

# **Ministry of Natural Gas Development**

## **Earning Wells – Guide to Geological Evaluation of Zones**

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The information in this guide is for your convenience and guidance and is not a replacement for the legislation or regulations. You can access the legislation and regulations online through [BC Laws](#).

## **Earning Wells – Guide to Geological Evaluation of Zones**

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To convert a drilling licence to a lease, a licensee must drill at least one well that is designated as an earning well by the Director of Petroleum Lands (Director). One of the requirements for designation is that, in the opinion of the Director, the well sufficiently evaluates a zone held under a drilling licence.

This guide explains the factors the Director considers in determining whether a well sufficiently evaluates a zone held under a drilling licence. It is important to read the [Guide to the Petroleum and Natural Gas Drilling Licence Regulation](#) for information on the other earning well criteria.

### **Sufficient Evaluation**

The drilling licence is a form of tenure designed for hydrocarbon exploration and delineation by drilling. Therefore, the requirement to evaluate zones is applied in a broad, exploratory sense. If an earning well drills into and finds significant or substantial new geological information about a zone, then that well is credited with evaluating that zone.

It is not necessary to completely penetrate a zone in order to evaluate it. For example, if a zone is drilled into and, through the recording of well logs, mud logs, chip samples and other well data, significant new information is obtained regarding the zone, then the zone is considered to be evaluated.

Examples of significant or substantial new geological information about a zone include the determination of the existence of a hydrocarbon-bearing reservoir, a wet reservoir, a tight reservoir, the definitive absence of a reservoir, or the sedimentary characterization of a zone in a new area.

The existing state of exploration of a zone is an important factor. If drilling takes place in a remote or wildcat exploratory area, or if little is known about the zone of interest, then smaller amounts of new information will be considered significant in the evaluation of the zone. Similarly, a zone known to have a great degree of local geological variability will require only a small amount of new significant drilling information in order to be considered evaluated. Conversely, a thick but geologically uniform zone will require a substantial penetration or the discovery of unusual new properties in order to be considered evaluated.

### **Re-drilled Wells**

As explained in the [Guide to the Petroleum and Natural Gas Drilling Licence Regulation](#), a well may be used as an earning well only once during the life of a drilling licence. However, a well

drilled on a former tenure that is no longer in effect may be re-entered and qualify as an earning well if it provides significant new geological information.

This may be accomplished either by drilling and evaluating zones not penetrated by the original well or by re-evaluating zones penetrated by the original well but with modern tools and techniques. For example, a re-entered well may be considered to sufficiently evaluate a zone upon the completion of a previously uncompleted interval in the well or the re-completion of one or more intervals in the well in a manner that provides new information about the zone.

## **Contact Information**

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