

2014 CAPL PETROLEUM AND NATURAL GAS LEASE AND GRANT

ANNOTATIONS

GENERALLY

- The entire document has been reformatted for electronic use. It is write protected to allow users to fill in only those spaces or boxes provided for the variable data. No other changes can be made to the body of the document. Be sure to exit out of or turn off the Design Mode option in your version of MS Word so that the blank input fields work correctly. The asterisk in the land description marks the starting point of that data entry field. Within that area, use the Ctrl + Enter key to enter a return to move to the next line. Users wanting to make changes to the locked text must attach an addendum identifying any such changes.
- This form of lease and grant has been created for generic use in all Western Canadian provinces; however, the users of this document should be aware of any changes to Regulations that may impact the application or interpretation of any of the clause provisions or execution formalities. Specifically, users of this lease form will need to be aware of the particular requirements of the applicable jurisdictions with respect to homestead and spousal rights that are in effect and must be satisfied when entering into a lease and the lease form or affidavits may need to be amended accordingly.
- All clause referencing has been changed to reference the clause numbers instead of the clause titles.
- The CAPL 99 – Alberta document was used as the basis for this Lease and Grant. However, this document introduces a significant number of edits and material changes to that 99 form. These annotations do not purport to identify or explain all the modifications and users are encouraged to make themselves familiar with the terms of this Lease and Grant prior to usage.
- Users are reminded that modification of the terms of any given clause may misalign that clause with other interrelated clauses.

HABENDUM CLAUSE

- Compared to earlier versions of the CAPL lease forms, this portion of the document has been restructured into several new paragraphs versus the original singular run-on sentence to provide for easier reading and more coherent content.
- The historical provision for a nominal dollar amount (\$10) to be used as the initial consideration (which may or may not have actually been paid to the Lessor in all circumstances) has been removed to avoid inadvertently jeopardizing the lease for failure to pay the full consideration.
- Reference to all of the present or future right, title, estate and interest, if any, of the Lessor in and to the Leased Substances or any of them within or upon any lands excepted from the Lands has been removed. Land title certainty has improved to the point that current leases can reflect that the rights intended to be leased are only those interests as exactly set out in the certificate of title without a need to reference excepted and future right, title, estate and interest. There was further concern that such lands excepted from the certificate of title relating to one particular lease should or could otherwise be covered by another certificate of title for which such excepted rights at that time held or subsequently acquired by that same Lessor are granted under another lease. Any rights that the Lessor may have related to the Petroleum Substances underlying any roadways, lands or rights of ways adjoining the lands described in the certificate of title has been moved for inclusion in the definition of the Lands.
- Storage and disposal rights have been removed in keeping with regulatory and business trends to separately address these rights for usage of pore spaces.
- The word years has been replaced with months for greater flexibility in granting of the initial lease term.
- Continuation provisions have been moved to Clause 4.

Clause 1

- **Anniversary Date** has been re-defined to align with the intent and application of the terms in Clause 4.

- **Commercial Production** has been deleted in this form of lease and grant. The determination of the commerciality of the production from a well not yet drilled for the sole purpose of satisfying the offset well requirements is purely subjective and is arguably irrelevant to the underlying intent of the Offset Well Clause which is intended to address the issue of drainage and not profitability. If the Lessee does not believe it will be commercially viable for it to satisfy an offset obligation with the drilling of a well on the Lands, it has the option to otherwise pay the compensatory royalty on the assumption that such payment should then be nominal and/or short lived if the offsetting well is not commercial or to surrender the applicable rights.
- **Current Market Value** has been added to provide certainty to a previously contentious term.
- **Force Majeure** has been clarified to include any governmental policy or Regulatory changes that impose new restraints on Operations (such as moratoriums on development) that could not have otherwise been foreseen or controlled by the Lessee at the time of entering into the lease. The seasonal occurrence of road bans (much the same as winter access areas, etc.) is an event that can be reasonably anticipated by the Lessee and therefore should not typically be considered and is no longer specifically included as an event of Force Majeure unless such restraints to road access are otherwise imposed as a result of severe weather conditions, new government policy, new Regulations or such other events of Force Majeure. Note, however, that additional provision has been made in the Force Majeure clause to allow for any extenuating circumstances such as road bans that may prohibit a Lessee from re-commencing Operations within a specific time period following an event of Force Majeure.
- **Lands** are to include any roadways, lands or rights of ways adjoining the lands described in the certificate of title to the extent that the Lessor's title to such lands entitles it to all or a share of the Petroleum Substances underlying such roadways, lands or rights of ways. Traditionally, a lease covered all Zones underlying the lands; however, blank entry fields have now been included to specifically identify which Zones are to be included in the lease, given the introduction of deep rights reversion. One lease may be restricted or reverted to only shallow rights and another lease issued for the deeper rights. To include all Zones, these fields should be completed to read: from Surface and to Basement.
- **Lease Year** has been re-defined to align with the intent and application of the terms in Clause 4. Note that the first Lease Year does not commence until after the expiry of the Primary Term for continuation purposes.
- **Offset Well** has been expanded to include production from a well drilled prior to the Effective Date where such production is from a stratum or formation strata member that had not produced from the Lands prior to the Effective Date. Although the applicable Zone continued under the Agreement may be the Rundle Group, a well producing from the Elkton strata member on the Lands does not satisfy an offset obligation created by a well producing from the Upper member of the Turner Valley formation, even though both are members of the same formation, and a Pekisko well producing from the Lands does not satisfy a Shunda offset, even though all these are formations within the Rundle Group.

It is also now clarified that each type of petroleum substance creates an offset obligation (i.e. a gas well on the Lands does not satisfy the obligation if the offset is an oil well, and vice versa, unless both are being produced from the same pool – see Subclause 6(c) for this exception).

A further change has been made to contemplate the true intent and spirit of the provisions for Offset Wells with respect to competitive drainage in circumstances where higher density drilling is permitted. Regulatory policies, particularly in Alberta and Saskatchewan, have established that the traditional spacing unit concept of one gas well per section and one oil well per quarter section is not adequate for effective drainage from certain types of reservoirs. Where the applicable Spacing Unit for these particular Zones is not in fact actually reduced in size under the Regulations (as is the case in Saskatchewan), the Regulations (such as in Alberta) otherwise are allowing for an increased number of wells to be drilled into the same pool within a normally defined conventional Spacing Unit. There are numerous such circumstances, a tight shale gas play as one example, where it would then not be reasonable to expect that a well drilled into the NE1/4 of Sec 1 would cause competitive drainage from Sec 2. Accordingly, an exception has been introduced into the definition of Offset Wells to deal with these types of increased well density scenarios. It is assumed that if the Regulations are allowing more than one gas well to be drilled per section or more than one well per quarter section, it is reasonable to expect that drainage of the Leased Substances would result only from such types of gas wells drilled into an offsetting quarter section or those oil wells drilled into an offsetting legal subdivision. Additionally, Paragraph 6(a)(i) provides that only one offset well obligation is created in a situation where there may be more than one well in an offsetting Spacing Unit producing the same kind of substance from the same stratum or formation strata member, such as in the case of holdings or other such similar regulatory approvals for increased well density.

- **Operations** has been expanded to include re-entry as well as the continuous extraction of water to obtain, maintain or increase production of Leased Substances.

- **Regulations** now specifically includes amendments
- **Royalty Determination Point** has been added to identify the different points that would be applicable for determination of the Royalty based upon the type of petroleum substance and the method of processing utilized to make the substance deliverable at the point of sale. This replaces the wellhead as in previous leases as the valuation point for the Royalty
- **Productive Horizontal Section** has been added to identify that section of a horizontal leg that is to be considered obtaining production of the Leased Substances for purposes of determining the royalty offset obligations and continuation of the spacing unit for that production under the Lease. It is important to note however that a horizontal leg may enter the top of a Zone before it reaches the stratigraphic interval (member) from which the Leased Substances are to be obtained. Therefore when applicable the length of the productive section is to be measured from where it enters the targeted member of a Zone. For example some formations like the Montney in BC are very thick such that there could be 50 or more metres between the point of vertical entry into the formation and the depth of the member at which the horizontal leg begins. Also see annotations below related to the definition of a Zone. It is not possible in the context of this lease form to address every possible scenario that would represent an equitable allocation of production between diversely held leases in the event that there is an otherwise non productive interval between the point of entry into the targeted strata (build section) and commencement of the true horizontal section (heel). Therefore although this definition helps provide a definitive level of certainty in the absence of any other contractual arrangements it is recommended that a lessee consider any unusual circumstances that may warrant a production allocation agreement to avoid any contentious drainage issues that might arise after the horizontal well has been drilled. Note that the Alberta and Saskatchewan Crown Tenure Regulations require a production allocation agreement whenever a horizontal well is drilled across Freehold and Crown lands
- **Spacing Unit** has been amended to clarify that any pooling for purposes of obtaining production from a well is subject to the new provisions of Clause 7 applying different methods for allocating production to a vertical versus horizontal well and this definition now also clarifies that any subsequent granting of a holding downspacing or by any other Regulatory approval to alter or suspend a spacing determination shall not be considered a variance of any prior combination of lands or allocation of production except as provided for in Clause 7(f) where the lease will continue for an additional 90 days after the termination of a pooling arrangement resulting from a reduction in the size of a Spacing Unit to allow the Lessee to do such other acts or conduct such other Operations as would be required to otherwise continue the lease with respect to that portion of the Lands that had previously been pooled with other lands to form that Spacing Unit
- **Zone** has been added to clarify the meaning of prior references to zones and formations and further to link the determination of what is meant by a Zone for the purpose of the Lands definition offset wells and deep rights reversion under the lease to match those same determinations made under the Regulations for purposes of Crown tenure continuations within the same general geographic location of the Lands. It has been anticipated however that if a Zone as previously prescribed is re defined under the Regulations to exclude or include different formations or strata members such change will not affect what petroleum and natural gas rights were previously thought to have been originally leased satisfied under the offset clause or continued under the provisions of the lease. At the time of continuation satisfying an offset obligation with the drilling of a well or at the time any deep rights revert under the lease the Lessee would be encouraged to have the Lessor accept in writing the exact description of the Zone in question using a specific well log interval in the event of any subsequent changes to nomenclature or zonal groupings etc under the Regulations

For purposes of identifying an Offset Well obligation or the productive horizontal section of a horizontal leg it is necessary to understand that a Zone may be comprised of more than one productive stratum formation or strata members of a formation into which a well has been drilled. In geology and related fields a stratum (plural strata) is a layer of sedimentary rock or soil with internally consistent characteristics that distinguish it from other layers. The stratum is the fundamental unit in a stratigraphic column and forms the basis of the study of stratigraphy. Each layer is generally one of a number of parallel layers that lie one upon another laid down by forces of nature. Each band represents a specific mode of deposition river silt beach sand coal swamp sand dune lava bed etc. Geologists study rock strata and categorize them by the material of beds. Each distinct layer is typically assigned to the name of sheet usually based on a town river mountain or region where the formation is exposed and available for study. For example the Burgess Shale is a thick exposure of dark occasionally fossiliferous shale exposed high in the Canadian Rockies near Burgess Pass. Slight distinctions in material in a formation may be described as members (or sometimes beds). Formations are collected into groups such as the Paddy Cadotte and Harmon Zones forming the Peace River Group while groups may be collected into supergroups such as the Peace River and Spirit River Groups forming the Fort St John Group. It is not intended however to break a Zone down into its specific members for the purpose of lease continuation.

Clause 2

- A 90 day provision for payment has been inserted. This corresponds to the 60 day Notice to Lapse time period provided for under the Regulations to clear any caveats and is sufficient time for the Lessee to conduct any other due diligence as may be necessary. This provision is not intended to offer the Lessee what would otherwise amount to a lease option period for any further extended period of time and commits the Lessee to payment pursuant to Subclause 2(b) subject to Subclause 2(c).

Clause 3

- To ensure certainty for both parties a provision has been added to allow those deductions allowed by the Crown to a maximum of 50% of the Royalty share. Although the principle of a *profit a prendre* granted by the lease allows the Lessee to take production from the Lessors Lands it should not be taken without reasonable consideration given to the Lessor since the Lessor has no control over the operating and marketing conditions under which the Lessee may choose to take such production. The Lessor and Lessee may alternatively want to consider different royalty percentages for lower yielding zones or higher operating cost areas to better account for the economic realities of any particular circumstance while this maximum on deductions would then still ensure a fair return to the Lessor.
- The Lessee's entitlement to use Leased Substances in its Operations has been clarified in Subclause (c) to allow the Lessee to use Leased Substances to fuel processing equipment that may be serving wells other than only those wells on the Lands or Pooled Lands provided that the Lessor is still entitled to be paid the Royalty (at Current Market Value as if such volume had been sold) for any portion of the Leased Substances so used that is in excess of its proportionate share of that throughput of production from the Lands or Pooled Lands compared to the total throughput from all wells.
- Under past CAPL lease forms Royalty payments were required to be made on or before the fifteenth day of the second month following the month in which the Leased Substances were sold. This has been changed to the fifteenth day of the third month to recognize that particularly in the case of non-operated wells where the Lessee is not taking risk the Lessee may not be reasonably expected to make the Royalty payment within the same time as it would be expecting payment from the operator for its working interest share of the sale proceeds. Although this change may defer the Lessor's first production payment by one month it would thereafter continue to receive consecutive monthly production payments and avoids putting a Lessee in a monthly breach of the Agreement.

Clause 4

- The objective in this lease form was to reconstruct the historical shut in well payment provisions to remove any 1) quantitative test of whether a well is capable of production to qualify for continuation of a lease and 2) uncertainty with respect to the validity of a lease beyond the Primary Term when there may have been any cessation of production for a period of greater than 90 days. There is no longer the need to make or evidence a timely shut in payment to ensure continuation of a lease in the case of any such uncertainty. Subject to the Surrender and Deep Rights Reversion clauses and termination of the lease under Subclause 4(d) the lease will continue automatically so long as any of the provisions of Subclause 4(a) are met.
- In lieu of the historical shut in well payment changes to Subclause 4(b) offer:
 - (i) the Lessee operational and economic relief from having to ensure there is no cessation of production of greater than 90 days after the Primary Term and from having to automatically make shut in payments at the end of every subsequent year whether applicable or not as a security deposit against the lease inadvertently terminating for failure to make that payment if such cessation had occurred during the course of that previous year and
 - (ii) the Lessor a guaranteed minimum income in any Lease Year after the end of the Primary Term where insufficient Royalty was paid in that Lease Year. The Guaranteed Payment has been structured as a covenant to pay an amount in lieu of Royalty payments and is not a condition of the continuation of the lease.
- Failure to pay the Guaranteed Payment is treated as a default unlike the traditional shut in payment where it was a condition of the lease. The Lessee may wish to set this payment up as an automatic payment at the beginning of the first Lease Year.

following expiry of the Primary Term and then have it debited against any subsequent Royalty owing in that Lease Year

- With the objective of removing any litigious measures for determining whether a well is economically or technically capable of production to qualify for continuation of a lease the provision for 720 hours of production from the Lands provides users of this lease form with a reasonable empirical test based on real data readily available in the public domain to establish whether production can allow the lease to be continued. However it is also conclusively established by Subclause 4(d) that if a Lessee is not able to obtain at least 720 hours of production in any one of 3 consecutive Lease Years after the Primary Term the well(s) cannot be considered as capable of sustainable production and therefore not commercially viable for purposes of satisfying the profit a prendre concept of the lease. If more than 720 hours of production is obtained in any given Lease Year then the consecutive period of time test is defeated and another time test period begins. Likewise consideration is given to a Lessee that conducts Operations in the last year of any such consecutive 3 year period that may obtain, maintain or increase production from the Lands. In such a case the Lessee is allowed to have one additional Lease Year to establish such minimum amount of production from any of the wells on the Lands, Pooled Lands or Unitized Lands regardless of whether such production then results from those last Operations or subsequent Operations conducted in the additional Lease Year. If the Lessee succeeds in obtaining 720 hours or more of production in that additional Lease Year the consecutive 3 year time test is defeated and another time test period begins for continuation of the lease until a further 3 consecutive year period of insufficient production occurs. If at least 720 hours of production is not obtained the lease terminates at the end of that additional Lease Year being the fourth consecutive year of insufficient production just as it would at the end of any consecutive 3 Lease Year period where the 720 hour test was not satisfied. See Exhibit 1 at the end of these annotations for an illustration of the effect of this Clause in various scenarios.

If the Lands are non-operated there is some onus on each party holding a real or beneficial interest under the lease to be aware of the hours of production for purposes of this Clause. Every CAPL Operating Procedure states the Operator shall comply with all the terms and conditions of the title documents including (iii) the performance of all things necessary to maintain the title documents in good standing. The Operator would otherwise be in breach of its fiduciary duties if it could reasonably have produced the well to maintain the lease. The other joint operators also have three years to take their own actions to remedy such a situation (e.g. Independent Operations Notices to drill a new well or to rework the existing well etc.)

Given that this clause would result in termination of the lease in the event of non-production for three (3) consecutive Lease Years beyond the expiry of the Primary Term a Lessee is advised to consider negotiating a longer Primary Term in situations where it may be delayed in bringing on production for an extended period of time due to any potential infrastructure constraints.

Clause 5

- The Lessee may now deduct the Lessor's share of taxes from any Guaranteed Payment or Royalty rather than seek reimbursement from the Lessor.

Clause 6

- To remove the potentially litigious argument surrounding the commercial production capability of an Offset Well the obligations imposed by this clause do not come to an end if that well subsequently ceases to produce. The compensatory royalty obligation will continue to be payable indefinitely based on the actual volumes obtained from that Offset Well at any time and from time to time thereafter unless or until Operations are commenced on the Lands or the applicable portion of the Lands are pooled, unitized or surrendered to otherwise satisfy the obligation or until that Offset Well is abandoned.
- An addition to Paragraph 6(a)(i) provides that increased well density within the same sized Spacing Unit does not create multiple well obligations in the same sized adjoining Spacing Unit. Also see annotations related to definition of Offset Well.
- Paragraph 6(a)(iv) has provided clarification that the calculation of a compensatory royalty shall be based on the average production (for each Petroleum Substance from each Zone) obtained from all Offset Wells when there is more than one adjoining Spacing Unit or more than one Offset Well exists in a single adjoining Spacing Unit as a result of increased well density. Additionally, provision is included for the calculation of a compensatory royalty based on the prorated production attributable to a Horizontal Well when the Productive Horizontal Section is not contained entirely within the adjoining Spacing Unit. For example

**For a Vertical Well
With No Increased Well Density**

	Sec 14 the Lands	6 13 Offsetting Gas Well
4 10 Offsetting Gas Well		

Compensatory royalty payable for wells offsetting Sec 14 = Average of monthly production obtained from the 4 10 and 6 13 wells

**For Vertical Wells
With Increased Well Density**

Offsetting Oil Wells in LSD 1 3 6 8 10 of Sec 22		
	Sec 4 the Lands	
		Offsetting Gas Wells in LSD 1 8 11 & 13 of Sec 12

Compensatory royalty payable for wells offsetting Sec 14 = Average of monthly gas production obtained from the 11 12 and 13 12 gas wells only in the adjoining $\frac{1}{4}$ section plus the monthly oil production obtained from the 1 22 oil well in the adjoining LSD

**For a Horizontal Well
With No Increased Well Density**

1600m 1600m		
Sec 15 the Lands	16 15/1 13 Offsetting Horizontal Gas Well	Top of Cadomin
	Enters top of stratum 300m from section boundary	Length of Productive Horizontal Section = 2490m

Compensatory royalty payable for 16 5/1 13 horizontal gas well drilled into Sec 13&14 offsetting Sec 15 = portion of Productive Horizontal Section contained in Sec 14 being 1600m minus 300m divided by the 2490m total length

**For Horizontal Wells
With Increased Well Density**

1600m 1600m		
Sec 15 the Lands	12 14/2 13 Offsetting HZ Gas Well	Top of Cadomin
Enters top of stratum 445m from section boundary	Length of Productive Horizontal Section = 2055m	9 12/2 14 HZ Gas Well

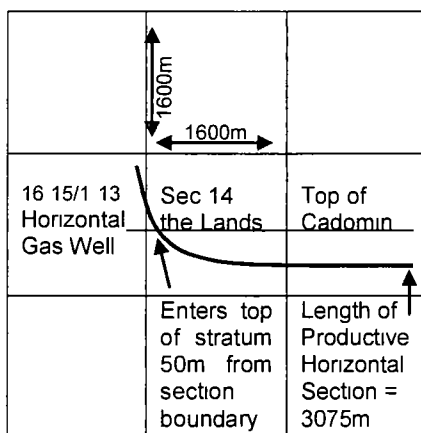
Compensatory royalty payable for horizontal gas wells drilled into Sec 13&14 offsetting Sec 15 = portion of 12 14/2 13 Productive Horizontal Section contained in the NW $\frac{1}{4}$ & SW $\frac{1}{4}$ of Sec 14 only being 800m minus 445m divided by the 2055m total length

Note No portion of the 9 12/2 14 Productive Horizontal Section is contained within the quarter sections laterally or diagonally adjoining the Lands being the reduced area for purposes of determining the drainage area of a Gas Well where Regulations have permitted increased well density

- Subclause (c) has been added to clarify that an Offset Well which is producing petroleum substances from the same pool as a well on the Lands will not trigger an offset obligation. Even though different substances may be being obtained from the wells (i.e. one well producing oil from down dip of the structure and the other from the gas cap) there is no issue of competitive drainage if both are producing from the same reservoir source. Additionally, it is made clear that production must be from the same designated pool given that there would be no issue of competitive drainage even though the same substances may be being obtained from the same Zone if being produced from completely different reservoirs.

Clause 7

- The right to pool has been expanded to include Operations other than drilling a well such as for a Zone re entry.
- The provision for allocating production to Pooled Lands under earlier lease forms has been restricted to the proportionate surface area of all the diversely owned lands comprising a Spacing Unit for a vertical well. A new section addressing the allocation of production for horizontal wells has been added. Although this lease anticipates that production should be allocated based on the proportionate share of the Productive Horizontal Section of the well crossing diversely owned lands as illustrated below, it is subject at all times to any other method that may be prescribed by the Regulations where Crown lands are to be pooled with the Lands. In particular, the Regulations may not allow for the allocation of production to be subsequently amended if a portion of the Productive Horizontal Section is later plugged back.



Royalty payable for Sec 14 = $(1600\text{m} - 50\text{m})/3075\text{m}$

- Currently, neither of the Alberta or Saskatchewan Regulations prescribes an acreage drainage area for Horizontal Wells, and therefore there is no defined Spacing Unit pursuant to which any lands under an existing freehold lease can be pooled with other lands for a Horizontal Well. Therefore, notwithstanding the provisions contained in this lease form to attribute production based on the proportionate length of the Productive Horizontal Section of the well, it is a current standard requirement to enter into a production allocation agreement for pooling any Crown lands with freehold lands to complete the drainage area for a Horizontal Well with allocation to the lands based on the length of the horizontal leg in Alberta and the percentage of the production bubble around the horizontal leg in Saskatchewan. There may also be other particular circumstances which would warrant entering into a production allocation agreement among the freehold owners of diversely held lands (see annotation for definition of Productive Horizontal Section which details some of these possible scenarios).
- Additionally, working interest participants in a Horizontal Well may want to enter into a Production Allocation Agreement with the freehold owners to set forth how the Lessor Royalty burdens shall be apportioned if the production allocation for the Horizontal Well is to be split between the Lessors in different percentages than how the working interest participants have pooled their interests in the lands. This misalignment could be addressed in the Production Allocation Agreement by having the parties agree to split the Royalty burdens in proportion to their pooled interests.
- Any new pooling arrangements entered into between working interest parties contributing lands governed by this form of lease will need to be made subject to the terms of Clause 4(d). If any well on the pooled lands is

incapable of meeting those minimum production requirements over a three year period the pooling would need to terminate at the termination of any such contributed lease except with respect to any provisions for the abandonment liabilities for the well

Clause 11

- Deep rights reversion at the end of the Primary Term has been introduced as a result of regulatory and business trends. It is noteworthy that a well must be completed in a Zone and tested to show the presence of Leased Substances in order to retain all rights above the base of that Zone. There is no subjective measure requiring that such Leased Substances be proven capable of production which would lead to dispute; however, the Lessor's failure to then bring any such Zones onto production within the first three (3) Lease Years beyond expiry of the Primary Term will result in the ultimate reversion of all such Zones below the deepest producing Zone pursuant to Paragraph 11(c)(i). This gives the Lessee the chance to retain a Zone at the end of the Primary Term that may have further potential but prevents the Lessee from sterilizing those deeper rights underlying the Lands beyond the same three (3) year period of time as contemplated in Subclause 4(d) for non production.
- Clause 11(d) provides that if Operations are being conducted at the expiry of the Primary Term pursuant to Paragraph 4(a)(iii), the reversion of rights is suspended until 90 days after completion of those Operations to determine what Zones will qualify for continuation under Subclause 11(c). This extension applies regardless of whether other rights would have qualified for continuation at the expiry of the Primary Term based on other pre-existing Operations. For example, if no Operations would have been required to continue the Agreement to the base of Viking as a result of production established earlier in the Primary Term and the Lessee was currently drilling a Mannville well, then the reversion of rights would not be determined until completion of this later Operation for potential continuation of all rights below base Viking to base Mannville.

Clause 12

- In this form of lease, the Lessee now agrees to remove its registration of the lease within 90 days. The Lessor now has the ability to accelerate that removal by putting the Lessee on notice to remove its registration within the 30 day period following its receipt of such notice, rather than having to wait for the full 90 day period that the Lessor would wait by lapsing the registration.

Clause 14

- The Lessee is now under an obligation to give Notice of Force Majeure to the Lessor to ensure that the Lessor is properly notified within 30 days of the occurrence of a Force Majeure event and provide sufficient details of the circumstances, typically known only to the Lessee in most cases, which are prohibiting the Lessee from performing its obligations under the Lease. Otherwise, a Lessor may mistakenly believe the Lessee to be in breach or worse, that the Lease has terminated under its own terms. Payment or compensatory royalties is now suspended during a period of Force Majeure. This clause in the past had not allowed for the lease to remain in effect for an extendable period of time following the end of a Force Majeure event, within which period the Lessor could then recommence Operations. This clause now allows for a 90 day relief period and, with further notice, such further extensions as may be reasonably required by the Lessee under the circumstances to recommence Operations (e.g., where road bans could potentially be in place for a period of greater than 90 days).

Clause 18

- The Lessee may now assign portions of its interest and the Lessor may no longer require a single party to recognize.

Clause 22

- This clause has been added to provide the parties with certainty as to the governance of the lease in the case of any dispute.

Clause 27

- This clause has been added to provide that certain obligations, such as the Royalty payments respecting a portion of Lands that have been surrendered which had accrued prior to the effective date of such a surrender, and then remain

payable. This provision, however, is subject to any Regulations that may apply to the contrary, such as the applicable provincial limitations legislation, which could affect the parties' rights or obligations with respect to such accruals.

Clause 28

- This provision has been added to allow for modifications made to this form of lease to be acceptable and valid only if clearly identifiable. Write protection has been added for electronic use and forces all changes made to the body of the document to be highlighted.

Affidavits, Consents and Certificates

- The forms of affidavits, consents and certificates appended to the back of this lease and grant were prepared based on the Regulations in effect for each of the applicable provinces at the time of publication. Users should, however, at all times confirm that these forms conform to the execution requirements of the applicable jurisdiction in the context of each particular lease agreement, as such requirements could change periodically.

Exhibit 1

Scenario #1

For Continuation Beyond	Primary Term	1 st Lease Year	2 nd Lease Year	3 rd Lease Year	4 th Lease Year	5 th Lease Year	6 th Lease Year	7 th Lease Year
Applicable clause(s) for continuation beyond expiry	Clause 4(a) only	Clause 4(a) only	Clause 4(a) only	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)
# hrs production	0 hrs	320 hrs	200 hrs	0 hrs				
Continuation status at expiry	Well drilled completed and awaiting tie in continued per 4(a)(i) based on completed Zone into 1 st Lease Yr beyond Primary Term	Well tied in and brought on production continued per 4(a)(i) into 2 nd Lease Yr beyond Primary Term	Continued per 4(a)(i) into 3 rd Lease Yr beyond Primary Term	Continued per 4(a)(i) but terminated under 4(d) with < 20 hrs prod in each of last 3 Lease Yrs beyond Primary Term				

Scenario #2

For Continuation Beyond	Primary Term	1 st Lease Year	2 nd Lease Year	3 rd Lease Year	4 th Lease Year	5 th Lease Year	6 th Lease Year	7 th Lease Year
Applicable clause(s) for continuation beyond expiry	Clause 4(a) only	Clause 4(a) only	Clause 4(a) only	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)
# hrs production	0 hrs	600 hrs	0 hrs	200 hrs				
Continuation status at expiry	Well drilled completed and awaiting tie in continued per 4(a)(i) based on completed Zone into 1 st Lease Yr beyond Primary Term	Well tied in and brought on production continued per 4(a)(i) into 2 nd Lease Yr beyond Primary Term	Continued per 4(a)(i) into 3 rd Lease Yr beyond Primary Term	Continued per 4(a)(i) but terminated under 4(d) with < 720 hrs prod in each of last 3 Lease Yrs beyond Primary Term				

Scenario #3

For Continuation Beyond	Primary Term	1 st Lease Year	2 nd Lease Year	3 rd Lease Year	4 th Lease Year	5 th Lease Year	6 th Lease Year	7 th Lease Year
Applicable clause(s) for continuation beyond expiry	Clause 4(a) only	Clause 4(a) only	Clause 4(a) only	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)
# hrs production	0 hrs	0 hrs	0 hrs	900 hrs				
Continuation status at expiry	Well drilled completed and awaiting tie in continued per 4(a)(i) based on completed Zone into 1 st Lease Yr beyond Primary Term	Continued per 4(a)(i) into 2 nd Lease Yr beyond Primary Term	Continued per 4(a)(i) into 3 rd Lease Yr beyond Primary Term	Well tied in and brought on production continued per 4(a)(i)				

Exhibit 1

Scenario #4

For Continuation Beyond	Primary Term	1 st Lease Year	2 nd Lease Year	3 rd Lease Year	4 th Lease Year	5 th Lease Year	6 th Lease Year	7 th Lease Year
Applicable clause(s) for continuation beyond expiry	Clause 4(a) only	Clause 4(a) only	Clause 4(a) only	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)
# hrs production	0 hrs	320 hrs	0 hrs	200 hrs but well re entered	150 hrs			
Continuation status at expiry	Well drilled completed and awaiting tie in continued per 4(a)(i) based on completed Zone into 1 st Lease Yr beyond Primary Term	Well tied in and brought on production continued per 4(a)(i) into 2 nd Lease Yr beyond Primary Term	Continued per 4(a)(i) into 3 rd Lease Yr beyond Primary Term	Continued per 4(a)(i) but would have terminated under 4(d) with <720 hrs prod in each of last 3 Lease Yrs except re entry pursuant to 4(e) grants additional year	Continued per 4(a)(i) but terminated under 4(d) with <720 hrs prod in each of last 3 Lease Yrs			

Scenario #5

For Continuation Beyond	Primary Term	1 st Lease Year	2 nd Lease Year	3 rd Lease Year	4 th Lease Year	5 th Lease Year	6 th Lease Year	7 th Lease Year
Applicable clause(s) for continuation beyond expiry	Clause 4(a) only	Clause 4(a) only	Clause 4(a) only	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)
# hrs production	0 hrs	0 hrs	0 hrs	0 hrs but well re entered	50 hrs but new well drilled	600 hrs		
Continuation status at expiry	Well drilled completed and awaiting tie in continued per 4(a)(i) based on completed Zone into 1 st Lease Yr beyond Primary Term	Continued per 4(a)(i) into 2 nd Lease Yr beyond Primary Term	Continued per 4(a)(i) into 3 rd Lease Yr beyond Primary Term	Continued per 4(a)(i) but would have terminated under 4(d) with <720 hrs prod in each of last 3 Lease Yrs except re entry pursuant to 4(e) grants additional year	Continued per 4(a)(i) but would have terminated under 4(d) with <720 hrs prod in each of last 3 Lease Yrs except drill pursuant to 4(e) grants additional year	Continued per 4(a)(i) but terminated under 4(d) with <720 hrs prod in each of last 3 Lease Yrs		

Scenario #6

For Continuation Beyond	Primary Term	1 st Lease Year	2 nd Lease Year	3 rd Lease Year	4 th Lease Year	5 th Lease Year	6 th Lease Year	7 th Lease Year
Applicable clause(s) for continuation beyond expiry	Clause 4(a) only	Clause 4(a) only	Clause 4(a) only	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)	Clause 4(a) subject to 4(d) and 4(e)
# hrs production	0 hrs	0 hrs	0 hrs	0 hrs but new well drilled	1200 hrs	600 hr	400 hrs	200 hrs
Continuation status at expiry	Well drilled completed and awaiting tie in continued per 4(a)(i) based on completed Zone into 1 st Lease Yr beyond Primary Term	Continued per 4(a)(i) into 2 nd Lease Yr beyond Primary Term	Continued per 4(a)(i) into 3 rd Lease Yr beyond Primary Term	Continued per 4(a)(i) but would have terminated under 4(d) with <720 hrs prod in each of last 3 Lease Yrs except drill pursuant to 4(e) grants additional year	Continued per 4(a)(i) – and 4(d) not applicable because >720 hrs prod was obtained in the 3 rd yr of the last 3 Lease Yrs	Continued per 4(a)(i) – and 4(d) not applicable because >720 hrs prod was obtained in the 2 nd yr of the last 3 Lease Yrs	Continued per 4(a)(i) – and 4(d) not applicable because >720 hrs prod was obtained in the 1 st yr of the last 3 Lease Yrs	Continued per 4(a)(i) but terminated under 4(d) with <720 hrs prod in each of last 3 Lease Yrs