

## Application for Enhanced Oil Recovery (EOR) Project and Voluntary Unitization

An EOR project must be within a unitized area. An application, in letter format, may be submitted to the Branch that covers both the EOR application and the application for voluntary unitization.

If the area is already unitized the EOR application may be submitted alone.

1. An application under subsection 116(1) of *The Oil and Gas Act* and section 71 of *Drilling and Production Regulation* for **enhanced oil recovery project** shall include:
  - a. a map showing the area in which the proposed project would be undertaken and the pool limits;
    - i. *list of wells, with licence numbers, within the project area*
  - b. current names and addresses of owners in the project area and within 0.5 km of the project area;
  - c. a diagram showing the wellbore and the method of completion of any injection well;
  - d. if the project involves the injection of fresh water, proof of compliance with any licensing requirements under *The Water Rights Act*;
  - e. copy of a notice, and proof of service of the notice, to the surface owners in the project area advising of the proposed project of enhanced recovery; (*copies of notice and proof of notice shall be submitted in ONLY digital format*)
  - f. a diagram that includes a detailed description of the water injection, treatment, and measurement facilities and shows the configuration and rated working pressure of piping and equipment;
  - g. details of the proposed method of controlling corrosion in the wellbores, flow lines, and surface facilities;
  - h. a geological and engineering report that includes:
    - i. a cross section of the pool showing the top and base of the reservoir and fluid interfaces;
    - ii. a map of the structure of the top of the reservoir;
    - iii. maps showing the pore volume and permeability capacity of the reservoir;
    - iv. a list of rock and fluid properties, including the estimated fracture pressure of the formation; (*including the discussion of comparing the performance of analogous unit(s) with the proposed unit, if applicable*)
    - v. the original oil in place in the project area; (*including discussion of method of calculation and whether these calculations were completed by a third party*)
    - vi. forecasts of production and ultimate recovery under existing and proposed depletion mechanisms;
    - vii. the source of the injection fluid and evidence of its compatibility with reservoir rock and fluids; (*including the explanation on why produced water will not be used as injection fluid, if applicable*)

- viii. a list of the wells to be converted to injection and the estimated injection rates and wellhead injection pressures for each well; (*including the proposed schedule for drilling and conversion of the wells*)
  - ix. predictions respecting recovery, including the displacement and volumetric sweep efficiencies, economic limits, and the result of any simulation model;
  - x. any methods considered to maximize recovery, including preventing injection out of the pool and channeling; and
  - xi. the measured or estimated reservoir pressure in the project area, and the reservoir pressure at which the project will be conducted; (*recent pressure surveys or historical pressure estimates*).
  - i. the proposed schedule for drilling and conversion of the wells, and for the construction of facilities; and
  - j. any other information that the director or minister may require.
2. If the project area is not yet unitized an application for **voluntary unitization** shall follow the same provisions as section 135 (2) of *The Oil and Gas Act* and shall include:
- a. Copy of the proposed unit agreement, which includes, but is not limited to:
    - i. proposed unit name;
    - ii. the effective date of the proposed unit;
    - iii. legal description of each unit tract in the unit area;
    - iv. description of the unitized zone;
    - v. working interest owners and proposed operator for the unit;
    - vi. method for allocating to each unit tract a share of the oil and gas recovered from the unit area; (*formula and explanation of why this formula is appropriate for the proposed unit area and equitable to all mineral owners.*)
      - A. *tract factors rounded off to 9 decimal places;*
      - B. *Digital copy of an Excel 2007 (or later) spreadsheet of the tract factors and tract factor formula shall be included as part of the digital submission.*
    - vii. allocation to each working interest owner a share of the operating costs of the unit operation and of the capital costs to be expended in the unit area;
    - viii. termination of the unit operation, including the manner in which the unit operation may be terminated and circumstances in which the unit operation is deemed to be terminated;
    - ix. provisions for expansion; (*inter-unit producing or injecting wells incorporation in the unit agreement*) and
    - x. further provisions as the minister considers necessary or advisable.
3. The submission shall be in written and illustrated form, signed by an officer of the company making application. The applicant shall provide a contact name, mailing address, phone no. and email address of the contact person for publishing purposes.
4. Except for the electronic copy of proof service of the notice, submit one (1) paper copy of the application to the following addresses:
- a. **Regulatory Services Branch, Winnipeg:** 360- 1395 Ellice Ave, Winnipeg, Manitoba R3G 3P2

5. Submit a full digital application (in pdf) to: [Leonardo.Leonen@gov.mb.ca](mailto:Leonardo.Leonen@gov.mb.ca)
6. Voluntary unitization application may be submitted prior to or at the same time with EOR application but not later.
7. There is a \$2,000 application fee for EOR Project. A cheque payable to the Minister of Finance should be submitted at the time of application.
8. For further information, please contact Leo Leonen at (204) 945-6570 or [Leonardo.Leonen@gov.mb.ca](mailto:Leonardo.Leonen@gov.mb.ca) .
9. It will take a minimum of 3 months to process the application.
10. The Regulatory Services Branch may require additional information to support this application.
11. Be aware that all information submitted within an application is considered public information.