ConocoPhillips ExxonMobil

Application for Approval of the
Development Plan for

Parsons Lake Field

Project Description

Submitted to:
National Energy Board

Submitted by:
ConocoPhillips and ExxonMobil

August 2004

Cover photograph courtesy of the Government of the Northwest Territories

**APPLICATION FOR APPROVAL OF
THE DEVELOPMENT PLAN FOR
PARSONS LAKE FIELD
PROJECT DESCRIPTION**

EXECUTIVE SUMMARY

P.1.1 PURPOSE OF THIS PLAN

ConocoPhillips Canada (North) Limited (ConocoPhillips), a wholly owned indirect subsidiary of ConocoPhillips Canada Limited, and ExxonMobil Canada Properties (ExxonMobil) propose to develop natural gas and natural gas liquids (NGLs) from Significant Discovery Licences SDL 32 and SDL 30 (the Parsons Lake field). The Parsons Lake field is located at Parsons Lake in the Northwest Territories, about midway between Inuvik and Tuktoyaktuk. ConocoPhillips, the field operator, holds 75% of the Parsons Lake field and ExxonMobil holds 25%. ConocoPhillips, on behalf of itself and ExxonMobil, is submitting this development plan for the Parsons Lake field to the National Energy Board (NEB) for approval under the *Canada Oil and Gas Operations Act* (COGOA).

P.1.2 EXPLORATION HISTORY

The proponents and their predecessors have acquired a significant amount of 2-D seismic data on the Parsons Lake field since the late 1950s. Some of this seismic exploration led to the drilling of the Parsons F-09 well, the discovery well for the Parsons Lake field, in 1972. The Parsons F-09 well and subsequent delineation wells resulted in the issuance of SDLs 32 and 30 in 1988. ConocoPhillips and ExxonMobil also conducted a major 3-D seismic program over the Parsons Lake field in winter 2001–2002. In the more than 40 years since the proponents and their predecessors began their exploration activities in the Mackenzie Delta, they have spent in excess of $270 million (2003$) on exploration of the Parsons Lake field and in preparing regulatory applications for its development. The opportunity to realize the full value of the Parsons Lake field, including recovery of this investment, is the primary motivation for the proponents' proposal to develop the field. Based on their most recent interpretations of the exploration data obtained, the proponents estimate that the Parsons Lake field could contain about 64 Gm^3 (2.3 Tcf) of recoverable raw natural gas and NGLs.

P.1.3 PRODUCTION FACILITIES

P.1.3.1 Main Production Pads

The main production facilities at the Parsons Lake field will be located on two main gravel pads, the most northerly and larger of the two near the northeast shore of Parsons Lake. This north pad will be built first, with construction currently planned to begin in late 2006. The gas conditioning facility for the

P.1.3.1 Main Production Pads (cont'd)

Parsons Lake field will be located there, as will two injection wells for disposing of drilling cuttings, produced water and other waste from the field. The connection to the planned Mackenzie gathering system will also be located at the north pad. The second, smaller well pad will be constructed about five or six years after construction of the north pad (around 2015) and will be located about 14 km from it, south of Parsons Lake. An elevated, two-phase flow line will transport natural gas from the south pad to the north pad's gas conditioning facility.

P.1.3.2 Planned Wells

Nine producing wells are expected to be located on the north pad, although space has been reserved for drilling about 10 additional wells. The south pad is expected to require three producing wells, although space has been reserved for drilling about four additional wells. Although additional wells are planned to be drilled on both the north and south pads, the final number of wells will depend on the drilling and production results.

P.1.3.3 Potential Additional Pads and Wells

In addition to the two main pads, one or more small pads, for one or several wells, might also be required. These wells are contingent upon the results of the drilling of the currently planned wells, as well as on the results of potential continued exploration drilling in SDLs 32 and 30. Therefore, the number, potential locations and timing for such contingent wells and well pads have not been determined. If any of these single well pads are eventually required, elevated flow lines will connect them to the gas conditioning facility on the north pad.

P.1.4 ESTIMATED CAPITAL AND OPERATING COSTS

Currently, ConocoPhillips and ExxonMobil initially plan a design rate of about 8.5 Mm^3/d (300 MMcf/d) at the Northwest Territories–Alberta boundary, over an estimated field life of 25 to 30 years. The estimated capital costs for field development, using the base case of the north and south pads and an inter-pad flow line, are about $895 million (2003$), including a 25% contingency. Operating costs over 25 years are currently estimated to be about $252 million (2003$).

P.1.5 TRANSPORTATION PLAN

One of the main conditions required for realizing the opportunity presented by the resources of the Parsons Lake field is a means of transporting the natural gas and NGLs to market. The Mackenzie Gas Project, described conceptually in the *Preliminary Information Package for the Mackenzie Gas Project* submitted to various regulatory agencies in June 2003, includes the development of three gas fields, known as the anchor fields:

- Parsons Lake
- Taglu, held by Imperial Oil Resources Limited
- Niglintgak, held by Shell Canada Limited (Shell)

The proponents of the three anchor fields are proposing to construct:

- a gathering system, including gathering pipelines, a processing facility near Inuvik and an NGL pipeline from Inuvik to Norman Wells

- a natural gas pipeline from Inuvik to northwestern Alberta

The Aboriginal Pipeline Group is also a proponent of the natural gas pipeline. Imperial Oil Resources Ventures Limited will operate both the gathering system and the gas pipeline system.

The proposed Mackenzie gathering system will transport natural gas and NGLs from the anchor fields and other potential fields to the Inuvik area facility and, in the case of the NGLs, from Inuvik to Norman Wells to enter the existing Enbridge Pipelines (NW) Inc. pipeline. The natural gas pipeline will start at the outlet of the Inuvik area facility and connect to an extension of the NOVA Gas Transmission Ltd. (NGTL) system in northwestern Alberta. The other two anchor fields, the Mackenzie gathering system and the Mackenzie Valley pipeline are the subjects of separate regulatory applications submitted by their respective operators.

P.1.6 NOTICE TO INVESTORS

Investors are directed to the Cautionary Note to Investors, at the front of this development plan application.

P.2.1 ENVIRONMENTAL IMPACT STATEMENT

This Parsons Lake field development plan is linked to the various applications and related submissions of the Mackenzie Gas Project. Although the operators of the individual Mackenzie Gas Project components are submitting separate primary regulatory applications for the components for which they are responsible, all the components of the Mackenzie Gas Project share a common Environmental Impact Statement (EIS). The EIS has been prepared as a consolidated document for the Mackenzie Gas Project, on a cooperative basis, by the project proponents in order to meet the intent of the *Cooperation Plan for the Environmental Impact Assessment and Regulatory Review of a Northern Gas Pipeline Project Through the Northwest Territories* (the Cooperation Plan). In August 2003, the federal Minister of the Environment, exercising his authority under the *Canadian Environmental Assessment Act* (CEAA), and in accordance with the Cooperation Plan, referred the Mackenzie Gas Project for environmental review to the Joint Review Panel established under the CEAA and the Cooperation Plan. In May 2004, the federal Minister of Indian and Northern Affairs Canada (INAC) approved, again in accordance with the Cooperation Plan, the Mackenzie Valley Environmental Impact Review Board's request to refer the Mackenzie Gas Project for review by the Joint Review Panel.

The Cooperation Plan contemplates a single environmental impact review for the entire Mackenzie Gas Project. The EIS has been prepared and assembled to facilitate a single environmental review. As a result, the Parsons Lake field development plan, as well as the other primary regulatory applications for the Mackenzie Gas Project, only summarizes the environmental impacts of the Parsons Lake field development plan.

P.2.2 RELATED REGULATORY SUBMISSIONS

Other regulatory applications being submitted by the Mackenzie Gas Project proponents provide information common to both the Parsons Lake field development plan application and other project components. Table P-1 shows the sections of this development plan that relate to those submissions.

Table P-1: Mackenzie Gas Project Submissions

Parsons Lake Field Development Plan Section		Mackenzie Gas Project Submission
8.0	Pipeline Transport Systems	NEB Application for the Mackenzie Gathering System NEB Application for the Mackenzie Valley Pipeline
9.0	Construction and Installation	EIS Volume 2: Project Description Mackenzie Valley Pipeline Volume 4: Construction and Operations Mackenzie Gathering System Volume 3: Construction and Operations
10.8	Abandonment and Reclamation	EIS Volume 7: Environmental Management
11.0	Safety Plan	EIS Volume 7: Environmental Management
11.5	Emergency Response Plan	EIS Volume 7: Environmental Management
12.0	Public Consultation	EIS Volume 1: Overview and Impact Summary EIS Volume 4: Socio-Economic Baseline Mackenzie Gas Project Public Consultation Volume 1: Consultation Program
13.0	Environmental and Socio–Economic Impacts	EIS Volume 5: Biophysical Impact Assessment EIS Volume 6: Socio-Economic Impact Assessment

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