



About Vermilion Energy

Vermilion Energy is an international energy producer with a 30-year track record. It has operations in North America, Europe and Australia.

Vermilion Oil and Gas Australia (Vermilion) is a subsidiary of Vermilion Energy and has operated in Australia for over 20 years. Our Australian operations focus on exploring for and developing oil at the Wandoo Field off the shore of Western Australia.

About Wandoo Field

The Wandoo Field was discovered in 1991 and the extraction of oil started in 1993. Vermilion has been the operator since November 2005 and the sole titleholder since 2007.

The Wandoo Field is located in Commonwealth waters within the Carnarvon Basin, approximately 80km northwest of the port of Dampier and 110km northeast of Barrow Island (Figure 1). It operates at a water depth in the range from 50m-60m.

The Wandoo Facility operates under existing accepted Environmental Plans in place for production and well construction.

Operational Areas

Operational Areas have been defined as a subset of WA-14-L, to encompass the exploration prospects. Co-ordinates of the exploration prospects are listed in Table 2, with Operational Areas of a 4 x 4km square centred around these geographical co-ordinates (see Figure 2).

Activity overview

Vermilion currently operates the Wandoo Facility within the production licence area WA-14-L. Vermilion has performed seven drilling campaigns over the life of the field and plan to drill one near-field exploration well in late 2025. Pending the results, Vermilion may drill up to four subsequent near-field exploration wells over the next five years within WA-14-L, as per the Wandoo Field Exploration Drilling Environment Plan (EP).

The activity duration is expected to be between approximately 15 to 20 days of continuous drilling operations for each well drilled. The expected duration is a forecast and is subject to change based on Mobile Offshore Drilling Unit (MODU) availability or adverse weather conditions. A summary of the activity is provided in Table 1.

Communications with mariners

A temporary 500m safety exclusion zone will apply around the drilling rig. Commercial fishers and other marine users are permitted to use the Operational Areas but should take care around the operations by adhering to standard navigation rules and remain clear of the safety exclusion zone.

Marine notices will be issued prior to activity commencement to alert vessels which may be operating in waters nearby.

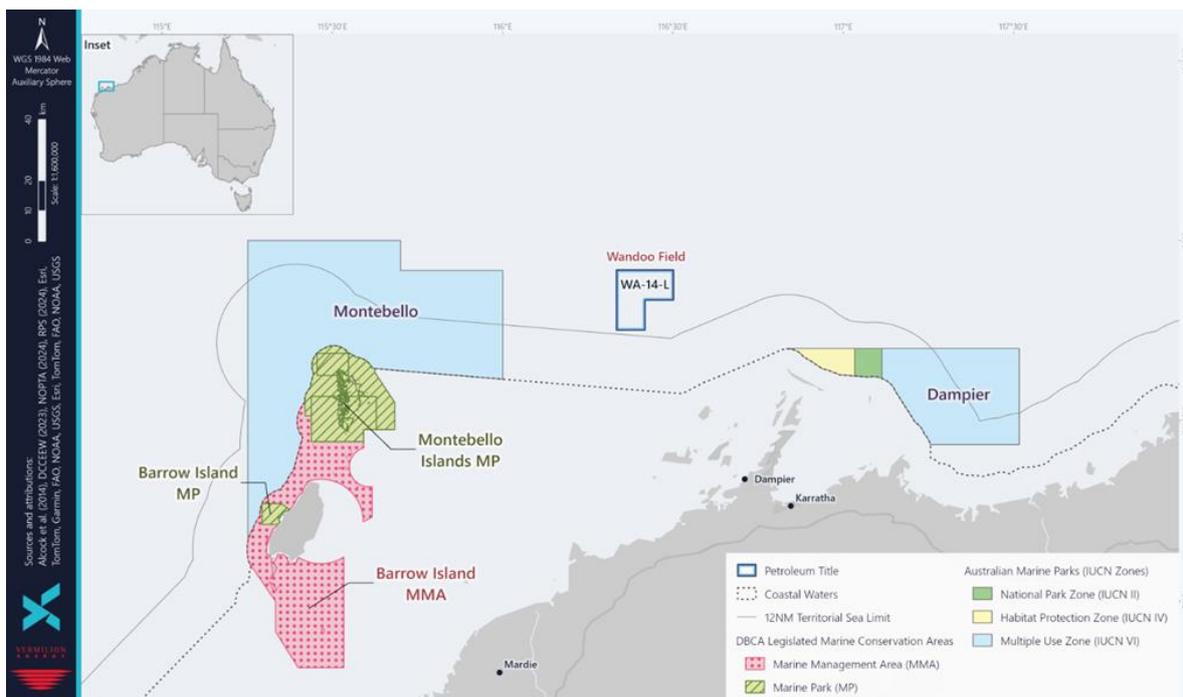


Figure 1. Location of the Wandoo Field



Activity summary

Table 1. Activity summary

Production licence area	WA-14-L
Approximate duration and timing of activities	<ul style="list-style-type: none"> • 15-20 days (per well/campaign). • The first well is proposed to be drilled in Q4 2025 – Q1/Q2 2026, pending regulatory approval and rig availability. • The timing of subsequent activities has not been finalised. The Wandoo Field Exploration Drilling EP assumes the activities may be undertaken at any time of year over the five year period following acceptance of the EP.
Approximate water depth	50–60m
Key activities	<p>The approach to exploration drilling is summarised in the following key steps:</p> <ul style="list-style-type: none"> • Using an approved transit route specialist anchor handling vessels will manoeuvre the drilling rig into place. • The drilling rig will be positioned at sites determined as suitable by the seabed assessments. • Surface hole section will be drilled and cased, and then a riser and Blow-out Preventer (BOP) to prevent release of hydrocarbons installed. • The well would then be drilled to reach the reservoir. • Once the exploration wells have been drilled and evaluated, they will be Plugged and Abandoned (P&A) so hydrocarbons cannot be released, and all equipment removed from the seabed.
Vessels	<ul style="list-style-type: none"> • One jack-up MODU (drilling rig). • One to four support vessels (typically two for drilling rig support) will be involved in the activity. • Vessel details are not known at this time.
Remotely operated vehicle (ROV)	A light work-class ROV will be available on location to be used to support drilling rig operations. ROV activities may include survey and monitoring operations.
Helicopters	Helicopters will be used for crew changes, critical equipment supply, surveillance and emergency response uses.
Drilling muds and cuttings	<p>Vermilion drilling operations will use only water-based fluids called ‘muds’ to lubricate and stabilise the wellbores in each section and remove drilling cuttings. Drill cuttings are rock chips from the sedimentary layers that emerge from the drilling process and range from very fine to pebble sized.</p> <p>Water-based muds are recycled as much as possible during the drilling process. The cuttings will be processed on the drilling rig before they are discharged overboard, where they will settle rapidly on the seafloor around the well site. This is standard industry practice in Australia.</p> <p>Marine mammals and fish may transit through these areas but will usually avoid the temporary disturbance. Any exposure to suspended sediment before it settles on the seabed will be highly localised and temporary due to high dilution and fast dispersal in the water column.</p>
Operational area and exclusion zones	A temporary 500m safety exclusion zone will be in place around the drilling rig to manage vessel movements. No restrictions to other vessels within the Operational Area apart from being advised to take care during the drilling activities.
Description of the environment	<p>The Operational Area is located within the Northwest Shelf provincial bioregion (based on the Integrated Marine and Coastal Regionalisation). Proximity to key features include:</p> <p><i>Aboriginal cultural heritage</i></p> <ul style="list-style-type: none"> • There are no registered Aboriginal cultural heritage sites within the Operational Area. <p><i>Biologically important areas (BIAs)</i></p> <p>The following BIAs intersect the Operational Area:</p> <ul style="list-style-type: none"> • Wedge-tailed shearwater – Reproduction • Humpback whale – Migration • Flatback turtle – Reproduction • Whale shark – Foraging



Heritage

There are no World Heritage or National Heritage Properties within the Operational Area. The nearest heritage properties are:

- Ningaloo Coast (World Heritage) -250km from the Operational Area
- Dampier Archipelago (National Heritage) -35km from the Operational Area

Commercial fishing

The following Commonwealth managed fisheries have a defined management area that overlaps the Operational Area:

- Southern Bluefin Tuna Fishery
- Western Skipjack Tuna Fishery
- Western Tuna and Billfish Fishery

The following State-managed fisheries have a defined management area that overlaps the Operational Area:

- Abalone Managed Fishery
- Hermit Crab Fishery
- Mackerel Managed Fishery
- Marine Aquarium Managed Fishery
- Nickol Bay Prawn Fishery
- Onslow Prawn Limited Entry Fishery
- Pilbara Crab Managed Fishery
- Pilbara Line Fishery
- Pilbara Fish Trawl Interim Managed Fishery
- Pilbara Trap Managed Fishery
- South-west Coast Salmon Fishery
- Specimen Shell Managed Fishery
- West Coast Deep Sea Crustacean Managed Fishery
- Western Australian Sea Cucumber Fishery

Key ecological features (KEFs)

There are no KEFs within the Operational Area. The nearest KEFs are:

- Glomar Shoals -40km to the north-north-east of the Operational Area.
- Ancient coastline at 125m depth contour -56km to the north of the Operational Area.
- Continental Slope Demersal Fish Communities -118km north-west of the Operational Area.

Oil and gas operations

Petroleum activities within the vicinity of the Operational Area:

- Reindeer platform -14km from the Operational Area
- Stag platform -13km from the Operational Area
- Scarborough export pipeline -3km from the Operational Area
- TL1 and TL2 export pipelines -500m and -18km from the Operational Area

Shipping

- The Operational Area is approximately 31km from the northbound shipping fairway from Dampier.

Protected areas

No Australian Marine Parks (AMPs) are within the Operational Area. The nearest AMPs are:

- Montebello AMP -37km to the west of the Operational Area
- Dampier AMP -47km to the south-east of the Operational Area
- Montebello Islands Marine Part (State) -75km to the west-south-west of the Operational Area
- Barrow Island Marine Management Area (State) -89km to the west-south-west of the Operational Area

Tourism, towns and communities

- The town of Dampier is located 80km south-south-east of the Operational Area.



Table 2. Prospect locations

Prospect names	Latitude	Longitude
Mottlecah	20° 8' 32.7" S	116° 23' 7.4" E
Jinjulu	20° 10' 44.6" S	116° 21' 21.4" E
Kullingal	20° 10' 16.2" S	116° 23' 3.2" E
North of Wandoo 1	20° 6' 5.2" S	116° 25' 0.6" E
North of Wandoo 2	20° 5' 16.2" S	116° 25' 46.6" E
North Jurassic	20° 5' 57.5" S	116° 23' 53.2" E
North West Jurassic	20° 5' 57.9" S	116° 21' 26.5" E

Environment that may be affected

The environment that may be affected (EMBA) is a mathematically modelled area of the largest possible spatial extent where the activities could potentially have an environmental consequence. The broadest extent of the model takes into consideration planned and unplanned activities.

For the Wandoo Field Exploration Drilling EP, the EMBA has been developed combining numerous modelling outputs, based on a release of hydrocarbons to the environment from a loss of well containment. This scenario is extremely unlikely to occur. The EMBA is shown in **Figure 2**.

The EMBA does not represent the extent of the predicted impact of a release of hydrocarbons. Rather, the EMBA represents the merged area of many possible paths that a hydrocarbon release could travel, depending on factors including the weather and ocean conditions at the time of the release.

This means that in the unlikely event that a hydrocarbon release does occur, the whole EMBA will not be affected. Only a minimal, specific part of the EMBA will be affected and that portion would only be known at the time of the release.

Assessment

Vermilion has undertaken an assessment of the potential impacts and risks to the environment as well as potential risks to relevant persons arising from the planned activities and unplanned events. This assessment considers the timing, duration and location of the activities. A number of mitigation and management measures will be implemented and are summarised in **Table 3**. Further details will be provided in the Wandoo Field Exploration Drilling EP.

In preparing the EP, Vermilion’s intent is to minimise environmental, social and cultural risks and impacts associated with the proposed activities, and Vermilion seeks your feedback to inform our decision making.

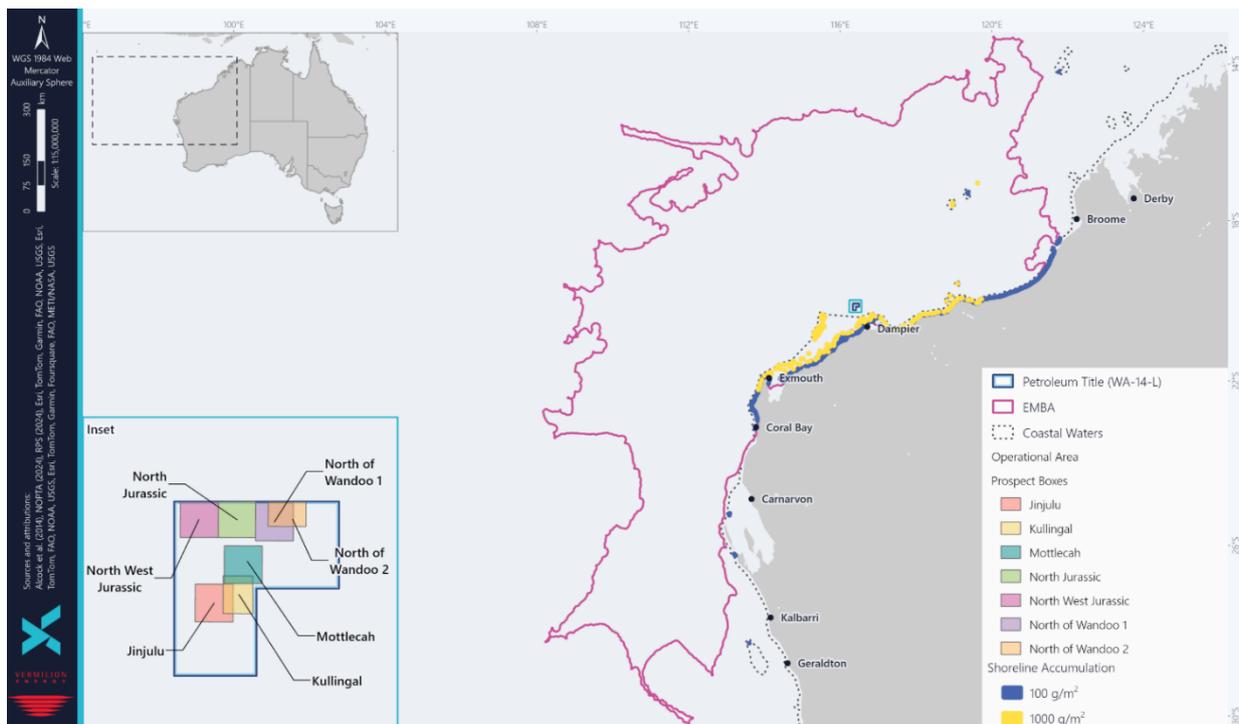


Figure 2. Environment that may be affected



Mitigation and management measures

Vermilion has undertaken an assessment to identify potential impacts and risks to the environment arising from the activity. A number of mitigation and management measures for the activity are outlined in **Table 3**. Further details will be provided in the Wandoo Field Exploration Drilling EP.

Table 3. Summary of key risks and/or impacts and preliminary management measures for the activity

Potential impact/risk	Source of potential impact/risk	Description of potential impact/risk	Preliminary draft mitigation and/or management measure
Planned activities (routine and non-routine)			
Physical presence: interaction with other marine users	Drilling rig and support vessels	Potential displacement of commercial fishing activities and commercial shipping vessels.	Drilling rig and vessel communication equipment will be maintained to allow for communication with commercial and recreational vessels. The Australian Hydrographic Office (AHO) and Australian Maritime Safety Authority (AMSA) will be notified prior to activities so appropriate marine notices can be issued. The drilling rig will have a restricted zone of 500m.
Physical presence: disturbance to seabed	Drilling rig, support vessels and ROV	Localised increase in turbidity. Potential impacts to benthic habitat and communities.	A Rig Move Plan will be prepared in accordance with the drilling contractor's Marine Operations Manual.
Routine acoustic emissions: generation of noise	Drilling rig, support vessels and Helicopters Vertical seismic profiling	Potential temporary or permanent injury or behavioural change in marine fauna.	Drilling rig and vessel engines and power equipment will be maintained to optimise smooth running. Vessels operating in the Operational Areas must adhere to Part 8 of Environment Protection and Biodiversity Conservation (EPBC) Regulation 2000 to minimise exposure of marine fauna to noise impacts.
Routine and non-routine discharges	Drilling rig and support vessels	Potential localised eutrophication of the water column and localised adverse effect to marine species.	Discharges such as deck drainage, bilge, garbage, food waste and sewage will be treated in accordance with: <ul style="list-style-type: none"> • MARPOL 73/78 Annex I and AMSA Marine Order 91. • MARPOL 73/78 Annex V. • MARPOL 73/78 Annex IV and AMSA Marine Order 96. • AMSA Marine Order 95.
Routine light emissions	Drilling rig, support vessels and ROV	Potential interference with or disturbance of marine fauna.	No controls identified as vessel lighting is specified for safe working practices.
Routine and non-routine discharges of drill cuttings and drilling fluids and cement	Drilling rig and plug and abandon activities	Potential toxic effects to marine species, localised reduction in water quality.	Drilling fluids and cement components will be selected using the chemical assessment process. Drilling fluids will be processed using a solids control system to enable reuse of fluids and minimise the volume of fluids being discharged. Only water-based drilling muds will be used.
Routine and non-routine atmospheric and greenhouse gas emissions	Drilling rig and support vessels	Potential temporary decrease in local air quality.	The drilling rig and vessels, and fuels used will comply with Regulation 14 of MARPOL 73/78 Annex IV and AMSA Marine Order 97. Power generation systems, ancillary diesel engines and refrigeration systems will be maintained via preventative maintenance systems.



Unplanned events (accidents/incidents)			
Introduction and establishment of invasive marine species	Drilling rig and support vessels	Potential reduction in native species abundance due to competition or predation.	Drilling rig and vessels will comply with: <ul style="list-style-type: none"> Australian Ballast Water Management Requirements consistent with the International Convention for the Control and Management of Ships' Ballast Water and Sediments (Ballast Water Management Convention). Annex 1 of the International Convention on the Control of Harmful Anti-Fouling Systems on Ships. National Biofouling Guidelines for the Petroleum Production and Exploration Industry and IMO Guidelines for the control and management of a ship's biofouling to minimise the transfer of invasive aquatic species.
Vessel collision or disturbance of fauna	Support vessels	Potential injury of marine fauna.	Vessels contracted by Vermilion operating in the Operational Areas must have procedures that adhere to Part 8 of EPBC Regulation 2000 to minimise exposure of marine fauna.
Dropped objects	Drilling rig and support vessels	Decrease in water quality and potential toxic effects to marine species. Potential injury of marine fauna.	Drilling rig work procedures for lifts, bulk transfers and cargo loading will require: <ul style="list-style-type: none"> the security of loads to be checked prior to commencing lifts. loads to be covered if there is a risk of losing loose materials. lifting operations to consider weather and sea state. Drilling rig inductions will include control measures and training for crew in dropped object prevention.
Accidental discharge materials and waste	Drilling rig and support vessels	Potential pollution and contamination of the marine environment. Decrease in water quality Injury of marine fauna.	Drilling rig and vessels' procedures are compliant with MARPOL Convention Annex V and Marine Order 95.
Minor spills	Drilling rig and support vessels	Decrease in water quality and potential toxic effects to marine species.	Intermediate bulk containers are transferred to/from vessels using a lifting cradle or are containerised. Cranes and lifting equipment are certified.
Loss of containment - marine diesel oil (MDO)	Support vessels	Decrease in water quality. Potential oiling of marine fauna and toxic effects to marine species.	AHO and AMSA will be notified in advance of drilling rig movements. Drilling rig and vessels will have navigational lights. Vessels will have dynamic positioning capability and trials will be performed as required. Dry break coupling on refuelling hose to minimise spill due to vessel loss of position.
Loss of well containment	Drilling rig	Decrease in water quality. Potential oiling of marine fauna and toxic effects to marine species.	Wells are designed and components are manufactured in compliance with the Vermilion Well Construction Standards Manual and relevant API or ISO specifications. Vermilion Drilling Supervisors, Completions Supervisors and Drilling Superintendents are required to hold current Well Control certification. BOPs are tested at regular intervals in accordance with API standard 53.
Hydrocarbon spill response activities	Spill response	Potential toxic effects to marine fauna from dispersants, disturbance	Vermilion maintains contracts with oil spill response organisations, operational and scientific



		<p>to benthic habitat, scouring of sediments, and decrease in water quality.</p>	<p>monitoring providers, and logistics operators for support in the event of a hydrocarbon spill. Vermilion tests response arrangements annually to ensure preparedness for unplanned hydrocarbon spills. Implementation of response strategies will be undertaken as per the NOPSEMA-accepted Oil Pollution Emergency Plan (OPEP) and in consultation with or under direction of the Commonwealth or State Control Agency.</p>
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Consultation

Consultation provides Vermilion with an opportunity to receive feedback from authorities, persons and organisations whose functions, interests or activities may be affected by proposed petroleum activities. This feedback helps us to refine or change the management measures we are planning to address potential activity impacts and risks. Vermilion’s objective for the proposed activities is to ensure the activity is carried out in a manner that is consistent with the principles of Ecologically Sustainable Development (ESD) and reduce environmental impacts and risks to a level that is As Low As Reasonably Practicable (ALARP) and acceptable over the life of the activity.

Consultation also helps us to identify values and sensitivities where information is not publicly available, such as spiritual and cultural connection to land and sea country, as well as first-hand feedback on commercial and recreational fishing, tourism and local community activities and interests.

Feedback

If you consider you may be a relevant person, please contact us as soon as possible if you require any further information or if you think you are not on our consultation list.

We are asking for relevant persons to provide feedback by **17 January 2025**.

Feedback provided by relevant persons will be considered in an addendum to the Wandoo Field Exploration Drilling EP and through the life of the activity. Feedback from relevant persons will be included in the EP submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for assessment.

Please let us know if you would like your personal/organisational details or any part of your feedback to remain private and we will ensure this remains confidential to NOPSEMA.

Contact us

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