



Copies of Approval Letter to Industry (11)

RE: GEP, Salt Water Disposals, etc.

<input type="checkbox"/>	G. Miltenberger
<input type="checkbox"/>	Data Management
<input checked="" type="checkbox"/>	R. Stefik
<input type="checkbox"/>	D. Richardson
<input type="checkbox"/>	P. Attariwala
<input type="checkbox"/>	G. Farr
<input type="checkbox"/>	S. Chicorelli
<input type="checkbox"/>	Resource Revenue
<input type="checkbox"/>	59240
<input type="checkbox"/>	Daily

April 20, 1998

Ref.: 980373

File: 7600-4520-59240-09

Mr. Geoff Beatson, P. Eng.  
Encal Energy Ltd.  
1800, 421 - 7th Ave SW  
Calgary, AB T2P 4K9

Encal Project (02)

Amendment #1

Dear Mr. Beatson:

**RE: APPLICATION TO AMEND WATERFLOOD PRESSURE  
MAINTENANCE APPROVAL; RIGEL CECIL "B" POOL**

This refers to your application dated March 10, 1998 wherein you requested an amendment to the waterflood pressure maintenance scheme approval for the subject oil pool. In the application you request that the production allowable for the pool be based voidage replacement.

Based on a review of the Progress Report #2 submitted with your application, it is concluded that the waterflood has been very successful in the pool. Consequently, your request is hereby approved. Attached is Approval # 96-09-006 (Amendment #1) for the application, granted under Section 100 (previously Sec 116) of the Petroleum and Natural Gas Act.

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

Yours sincerely,

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

PSA/

Attachment

APPROVAL 96-09-006 (Amendment #1)

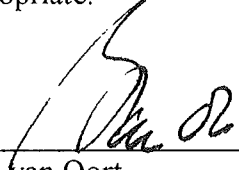
THE PROVINCE OF BRITISH COLUMBIA  
PETROLEUM AND NATURAL GAS ACT  
MINISTRY OF ENERGY AND MINES  
ENERGY AND MINERALS DIVISION

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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 Rigel Cecil "B" 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 Encal for waterflood recovery of oil from the Rigel Cecil "B" pool as such scheme is described in the application from Encal to the Ministry dated September 30, 1996 and supplemented with additional application dated March 10, 1998 is hereby approved, subject to the terms herein contained.
2. The area of the pressure maintenance scheme shall consist of NW/4 sec 4, sec 9, W/2 sec 10, W/2 sec 15, E/2 sec 16, SE/4 sec 21, sec 22, sec 27, and sec 34-88-18W6 and fractional units 12 and 13, and units 22 and 23 of Block K/94-A-10.
3. The project oil allowable for a month shall be based on the previous month's voidage replacement.
4. Water may be injected into the wells 13-4, 13-15 and 10-27-88-18 W6M.
5. The injection pressure at the sandface must not exceed the formation fracture pressure.
6. Equipment must be installed at the well head of water injection wells to ensure that fracturing of the formation does not occur.
7. All associated gas production must be conserved.
8. An oil well may be drilled anywhere within the project area provided that it is not completed nearer than 100 m to the sides of the project area.
9. Progress reports shall be filed as stipulated in Part 9, Section 108 of the *British Columbia Drilling and Production 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 Operations Branch

DATED AT the City of Victoria, in the Province of British Columbia, this 20 day of April, 1998.