General Comment on the Addendum:

The LGL Report dated 2006 (SA899) is referenced several times throughout the document. One mitigation that is listed in the 2006 report does not seem to appear in the above noted EA. On page 10 of the 2006 report one of the mitigations listed details that the electromagnetic source will not operate in shallow water and during turns. If this mitigation is still relevant for the above noted project, then it may be added.

The LGL Report dated 2006 also notes (on page 11) that data would be collected to verify EA predictions, due to the fact that the electromagnetic survey was a fairly new type of operation. This may not have been accomplished for various reasons, but if so, incorporation of such data may enhance the above noted EA report.

Response: Generally, for operational reasons, the electromagnetic source would not be activated during turns because the source would be outside the range of the receivers. Therefore, under most circumstances the electromagnetic source would be shut down during turns.

Marine mammal, sea turtle and seabird observations were made during the Orphan Basin electromagnetic survey programs in 2006 and 2007 (Abgrall et al. 2008). Based on observations from the survey vessel, there were no indications that electromagnetic operations affected dolphins, baleen whales, or large toothed whales. No sea turtles were observed during the survey but this was expected given the location of the survey. As indicated in LGL (2006), seabird data were collected to provide additional scientific data for the Orphan Basin and not to verify EA predictions.

Based on this information, the following text should be inserted between the first and last paragraphs of *Section 5.6.4.9, Effects of CSEM Activities*:

Marine mammal and sea turtle observations were made during the Orphan Basin electromagnetic survey programs in 2006 and 2007 (Abgrall et al. 2008). Based on observations from the survey vessel, there were no indications that electromagnetic operations affected dolphins, baleen whales, or large toothed whales. No sea turtles were observed during the survey but this was expected given the location of the survey.

Reference:

Abgrall, P., B.D. Mactavish and V.D. Moulton. 2008. Marine mammal and seabird monitoring of Orphan Basin controlled source electromagnetic survey program, 2006 – 2007. LGL Rep. SA904/939. Rep. by LGL Limited, St. John's, NL, for ExxonMobil Canada Ltd., St. John's, NL. 95 p. + appendices.

Page 7 of Addendum:

DFO Comment (Section 4.5.1.3, Page 92, 1st paragraph): *Based on aerial searches and acoustic recordings, the south eastern edge of the Grand Banks remains an area populated by cetaceans during the winter. Therefore, the statement "although some individual baleen whales may be present in offshore waters of NL…" is not necessarily accurate.*

Response: DFO has placed autonomous acoustic recorders at the east and southeast edges of the Grand Banks and have recorded mysticete and odontocete calls throughout the winter (J. Lawson, Research Scientist, DFO, pers. comm.). PAL surveillance imagery, records, and

observations by DFO staff have also shown there to be quite a few humpbacks and other large whales out in this area through the winter. Based on these observations, change the sentence referenced above to "Some baleen whales are present in offshore waters of Newfoundland year-round but most species presumably migrate to lower latitudes during winter months."

DFO Suggestion: *It seems the comment and response is in agreement. It is suggested to simply remove the word "some" from the sentence above.*

Response: Delete the word "some" from the sentence indicated above.

Page 5 of Addendum:

DFO Comment (Section 4.3.4.2, Page 58, 2nd sentence): *This sentence is confusing and should be rewritten.*

Response: The missing section (4.3.5 Fishing Gear) should read as follows.....

DFO Suggestion: *Page 6 of the Addendum (first paragraph on the page, 2nd last sentence of paragraph), is still confusing to read. Thus, allowing slack for the anchor ropes on either send of the string.....approximately 1.8 km to 2.3 km. Please revise.*

Response: Replace the existing text in question:

"The commercial fisheries within the Study and Project Areas are conducted using both mobile gear (shrimp trawls) and fixed gear (crab pots and gillnets), although only a minority of the overall catch is harvested using gillnets. In general, fixed gear poses a much greater potential for conflicts with towed survey gear since it is often hard to detect when there is no fishing vessel nearby, and it may be set out over long distances in the water. In particular, crab pots pose a significant potential for conflict if a seismic survey vessel encounters them. Crab pots are set on the seabed in strings buoyed at the surface. Crab gear generally has a highflyer (radar reflector) at one end and a large buoy at the other. Some fishers use highflyers at both ends. Depending on weather, they may be left unattended several days at a time. Fishers typically try to leave about 20 fathoms (36.5 m or 120 feet) on the seabed between each pot. Thus, allowing slack for the anchor ropes on either end of the string to extend upwards at an angle, the distance between the typical highflyer and end-buoy of, for example, a 50 to 60 pot string of crab gear would be 6,000 feet to 7,500 feet, or approximately 1.8 km to 2.3 km."

With the following text:

"The commercial fisheries within the Study and Project Areas are conducted using both mobile gear (shrimp trawls) and fixed gear (crab pots and gillnets), although only a minority of the overall catch is harvested using gillnets. In general, fixed gear poses a much greater potential for conflicts with towed survey gear since it is often hard to detect when there is no fishing vessel nearby, and it may be set out over long distances in the water. In particular, crab pots pose a significant potential for conflict if a seismic survey vessel encounters them.

Crab pots are set on the seabed in strings (e.g. 50-60 pots per set) and are left unattended for several days before being hauled. Pots are usually spaced about 20 fathoms (36.5 m) apart. A heavy rope connects each end of the gear to a surface buoy; generally, a highflyer (radar reflector) is located on one end, and a large buoy at the other. Fishers will leave some leeway in the ropes connecting the pots to the surface so that the highflyer (or buoy) can pivot around the gear end in response to surface winds or water currents.

As such, considering the typical distance between each pot in the string and the slack allowed for in the anchor ropes, the surface distance between each end buoy marking a 50-60 pot string of crab gear would be about 6,000 feet to 7,500 feet, or approximately 1.8 km to 2.3 km."