc.ca/nth/og/ pubs/prim/prim-eng.asp.
- Institute for Energy and the Environment. 2010. Implementing the Arctic Offshore Oil and Gas Guidelines in the United States and Canada, White Paper No. 1 Operating Practices (University of Vermont). www.vermontlaw.edu/Documents/ IEE/07272010_FirstWhitePaperBetsyBaker_ IEENews.pdf.
- Inuit Circumpolar Council. 2011. A Circumpolar Inuit Declaration on Resource Development Principles in Inuit Nunaat. http://inuitcircumpolar.com/section. php?ID=25&Lang=En&Nav=Section.

Inuvialuit Final Agreement (as amended Jan. 15, 1987).

- Mariport Group Ltd. 2007. Canadian Arctic Shipping Assessment (Transport Canada). http://arcticportal. org/uploads/Yo/7a/Yo7actL5VF7Y-902IYWytQ/5.6-Regional-Case-Study-Canada-Canadian-Arctic-Shipping-Assessment-Report.pdf.
- Masterson, D.M., *et al.* 1991. Beaufort Sea Exploration: Past and Future. Presented at the 23rd Annual Offshore Energy Conference in Houston on May 6-9, 1991.
- National Energy Board. (undated). Emergency Planning and Response. www.neb-one.gc.ca/clf-nsi/rthnb/ nrthffshr/mrgncplnnngrspns-eng.html.
- National Energy Board. 2010. NEB Annual Report 2010 to Parliament. www.neb-one.gc.ca/clf-nsi/rpblctn/ rprt/nnlrprt/2010/nnlrprt2010-eng.html.
- National Energy Board. 2011a, Safety Plan Guidelines, jointly issued by the National Energy Board, Canada-Nova Scotia Offshore Petroleum Board and Canada-Newfoundland and Labrador Offshore Petroleum Board. www.neb-one.gc.ca/clf-nsi/ rpblctn/ctsndrgltn/rgltnsndgdlnsprsnttthrct/ drllngprdctnrgltn/sftplngdln-eng.html.
- National Energy Board. 2011b. Environmental Protection Plan Guidelines, jointly issued by the National Energy Board, Canada-Nova Scotia Offshore Petroleum Board and Canada-Newfoundland and Labrador Offshore Petroleum Board. www.neb-one.gc.ca/ clf-nsi/rpblctn/ctsndrgltn/rgltnsndgdlnsprsnttthrct/ drlingprdctnrgltn/nvrnmntplngdln-eng.html.
- Nuka Research and Planning Group LLC and Pearson Consulting LLC. 2010. Oil Spill Prevention and Response in the U.S. Arctic Ocean: Unexamined Risks, Unacceptable Consequences (Pew Policy Briefs). www.PewEnvironment.org/news-room/ reports/oil-spill-prevention-and-response-in-theus-arctic-ocean-unexamined-risks-unacceptableconsequences-8589942645.
- Nunavut Land Claims Agreement. 1995. Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada. www.gov.nu.ca/hr/site/doc/nlca.pdf.

- Office of the Auditor General of Canada. 2010. Fall Report of the Commissioner of the Environment and Sustainable Development. www.oag-bvg.gc.ca/ internet/English/parl_cesd_201012_e_34435.html.
- Potter, S. and Buist, I. 2010. In Situ Burning in Arctic and Ice-covered Waters: Tests of Fire resistant Boom in Low Concentrations of Drift Ice. Proceedings of the 33rd Arctic and Marine Oil Spill Program Technical Seminar.
- Ross, S.L., *et al.* 1977. Oil Spill Countermeasures: The Beaufort Sea and the Search for Oil (Department of Fisheries and the Environment).
- Senate Committee on Energy, the Environment and Natural Resources. 2010. Eighth report. Facts Do Not Justify Banning Canada's Current Offshore Drilling Operations: A Senate Review In the Wake of BP's Deepwater Horizon Incident. www.parl. gc.ca/Content/SEN/Committee/403/enrg/rep/ rep08aug10-e.pdf.

Simon, M. 2010. Letter to the Right Honourable Stephen Harper.

- SL Ross Environmental Research Ltd. and Environmental Protection Branch Canada Oil and Gas Lands Administration. 1991. Assessing the Costs of a Major Oil Spill in the Canadian Beaufort Sea. http://pubs.aina.ucalgary.ca/misc/48599.pdf.
- SL Ross Environmental Research Ltd. *et al.* 2010. Beaufort Sea Oil Spills State of Knowledge and Identification of Key Issues (Environmental Studies Research Funds Report 177). www.esrfunds.org/ pdf/177.pdf.
- SL Ross Environmental Research Ltd. 2011. Spill Response Gap Study for the Canadian Beaufort Sea and the Canadian Davis Strait. Commissioned by the National Energy Board. https://www.neb.gc.ca/ Il-eng/livelink.exe?func=Il&objld=702787&objActio n=browse.
- U.K. Department of Energy and Climate Change, Oil Pollution Emergency Plan Requirements. 2009. https://www.og.decc.gov.uk/environment/OPEP_ Guidance.doc.
- Voutier, K., *et al.* 2008. Sustainable Energy Development in Canada's Mackenzie Delta-Beaufort Sea Coastal Region. *Arctic* 61(5), Suppl. 1, pp. 103-110. http://arctic.synergiesprairies.ca/arctic/index. php/arctic/article/view/105/139.

APPENDIX

Inuvialuit Regional Corporation CCC CORRECT ST Bag Service #21, Inuvik, NT XOE OTO Telephone: (867) 777-2737 • Fax: (867) 777-2135 E-mail: info@irc.inuvialuit.com May 18, 2010 The Honourable Chuck Strahl Minister of Indian and Northern Affairs House of Commons Ottawa, Ontario K1A 0A6 Gaétan Caron Chair and CEO National Energy Board 444 Seventh Avenue SW Calgary, Alberta T2P 0X8 Dear Minister Strahl and Mr. Caron: Re: 1) Delay of issuance of additional Exploration Licenses (EL's) in the Beaufort offshore 2) Delay in the granting of approvals to drill on existing EL's in the Beaufort offshore Commencing with the issuance of EL 446 to Imperial Oil in 2007, the hydrocarbon industry, for the first time, indicated their commitment to explore for hydrocarbon resources in the deeper waters of the Canadian Beaufort Sea. Following this initial interest by Imperial Oil, in 2008 BP and ConocoPhillips were awarded EL's 449, 451, 452 and 453 in areas adjacent to that issued to Imperial Oil in 2007. There were no EL's issued in the Beaufort Sea area in 2009. Since the issuance of these EL's, Imperial Oil and BP have advanced their exploration efforts through the completion of marine based seismic programs over the licensed areas - Imperial Oil during the summer of 2008 and BP during the summer of 2009. Additional research in support of their drilling program was undertaken by Imperial Oil in concert with the Canadian Coast Guard and Arctic Net during the summer of 2009. A similar research program will be undertaken by BP and the same partners this coming summer.

Since the issuance of these EL's, both Imperial Oil and BP have spent considerable time and effort in meeting with the Inuvialuit and the residents of the communities in the exploration area. In addition, Imperial Oil has sponsored a series of technological, environmental and economic opportunity workshops to outline how their anticipated drilling program would be undertaken within the time frame provided under their EL (an initial period of 5 years with the opportunity for a four year extension).

During these workshops Imperial Oil stressed the practical impossibility of meeting the current NEB requirement that they demonstrate their ability to drill a same season relief well (SSRW) should they experience a blowout on their exploration well. Rather than meet this requirement Imperial Oil provided clear assurance that their proposed Blow-out Prevention (BOP) system was virtually fail safe and as a result the NEB requirement for a SSRW was not required. During this period Imperial Oil formally approached the NEB for approval of this BOP system in lieu of demonstrating their SSRW capability. This request was denied by the NEB - that in turn initiated a public review process to discuss and reconsider their current SSRW policy. This review process has recently been cancelled in light of the recent Gulf of Mexico blow-out.

Since the initial award of EL 446 to Imperial Oil in 2007, the Inuvialuit have had serious concerns over the possible threats to the Beaufort Sea ecosystem by the conduct of exploration and future production activites in the Beaufort Sea offshore – particularly in those areas beyond shore fast ice. This concern has been shared with federal and territorial government departments and agencies and other interested parties and has resulted in several inclusive processes over the past several years to determine knowledge gaps, concerns and actions needed to facilitate the orderly and environmentally sustainable development of the region's hydrocarbon resources. The outcome of this inclusive process was the finalization of a Beaufort Sea Strategic Regional Plan of Action, followed by a proposal to conduct a Beaufort Regional Environmental Assessment (BREA) which addressed the specific initiatives that should be undertaken by governments and other parties. It is our understanding that the Department of Indian Affairs and Northern Development prepared a Memorandum to Cabinet to obtain the required funding to implement the initiatives outlined in the proposal and that this request was denied.

One of the key areas identified through the BREA process relates to the possibility of an uncontrolled hydrocarbon spill in the unstable ice filled waters of the Beaufort Sea, the impact of such a spill on the marine environment and the ability of government and industry to remediate it in an environmentally satisfactory manner. At the present time we do not have a detailed life cycle understanding of the living organisms within the Beaufort Sea let alone know how an uncontrolled hydrocarbon spill would impact these organisms. Added to this is the admitted inability of government and industry to both stop and clean-up such a spill after it occurs – even with readily accessible equipment and resources, which are limited to the point of almost non existence in the Beaufort Sea area. Of the three main clean-up options - skimmers, dispersants or in-situ burning; skimmers will not work in ice chocked waters and there has been no detailed assessment of the probability of success of either dispersants or in-situ burning.

The Inuvialuit are supportive of the recent announcements by the National Energy Board to both cancel the June 2010 SSRW hearings (until further information is available from the Gulf of Mexico disaster) and initiate a review of Arctic safety and environmental offshore drilling requirements. In this process the Inuvialuit are requesting that the scope of the review include the need to demonstrate to the residents of the Beaufort Sea region and Canada that appropriate and effective measures to safeguard the Beaufort Sea ecosystem will be put in place before any drilling approvals are granted to industry.

The Inuvialuit need a level of comfort that we do not currently have in the three main areas of environmental risk associated with hydrocarbon drilling activities in the Beaufort Sea:

- 1) The prevention of a blow-out
- 2) The timely stoppage of a blow-out if it occurs
- 3) The containment and clean-up of hydrocarbons from a blow-out

From the recent Gulf of Mexico experience, industry has failed on all three counts. At this time we simply cannot take the chance that any one or more of these failures will be repeated to the detriment of the health of the Beaufort Sea ecosystem.

With the above considerations we are requesting that:

- 1) EL parcel BSMD-5 be withdrawn from bid in the current bidding process for EL's within the Beaufort Sea-Mackenzie Delta region (closing July 6, 2010).
- 2) No further EL's be considered for issuance beyond the land fast ice zones within the Beaufort Sea region until government and industry have demonstrated their ability to address the three areas of concern listed above to the satisfaction of the Inuvialuit and a regional environmental assessment of oil and gas exploration in the Beaufort Sea has been undertaken.
- 3) No approvals to drill on EL-446, 449, 451, 452 or 453 be granted by the NEB until the conditions in the previous paragraph are met.

Thank you for your earnest consideration of the issues we have outlined and your favourable consideration of our requests.

Sincerely, Nell Cournoyea

Chair and CEO



May 26, 2010

The Right Honourable Stephen Harper Prime Minister of Canada 80 Wellington Ottawa, ON K1A 0A2

Dear Prime Minister,

I am writing to you with respect to environmental safeguards surrounding offshore oil and gas drilling in the Canadian Arctic.

The dramatic and destructive consequences of the recent rupture to an oil drill in the Gulf of Mexico underscore the environmental risks and engineering challenges associated with offshore oil and gas exploration and production. In the Arctic offshore, these risks and challenges are compounded greatly by harsh climatic conditions, the presence of annual and multi-year ice, incomplete knowledge bases, and the limited availability of port, transportation, and other forms of infrastructure.

Inuit Tapiriit Kanatami, on behalf of Inuit, is seeking the following core assurances from the Government of Canada with respect to the governance of offshore oil and gas drilling:

- 1. An immediate pause or "time-out" on drilling in the Beaufort Sea in order to take stock of environmental risks and needed risk reduction and mitigation measures.
- A commitment that any future drilling proceed only on the basis of the best safeguards used internationally.
- The adoption of supplementary environmental protection measures that address unique Arctic vulnerabilities.
- Rejection of the December 2009 proposal to relax mandatory offshore drilling regulation in favour of developer generated undertakings.
- 5. Ensuring that the timing and pace of Arctic oil and gas development balance two primary considerations --- improving the well being of Inuit and enhancing the energy security of Canadians --- while contributing to a larger Canadian and global strategy to reduce carbon emissions.
- Recognition that Inuit knowledge of unique and fragile conditions is vital to decision making on environmental protection and emergency response.
- 7. Reconsideration of the adequacy of the Ship Source Oil Pollution Fund as set out in the Marine Liability Act ... and
- 8. Action on the recommendations of the Arctic Council Arctic Marine Shipping Assessment 2009 Report.

To provide you with further insight into Inuit views on these matters I am attaching copies of an Inuvialuit Regional Corporation press release of May 19, 2010, a Nunavut Tunngavik Incorporated presentation to the House of Commons Standing Committee on Natural Resources dated May 13, 2010, and my speech to the Economic Club of Canada in Toronto on May 26, 2010.

I look forward to a reply at your earliest convenience.

Yours sincerely, mm

Mary Simon, President

3 Attachments

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PRESS RELEASE

IRC SEEKS PAUSE IN ALL OFFSHORE DRILLING IN THE BEAUFORT SEA

INUVIK, NT (May 19, 2010) – Amid increasing concerns within the Inuvialuit community over the environmental risks associated with hydrocarbon exploration in the deeper waters of the Beaufort Sea, Inuvialuit Regional Corporation (IRC) Chair and Chief Executive Officer, Nellie Cournoyea, has requested a pause in all offshore hydrocarbon drilling activity in the Beaufort Sea until adequate measures have been undertaken to protect the region's sensitive ecosystem.

In a letter sent jointly to the Minister of Indian Affairs and Northern Development and the Chairman of the National Energy Board, IRC has requested a delay in the issuance of further Exploration Licenses (ELs) in the offshore Beaufort Sea and the temporary withholding of drilling approvals to companies currently holding ELs in this area.

"The health of the Beaufort Sea ecosystem is critical to the lives and culture of the Inuvialuit. Until government and industry have demonstrated their ability to:

- Prevent an uncontrolled blow-out during all offshore drilling operations;
- Stop an uncontrolled blow-out in a timely and effective manner; and
- Contain and clean-up all hydrocarbons from an uncontrolled blow-out in a timely and effective manner,

IRC cannot support any hydrocarbon drilling activities in those areas of the Beaufort Sea beyond land-fast ice zones."

In their correspondence, IRC referred to the major avoidance and response shortcomings in the recent Gulf of Mexico blow-out and the additional risks associated with a much harsher climate and limited resource and equipment capability within the Beaufort Sea region. IRC also stressed the need for additional research into the impacts of hydrocarbon exploration on the Beaufort Sea ecosystem.

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For further information, contact:

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