



Province of Alberta

MINES AND MINERALS ACT

NATURAL GAS DEEP DRILLING REGULATION

Alberta Regulation 224/2008

With amendments up to and including Alberta Regulation 89/2013

Office Consolidation

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(Consolidated up to 89/2013)

ALBERTA REGULATION 224/2008

Mines and Minerals Act

NATURAL GAS DEEP DRILLING REGULATION

Table of Contents

- 1 Definitions
- 2 Application of regulation
- 3 Eligible well
- 4 Nature of royalty adjustment
- 5 Determinations by Minister
- 6 Transfer of royalty adjustment
- 7 Factors affecting adjustment or determination
- 8 Reporting circumstances affecting eligibility
- 9 Transition wells
- 10 Minister's decision final
- 11 Expiry
- 12 Coming into force

Schedule

Definitions

1(1) In this Regulation,

- (a) “abandoned well” means a well classified as an abandoned well by the Regulator;
- (b) “Act” means the *Mines and Minerals Act*;
- (c) repealed AR 89/2013 s39;
- (d) “Crown interest” means the percentage of Crown ownership of gas recovered or obtained as determined by the Minister in accordance with section 26.1 of the *Petroleum and Natural Gas Tenure Regulation* (AR 263/97);
- (e) “crude oil” means crude oil as defined in the *Natural Gas Royalty Regulation, 2009*;

- (f) “deepening” means, in relation to a well, the drilling of the well below the true vertical depth referred to in the licence for the well, pursuant to an amendment to the licence;
- (g) “designated pool” means a pool that, as of June 1, 1985, has been designated as a pool by the Regulator pursuant to the *Oil and Gas Conservation Act*;
- (h) “development well” means a well classified as a development well by the Regulator;
- (i) “drilling spacing unit” means a drilling spacing unit as defined in the *Natural Gas Royalty Regulation, 2009*;
- (j) “eligible well” means an eligible well described in section 3;
- (k) “eligible well event” means a well event contained in an eligible well that has a Crown interest greater than 0%;
- (l) “exploratory well” means a well classified as an exploratory well by the Regulator;
- (m) “field condensate” means field condensate as defined in the *Natural Gas Royalty Regulation, 2009*;
- (n) “finished drilling date” means a finished drilling date for a well event according to the records of the Regulator;
- (o) “gas” means natural gas, residue gas, gas products and field condensate;
- (p) “gas product” means gas product as defined in the *Natural Gas Royalty Regulation, 2009*;
- (q) “lengthening” means increasing the measured depth of a well referred to in the licence for the well, pursuant to an amendment to the licence;
- (r) “licence” means a licence for a well issued under the *Oil and Gas Conservation Act*;
- (s) “licensee”, in relation to a well, means the holder of the licence in respect of that well under the *Oil and Gas Conservation Act*;
- (t) “measured depth” means, in relation to a well, the longest distance in metres according to the records of the Regulator, measured along the bore of the well from the kelly bushing of the well to the base of the deepest natural

- gas producing interval in the well that is producing in paying quantities;
- (u) “operator”, with reference to a well, means the person who is the operator of the well according to the records of the Department;
 - (v) “pool” means a pool as defined in the *Oil and Gas Conservation Act*;
 - (w) “producing interval” means a perforation from which production is obtained;
 - (w.1) “Regulator” means the Alberta Energy Regulator;
 - (x) “residue gas” means residue gas as defined in the *Natural Gas Royalty Regulation, 2009*;
 - (y) “shortening” means decreasing the measured depth of a well where the base of the deepest natural gas producing interval in the well that is producing in paying quantities has a true vertical depth greater than 2500 metres but is shallower than the most recent measured depth determined previously for that well;
 - (z) “true vertical depth” means the vertical distance, in metres, measured in a perpendicular line from the kelly bushing of a well to the base of the deepest producing interval that the well is, in the opinion of the Minister, producing natural gas in paying quantities;
 - (aa) “twin well”, in relation to an eligible well, means a well that is
 - (i) spudded on or after October 25, 2007 and on or before April 30, 2010,
 - (ii) located in the same legal subdivision or drilling spacing unit, whichever is of lesser area, as that in which the eligible well is located, and
 - (iii) drilled to produce gas that, in the opinion of the Minister, is not initially recoverable from the eligible well due to inadvertent damage to the well;
 - (bb) “2002 Regulation” means the *Natural Gas Royalty Regulation, 2002* (AR 220/2002);
 - (cc) “unit area” means a unit area as defined in the *Natural Gas Royalty Regulation, 2009*;

(dd) “well event” means a well event as defined in the *Natural Gas Royalty Regulation, 2009*.

(2) A reference to the true vertical depth or measured depth of a well or a part of a well in this Regulation is a reference to the depth of the well or part of the well in metres according to the records of the Regulator.

AR 224/2008 s1;42/2009;135/2009;198/2010;89/2013

Application of regulation

2 This Regulation applies to royalty on gas recovered or obtained from an eligible well on or after January 1, 2009 and on or before April 30, 2010.

AR 224/2008 s2;198/2010

Eligible well

3(1) Subject to subsection (3), an eligible well is a well that,

- (a) is an exploratory well or a development well,
- (b) is spudded, or deepened, on or after October 25, 2007 and on or before April 30, 2010,
- (c) is drilled, or deepened, in a drilling spacing unit that is not wholly or partly within the boundaries of a designated pool,
- (d) contains a producing interval, the base of which is greater than a true vertical depth of 2500 metres, and
- (e) repealed AR 42/2009 s3,
- (f) has a Crown interest greater than 0%.

(2) Additional information must be provided to the Minister by the operator or licensee if required to aid in determining that a well meets the requirements of subsection (1).

(3) A well is not an eligible well if,

- (a) subject to section 9, that well, or any well event in that well, has been the subject of a royalty exemption, adjustment or reduction under any former regulation,
- (b) unless otherwise approved by the Regulator, that well is off target within the meaning of the *Oil and Gas Conservation Rules* (AR 151/71),
- (c) that well initially produces oil either alone or with gas at a gas oil ratio of less than 1800:1,

- (d) that well produces oil sands or crude bitumen, other than a gas well as defined in the *Oil and Gas Conservation Rules* (AR 151/71),
- (e) it is a well whose production of crude oil or crude bitumen is exempt from royalty under the *Third Tier Exploratory Well Royalty Exemption Regulation* (AR 16/93) or eligible for a royalty adjustment under the *Deep Oil Exploratory Well Regulation* and that exemption or adjustment has not been wholly revoked,
- (f) that well is within the pool boundaries as designated by the Board as of June 1, 1985, or
- (g) that well is a re-entry into an abandoned well.

AR 224/2008 s3;42/2009;135/2009;198/2010;89/2013

Nature of royalty adjustment

4(1) The royalty otherwise payable to the Crown on gas recovered or obtained from each eligible well event is adjusted in accordance with this section.

(2) Subject to subsection (3),

- (a) the royalty rate on natural gas recovered, or on residue gas or on gas products obtained from natural gas, from eligible well events on or after January 1, 2009 and on or before April 30, 2010, is reduced to 5%, and
- (b) the royalty rate on field condensate obtained from natural gas recovered from eligible well events on or after January 1, 2009 and on or before April 30, 2010 is reduced to 0%.

(3) Subsection (2)(a) and (b) do not apply to the last production month that a royalty reduction is applicable if there is not enough remaining in the total amount of royalty adjustment for the well, as calculated under subsection (7), to reduce the royalty rate for each well event in that well to 5% or 0%, as the case may be.

(4) In the case of the deepening of an eligible well, a royalty adjustment does not apply if the gas is recovered or obtained from a producing interval that is not below the deepest producing interval to which the well was previously drilled or deepened.

(5) The total royalty adjustment amount for an eligible well classified as a development well is the aggregate amount as determined under the Schedule.

(6) The total royalty adjustment amount for an eligible well classified as an exploratory well is the aggregate amount as determined under the Schedule.

(7) When the total royalty adjustment amount is determined for an eligible well under subsection (5) or (6), that amount is reduced each month by the total difference in the value of the adjusted royalty quantity for that well and the total royalty compensation determined as a result of the reduced royalty rate under subsection (2)(a) or (b), as applicable, for all eligible well events in that well, commencing with the first month of production from each eligible well event until

- (a) the total royalty adjustment amount is reduced to zero, or
- (b) 5 years from the first finished drilling date of the eligible well has expired,
- (c) repealed AR 198/2010 s11,

whichever occurs first.

(8) A royalty adjustment

- (a) does not apply in respect of any month that occurs after the 5-year period following the finished drilling date applicable to the drilling, deepening, lengthening or shortening of an eligible well,
- (b) if the eligible well is abandoned, terminates effective as of the date of abandonment, and
- (c) does not apply in respect of any month in which an eligible well does not have production of gas from an eligible well event.

(9) Where an eligible well has more than one eligible well event with a producing interval the base of which has a true vertical depth greater than 2500 metres,

- (a) for each month the royalty adjustment for the eligible well will be based on the eligible well event with the greatest measured depth that is producing gas, and
- (b) if the eligible well event in clause (a) fails to produce gas in any month, the royalty adjustment will be based on the eligible well event producing gas that has the next deepest measured depth and has a producing interval the base of which has a true vertical depth greater than 2500 metres.

AR 224/2008 s4;42/2009;198/2010

Determinations by Minister**5(1) If**

- (a) an eligible well is drilled or deepened below a true vertical depth of 2500 metres to a new measured depth that is below the base of the natural gas bearing interval of the deepest producing interval from which the well was, in the opinion of the Minister, producing gas in paying quantities, and
- (b) the Minister is satisfied that the gas recovered or obtained from a pool in the deeper interval was subsequently recovered or obtained in paying quantities from a drilling spacing unit that, on the date the spudding in or commencement of deepening of the eligible well occurred, was not wholly or partly within the boundaries of a designated pool,

the Minister may determine a new measured depth and a new total royalty adjustment amount for the eligible well as if the well was deepened.

(2) If the Minister determines a new measured depth pursuant to subsection (1), the royalty otherwise payable to the Crown on gas recovered or obtained from the eligible well determined by the Minister is eligible for a royalty adjustment in accordance with section 4.

(3) If an eligible well has received a royalty adjustment under this Regulation and

- (a) that well is subsequently deepened,
- (b) the deepening results in a new measured depth, and
- (c) the new measured depth results in a new total royalty adjustment amount calculated for the well,

the new total royalty adjustment amount applied to the well

- (d) is the total royalty adjustment amount, and
- (e) shall be applied as of the effective date of the deepening,

and the finished drilling date of the eligible well is deemed to be the latest finished drilling date as a result of the deepening of the well.

(4) If an eligible well has received a royalty adjustment under this Regulation and

- (a) that well is subsequently lengthened or shortened,
- (b) the lengthening or shortening results in a new measured depth, and
- (c) the new measured depth results in a new total royalty adjustment amount calculated for the well,

the new total royalty adjustment amount applied to the well

- (d) is the total royalty adjustment amount, and
- (e) shall be applied as of the effective date of the lengthening or shortening,

and the finished drilling date of the eligible well is deemed to be the first finished drilling date of the well before the well was lengthened or shortened.

(5) If the new total royalty adjustment amount determined for an eligible well under subsection (3) or (4) is less than the amount of royalty adjustment already received by that well as of the effective date of the new total royalty adjustment, that well shall not receive any further royalty adjustments.

(6) If an eligible well is receiving a royalty adjustment under this Regulation and that well subsequently becomes part of a unit area,

- (a) the Crown interest of each well event in that well is the Crown interest under the unit area, effective as of the date of the unit area,
- (b) the Minister shall determine whether or not that well or well event is an eligible well or eligible well event as of the effective date of the unit area,
- (c) the total royalty adjustment amount determined for that well does not change, and
- (d) the amounts that well received in royalty adjustments prior to the well becoming part of a unit area do not change.

(7) If an eligible well is receiving a royalty adjustment under this Regulation and the Crown interest in that well, or in any well event in that well, subsequently changes for a reason other than becoming part of a unit area as described under subsection (6), the Crown interest is adjusted accordingly, and there is no change to the total royalty adjustment amount determined for that well, or to the amounts that well received in royalty adjustments prior to the change in Crown interest.

(8) For the purpose of this section, the “value of the adjusted royalty quantity” with respect to an eligible well is the aggregate of the amounts of royalty compensation that would have been payable under the *Natural Gas Royalty Regulation, 2009* in respect of the Crown’s royalty share of gas recovered or obtained from each eligible well event in that well in the absence of

- (a) any royalty exemption, adjustment or reduction under another current or former regulation, and
- (b) any royalty adjustment under this Regulation

applied to that well event, or to the well that contains that well event, and without any deductions for allowable costs.

AR 224/2008 s5;42/2009

Transfer of royalty adjustment

6(1) The Minister may approve the transfer of a royalty adjustment in section 4 or 5 from an eligible well to its twin well.

(2) If the Minister approves the transfer of a royalty adjustment pursuant to subsection (1),

- (a) the royalty adjustment on gas recovered or obtained from the eligible well from which the royalty adjustment was transferred terminates on the effective date of the transfer of the royalty adjustment to the twin well, and
- (b) the royalty adjustment period applicable to the twin well is the balance of the royalty adjustment period that would have been applicable to the eligible well from which the royalty adjustment was transferred.

Factors affecting adjustment or determination

7 If, in respect of an eligible well or a twin well, the Minister is of the opinion that

- (a) gas recovered or obtained from an eligible well or a twin well subject to royalty adjustment has resulted in a material reduction of gas recovered or obtained from another well that is not subject to a royalty adjustment,
- (b) there are circumstances that, had they been known when the approval of a transfer of a royalty adjustment to a twin well was made, would have resulted in a refusal to allow the transfer,

- (c) there are circumstances that, had they been known when a determination under section 5 was made, would have resulted in a refusal to make the determination,
- (d) a provision of this Regulation has not been complied with,
- (e) compliance with section 47(6) of the Act in connection with an audit or examination relating to a royalty adjustment in respect of an eligible well was inadequate, or
- (f) one or more acts, agreements, arrangements, transactions or operations were, before or after the coming into force of this Regulation, effected for the purpose of improperly, artificially or unduly obtaining or increasing a royalty adjustment,

the Minister may determine that gas recovered or obtained in respect of a well is not eligible in whole or in part for the royalty adjustment, may revoke a royalty adjustment in whole or in part and may disallow the transfer of a royalty adjustment to a twin well.

Reporting circumstances affecting eligibility

8 A person who has received a royalty adjustment shall forthwith notify the Minister in writing on learning of any circumstances that indicate the well or well event from which gas was recovered or obtained was not eligible for the royalty adjustment in whole or in part.

Transition wells

9(1) A well that is eligible for, or received a royalty exemption or royalty adjustment under the 2002 Regulation is eligible for a royalty adjustment under this Regulation if it is an eligible well and if it meets the following criteria:

- (a) the well was spudded or commenced deepening on or after October 25, 2007 and on or before December 31, 2008;
- (b) the well is not a well described under section 3(3);
- (c) the well, or a well event in that well, has unused royalty exemption or royalty adjustment under the 2002 Regulation.

(2) The total amount of royalty adjustment is calculated for a transition well as if it were an eligible well under this Regulation but the total royalty adjustment amount is then reduced by the

amount of royalty exemption or adjustment received by the well, or by all well events in that well, under the 2002 Regulation.

Minister's decision final

10 Where any question arises pertaining to the interpretation or application of this Regulation, the Minister is the sole judge of the question and there is no appeal from the Minister's decision.

Expiry

11 This Regulation expires on June 30, 2024.

Coming into force

12 This Regulation comes into force on January 1, 2009.

Schedule

Development wells

1(1) The total royalty adjustment for an eligible well classified as a development well is determined in accordance with the following formula:

$$\text{total royalty adjustment} = A+B+C+D+E$$

where

- A is the number of metres of the measured depth more than 2500 but not more than 3500 multiplied by \$625 per metre;
- B is the number of metres of the measured depth more than 3500 but not more than 4000 multiplied by \$2500 per metre;
- C is the number of metres of the measured depth more than 4000 but not more than 5000 multiplied by \$2500 per metre;
- D is the number of metres of the measured depth more than 5000 multiplied by \$3000 per metre;
- E is the supplemental royalty adjustment determined under subsection (2).

(2) The supplemental royalty adjustment is as follows:

- (a) if the measured depth is less than 4000 metres, \$0;

(b) if the measured depth is 4000 metres or more, \$875 000.

(3) The maximum royalty adjustment is \$8 000 000.

Exploratory wells

2(1) The total royalty adjustment for an eligible well classified as an exploratory well is determined in accordance with the following formula:

$$\text{total royalty adjustment} = A+B+C+D+E$$

where

- A is the number of metres of the measured depth more than 2500 but not more than 3500 multiplied by \$625 per metre;
- B is the number of metres of the measured depth more than 3500 but not more than 4000 multiplied by \$2500 per metre;
- C is the number of metres of the measured depth more than 4000 but not more than 5000 multiplied by \$3125 per metre;
- D is the number of metres of the measured depth more than 5000 multiplied by \$3750 per metre;
- E is the supplemental royalty adjustment determined under subsection (2).

(2) The supplemental royalty adjustment is as follows:

(a) if the measured depth is less than 4000 metres, \$0;

(b) if the measured depth is 4000 metres or more, \$875 000.

(3) The maximum royalty adjustment is \$10 000 000.



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