

January 18, 1993

INFORMATION LETTER 93-4

SUBJECT: HORIZONTAL RE-ENTRY WELL ROYALTY
REDUCTION REGULATION (A.R. 348/92)

Introduction

The horizontal re-entry oil well royalty reduction is a permanent royalty policy to encourage incremental production from mature pools. It is available on most existing wells from which a horizontal wellbore is drilled, commencing on or after October 1, 1992.

Benefits

The royalty rate will be capped for oil produced from an eligible horizontal extension. The cap will be the royalty rate associated with the average production volume for the latest 12 months when production occurred before re-entry. For a well with a 12-month production average of up to 184 m³/month, royalty will be capped at one half that rate for the incremental production that exceeds the qualifying average.

For program purposes, the average 12-month qualifying production is referred to as the "maintenance volume" (see appendix for example royalty calculations).

Qualification

All the following criteria must be met:

- A horizontal wellbore has been drilled from an existing wellbore to extend at least 100 m beyond the point where the wellbore deviates 80 degrees from vertical.

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- The horizontal drilling activity commenced on or after October 1, 1992, and at least five years after the finished drilling date of the existing wellbore.
- The average of the 12 latest months with production establishes the "maintenance volume" for a well from a pool. These production months occurred both within the year of re-entry and the previous four years.
- For an injector well that is converted to a producing well by re-entry, the maintenance volume is established by the latest 12 months in which the well produced. If the well does not have 12 months of production during the year of re-entry plus the four previous years, the maintenance volume will be based on the 12-month average for the well(s) where production was enhanced by the injected substance (e.g., the four producing wells in a five-spot pattern).
- Production obtained through the horizontal extension is from the same pool as the maintenance volume.
- Application to the Department is filed by the well operator.
- Notification of qualification is issued by the Department.

Exclusions

A well is excluded from qualifying during the period in which one of the following circumstances is in effect:

- royalty for the well event is calculated under another regulation except the Horizontal Well Petroleum Royalty Regulation;
- a well is within a Petroleum Royalty Regulation, Section 11, EOR scheme boundary or 0.8 km beyond; or
- royalty is reduced under Petroleum Royalty Regulation, Section 10.

The horizontal re-entry well royalty reduction terminates when the well qualifies as either a low-productivity well or becomes a reactivated well, unless the benefits under these regulations are revoked by the Department.

Application

To obtain the capped royalty for horizontal re-entry oil well production, a written application is to be submitted to the Mineral Revenues Division of the Department. Applications are accepted up to six months following the month in which the horizontal extension drilling was finished. The following supporting data are required:

- unique well identifier (13 digit) of the existing wellbore;
- a statement of the well event, pool name and ERCB-designated pool code from which the maintenance volume was produced;
- unique well identifier of the additional wellbore containing the completed horizontal extension, the pool name and ERCB-designated pool code of the pool or oil sands deposit accessed by the horizontal extension;
- a copy of the well license and any ERCB approvals;
- copies of directional and deviation surveys;
- a statement of the spud date of the existing wellbore;
- a statement of the commencement date of the continuous drilling operation that resulted in the horizontal extension;
- a statement of the finished drilling date of the wellbore containing the horizontal extension;
- a statement of the point where the wellbore containing the horizontal extension deviates from vertical by 80 degrees, the point where the horizontal extension commences in the producing pool or oil sands deposit, and the length of the horizontal extension;
- a statement specifying the 12 months used to determine the maintenance volume, the production hours and volume for each month and the proposed maintenance volume for the well;
- a statement of changes to the operating conditions and the configuration of the well that occurred within two years before the re-entry date; and
- for an injector well that is converted to a producing well by re-entry, a statement of the other well(s) where production was enhanced by the substances injected through the well. For each of the injection and enhanced wells, provide the same information as required for a producing well that is re-entered.

Notification

Upon assessment of an application, the Department will issue a notification of qualification confirming that the oil or oil sands from the horizontal extension is eligible oil from an eligible well. The effective date for the notification is the first day of the first month in which production is obtained from the horizontal well.

Factors Affecting Entitlement

In the following circumstances, a royalty reduction may be disallowed, revoked in whole or in part, or a maintenance volume increased:

- production from an eligible well that is receiving the royalty reduction has materially reduced the production from another well that is not eligible;
- facts affecting qualification for the royalty reduction are not disclosed; or
- production is materially curtailed during the 12 production months used to determine the well's maintenance volume.

Contacts

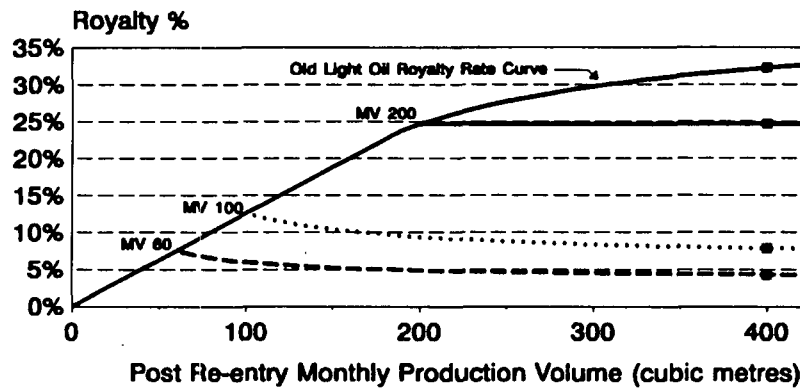
For further information, please contact:

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M. F. Kanik
Deputy Minister
Alberta Department of Energy

Horizontal Re-entry Well Royalty Reduction Old Light Oil



Reduced Royalty for Example Maintenance Volumes

- - - 60 ···· 100 ——— 200 cubic metres/month ■ Example Actual Prod.

Par Price = \$138/cubic metre
Royalty Factor k = 3

Select Price = \$25.17/cubic metre
Crown Interest = 100%

EXAMPLES

Maintenance Volume	C	60.0 m ³	100.0 m ³	200.0 m ³
Basic royalty "S" on Maintenance Volume		1.30670 m ³	3.62971 m ³	14.27308 m ³
Old Oil Royalty Multiplier		3.452826	3.452826	3.452826
Old Oil Royalty on Maintenance Volume	B	4.5 m ³	12.5 m ³	49.3 m ³
Actual Production for Month	A	400.0 m ³	400.0 m ³	400.0 m ³

Reduced Royalty calculation:

All Wells	Maintenance Royalty on A			
	greater of: A x (B/C) or A x 5%	30.0 m ³ 20.0 m ³	50.0 m ³ 20.0 m ³	98.6 m ³ 20.0 m ³
C ≤ 184 m ³	Maintenance Royalty on C	D	30.0 m ³	50.0 m ³
	C x (D/A) plus (A-C) x (D/A) x 0.5		4.5 m ³ 12.8 m ³	12.5 m ³ 18.8 m ³
	Reduced Royalty for month		17.3 m ³	31.3 m ³
	Conventional Old Oil Royalty		129.0 m ³	129.0 m ³
	Royalty Reduction		111.7 m ³	97.7 m ³
				98.6 m ³
				129.0 m ³
				30.4 m ³