



August 23, 2002

Mr. Dick VanAppelen, P. Eng.
Reservoir Engineer
Canadian Natural Resources Limited
2500, 855 - 2 Street S.W.
Calgary, AB T2P 4J8

Dear Mr. VanAppelen:

**RE: APPLICATIONS FOR CONCURRENT PRODUCTION WITH
GOOD ENGINEERING PRACTICE AMENDMENTS
Buick Creek Lower Halfway "B", "C", "D", "E", "H", "I", "J", "K", "N" and "O" Pools**

Attached are amendments to the Concurrent Production Approvals with Good Engineering Practice (GEP) for the "B", "D", "E", "H", "I", "N" and "O" pools, as requested in your application dated July 15, 2002.

The approvals are amended under section 97 of the Petroleum and Natural Gas Act. The approvals are intended to allow operational flexibility in order to maximize oil recovery. The approvals will allow the drilling of new horizontal laterals from existing wells to access undrained portions of these pools to improve primary recovery. In addition, there is potential for improved oil recovery from proposed fracture stimulations of vertical and horizontal wells.

Please note that no amendments have been granted for the "C", "J" and "K" pools. It is considered premature to relax the GOR penalties for the "J" and "K" pools at this time. There is a correlative issue with respect to the "C" pool as Talisman Energy Inc. operates a Concurrent Production scheme for a portion of the pool. Talisman would be entitled to a similar amendment to their scheme approval. Therefore, we would require a letter of concurrence from Talisman before any amendment can be made.

Sincerely,

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

Attachments

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

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| | |
|-------------------------------------|----------------------|
| <input type="checkbox"/> | Wellfile (originals) |
| <input type="checkbox"/> | 59240 |
| <input type="checkbox"/> | Daily |
| <input type="checkbox"/> | Resource Revenue |
| <input type="checkbox"/> | S. Chicorelli |
| <input checked="" type="checkbox"/> | R. Stefik |
| <input type="checkbox"/> | G. Farr |
| <input type="checkbox"/> | P. Attariwala |
| <input type="checkbox"/> | D. Krezanoski |

ENGINEERING AND GEOLOGY BRANCH

PO Box 9329 Stn Prov Gov't, Victoria BC V8W 9N3 Tel: (250) 952-0302 Fax: (250) 952-0291
Location: 6th Flr 1810 Blanshard St. Victoria BC

Headquarters: #200, 10003 110th Ave, Fort St. John BC V1J 6M7 Tel: (250) 261-5729 Fax: (250) 261-5744
www.ogc.gov.bc.ca

APPROVAL 90-07-002 (AMENDMENT #2)

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

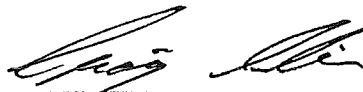
IN THE MATTER of a Concurrent Production scheme with Good Engineering Practice of Canadian Natural Resources Limited (CNRL) for producing the Buick Creek Lower Halfway "B" oil pool without spacing and target restrictions, and without a project oil allowable.

NOW, THEREFORE, the Commission, pursuant to section 97 of the Petroleum and Natural Gas Act, hereby approves an amendment to the Concurrent Production scheme of CNRL for drilling horizontal wells without spacing and target restrictions and for concurrent production of oil and gas without an oil allowable, as such scheme is described in

an Application from CNRL to the Commission dated July 15, 2002.

The scheme approval of May 1, 2000 (Amendment #1) is hereby amended, subject to the conditions herein contained and, in particular:

1. The area of the scheme shall consist of units 56 - 58, 66 - 68, 77 and 78 of Block I/ 94-A-11.
2. The project daily oil allowable is waived.
3. Gas production from the project will be limited to $85.0 \times 10^3 \text{ m}^3/\text{d}$.
4. All gas production will be conserved.
5. The requirements of section 9 of the *Drilling and Production Regulation* are hereby waived, provided that oil wells within the scheme area are not completed nearer than 100 m to the sides of the approved area.
6. This approval may be modified or rescinded at a later date if deemed appropriate.



Craig Gibson
Manager
Reservoir Engineering and Geology

DATED AT the City of Victoria, in the Province of British Columbia, this 27th day of August 2002.

APPROVAL 95-07-005 (AMENDMENT #6)

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

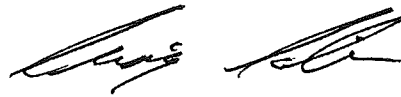
IN THE MATTER of a Concurrent Production scheme with Good Engineering Practice (GEP) of Canadian Natural Resources Limited (CNRL) for producing the Buick Creek Lower Halfway "D" oil pool without spacing and target restrictions, and without a project oil allowable.

NOW, THEREFORE, the Commission, pursuant to section 97 of the Petroleum and Natural Gas Act, hereby approves an amendment to the Concurrent Production scheme of CNRL for drilling horizontal wells without spacing and target restrictions and for concurrent production of oil and gas without an oil allowable, as such scheme is described in:

an Application from CNRL to the Commission dated July 15, 2002.

This scheme approval of December 17, 1999 (Amendment #5) is hereby amended subject to the conditions herein contained and, in particular:

1. The area of the scheme shall consist of units 92 - 94 of Block I /94-A-11 and units 2 - 5, 12 - 15, 22 - 25, 32 - 35, and 42 - 45 of Block A/94-A-14.
2. The project daily oil allowable is waived.
3. Gas production from the project will be limited to $284.0 \times 10^3 \text{ m}^3/\text{d}$.
4. All gas production will be conserved.
5. The requirements of section 9 of the *Drilling and Production Regulation* are hereby waived, provided that oil wells within the scheme area are not completed nearer than 100 m to the sides of the approved area.
6. This approval may be modified or rescinded at a later date if deemed appropriate.



Craig Gibson
Manager
Reservoir Engineering and Geology

DATED AT the City of Victoria, in the Province of British Columbia, this 23rd day of August 2002.

APPROVAL 95-07-003 (AMENDMENT #3)

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

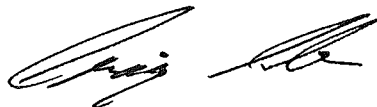
IN THE MATTER of a Concurrent Production scheme with Good Engineering Practice of Canadian Natural Resources Limited (CNRL) for producing the Buick Creek Lower Halfway "E" oil pool without spacing and target restrictions, and without a project oil allowable.

NOW, THEREFORE, the Commission, pursuant to section 97 of the Petroleum and Natural Gas Act, hereby approves an amendment to the Concurrent Production scheme of CNRL for drilling horizontal wells without spacing and target restrictions and for concurrent production of oil and gas without an oil allowable, as such scheme is described in

an Application from CNRL to the Commission dated July 15, 2002.

The scheme approval of May 1, 2000 (Amendment #2) is hereby amended, subject to the conditions herein contained and, in particular:

1. The area of the scheme shall consist of legal subdivisions 1 to 8, fractional 9, fractional 10, fractional 11 and fractional 12 of section 34-88-20 W6M, legal subdivisions 1 to 8, fractional 9, fractional 10, fractional 11 and fractional 12 of section 35-88-20 W6M, and fractional units 16 to 18 of Block I/94-A-11.
2. The project daily oil allowable is waived.
3. Gas production from the project will be limited to $143.0 \times 10^3 \text{ m}^3/\text{d}$.
4. All gas production will be conserved.
5. The requirements of section 9 of the *Drilling and Production Regulation* are hereby waived, provided that oil wells within the scheme area are not completed nearer than 100 m to the sides of the approved area.
6. This approval may be modified or rescinded at a later date if deemed appropriate.



Craig Gibson
Manager
Reservoir Engineering and Geology

DATED AT the City of Victoria, in the Province of British Columbia, this 20th day of August 2002.

APPROVAL 95-07-004 (AMENDMENT #2)**THE PROVINCE OF BRITISH COLUMBIA
PETROLEUM AND NATURAL GAS ACT
OIL AND GAS COMMISSION**

IN THE MATTER of a Concurrent Production scheme with Good Engineering Practice of Canadian Natural Resources Limited (CNRL) for producing the Buick Creek Lower Halfway "H" oil pool without spacing and target restrictions, and without a project oil allowable.

NOW, THEREFORE, the Commission, pursuant to section 97 of the Petroleum and Natural Gas Act, hereby approves an amendment to the Concurrent Production scheme of CNRL for drilling horizontal wells without spacing and target restrictions and for concurrent production of oil and gas without an oil allowable, as such scheme is described in

an Application from CNRL to the Commission dated July 15, 2002.

The scheme approval of May 1, 2000 (Amendment #1) is hereby amended, subject to the conditions herein contained and, in particular:

1. The area of the scheme shall consist of units 44 and 55 of Block A/94-A-14.
2. The project daily oil allowable is waived.
3. Gas production from the project will be limited to $35.0 \times 10^3 \text{ m}^3/\text{d}$.
4. All gas production will be conserved.
5. The requirements of section 9 of the *Drilling and Production Regulation* are hereby waived, provided that oil wells within the scheme area are not completed nearer than 100 m to the sides of the approved area.
6. This approval may be modified or rescinded at a later date if deemed appropriate.



Craig Gibson
Manager
Reservoir Engineering and Geology

DATED AT the City of Victoria, in the Province of British Columbia, this 24th day of August 2002.

APPROVAL 97-07-001 (AMENDMENT #2)**THE PROVINCE OF BRITISH COLUMBIA
PETROLEUM AND NATURAL GAS ACT
OIL AND GAS COMMISSION**

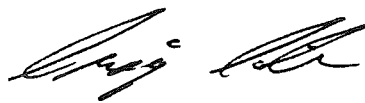
IN THE MATTER of a Concurrent Production scheme with Good Engineering Practice (GEP) of Canadian Natural Resources Limited (CNRL) for producing the Buick Creek Lower Halfway "I" oil pool without spacing and target restrictions, and without a project oil allowable.

NOW, THEREFORE, the Commission, pursuant to section 97 of the Petroleum and Natural Gas Act, hereby approves an amendment to the Concurrent Production scheme of CNRL for drilling horizontal wells without spacing and target restrictions and for concurrent production of oil and gas without an oil allowable, as such scheme is described in:

an Application from CNRL to the Commission dated July 15, 2002.

The scheme approval of December 17, 1999 (Amendment #1) is hereby amended, subject to the conditions herein contained and, in particular:

1. The area of the scheme shall consist of units 43, 53, 54, 63 – 65, and 73 - 75 of Block A/94-A-14.
2. The project daily oil allowable is waived.
3. Gas production from the project will be limited to $137.0 \times 10^3 \text{ m}^3/\text{d}$.
4. All gas production will be conserved.
5. The requirements of section 9 of the *Drilling and Production Regulation* are hereby waived, provided that oil wells within the scheme area are not completed nearer than 100 m to the sides of the approved area.
6. This approval may be modified or rescinded at a later date if deemed appropriate.



Craig Gibson
Manager
Reservoir Engineering and Geology

DATED AT the City of Victoria, in the Province of British Columbia, this 20th day of August 2002.

APPROVAL 98-07-004 (AMENDMENT #2)

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

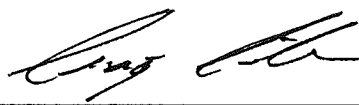
IN THE MATTER of a Concurrent Production scheme with Good Engineering Practice of Canadian Natural Resources Limited (CNRL) for producing the Buick Creek Lower Halfway "N" oil pool without spacing and target restrictions, and without a project oil allowable.

NOW, THEREFORE, the Commission, pursuant to section 97 of the Petroleum and Natural Gas Act, hereby approves an amendment to the Concurrent Production scheme of CNRL for drilling horizontal wells without spacing and target restrictions and for concurrent production of oil and gas without an oil allowable, as such scheme is described in

an Application from CNRL to the Commission dated July 15, 2002.

The scheme approval of May 1, 2000 (Amendment #1) is hereby amended, subject to the conditions herein contained and in particular:

1. The area of the scheme shall consist of units 36, 46, 55 and 56 of Block A/94-A-14.
2. The project daily oil allowable is waived.
3. Gas production from the project will be limited to $33.2 \times 10^3 \text{ m}^3/\text{d}$.
4. All gas production will be conserved.
5. The requirements of section 9 of the *Drilling and Production Regulation* are hereby waived, provided that oil wells within the scheme area are not nearer than 100 m to the sides of the approved area.
6. This approval may be modified or rescinded at a later date if deemed appropriate.



Craig Gibson
Manager
Reservoir Engineering and Geology

DATED AT the City of Victoria, in the Province of British Columbia, this 23rd day of August 2002.

APPROVAL 98-07-005 (AMENDMENT #2)

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

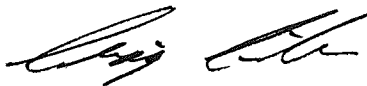
IN THE MATTER of a Concurrent Production scheme with Good Engineering Practice of Canadian Natural Resources Limited (CNRL) for producing the Buick Creek Lower Halfway "O" oil pool without spacing and target restrictions, and without a project oil allowable.

NOW, THEREFORE, the Commission, pursuant to section 97 of the Petroleum and Natural Gas Act, hereby approves an amendment to the Concurrent Production scheme of CNRL for drilling horizontal wells without spacing and target restrictions and for concurrent production of oil and gas without an oil allowable, as such scheme is described in:

an Application from CNRL to the Commission dated July 15, 2002.

The scheme approval of May 1, 2000 (Amendment #1) is hereby amended, subject to the conditions herein contained and, in particular:

1. The area of the scheme shall consist of units 43 - 45, 54 and 55 of Block A /94-A-14.
2. The project daily oil allowable is waived.
3. Gas production from the project will be limited to $106.3 \times 10^3 \text{ m}^3/\text{d}$.
4. All gas production will be conserved.
5. The requirements of section 9 of the *Drilling and Production Regulation* are hereby waived, provided that oil wells within the scheme area are not completed nearer than 100 m to the sides of the approved area.
6. This approval may be modified or rescinded at a later date if deemed appropriate.



Craig Gibson
Manager
Reservoir Engineering and Geology

DATED AT the City of Victoria, in the Province of British Columbia, this 23rd day of August 2002.