



September 8th, 2010

Darren Hicks
Environmental Analyst
Canada-Newfoundland and Labrador Offshore Petroleum Board
140 Water St., 4th Floor
St. John's, NL A1C 6H6

SUBJECT: Corridor Resources Inc.–Old Harry Prospect Geohazard Program Environmental Assessment Report Addendum : GREMM's response

Dear Mr. Hicks,

We reviewed Corridor Resources' response to our comments to their Environmental Assessment Report. We will refer here to the summary table they presented to you on August 10th, 2010.

In this table, our comments are presented as comments 6 to 9. We will comment on their response and submit complementary information where we think it is necessary.

Comment 6

Our original comment: The literature review for cetaceans seems incomplete and some interpretations seem incorrect, and are likely to underestimate the risks for certain species. One example: blue whale is stated to be "uncommon" in the project area. In fact, the population, listed as "endangered" under SARA, is present in low numbers in the St. Lawrence (probably less than 250 mature individuals). Therefore, even if it might not be common to see a blue whale there, it is a migratory corridor for the entire population; it is susceptible to be an important habitat for this endangered species, especially in the fall, the period of the project.

Corridor Resources' response: Corridor acknowledges there is the potential for blue whales to be present in the Project Area and is committed to adhere to the mitigation measures outlined in the SOCP, which were in part developed as a recovery action for the blue whale (Beauchamp *et al.* 2009). This section was re-examined and the original citations were consulted to confirm the accuracy of the statements.

Our review:

- The first part of our original comment was not acknowledged by Corridor Resources. The scope and nature of the literature review concerning marine mammals and sound effects is inappropriate. The references are almost exclusively grey reports or secondary literature, and it does not reflect the most recent scientific knowledge (for example Di Iorio and Clark 2009 for behavioural impacts of low

source level seismic survey sounds on blue whales, and Castellote et al. 2010 for potential negative effects on the reproduction and survival of fin whales by airgun noise), and therefore it underestimates risks to marine mammals and overestimates the efficacy of mitigation measures to reduce those risks. We chose to consult Dr. Lindy Weilgart, Research Associate in the Department of Biology, Dalhousie University, and expert in bio-acoustics and whale behaviour. She confirmed our initial opinion. We include her detailed comments as well as a set of recent papers that should have been part, in her expert opinion, of Corridor Resources' EIA.

- Corridor Resources' response concerning blue whales' presence and the mitigation measures outlined in the SOCP does not in our view bring risks to this endangered population within acceptable limits (see Comment 7), especially considering the status of the population and the possible importance of the habitat as a migratory path at this time of year. To illustrate this, here is a citation from DFO 2009 : *Because of the blue whale population's small size in the Northwest Atlantic, even activities that affect a small number of individuals could have a serious impact on the population's health.*

Comment 7

Our original comment: Mitigation measures are debatable and could be insufficient to lower the risks for cetaceans to acceptable levels. For example, the area of detection is 500 m, which is smaller than in other similar projects. Furthermore, these types of mitigation measures (marine mammal observers, ramping up, *etc.*) do not eliminate risks of physical injuries and do nothing to reduce the risks of behavioral impacts (disturbance, displacement, stress, masking of sounds for reproduction, *etc.*).

Corridor Resources' response: Corridor is committed to adhering to the mitigation measures identified in the SOCP. An area of detection of 500 m radius is the minimal area stipulated in the SOCP. Further, this is a short duration program with a small, low power airgun source.

Our review:

- The mitigation measures outlined in the SOCP have been severely criticized by marine mammal specialists (see documents attached). These mitigation measures have been judged insufficient to bring risks within acceptable limits for marine mammals in certain situations, especially for species at risks and in important habitats. This is not acknowledged in the present EIA report.
- In our opinion, the only way to reduce risks to acceptable levels for marine mammals is, in addition to all the mitigation measures proposed in the SOCP, to ban all seismic activity from critical habitats for marine life. The identification of those critical habitats should be done by a committee of scientific experts, from both DFO and independent organizations. It may require more scientific research, and there should be a moratorium on seismic activity and all other activities relating to oil and gas exploitation in Canadian waters until the designation of critical habitats is completed. This recommendation is in line with the IUCN Statement on the Gulf of Mexico Oil Spill, which *calls for a global moratorium on oil and gas exploitation in ecologically sensitive areas* (IUCN 2010).

Comments 9

Our original comment: As stated by Bureau d'audiences publiques sur l'environnement (BAPE) report in 2004; the cumulative impacts of such a project should consider that it is a first step to a new industry for the St. Lawrence Gulf, which is oil and gas exploitation.

Corridor Resources' response: Comment acknowledged. Corridor has addressed the cumulative effects of the

geohazard survey in the present EA.
Cumulative effects of other oil and gas
activities would be assessed at the time
that such activities are proposed.

Our review:

This response does not address at all the issue presented in our comment. To address the effects of individual projects as if they were independent is the exact opposite of analysing the cumulative effects of all the activities projected within a new industry for the Gulf of St. Lawrence, that is oil and gas exploitation. In our view, the only responsible way to go is to conduct a multi-provincial assessment of the risks and benefits of this new industry for the Gulf of St. Lawrence before permits be granted for any activity related to this industry.

Thank you for the opportunity to comment.

Best regards,

Original signed by Robert Michaud and Véronik de la Chenelière

Robert Michaud
MSc., president and scientific director, GREMM

Véronik de la Chenelière
M.Sc., biologist, GREMM

Attached documents :

- Lindy Weilgart and Hal Whitehead, Comments on the Statement of Canadian Practice for the Mitigation of Seismic Noise in the Marine Environment, 13 April 2005
- Robert Michaud and Véronik de la Chenelière, Scientific opinion on the Fisheries and Oceans Canada's *Mitigation of Seismic Noise in the Marine Environment Statement of Canadian Practice*, 5 April 2005
- Di Iorio, L. and C. W. Clark. 2009. Exposure to seismic survey alters blue whale acoustic communication. *Biol. Lett.* published online 23 September 2009.
- Castellote, M., C. W. Clark and M. O. Lammers. 2010. Potential negative effects in the reproduction and survival on fin whales (*Balaenoptera physalus*) by shipping and airgun noise. IWC, SC/62/E3.
- Fisheries and Oceans Canada. 2009. Recovery Strategy for the blue whale (*Balaenoptera musculus*), Northwest Atlantic population, in Canada [PROPOSED]. *Species at Risk Act* Recovery Strategy Series. Fisheries and Oceans Canada, Ottawa. 62 pp.
- IUCN. 2010. IUCN Statement on the Gulf of Mexico Oil Spill.
http://cmsdata.iucn.org/downloads/iucn_statement_on_the_gulf_of_mexico_oil_spill.pdf
- Dr. Lindy Weilgart's answer to our consultation and her list of proposed relevant scientific literature.

GREMM is a non-profit organization. Founded in 1985, it is dedicated to scientific research on the marine mammals of the St. Lawrence and education for the conservation of the marine environment.

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