January 21, 2009

5200-4500/4800-59070-20

S. Aidan Campbell, P.Eng. Petro-Canada Oil and Gas P.O. Box 2844 Calgary AB T2P 3E3

Dear Mr. Campbell:

RE: COMMINGLED PRODUCTION APPROVAL PC KOBES b-098-A/094-B-09W6M; WA# 18174

The Commission has reviewed your application dated November 28, 2008 for approval to commingle gas production from the Charlie Lake and Halfway zones encountered in the subject well.

The **interim** approval granted June 24, 2008 was intended to allow the acquisition of additional data to support a formal commingling application. However, the well was placed on commingled production on September 3, 2008 <u>without an official approval</u> from the Commission. Consequently Petro-Canada is in contravention of Section 41 of the *Drilling and Production Regulation* which states:

"An operator of a well must not complete a well, or allow a well to be completed, for commingled production from more than one pool or zone unless the operator first applies for and receives permission in writing from an authorized commission employee".

Subsequent contraventions of Section 41 may result in the invalidation of Petro-Canada's interim approval or denial of their final approval.

The subject well is completed in the Kobes – Kobes "A", Blueberry "C" and Halfway "A" gas pools. The Kobes "A" and Blueberry "C" pools are within the Charlie Lake member. The Halfway zone commenced production in February, 2005 and production has remained fairly stable at  $\sim 40~10^3 \text{m}^3/\text{d}$ . The Charlie Lake was completed in June 2008 and flow tested at 22.6  $10^3 \text{m}^3/\text{d}$ . The well was placed on commingled production in September, 2008 at 52  $10^3 \text{m}^3/\text{d}$ . Given the stabilized Halfway rate of 40  $10^3 \text{m}^3/\text{d}$ , the Charlie Lake contribution is an estimated 12  $10^3 \text{m}^3/\text{d}$ .

A sliding sleeve will be used to prevent crossflow during shut-ins, as there is a pressure difference of ~9 MPaa between the zones, based on existing pool data. Both zones contain sour gas, with the Halfway 3.5% H<sub>2</sub>S and the Charlie Lake 2.0% H<sub>2</sub>S. Precedence for commingled production has been established, as 6 out of 10 wells designated to the Halfway "A" pool are approved for commingling with the Charlie Lake. Commingled production through a single tubing string is expected to reduce liquid loading and maximize production and reserve recovery.

We wish to advise you that your application to commingle production from these zones is hereby approved, under the authority of Section 41 of the *Drilling and Production Regulation*, subject to the following conditions:

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- 1. Production from the Charlie Lake (1512.0 1652.5 mKB) and Halfway (1693.0 1753.0 mKB) zones may be commingled.
- 2. Gas, condensate and water production should be allocated on the Ministry of Finance BC S-1, BC S-2 and BC-08 forms on the basis of Charlie Lake 30% and Halfway 70%. The allocation factors may be amended to reflect results of any future tests.
- 3. This approval may be modified at a later date if deemed appropriate through a change in circumstances.

Should you have any questions, please contact the undersigned at (250) 952-0366 or Kelly Okuszko at (250) 952-0325.

Sincerely,

Richard Slocomb, P. Eng.

Supervisor, Reservoir Engineering