

Bulletin 2009-28

August 14, 2009

Revised *Directive 027: Shallow Fracturing Operations—Restricted Operations* Issued

This bulletin announces the revised edition of the Energy Resources Conservation Board (ERCB) *Directive 027: Shallow Fracturing Operations—Restricted Operations*. This edition of *Directive 027* replaces all previous editions of *Directive 027: Shallow Fracturing Operations—Interim Controls, Restricted Operations, and Technical Review Committee*.

The requirements in this revised edition of *Directive 027* are effective August 14, 2009.

As part of the ERCB's ongoing regulatory review process and fulfilling a commitment made in the original directive, a Multi-stakeholder Shallow Fracturing Steering Committee was assembled to assess the interim controls implemented and to determine their acceptability. The committee included representatives from the Pembina Institute, Farmer's Advocate, Alberta Environment, Canadian Association of Petroleum Producers, Alberta Association of Municipal Districts and Counties, Canadian Society of Unconventional Gas, Small Explorers and Producers Association of Canada, Petroleum Services Association of Canada, Alberta Surface Rights Federation, and the ERCB. A fracture modelling expert, A. (Tony) Settari, Ph.D., P.Eng., was chosen by the committee to study shallow coal fracturing data and analyze the appropriateness of the existing shallow fracturing requirements. The recommendations from the resulting report were presented to and subsequently supported by the Shallow Fracturing Steering Committee on November 13, 2008. The ERCB posted the revised *Directive 027* on its Web site for comments for 50 days, starting February 25, 2009.

The ERCB has evaluated Dr. Settari's suggestion that industry be encouraged to gather additional fracture data and believes that the fracturing reporting requirements in *Directive 059: Well Drilling and Completions Data Filing Requirements* are sufficient to meet industry's current fracture modelling needs.

What's New in the Revised *Directive 027*?

- The vertical offset restriction of 25 metres (m) below the depth of a water well is increased to 50 m.
- Fracture operations must not occur within 50 m of bedrock surface.
- The nitrogen pumping volume in coal fracturing is restricted to 15 000 cubic metres per vertical metre (m³/per vertical m) of coal unless prior ERCB approval is obtained. (Current nitrogen pumping volumes average 4200 m³/per vertical m of coal.)

The ERCB has recognized the trend to develop shallow reservoirs and believes that future development of unconventional resources will require ongoing investigation of new fracturing techniques.

The new edition of *Directive 027* is available on the ERCB Web site at www.ercb.ca/docs/documents/directives/Directive_027.pdf. Questions and concerns regarding this bulletin or *Directive 027* should be directed to the ERCB Well Operations Section by e-mail to welloperations@ercb.ca.

The full report *Shallow Nitrogen Fracturing Dimensions and Groundwater Protection*, October 8, 2008, by Taurus Reservoir Solutions Ltd., is available on the ERCB Web page along with the directive, as well as in print from ERCB Information Services, 640 – 5 Avenue SW, main floor; telephone: 403-297-8311; fax: 403-297-7040; e-mail: infoservices@ercb.ca.

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