1 Purpose

This document provides scoping information for the Environmental Assessment (EA) of the proposed drilling program in the marine nearshore area off the Port au Port Peninsula and all other related activities (the Project). PDI Production Inc. (PDIP), the proponent, is proposing to drill an exploration well from an onshore location at Shoal Point in the Port au Port Peninsula to a location in the offshore area. The well will be drilled onshore using conventional onshore drilling techniques. The drilling activity is proposed to commence in the Fall of 2007 into winter 2008.

Included in this document is a description of the scope of the project that will be assessed, the factors to be considered in the assessment, and the scope of those factors.

This document has been developed by the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB), as Federal Environmental Assessment Coordinator, in consultation with the Department of Fisheries and Oceans (DFO), Environment Canada (EC), the Newfoundland and Labrador Department of Environment and Conservation and C-NLOPB's other advisory agencies in the Governments of Canada and of Newfoundland and Labrador[1].

2 Regulatory Considerations

The Project will require an authorization pursuant to Section 138 (1)(b) of the *Canada-Newfoundland Atlantic Accord Implementation Act* and Section 134(1)(a) of the *Canada-Newfoundland and Labrador Atlantic Accord Implementation Newfoundland and Labrador Act* (Accord Acts).

The C-NLOPB has determined, in accordance with paragraph 3(1)(a) of the *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements* (FCR), that an environmental assessment of the project under section 5 of the *Canadian Environmental Assessment Act* (CEA Act) is required.

Pursuant to Section 12.2 (2) of the CEA Act, the C-NLOPB will be assuming the role of the Federal Environmental Assessment Coordinator (FEAC) for this screening and in this role will be responsible for coordinating the review activities by the expert government departments and agencies that participate in the review.

> ***The C-NLOPB intends that the environmental impact statement submitted with any supporting documents, as may be necessary, will fulfill the requirements for a Screening. The C-NLOPB, therefore, pursuant to Section 17 (1) of the CEAA, formally delegates the responsibility for preparation of an acceptable Screening environmental assessment to PDIP, the project proponent. The C-NLOPB will prepare the Screening Report, which will include the determination of significance.***

[1]Appendix 1 contains a list of the departments and agencies consulted during the preparation of the document.

3 Scope of the Project

The project to be assessed consists of the following components:

3.1 An exploration well will be drilled in EL-1070, off the Port au Port Peninsula, as described in "*Port au Port Drilling Project Description*" (PDIP February 2007). The C-NLOPB will focus its Screening Report on those portions of the offshore area that are under the jurisdiction of the C-NLOPB, as defined in the Accord Acts, with consideration to those portions of the land-based project that are linked to the marine drilling program.

3.2 Drilling will be conducted using a mobile (land) drilling unit (MDU). The following program activities are anticipated: a MDU; water based and/or synthetic based drilling fluid systems; emissions and waste disposal; land-based support vehicles; VSP programs, and well abandonment.

3.3 The temporal scope of the first offshore well is the fall of 2007. A maximum number of five wells are proposed at Shoal Point over the next three to five years. In order to prevent possible conflicts, the timing of specific portions of the survey area will be conducted in light of fisheries and other considerations.

4 Factors to be Considered

The EA shall include a consideration of the following factors in accordance with Section 16 of CEAA:

4.1 The purpose of the project;

4.2 The environmental effects[2] of the Project, including those due to malfunctions or accidents that may occur in connection with the Project and any change to the Project that may be caused by the environment;

4.3 Cumulative environmental effects of the Project that are likely to result from the project in combination with other projects or activities that have been or will be carried out;

4.4 The significance of the environmental effects described in 4.2 and 4.3;

4.5 Measures, including contingency and compensation measures as appropriate, that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project;

4.6 The significance of adverse environmental effects following the employment of mitigative measures, including the feasibility of additional or augmented mitigative measures;

4.7 The need for, and the requirements of, any follow-up programs in respect of the Project consistent with the requirements of the CEA Act and the SARA. (Refer to

[2] The term "environmental effects" is defined in Section 2 of the CEAA and Section 137 of the *Species at Risk Act*.

the Canadian Environmental Assessment Agency's 2002 "OperationalPolicy Statement" regarding Follow-up Programs[3]); and

4.8 Consultations undertaken by PDIP with interested parties who may be affected by program activities and/or the general public respecting any of the matters described above.

5 Scope of the Factors to be Considered

PDI Production Inc. will prepare and submit to the C-NLOPB an EA for the above described physical activity, and as described in the project description "Port au Port Drilling Project Description" (PDIP February 2007).

The EA will address the factors listed above, the issues identified in Section 5.2, and document any issues and concerns that may be identified by the proponent through regulatory, stakeholder, and public consultation.

The proposed Project is a land-based drilling program designed to enter a target in the offshore area. The drilling unit will be located on land, with all waste discharges associated with the drilling activities to be disposed of in approved land-based waste disposal sites. There will be no discharges to the marine environment. The only potential impact to the marine environment that is under the jurisdiction of the CNLOPB, that may result from the Project, is from an accidental event. Therefore, the CNLOPB has determined that the scope of this assessment will focus on the project-environment interactions associated with hydrocarbons entering the marine environment from accidental events. The EA will describe those elements of the marine environment that may be impacted from accidental events entering the marine environment, and will include a description of the physical environment for the Port au Port Bay area which may influence the trajectory and fate of hydrocarbons in the nearshore marine environment.

If the Valued Ecosystem Component (VEC) approach to focus its analysis is used in the EA, a definition of each VEC (including components or subsets thereof) identified for the purposes of environmental assessment, and the rationale for its selection, shall be provided.

The scope of the factors, to be considered in the EA, will include the components identified in Section 5.2 - Summary of Potential Issues, setting out the specific matters to be considered in assessing the environmental effects of the project and in developing environmental plans for the project, and the "Spatial Boundaries" identified below (Section 5.1). Considerations relating to definition of "significance" of environmental effects are provided in the following sections.

5.1 Boundaries

The EA will consider the potential effects of the proposed drilling program within spatial and temporal boundaries that encompass the periods and areas during and within which

[3] CEA Agency Guidance documents and Operational Policy Statements are available on its web site: http://www.ceaa-acee.gc.ca/012/newguidance_e.htm#6.

the project may potentially interact with, and have an effect on, one or more VECs. These boundaries may vary with each VEC and the factors considered, and should reflect a consideration of:

- the fate of hydrocarbons entering the marine environment from an accidental event associated with the land-based drilling program as determined from spill trajectory analysis;
- the natural variation of a VEC or subset thereof;
- the timing of sensitive life cycle phases in relation to the scheduling of seismic activities;
- interrelationships/interactions between and within VECs;
- the time required for recovery from an effect and/or return to a pre-effect condition, including the estimated proportion, level, or amount of recovery; and
- the area within which a VEC functions and within which a project effect may be felt.

The proponent shall clearly define, and provide the rationale for the spatial and temporal boundaries that are used in its EA. The Study Area chosen shall be clearly described in the EA report. Boundaries should be flexible and adaptive to enable adjustment or alteration based on field data. The Study Area will be described based on consideration of potential areas of effects as determined by the scientific literature, spill trajectory analysis and the resultant project-environment interactions from accidental events. A suggested categorization of spatial boundaries follows.

5.1.1 Spatial Boundaries

The Study Area should be an area defined by the following:

Project Area
The area in which drilling activities are to occur.

Affected Area
The area defined by spill trajectory modelling which could potentially be affected by hydrocarbons entering the marine environment from accidental events.

5.1.2 Temporal Boundaries

The temporal scope should describe the timing of project activities. Scheduling of project activities should consider the timing of sensitive life cycle phases of the VECs in relation to physical activities.

5.2 Summary of Potential Issues

Based on the Scope of the Assessment, as described above, the EA report will describe the physical and biological environments for the area of the marine environment likely to be impacted by those accidental events in which hydrocarbons enter the marine environment and on-land area where drilling activities are to occur.

The Western Newfoundland Strategic Environmental Assessment (SEA) (LGL 2006) provides a detailed discussion of the biological and physical environmental conditions. The proposed project area falls within the area captured within the Western NL SEA. Therefore, the EA report should provide summary descriptions of those biological and physical parameters, as identified below. Where new information is available, (e.g., fisheries data) the new information should be provided. The Western NL SEA should be properly referenced; the EA report should specifically reference the section of the SEA report summarized.

The EA will contain descriptions and definitions of EA methodologies employed in the assessment of effects. Where information is summarized from existing EA reports, the sections referenced should be clearly indicated. Effects of relevant Project activities on those VECs most likely to be in the defined Study Area will be assessed. Discussion of cumulative effects within the Project and with other relevant marine projects will be included. Issues to be considered in the EA will include, but not be limited to, the following:

Physical Environment

5.2.1 For the Study Area, provide a summary description of the meteorological and oceanographic characteristics, including extreme conditions, and any change to the Project that may be caused by the environment.

5.2.2 Accidental Events

For the Study Area, provide the following:

- Discussion on the potential for spill events from drilling activities to enter the marine environment
- Description of marine area likely to be affected by hydrocarbons from a spill event that enter the marine environment
- Fate of hydrocarbons in the marine environment, as determined by spill trajectory analysis
- For the defined Study Area, environmental effects of any accidental events from Project activities. Cumulative effects should be included.
- Mitigations to reduce or prevent such events from occurring.
- Contingency plans to be implemented in the event of an accidental release.

Marine Resources

5.2.3 Birds

For the Study Area, provide a summary description of the following:

- Spatial and temporal species distributions
- Species habitat, feeding, breeding, and migratory characteristics of relevance to the EA;
- Attraction of birds to vessel lighting;
- Procedures for handling birds that may become stranded

- physical displacement as a result of vessel and on-shore equipment presence (e.g. disruption of foraging activities)
- Means by which bird mortalities associated with project operations may be documented and assessed;
- Effects of petroleum spills (from accidental events) that enter the marine environment;
- Means by which potentially significant effects upon birds may be mitigated through design and/or operational procedures; and
- Environmental effects due to the Project, including cumulative effects.

5.2.4 Marine Fish and Shellfish

For the marine areas within the defined Study Area, provide a summary description of the following:

- Distribution and abundance of marine fish and invertebrate species utilizing the Study Area with consideration of critical life stages (e.g., spawning areas, overwintering, juvenile distribution, migration);
- Description, to the extent possible, of location, type, diversity and areal extent of marine fish habitat in the Study Area. In particular, those indirectly or directly supporting traditional, aboriginal, historical, present or potential fishing activity, and including any essential (e.g. spawning, feeding, overwintering) habitats;
- The means by which potentially significant effects upon fish and commercial fisheries from accidental events may be mitigated; and
- Environmental effects associated with hydrocarbons entering the marine environment, due to the Project, including cumulative effects.

5.2.5 Marine Mammals and Sea Turtles

For the defined Study Area, provide a summary description of the following:

- Spatial and temporal distribution;
- Description of marine mammal and sea turtle lifestyles/life histories relevant to the Study Area;
- Means by which potentially significant effects upon marine mammals and sea turtles (including critical life stages) may be mitigated through design, scheduling, and/or operational procedures; and
- Environmental effects associated with hydrocarbons entering the marine environment, due to the Project, including cumulative effects.

5.2.6 Species at Risk (SAR)

For the defined Study Area, provide a description of the following:

- A description, to the extent possible, of SAR as listed in Schedule 1 of the *Species at Risk Act (SARA)*, those listed under the *Newfoundland and Labrador Endangered Species Act*, and those under consideration by COSEWIC in the Study Area, including fish, marine mammal, sea turtles, and seabird species;
- A description of critical habitat (as defined under SARA), if applicable, to the Study Area;
- Monitoring and mitigation, consistent with recovery strategies/action plans (endangered/threatened) and management plans (special concern);

- A summary statement stating whether project effects are expected to contravene the prohibitions of SARA (Sections 32(1), 33, 58(1));
- Means by which adverse effects upon SAR and their critical habitat may be mitigated through design, scheduling, and/or operational procedures; and
- Assessment of effects (adverse and significant) on SAR and critical habitat, including cumulative effects.

5.2.7 "Sensitive" Areas

Provide a summary description of the following:

- A description, to the extent possible, of any 'Sensitive" Areas in the Study Area, deemed important or essential habitat to support any of the marine resources or seabird/shorebirds identified;
- Environmental effects from accidental events, including cumulative effects ,on those "Sensitive" Areas identified; and
- Means by which adverse effects upon "Sensitive" Areas may be mitigated through design, scheduling and/or operational procedures.

Marine Use

5.2.8 Noise/Acoustic Environment

Provide a description of the following:

- Disturbance/displacement of VECs and SAR associated with VSP activities;
- Means by which potentially significant effects may be mitigated through design, scheduling and/or operational procedures; and
- Effects of seismic activities (direct and indirect) including cumulative effects, on the VECs and SAR identified within the EA. Critical life stages should be included.

5.2.9 Fisheries

For the defined Study Area, provide a summary description of the following:

- Fishery activities (including traditional, existing and potential commercial, recreational and aboriginal/subsistence
- Consideration of underutilized species and species under moratoria that may be found in the Study Area as determined by analyses of past DFO research surveys and Industry GEAC survey data, with emphasis on those species being considered for future potential fishers, and species under moratoria;
- An analysis of the effects of Project operations and accidental events upon the foregoing. The analysis should include consideration of recent scientific literature on effects of seismic activity on invertebrate species, including identified data gaps;
- Program(s) for compensation of affected parties, including fisheries interests, for accidental damage resulting from project activities;
- Mean by which adverse effects of accidental events upon commercial fisheries may be mitigated through design and/or operational procedures; and
- Environmental effects of accidental events of the Project, including cumulative effects.

Environmental Management

5.2.10 PDI Production Inc.'s environmental management system and its components, including, but not limited to:

- pollution prevention policies and procedures;
- fisheries liaison/interaction policies and procedures;
- program(s) for compensation of affected parties, including fishery interests, for accidental damage resulting from project activities; and
- Emergency response plan(s).

Biological and Follow-up Monitoring

5.2.11 Discuss the need for and requirements of a follow-up program (as defined in Section 2 of the CEA Act) and pursuant to the SARA. The discussion should also include any requirement for compensation monitoring (compensation is considered mitigation).

Details regarding the monitoring and observation procedures to be implemented regarding marine mammals, sea turtles and seabirds (observation protocols should be consistent with the C-NLOPB Geophysical, Geological, Environmental and Geotechnical Program Guidelines (April 2004)).

5.3 Significance of Adverse Environmental Effects

The Proponent shall clearly describe the criteria by which it proposes to define the "significance" of any residual adverse effects that are predicted by the EA. This definition should be consistent with the November 1994 CEAA reference guide "Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects", and be relevant to consideration of each VEC (including components or subsets thereof) that is identified. SARA species shall be assessed independent of non-SARA species. The effects assessment methodology should clearly describe how data gaps are considered in the determination of significant of effects.

5.4 Cumulative Effects

The assessment of cumulative environmental effects should be consistent with the principles described in the February 1999 CEAA "Cumulative Effects Assessment Practitioners Guide: and in the March 1999 CEAA operational policy statement "Addressing Cumulative Environmental Effects under the Canadian Environmental Assessment Act". It should include a consideration of environmental effects that area likely to result from the proposed project in combination with other projects or activities that have been or will be carried out. A listing of petroleum related activities under the jurisdiction of the CNLOPB that are either ongoing or under consideration can be viewed at the CNLOPB website (www.cnlopb.nl.ca). In addition, other project activities that should be considered are:

- Other seismic activities;
- Fishing activities, including Aboriginal fisheries;
- Other oil and gas activities; and

- Marine transportation.

6 Projected Timelines for the Environmental Assessment Process

ACTIVITY	TARGET	RESPONSIBILITY
Submission of EA upon receipt of Scoping Document	8 weeks	Proponent
Prepare for EA review	~1 week	C-NLOPB
EA review	6 weeks	C-NLOPB & Regulatory Agencies
Compile comments on EA	2 weeks	C-NLOPB
Submission of EA Addendum/Response to EA Comments	4 weeks	Proponent
Review of EA Addendum/Response Document	3 weeks	C-NLOPB & Regulatory Agencies
Screening Report (Determination of Significance of Project Effects)	2 weeks	C-NLOPB
Total	26 weeks	

APPENDIX 1

Departments and Agencies Consulted by C-NLOPB

Federal Authorities under the *Canadian Environmental Assessment Act*

Fisheries and Oceans Canada
Department of National Defence
Environment Canada
Natural Resources Canada
Transport Canada
Health Canada

Other Departments/Agencies

Canadian Environmental Assessment Agency

Provincial Departments (Government of Newfoundland and Labrador)

Department of Environment and Conservation
Department of Fisheries and Aquaculture
Department of Natural Resources