



February 28, 2013

9021-5000-59240-06

Claire Sirois, P.Eng.
Exploitation Engineer
ARC Resources Ltd.
1200, 308– 4th Avenue S.W.
Calgary AB T2P 0H7

Dear Ms. Sirois:

**RE: GOOD ENGINEERING PRACTICE (GEP) SPECIAL PROJECT
OTHER THAN NORMAL SPACING ORDER
HERITAGE FIELD - MONTNEY "A" POOL**

The Commission has reviewed your application dated July 26, 2012, and subsequent proposal dated October 4, 2012, requesting approval of Good Engineering Practice for an area within the Heritage field – Montney formation. Additional supporting information has continued to be gathered and analyzed, contributing to developing knowledge of this distinctive resource.

The Commission maps the area of application as an oil resource within the regional Heritage field – Montney "A" unconventional gas pool, with several ARC Resourced Ltd. wells producing oil as the primary product. Numerous additional oil development locations have been identified, recovery will benefit from the ability to produce horizontal wells in optimal locations, drilling from central sites. Oil production is normally subject to daily oil allowable restriction as a conservation and equity measure. However, the extremely low porosity of the Montney, requiring hydraulic fracture stimulation for economic production, limited well drainage areas and lack of apparent secondary recovery potential are not conducive to normal gas-oil ratio adjusted production allowable restrictions.


The following Orders are attached;

- 1) Order 13-06-001 designating Good Engineering Practice within the oil portion of the Heritage field Montney "A" gas pool as a Special Project under section 75 of the *Oil and Gas Activities Act*, and
- 2) Order 13-06-001-OTN approving Other Than Normal Spacing under section 65.1 of the *Petroleum and Natural Gas Act* for the subject pool and area.

As a Good Engineering Practice special project, the applicant intends to locate, complete and operate wells in a manner to optimize resource recovery while minimizing surface impacts. Conditions of this Order, specifically a well rate limitation trial, will serve to increase understanding of primary depletion mechanisms to provide opportunity to best manage production for ultimate oil recovery. No objections were received following notice of application on the OGC website. This approval may be modified at a later date if deemed appropriate.

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

Sincerely,



Richard Slocomb, P.Eng
Deputy Commissioner, Engineering
Oil and Gas Commission

Attachments

IN THE MATTER of an application from ARC Resources Ltd. (ARC) to the Oil and Gas Commission dated July 26, 2012 for a Good Engineering Practice project.

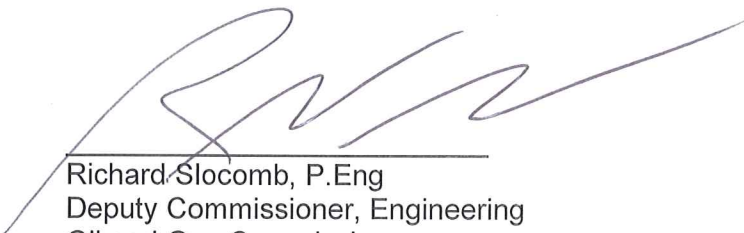
ORDER 13-06-001

- 1 Under Section 75(1)(a) of the *Oil and Gas Activities Act*, the Heritage Montney field – Montney “A” pool is designated as a special project for the enhanced recovery of oil utilizing Good Engineering Practice within the following area;

DLS Twp 81 Rge 16 W6M - Sections 7, 8, 18
Twp 81 Rge 17 W6M - Sections 11 - 21
Twp 81 Rge 18 W6M - Sections 13, 24, 25, 33 - 35
Twp 82 Rge 18 W6M - Sections 2 - 4.
- 2 Oil wells are exempt from the provisions of section 54 of the Drilling and Production Regulation, daily oil allowable, pursuant to section 4(1)(p).
- 3 One well (“trial well”) located within approval area (1) must be produced under a controlled rate limitations trial;
 - a) The trial well must be a horizontal well completed in the Montney formation with multi-stage hydraulic fracture stimulations.
 - b) The trial well must be located from a multi-well surface drilling pad containing one or more additional horizontal wells (“equivalent wells”), located within the same geologic zone, of approximately equivalent length and completion method.
 - c) Prior to the date of March 31, 2013, the Commission must be informed the well permit numbers of the trial well and equivalent wells.
 - d) Upon initial production of the trial well, to commence prior to March 31, 2014, daily oil production rate must be limited to the following schedule;
 - i) Day 1 to day 90, not to exceed 15 m³.
 - ii) Day 91 to day 180, not to exceed 30 m³.
 - iii) Day 181 onward, unrestricted.
 - e) The following information must be recorded on the trial well and equivalent wells;
 - i) Daily oil, gas and water production and hours on production.
 - ii) Daily tubing and casing pressure.
 - f) Six months from the date of initial well production, a bottom-hole pressure test must be conducted on the trial well and one equivalent well to calculate the stabilized average reservoir pressure.
 - g) One year from the date of initial well production, a bottom-hole pressure test must be conducted on the trial well and one equivalent well to calculate the stabilized average reservoir pressure.

ORDER 13-06-001

- h) A report of information (e) be submitted to the Commission within 30 days of the conclusion of the period specified in (d)(ii), and within 30 days of the conclusion of the initial one year production period, in both tabular and graphical format, also to include gas-oil ratio, water-cut percentage and cumulative volumes of each fluid.



Richard Slocomb, P.Eng
Deputy Commissioner, Engineering
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this ^{28th} day of February 2013.

IN THE MATTER of an application from ARC Resources Ltd. to the Oil and Gas Commission dated July 26, 2012 for Other Than Normal Spacing.

ORDER 13-06-001-OTN

1 Under Section 65.1(2) of the *Petroleum and Natural Gas Act*, Other Than Normal Spacing is approved within the Heritage field - Montney formation within the following area;

DLS Twp 81 Rge 16 W6M - Sections 7, 8, 18
 Twp 81 Rge 17 W6M - Sections 11 - 21
 Twp 81 Rge 18 W6M - Sections 13, 24, 25, 33 - 35
 Twp 82 Rge 18 W6M - Sections 2 - 4.

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.
A/Supervisor, Reservoir Engineering
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 28th day of February 2013.