

December 12, 2014

2020-4800-59240-09

Kevin Wesa, P.Eng.
President and CEO
Venturion Oil Limited
1600, 500 – 4th Ave S.W.
CALGARY, AB T2P 3V6

Dear Mr. Wesa:

**RE: PRESSURE MAINTENANCE WATERFLOOD SPECIAL PROJECT
OTHER THAN NORMAL SPACING ORDER
BOUNDARY LAKE NORTH FIELD – HALFWAY “D & I” POOLS**

The Commission has reviewed the application, dated November 18th, 2014, requesting waterflood approval for the Boundary Lake North field – Halfway ‘C, D, I & J’ pools. Examination of pool mapping, based on drilling, reservoir pressure and production data, as outlined in previous submissions, resulted in amalgamation of the previous ‘C’ and ‘J’ pools with the current ‘I’ pool. Probable communication between the remaining ‘D’ and ‘I’ pools remains uncertain due to a significant apparent current reservoir pressure difference. However, for the purpose of this waterflood approval both the ‘D & I’ pools are included as a single project.

The following Orders are attached;

- 1) Order 14-09-001 designating Pressure Maintenance Waterflood within the Boundary Lake North field – Halfway ‘D & I’ pools, as a Special Project under section 75 of the *Oil and Gas Activities Act*, and
- 2) Order 14-09-001-OTN approving Other Than Normal Spacing under section 65.1 of the *Petroleum and Natural Gas Act* for the subject area and formation.

This approval includes amendment of the status of the well Venturion N Boundary 11-30-87-14 (WA 3098) from water disposal to water injector, and the conversion of oil producing well Venturion N Boundary 6-29-87-14 W6M (WA 4024) to water injection. These injection locations will provide sweep efficiency and pressure support to increase recovery and preserve reservoir energy.

Concurrent Production approval 95-07-006 Amendment #1, for the Boundary Lake North - Halfway ‘D’ pool is hereby terminated.

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. Upon injection at the well 6-29 a form BC-11 Notice of Commencement or Suspension of Operations must be submitted to amend the status to water injector.

Should you have any questions, please contact Petra Kriescher-Trudgeon at (250) 419-4415 or the undersigned at (250) 419-4430.

Sincerely,



Ron Stefik, Eng.L.
Supervisor, Reservoir Engineering
Oil and Gas Commission

Attachments

IN THE MATTER of an application from Ventruiou Oil Limited to the Commission dated November 18th, 2014 for the production of oil using pressure maintenance (water injection).

ORDER 14-09-001

1. Under Section 65.1(2) of the *Petroleum and Natural Gas Act*, Other Than Normal Spacing is approved within the Boundary Lake North field – Halfway I & D pools within the following area;

DLS Twp 87 Rge 14 W6M - NE/4 Section 19, Sections 29 to 31, W/2 Section 32

Twp 87 Rge 15 W6M - NE/4 Section 36

Twp 88 Rge 15 W6M - Section 1

- 1 Under section 75(2) of the *Oil and Gas Activities Act*, I specify the following:
 - a) The project unadjusted daily oil allowable (UDOA) is 540 m³/d.
 - b) All associated produced gas must be conserved.
 - c) Water may be injected into the Boundary Lake North - Halfway “D & I” pools through wells Ventruiou N Boundary 11-30-087-14 W6M (WA 3098); and Ventrurion N Boundary 6-29-087-14 W6M (WA 4024).
 - d) The maximum wellhead water injection pressure for the injection wells noted in (c) must not exceed 14,000 kPa.
 - e) The permit holder must submit a Progress Report to the Commission for each 12 month period the project is in operation. The Progress Report must be filed within 60 days after the end of each period and must contain the following:
 - i) the daily average rate during each month of oil production for each producing well, and for the project as a whole
 - ii) the average gas-oil and water-oil rates during each month for each producing well, and for the project as a whole
 - iii) the monthly cumulative gas, oil and water production for each producing well, and for the project as a whole
 - iv) for each type of fluid being injected, the daily average rate of injection per operating day during each month into each injection well, and for the project as a whole
 - v) for each type of fluid being injected, the weighted average wellhead injection pressure during each month for each injection well, and for the project as a whole
 - vi) for each type of fluid being injected, the monthly cumulative volume of fluid injected to each injection well, and for the project as a whole

- vii) the current volumetrically weighted formation pressure for the project as a whole and a copy of the isobaric map from which this pressure was calculated
- viii) the date and type of any well treatment or workover which must be indicated, in the case of injection wells, on the report of the injected volume, and in the case of producing wells, on the report of the daily average oil production rate
- ix) calculations of the balance during each month between fluids injected into, and fluids withdrawn from, the part of the pool subject to the project and by individual patterns, where applicable
- x) an outline of the method actually in use for the quality control and treatment of fluid being injected, or, where there has been no change in the control or treatment from that outlined in a previous report, a statement to that effect.



Ron Stefik, Eng.L.
Supervisor, Reservoir Engineering
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 12th day of December 2014.

IN THE MATTER of an application from Venturion Oil Limited to the Oil and Gas Commission dated November 18th, 2014 for Other Than Normal Spacing.

ORDER 14-09-001-OTN

- 1 Under Section 65.1(2) of the *Petroleum and Natural Gas Act*, Other Than Normal Spacing is approved within the Boundary Lake North field – Halfway I & D pools within the following area;
DLS Twp 87 Rge 14 W6M - NE/4 Section 19, Sections 29 to 31, W/2 Section 32
Twp 87 Rge 15 W6M - NE/4 Section 36
Twp 88 Rge 15 W6M - Section 1

- 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 target area specified in paragraph (a) may be subject to an off-target production penalty,
 - c) oil wells drilled within the specified project area are not subject to spacing requirements.



Ron Stefik, Eng.L.
Supervisor, Reservoir Engineering
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 12th day of December 2014.