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# Time to proclaim the compulsory unitization provisions of the *Oil and Gas Conservation Act*

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**Decision commented on:**
*Butte Energy Inc. Application for Special Oil Well Spacing, Chigwell Field*, 2013 ABERCB 006

Regular readers of this blog will know that this is not the first time that I have used this forum to call for the proclamation of the compulsory unitization provisions of the *Oil and Gas Conservation Act* (*OGCA*) RSA 2000, c O-6 (see here) but the facts surrounding this decision of the Energy Resources Conservation Board (ERCB, or Board) present a particularly compelling case for compulsory unitization to deal with holdouts which might convince even the sceptics.

The facts closely involve Glencoe Resources' carbon dioxide ($CO_2$) miscible flood enhanced oil recovery (EOR) project known as Chigwell Viking Units 1 and 2. Glencoe holds a scheme approval for this project under section 39 of the *OGCA*. As the term "units" suggests, the project involves lands included in unit agreements of which Glencoe is the operator. The subject of this application by Butte was three quarter sections of land in section 35. The subject lands are surrounded on three of four sides by Unit 1 or Unit 2 lands. The mineral interests in the section 35 lands are owned by Marsha Turney. They used to be leased to Glencoe but Glencoe was unable to negotiate a lease continuation with Turney and presumably its lease lapsed. Glencoe was also unable to convince Turney to include the lands within the unit agreements, apparently (at para 71) due to concerns related to surface access, confidentiality and the tract participation factor to be allocated to the lands. In the end, Glencoe decided to proceed with its EOR operation without the section 35 lands. The section 35 lands were subsequently leased to another party and Butte, the applicant in this matter, took an assignment of that lease and drilled the 4-35 well (south west quarter) on the lands (the Butte well).

Butte applied to the Board under section 79(4) of the *OGCA* and section 5.190 of the *Oil and Gas Conservation Regulations* (Alta Reg 151/1971) to have the Board suspend the default drilling spacing units and target areas and establish a holding for these three quarter sections. Butte proposed that within the holding two wells per quarter section be permitted with any such well to be located at least 100 metres from the boundary of the holding. The Board, on the recommendation of its examiners who held the hearing on the matter and provided the written reasons, rejected the application. In the course of doing so, the examiners clearly bemoaned the fact that the Board lacked powers of compulsory unitization (at para 92):

> …. the ERCB does encourage operators to cooperate with one another in the development of a pool. However, the ERCB does not have jurisdiction to force

parties to enter into unit agreements even where it may be an appropriate tool to ensure orderly development of a pool.

Two of the features of the case provide compelling reasons for thinking that this was an outstanding case for compulsory unitization. The first is that oil production from Butte's well was venting carbon dioxide. This was Glencoe's $CO_2$ that it had purchased from a capture entity. In the usual course, an operator that engages in a $CO_2$ miscible flood EOR will have an incentive to capture any $CO_2$ that is produced in association with the oil. This is because $CO_2$ is expensive and the $CO_2$ that would otherwise be vented may be captured and re-used. In addition, where the project qualifies for offset credits under AESRD's Quantification Protocol, compliance with the Protocol requires capture. For the Protocol see here. The EOR Protocol is currently under review which means that proponents cannot use the QP unless they obtain special permission. Offset credits may be used by covered entities for compliance purposes under the terms of Alberta's Specified Gas Emitter Regulations: Alta Reg 139/2007.

The second compelling feature is simply the gall of Butte in making this application. Butte is a self-proclaimed free-rider and apparently proud of it. Butte is quite candid in confessing in its application (at para 42) that "there was no reservoir drive energy remaining at the conclusion of primary production, so there was no potential left to recover oil from Section 35 under primary production" but by riding on Glencoe's coattails "Section 35 has significant development potential under enhanced recovery, with remaining recoverable oil estimated to be 177 thousand ($10^3$) $m^3$." It is hard to imagine a clearer case of free rider behavior! Note that there was also at least some evidence (at paras 51 – 52) that Butte's actions went beyond free riding and were actually causing "irreparable damage" to the recovery of Glencoe's resources on the immediately offsetting lands due to reduced pressure causing channeling of the injected gas and loss of miscibility.

**The relevant provisions**

Section 79(4) reads as follows:

> (4) When a pool or part of a pool is
> > (a) subject to a unit agreement and unit operating agreement filed with the Board,
> > (b) within a block, or
> > (c) within a holding,
>
> the Board, on application, may order that any provision of this Act or the regulations regarding the development and production of the oil or gas resources be varied or suspended in the pool or the part of the pool for the duration of the unit operation, block or holding.

It is evident that the principal reason for applying for a holding is to obtain a variation of the default rules of the regulations - most commonly the default spacing rules, the default rules in relation to the number of wells per spacing unit, and the target areas within the spacing unit. For the default rules see Unit 7 of ERCB Directive 065, Resources Applications (available here):

> 5.190(1) The Board, on application and by order, may establish holdings.
> (2) An application to establish holdings must be made in accordance with Directive 065 and must include any other information that the Board requires.

(3) The Board shall not grant an application for an order pursuant to subsection (1) unless, in the opinion of the Board, the applicant shows that

(a) improved recovery will be obtained,

(b) additional wells are necessary to provide capacity to drain the pool at a reasonable rate that will not adversely affect the recovery of the pool, or

(c) the proposed holding would be in a pool, in a substantial part of which there are existing drilling spacing units or holdings with similar provisions.

5.200 A holding shall contain only

(a) a single drilling spacing unit of common ownership, or

(b) whole, contiguous drilling spacing units of common ownership.

**The decision**

The Board (I will generally refer to the Board although the reasons as noted above are the reasons of the Examiners that the Board adopted) began its analysis of the application by considering whether or not Butte could meet one of the three conditions of subsection 3. The Board concluded, rightly enough, that the conditions were not cumulative and that therefore Butte need only establish that it met one condition; and in this case Butte could meet condition 3 since most of the rest of the pool fell within Glencoe's units which operated on the same well density as Butte was proposing for the section 35 lands. In reaching this conclusion, the Board rejected Glencoe's submission to the effect that the two situations were not comparable since the Board granted Glencoe's application for increased well density in the context of an EOR scheme whereas Butte's well was still on primary production. This was an interesting argument that surely had some merit. I speculate that the Board may not have pursued it further to avoid setting itself up for an appeal on a nice clean point of law. More surprising is the manner in which the Board seems to characterize its decision on this point as a true jurisdictional decision: i.e. the Board seems to be saying that it could only proceed further with the application if it could satisfy itself that Butte fell within one of the three conditions. I am not sure that that is the case given the substantive content of at least the first two conditions.

It is important to note that the three alternative conditions of subsection (3) are the only explicit guidance that the regulations give to the Board. But the section does not say that the Board shall grant the order in the event that the applicant establishes one of the conditions. Indeed, returning to subsection (1), it is clear that the Board retains a discretion ("may establish holdings"). What additional factors then should inform the exercise of the Board's discretion? In this case the Board examined the application in light of three other considerations, each of which is grounded in one of the stated purpose of the *Act*.

The first consideration was whether the proposal to establish the holding would result in a conservation loss or reduction of oil ultimately recoverable from the pool. This consideration was based on the first purpose stipulated in section 4 of the *OGCA* (paragraph (a)) and the definitions of waste and wasteful operations:

4 (a) to effect the conservation of, and to prevent the waste of, the oil and gas resources of Alberta; … .

1(1) In this Act, …

(ccc) “waste”, in addition to its ordinary meaning, means wasteful operations;

(ddd) “wasteful operations” means

> (i) the locating, spacing, drilling, equipping, completing, operating or producing of a well in a manner that results or tends to result in reducing the quantity of oil or gas ultimately recoverable from a pool under sound engineering and economic principles; … .

The second consideration was whether each owner in the pool has an opportunity to obtain its share of production. In effect, what that meant in the present case was whether or not it was necessary to grant the application in order to afford Butte that opportunity. This consideration was based on paragraph (d) of section 4.

> (d) to afford each owner the opportunity of obtaining the owner’s share of the production of oil or gas from any pool; … .

The third consideration was whether the holding would result in orderly and efficient development. While the Board does not in this case make explicit the connection back to the statutory purposes it is evident that this consideration is based on section 4 of the *OGCA*.

> (c) to provide for the economic, orderly and efficient development in the public interest of the oil and gas resources of Alberta; … .

**Conservation loss or reduced ultimate recovery**

Under this heading the Board concluded that Butte had simply not established its case. The Board recognized that there were two competing theories with respect to recoverability (at para 62). Butte’s theory was essentially that Glencoe’s investments and injection of $CO_2$ created an opportunity for enhanced recovery on the section 35 lands which Butte wanted to seize and this could be done most effectively with additional wells! Without additional producing wells some of this opportunity would be passed up. Glencoe’s theory was that Butte’s current well was already interfering adversely with its EOR operation by reducing pressure which was affecting miscibility of the injected $CO_2$ and reducing recovery at one of its wells. This reduced recovery would be compounded by the pressure reductions that would result (without offsetting injection on the same pattern developed by Glencoe) if Butte were allowed to drill on a denser pattern. The Board did not rule definitively on either theory but since the onus was on Butte, the Board’s failure to endorse Butte’s theory was a ground for rejecting the application.

The Board also ruled on one other matter in this part of its decision. The Butte well was on restricted production because its gas oil ratio (GOR) was high. It was high because of the amount of $CO_2$ that was being produced with the oil. Butte (again, the gall of it!) argued (at para 55) that the gas part of the GOR should be based solely on native hydrocarbons and not on the $CO_2$. The Board sided with Glencoe (at para 67):

> As stated in *Directive 007-1: Allowables Handbook, Guidelines for the Calculation of Monthly Production Allowables in Alberta*, GOR penalties are imposed to limit production primarily to optimize oil and gas conservation. Since the injected CO2 is providing the mechanism for oil recovery from the E Pool, the examiners believe that producing and venting CO2 does not optimize oil

> conservation, and hence the CO2 should be included in the calculation of the GOR penalty.

**Equity**

The word "equity' of course is being used here in its technical oil and gas law sense of affording each owner the opportunity not to be the victim of the rule of capture. In both its legal and common usage it is hard to imagine an application that is more inequitable and unfair; a case of reaping where one has not sown. Interestingly, this usage does have more than an echo in Glencoe's argument (at para 74) and in the Board's decision (at para 78):

> Glencoe also argued that it is the owner of the CO2 injected into the reservoir through its EOR scheme, including any injected CO2 on Section 35, and that it remains the owner of the CO2. Glencoe pointed out that Butte does not have Glencoe's approval to use the CO2 and Butte has not compensated Glencoe for the use of the CO2.
>
> The examiners conclude that Butte is receiving the benefit of EOR without implementing its own EOR scheme for Section 35 or participating with Glencoe in its EOR scheme.

The Board also noted that there was a fundamental inconsistency in Butte's "opportunity to produce" argument since Butte conceded that on primary production there was no loss of opportunity to produce: primary production had ended and any future opportunity to produce depended upon enhanced recovery. And here Butte wanted the best of all possible worlds since it wanted to take advantage of Glencoe's EOR operation while avoiding the responsibilities that go along with an EOR approval such as (at para 79) "replacing voidage and maintaining reservoir pressure at or above the MMP [minimum miscible pressure]". At this point, the Board seems to adopt a version of Glenco's argument it had rejected earlier on the "jurisdictional" issue:

> The examiners note that increased well density was not approved … for primary depletion; rather, the justification for increased well density and the opportunity afforded by it followed implementation of EOR. There is no evidence to suggest that the holding is required for primary depletion, under which Section 35 is currently being administered. The examiners note Butte's statement that in the good-permeability part of the E Pool, under primary production there would be minimal difference in oil recovery between well densities of one and of two wells per quarter section. Further, … the E Pool was produced to depletion under primary production and, but for Glencoe's EOR operations, no oil would currently be obtainable from Section 35 under primary depletion.

In the end, the Board concluded that while there was likely some drainage occurring, some drainage could be expected given the corner based target areas that prevailed when Glencoe's wells were originally drilled (at para 82). Furthermore, Butte had the same opportunity for enhanced production as Glencoe; all it had to do was to pursue (at para 83) "the approval of an EOR scheme on its land, which would also result in Butte having to meet certain obligations, such as replacing voidage and maintaining reservoir pressure at or above the MMP."

**Orderly and efficient development**

The Board concluded that Butte's current practice as well as Butte's future plans for producing from section 35 would not lead to orderly and efficient development. The Board noted that $CO_2$ venting was currently occurring and with increased well density the problem would only be exacerbated. Furthermore, any plans by Butte to capture and re-inject any of the produced $CO_2$ as part of its own $CO_2$ scheme would need to deal with two further problems. The first was Glencoe's claim to ownership of the $CO_2$, and the second was the reality that the voidage replacement rules that the Board would impose as part of any EOR approval granted to Butte would require it to have an incremental source of $CO_2$ beyond what Glencoe's operations might serendipitously provide.

In its conclusion the Board found that approval of the application would not be in the public interest. The Examiners' decision is well reasoned and I believe reaches the correct result. The only thing that puzzles me about the decision is that there is no reference to the province's goals of reducing $CO_2$ emissions and its investment in carbon capture and storage projects and (indeed $CO_2$-EOR projects that may also sequester $CO_2$). Surely that was a relevant public interest consideration given Butte's cavalier and selfish approach which led to significant venting of $CO_2$.

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