



August 8, 2011

2000-4535-59240-09

Jason Augustin, P.Eng.
Production Engineer
TAQA North Ltd.
2100, 308 – 4th Ave S.W.
CALGARY, AB T2P 0H7

Dear Mr. Augustin:

**RE: PRESSURE MAINTENANCE WATERFLOOD ORDER, AMENDMENT #7
OTHER THAN NORMAL SPACING ORDER, AMENDMENT #7
BOUNDARY LAKE FIELD – BOUNDARY LAKE “A” POOL**

The BC Oil and Gas Commission (Commission) has reviewed your application dated August 4, 2011, requesting an amendment to the pressure maintenance waterflood order previously granted for a portion of the subject oil pool. Commencing in 1964, waterflood operations have successfully recovered over 50% of OOIP in the project area. Additional water injection is required to balance voidage, due to recent abandonment of the injector at 16-11-86-14 W6M.

As a result of legislative changes, authorities previously contained in a single approval document for this activity are now covered in the attached;

- 1) Order 64-09-004 (Amendment #7) designating Pressure Maintenance Waterflood, within the Boundary Lake field – Boundary Lake “A” pool, Project #1, as a Special Project under section 75 of the *Oil and Gas Activities Act*, and
- 2) Order 64-09-004-OTN (Amendment #7) approving Other Than Normal Spacing under section 65.1 of the *Petroleum and Natural Gas Act* for the subject formation and area.

This amendment incorporates conversion of the suspended oil well TAQA North Boundary 7-11-86-14 (WA# 14103) to water injection service for improved sweep efficiency. All other approval conditions remain unchanged.

Please note that, as per section 75 of the *Drilling and Production Regulation*, a record of the volume of water injected must be included on a Monthly Injection or Disposal Statement (BC-S18), which must be submitted to the Commission no later than the 25th day of the month in which activity occurred.

Should you have any questions, please contact Ron Stefik at (250) 419-4430.

Sincerely,

A handwritten signature in black ink, appearing to read 'Alex Ferguson', is written over a horizontal line.

Alex Ferguson
Commissioner
Oil and Gas Commission

Attachments

IN THE MATTER of an amendment application from TAQA North Ltd. to the Commission dated August 4, 2011 for the development and production of petroleum in the Boundary Lake field – Boundary Lake “A” pool.

ORDER 64-09-004 (Amendment #7)

- 1 Under Section 75(1)(a) of the *Oil and Gas Activities Act*, the Boundary Lake field – Boundary Lake “A” pool is designated as a special project for pressure maintenance for recovery of oil by water injection within the following area;

Twp 85 Rge 14 W6M- S/2 sec 22, sec 26, N/2 sec 34, sec 35
Twp 86 Rge 14 W6M - sec 2, S/2 sec 3, E/2 sec 11 and E/2 sec 14.

- 2 Under section 75(2) of the *Oil and Gas Activities Act*, I specify the following:

- a) The project daily oil allowable is 782.1 m³.
- b) Water may be injected into the Boundary Lake field – Boundary Lake “A” pool through the following wells;

| <u>WA#</u> | <u>Well Name</u> |
|------------|-------------------------------------|
| 14364 | TAQA North Boundary 05-22-85-14 W6M |
| 575 | TAQA North Boundary 06-26-85-14 W6M |
| 465 | TAQA North Boundary 16-26-85-14 W6M |
| 1022 | TAQA North Boundary 16-34-85-14 W6M |
| 574 | TAQA North Boundary 06-35-85-14 W6M |
| 606 | TAQA North Boundary 16-35-85-14 W6M |
| 1440 | TAQA North Boundary 06-02-86-14 W6M |
| 605 | TAQA North Boundary 16-02-86-14 W6M |
| 1666 | TAQA North Boundary 02-03-86-14 W6M |
| 14103 | TAQA North Boundary 07-11-86-14 W6M |

- c) All associated produced gas must be conserved.
- d) The injection pressure measured at the sandface must not exceed the formation fracture pressure.



Alex Ferguson
Commissioner
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 8 day of August 2011.

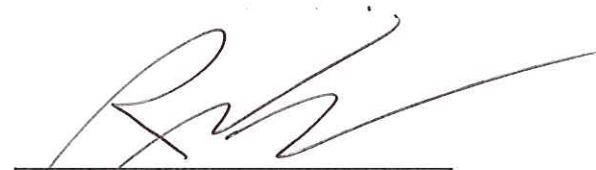
IN THE MATTER of Other Than Normal Spacing within the Boundary Lake field – Boundary Lake “A” pool as described in the amendment application from TAQA North Ltd. to the Commission dated August 4, 2011.

ORDER 64-09-004-OTN (Amendment #7)

- 1 Under Section 65.1(2) of the *Petroleum and Natural Gas Act*, Other Than Normal Spacing within the Boundary Lake field – Boundary Lake “A” pool is hereby approved within the following area;

Twps 85 Rge 14 W6M- S/2 sec 22, sec 26, N/2 sec 34, sec 35
Twps 86 Rge 14 W6M - sec 2, S/2 sec 3, E/2 sec 11 and E/2 sec 14.

- 2 Under section 65.1(3) of the *Petroleum and Natural Gas Act*, I specify the following:
- a) the target area for an oil well completed within the project area is not nearer than 100 m to the sides of the Other Than Normal Spacing area,
 - b) an oil well completed outside the specified target area may be subject to an off-target production penalty,
 - c) oil wells drilled within the specified project area are not subject to spacing requirements.



Richard Slocomb
Supervisor, Reservoir Engineering
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 8 day of August 2011.