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**Environmental Assessment of  
Ptarmigan Energy Inc. Geophysical  
Program for Anticosti Basin  
Offshore Western Newfoundland  
and Labrador  
EL 1120; EL 1128 and EL 1127  
(2012 to 2021)**

**Response to EA Report Comments  
of Reviewers (Comments Received  
January 14, 2013)**

Prepared for:

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**TABLE OF CONTENTS**

Fish, Food and Allied Workers ..... 1

Fisheries and Oceans Canada..... 1

Canada-Newfoundland and Labrador Offshore Petroleum Board ..... 1

St. Lawrence Coalition ..... 4

Supplementary Information ..... 6

Addendum Response to Comment No.48:..... 7

Addendum Response to Additional Comment – Sensitive Areas: ..... 9

Comment Number	Designated Group	Ptarmigan Energy Inc. Response
<b>Fish, Food and Allied Workers</b>		
General Comment	Please clarify if the proponent intends to locate the Fisheries Liaison Officer on the seismic vessel, which is recommended by the C-NLOPB's Geophysical, Geological, Environmental and Geotechnical Programs Guidelines (January 2012).	As stated on page 17 of the <i>Environmental Assessment of the Ptarmigan Geophysical Program 2012-2021 Offshore Western Newfoundland</i> (July 2012):  "The seismic vessel will also have a trained Fisheries Liaison Officer (FLO) and Marine Mammal and Sea Turtle Observer (referred to as the MMO) on board."
<b>Fisheries and Oceans Canada</b>		
General Comment	Please provide a table detailing landings and values by fleet (fleet breakdown < 64'11" and > 65') by species for subdivisions in NAFO area 4R.	Response includes confidential information and information has been provided directly to Fisheries and Oceans Canada in a separate report: - <b>Response to EA Report Comment from Fisheries and Oceans Canada</b>
<b>Canada-Newfoundland and Labrador Offshore Petroleum Board</b>		
48	<p>There is confusion with regard to the "Project Area". It is stated on page 6 of the July 18, 2012 environmental assessment (EA) report that "The Project Area in any given time frame would encompass up to the three EL held by Ptarmigan (EL 1120, EL1127 and EL1128) plus the 10 km turning radii required by seismic vessels and related equipment". It is also stated in the EA report (page 6) that "The temporal boundaries of the Project are 2012 to 2021". Therefore, the "Project Area" for programs that may occur during the 2012 to 2021 timeframe should be identified on a figure and the size and coordinates provided, as per pages 4 and 5 of the May 7, 2012 Scoping Document which states "<i>The EA report shall clearly describe the spatial boundaries (e. g. Study Area, Project Area) and shall include figures, maps and the corner-point coordinates</i>". Figure 2-1 identified the 2012 to 2014 "Project Area". The use of this terminology in this instance may be causing confusion. The area identified in Figure 2-1 could be labelled the "2012 to 2014 seismic program area" to avoid confusion. Ptarmigan should also confirm that the "Project Area" assessed in the EA Report is the larger Project Area that includes the three ELs and turning radii and not just the 2012 to 2014 "Project Area".</p> <p>It is also stated in the November 28, 2012 Ptarmigan Response to EA Report Comments of Reviewers that "<i>Future Project and Study Area (beyond 2014) will be determined at a future date and provided in the EA validation.</i>" Section 5.1.1</p>	<p>As suggested, Figure 2-1 and Figure 2-2 have been revised and are provided with the supplementary information below.</p> <p>The Project Area assessed in the EA Report includes the larger Project Area that includes the three ELs and turning radii and not just the 2012 to 2014 Program Area. All future activities covered by this EA will be within the confines of the larger Project Area.</p>

Comment Number	Designated Group	Ptarmigan Energy Inc. Response
	<p>Spatial Boundaries of the Scoping Document states that the Project Area is the area “in which seismic survey activities are to occur, including the area of the buffer zone normally defined for line changes”. The Study (or Affected) Area is the area which could potentially be affected by project activities beyond the “Project Area”. Both of these areas should be identified in the EA Report and should include the area in which all activities that could be proposed during the 2012 to 2021 temporal boundary are included. It is not acceptable to identify “Future Project and Study Areas (beyond 2014) in the “EA Validation”.</p>	
55	<p>Please expand on the statement “The Qalipu are very supportive of Ptarmigan’s activities in the region”.</p>	<p>As stated on page 21 of the <i>Environmental Assessment of the Ptarmigan Geophysical Program 2012-2021 Offshore Western Newfoundland</i> (July 2012):</p> <p>“The Proponent met with Enterprise Qalipu, the Resources and Economic Development Department of the Qalipu Mi’kmaq First Nation Band to discuss the Project. A meeting was held on July 5, 2012 with Keith Goulding, Director of Work Force Qalipu and a member of the Greater Corner Brook Chamber of Commerce, to discuss the interests and potential concerns of the band. The Qalipu Band currently has 25,000 members, and it is the largest band in Atlantic Canada. Members live from Cape Ray to Woody Point, NL and as far east as Gambo. The Project was discussed in detail and the environmental assessment process described. Mr. Goulding asked about oil and gas work to date on the west coast of Newfoundland and what development is proposed in the region by Ptarmigan and other companies.</p> <p>Ptarmigan representatives provided an overview of engagement activities to date, and the expected Project schedule. Mitigation measures were outlined for Mr. Goulding, and he was also provided with how to get more Project information from the Ptarmigan website and on the C-NLOPB website. He indicated that Roger Gallant, Aquatic Resource Manager for Enterprise Qalipu, would be a valuable contact for information regarding the undertaking. No specific concerns were raised by Mr. Goulding about the</p>

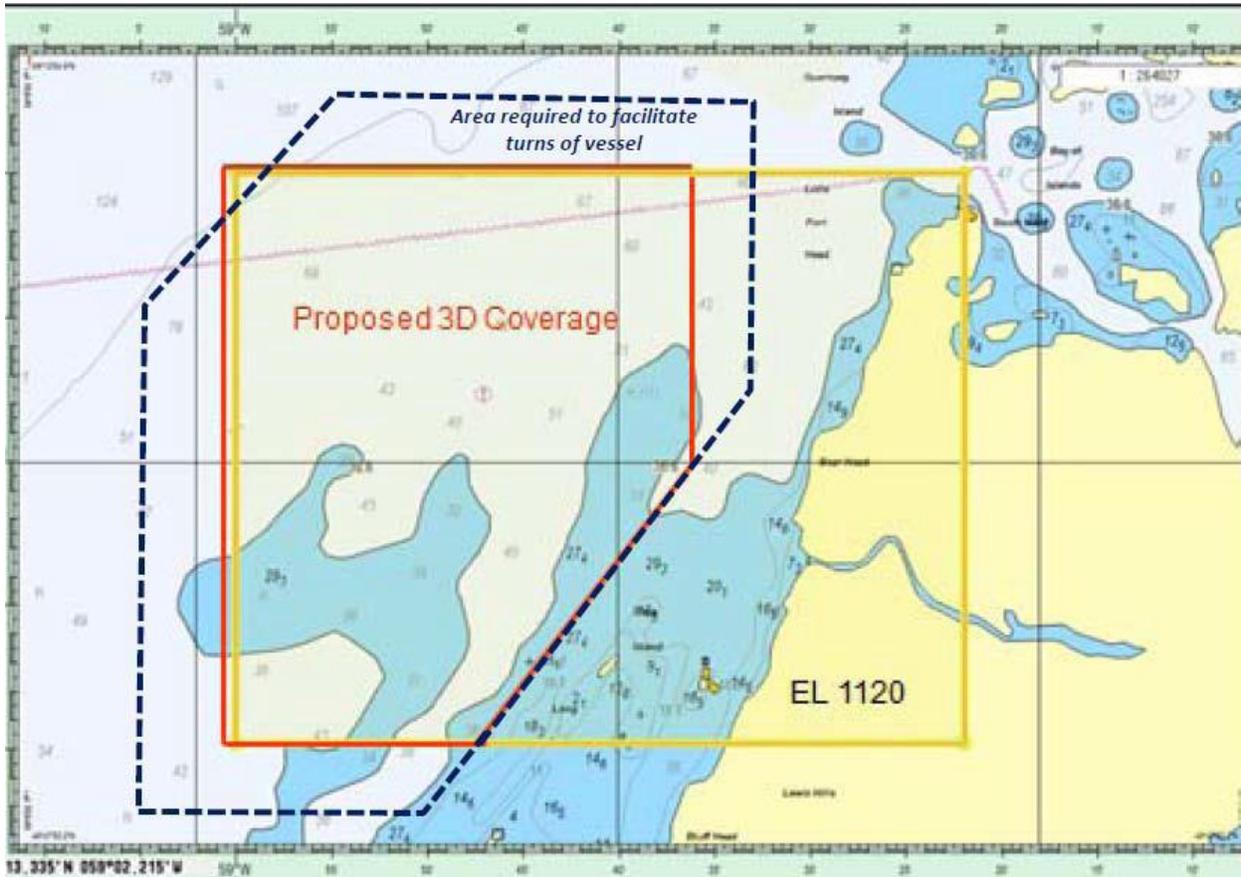
Comment Number	Designated Group	Ptarmigan Energy Inc. Response
		<p>Project Area; though the band is interested in archeological sites further south near Cape Ray.”</p> <p>Additional consultation with the Qualipu Mi’kmaq First Nation was held during the week of July 23, 2012 in conjunction with Ptarmigan’s consultations in Stephenville and Lark Harbour.</p> <p>Ptarmigan will continue to engage the Qalipu throughout their activities in the region.</p>
56	<p>“Consultations were held in Stephenville and Lark Harbour on July 24th and 25th, respectively.” Were any additional issues raised during these consultation sessions than those identified in Table 3.1 in the EA Report?</p>	<p>Consultations were held in Stephenville and Lark Harbour on July 24th and 25th respectively. These events were planned and carried out in consultation with the FFAW to ensure full consultation with the fisher community in the area.</p> <p>The results of these consultations are consistent with that of previous consultations detailed in Table 3.1 of the <i>Environmental Assessment of the Ptarmigan Geophysical Program 2012-2021 Offshore Western Newfoundland</i> (July 2012) and the results of the consultation were consistent.</p> <p>Consultation with local fishermen and the FFAW in July they indicated that the best time to do the survey was between the end of the cod fishery (early to mid-July) and the start of the mackerel fishery (early to mid-September). During the consultations, the timing of the survey was discussed with FFAW representatives. It was agreed that as long as local fishers were consulted and agreed about the timing and location of the activity, then that would be acceptable to them.</p>
60	<p>The response to Comment Number 60 regarding geohazard programs is puzzling. The following statements are made in the EA Report.</p> <ul style="list-style-type: none"> <li>• Section 1.0 Introduction, pg 1 - “The Project also proposes localized geohazard well site surveys”; and</li> </ul>	<p>As stated in the Addendum dated November 28, 2012:</p> <p>“Future geohazard programs, if required, will be addressed in future assessments (EA validations) as the spatial and temporal scope of any geohazard work is not known at this time.”</p>

Comment Number	Designated Group	Ptarmigan Energy Inc. Response
	<ul style="list-style-type: none"> <li>Section 2.0 Project Description, pg 5 – “Localized geohazard well site surveys may occur as part of the proposed Project in one or more years between 2012 and 2021.”</li> </ul> <p>Also, geohazard survey activities are described on page 16 in Section 2.2.7 Seismic Streamers. If geohazard surveys are proposed between 2012 and 2021 then this EA Report would be the appropriate place to assess this activity.</p>	<p>If future geohazard programs are required, their location will be determined on the basis of seismic results. Because of the potential for conditions to change during the 2012 to 2021 timeframe and the need to consider site-specific environmental components, it was determined that these activities would be best addressed through the EA Validation process when complete information is available.</p>
Additional Comment – Sensitive Areas	A number of sensitive areas (e.g. Cod Spawning Area) have been identified. For project activities that may occur in or near sensitive areas, non-standard mitigation or restrictions on activities will likely be required.	Refer to Table 1 in the supplementary information for a breakdown of mitigation measures related to sensitive areas.
<b>St. Lawrence Coalition</b>		
	<p>In the original EA Report, the proponent indicates that the seismic surveys will be held between October and January, outside of the fishing season. This mitigation measure, temporal avoidance of other ocean users, is now in question. Does the proponent intend on shooting in the October to January window (2013-2014)? Does the proponent intend to shoot during the fishing season, and if so, what will be the additional mitigation measures to avoid impacting fish harvesters and other marine life?</p>	<p>Ptarmigan’s original plan to conduct the survey during the October to January window has been revised. And there is now potential for the seismic activity to happen at any time throughout the year. Currently, there is potential for the survey to take place in the July to September 2013 timeframe. As a consequence, the temporal scope of the Project is revised accordingly:</p> <p>As stated in the response to comment #56, consultation with local fishers and the FFAW in July indicated that the best time to do the survey was between the end of the cod fishery (early to mid-July) and the start of the mackerel fishery (early to mid-September). Consultations also indicated that interactions with the mackerel fishery were unlikely because of the near-shore location of that fishery.</p> <p>During the consultations, the timing of the survey was discussed with FFAW representatives. It was agreed that as long as local fishers were consulted and agreed about the timing and location of the activity, then that would be acceptable to them.</p>

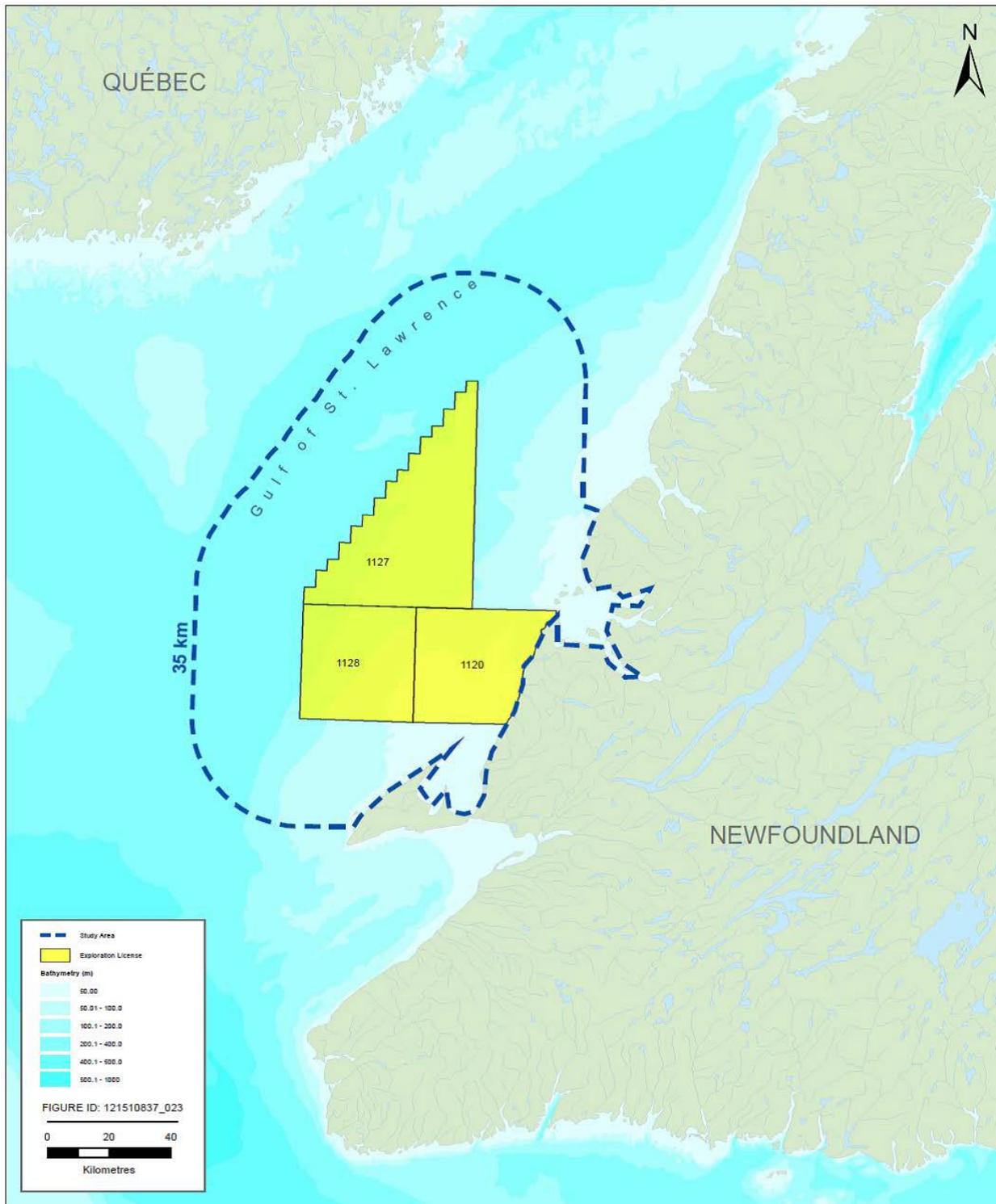
Comment Number	Designated Group	Ptarmigan Energy Inc. Response
		<p>As July to September has been identified by local fishers as a preferred time for the survey to take place, and given the lack of spatial overlap with the mackerel fishery, the temporal avoidance mitigation is still valid.</p> <p>If the activity is required to take place at a different time, consultations will take place with fishers based on the requirements of the FFAW as described above.</p> <p>Additionally, FLOs will be employed to mitigate any interaction between the survey and fishing activity.</p>

# Supplementary Information

**Addendum Response to Comment No.48:**



**Figure 2-1 2012/2014 Seismic Survey Program Area**



**Figure 2-2 2012 to 2021 Project Area**

**Addendum Response to Additional Comment – Sensitive Areas:**

**Table 1 Mitigation or Restrictions on Activities for Project Activities that may occur in or near Sensitive Areas**

Sensitive Area	Project Activity Identified	Non-Standard Mitigation or Restriction on Activities
Eelgrass Beds	Release of marine diesel fuel or streamer fluid (Accidental Event)	<ul style="list-style-type: none"> <li>• Oil Spill Response Plan</li> <li>• Shipboard Oil Pollution Emergency Plan as per the <i>Canada Shipping Act, 2001</i>; and contract with readily available response organization</li> <li>• Restoration/transplantation</li> <li>• Avoidance of known areas</li> <li>• Use of solid streamers if feasible</li> <li>• Routine inspections of the streamers</li> <li>• Use of oil containment booms when necessary</li> <li>• Frequent communication with nearby vessels, and adherence to standard navigation procedures</li> <li>• Employee awareness training</li> <li>• Storage regulations in place for lube oil minimizes the volume lost during an accident or rupture</li> </ul>
<ol style="list-style-type: none"> <li>1. Cod Spawning area (April – June)</li> <li>2. Potential Redfish Larvae Extrusion Area (April-July)</li> </ol>	Sound from 2D or 3D seismic surveys	<ul style="list-style-type: none"> <li>• Adhere to the Statement of Canadian Practice on Mitigation of Seismic Noise in the Marine Environment</li> <li>• Onboard Fisheries Liaison Officer (FLO)</li> <li>• Ramping up procedures</li> <li>• Spatial and temporal avoidance of important/sensitive habitat and critical life history times</li> <li>• Requirements to reduce amount of seismic activity (e.g., duplication of surveys)</li> </ul>
<ol style="list-style-type: none"> <li>3. Potential Redfish Mating Area (September – December)</li> </ol>	Release of marine diesel fuel or streamer fluid (Accidental Event)	<ul style="list-style-type: none"> <li>• Oil Spill Response Plan</li> <li>• Shipboard Oil Pollution Emergency Plan as per the <i>Canada Shipping Act, 2001</i>; and contract with readily available response organization</li> <li>• Avoidance of sensitive area and/or times</li> <li>• Use of solid streamers if feasible</li> <li>• Routine inspections of the streamers</li> <li>• Use of oil containment booms when necessary</li> <li>• Frequent communication with nearby vessels, and adherence to standard navigation procedures</li> <li>• Employee awareness training</li> <li>• Storage regulations in place for lube oil minimizes the volume lost during an accident or rupture</li> </ul>
<p>Marine mammals/sea turtles/ marine bird species at risk present within:</p> <ol style="list-style-type: none"> <li>1. Ecologically and Biologically Significant Area (EBSA)</li> <li>2. Area of Interest for a Marine Protected Area</li> </ol>	Sound from 2D and 3D seismic survey	<ul style="list-style-type: none"> <li>• Adherence to Statement of Canadian Practice on Mitigation of Seismic Noise in the Marine Environment</li> <li>• Marine mammal, sea turtle, and marine bird observer onboard</li> <li>• Ramping up procedures</li> <li>• Use of best practices and industry standards</li> <li>• Prescribed start-up or shut-down</li> <li>• Spatial and temporal avoidance of important/sensitive habitat and critical life history times</li> <li>• Use of cetacean detection technology</li> <li>• Requirements to reduce amount of seismic activity (e.g., duplication of surveys)</li> </ul>

Sensitive Area	Project Activity Identified	Non-Standard Mitigation or Restriction on Activities
3. Important Bird Areas (IBA)		<ul style="list-style-type: none"> <li>Monitoring measures (including a safety zone) to ensure greatest possible detection of stranding's or deaths at sea coincident with seismic survey</li> </ul>
4. Special Coastal and Marine Areas	Presence of vessels	<ul style="list-style-type: none"> <li>Use of trained observer</li> <li>Adherence to MARPOL 73/78</li> <li>Compliance with the requirements of the <i>Canada Shipping Act 2001</i> and <i>Collision Regulations</i></li> <li>Avoidance of seabird colonies, observed marine mammals and sea turtles</li> <li>Routine checks for stranded birds and appropriate handling procedures</li> </ul>
	Waste generation (sanitary and domestic)	<ul style="list-style-type: none"> <li>Adhere to Annex I of the <i>International Convention for the Prevention of Pollution from Ships</i></li> <li>Solid waste to be transported to shore</li> <li>Standard equipment inspections/best maintenance practices</li> </ul>
	Lighting	<ul style="list-style-type: none"> <li>Use of best practices and industry standards</li> <li>Routine checks for stranded birds and appropriate handling procedures</li> </ul>
	Air emissions	<ul style="list-style-type: none"> <li>Adhere to Annex I of the <i>International Convention for the Prevention of Pollution from Ships</i></li> <li>Standard equipment inspections/best maintenance practices</li> </ul>
	Release of marine diesel fuel or streamer fluid (Accidental Event)	<ul style="list-style-type: none"> <li>Oil Spill Response Plan</li> <li>Shipboard Oil Pollution Emergency Plan as per the <i>Canada Shipping Act, 2001</i>; and contract with readily available response organization</li> <li>Avoidance of sensitive area and/or times</li> <li>Use of solid streamers if feasible</li> <li>Routine inspections of the streamers</li> <li>Use of oil containment booms when necessary</li> <li>Frequent communication with nearby vessels, and adherence to standard navigation procedures</li> <li>Employee awareness training</li> <li>Storage regulations in place for lube oil minimizes the volume lost during an accident or rupture</li> </ul>