



Petroleum Division

PETROLEUM OR GEOTHERMAL ENERGY DISCOVERY

POLICY

TARGET GROUP

Petroleum Division staff and Industry

POLICY STATEMENT

This policy is for a petroleum and geothermal energy discovery under the *Petroleum and Geothermal Energy Resources Act 1967* (PGERA67) and the *Petroleum (Submerged Lands) Act 1982* (PSLA82). The aim is to clarify what constitutes a petroleum or geothermal energy discovery.

Section 44 and 48J of the PGERA67 and Section 34 and 38J of the PSLA82 require that a registered holder of an exploration permit or a drilling reservation (in accordance with sections 44 or 34) or a retention lease (in accordance with sections 48J or 38J), informs the Minister of a petroleum or geothermal energy discovery.

In addition, the Petroleum and Geothermal Energy Resources (Resource Management and Administration) Regulations 2015 and the Petroleum Submerged Lands (Resource Management and Administration) Regulations 2015 (herein referred to as RMAR 2015) 'Objects of regulation' [r. 3(b)(ii)] states that "the Minister is informed, in a timely and consistent manner of discovery of petroleum or geothermal energy resources". This means that Petroleum Division wants to be informed of all discoveries irrespective of title type.

Discovery of petroleum or geothermal energy means the initial recovery of any naturally occurring petroleum or geothermal energy in a petroleum or geothermal title. Recovery implies that resources or energy must be brought to the surface from a known depth and geologic formation, in sufficient quantities for laboratory analysis of the composition.

POLICY PRINCIPLES

Under the PGERA67 and the PSLA82, the Minister must be informed of the discovery within a period of 3 days after the date of the discovery, and be furnished with the particulars of the discovery in writing.

To ensure consistency and an understanding of the State's petroleum and geothermal energy resources, the particulars being reported to the Minister in the notification are defined in the guidelines to the RMAR 2015.

Particulars to be provided, as explained in the guidelines, will include the date of discovery, well name, title, graticular block location of the well (top and bottom if known), depth and thickness of discovery, how the discovery was made (e.g. logs and well test), and any physical and chemical properties of the petroleum or geothermal energy that are known [r. 34]. Notifications should be sent to petroleum.reports@dmp.wa.gov.au.

Part 4 of the PGER and PSL RMAR 2015, under r. 35, the Minister may request additional information to be provided in the discovery assessment report within 7 days of receiving the particulars of the discovery from the registered holder. Under r. 36 the registered holder must provide a discovery assessment report. This report must be provided to the Minister under r. 36(2) within 90 days after the date of the discovery or if the Minister authorises, within another period.

The Petroleum Division's definition of a discovery is consistent with Geoscience Australia's classification of hydrocarbon shows, at level 3 and above for hydrocarbon shows (Table 1).

Note that a discovery may be ascertained from a drill stem test (DST), well test or from other recovery methods, such as a repeat formation tester (RFT) or modular formation dynamics tester (MDT).

Table 1. Excerpt from Geoscience Australia's classification of hydrocarbon shows

SHOW NAME	SHOW CODE	DESCRIPTION
Condensate recovery	C3	Discrete recovery of clean condensate
Condensate flow	C5	Measured flow rate of clean condensate
Gas recovery	G3	Discrete recovery of gas
Solution gas from oil	G3	Discrete recovery of solution gas from oil
Proven gas zone	G4	Gas zone with water saturation less than approximately 80% with supporting results from well testing
Solution gas flow from oil	G5	Measured flow rate of solution gas from oil
Gas flow	G5	Measured flow rate of gas
Oil recovery	L3	Discrete recovery of clean oil
Proven oil zone	L4	Oil zone with water saturation less than approximately 80% with supporting results from well testing
Oil flow	L5	Measured flow rate of clean oil

Bleeding gas or residual oil from cuttings, core or sidewall core, minor or moderate fluorescence, oil or gas in mudlogs, and trip gas or connection gas are examples of hydrocarbon shows that are not discoveries. Evidence from logs without recovery is insufficient.

A geothermal energy discovery is defined in terms of temperature, thermal energy (in units of Peta Joules), geologic formation and depth of formation. Discovery assessment reports should be prepared in accordance with the Australian Code for Reporting of Exploration Results, Geothermal Resources and Geothermal Reserves (see Supporting Information).

The assessment team review notifications of discoveries, which are submitted via email to: petroleum.reports@dmp.wa.gov.au. The team will also review the discovery assessment reports submitted by the title holder.

REFERENCE LINKS

Links to legislation:-

- [Petroleum and Geothermal Energy Resources Act 1967](#) (Section 44, 48J).
- [Petroleum \(Submerged Lands\) Act 1982](#) (Section 34, 38J)
- [Petroleum and Geothermal Energy Resources \(Resource Management and Administration\) Regulations 2015](#)

SUPPORTING INFORMATION

This policy has associated supporting information, as shown in the following links:-

- http://dbforms.ga.gov.au/www/npm.well.show_shows
Geoscience Australia Classification scheme for hydrocarbon shows
- [Guidelines for the RMAR 2015](#)
- [The Geothermal Reporting Code 2010](#)
- [Geothermal Lexicon For Resources and Reserves Definition and Reporting](#)

DEFINITIONS

For the purposes of this document:-

“petroleum title” means a petroleum exploration permit, petroleum drilling reservation, petroleum retention lease, petroleum production licence, petroleum special prospecting authority or petroleum access authority.

“geothermal title” means a geothermal exploration permit, geothermal drilling reservation, geothermal retention lease, geothermal production licence, geothermal special prospecting authority or geothermal access authority.

“discrete recovery” means resources or energy must be brought to the surface from a known depth and geologic formation, in sufficient quantities for laboratory analysis of the composition.