



February 9, 2001

6460-4520-59240-09  
OGC - 01027

David Cronkhite  
Chief Engineer  
Encal Energy Ltd.  
Box 2310, Station M  
Calgary, AB T2P 2M6

Encal Project (03)

Dear Mr. Cronkhite:

**RE: WATERFLOOD PRESSURE MAINTENANCE APPROVAL (AMENDMENT #4)  
OAK CECIL "E" POOL**

The Commission has reviewed your application, dated February 6, 2001, wherein you request an amendment to the waterflood pressure maintenance scheme approval for the subject oil pool.

Attached is Approval # 96-09-002 (Amendment #4) for the application, granted under Section 100 of the Petroleum and Natural Gas Act.

The re-completion of the well at 05-28-86-18 W6M (WA# 8149) to a water injector should improve pool oil recovery. The project area remains unchanged from the previous approval.

Sincerely,

Craig Gibson, P. Eng.  
Manager  
Reservoir Engineering and Geology

Attachment

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

Copy 9

- Wellfile (originals)
- 59240
- Daily
- Resource Revenue
- S. Chicorelli
- R. Stefik
- G. Farr
- P. Attariwala
- D. Krezanoski

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**APPROVAL 96-09-002 (AMENDMENT #4)**

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

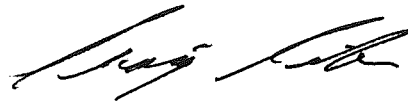
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IN THE MATTER of a pressure maintenance scheme of Encal Energy Ltd. (Encal) for waterflood recovery of oil by water injection into the Oak Cecil "E" Pool.

The approval granted pursuant to Section 100 (previously Sec. 116) 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 Oak Cecil "E" Pool as such scheme is described in the application dated March 11, 1996 and modified on July 31, 1997, March 31, 1998 and supplemented with the additional applications dated May 5, 2000 and February 6, 2001 is hereby approved, subject to the terms herein contained:

1. The pressure maintenance scheme area shall be delineated by NW/4 section 17, section 20, W/2 section 28, S/2 and NE/4 section 29, SE/4 section 32 and section 33-86-18 W6M.
2. The project oil production for a month shall be based on the previous month's voidage replacement.
3. Water may be injected into the Oak Cecil "E" Pool through the wells 13-17, 3-20 (bottom-hole 2-20), 5-28, 9-29 and 11-33 (bottom-hole 7-33) -86-18 W6M.
4. The injection pressure 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 scheme area provided that it is not nearer than 100m to the sides of the scheme 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.



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Craig Gibson  
Manager  
Reservoir Engineering and Geology

DATED AT the City of Victoria, in the Province of British Columbia, this 9<sup>th</sup> day of February, 2001.