



September 15, 1997

0760-4800-59240-09
970823

Ms. Cassandra Lai
Exploitation Engineer
Canadian Natural Resources Limited
2000, 425 - 1st Street SW
Calgary, AB T2P 3L8

CNRL Project (05)

Dear Ms. Lai:

**Re: Application To Amend Pressure Maintenance Approval
Beavertail Halfway "H" Pool**

This refers to your application dated August 25, 1997, wherein you requested an amendment to the waterflood pressure maintenance scheme approval for the Beavertail Halfway "H" oil pool. In the application you request that the production allowable for the pool be based on previous month's voidage replacement.

Based on a review of the Progress Report No. 1, it is concluded that the waterflood has been successful in this pool. Consequently, your request is hereby approved. Attached is Approval 96-09-004 (AMENDMENT #2) for the application granted under section 100 (previously s.116) of the *Petroleum and Natural Gas Act*.

Please note that the voidage calculations must be submitted in the Progress Report.

Yours sincerely,

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

Attachment

Copies for Approval Letter to Industry (11)
RE: GEP, Salt Water Disposals, etc.

- G. Millenberger
- Data Management
- R. Stefik
- D. Richardson (PGE)
- P. Attariwala
- G. Farr
- S. Chicorelli (PGE)
- Resource Revenue
- 59240
- Wellfiles (originals)
- Daily


APPROVAL 96-09-004 (AMENDMENT #2)

THE PROVINCE OF BRITISH COLUMBIA
PETROLEUM AND NATURAL GAS ACT
MINISTRY OF EMPLOYMENT AND INVESTMENT
ENERGY AND MINERALS DIVISION

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

The approval granted pursuant to section 100 (previously 116) of the Petroleum and Natural Gas Act, is hereby amended as follows:

1. The pressure maintenance scheme of CNRL for waterflood recovery of oil from the Beavertail Halfway "H" Pool as such scheme is described in the Applications from CNRL to the Ministry dated January 15, May 27, November 20, 1996 and supplemented with additional application dated August 25, 1997 is hereby approved, subject to the terms herein contained.
2. The pressure maintenance scheme area shall be delineated by units 38-40, 48-50, 60 and 70 of Block A/94-A-15 and units 31, 41, 51 and 61 of Block B/94-A-15.
3. The project oil production for a month shall be based on the previous month's voidage replacement.
4. Water may be injected into the Beavertail Halfway "H" Pool through the well c-40-A/94-A-15.
5. The injection pressure at the sandface must not exceed the formation fracture pressure.
6. All associated gas production will be conserved.
7. An oil well may be drilled anywhere within the project area provided that it is not nearer than 100 m to the sides of the project area.
8. Progress reports shall be filed as stipulated in Part 9, section 108 of the British Columbia *Drilling and Production Regulation*.
9. The operations of the pressure maintenance scheme will be subject to periodic review and modification to the approval may be ordered, if deemed appropriate.



B. van Oort,
Director
Engineering and Operations Branch

DATED AT the City of Victoria, in the Province of British Columbia, this 15th day of September, 1997.