

OIL AND GAS COMMISSION

June 27, 2008

8170-4540/4800-59070-20

James Nichols, P.Eng. Canadian Natural Resources Limited 2500, 855 – 2<sup>nd</sup> Street SW Calgary AB T2P 4J8

Dear Mr. Nichols:

## RE: COMMINGLED PRODUCTION APPROVAL CNRL TOWNSEND c-011-J/094-B-09; WA# 22617

Commission staff have reviewed your application dated March 12, 2008 requesting permission to commingle gas production from the Coplin and Halfway zones encountered in the subject well.

The Commission has designated the gas pools under application to be the Townsend – Coplin "A" and Halfway "A".

The Coplin zone tested at an AOF of  $10 \ 10^3 \text{m}^3/\text{d}$  in October, 2007 and is currently shut in. The Halfway zone commenced production in November, 2007 at 28  $10^3 \text{m}^3/\text{d}$  and has declined to a current rate of  $15 \ 10^3 \text{m}^3/\text{d}$ . There is approximately 9 MPaa pressure differential between the zones and a variation in H<sub>2</sub>S content (Coplin – 6% H<sub>2</sub>S; Halfway – 1.6%). A free flow check valve has been installed to allow one way gas flow from the annulus to tubing to prevent crossflow. Other parties with an interest in the subject pools have provided letters consenting to the proposed commingling. Commingled production through a single production string is expected to maximize production and reserve recovery from both zones.

Your application to commingle production from these zones is hereby granted approval, under the authority of Section 41 of the *Drilling and Production Regulation*, subject to the following conditions:

- 1. Production from the Coplin (1576.0-1578.0 mKB) and Halfway (1802.0 1803.0 mKB) zones may be commingled.
- Gas, condensate and water production should be allocated on the Ministry of Small Business and Revenue BC S-1, BC S-2 and BC S-8 forms on the basis of H<sub>2</sub>S composition of the commingled gas stream, with monthly sampling until consistent results are obtained. The Commission must be notified of the results once a consistent allocation factor has been established.

...2

## RESOURCE CONSERVATION

PO Box 9329 Stn Prov Gov't, Victoria BC V8W 9N3 Tel: (250) 952-0302 Fax: (250) 952-0301 Location: 6<sup>th</sup> Flr 1810 Blanshard St. Victoria BC

Headquarters: #200, 10003 110<sup>th</sup> Ave, Fort St. John BC V1J 6M7 Tel: (250) 261-5729 Fax: (250) 261-5744 www.ogc.gov.bc.ca

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) 952-0176.

Sincerely,

Supervisor, Reservoir Engineering