

OIL & GAS COMMISSION

April 7, 1999

OGC 990267

File: 2400-4805-59240-09

CNRL PILOT PROJECT (15)

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

Dear Dick:

RE: PILOT WATERFLOOD PRESSURE MAINTENANCE APPROVAL
BUICK CREEK LOWER HALFWAY "C" OIL POOL

The Commission has reviewed your application dated March 2, 1999 wherein you requested a pilot waterflood pressure maintenance approval in the subject pool.

Attached is Approval # 99-09-002 for the application, granted under section 100 of the Petroleum and Natural Gas Act.

The well b-76-I/94-A-11 (bottom hole location b-67-I/94-A-11), WA 10803 is completed in the Buick Creek Lower Halfway "C" and "B" pools. Therefore, water injected into the well should be allocated on the Ministry of Energy and Mines BC S-18 form at 50 % to the "C" pool and 50% to the "B" pool.

Yours sincerely,

[Handwritten signature]

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
P. Attariwala
D. Krezanoski
S. Chicorelli

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

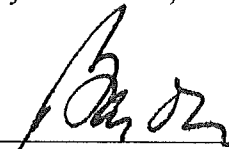
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IN THE MATTER of a pressure maintenance scheme of Canadian Natural Resources Limited (CNRL) for waterflood recovery of oil by water injection into the Buick Creek Lower Halfway "C" Pool.

The Commission, pursuant to Section 100 of the Petroleum and Natural Gas Act, R.S.B.C. 1996, c.361 orders as follows:

The pilot pressure maintenance scheme of CNRL for waterflood recovery of oil from the Buick Creek Lower Halfway "C" Pool as described in the application from CNRL to the Commission dated March 2, 1999 is approved, subject to the following terms:

1. The pilot pressure maintenance scheme area shall be delineated by units 66, 67, 76, 77, 86, 87, 94 - 97 in Block I/94-A-11 and units 4 - 7 of Block A/94-A-14 .
2. The daily oil allowable is waived.
3. Water may be injected into the Lower Halfway "C" pool through the wells b-5-A/94-A-14 (bottom hole location d-97-I/94-A-11), WA 9370; a-6-A/94-A-14 (bottom hole location c-94-I/94-A-11), WA 9411; and b-76-I/94-A-11 (bottom hole location b-67-I/94-A-11), WA 10803.
4. Only 50 % of water injection into well b-76-I/94-A-11, WA 10803; will be allocated to the Buick Creek Lower Halfway "C" pool.
5. The scheme is deemed to have commenced upon water being injected into the wells referred to in clause 3.
6. The Commission must be notified in writing of the date of commencement of water injection.
7. The injection pressure measured at the sandface must not exceed the formation fracture pressure.
8. All associated gas production will be conserved.
9. Progress reports shall be filed as stipulated in Section 8 of the *Petroleum and Natural Gas General Regulation*.
10. The operations of the pressure maintenance scheme will be subject to periodic review and modification to the approval may be ordered, if deemed appropriate.

  
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Bou van Oort  
Director  
Engineering and Geology Branch

DATED AT the City of Victoria, in the Province of British Columbia, this 7<sup>th</sup> day of April, 1999.