



April 29, 1988

Mr. N. Shular  
Manager, Engineering  
Unocal Canada Limited  
335 - 8th Avenue, S.W.  
P.O. Box 999  
Calgary, Alberta  
T2P 2K6

*Gas Storage*

Dear Mr. Shular:

AITKEN CREEK FIELD - FURTHER MODIFICATIONS  
TO THE MINISTERIAL ORDER APPROVING GAS STORAGE

This refers to the Ministerial Order dated July 24, 1984, approving natural gas storage in Aitken Creek and the Modification to the Ministerial Order dated April 29, 1987.

Under Section 116 of the Petroleum and Natural Gas Act, the Modification to the Ministerial Order approving gas storage, dated April 29, 1987, is hereby further modified as follows:

1. In item 2 the words "1 through 8" are replaced by the words "4 and 5".
2. In item 2 the words "although Condition 8 is under review and may be modified in the near future;" are deleted.
3. The words in item 3 are deleted and replaced by:

Conditions 1 through 3 of the Order dated July 24, 1984, are rescinded and replaced by:

(1) Aitken Creek Field Definition

"Aitken Creek Field" means the unitized zone defined in the Unit Agreement, Aitken Creek Gas Unit No. 1 effective March 1, 1977, and also the non-unitized oil bearing Gething 'A' formation, all restricted to the area of the Aitken Creek Gas Unit No. 1, as shown on Attachment 1.

In the event Unocal Canada Limited (Unocal) or Hudson Bay Oil and Gas Limited (HBOG) purchase natural gas leases adjacent to the Aitken Creek Gas Unit No. 1, as defined at the date of this Further Modification to the Order, Unocal or HBOG may apply to the Director of Resource Revenue, Ministry of Energy, Mines and Petroleum Resources for approval to include said purchased leases in the area of the Aitken Creek Field, such approval not to be unreasonably withheld where the concurrence of all working interest owners is obtained.

(2) Outside Gas Definition

"Outside Gas" means marketable gas as defined in the Petroleum and Natural Gas Royalty Regulation (B.C. Reg. 200/85, as amended) that is originally from any source other than the Aitken Creek Field.

(3) Native Gas Definition

"Native gas" means any and all unit volumes of natural gas present or produced from the Aitken Creek Field which is in excess of any and all unit volumes of outside gas injected into, produced or disposed of from the Aitken Creek Field.

4. The words in item 4 are deleted and replaced by:

Conditions 6 through 10 of the Order dated July 24, 1984, are rescinded and replaced by:

(6) Royalty Assessment

a) Native gas and natural gas by-products disposed of from the Aitken Creek Field shall be assessed royalty as per the Petroleum and Natural Gas Royalty Regulations (B.C. Reg. 200/85, as amended).

- b) Oil disposed of from the Aitken Creek Field shall be assessed royalty as per the Petroleum and Natural Gas Royalty Regulation (B.C. Reg. 200/85, as amended).
- c) Outside gas for injection into the Aitken Creek Field shall be assessed royalty in accordance with the Petroleum and Natural Gas Regulation (B.C. Reg. 200/85, as amended) when first produced prior to injection.

(7) Last-in First-out

Any and all unit volumes of outside gas injected into the Aitken Creek Field (Last-in), shall be any and all unit volumes of residue gas disposed of from the Aitken Creek Field (First-out), until the cumulative volume of residue gas disposed of equals the cumulative volume of outside gas injected. Thereafter, all residue gas shall be from native gas.

(8) Method of Operation

- a) At the commencement of gas storage, outside gas shall be injected into the unitized zone of the Aitken Creek Field through wells located at d-25-L, a-53-L, d-57-L, and a-46-L, all in NTS area 94-A-13.
- b) Written notification of intent to change the gas injection scheme must be submitted to the Director of Engineering and Operations, Ministry of Energy, Mines and Petroleum Resources, not less than one month prior to the expected change.
- c) The storage reservoir pressure is not to exceed the discovery pressure of 10736 KPa abs.

(9) Reserves

All oil produced from the Aitken Creek Field up to a cumulative volume of  $1097 \times 10^3 \text{m}^3$  stock tank is subject to old oil royalty rates.

All oil produced from the Aitken Creek Field in excess of the cumulative volume of  $1097 \times 10^3 \text{m}^3$  stock tank is incremental oil and subject to new oil royalty rates.

(10) Volume Reporting

The operator of the storage scheme shall submit appropriate monthly injection and production S-forms and a gas storage report which shall include the following information:

- i) Total volume and cumulative volume of marketable gas from other areas injected.
- ii) Volume of marketable gas from other areas injected and allocated to each injection well.
- iii) Total volume and cumulative volume of marketable gas from other areas disposed of.
- iv) Volume of fuel gas used to inject marketable gas.

(11) Termination of Gas Storage

Written notification of intent to terminate gas storage must be submitted by Unocal to the Director of Resource Revenue, Ministry of Energy, Mines and Petroleum Resources not less than three months prior to the expected date of termination.

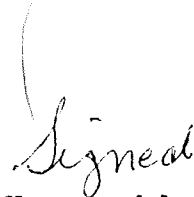
(12) Assignment

Unocal and HBOG shall not, without prior written consent of the Minister, assign either directly or indirectly, this Approval or any right of Unocal or HBOG under this Approval.

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Your application to store natural gas in the unitized zone of the Aitken Creek Field has been advertised in the British Columbia Gazette and no objections were received. Additional reasonable terms and conditions to this approval may be imposed by the Minister.

Yours sincerely,



Honourable Jack Davis  
Minister

Attachment

bcc: P. Jarman  
J. Allan  
B. Drinkwater  
B. Phillion  
B. Garrison  
B. van Oort  
D. Dempster  
G. German  
P. Ostergaard  
D. Johnson

UNIT AGREEMENT

AITKEN CREEK GAS UNIT NUMBER 1

