Northwest Territories Environment and Natural Resources

Mr. Darrell Christie
EIS Coordinator
Environmental Impact Screening Committee
Joint Secretariat, Inuvialuit Settlement Region
Inuvialuit Corporate Centre
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Dear Mr. Christie:

**Imperial Oil Resources Ventures Ltd. (IORVL)**
**Beaufort Sea Exploration Joint Venture Drilling Program**
**Government of the Northwest Territories Comments**

The Government of the Northwest Territories (GNWT) has reviewed the application at reference under its respective departmental mandated responsibilities. The GNWT appreciates the efforts of IORVL in submitting the application to the Environmental Impact Screening Committee (EISC) for regulatory review. While the application does address some of the environmental and socio-economic impacts of the project, we offer the following comments for consideration by the EISC and IORVL.

**Topic 1: Spill Contingency Planning**

**Comment(s):**

Section 5.1.10, Contingency Plans, states that the Contingency Plan will be developed for emergency response and oil spill response. While it is understood a final Spill Contingency Plan cannot be prepared at this time, a draft Spill Contingency Plan is not provided with the project description.

**Recommendation(s):**

1. IORVL provide a draft Beaufort Sea Drilling Program Spill Contingency Plan for review and comment. If unable to do so at this time, please provide the document for review when it is made available.

**Topic 2: Waste Management**

**Comment(s):**

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Section 5.1.7.3, Pre-Spud Activities in 2016 and 2019, states that the proposed development includes "Developing infrastructure, such as a shore-based facility, aviation and communications, as required". Section 5.1.13, Support Facilities, states that various land-based facilities and services might be needed to support offshore drilling operations including waste management services. This is further confirmed by section 5.1.14.2, Staging Sites and Storage Areas. It also indicates that such a facility would likely be located in Tuktoyaktuk.

It is also stated that IORVL will develop other program plans and commitments such as a Waste Management Plan. However, a Draft Waste Management Plan is not provided for review.

**Recommendation(s):**

1. IORVL provide a Draft Waste Management Plan for review and comment. If unable to do so at this time, please provide the document for review when it is made available.

**Topic 3: Impacts of Ice-breaking on Sea Ice Habitat and Polar bears**

**Comment(s):**

Section 76 and 77 of the *Species at Risk Act (NWT)* requires the Minister of Environment and Natural Resources (ENR) to make a submission to the body responsible for assessing the potential impacts of a proposed development, or for considering a Land Use Permit or Water Licence application, respecting the potential impacts of the proposed development, permit or licence application on a pre-listed or listed species or its habitat.

Polar bear are listed as a species of Special Concern on Schedule 1 of the federal *Species at Risk Act*. The NWT Species at Risk Committee (SARC), established under the territorial *Species at Risk Act*, assessed polar bear as a species of Special Concern in December 2012, and polar bear are proposed for addition to the NWT List of Species at Risk.

Operations are proposed to occur between May and November of each year. Icebreaking will be required to clear a path for the drilling unit, fuel tankers and wareship into and out of the Beaufort Sea at the beginning and end of each drilling season, to manage ice around the drilling platform, and to clear a path for resupply vessels while they are in the licenced areas. Section 10.2.1.1 of the project description states that ice break-up usually occurs in late August, and ice formation can begin in September to mid-October. It is therefore likely that extensive ice breaking will be required to support project activities. The spatial extent over which ice breaking may occur and the impacts that this may have on sea ice habitat for polar bears has not been evaluated in any detail. Given the dependence of polar bears on sea ice as a platform from which to hunt their prey, it is likely that the project may have an impact on polar bear distribution and foraging activity within the licence areas and along any shipping lanes between Tuktoyaktuk and the drilling rig. Vessel transits may also disrupt traditional polar bear harvest in these areas and travel routes used by community members during caribou harvest. Furthermore, impacts to polar bear from the project may act cumulatively with other stressors such as changes in the sea ice regime due to climate change and potential increases in vessel traffic in the region associated with mining projects proposed in the west Kitikmeot region of Nunavut.

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**Recommendation(s):**

1. IOVRL provide a more in-depth assessment of potential impacts of ice-breaking activities on southern and northern Beaufort sea subpopulations of polar bear, including impacts on their distribution and foraging behaviour and on traditional harvest of polar bear both within the EL's and along supply vessel routes.

**Topic 4: Impacts of a Major Spill on Polar Bears**

**Comments:**

In section 14.3.8.3.3 of the project description IORVL concludes that a major spill would not have a significant impact on polar bears. Although IOVRL acknowledges that polar bears are highly sensitive to oiling due to thermoregulation, they do not mention the potential impacts due to ingestion and they predict that a major spill would not affect a significant proportion of the population because individuals are widely dispersed. IORVL also states that ringed seals, a primary prey species for polar bear, are less sensitive to oiling and impacts to this species would also be insignificant. Although IORVL acknowledges that spill impacts depend on the location and size of a spill, persistence and direction of movement of the spill, and effectiveness of mitigation measures used, no detailed worst case scenario or spill trajectory modeling was included that might provide an idea of how large an area might be affected or how long oil might persist in the environment if the spill could not be immediately contained and cleaned up.

Given that polar bear concentrate their activity around ice edges, there is the potential that a major spill could affect a large proportion of the polar bear population if oil accumulates at the pack ice or landfast ice edge. IORVL's assessment also does not consider food chain effects or bioaccumulation of toxic components of oil in prey species which may negatively affect polar bear health over the long-term. It is critical that further analysis and supporting literature is provided to support IORVL's conclusions regarding the impact significance of a major spill on polar bear.

**Recommendation(s):**

1. IORVL provide a more detailed description of a probable worst case spill scenario, including spill trajectory modeling, to assess the extent of areas most likely to be impacted and the response options available.

2. The spill impact assessment include further analysis of impacts on polar bear subpopulations from both direct contact with oil and longer-term impacts to the food chain which may ultimately affect the polar bear health and prey availability.

3. Spill response plans include details about how polar bear will be deterred from coming into contact with oil, and how IORVL would respond to individuals that come into contact with oil.

**Topic 5: Management of Wildlife Attractants**

**Comment(s):**

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Section 14.2.12 of IORVL's project description states that wastes from offshore activities, including kitchen wastes, will be transported by supply vessel back to the shore-based facility for storage and disposal. On-shore storage of large quantities of food wastes and other waste materials that may attract wildlife can increase the risk of negative human-wildlife interactions for project employees and residents of Tuktoyaktuk. The project description does not contain sufficient detail on the expected quantity of waste that will be shipped and stored at the shore-based facility, nor does it provide any detail on how storage facilities will be designed and managed to limit wildlife attraction. Segregation, recycling and on-board incineration of kitchen wastes should be explored as a method for management of ship-base wastes as this may help to reduce the risk of wildlife attraction from on-land waste storage.

**Recommendation(s):**

1. IOVRL provide more information about the quantities of different waste streams and options for treatment, storage and disposal, with a focus on options that will minimize potential for wildlife attraction and issues of human safety.

**Topic 6: Wildlife Mitigation and Monitoring Plans**

**Comment(s):**

IORVL's project description makes reference to a number of proposed management plans that will contain mitigation and monitoring measures for wildlife but which have not yet been submitted for review. These include:

- Marine Mammal Management Plan
- Polar Bear Interaction and Management Plan
- Wildlife Interaction Plan
- Air Operations Plan
- Environmental Protection Plan
- Waste Management Plan
- Environmental Effects Monitoring Plan

The GNWT recommends that proponents of industrial development submit a Wildlife and Wildlife Habitat Protection Plan (WWHPP) and Wildlife Effects Monitoring Program (WEMP) for their project. These stand-alone plans would encapsulate elements from several of IOVRL's proposed plans. General definitions and guidelines for the contents of a WWHPP and a WEMP can be found in the attached *Appendix A*.

Development of a WWHHP and WEMP by project proponents will help contribute to greater consistency in mitigation and monitoring across development projects, as well as monitoring at multiple scales, which is beneficial for assessing, monitoring and mitigating cumulative effects on wildlife and wildlife habitat.

The project description does not provide sufficient detail on the contents of each of IORVL's proposed plans for GNWT-ENR to determine whether mitigation and monitoring measures for wildlife will be appropriate to the scale and intensity of the proposed activities.

**Recommendation(s):**

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1. IOVRL submit a more detailed outline of mitigation measures related to wildlife in the form of a WWHPP.

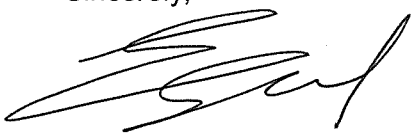
2. Submission of a WWHPP and WEMP be included as a condition of project approval and be subject to review by the ENR Wildlife Division.

3. IOVRL discuss with ENR opportunities to participate in a WEMP that would contribute towards regional wildlife cumulative effects assessment and management.

The GNWT is confident that implementation of these recommendations will assist in assuring the project will not have significant adverse environmental impacts.

If the EISC or IORVL has questions related to these recommendations, please contact Mr. Ray Case, Assistant Deputy Minister at (867) 920-6389 or by email at ray_case@gov.nt.ca, or please contact Ms. Mary Tapsell, Director, Land and Water Division at (867) 920-8675 or mary_tapsell@gov.nt.ca.

Sincerely,



Ernie Campbell
Deputy Minister