HORIZONTAL WELLS 2 ISSUES THAT BUGGED ME THIS YEAR

2019 CAPL Conference
Wednesday, September 18, 2019
9:45 am - 10:30 am
10:45 am - 11:30 am *[encore presentation]*

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BUSINESS LAW

INTRODUCTION

Really, I'm doing a 9:45 am presentation **AND** a 10:45 am *encore* presentation!

Richard Forrester will pay for this madness. He claims *"we discussed this"*, but I have no recollection of same.

My only real solace is that I thought I was doing one of the 3 hour Tuesday talks. 45 minutes will be easy peasy.

INTRODUCTION

Ergo, instead of my much longer presentation entitled *"5 Things that Bugged Me this Year"*, we are going with only one topic.

Sorry if this topic is now painfully specific.

No real answers today. Pretty much just a bitch session. Or maybe things we can get changed via the new Provincial Government.

INTRODUCTION

- Horizontal (HZ) wells are an awesome method to drill and produce in an economic fashion. Dough...
- Sadly, the wellbores are kinda long and can travel though DSUs comprised of Mixed Lands.
- By Mixed Lands, I mean separate DSUs with a lack of *"common ownership"*.
- When this happens, there are regulatory, tenure and common ownership issues that can frustrate efficient drilling and production operations.

HZ WELLS – 2 ISSUES

We will examine 2 issues affecting the ability to drill and produce HZ wells in Alberta on Mixed Lands:

HZ WELLS – 2 ISSUES

Issue 1:

The regulatory process "gap" in AB where you have a:

- Crown drilling spacing unit (DSU); and
- problematic freehold DSU.

HZ WELLS – 2 ISSUES

Issue 2:

The CAPL operating procedure "gap" when drilling a HZ well across a:

- 100% working interest (WI) DSU; and
- DSU held in co-tenancy under a CAPL form of operating procedure (Joint Lands).

HZ WELLS - REGULATORY GAP IN AB

- In Alberta, "standard" spacing of one well per pool, with ¼ section oil and full section gas spacing still exists under section 4.010 of the *Oil and Gas Conservation Rules* (OGCR).

- Under section 4.010, the DSU for a well is the surface area for the DSU and the subsurface vertically beneath that area.

HZ WELLS - REGULATORY GAP IN AB

- Under section 4.021(2) of the OGCR:

  "No well shall be produced unless there is common ownership throughout the drilling spacing unit".

HZ WELLS - REGULATORY GAP IN AB

For horizontal wells, the Alberta Energy Regulator (AER) does not have custom horizontal DSU regulations. Rather, D65 clarifies that the productive segment of the HZ well in each DSU is considered a wellbore in that DSU:

HZ WELLS - REGULATORY GAP IN AB

7.2.4 Spacing and Horizontal/Multilateral Wells

The productive part of a horizontal wellbore in each DSU is considered a wellbore for the purpose of section 4.021 of the OGCR. The productive part of a wellbore is the portion open to the producing zone or formation/pool. Each leg of a multilateral horizontal well counts as a wellbore, as shown in figure 7.3.

If any productive portion of the horizontal wellbore is off target, the entire horizontal well is considered off target and a penalty may be applied to the well's total production.

A horizontal well may be drilled across adjacent DSUs that have common mineral rights ownership at both the lessor and lessee levels or if a pooling agreement between the lessee(s) and lessor(s) is in place, as shown in figure 7.4. In such cases, a spacing application is not required as long as the well density does not exceed the current baseline well density.

HZ WELLS - REGULATORY GAP IN AB

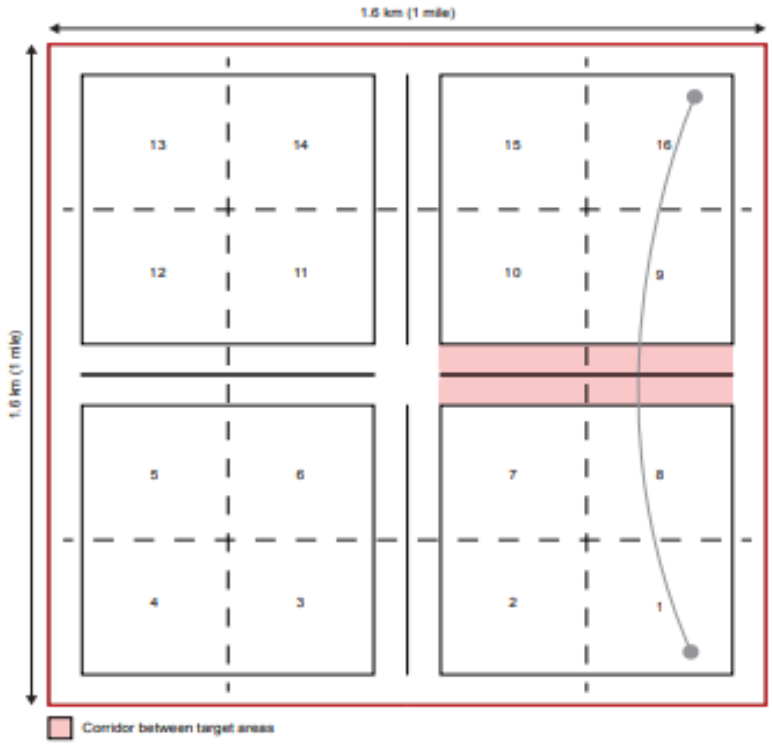

Figure 7.4 Example of a horizontal oil well drilled across adjacent quarter-section DSUs of common mineral rights ownership

HZ WELLS - REGULATORY GAP IN AB

- Accordingly, in Alberta:
  - We have vertical equivalent DSUs
  - NOT HZ well spacing units (like SK and MB)
  - AER regulations require common ownership and production allocation (pooling) to meet the test of common ownership in the DSUs comprising the productive horizontal segment of the HZ wellbore

NO COMPULSORY UNITIZATION

- However, common ownership cannot be compelled by the Regulator beyond a DSU and therefore the agreement of the applicable parties is required for regulatory compliance.

- The fundamental problem with operations on Mixed Lands in Alberta is **the lack of forced (compulsory) unitization** provisions in Alberta law and regulations.
- And the lack of HZ well spacing units.

NO COMPULSORY UNITIZATION

- Regulations for compulsory unitization were created in the 1950's but for whatever reason, they were never proclaimed.

- Would be super nice to have these added to the OGCA. Simple fix.

- Maybe someone can speak to Minister McCuaig-Boyd.

COMPULSORY (FORCED) POOLING ONLY TO A DSU

- Current Alberta regulations only provide for compulsory (forced) pooling up to a DSU.
- See sections 79 to 84 of the *Oil and Gas Conservation Act* (OGCA).
- There is no mechanism to force "pool" more than one DSU. Without forced unitization, we simply have a contractual, legal and regulatory gap for HZ wells on Mixed Lands.

ALBERTA ENERGY AND PAUAs

- Further, where at least one of the DSUs is Crown land, Alberta Energy requires the execution of a standard form Production Allocation Unit Agreement (Horizontal Well) (PAUA).

- A PAUA is essentially a mini-unit for a horizontal well crossing of more than one DSU without common ownership.

ALBERTA ENERGY AND PAUAs

- The PAUA specifically requires execution by all Working Interest Owners and Royalty Owners in the Production Allocation Area.

- Alberta Energy also insists that execution only occurs after the well is drilled and the productive horizontal section determined.

ALBERTA ENERGY AND PAUAs

- **AND**, until full execution, the production entity number for the HZ well is based upon the bottom hole location, with royalties being calculated as if full production was from the bottom hole DSU. Honestly.

- **AND** if for whatever reason, full execution is not obtained, there is a risk that Alberta Energy tells AER and the AER shuts in the well due to a lack of common ownership. Remote but possible risk.

ISSUE 1:
FREEHOLD DSU – LESSOR PROBLEMS

- Common fee owner (lessor) ownership issues include:
  - Missing / untraceable owners of tracts of land
  - Missing / untraceable owners of an undivided interest in a DSU (co-tenant)
  - Fee Owners who refuse to lease either a tract or a undivided share
  - Lessors who refuse to consent to a PAUA

FREEHOLD DSU – LESSOR PROBLEMS

- With a vertical well within a single DSU, this is not an issue. Forced pooling is available to pool and produce. Full stop.

- However, with a HZ well on Mixed Lands, we have problems and risk. For no good reason.

FREEHOLD DSU – LESSOR PROBLEMS

- The problem arises because the HZ well is comprised of two or more vertically equivalent DSUs.

- A compulsory pooling order for the problem freehold DSU can speak only to that DSU, not the production allocation among the Mixed Lands.

FREEHOLD DSU – LESSOR PROBLEMS

- *Aside:* It is my view that a co-tenant has the right to drill and produce within a DSU without the agreement of the other co-tenants.

- However, as the AER now appears to routinely grant compulsory pooling orders for co-tenants, I now tell clients to simply get a compulsory pooling order.

- Also, such a view does not get a PAUA signed.

FREEHOLD DSU – LESSOR PROBLEMS

- The issue is two fold:
  - Can your AER compulsory pooling application refer to / apply to the HZ well?
  - Even with a compulsory pooling order, a PAUA with Alberta Energy is still required

HZ WELL AND COMPULSORY POOLED DSU

- Theoretically there should be no issue in obtaining a compulsory pooling order for a portion of the HZ well comprising the problem freehold DSU.
- Remember, we have vertical equivalent DSUs.
- However, I have never seen one until Craig Stayura forwarded me the materials for AER Pooling Order No P468.

HZ WELL AND COMPULSORY POOLED DSU

- Has anyone forced pooled a DSU for a HZ well on Mixed Lands?
- Any issues?

HZ WELL AND COMPULSORY POOLED DSU

- Hence, we may now have a path forward on the first part of the issue, compulsory pooling of the problem freehold DSU with the AER.

- However, that still leaves the issue of "common ownership" among the DSUs and Alberta Energy's requirement of a signed PAUA.

ALBERTA ENERGY PAUA

- Once you force pool, can you sign for and on behalf of the lessor / fee simple mineral owner?
- For missing / untraceable parties, this seems pretty low risk. Yes, sign on behalf of them via the compulsory pooling order.
- Hopefully Alberta Energy is merciful on the easy ones.

ALBERTA ENERGY PAUA

- But what about a force pooled:
  - fee simple mineral owner that simply hates oil companies and will not lease
  - lessor who refused to sign a PAUA

- It is a wee bit riskier to sign a PAUA for and on behalf of these parties. I think you have the right, but the optics are certainly not great.

ALBERTA ENERGY PAUA

- The more fundamental problem for me is the process of requiring a signed PAUA.

- Why not a simple notification to Alberta Energy that:
  - the requirements of common ownership have been met; and
  - production will be allocated on a footage basis based upon the productive HZ segment of the well

ALBERTA ENERGY PAUA

- This simple change in the Alberta Energy process would greatly simplify the process and reduce risk without, in any way, prejudicing Royalty Owners.

- AND, don’t get me started on the lessee’s unilateral right to unitize, on a fair basis, as already set out in all CAPL leases.

ISSUE 2:
100% WI AND JOINT LANDS

A similar Mixed Lands issue arising where you wish to drill a HZ well on DSUs that include:

- 100% WI lands; and
- Joint Lands.

100% WI AND JOINT LANDS

Spoiler alert:

- There is no clear mechanism under Alberta law, nor the CAPL operating procedures, to compel a Joint-Operator to participate in an operation on Mixed Lands.

- Absent the agreement of the Joint-Operator, there is significant risk that Alberta Energy and/or the AER could find a lack of common ownership in the DSUs comprising the horizontal wellbore and shut-in production.

NORMALLY CONSULT

- The 1990 CAPL governs Joint Operations on the Joint Lands by the Joint-Operators. Under clause 1002(a):

  The parties normally shall consult with respect to decisions to be made for the exploration, development and operation of the joint lands.

- When unanimous agreement for Joint Operations is achieved, the Operator will conduct Joint Operations by AFEs issued and executed by the Joint-Operators. All is good.

CO-TENANCY

- However, the drafters of the 1990 CAPL understood that Joint-Operators are not married, and are not required to agree on all Joint Operations on the Joint Lands.

- The underlying co-tenancy principle being that a Joint-Operator holds an undivided working interest in the Petroleum Substances, and such rights should not be sterilized by uncooperative Joint-Operators.

ION

- Accordingly, Article X of the 1990 CAPL provides a contractual mechanism whereby any Joint-Operator may propose an Independent Operation on the Joint Lands (**ION**).

- The remaining Joint-Operators may either elect to participate, or not participate and pay no costs for the Independent Operation, subject to a penalty (or forfeiture) with respect to same.

CO-TENANCY AND IONs

This contractual structure, in effect, codifies the common law rights of co-tenants, by not allowing Non-Participating Parties to sterilize development of the Joint Lands.

All is still good.

100% WI AND JOINT LANDS

Sadly, the 1990 CAPL is silent with respect to an operation on Mixed Lands. There are at least two reasons for this apparent omission from the agreement.

- Firstly, when the 1990 CAPL was drafted, HZ wells were uncommon and not an important part of industry operations. The 1990 CAPL was, in essence, drafted for a world of vertical wellbores on standard Spacing Units.

- Secondly, and in my view more importantly, the law of co-tenancy is rightfully limited to matters directly related to undivided interests in property. Once you mix undivided interests with other interests, the law of co-tenancy is insufficient to deal with the issues that arise.

100% WI AND JOINT LANDS

Fast forward to the 2015 CAPL Operating Procedure and we have lots of discussion, but no real resolution of the problem.

100% WI AND JOINT LANDS

The main Mixed Lands clause in the 2015 CAPL is clause 10.06. The tone and tenure of this clause is that operations on Mixed Lands requires the consent of all Parties. For example, clause 10.06.A reads as follows:

10.06 Wells Serving Joint Lands And Other Lands

A. Limitations On Use Of Joint Well For Other Purposes-A Party may not use a well bore held for the Joint Account to: (i) drill more than 15 metres deeper than formations included in the Joint Lands; or (ii) conduct a test in any formation not included in the Joint Lands, except insofar as the other Parties have authorized that use.

100% WI AND JOINT LANDS

The commentary in the annotated 2015 CAPL discusses this wording in part as follows:

A Party may not use a Joint Account well for its own purposes in formations not included in the Joint Lands unless that other use has been authorized by the other Parties. This reflects the principle that a Party should not be able to use Joint Property for its own gain. This Subclause could see a negotiated transfer of an unsuccessful Joint Account well for assumption of the Abandonment responsibility, perhaps contingent on the initial evaluation of the other formation. However, it could also result in a negotiated cost equalization if its value is high to the Party that wishes to acquire it …

100% WI AND JOINT LANDS

- The 2015 CAPL clauses deal with deeper rights issues, but the issue is the same whether you are dealing with deeper rights or Mixed Lands.

- The bottom line being that the CAPLs seem to suggest that operations on Mixed Lands require a side agreement or consent of all Parties to proceed.

100% WI AND JOINT LANDS

- The sad result is that a JOA party, by reason of lack of funds, or wanting to prevent drilling of the HZ well, can simply say no.

- This issue then loops back to the regulatory framework we addressed early, namely:

  - No compulsory unitization in AB
  - Compulsory pooling only up to a DSU
  - The requirement of common ownership in the HZ well

100% WI AND JOINT LANDS

Is there really no way to drill this well on the Joint Lands???

ION AND PRAY

- One possible solution is to issue an ION for that portion of the productive HZ segment of the well on the Joint Lands and prorate the costs.
- There is support for this argument based upon vertical equivalent DSUs in AB and co-tenancy principles.
- There are also real problems with such an ION.

ION AND PRAY

- If and when the other party rejects the ION, you have a choice to make:
  - Ignore the rejection and drill
  - Perhaps rely on clause 10.20 to include the penalty well in a unit
  - Hope the AER and Alberta Energy "get it"
- Gulp

AER AND ALBERTA ENERGY

- Maybe the AER would be sympatric to a compulsory pooling application based upon the rejected ION?
- Maybe Alberta Energy would come to Jesus and realize that "common ownership" exists in each DSU and footage allocation is enough to prevent any possible harm?
- Or maybe, you just get your well shut in after spending all the money to drill, complete and equip.

Thanks for Listening

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