

Environmental Stewardship Branch  
6 Bruce Street  
Mount Pearl NF A1N 4T3

May 17, 2011

File No.: 4194-10

Mr. Darren Hicks  
Canada Newfoundland Offshore Petroleum Board  
Fifth Floor, TD Place  
140 Water Street  
St. John's, NF A1C 6H6

Dear Mr. Hicks:

**RE: EA Report –Multi Klient Invest Offshore Labrador 2D Seismic EAS 2011-033B  
Program 2011-2017**

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As requested in your letter of April 1, 2011, Environment Canada has reviewed the environmental assessment report for the above noted project. It is understood that Multi Klient Invest is proposing to conduct 2D seismic programs on the Labrador Shelf during 2011 - 2015.

The following EC comments stem from the department's mandate under the *Migratory Birds Convention Act* (MBCA) and Section 36 of the *Fisheries Act*. Pertinent EC expertise, and related comments, also originate with the *Canadian Environmental Protection Act* (CEPA), the *Canadian Wildlife Act*, and the *Species at Risk Act* as well as *Department of the Environment Act*.

## REVIEW COMMENTS

In general, the marine bird section (5.7) is extremely brief, contains several factual errors and is missing required information. Several main reference sources for marine bird distribution at sea could have been consulted to better describe the seabird resource in the area. Those references are provided here:

- Brown, R. G. B. 1986. Revised Atlas of Eastern Canadian Seabirds. Canadian Wildlife Service, Ottawa, ON.
- Fifield, D. A., Lewis, K. P., Gjerdrum, C., Robertson, G. J., and Wells, R. 2009. Offshore Seabird Monitoring Program. Environment Studies Research Funds Report no. 183. St. John's. 68 p. Available at: <http://www.esrfunds.org/pdf/183.pdf>
- Lock, A. R., Brown, R. G. B., and Gerriets, S. H. 1994. Gazetteer of Marine Birds in Atlantic Canada: An Atlas of Vulnerability to Oil Pollution. Canadian Wildlife Service, Atlantic Region.

Page numbers should be added to the final document.

## **Additional section-specific comments are as follows:**

### Section 5.7, 1st paragraph

There is a reference (Table 9) to areas important to seabirds in the study area. The data in Table 9 are taken directly from Huettmann and Diamond 2000. This publication (and thus the table) only discusses areas of importance to juvenile and immature birds during a restricted period of the year taken from the Programme intégré de recherches sur les oiseaux pélagiques (PIROP) dataset. This data does not represent areas that are important to the species in general or during the entire year, and thus omits a significant proportion of the population and annual cycle.

### Section 5.7, Table 8:

Several species (including several that occur in significant numbers in the study area) are missing from this table (and thus from the document). Species that should be included are: Northern Gannet, Common Murre, Red-necked Phalarope, Sooty Shearwater, Manx Shearwater, South Polar Skua (which could simply be lumped in with Great Skua for simplicity), Dovekie, Herring Gull, Great Black-backed Gull, Glaucous Gull, Iceland Gull, and Arctic Tern.

One species, Arctic Loon, is restricted in range to a small section of the coast of Alaska and should be removed from the table.

Several species names are mis-spelled - correct spellings are: Leach's Storm-Petrel (*Oceanodroma leucorhoa*), Black Guillemot, Red-throated Loon, and Great Skua (*Stercorarius skua*). Correct spelling of common and Latin names can be found at: <http://www.aou.org/checklist/north/print.php>.

### Section 5.7, last paragraph (and subsequent subsections):

A small selection of species was chosen for closer attention. No justification is given for considering only these species, several of which are rare or non-existent in the study area. Every species listed in Table 8 (subject to the changes listed above) requires assessment for its occurrence in the study area. Species can be grouped (for example, all shearwaters, all jaegers, murre, gulls) for this exercise. The sections on each of these species/groups should identify what is known of the distribution and abundance of each group in the study area, including any quantitative information available in the above referenced reports.

#### Section 5.7.1.1 Thick-billed Murre

This section focuses on Thick-billed Murres breeding in the arctic, while ignoring Thick-Billed Murres breeding elsewhere and while ignoring all Common Murres. Both murre species occur in the study area and can be difficult to differentiate at sea, so a section on the "murre" in general is appropriate.

The third-to-last sentence in this section states that Thick-billed Murres are not expected in the study area during seismic activity. This is incorrect: the literature sources that the proponent quotes to justify this conclusion specifically detail the movements of Thick-billed Murres breeding in the Canadian Arctic. Thick-billed Murres and Common Murres breed in significant numbers along the coast of Labrador as well, and the study area is well within their foraging range during the summer. Also, the proponent has focused only on breeding birds. Most seabirds take from 1 to 4 years to mature to breeding age and as such a large portion of most species populations are pre-breeders that are at sea for most of the year. An examination of the references provided above will help to clarify the distribution of murre, and will show that they occur in significant numbers in the study area during the study months. Finally the last sentence states that the survey is not expected to carry into October and November, but Section 3.4 states that the survey period is from June to November and that weather conditions will likely allow surveys into the middle of October. This stated timing requires clarification.

#### Section 5.7.1.2 Northern Fulmar

Third sentence states that Northern Fulmars are not likely to be encountered in the study area. This is incorrect: Northern Fulmar is one of the most numerous birds found far from shore at all times of the year. This is especially true given their strong attraction to ships. This misconception seems to stem from a focus on the breeding members of the species. Large numbers of non-breeders are to be found at sea year-round and in fact Figure 15 clearly shows this.

#### Section 5.7.1.5 Ivory Gull

Information in this section is currently out of date. The Ivory Gull has been assessed by COSEWIC and has been listed as *endangered* by COSEWIC and is now listed on schedule 1 of SARA as such. The second-to-last sentence in this section states that the seismic survey will be complete by the end of August. This contradicts information on timing in Section 3.4

#### Section 9.1.3

This section, or perhaps section 5, should include information on the foraging habits of the different species groups. The foraging habits of these species tend to vary considerably. This information should help to assess which species spend significant periods of time underwater and thus which may be exposed to seismic sound.

In Paragraph 2 of this section, Sentence 3 and 4: The COSEWIC and SARA status for Ivory Gull is out of date.

In Paragraph 5 of this section, the final sentence states that the ramping up of the air gun will "reduce or remove the likelihood that birds will choose to come close enough to the array to experience hearing damage or other physical harm". There is no data to support this claim. In paragraph 3 of this section, the proponent states that Evans et al. (1993) detected no observable change in seabird behaviour, with birds neither being attracted to nor repelled from the seismic source. It may well be that the birds will not come close enough to incur physical damage, but there are no studies to show how close is too close for physiological damage.

In Paragraph 7 of this section, exposure to lights: It is common practice for all seismic vessels to have the Marine Mammal Observer search the vessel each morning for birds stranded on deck (typically storm-petrels) and care for them. Should storm-petrels or other species become stranded on vessels, the proponent is expected to adhere to the protocol described in Williams and Chardine's brochure entitled, *The Leach's Storm Petrel: General Information and Handling Instructions* (to be provided directly). A permit is required to implement the Williams and Chardine protocol. The proponent should be advised that it is required to complete a permit application form prior to proposed activities. This form is available from Andrew Macfarlane at the Canadian Wildlife Service of Environment Canada, who can be reached by phone at 506-364-5033 or email at [andrew.macfarlane@ec.gc.ca](mailto:andrew.macfarlane@ec.gc.ca).

In Paragraph 8 of this section, the proponent asserts that the project will likely have a small impact on seabirds since there is a "small impact of seismic sounds in the air". The implication is that since the birds are in the air above the water and the seismic device is pointing downward into the water, the seismic sounds will not affect birds in flight. This ignores the fact (detailed in paragraph 4 of this section) that several of the species in the study area spend a considerable amount of time under water.

#### Section 9.5 Cumulative effects.

The proponent states that it is unaware of other seismic programs in the area that will take place during the study. This is incorrect; possible other projects include:

- Chevron Offshore Labrador Seismic Program, 2010-2017
- Investcan seismic, geohazard and VSP program on Labrador Shelf, 2010-2017
- Husky Labrador Shelf seismic and geohazard program on Labrador Shelf, 2009-2017

## **EC-CWS also has the following general recommendations:**

### Data

In an effort to expedite the process of data exchange, the EC-CWS requests that the data (pertaining to migratory birds and species at risk) collected from surveys be forwarded in digital format to our office following completion of the study. These data will be centralized for our internal use to help ensure that the best possible natural resource management decisions are made for these species in Newfoundland and Labrador. Metadata will be retained to identify source of data and will not be used for the purpose of publication. EC-CWS will not copy, distribute, loan, lease, sell, or use of this data as part of a value added product or otherwise make the data available to any other party without the prior express written consent.

### Fuel

The proponent should ensure that all precautions are taken by the contractors to prevent fuel leaks from equipment, and that a contingency plan in case of oil spills is prepared. Furthermore, the proponent should ensure that contractors are aware that under the *Migratory Birds Regulations*, “no person shall deposit or permit to be deposited oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds.” Biodegradable alternatives to hydraulic fluid for heavy machinery are commonly available from major manufacturers. Such biodegradable fluids should be considered for use in place of petroleum products whenever possible, as a standard for best practices. Fuelling and servicing of equipment should not take place within 30 meters of environmentally sensitive areas, including shorelines and wetlands.

### Regulations

Migratory birds, their eggs, nests, and young are protected under the *Migratory Birds Convention Act* (MBCA). Migratory birds protected by the MBCA generally include all seabirds except cormorants and pelicans, all waterfowl, all shorebirds, and most landbirds (birds with principally terrestrial life cycles). Most of these birds are specifically named in the Environment Canada (EC) publication, *Birds Protected in Canada under the Migratory Birds Convention Act*, Canadian Wildlife Service Occasional Paper No. 1.

Under Section 6 of the *Migratory Birds Regulations* (MBR), it is forbidden to disturb, destroy or take a nest or egg of a migratory bird; or to be in possession of a live migratory bird, or its carcass, skin, nest or egg, except under authority of a permit. It is important to note that under the current MBR, no permits can be issued for the incidental take of migratory birds caused by development projects or other economic activities.

Furthermore, Section 5.1 of the MBCA describes prohibitions related to deposit of substances harmful to migratory birds:

“5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.

(2) No person or vessel shall deposit a substance or permit a substance to be deposited in any place if the substance, in combination with one or more substances, results in a substance — in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area — that is harmful to migratory birds.”

It is the responsibility of the proponent to ensure that activities are managed so as to ensure compliance with the MBCA and associated regulations.

The Responsible Authority should be reminded that the *Species at Risk Act* (SARA) amends the definition of “environmental effect” in subsection 2(1) of the *Canadian Environmental Assessment Act* (CEAA) to clarify, for greater certainty, that environmental assessments must

always consider impacts on a listed wildlife species, its critical habitat or the residences of individuals of that species.

SARA also requires that the person responsible for a federal environmental assessment must, without delay, notify the competent minister(s) in writing if the project being assessed is likely to affect a listed wildlife species or its critical habitat. Notification is required for all effects, including adverse and beneficial effects, and the requirement to notify is independent of the significance of the likely effect. The person must also identify adverse effects of the project on listed species and their critical habitat. And if the project is implemented, the person must ensure that measures are taken to avoid or lessen adverse effects and that effects are monitored. Mitigation measures must be consistent with recovery strategies and action plans for the species.

The complete text of SARA, including prohibitions, is available at [www.sararegistry.gc.ca](http://www.sararegistry.gc.ca). For guidance on SARA and Environmental Assessments, the proponent may wish to make use of the *Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada* available at: [http://www.sararegistry.gc.ca/virtual\\_sara/files/policies/EA%20Best%20Practices%202004.pdf](http://www.sararegistry.gc.ca/virtual_sara/files/policies/EA%20Best%20Practices%202004.pdf)

I trust that this information will be of assistance in your review of this proposal. If you wish to discuss these comments or have further questions, please do not hesitate to contact me at your convenience.

Yours truly,

Original Signed by Glenn Troke

Glenn Troke  
Environmental Assessment Coordinator  
Environmental Protection Operations Directorate  
EPOD/NL

cc Wayne Barchard

Canada 

[www.ec.gc.ca](http://www.ec.gc.ca)