



Edition 1 (January 2012)

NEB Review – Arctic Offshore Drilling	The Beaufort Sea Project Reports	Mortality in herring embryos – Cosco Busan	Issues for drilling safely offshore in the Arctic	Public hearings - Northern pipeline to begin
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Why the Spill Monitor?

In 2009, a group of like-minded individuals in Ottawa began meeting roughly once a month to discuss the energy vulnerability of remote communities in the Canadian north, and what we could constructively contribute to improving the situation. We discovered we had a network of other individuals with somewhat related interests and abilities. Eventually, from this core group we built the [Remote Energy Security Technologies Collaborative \(RESTCo\)](#).

Two individuals, who happened to be RESTCo principals, have long-standing interests in the environment in the Canadian Arctic, and sought to attend the Inuvik Roundtable in September 2011 to talk about those topics as they related to offshore drilling for oil in the icy Arctic waters. In particular, they wanted to discuss the science of oil spill consequences in Arctic waters. After making submissions to the National Energy Board (NEB), they were not invited to participate in Inuvik. We learned of others who also wished to participate in Inuvik and were not able to do so for a number of reasons. RESTCo then joined with the Canadian Science and Technology Museum (CSTM) to sponsor the [Ottawa Forum](#), held in parallel with the Inuvik Roundtable. Our objective in hosting the Ottawa Forum was to give those that could not present in Inuvik an opportunity to present their views based on relevant evidence. The Ottawa Forum attracted qualified presenters and attendees from across Canada and other nations, and on-going interest from multiple parties.

While we feel the mainstream media and stakeholders have served the subject of the science of oil spill consequences and mitigation poorly, we also feel the response to the Ottawa Forum shows there is a real audience for good information on the subject. RESTCo sees the Spill Monitor as a logical outcome from the learnings at the Ottawa Forum. This is an undertaking we do not take lightly; it will be a significant drain on our resources. Our primary objective is to disseminate information, not maximize profits. However, we will accept paid advertising to help fund the work required to produce this periodical on a monthly basis, and because that is also a source of relevant information. We recognize that we will occasionally tread into the realms of economics and politics, because the topics at hand don't neatly confine themselves to what many consider 'pure science'.

This is a new venture, and we expect to spend a bit of time making mistakes and learning from them, and getting a sense of what we can do which will better serve our audience. To that end, we plan to provide the first few issues for free (and revisit that approach at a later date). We'll try to keep the Spill Monitors brief, providing links to more information.



NEB Review – Arctic Offshore Drilling

On December 15th, 2011, the National Energy Board released a [backgrounder](#) related to their findings from their review on offshore drilling in the Arctic. That backgrounder included these statements.

“We will continue to require an operator to use all intervention techniques available, in addition to a relief well, so that the flow from an out of control well can be stopped as quickly as possible.”

“During the Roundtable, we heard speakers from all backgrounds and interests say that the prevention of an oil spill in the Canadian Arctic offshore is the primary goal and desire of all parties. The experience of the past tells us to prepare for the worst case.”



The Beaufort Sea Project Reports

In the 1970s, the Canadian government and the oil industry carried out an extensive and ambitious program of experiments and observations related to the consequences of exploration activities and oil spills in the Canadian Arctic. More than 40 scientific papers were produced from the findings of those experiments and related observations. Subsequently, the information from those scientific papers was summarized in 5 books. The information in that material is of great value as we re-open discussions about exploration for, and exploitation of, petroleum resources in the Arctic. It is unlikely we (as a society) are prepared to do some of the work involved again, precisely because of the consequences.

If you are interested in seeing this information for yourself, the 5 books are now available online for free at the following links.

[Birds and Marine Mammals](#) 124 pages

[Crude Oil in Cold Water](#) 119 pages

[Fishes, Invertebrates and Marine Plants](#) 167 pages

[Oil, Ice and Climate Change](#) 103 pages

[Oil Spill Countermeasures](#) 67 pages



Mortality in herring embryos exposed to the 2007 Cosco Busan San Francisco oil spill

[Article](#) in the Proceedings of the National Academy of Sciences includes the following text.

“Three months after the spill, caged embryos at oiled sites showed sublethal cardiac toxicity, as expected from exposure to oil-derived polycyclic aromatic compounds (PACs). By contrast, embryos from the adjacent and shallower intertidal zone

showed unexpectedly high rates of tissue necrosis and lethality unrelated to cardiotoxicity.”

“However, we successfully delineated the biological impacts of an oil spill in an urbanized coastal estuary with an overlapping backdrop of atmospheric, vessel, and land-based sources of PAC pollution.”



Engineer identifies issues for drilling safely in the Arctic

[Full article](#) by Lois Epstein in the Anchorage Daily News, which includes the following text.

“Consider these three critical concerns:

- Very few of the post-BP Oil Spill Commission's and the National Academy of Engineering's recommendations have been implemented, including no reforms to date by Congress.
- Our understanding of the region's ecology and the impacts a major spill would have, including on subsistence, is greatly insufficient, according to the administration's own study by the U.S. Geological Survey. Additionally, there's no plan to remedy that problem.
- Spill "cleanup" technologies are primitive, with recovery of oil contacting the ocean measured in single-digit percentages.”



Public hearings on Enbridge's Northern pipeline to begin Jan. 10

[Full article](#) by Derrick Penner in the Vancouver Sun.



That's our first edition. Your comments on how to make this publication more useful [are invited](#). If you think the information is valuable, please forward this inaugural issue of the Spill Monitor at your discretion. Until next month,

Darryl McMahan, Editor