



March 7, 2011

4390/9021-4900/4980/5000-59070-20

Nancy Alinsangan
Reservoir Engineer
Shell Canada Ltd.
400 4th Avenue SW
Calgary AB T2P 2H5

Dear Ms. Alinsangan:

RE: COMMINGLED PRODUCTION SPECIAL PROJECT
SHELL ET AL GROUNDBIRCH 8-25-078-21W6; WA # 23545

The OGC has reviewed your letter dated January 28, 2011 requesting approval to commingle gas production from the Doig, Doig Phosphate and Montney formations in the subject well. The Commission has designated the zones under application to be part of the Groundbirch Doig "J" and "K", Groundbirch Doig Phosphate Beds "E", and Heritage Montney "A" gas pools.

Shell initially applied for commingling for all of the above zones in August 2009. The OGC denied commingling for all zones but approved commingling for Doig "J" / Doig "K" formations and the Doig Phosphate Beds "E" / Montney "A" formations respectively. Additional data has since been obtained by Shell in support of commingling of all formations to maximize reserve recovery. All zones contain sweet gas.

Attached please find Order 11-20-007 designating an area in the Groundbirch/Heritage fields within the subject formations a Special Project under section 75 of the *Oil and Gas Activities Act* for Commingled Production. Please note that commingled production operations will be subject to periodic review and the Commission may modify the Order, if deemed appropriate.

Should you have any questions, please contact Richard Slocomb at (250) 419-4421 or Travis Mercure at (250) 419-4448.

Sincerely,

A handwritten signature in blue ink, appearing to read 'R. Slocomb', is written over a light blue horizontal line.

Richard Slocomb, P.Eng
Supervisor, Reservoir Engineering
Oil and Gas Commission

Attachment

IN THE MATTER of an application from Shell Canada Ltd. to the Oil and Gas Commission (Commission) dated January 28, 2011 for Commingled production approval.

ORDER 11-20-007

- 1 Under Section 75(1)(a) of the *Oil and Gas Activities Act*, the Groundbirch field Doig "J", Doig "K", Doig Phosphate Beds "E" pools and Heritage Montney "A" pool are designated as a special project for the enhanced recovery of natural gas by commingling production within the following area;

DLS 78 Rge 21 W6M – Section 25.

- 2 Under section 75(2) of the *Oil and Gas Activities Act*, the special project designation in this Order is subject to the following conditions:
 - a) Production from the Doig (2650.0 – 2655.0 mKB and 2707.0 – 2712.0 mKB), Doig Phosphate Beds (2758.0 – 2763.0 mKB) and Montney (2820.0 – 2950.0 mKB) zones may be commingled through the well SHELL ET AL GROUNDBIRCH 8-25-078-21W6M (WA # 23545).
 - b) Gas, condensate and water production from the commingled well must be allocated on the Ministry of Finance BC-S1, BC-S2 and BC-08 forms to the deepest (measured depth) active well event (unique well identifier). Royalty will be calculated on a well production basis, as if production were being taken from a single zone. The Commission allocates commingled gas and water production on the basis of Doig "J" 10%, Doig "K" 40%, Doig Phosphate Beds "E" 40% and Montney "A" 10%.



Alex Ferguson
Commissioner
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 7 day of March 2011.