



OIL & GAS COMMISSION

June 17, 1999

OGC 990381  
File: 2400-4805-59240-09

Mr. Dick VanAppelen, P. Eng.  
Exploitation Engineer  
Canadian Natural Resources Limited  
2000, 425 - 1<sup>st</sup> Street S.W.  
CALGARY AB T2P 3L8

CNRL PILOT PROJECT (16)  
Amend # 1

Dear Dick:

**RE: APPLICATION TO AMEND PILOT WATERFLOOD PRESSURE MAINTENANCE  
BUICK CREEK LOWER HALFWAY "D" OIL POOL**

The Commission has reviewed your application dated June 1, 1999 wherein you requested an amendment to the pilot waterflood pressure maintenance approval in the subject pool. In the application you requested approval to convert an additional well as a water injector.

Attached is Approval # 98-09-005 (Amendment #1) for the application, granted under section 100 of the Petroleum and Natural Gas Act.

Yours sincerely,

Bou van Oort, P. Eng.  
Director  
Engineering and Geology Branch

Attachment

Approval Letters to Industry  
GEP, SWD, CONCURRENT PROD,  
PRESSURE MAINTENANCE,  
WATERFLOOD, ETC.

Copy

- Wellfile (originals)
- 59240
- Daily
- Resource Revenue
- R. Stefik
- G. Farr

Email

- D. Krezanowski
- S. Chicorelli
- C. Gibson

**APPROVAL 98-09-005 (AMENDMENT #1)**

**THE PROVINCE OF BRITISH COLUMBIA  
PETROLEUM AND NATURAL GAS ACT  
OIL AND GAS COMMISSION**

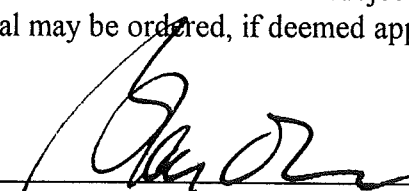
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IN THE MATTER of a pilot pressure maintenance scheme of Canadian Natural Resources Limited (CNRL) for waterflood recovery of oil by water injection into the Buick Creek Lower Halfway "D" Pool.

The approval granted by the Commission, pursuant to section 100 of the Petroleum and Natural Gas Act, R.S.B.C. 1996, c.361 is hereby amended as follows:

The pilot pressure maintenance scheme of CNRL for waterflood recovery of oil from the Buick Creek Lower Halfway "D" Pool as such scheme is described in the Application from CNRL dated August 21, 1998 and June 1, 1999 is hereby amended, subject to the following terms:

1. The pilot pressure maintenance scheme area shall be delineated by units 3, 4, 13 – 15 and 23 – 25 of Block ~~D~~<sub>A</sub>/94-A-14.
2. The daily oil allowable is waived.
3. Water may be injected into the Buick Creek Lower Halfway "D" Pool through the wells CNRES ET AL HZ BUICK b-14-A/94-A-14 (bottom hole location c-3-A/94-A-14) and CNRES ET AL HZ BUICK c-33-A/94-A-14 (bottom hole location d-24-A/94-A-14).
4. The injection pressure at the sandface must not exceed the formation fracture pressure.
5. All associated gas production will be conserved.
6. Progress reports shall be filed as stipulated in section 8 of the *Petroleum and Natural Gas General Regulation*.
7. The operations of the pilot pressure maintenance scheme will be subject to periodic review, and modification to the approval may be ordered, if deemed appropriate.

  
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Ben van Oort, P.Eng.

Director

Engineering and Geology Branch  
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 17<sup>th</sup> day of June, 1999.