

Otway Offshore Project

Seabed Assessment T/30P



Otway Gas Plant

Project update | January 2020

Project overview

Beach Energy is planning further development of the Otway offshore natural gas reserves within existing Commonwealth offshore exploration permits and production licenses in Commonwealth waters 32 to 80km from Port Campbell.

Activities include:

- Seabed assessments to determine the suitability of the seabed for the drilling operations and installation of infrastructure to connect new production wells to the existing platform or pipeline
- Drilling of offshore exploration and production wells, up to 9 in total
- Inspections and modifications to existing seabed infrastructure to prepare for the new activities

- Tie-ins to connect new production wells to the existing platform and pipeline
- Plugging and discontinuing of one or more wells in the Geographe and Thylacine fields

For more information on the Otway Offshore Project, including seabed assessments in other locations and drilling activity, please visit www.beachenergy.com.au/vic-otway-basin/

In addition to the seabed assessments for the Otway Offshore Project, which commenced in October 2019, Beach is also planning a seabed assessment within its T/30P permit.

The objective of the T/30P seabed assessment is to determine a suitable location for anchoring and rig placement for drilling operations within the permit.

Location

The seabed assessment will be undertaken over a portion of the Beach T/30P permit and outside of the permit area, located in Commonwealth waters approximately 75 km from Port Campbell. The map over the page shows the seabed assessment and operational area. The seabed assessment area refers to the area where the data acquisition will occur and is the focus of geotechnical and geophysical investigations. The operational area refers to a broader area around the seabed assessment area which allows for vessel turning and ancillary operations.

The seabed assessment area covers a distance of 6 km x 6 km and sits within the larger operational area which covers a distance of 10 km x 10 km. The coordinates of the operational area are provided in the table below.

Longitude	Latitude
142°41'30.1"E	39°19'55.2"S
142°47'40.9"E	39°17'26.2"S
142°50'53.0"E	39°22'14.1"S
142°44'41.9"E	39°24'43.3"S

Timing

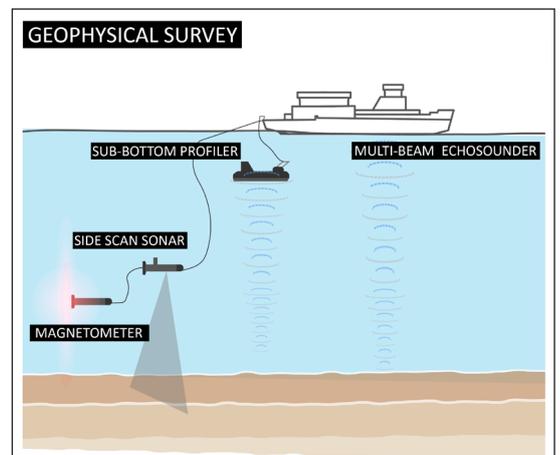
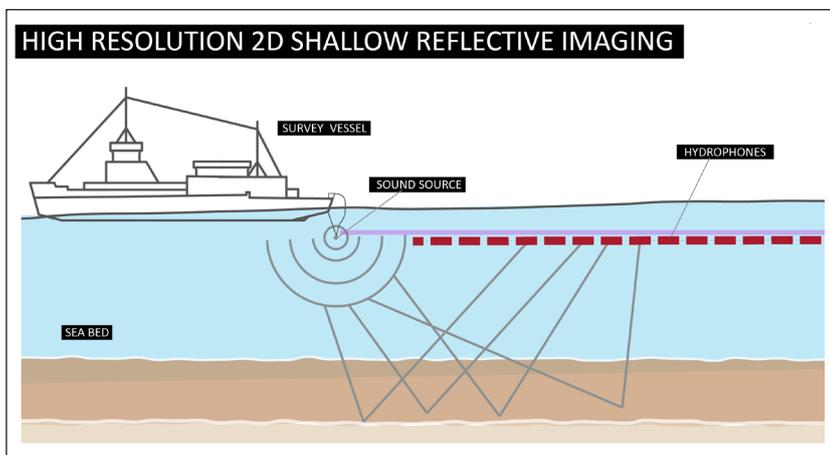
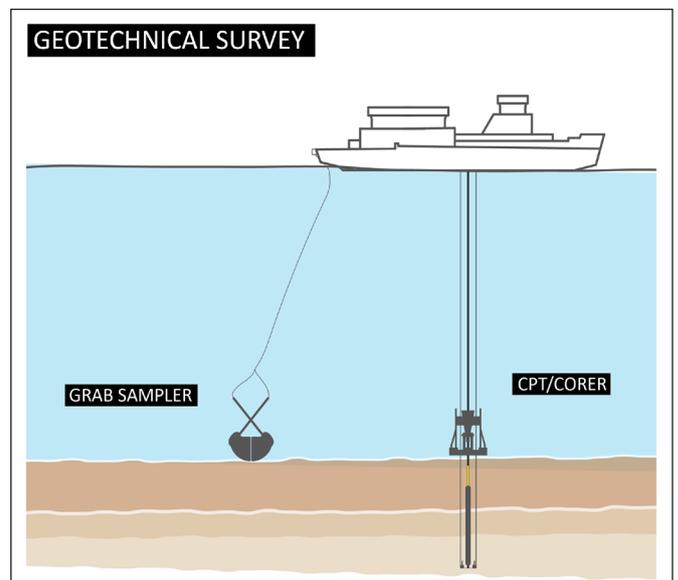
The seabed assessment will take approximately 4 weeks and will be undertaken between 1 April 2020 and 31 December 2021.

Activities

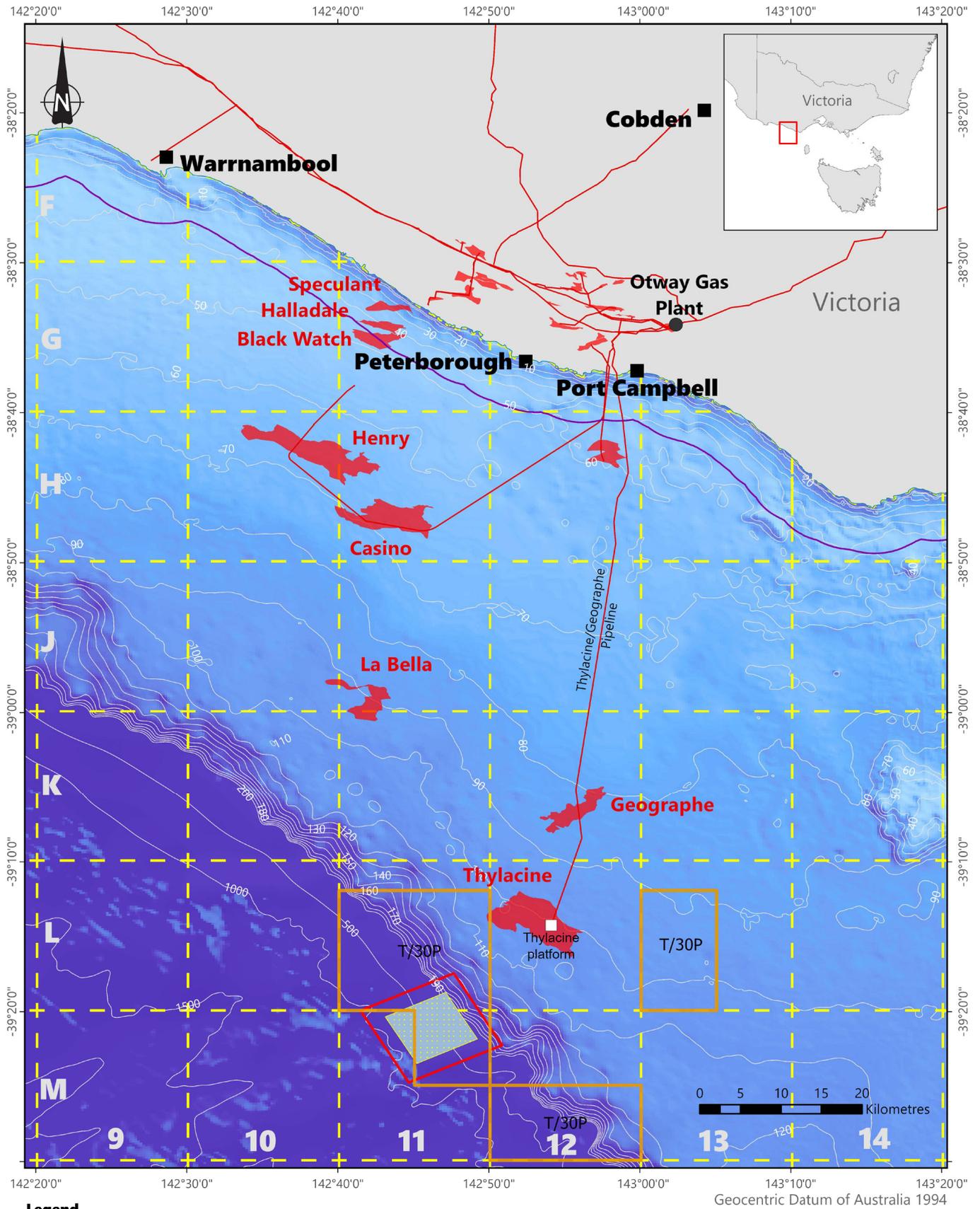
The seabed assessment activities will involve geotechnical and geophysical investigations from a survey vessel as follows:

- Geophysical survey program consisting of multibeam echosounder, side-scan sonar, sub-bottom profiler, magnetometer and 2D high-resolution reflective imaging
- Geotechnical survey program consisting of coring, cone penetration testing (CPT) and sample of seabed sediments using a grab sampler

The diagrams below show a common setup for seabed assessments.



T/30P Seabed Assessment Location



Legend

- Thylacine platform
- Gas field
- T/30P permit
- Operational area
- Victorian Fishing Graticular Blocks
- Coastal waters (3nm limit)
- Seabed assessment area



Questions and Answers

Why are you undertaking this seabed assessment?

Beach holds the T/30P exploration permit and is required to complete exploration activities within timeframes set by the Commonwealth National Offshore Permit Titles Administrator (NOPTA). The seabed assessment is required to determine a suitable location for anchoring and rig placement for future drilling operations.

What approvals are required before you can commence the seabed assessment?

An Environment Plan is required to be submitted to the NOPSEMA for approval under the Commonwealth Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (the Regulations).

The contents of an Environment Plan are set out in the Regulations and must include a description of the existing environment and the proposed activity, an evaluation of the impacts and risks associated with the activities, environmental performance outcomes and standards, implementation strategy, and reporting requirements.

As the seabed assessment activities include a seismic component, on submission of the Environment Plan to NOPSEMA it will be made available for a public comment period of 30 days. If you would like to be notified of when this public comment period commences you can register your interest on the NOPSEMA website: info.nopsema.gov.au/home/open_for_comment

Why is a seismic survey required?

2D high-resolution reflective imaging which uses a small sound source and streamer, will be undertaken to identify if there is any shallow gas present. If confirmed, this data will enable planning of the appropriate drilling technology to manage that scenario safely. The 2D survey will take up to 7 days and consist of one 160 cubic inch sound source and one 1.2 km streamer towed by a vessel. See figure on page 2 for set-up.

Will the activities affect rock lobsters and scallops?

Sound from the seabed assessment equipment will be a significantly lower intensity than seismic surveys. Modelling identified that sound levels will not reach the impact level at the seafloor, referred to in the Day et

al Report¹ and therefore impacts to scallops and rock lobsters are not predicted.

Will the seabed assessment impact upon commercial fishing?

The seabed assessment area is located within existing designated Commonwealth and State fisheries. Engagement with fisheries has identified a low level of activity in the area. Each fishery covers a vast area, whereas the seabed assessment will only require access to a relatively small area of 10 km x 10 km for a period of up to 4 weeks.

Beach is committed to minimising the impact of its activities and will consult with commercial fishers on arrangements to ensure each other's operational plans are understood, helping to minimise any impacts to fishing activities.

How will you reduce the risk of collision with other vessels?

The survey vessel will operate in accordance with Australian Maritime Standards and ensure safe operations by:

- Having operational and navigation lighting
- Maintaining a 24-hour visual, radio and radar watch for other vessels
- Pre-survey start notifications
- Daily radio message of vessel location

Will an exclusion zone exist?

Exclusion zones will not be in place during the seabed assessment and normal navigational requirements will be required. When undertaking the 2D high-resolution reflective imaging component the vessel will be towing a 1.2 km streamer and thus will have limited manoeuvrability.

To avoid entanglement and safety risks, fishing nets, lines or pots should not be placed in the seabed assessment area for the period of the seabed assessment.

Should the drilling of a well in the T/30P permit area prove successful, Beach may apply to NOPSEMA for a Petroleum Safety Zone (PSZ) to protect any well infrastructure on the seabed. Further consultation on the PSZ will be undertaken closer to the time.

¹ Day, R.D., McCauley, R.M., Fitzgibbon, Q.P., Hartmann, K., Semmens, J.M., Institute for Marine and Antarctic Studies, 2016, Assessing the impact of marine seismic surveys on southeast Australian scallop and lobster fisheries, University of Tasmania, Hobart, October. CC BY 3.0.

Will the activities affect whales and dolphins?

Based on the noise modelling any impact to whales and dolphins will be low and temporary based on the short duration of the seabed assessment. The Environmental Protection and Biodiversity Conservation (EPBC) Act Policy Statement 2.1 - Interaction Between Offshore Seismic Exploration and Whales: Industry Guidelines will be implemented when the geophysical survey is undertaken to manage any impacts to whales that may be in the area during the seabed assessment. At other times, avoidance of whales and dolphins will be undertaken in accordance with the EPBC Regulations (2000) including adherence to distance and speed requirements.

When will drilling occur?

Beach is planning to have drilled the exploration well by early-mid 2021. Beach is required to prepare a drilling Environment Plan and safety case for submission and acceptance by NOPSEMA. Stakeholders will be consulted as part of the development of the environment plan which will be available on the NOPSEMA website for a public comment period of 30 days.

Why are Beach able to conduct seabed assessments outside of the T/30P permit area?

Beach will apply to NOPTA for an access authority to conduct the seabed assessment outside Beach's permit. Beach require this additional data to provide full understanding of the subsurface detail which ensures the safety and positioning of the drill rig.

Consultation

Beach values stakeholder consultation and feedback. The purpose of consultation is to understand how different stakeholders' functions, interests and activities may be affected by the seabed assessments, drilling program and associated activities.

Beach will consider all feedback, including any concerns and objections. Measures will be explored to reduce any impacts and risks, and responses will be provided to stakeholders. All stakeholder feedback, records of consultation, copies of correspondence, including emails will be considered alongside technical and environmental assessments as the Environment Plans are prepared for submission, and will be communicated to NOPSEMA as required by legislation.



The Fugro Equinox survey vessel. A similar vessel will be used in Beach Energy's offshore T/30P seabed assessment in the Otway.

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About Beach

Beach Energy is an ASX listed oil and gas, exploration and production company headquartered in Adelaide. It has operated and non-operated, onshore and offshore, oil and gas production from five production basins across Australia and New Zealand and is a key supplier to the Australian east coast gas market.

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