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1. INTRODUCTION

Woodside Energy Ltd (Woodside) proposes to undertake drilling activities in the WA-28-L block using the Nan Hai 6 semi-submersible drilling rig, operated by Maersk Drilling Australia. Drilling activities are planned to commence in October 2010 and to continue through until November 2010.

The well is part of the drilling activities in WA-28-L and as such the environmental risks and management thereof are described in the WA-28-L Drilling Campaign 2009/2010 Environment Plan, Revision 4 (WA-28-L EP), approved by the Department of Mines and Petroleum (DMP) in July 2009.

The Cimatti-1 Exploration Well Environment Plan Bridging Document serves as a bridging Environment Plan to the WA-28-L EP, and describes the well specific details such as well location, rig to be used, fluid systems, cuttings volumes and cuttings disposal methods.

2. DESCRIPTION OF THE ACTION

The Cimatti-1 exploration well is situated in licence area WA-28-L (Figure 1). Cimatti-1 is located approximately 55 km north of Exmouth, 25 km north of Ningaloo Reef (Commonwealth Waters), 35 km north of Ningaloo Reef Marine Park (Western Australia Department of Conservation) and 39 km northwest of the Muiron Islands Management Area.

The well is a deviated exploration well and will be drilled with a water based drilling fluid system, as detailed in the Cimatti-1 Environment Plan Bridging Document and approved by the DMP in October 2010. The Nan Hai 6 is a semi-submersible drilling rig and utilises an eight anchor point mooring system.

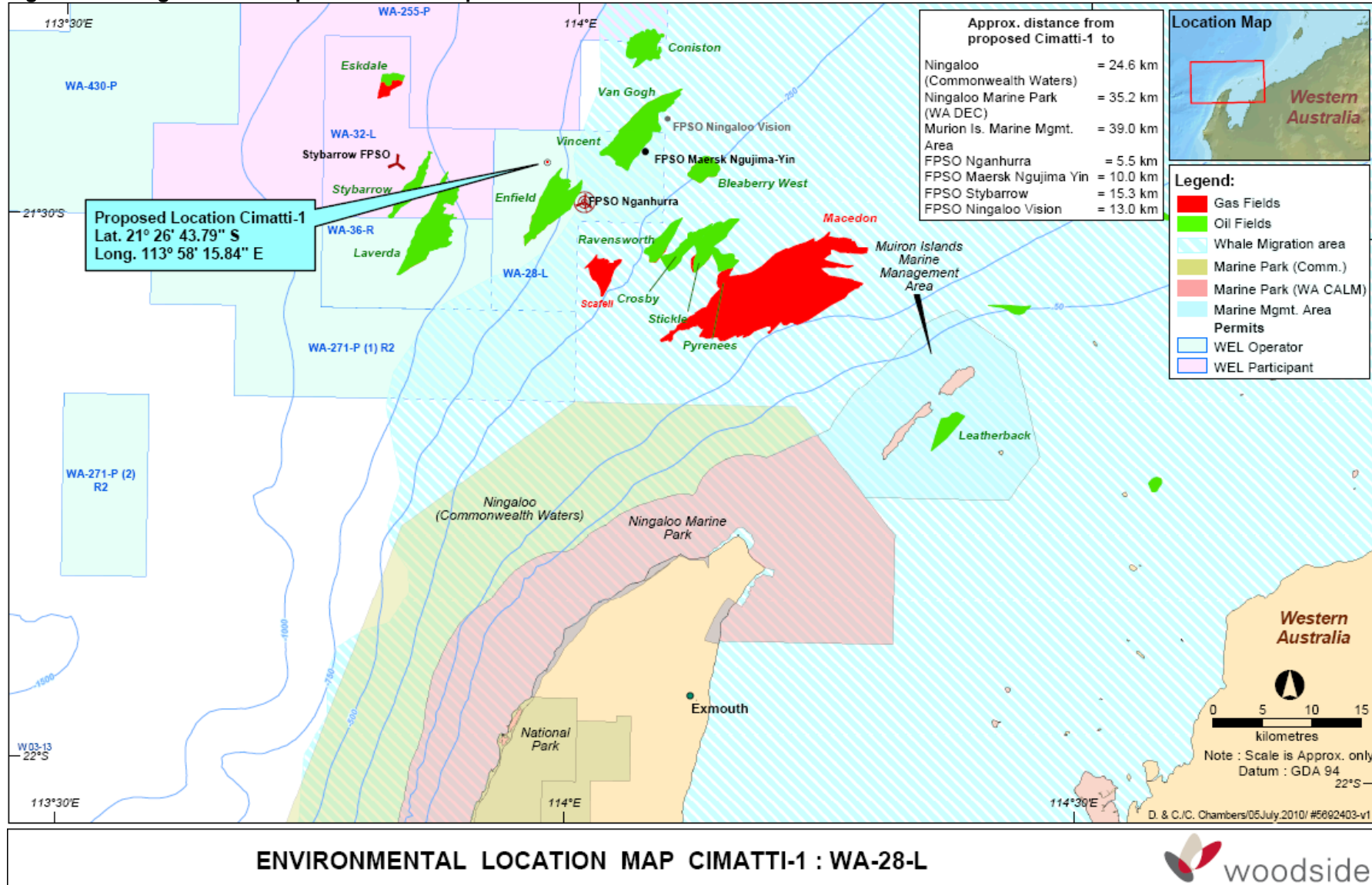
Table 1 summarises the well details including surface coordinates, water depth, permit area and timing for the proposed well. This schedule is subject to change due to operational requirements and external influences such as cyclones.

Table 1. Co-ordinates, Water Depth and Timing (GDA 94, MGA zone 50S).

| Well Name | Water Depth (m LAT) | Easting (Longitude) | Northing (Latitude) | Permit Area | Timing |
|-----------|---------------------|------------------------------------|---------------------------------------|-------------|---------|
| Cimatti-1 | 546 | 186 042 mE (113° 58' 15.840" E) | 7 625 510 mN (021° 26' 43.790" S) | WA-28-L | Q4 2010 |

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Figure 1: Drilling Location Map for Cimatti-1 Exploration Well



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3. DESCRIPTION OF THE RECEIVING ENVIRONMENT

3.1 Physical Environment

The North West Cape exists in an arid (mainly summer rain), subtropical environment with a tropical cyclone period from November to April. Winds in the area blow predominantly from the south-west and south-east quarters.

Tides are semi-diurnal (four current reversals a day). The Leeuwin Current, which originates in the region, runs southward along the edge of the continental shelf and is primarily a surface flow (up to 150 m deep) which is strongest during winter. The Ningaloo Current flows in the opposite direction to the Leeuwin Current, running northward along the outside of Ningaloo Reef and across the inner shelf from September to mid-April.

Regional sea surface temperatures in summer range from 26 – 31°C and in winter from 19 – 24°C. Water temperatures decrease with depth, with temperatures near the seabed in the proposed Vincent Development Area (230 – 460 m water depth) ranging seasonally from 8 – 10°C.

3.2 Biological Environment

3.2.1 Regional Coast Habitats

The most significant regional coastal habitat is Ningaloo Reef, which extends 260 km southward of North West Cape. The reef is considered to be in generally pristine condition and supports diverse biological communities including corals, other invertebrates and fish. Small mangrove communities are present on the west coast of the Exmouth Peninsula and are more extensively developed on the eastern shore of Exmouth Gulf. Various sandy beaches on the coastal areas and islands in this region support significant turtle nesting areas.

3.2.2 Seabed Habitats

The licence area is located on the continental slope in deep water, ranging from 350 to 450 m. The seabed in this area is dominated by a north-south trending scarp and several east-west trending submarine canyons. The scarp has a height of approximately 50 m, while at the base of the scarp a channel of depth 20 m is present. Minor ridges and channels of depth 5 m are also present in the area. The relief in the submarine canyons is 20 – 50 m in depth.

The majority of the seabed within the licence area is generally featureless and consists of fine to medium sediment (silts and sands).

3.2.3 Large Marine Animals

A variety of cetaceans (whale and dolphin species) have been recorded during surveys of offshore waters in the vicinity of the licence area including several large whales, notably Humpback, Blue, Sperm, Minke, Pilot and False Killer Whales. Survey information indicates that Humpback Whales are the most abundant whale species recorded, these being present during the year between June and November.

Whale sharks are found to aggregate off Ningaloo Reef, generally between April and June each year. Observations indicate most encounters in the northern area of Ningaloo Marine Park have occurred between Jurabi Point and Ned's Camp, with relatively fewer sightings to the north and south. Whale Sharks are also regularly observed in the area between Point Maud and Point Cloates, generally in May. Most sightings occur close to the reef front and within three nautical miles (nm) of the shoreline. The local population is estimated to be 200–300 individuals.

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Four marine turtle species occur in the region, Hawksbill, Flatback, Green and Loggerhead. Individuals of any of the above may pass through the licence area on their way to and from nesting beaches on the mainland and adjacent islands. At sea, the concentration of these animals is low.

3.3 Socio-Economic Environment

The nearest town to the licence area is Exmouth. The Exmouth Shire covers an area of approximately 5,700 km² in the North West Cape region of Western Australia, and is located about 1,300 km north of Perth. The two nearest towns to Exmouth are Carnarvon, approximately 370 km to the south-east and Onslow, approximately 410 km to the north-east. The resident population in the Shire of Exmouth is approximately 2,000 people, though there are large short-term fluctuations in population due to the high number of tourists that visit the area.

Tourism is one of the major industries of the town and contributes significantly to the local economy in terms of both income and employment. Around 104,000 tourists (about 70% domestic and 30% international) stay overnight in Exmouth each year. Traditional tourist activities have centred around recreational fishing and boating, but more recently nature-based tourism has become more popular, centred around Ningaloo Reef, Cape Range National Park, and seasonal attractions such as the humpback whales, whale sharks and turtle nesting. The main marine nature-based tourist activities are snorkelling and scuba diving, whale shark encounters, whale watching and tours of turtle hatching beaches.

The main commercial activities associated with Exmouth include prawn fisheries, tourism and defence-related activities. Limited commercial fishing takes place in deepwater offshore regions, the most notable being a developing longline fishery.

A number of offshore oil production facilities are located in the region, these being the Nganhurra FPSO (WA-28-L), Maersk Ngujima-Yin (WA-28-L) and Stybarrow Venture FPSO (WA-32-L). Other developments currently under construction are at the Pyrenees oil field (WA-12-R) and Van Gogh oil field (WA155-P).

While there are no defined shipping lanes in the North West Cape region, there are general shipping routes running in a north-south direction along the coast which become north to easterly to the north of Exmouth. Approximately 1,200 vessels per year pass through the area off North West Cape, with approximately 550 ships through the Vincent Development Area each year.

Other significant socio-cultural features include the Ningaloo Marine Park (Commonwealth and State Waters), Muiron Islands Marine Management Area and Cape Range National Park.

4. ENVIRONMENTAL HAZARDS

The main environmental aspects associated with the proposed drilling activities are identified to be:

- Physical disturbance associated with anchoring, rig movements and rig operations;
- Discharge of drilling, completions and sub-sea fluids, drill cuttings and cementing fluids;
- Discharge of deck drainage; bilge water, cooling water, desalination water
- Vessels and rigs providing a vector for the introduction of invasive marine species;
- Discharge of sewage and putrescible domestic wastes;
- Emissions to atmosphere from operating equipment;
- Discharge of waste materials;
- Accidental hydrocarbon and/or hazardous material spills;
- Noise impacts from the rig, vessels and helicopter; and
- Interaction with fisheries and shipping activities.

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An environmental risk assessment was undertaken to identify potential environmental risks from activities associated with the development drilling. A series of comprehensive environmental management controls will be maintained by Woodside and Maersk Drilling Australia to ensure that no significant environmental effects are realised from the drilling operation and associated potential risks.

5. SUMMARY OF MANAGEMENT APPROACH

The key management objectives and controls to be applied to the development well campaign are shown in Table 2. These are consistent with Woodside Corporate and project specific objectives, standards and criteria. This is not a comprehensive list of all commitments, however all commitments associated with these will be used to reduce environmental risk to As Low As Reasonably Practicable (ALARP).

Table 2: Management Objectives and Commitments for the WA-28-L 2009/2010 Drilling Campaign

| Objectives | Criteria |
|---|---|
| No significant impact to seabed and benthic habitats | <ul style="list-style-type: none"> Anchor deployment and retrieval is done according to anchoring procedures and anchoring plan. |
| No introduction of exotic marine species | <ul style="list-style-type: none"> Rig and vessel adhere to AQIS Australian Ballast Water Management Requirements and quarantine requirements. |
| No significant impact to marine fauna | <ul style="list-style-type: none"> The interaction of support vessels and helicopters with cetaceans will be consistent with Part 8 of the EPBC Regulations 2000 which requires vessels to maintain a 300 m stand off distance to cetaceans and helicopters shall not operate lower than 1650 ft or within the horizontal radius of 500 m of a known cetacean. |
| No significant impact on marine environment from routine discharge of drill fluids and cuttings | <ul style="list-style-type: none"> Use of approved, low toxicity Water Based Mud. Procedures for vessel to rig bulk transfers, including visual observations and mud transfer systems. |
| No significant impact on marine environment from routine discharges | <ul style="list-style-type: none"> Waste water discharges to meet legislative requirements. All fluids required to complete the activity and are proposed to be discharged to the ocean shall be assessed regarding potential for environmental impact. Non toxic water based fluids used. Non toxic to slightly toxic cementing fluids and fluorescing dyes used. Deck drainage that is contaminated with hydrocarbons or chemicals will be contained and disposed of onshore or discharge if the oil in water content is < 15 mg/L. Visual monitoring for marine mammals will be conducted prior to discharge of water based drilling fluid or cement systems. |
| No significant environmental impact from solid and hazardous wastes | <ul style="list-style-type: none"> Open hole gravel pack fluids or slurry will be returned to shore for disposal in accordance with the Drilling and Completions Waste Management Plan (wastes sent onshore via KBSB). Drilling and Completions Waste Management Plan is in place and adhered to. MSDS sheets readily available. |

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| | <ul style="list-style-type: none"> Waste log maintained and quantities of wastes transported ashore recorded. |
| No hydrocarbon or chemical spills to the marine environment. | <ul style="list-style-type: none"> Approved Oil Spill Contingency Plan in place. Adherence to well integrity standards and blow-out preventer in place. Adherence to bulk transfer procedures. Fuel and NWBM transfer hoses to have dry break couplings in place. Continuous visual monitoring of hoses, couplings, flow gauges and the sea surface as well as radio contact during transfers on both the support vessels and rigs/vessels. Transfers of fuel only undertaken in daylight hours, except with WSM's approval, and when sea conditions are appropriate. Fuels, oil and chemicals stored with secondary containment. Spill kits will be well stocked and readily available with personnel trained in their use. |
| Minimise interference with recreational vessels, commercial fishing, and shipping. | <ul style="list-style-type: none"> Functional rig navigational lighting in place and in use. Consultation with local fishermen, fishing industry groups and management agencies as needed. Marine notices broadcast according to Standard Maritime Safety Procedures (AMSA), via the Rescue Co-ordination Centre (RCC). |

6. CONSULTATION

Woodside is undertaking a consultation program commensurate with the proposed activities outlined in this EPBD, taking into consideration existing approval for the drilling of the wells at WA-28-L, the proposed environmental management measures for approved and proposed activities, low environmental sensitivity of the offshore drilling location, distance from sensitive coastlines, distance from existing communities and other industries.

Woodside recognises stakeholder interest in the broader region, which is recognised for its high conservation values, as well as local stakeholder interest in the use by industry of Exmouth Gulf.

Ongoing communication will be undertaken throughout the drilling program, including the distribution of electronic notification to stakeholders prior to the start of the campaign.

7. CONTACT DETAILS

For further information about the WA-28-L Drilling Campaign related activities, please contact:

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