



January 18, 2000

7600-4520-59240-09
OGC 000011

Mr. Scott Stonehouse
Senior Reservoir Engineer
Encal Energy Ltd.
1800, 421 - Seventh Ave S.W.
CALGARY, AB T2P 4K9

Encal Project 102

Dear Mr. Stonehouse:

**RE: PRESSURE MAINTENANCE APPROVAL, AMENDMENT #1
RIGEL CECIL 'G' POOL**

The Commission has reviewed your application dated January 11, 2000 wherein you requested an amendment to the Approval granted March 6, 1998 for a waterflood pressure maintenance scheme in the subject oil pool.

Attached is Approval #98-09-003 (Amendment #1) for the application, granted under section 100 of the Petroleum and Natural Gas Act. This amendment modifies the project production allowable and recognizes an additional water injection location.

The project has accumulated significant overproduction of the daily oil allowable. However, Progress Report #1, filed as part of this application, indicates that producing wells have shown favourable response to waterflooding and the addition of another water injection well should allow ongoing voidage replacement. Therefore, overproduction up to January 31, 2000, is hereby waived.

Please note that the voidage calculations must continue to be submitted in future Progress Reports.

Sincerely,

B. 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
- C. Gibson
- D. Krezanoski
- S. Chicorelli

52-0291

ENGINEERING AND
PO Box 9329 Stn Prov Gov't, Victoria BC V8V
Location: 6th Flr 1810

APPROVAL 98-09-003 (AMENDMENT #1)

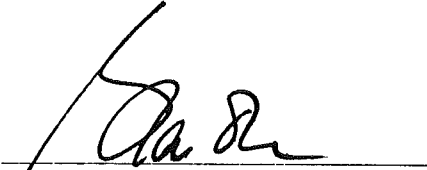
THE PROVINCE OF BRITISH COLUMBIA
PETROLEUM AND NATURAL GAS ACT
OIL AND GAS COMMISSION

IN THE MATTER of a pressure maintenance scheme of Encal Energy Ltd. (Encal) for waterflood recovery of oil by water injection into the Rigel Cecil "G" Pool.

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

The pressure maintenance scheme of Encal for waterflood recovery of oil from the Rigel Cecil "G" Pool as described in the applications from Encal dated February 25, 1998 and January 11, 2000 is hereby approved, subject to the following terms:

1. The project area of the pressure maintenance scheme consists of sec 10, W/2 sec 14, E/2 sec 15, SW/4 sec 15, SE/4 sec 22, W/2 sec 23, NE/4 sec 23 and sec 26 Twp 88 Rge 18 W6M.
2. The project oil allowable for a month shall be based on the previous month's voidage replacement.
3. Water may be injected into the Rigel Cecil "G" Pool through the wells 6-10, 7-10 and 11-23-88-18 W6M.
4. The injection pressure measured at the sandface must not exceed the formation fracture pressure.
5. All associated gas production will be conserved.
6. 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.
7. Progress reports shall be filed as stipulated in Section 8 of the *British Columbia Petroleum and Natural Gas General Regulation*.
8. The operations of the pressure maintenance scheme will be subject to periodic review and modification to the approval may be ordered, if deemed appropriate.


Bou van Oort
Director
Engineering and Geology Branch

DATED AT the City of Victoria, in the Province of British Columbia, this 18th day of January, 2000.