# Trefoil Project

## Seabed Assessment


Yolla Platform, Bass Strait

Project Update | October 2021

## Project overview

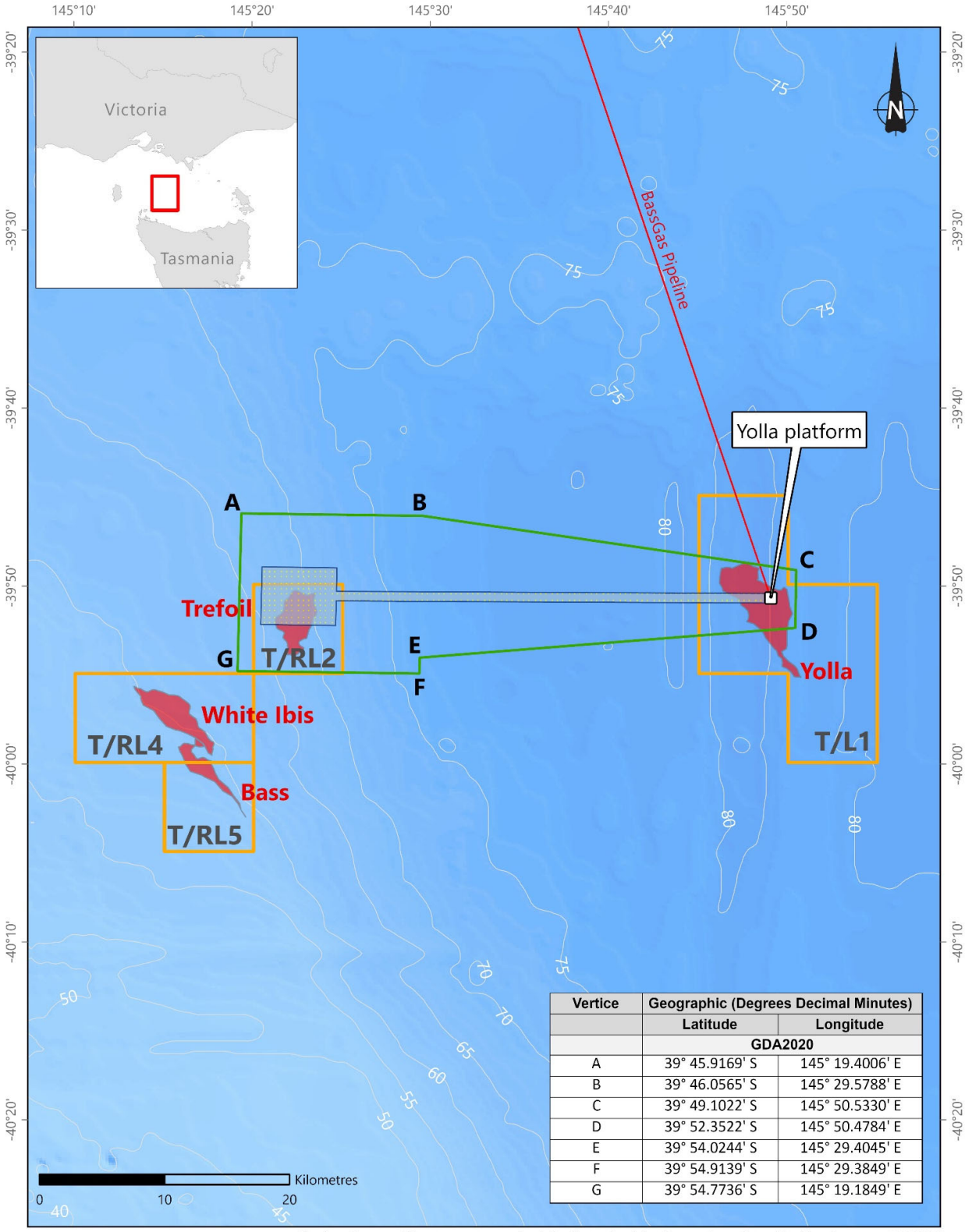
### Beach Energy is planning further development of existing natural gas reserves in Bass Strait within Commonwealth offshore exploration permits and production licenses.

Beach currently extracts natural gas from the Yolla field via wells on the Yolla offshore platform in Bass Strait. Raw gas is transported to shore via a 147 km subsea pipeline and 32 km gas buried pipeline to the Lang Lang Gas Plant in Victoria. There, it is processed into natural gas and LPG for supply to the east coast Australian gas market.

To ensure ongoing supply of domestic gas, Beach is proposing to undertake further development of its existing gas fields in Commonwealth retention licences T/RL2, T/RL4, T/RL5 (see map).

**Summary of Activities**

- Seabed assessments to determine suitable seabed locations for drilling operations and installation of infrastructure to connect new production wells to the existing Yolla platform. Part of this activity was completed in June 2020 and the remaining activities are expected to be completed before 31 December 2023. This information sheet focusses on the seabed assessments.
- Three-dimensional marine seismic survey (Prion Survey) to enable completion of assessments of natural gas reservoirs. This activity is expected to occur between November and December 2021.
- Drilling of offshore production wells and installation of infrastructure to tie-in the new wells to the existing Yolla platform. This activity is currently undergoing assessment.




| Vertice | Geographic (Degrees Decimal Minutes) | |
|---|---|---|
| | Latitude | Longitude |
| | GDA2020 | |
| A | 39° 45.9169' S | 145° 19.4006' E |
| B | 39° 46.0565' S | 145° 29.5788' E |
| C | 39° 49.1022' S | 145° 50.5330' E |
| D | 39° 52.3522' S | 145° 50.4784' E |
| E | 39° 54.0244' S | 145° 29.4045' E |
| F | 39° 54.9139' S | 145° 29.3849' E |
| G | 39° 54.7736' S | 145° 19.1849' E |

The locations on this map are accurate at the time of publication and may be subject to change. GDA2020

**Legend**

- Yolla platform
- Gas pipeline
- Gas field
- Beach operated permits
- Trefoil seabed assesment area
- Trefoil seabed assessment operational area
- **A-G** Coordinate reference locations

16/11/2021

BG21-0016I-R1

## Locations

The seabed assessment involves two different activities; geotechnical and geophysical. They will take place in Commonwealth waters approximately 90 km from the Victorian and Tasmanian coastlines.

The assessments will cover a 6 km x 6 km area over the Trefoil permit and a 40 km x 1 km corridor between the Trefoil permit and the Yolla platform. Coordinates of the seabed assessment area are provided in the map above.

## Timing

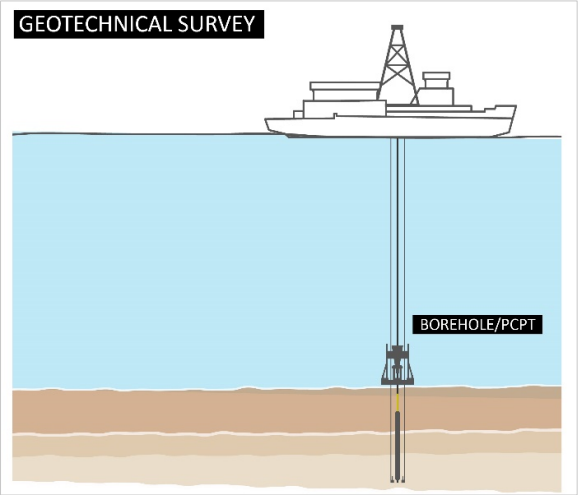
The geotechnical activities will take up to 30 days, subject to weather conditions, and be completed before 31 December 2023. The start date has not yet been finalised and relevant stakeholders will be notified at least 2 weeks in advance.

The geophysical activities took approximately 25 days and were completed in June 2020.

## Geotechnical activity description

The geotechnical activities will be undertaken by a vessel with specialised equipment to carry out the following activities:

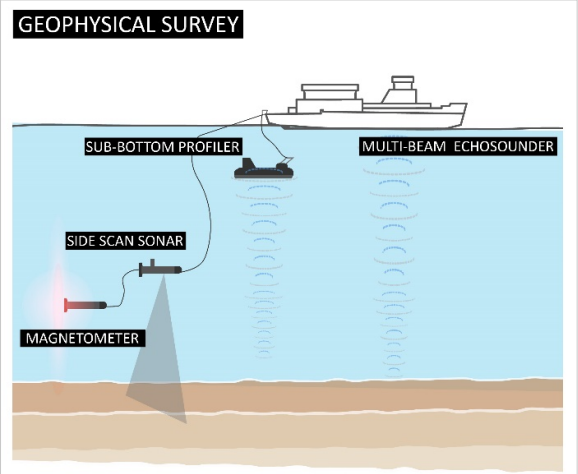
- Obtaining core samples for geological analysis of formations below the seabed, from boreholes up to 150m deep, drilled using seawater or or bentonite
- Determining soil strenth and delineating soil stratigraphy using Piezo Cone Penetration Test (PCPT) to a maximum of 60 m depth
- Collecting core samples to a depth of 6  m for geological ananysis
- Collecting small samples of surface sediments from the seafloor
- Using drop and tow cameras to visually observe the physical and biological environment.




## Geophysical activity description (completed)

Activities and equipment included:

- Echo sounder for measuring water depths
- Multibeam echosounder for bathymetry mapping
- Side-scan sonar for identifying seabed features
- Magnetometer to detect metallic objects on or below the seabed
- Velocity profiler to determine speed of sound in water
- Sub-bottom profiler (SBP) to identify shallow formation structures below seafloor.



## Marine Environment

Beach recognises the environmental, heritage, social and economic value in the areas in which we operate. The environment within the project area is characterised by:

- Water depths ranging from 64 to 82 metres
- Seabed consisting of sparsely scattered clumps of solitary sponges, sea cucumbers, sea squirts and snails.

A variety of marine fauna occur in the project area including the potential presence of:

- Blue, humpback and fin whales, particularly during the summer months
- Southern right and minke whales, particularly during the winter months
- Common dolphin and shark species throughout the year
- New Zealand and Australian fur seals throughout the year
- Loggerhead, green and leatherback turtles throughout the year.

Economic value within the project area include:

- Commercial fishing activity
- Commercial shipping activity.

No social or heritage values were identified in the project area including State or Australian Marine Parks.

## Maritime safety

At Beach, safety is our number one priority. The marine vessels contracted by Beach will operate in accordance with Australian Maritime Standards, regulated by the Australian Maritime Safety Authority (AMSA). Notices to Mariners (NTM) will be issued by the Australian Hydrographic Office requesting that vessels do not approach closer than 2 nautical miles of the assessment vessel.

## Regulatory approvals – Seabed assessments

Activities are regulated under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGS Act) which requires an Environment Plan for each activity type. Environment Plans are assessed by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) who regulates activities under the OPGGS Act. The Environment Plan for the Trefoil Seabed Assessments was accepted by NOPSEMA and can be viewed by clicking on this link.

Beach will resubmit the accepted Environment Plan to NOPSEMA to enable the project date to be extended up to 31 December 2023.

## Further regulatory approvals

For further development of the Trefoil gas field, including drilling production wells, installing seabed insfrastructure to tie the wells back to the Yolla platform, Beach will be submitting an Offshore Project Proposal (OPP) to NOPSEMA.

Development of an OPP requires Beach to identify impacts and risks of the activities conducted over the life of the project and to demonstrate to NOPSEMA that the impacts and risks will be managed to acceptable levels. The OPP process involves a completeness assessment by NOPSEMA, followed by a public comment period, before final acceptance of the OPP by NOPSEMA.

Following OPP acceptance, Beach would then develop Environment Plans for specific activities which will be submitted to NOPSEMA for assessment before each activity can commence.

## Consultation and feedback

Beach values stakeholder consultation and feedback. The prupose of consutation is to understand how different stakeholders' functions, interests and activities may be affected by the seabed assessments, drilling program and development activities. Beach will consider feedback and concerns in relation to its activies. Measures will be explored to reduce impacts and risks of the activities, and responses will be provided to stakeholders. All stakeholder correspondence will be communicated to NOPSEMA as required by regulations.

# Questions and Answers

### Why are seabed assessments needed?

The seabed assessments are required to obtain detailed information on the bathymetry, seabed features and shallow geology at potential well locations, as well as between the well locations and the Yolla platform. This information will be used to determine future drilling and infrastructure opportunities for the Bass Development.

### What will happen to any discharges from the borehole drilling?

Seawater and/or bentonite will be used to lubricate the drill bit and stabilise the borehole, as well as remove seabed material produced through drilling, called cuttings. As the fluids and cuttings come out of the borehole they will be deposited onto the seabed. Bentonite is an inert material that is classed as posing little or no risk to the environment.

### Will the site assessments 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 assessments will only require access to a relatively small area for a very short period of time.

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.

### Will an exclusion zone exist?

Exclusion zones will not be in place during the seabed assessment and normal navigational requirements will be followed.

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

### Will the activities affect whales?

Based on the low intensity sound generated from the equipment, any impact to whales will be low and temporary based on the short duration of the activities. Shutdown and exclusion zones will be used to manage any impacts to whales that may be in the area during the seabed assessment. Avoidance of whales and dolphins will be undertaken in accordance with the EPBC Regulations (2000) including adherence to distance and speed requirements.

## We welcome your questions and feedback

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