OMERS Energy Inc.

Section 39 Review of Well Licences No. 0336235 and No. 0392996
Warwick Field

May 12, 2009

Energy Resources Conservation Board

ENERGY RESOURCES CONSERVATION BOARD
Decision 2009-037: OMERS Energy Inc., Section 39 Review of Well Licences No. 0336235 and No. 0392996, Warwick Field

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ENERGY RESOURCES CONSERVATION BOARD
Calgary Alberta

OMERS ENERGY INC.
SECTION 39 REVIEW OF WELL
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WARWICK FIELD **Application No. 1584140**

1 DECISION

Having carefully considered all of the evidence, the Energy Resources Conservation Board (ERCB/Board) has decided that OMERS Energy Inc. (OMERS) does not presently hold all the rights to produce gas in the drilling spacing unit, namely Section 4, Township 54, Range 14, West of the 4th Meridian (Section 4), and therefore OMERS does not meet the requirements of Section 5.005(2) of the *Oil and Gas Conservation Regulations* (*OGCR*), *AR 151/71*, and is not entitled to produce gas from its wells in Section 4. The Board has decided to suspend Well Licences No. 0336235 and No. 0392996 issued to OMERS and to order the wells suspended, with OMERS providing care and custody of the wells.

2 INTRODUCTION

2.1 Application No. 1413237

On August 11, 2005, the Alberta Energy and Utilities Board (predecessor to the ERCB) approved routine Application No. 1413237 and issued Well Licence No. 0336235 to OMERS in accordance with Section 2.020 of the *OGCR* for a single well to obtain gas with 0 per cent hydrogen sulphide (H_2S) from the Colony Formation from a surface location at Legal Subdivision (LSD) 5, Section 4, Township 54, Range 14, West of the 4th Meridian (100/5-4 well).

2.2 Application No. 1557313

On January 25, 2008, the ERCB approved routine Application No. 1557313 and issued Well Licence No. 0392996 to OMERS in accordance with Section 2.020 of the *OGCR* for a single well to obtain gas with 0 per cent H_2S from the Colony Formation from a surface location at LSD 5-4-54-14W4M (102/5-4 well).

2.3 Application No. 1577443

On June 20, 2008, the ERCB received letters from Montane Resources Ltd. (Montane) requesting a review hearing relating to Well Licences No. 0336235 and No. 0392996, pursuant to Section 39 of the *Energy Resources Conservation Act*. The request for the review was based on whether OMERS holds a valid and subsisting lease for the purposes of issuance of well licences. The ERCB registered this request as Application No. 1577443.

2.4 Proceeding No. 1584140

On August 15, 2008, the ERCB granted the request for a review hearing and registered the hearing as Proceeding No. 1584140. The Board held a public hearing in Calgary, Alberta, which commenced on February 10, 2009, and concluded on February 12, 2009, before Board Members M. J. Bruni, Q.C. (Presiding Member), J. D. Ebbels, and B. T. McManus, Q.C.

Those who appeared at the hearing are listed in Appendix 1.

3 ISSUES

The Board considers the issues respecting the applications to be

- the status of the Petroleum and Natural Gas Lease (the Cymbaluk lease) made between Dennis John Cymbaluk and Heritage Freehold Specialists & Co.;
- the meaning of "capable of producing the leased substances" as that phrase is used in the Cymbaluk lease; and
- the 100/5-4 well's ability to produce the leased substances.

In reaching the determinations contained in this decision, the Board has considered all relevant materials constituting the record of this proceeding, including the evidence and argument provided by each party. Accordingly, references in this decision to specific parts of the record are intended to assist the reader in understanding the Board's reasoning relating to a particular matter and should not be taken as an indication that the Board did not consider all relevant portions of the record with respect to that matter.

4 BACKGROUND

The following events, the facts of which are not disputed, are important to understanding this decision:

1) The Cymbaluk lease, dated February 8, 2001, granted the lessee 100 per cent of the Freehold mineral owner's interest in the northwest quarter (NW ¼) of Section 4, defined in the lease as the said lands, for a primary term of five years. The lessee's interest was subsequently transferred to OMERS by various agreements. The following provisions, the text of which can be found in Appendix 2, are most relevant to the issues before the Board in this proceeding:
    - the habendum clause, providing for a primary term of five years commencing on February 8, 2001;
    - paragraph 1(g), the definition of "operations";
    - paragraph 3, the suspended wells clause;
    - paragraph 8, the offset clause; and
    - paragraph 15, the default clause.

2) The 100/5-4 well was spudded on August 14, 2005, and put on production on December 8, 2005, from the Colony Formation (Upper Mannville F5F Pool). It produced in December 2005 at an average daily rate of 12.7 thousand cubic metres per day (10^3 m^3/d).

3) On February 7, 2006, the primary term of the Cymbaluk lease expired.

4) On March 28, 2006, the 100/5-4 well was shut in by OMERS and remained so until May 9, 2006, at which time a water clean-out was attempted.

5) The 100/5-4 well remained shut in from May 9, 2006, to November 9, 2006, at which time a bridge plug was set between the perforations in the upper and lower Colony zones and a second clean-out was attempted.

6) The 100/5-4 well remained shut in from November 9, 2006, to January 25, 2008.

7) By agreement dated June 20, 2007, a Petroleum and Natural Gas Lease was entered into between Eva Cymbaluk (E. Cymbaluk) and Cavalier Land Ltd., whereby E. Cymbaluk granted the lessee 100 per cent of her interest in the NW ¼ of Section 4 for a primary term of three years. The lessee's interest was subsequently transferred to Montane by various agreements.

8) From January 25, 2008, to January 30, 2008, the 100/5-4 well produced for 119 hours at an average rate of 1.1 10^3 m^3/d.

9) The 102/5-4 well was spudded on January 30, 2008, was put on production on February 23, 2008, and remained producing from the Colony Formation until August 14, 2008, at which time the well licence was suspended by order of the Board pending the outcome of this review.

10) In February 2008, the 100/5-4 well was recompleted in the McLaren Formation, and the Colony Formations were isolated with a packer. The McLaren Formation was put on production in June 2008 at an initial rate of 3 10^3 m^3/d and remained producing until August 14, 2008, at which time the well licence was suspended by order of the Board pending the outcome of this review.

5 THE CYMBALUK LEASE

5.1 Views of OMERS

OMERS stated that paragraph 3 of the Cymbaluk lease, the suspended wells clause, provides that the term of the lease is extended if there is a well on the lands that is shut in but capable of producing the leased substances. This clause recognized that the oil and gas industry is very capital intensive and involves uncertainties which may lead to wells being suspended for any number of reasons, such as low commodity prices or the inability of the operator to access a gas gathering system. OMERS argued that the suspended well clause clearly means that the well does not have to be capable of flowing at all times. Rather, the well only had to be capable of producing some amount of the leased substance. OMERS stated that the meaning of the phrase

"capable of producing the leased substances" was the central question for the proceeding and that its meaning is not ambiguous. OMERS argued that the suspended wells clause does not include words about economic volumes or other measures of production, whereas paragraph 8 of the Cymbaluk lease (the offset well clause) does stipulate that "commercial production" is required under that provision. OMERS stated that if the parties intended to include the concept of commercial production in the suspended well clause, they could have easily done so, but did not. OMERS argued that the Board should not add or imply any such term when interpreting the Cymbaluk lease, but should apply the clear terms of the lease.

5.2 Views of Montane

Montane stated that the words of the Cymbaluk lease must be given their plain and ordinary meaning as used in the context of the entire lease. Montane argued that the lease must be viewed in its entirety and that the various parts of the Cymbaluk lease work together in harmony, so each has a meaning that does not render another part meaningless. Montane referred to the habendum clause, which deals with operations and gives successive 90-day periods to conduct operations and to restore production, provided there is no gap between operations greater than 90 days. Under this clause, according to Montane, if production cannot be restored, a new well can be drilled within the 90 day timeframe. Montane stated that the suspended wells clause deals with capability to produce and recognizes that there are times when it is not possible to produce, such as due to road bans or Board orders, and it protects the lessee from losing the lease in such cases. Montane further stated that if "capable of producing" in the suspended well clause means the ability to produce any amount no matter how insignificant, as Montane believed OMERS suggested, then a dry hole would be capable of producing. The effect would be to render the need for operations in the habendum and suspended wells clauses meaningless. Montane stated that this could not possibly be the intention of the parties to the lease.

5.3 Views of the Freehold Petroleum & Natural Gas Owners Association (FHOA)

The Freehold Petroleum & Natural Gas Owners Association (FHOA) stated that the lessor of mineral rights relies upon the lessee, in this case OMERS, to drill, produce, and sell minerals and to comply with regulatory requirements. FHOA also stated that OMERS established a track record of an inability to comply with regulatory requirements, contrary to paragraph 10 (conduct of operations clause) of the Cymbaluk lease, when it failed to file required records and documents with the ERCB, made a routine well application that clearly should have been filed as nonroutine, and applied for a well licence in contravention of Section 15(3) of the *Oil and Gas Conservation Act* (*OGCA*).

FHOA stated that the purpose of an oil and gas lease is to allow parties to reap the benefits of their investments and if a well can produce in paying quantities, then presumably the lessee will only suspend operation for valid business reasons. FHOA argued that OMERS's interpretation of the suspended wells clause would not encourage resource development because land could be held for speculative purposes based on a small amount of measurable production or based on pressure measurements and no actual production. FHOA argued this was not the intent of the lease, nor would it support the economic, orderly, and efficient development of the resource, as called for in Section 4(c) of the *OGCA*.

5.4 Findings of the Board

The Board believes that the status of the Cymbaluk lease is determinative of OMERS's entitlement under ERCB requirements to produce from wells in Section 4. That requires the Board to interpret the meaning of the lease provisions that grant OMERS its interest in the lands and then to give effect to those provisions by applying the findings made by the Board on the evidence and argument provided in this proceeding.

The Board agrees with the interpretation principles set out by the parties. The Board must give effect to the terms of the Cymbaluk lease according to the plain and ordinary meaning of the words of the lease, unless to do so would result in an absurdity. This involves considering the language used in the lease itself and then testing that interpretation against the commercial realities the parties faced when the lease was executed.

The Board has considered the Cymbaluk lease, and in its view the habendum clause, the definition of "operations," the suspended wells clause, the default clause, and the offset well clause are most relevant to the issues before the Board in this proceeding. These portions of the lease are reproduced in Appendix 2 of this decision report.

In addition, the pooling and unitization provisions in paragraph 9 of the Cymbaluk lease indicate that if there is a well or operations taking place on other lands that form part of the drilling spacing unit that includes the said lands, such well or operations will have the same effect of continuing the lease as if they were on the said lands.

In the Board's view, the provisions of the Cymbaluk lease are clear and unambiguous, and the Board is able to give effect to the words of the lease without resort to extraneous aids to interpretation. OMERS was granted its interests under the lease for a period of five years. On the expiry of the initial five-year term, the lease would be continued if operations, as defined in the lease, were being conducted upon the lands with no cessation for more than 90 consecutive days, Paragraph 1(g) (ii) of the Cymbaluk lease provides that the production of any leased substance was one of the defined operations that would continue the lease. If at any time after February 7, 2006, operations did not take place on the lands for a period of more than 90 consecutive days the lease would end by its own terms and OMERS's entitlement to produce the leased substances would expire.

However, the suspended wells clause in paragraph 3 of the Cymbaluk lease provides circumstances under which the lease will continue notwithstanding that operations are not being conducted on the lands. For the suspended wells clause to apply to extend the lease, the following circumstances must exist:

- there is a shut-in or suspended well on the lands that is capable of producing the leased substances; or
- if there is a shut-in or suspended well on the lands that is not capable of producing the leased substances, actual operations (as defined in paragraph 1[g]) must commence on the said lands with no cessation of more than 90 consecutive days between successive operations.

In the Board's view, the suspended wells clause mirrors the parties' agreement in the habendum clause. Under the habendum clause, actual production will continue the term of the lease, but in the absence of actual production other defined operations must be conducted on the said lands

with no cessation of more than 90 consecutive days. Under the suspended wells clause, actual production is not required, but the shut-in or suspended well must be capable of producing the leased substances, and in the absence of that capability actual operations must be conducted on the said lands with no cessation of more than 90 consecutive days.

On the fifth anniversary of the primary term of the lease, namely February 8, 2006, the 100/5-4 well was completed and was producing from the Colony Formation and there was a valid and subsisting lease between OMERS and Cymbaluk. The 100/5-4 well continued to produce the leased substances after February 8, 2006, and the original five-year term of the lease was thereby continued to at least March 28, 2006. These matters are not disputed. It is also not disputed that the 100/5-4 well was shut in by OMERS for certain periods of time after March 28, 2006. OMERS's position in the proceeding was that the 100/5-4 well was capable of producing the leased substances at all material times after the expiry of the initial five-year term of the Cymbaluk lease. In the Board's view, the 100/5-4 well's capability to produce on and after March 28, 2006, is the central issue in this proceeding.

The Board also wishes to address the default clause in paragraph 15 of the Cymbaluk lease, which states in subsection (c):

> Notwithstanding anything contained in this Lease, this Lease shall not terminate nor be subject to forfeiture or cancellation if there is located on the said lands or on the pooled lands or on the unitized lands a well capable of producing leased substances or any of them, or on which operations are being conducted; and, in that event, the Lessor's remedy for any default under this lease shall be for damages only.

The Board has considered whether this provision of the Cymbaluk lease would operate to continue the term of the lease in circumstances where the suspended wells clause did not. The Board has concluded that the default clause does not preserve the lease if the suspended wells clause does not apply for the reason that there is not a well on the lands that is capable of producing leased substances and operations are not being conducted on the lands. In the Board's view, the intention of subsection (c) of the default clause is to ensure that if the lessee has a well that is capable of producing or the lessee is conducting operations to obtain that ability, the lessee does not lose its interest—and therefore its investment—in the lands because it fails to cure a default for which notice has been given by the lessor. It was not suggested in this proceeding that OMERS defaulted under the Cymbaluk lease, nor is there any evidence of such a default or of the lessor giving a notice of default to OMERS, and therefore paragraph 15 of the lease does not apply. The issue in this proceeding is whether the Cymbaluk lease expired on its own terms, and that decision depends on the meaning of the phrase "capable of producing the leased substances" and the technical evidence of the 100/5-4 well's ability to produce.

6 MEANING OF "CAPABLE OF PRODUCING THE LEASED SUBSTANCES"

6.1 Views of OMERS

OMERS stated that the main issue in the proceeding was whether the 100/5-4 well was "capable of producing leased substances" from March 28, 2006, to January 25, 2008. OMERS stated that the 100/5-4 well was capable of producing the leased substances if it would have flowed gas when the valve was opened. It stated that the wording of the suspended well clause did not require the well to be continuously ready and able to flow on a sustained basis. OMERS

maintained that the well would have been capable of producing if steps could have been taken to address wellbore and reservoir conditions so as to enable the well to obtain any amount of production. OMERS cautioned the Board not to imply or import a term requiring the production of commercial or paying amounts, as the parties had not stipulated those standards in the lease itself. In the absence of actual production from the 100/5-4 well, OMERS stated that wellhead pressure was the correct analytical tool and had indicated that the 100/5-4 well was capable of producing the leased substances within the meaning of the suspended wells clause.

6.2 Views of Montane

Montane agreed with OMERS that the Board should not conclude that the parties intended that production in commercial or paying amounts was needed to satisfy the suspended wells clause. Montane stated, however, that "capable of producing the leased substances" required production in more substantial amounts than what OMERS suggested to the Board. Montane maintained that if "capable of producing" was satisfied by a minuscule amount of production or production on an unsustainable or discontinuous basis, the provisions of the lease requiring the lessee to conduct operations to obtain, maintain, or increase production would be rendered meaningless. Montane urged the Board to interpret the phrase to require that when a well on the lands is turned on in its existing state and configuration, it will produce a meaningful quantity of gas on a sustained basis. This would not necessarily require production in commercial or paying quantities, but it would require more than the "miniscule" amount that OMERS suggested to the Board.

6.3 Views of FHOA

FHOA urged the Board to adopt the standard of "paying quantities" for the purposes of the suspended wells clause. FHOA argued that this interpretation was reasonable, given the economic relationship between the lessor and lessee, and was the interpretation adopted in virtually every American jurisdiction. FHOA specifically asked the Board to reject OMERS's interpretation because it would allow leases to be extended indefinitely without production and would allow lessees to hold leases for speculative purposes.

6.4 Findings of the Board

The phrase "capable of producing the leased substances" is not a defined term of the Cymbaluk lease. The meaning of this phrase was the subject of much evidence and argument in the hearing. One of the Board's tasks in this proceeding is to give that phrase a meaning that is consistent with the plain and ordinary meaning of the words and the intentions of the parties to the lease.

The Board has concluded that for a shut-in or suspended well to be "capable of producing the leased substances" as that phrase is used in the Cymbaluk lease, the well must have that ability in its existing configuration and state of completion. The *Canadian Oxford Dictionary*, second edition, defines the adjective "capable" as "having the ability or fitness or necessary quality for." In the Board's view, the word "capable" means a present or existing ability or fitness of a thing to perform its purpose in the manner intended. Therefore, in the case of the 100/5-4 well, it must have been able to be "turned on," and if any work were required for the well to attain or maintain the ability to produce the lease substances, in particular work falling within the definition of "operations" under the lease, the well would not be capable of producing the leased substances within the meaning of the suspended wells clause.

The Board agrees with OMERS and Montane that it should not, in these circumstances, infer or imply that production in commercial amounts or paying amounts is needed to satisfy the requirement that the well be "capable of producing the leased substances." That is not the wording used by the parties, nor is it an interpretation that is so well established in the industry or under Canadian law that the Board can reasonably infer it to be what the parties intended. The Board notes that in paragraph 8 of the Cymbaluk lease, dealing with offset wells, the lease does use the phrase "If commercial production is obtained." The Board must use caution not to import that standard to another provision of the lease unless it is satisfied that the parties themselves intended the phrase to have that meaning. In this case, the fact that the parties chose to specify "commercial production" in the offset wells clause but not in the suspended wells clause indicates to the Board the parties did not intend the phrase "capable of producing the leased substances" to mean capable of commercial production.

The Board does not accept that any amount of production from the 100/5-4 well, no matter how minuscule, would indicate that the well was capable of producing the leased substances within the meaning of the suspended wells clause. The Board considers such an interpretation to be contrary to the intentions of the parties as expressed in the lease, and also contrary to the commercial realities inherent in the leasing of petroleum and natural gas rights. It is evident from the lease that the parties' intentions were to strike an agreement that would provide a benefit for both sides. If it was profitable for OMERS to drill and produce a well on the lands, it would do so and both parties would benefit from the arrangement. But the lease also recognizes the practicalities of the oil and gas industry, which at times may present an environment in which it is not reasonable or even possible for the lessee to produce the well. This may include an inability to move product to market or unfavourable market conditions that make it prudent not to produce the well. The suspended wells clause protects the lessee from losing its investment in the well under these conditions. On the other hand, the lessee is not excused from making reasonable efforts to produce if a competitor is draining the resource from the lands or if relatively routine operations can increase recovery of the leased substances from the lands. Paragraphs 1(g)(i) and (iv) of the Cymbaluk lease define "operations" to include any of the following:

> (i) drilling, testing, completing, reworking, recompleting, deepening, plugging back or repairing the well or equipment on or in the said lands or injecting substances by means of a well, in search for or in an endeavor to obtain, maintain or increase production of any leased substance from the said lands…
>
> (iv) any acts for or incidental to any of the foregoing…

Under the habendum and suspended wells clauses of the Cymbaluk lease, in order for the lessee to extend the term of the lease and thereby preserve its interest in the property, the lessee must undertake operations if a producing well is no longer producing the leased substances or if a suspended or shut-in well is no longer capable of producing the leased substances. The Board considers that the operations required to continue the lease would not necessarily be difficult or extensive undertakings: the workovers that OMERS conducted in 2006 would constitute "operations" under the Cymbaluk lease. In addition, the timeframe for undertaking and completing operations is relatively short; a lessee must not cease operations for more than 90 consecutive days. Those provisions of the lease indicate to the Board that the parties intended that where the lease is extended past the primary term, the lessee's obligation to undertake operations to ensure that the resource is or can be produced from a well on the lands has a sense of urgency about it.

The Board has concluded that the phrase "producing the leased substances" would not be satisfied by a minuscule or insignificant amount of production. It is the Board's view that there must at least be some material, as in a meaningful, volume of production possible for the lessee to rely on the suspended well clause to extend the lease. An interpretation that would permit a very low or even nonexistent threshold would provide little or no incentive for a lessee to undertake operations to enhance the recovery of leased substances. It would also result in only a nominal return to the lessor for an indeterminate length of time without any obligation on the lessee to rectify the situation. Such an interpretation is, in the Board's view, contrary to the intention of the parties as expressed throughout the lease as a whole.

Under the terms of the Cymbaluk lease, the lessor receives the initial consideration of $5000 and a further rental fee of $640. But the primary benefit flowing to the lessor during the life of the lease is the royalty payable under paragraph 4, in this case 15 per cent of the market value at the wellhead of all leased substances produced. Under the suspended wells clause, if no royalties are payable in a lease year after the primary term has expired because wells on the lands are shut in, and provided that no operations are conducted on the said lands during the lease year, the lessee must pay the lessor a suspended well payment in the amount of $160.

It is evident to the Board that the suspended well payment is substantially less, approaching a nominal payment only, than what the lessor would have anticipated receiving as royalty payments from a producing well. This indicates to the Board that the parties would not have intended that the lease would continue for an extended period past the primary term in circumstances where the lessor received only the suspended wells payment because the lessee could not obtain production in meaningful quantities from the well. That could, however, be the result if the phrase "capable of producing the leased substances" were interpreted to mean a well capable of producing any minuscule or insignificant amount. As FHOA indicated, that interpretation would allow a lessee to continue the lease almost indefinitely without any real sharing of the benefits of the lease with the lessor. It is an interpretation that is contrary to the common intentions of the parties to the lease as expressed in the sharing of rights and responsibilities under the lease for mutual benefit.

To reiterate, the lease established a contractual arrangement to facilitate production of the resource from the lands, with a resulting benefit for both the lessor and lessee. An interpretation of the suspended wells clause that would permit the lease to be continued almost indefinitely without the lessee being able to extract a meaningful volume of production from the lands does not suit that purpose, nor is it consistent with the terms of the lease that require the lessee to undertake operations "in an endeavor to obtain, maintain or increase production of any leased substance from the said lands." For the purposes of this proceeding, the Board has determined that the phrase in the Cymbaluk lease "capable of producing the leased substances" is to be interpreted to mean the demonstrated, present ability of a well on the lands to produce the leased substances in a meaningful quantity within the timeframes contemplated in the lease. The Board emphasizes that what is "material" or "meaningful" depends on the relevant factors in each individual case. In this case, the terms of the Cymbaluk lease coupled with the evidence of the well's capability to produce, as set out below, are determinative of the issues in this proceeding.

7 EVIDENCE OF THE WELL'S CAPABILITY TO PRODUCE

7.1 Views of OMERS

OMERS's technical submission had three main components that it considered relevant to the issue of capability of production.

1) Presence of Hydrocarbons in the Colony Formation

The Colony Formation was OMERS's primary target when it drilled the 100/5-4 well. The target was based on geology and a seismic bright spot, which is an amplitude anomaly caused by a gas-charged sand. At the time the well was drilled, the 100/5-4 well logs showed 6 m of gas pay, with a thin water zone at the base. The well was placed on production in December 2005 and produced until March 2006, when it was shut in to contemplate depletion strategies. After two work-over attempts in May 2006 and November 2006 and after short-term production in January 2008, OMERS decided that production of the Colony Formation at the 100/5-4 well was not the optimum depletion strategy due to cement bond issues. As a result, OMERS drilled the 102/5-4 well to produce the Colony reserves, and the McLaren Formation at the 100/5-4 well was completed and placed on production. The 102/5-4 well intersected the Colony reservoir 28 m away from the 100/5-4 well. The 102/5-4 well logs over the Colony Formation show that the water zone at the 100/5-4 well had risen by about 4 m due to production from the 100/5-4 well. As a result, the 102/5-4 well had 2.5 m net pay overlying 3.5 m of wet sand. OMERS interpreted both wells to be completed in the Colony Formation.

OMERS stated that the Colony reservoir was of good quality and contained significant remaining gas reserves based on well logs, production tests, and volumetric evaluations. OMERS believed that there were 260 million cubic feet (MMcf) of remaining gas reserves in the Colony reservoir at the 102/5-4 well using the current gas/water contact and 340 MMcf of remaining gas reserves in the Upper McLaren at the 100/5-4 well. It stated that the Colony reservoir estimates were based on a 160 acre pool with 8 feet average net pay. The original gas in place (OGIP) was 388 MMcf, compared to 742 MMcf based on the initial water contact at the 100/5-4 well. OMERS believed that the water level rise occurred throughout the entire 160 acres. It stated that the Colony reserves of 260 MMcf were based on a 60 per cent recovery factor. The remaining reserves were set at 177 MMcf due to production of 39 MMcf from the 100/5-4 well and 19 MMcf from the 102/5-4 well. OMERS believed that the minimal drop in Colony reservoir pressure at the 102/5-4 well due to the 100/5-4 well production indicated similar OGIP when reviewed using material balance.

At the ERCB's request, OMERS provided an economic evaluation of producing the Colony gas reserves from the 100/5-4 well and concluded that the operation would be economic. It was also OMERS's position that the economics of the well were not relevant to the issue set forth in the original hearing, and in particular to any decision on the validity of the lease. OMERS believed that the "capable of producing" test did not require production in quantities that would provide an economic benefit and a viable business.

2) Communication of the 100/5-4 Wellbore with the Colony Formation

OMERS concluded that the mechanical wellbore configuration allowed communication of the Colony Formation with the surface facilities at all times since the initial completion on October 11, 2005.

3) Mechanical Completeness and Capability of the 100/5-4 Well

The 100/5-4 well's gas production rates in March 2006, when water was first reported in the production records, declined from 12 10^3 m^3/d in early March to 5.45 10^3 m^3/d on March 28, 2006, when the well was shut in. The rate decrease was due to accumulation of water in the wellbore. OMERS concluded that the 100/5-4 well was capable of producing gas in measureable quantities on March 28, 2006, when the well was shut in, based on SCADA data, a continuous record of annulus pressure, tubing pressure, pipeline pressure, differential pressure, flow volumes, and flow rates. OMERS initially reported that the well stopped flowing because it loaded with water. However, in a submission dated January 29, 2009, prepared by Sproule Associates Limited (Sproule) for OMERS, it was reported that at the end of the day on March 28, 2009, SCADA data showed 3050 kilopascals-gauge (kPaG) casing pressure, which indicated the well was capable of producing gas from the annulus by opening the casing valve. SCADA data from March 29, 2006, showed about 3000 kPaG pressure on both the tubing and casing, indicating that the well would have flowed gas if opened. OMERS reported that this was consistent with its inflow performance relationship (IPR) analysis, which showed that the well was capable of production on March 28, 2006, and again on January 30, 2008, when a second flow period was shut in. In both cases the well equipment was suboptimal and the analysis showed the well was loading with water. In order to restore flow from the well a clean-out was needed. Several options were available to optimize flow from the well, by changing equipment. Steps needed to achieve steady, uninterrupted flow would involve standard oilfield practices. Any of a number of routine water cleanout measures was possible, including water unloading from the tubing on a continual basis and preventing water buildup from recurring. OMERS concluded that the well would have flowed at a rate of 15 10^3 m^3/d at 2200 kPaG at flowing tubing head pressure if certain of those routine operations were taken**.**

Cleanout attempts were made in May 2006 and November 2006, at which times air was used to blow water out of the casing and tubing. In both cases, when the well was opened to flow after the cleanout, the well depleted in thirteen minutes and three minutes respectively, and no gas was reported. Analyses of the well cleanouts showed that the formation was damaged by invasion of produced water during the operations. Sproule's reservoir simulation model predicted that the recovery of relative permeability to gas would begin immediately.

Sproule concluded that the well was still capable of flowing gas in measurable quantities very shortly after both the May 9, 2006, and the November 9, 2006, cleanout attempts, again based on SCADA data. It calculated that 52 m^3 of gas flowed into the annulus after the May 9, 2006, cleanout attempt, based on 2000 kPaG casing head pressure. It also calculated that 122 m^3 of gas flowed into the annulus after the November 9, 2006, cleanout attempt, based on 3300 kPaG casing head pressure. Sproule believed that this confirmed that the Colony Formation in the 100/5-4 wellbore could have produced gas if the valve were opened and that the amount it actually would have produced was not material to the questions raised in this proceeding.

7.2 Views of Montane

Montane believed the key point was that the well was loaded with water and incapable of producing, not that if a work-over operation were conducted the well would have been capable of producing. Montane concluded that the need for a work-over operation reinforced the fact that the well in its existing state was not capable of sustained production from the Colony Formation.

Montane's position was based on a number of considerations. Firstly, the 100/5-4 well produced gas for three months and stopped producing in March 2006 because it loaded with water. To enable the well to produce again, a cleanout attempt was made on May 9, 2006. After attempting the cleanout, the well was still not capable of production and died in thirteen minutes. Montane did not dispute that there was gas in the annulus, based on the SCADA data, after the well was shut in in May 2006. However, it did not believe that the 52 m^3 was significant in the sense that it did not address how much gas in addition to the 52 m^3 might have come out if the annulus were opened. Montane stated that 52 m^3 of produced gas was insignificant, immaterial, and might as well have been one part per million. In November 2006, a bridge plug was set to isolate the lower perforations and the water. Water was blown out of the wellbore, and when opened, the well died in three minutes. Montane believed the November work-over attempt was unsuccessful because the well went to water. It believed this was due to a rise in the gas-water (G/W) contact over the entire pool, not poor cement in the 100/5-4 well. It stated that this view was supported by the rise in G/W observed in the 102/5-4 well. After an 18-month shut-in of the 100/5-4 well, during which time the reservoir pressure had time to build up as high as it could and the water had time to dissipate, OMERS again tried to produce the well. It was still not capable of producing and died in six days.

Montane believed that the recoverable reserves referred to by OMERS from these two wells were OGIP, not recoverable. It believed there was not much more gas to be recovered. Montane's position was that no conservation issue would arise if the OMERS wells were abandoned because there was not much gas left to be produced from the two wells at that location in the reservoir.

Montane agreed that the inflow performance analysis performed by OMERS for the 100/5-4 well could have been valuable, but cautioned that IPR data were always estimates. Montane argued that the 100/5-4 well demonstrated that it was not capable of producing when water flowed into the wellbore and the well died and that this was more important evidence of the well's ability to produce than were the IPR data provided by OMERS.

7.3 Views of FHOA

No technical data were submitted by FHOA because it believed that the technical presentations to the Board by OMERS and by Montane were sufficient. FHOA focused on the law and policy questions arising from the issues in the proceeding.

7.4 Findings of the Board

In considering whether the 100/5-4 well was capable of producing leased substances while it was shut in, the Board believes it is proper for it to consider the circumstances that bear on OMERS's decision not to produce the well. In this case there was no external constraint that prevented OMERS from producing the 100/5-4 well during the period March 25, 2006, to January 25,

2008; the well was shut in by OMERS's decision alone. OMERS testified that its decision was motivated primarily by concerns about being able to produce the well economically, both in the immediate and long term, and whether there was a better way to recover the reserves, such as with a new wellbore. OMERS indicated that the poor primary cementing job in the lower Colony zone was ultimately responsible for the high water level in the wellbore, which compromised the well's performance. OMERS acknowledged that certain operations could have been undertaken to optimize gas production from the wellbore, such as smaller tubing diameters to lift the produced water.

In the Board's view, strong evidence that a shut-in well is capable of producing leased substances would be that the well actually produces meaningful quantities when the well is turned on. The 100/5-4 well was shut in on March 28, 2006, when the average daily gas rate had declined from 12 10^3 m^3/d to 5.45 10^3 m^3/d due to buildup of produced water in the wellbore. OMERS's operations to address the water loading issue resulted in no gas production and the well depleting in thirteen minutes after the May 9, 2006, cleanout and three minutes after the November 9, 2006, cleanout and bridge plug operations. This is compelling evidence that the 100/5-4 well was not capable of producing the leased substances at those times. The Board does not dispute the evidence that small volumes of gas entered the annulus immediately after the cleanout operations when the well was shut in. However, this evidence does not convince the Board that the well would have produced meaningful quantities if it were turned on.

OMERS does not, however, rely only on the results of its attempts to produce the well after March 28, 2006. Instead, OMERS submits that the Board can infer, based on the evidence, that the 100/5-4 well would have been able to produce the leased substances if the well were turned on at any time after March 28, 2006. OMERS argues that because the well's mechanical configuration allowed for production prior to March 28, 2006, and wellhead pressures showed the presence of gas in the wellbore, the Board should conclude that the well would in fact have been producing gas after March 28, 2006, if a routine water cleanout operation had been conducted and OMERS had not shut in the well.

The Board does not accept that the 100/5-4 well could be capable of producing the leased substances and at the same time be in need of an operation to address the water loading situation. That interpretation is contrary to the suspended wells clause, which calls on the lessee to commence operations if and when a shut-in or suspended well is no longer capable of producing. The "operations" as defined in 1(g) of the Cymbaluk lease include operations such as "reworking, recompleting, deepening, plugging back or repairing a well," which would have addressed the water loading situation. A well that needed such an operation to fulfill its intended purpose, namely, to produce a meaningful amount of the leased substances, cannot be "capable" under the Cymbaluk lease.

The Board is not persuaded by OMERS's evidence and argument, particularly given the results of OMERS's attempts to produce the 100/5-4 well on May 9 and November 9, 2006. In the Board's view, OMERS has not demonstrated that the 100/5-4 well was capable of producing the leased substances as that term is used in the suspended wells clauses of the Cymbaluk lease from and after March 28, 2006. After producing for a number of months prior to shut-in on March 28, 2006, the wellbore loaded with water, which impacted the well's ability to produce gas. Whether due to a poor cement bond in the lower Colony zone, rising water levels within the reservoir itself, or for any other reason, it is not clear that after March 28, 2006, the 100/5-4 well was

capable of producing without remedial operations. Under the terms of the suspended wells clause, OMERS was required to commence such operations to restore the well's ability to produce the leased substances if it wished to continue the Cymbaluk lease. The Board finds that such operations were first undertaken on May 9, 2006. That operation did not succeed in restoring the well's ability to produce the leased substances. Having failed in that attempt, OMERS was required to commence a further operation not more than 90 days following the completion of the May 2006 work-over if it wished to continue the Cymbaluk lease. It did not do so, as further operations were not undertaken by OMERS until November 9, 2006. Accordingly, the Board finds that the Cymbaluk lease ended by its own terms on May 10, 2006, being the day following the last day that operations were conducted on the leased lands without a cessation of more than 90 consecutive days.

8 CONCLUSIONS OF THE BOARD

The Board finds that the Cymbaluk lease ended by its own terms on May 10, 2006, and that thereafter OMERS was not entitled to produce the minerals underlying the northwest quarter of Section 4. The Board concludes that OMERS does not hold a valid and subsisting lease for the purpose of issuing licences for gas wells in Section 4.

As OMERS does not presently hold all the rights to produce gas in the drilling spacing unit, namely Section 4, the requirement of common ownership throughout the drilling spacing unit pursuant to Section 5.005(2) of the *OGCR*, *AR 151/71*, is not met. Accordingly, Well Licences No. 032996 and No. 0336235 will remain suspended.
Dated in Calgary, Alberta, on May 12, 2009.

ENERGY RESOURCES CONSERVATION BOARD

<original signed by>

M. J. Bruni, Q.C.
Presiding Member

<original signed by>

J. D. Ebbels
Board Member

<original signed by>

B. T. McManus, Q.C.
Board Member

APPENDIX 1 HEARING PARTICIPANTS

Principals and Representatives (Abbreviations used in report)	Witnesses
OMERS Energy Inc. (OMERS) T. Bews E. A. Leew	M. Coote D.A. Gillanders G. Carter C. Dillabough J. Chipperfield, P.Geol. C. M. F. Galas, Ph.D., P.Eng. D. W. Woods, P.Eng., of Sproule Associates Limited
Montane Resources Ltd. (Montane) B. J. Roth	J. W. Uncles L. Mattar, P.Eng., of Fekete Associates Inc.
Freehold Petroleum & Natural Gas Owners Association (FHOA) W. T. Osvath	D. Speirs, P.Geol.
Energy Resources Conservation Board staff G. Perkins, Board Counsel D. Burns, Board Counsel G. McLean, C.E.T D. Campbell B. Keeler, P.Eng., P.Geol. H. Hunt M. Yemane	

APPENDIX 2 CYMBALUK LEASE—TEXT OF THE RELEVANT CLAUSES

The Habendum Clause

To have and enjoy the same for the term of Five (5) years (herein called the "primary term") commencing of the date hereof and continuing so long thereafter as operations (as hereinafter defined) are conducted upon the said lands, the pooled lands or the unitized lands, with no cessation, in the case of each cessation of operations, of more than 90 consecutive days.

Operations

"operations" means any of the following:

(I) drilling, testing, completing, reworking, recompleting, deepening, plugging back or repairing a well or equipment on or in the said lands or injecting substances by means of a well, in search for or in an endeavor to obtain, maintain, or increase production of any leased substances from the said lands, pooled lands, or the unitized lands;
(II) the production of any leased substance;
(III) the recovery of any injected substance; or
(IV) any acts for or incidental to any of the foregoing;

"said lands" means all the lands and all zones and formations underlying the lands described above as the "said lands", or such portion or portions thereof as shall not have been surrendered.

Clause 3, Suspended Wells

If, at the expiration of the primary term or at any time or times thereafter, there is any well on the said lands, the pool lands, or the unitized lands, capable of producing the leased substances or any of them, and all such wells are shut-in or suspended, this Lease shall, nevertheless, continue in force as though operations were being conducted on the said lands, for so long as all the said wells are shut-in or suspended and so long thereafter as operations are conducted upon the said lands, the pool lands or the unitized lands, with no cessation in the case of each cessation of operations of more than 90 consecutive days.

Clause 8, Offset

If commercial production is obtained after the date of this Lease from an offset well, then unless (i) a well has been or is being drilled on the spacing unit of the said lands laterally adjoining the spacing unit of the offset well and into the zone or formation from which commercial production is being obtained from the offset well, or (ii) all or part of the spacing unit of the said lands laterally adjoining the spacing unit of the offset well has been pooled or included in a unit in which the pooled or unitized substances include production from the same Zone or formation from which production is being obtained from the offset well, the Lessee shall within 6 months from the later of the date of the offset well being placed on commercial production or, if information with respect to the amount of production from the offset will is restricted pursuant to any statute, regulation , order or directive of any government or governmental agency and such information is unknown to the Lessee, until one month after such information is made public.

Clause 15, Default

(c) Notwithstanding anything contained in this Lease, this Lease shall not terminate nor be subject to forfeiture or cancellation if there is located on the said lands or on the pooled lands or on the unitized lands a well capable of producing leased substances or any of them, or on which operations are being conducted; and, in that event, the Lessor's remedy for any default under this Lease shall be for damages only.