

Public Summary

Gorgon Gas Development Development Drilling and Completion Program

This Environmental Plan public summary for the Chevron Australia Pty Ltd (Chevron) Gorgon Gas Development Drilling and Completion Program has been submitted to the Western Australia Department of Mines and Petroleum (DMP) to comply with Regulations 11(7) and 11(8) of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (OPGGS (E) Regulations).

INTRODUCTION

Chevron is to drill eight development wells within the Gorgon gas field, located in Production Licence WA-37-L. Production Licence WA-37-L is located approximately 130 km off the north-west coast of Western Australia, and 65 km north-west of Barrow Island (Figure 1).

Drilling operations are scheduled to commence in June 2011 and will extend until all the Gorgon development wells are drilled and completed, which is anticipated to be by the end of June 2013. Drilling operations will be undertaken using the Atwood Oceanics Pacific Pty Ltd Atwood Osprey semi-submersible rig. Drilling operations will be conducted on a 24 hour basis.

COORDINATES OF THE ACTIVITY

Production Licence WA-37-L and the Gorgon development well locations are shown on Figure 1. Table 1 provides the coordinates of the development wells.

Table 1:
Coordinates of the Development wells (Datum: GDA94)

Well Name	Latitude	Longitude	Water Depth (m)
GOR-1C	20° 24' 28.372 S	114° 50' 56.841 E	215
GOR-1D	20° 24' 28.611 S	114° 50' 57.734 E	215
GOR-1E	20° 24' 29.171 S	114° 50' 58.313 E	215
GOR-1F	20° 24' 30.019 S	114° 50' 58.543 E	215
GOR-2B	20° 27' 36.535 S	114° 50' 31.386 E	199
GOR-2C	20° 27' 37.095 S	114° 50' 31.964 E	199
GOR-3B	20° 31' 11.275 S	114° 49' 25.845 E	199
GOR-3C	20° 31' 11.835 S	114° 49' 26.424 E	199

DESCRIPTION OF ACTIVITY

As part of the Gorgon Gas Development, Chevron proposes to conduct development drilling and well testing activities within Production Licence WA-37-L at eight well locations. All operations will be conducted in accordance with relevant Acts and regulations to meet the requirements of the OPGGS Act.

The wells have been designed in accordance with Chevron Standards, accepted industry practices and DMP regulatory requirements. Drilling will be conducted to a target depth of approximately 5,200 m below the seabed. The well design to be applied to the Gorgon development wells is as follows:

- ◆ 1067 mm (42") hole drilled for 914 mm (36") casing set at approximately 70 m BML. Drilled using sea water with high viscosity sweeps.
- ◆ 660 mm (26") hole drilled for 508 mm (20") casing set at approximately 400 m BML. Drilled using sea water with high viscosity sweeps.
- ◆ 444 mm (17 ½") hole drilled for 340 mm (14") casing set at approximately 1,800 m BML. Drilled using synthetic-based mud (SBM).
- ◆ 343 mm (13 ½") hole drilled for 244 mm (10 ¾") casing set at approximately 3,200 m BML. This section will be drilled using SBM.
- ◆ 222 mm (8 ¾") hole drilled for 178 mm (7") casing to approximately 5,200 m BML using SBM.

The upper sections of the well (42 and 26" hole sections) will be drilled riserless, using seawater with high viscosity (bentonite) sweeps. Bentonite is an inert natural clay of very low toxicity, and these fluids are expected to have minimal offshore environmental effect.

The remaining sections of the well will be drilled with a marine riser and Blow-Out Preventers (BOP) installed using NOVATEC™ SBM.

The NOVATEC™ SBM to be used may contain either Saraline 185V base fluid, a linear alpha olefin (LAO) base fluid, or a blend of these two base fluids. These SBMs, which have low environmental toxicity and are readily biodegradable under aerobic conditions, have been previously used during exploration drilling undertaken by Chevron following approval by the Western Australian Department of Mines and Petroleum (DMP).

During top hole drilling, while using seawater with high viscosity sweeps, the cuttings/drilling fluid will be circulated back to the seabed. Following connection of the riser, drill cuttings will be returned to the surface and drilling fluid recovered for recycling. After separation from the drilling fluid, cuttings will be discharged overboard. No whole SBM will be discharged during the drilling program.

On completion of the upper hole sections, steel pipe casing will be inserted and the gap between the casing and the hole will be sealed with cement. Cementing fluids are not routinely discharged to the environment during this operation, although very small amounts may be released when the cement mixture is circulated to the seabed during grouting of the surface casing strings.

At the completion of drilling, the well will be suspended in accordance with the requirements of the OPGGS Act and industry best practice. The wells will be batch completed and each well will be terminated at the seabed by a horizontal subsea tree. The wells will be fitted with a surface-controlled subsurface safety valve (SCSSV) designed to slam shut in the event of wellhead or tree damage. An exclusion zone will be established around the manifolds and subsea infrastructure.

DESCRIPTION OF RECEIVING ENVIRONMENT

Natural Environment

Bathymetry and Seabed Features

The eight Gorgon Development wells are located in waters off the Australian continental shelf, with depths ranging from 199 to 215 m. The northernmost portion of the Gorgon gas field is gently sloping and dissected by a north-west to south-east aligned ridge the southern extent characterised by deeply undulating valley terrain. Substrate within the drilling area is likely to be predominantly silty muds (RPS 2009).

Metoccean Conditions

The region is generally characterised by two seasons; summer (September–April) and winter (May–August). The climate in winter is dominated by intense anti-cyclonic belts (high pressure systems) which generate strong winds (predominantly from the east and south-east) and infrequent rain. Summer conditions are more variable, with varying wind directions (although south-westerly winds are the most common).

Tropical cyclones occur in the region, with an average of five per year. According to the Bureau of Meteorology, the Australian region tropical cyclone season runs from 1 November to 30 April. These are unpredictable in occurrence, intensity and behaviour, but are most common between December and March. Tropical cyclones can generate extreme seas and swell.

Benthic Assemblages

Marine biological surveys indicate that subtidal habitats near the Gorgon gas field, which lies in 200 m of water, comprise soft, bioturbated sediments (Chevron Australia 2005). The benthos in this area is well below the photic zone so there are no marine macrophytes (marine flora). Fine organic particles settle from the water column to form deep silt and mud.

Surveys conducted just north of the permit area in similar water depths (238-264 m) showed the substrate to be predominantly silty muds. There was evidence of burrow holes in soft sediment, likely from worms, small fish or crustaceans, and occasional sparse communities of crinoids, sponges and gorgonians associated with areas of consolidated sediments and scattered rubble (RPS 2009). Based on current knowledge, no sensitive ecosystems have been identified in the permit area.

Macrofauna

Some marine migratory species with broad distributions, such as cetaceans, fish, sharks, sea turtles and seabirds, may traverse the permit area occasionally. According to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Protected Matters database, nine species listed as Threatened and 16 listed as Migratory may occur in the area. These include three species of shark, five species of marine turtles, one bird (petrel) species and seven cetacean species.

However, the permit area does not contain recognised critical habitat for any Threatened or Migratory fish, sharks, sea turtles, cetaceans or seabirds.

Fish

A number of sharks and pelagic finfish, including mackerel, tuna and billfish, occur in the waters of the North West Shelf and would be expected to occur in the permit area. The deep offshore environment of the permit area is typical of the continental slope of north-western Australia and is not expected to represent habitat of particular significance to sharks and finfish.

Whale sharks have a broad distribution in tropical and warm temperate seas. They feed on phytoplankton, macro-algae, plankton, krill and small nektonic life, such as small squid or vertebrates.

Whale sharks undertake a well-known annual migration to aggregate at Ningaloo Reef (140 km from the closest development well) between March and July each year (Wilson et al. 2006). Yearly numbers of whale sharks at Ningaloo Reef are estimated to vary from 200 to 400 individuals. This seasonal aggregation is thought to be linked to localised seasonal peaks of productivity, likely associated with a mass coral spawning event which occurs around March to April each year. After July, whale sharks disperse widely, mainly in a north-east direction towards Indonesian waters. Whale sharks are expected to occur only in very low numbers within the permit area, due to the distance between the proposed wells and Ningaloo Reef.

The longfin mako shark is a widely distributed but rarely encountered oceanic tropical shark. This species can grow to just over 4 m and is found in Western Australian (WA) waters north of Geraldton. The shortfin mako shark is a pelagic species with a circumglobal, wide-ranging oceanic distribution in tropical and temperate seas (Mollet et al. 2000) and is widespread in Australian waters. Given their wide-ranging habitat and highly transient nature, shortfin and longfin mako sharks may occur within the permit area. However, there are no bathymetric features or aggregation areas of importance for these species within the permit area. Therefore, these species are only likely to occur in very low numbers.

Birds

The Southern giant petrel (*Macronectes giganteus*) is listed as Endangered under the EPBC Act and may be found in the permit area. The Southern giant petrel breeds in the sub-Antarctic waters during the summer, while in winter most disperse north from 50°S to the tropic of Capricorn and sometimes beyond. There are no important feeding grounds known for this species near the permit area, and given the distance from land, foraging activity is likely to be low. Due to the widespread distribution of the Southern Giant-petrel, numbers at any given location are likely to be low.

Marine Turtles

Five species of marine turtles may occur in the permit area: green (*Chelonia mydas*), leatherback (*Dermochelys coriacea*), flatback (*Natator depressus*), hawksbill (*Eretmochelys imbricata*) and loggerhead (*Caretta caretta*) turtles, all of which are listed as Vulnerable under the EPBC Act, with the exception of the loggerhead turtle, which is listed as Endangered. Marine turtles, particularly green turtles, undertake extensive migrations and low numbers of individuals may transit the permit area. Migration and nesting activity generally occurs between September and April. The permit area does not contain any emergent land or shallow sub-tidal features, which is a requirement for nesting and feeding. The nearest known breeding or feeding site of importance to turtles is located at Barrow Island, 60 km to the south-east of the closest development well. It is therefore unlikely that significant numbers of turtles will occur within the permit area at any time during the drilling program.

Cetaceans

Several species of cetaceans are known to frequent the waters of the North West Shelf, including the blue whale (*Balaenoptera musculus*), which is listed as Endangered, and the humpback whale (*Megaptera novaeangliae*), which is listed as Vulnerable under the EPBC Act.

The humpback whale, which is the most common whale species in the region, migrates between Antarctic waters and the Kimberley each winter to mate and breed. Humpback whales pass Barrow Island and the Montebello Islands (60 km to the south-east) during their northbound migration from June to mid August, and between mid September until the end of November during their southbound migration.

The main humpback migration route passes through the permit area. Humpback whales are therefore likely to be encountered during the migration period. However, there are no known feeding or

breeding areas within or in close proximity to the drilling area. The nearest known whale aggregation area is in Exmouth Gulf, which is 190 km from the nearest development well.

Blue whale migration patterns are similar to those of the humpback whale, with the species feeding in mid-high latitudes (south of Australia) during the summer months and temperate/tropical waters in the winter for mating and breeding. However, the blue whale tends to be more widely dispersed and are rarely present in large numbers outside aggregation areas. The permit area does not include any recognised blue whale migratory routes or known feeding, breeding or resting areas, hence the likelihood of encountering significant numbers of blue whales during drilling operations is very low.

Five additional species listed as migratory species under the EPBC Act may occur in the permit area on occasion: the Antarctic minke whale (*Balaenoptera bonaerensis*), Bryde's whale (*Balaenoptera edeni*), killer whale (*Orcinus orca*) sperm whale (*Physeter macrocephalus*) and the spotted bottlenose dolphin (*Tursiops aduncus*). Given their widespread distributions and the absence of particular bathymetric features in the area, the permit area is unlikely to represent important habitat for any of these species.

Social and Economic Environment

Petroleum Activities

The North West Shelf region supports extensive petroleum exploration and production activities. The petroleum industry has developed major production operations on Thevenard, Airlie, Barrow and Varanus islands. The nearest land-based production facility is situated on Barrow Island, which is 60 km south-east of the closest development well.

Fisheries

The permit area overlaps with several authorised commercial fishing zones.

The following Commonwealth managed fisheries are authorised to operate in the area:

- ◆ Western Tuna and Billfish Fishery
- ◆ North West Slope Trawl Fishery
- ◆ Southern Bluefin Tuna Fishery
- ◆ Western Skipjack Tuna Fishery

In addition, state managed fisheries are permitted to operate in waters within and adjacent to the permit area and include:

- ◆ WA Northern Shark Fishery
- ◆ Mackerel Managed Fishery

Consultations with the Australian Fisheries Management Authority (AFMA), the Department of Fisheries (Western Australia), the Western Australian Northern Trawl Owners Association and TunaWest however indicate that fishing activity in the permit area is low due to water depths, remote location, distance offshore and often unpredictable weather.

Shipping

Commercial vessels traverse the waters of the permit area. The development wells are located within the shipping route between Australia and the Ombai/Wetar/Alor Straits in Indonesia. An AMSA 1999–2009 AusRep data plot of shipping densities on the North West Shelf shows shipping movements in the vicinity of the proposed Gorgon development wells to be relatively low density (approximately one

vessel every two days). There are no bathymetric features or navigational hazards that would restrict vessels from avoiding the rig.

The *Atwood Osprey* is a moored semi-submersible rig. The support vessels will provide assistance to the *Atwood Osprey* for the entire campaign, to provide back-up radar coverage and radio communication. In addition, a Notice to Mariners is issued by AMSA for each drilling location. As a result, the likelihood of interaction with ships in the permit area is extremely low.

Recreational and Tourism Activities

The distance offshore of the drilling area is likely to preclude recreational fishing and charter vessel activity in the area. Consultation has not identified any recreational activities in the permit area.

Marine Protected Areas

There are no marine protected areas within the permit area. The nearest marine protected areas are the Barrow Island Marine Management Area (60 km from the closest well location) and Muiron Islands Marine Management Area (130 km from the closest well location).

Defence Practice Areas

The permit area overlaps with the Learmonth military restricted airspace area. The Learmonth RAAF base is maintained in an operational condition to allow it to receive an operational squadron at short notice (Department of Defence 2011). The base also regularly serves as a refuelling station for RAAF aircraft.

Any plans by the Department of Defence to re-activate Learmonth Airport to a fully operational military condition will be managed by Chevron through regular liaison with the Department of Defence during drilling operations.

Cultural Heritage

No features of cultural heritage importance were identified within the permit area or any area that may be affected by the drilling program.

MAJOR ENVIRONMENTAL HAZARDS AND MANAGEMENT APPROACH

A risk analysis was undertaken for all aspects of the program, in accordance with the procedures outlined in the Australian and New Zealand Standards (AS/NZS ISO 31000:2009) (Risk Management) and HB 203:2006 (Environmental Risk Management), and based on the Chevron Integrated Risk Prioritization Matrix. The risk analysis determined the likelihood and severity of risks associated with the drilling program and evaluated the resultant environmental risks and effects (Table 2).

The risk analysis indicates that the risks of significant adverse environmental impacts from the program are very low.

The environmental management approaches relevant to key aspects of the program and the residual risk after management implementation are summarised in Table 2. The drilling program will be conducted in accordance with all legislative and regulatory requirements. Chevron's overall environmental objective for the program is to avoid or minimise environmental risks to as low as reasonably practicable (ALARP).

Table 2:
Summary of Potential Major Environmental Risks and Management Approach

Aspect (Stressor)	Event/ Incident	Potential Environmental Impact	Risk Level and Management Approach
PLANNED OPERATIONS			
Physical disturbance of seabed	Discharge of cuttings	Smothering of sensitive or ecologically important benthic communities	Very Low risk. Cuttings discharge near the surface to maximise dispersion. Volume of base fluid on cuttings <10% by dry weight (measured and recorded daily) averaged over each hole section drilled.
	Drilling of wells	Loss of sensitive or ecologically important benthic communities	Very Low risk. N/A.
	Anchors on seabed	Potential localised disturbance to benthic habitat	Very Low risk. Minimal anchor slippage before anchor set at predetermined tension from mooring analysis. Adherence to anchoring procedures.
Waste discharges	Discharge of whole drilling fluid	Acute/chronic toxicity effects to marine life Reduction in water quality leading to adverse effects on marine life	Very Low risk. Seawater with high viscosity sweeps discharged at seabed during riserless drilling. Recycling or return of recovered SBM to shore based storage, no discharge of whole SBM to sea. Selection of fluids with acceptable toxicity and biodegradation characteristics, approved by DMP.

Aspect (Stressor)	Event/ Incident	Potential Environmental Impact	Risk Level and Management Approach
	Discharge of cuttings with adhered drilling fluid	Acute/chronic toxicity effects to benthic communities	Very Low risk. Volume of base fluid on cuttings <10 % by dry weight (measured and recorded daily) averaged over each hole section drilled Selection of fluids with acceptable toxicity and biodegradation characteristics, approved by DMP.
	Discharge of soapy SBM tank wash	Acute/chronic toxicity effects to benthic communities Reduction in water quality leading to adverse effects on marine life	Very Low risk. Automated tank wash system for cleaning of SBM tanks to ensure minimal loss of SBM. Discharge water to the sea contains <1% residual SBM.
	Disposal of sewage and putrescible wastes	Reduction in water quality leading to adverse effects on marine life	Very Low risk. Treated galley waste to be macerated to less than 25mm before discharge to sea in accordance with MARPOL 73/78. Sewage to be treated onboard in accordance with MARPOL 73/78 prior to discharge.
	Disposal of grey water	Reduction in water quality leading to adverse effects on marine life	Very Low risk. Grey water to be treated onboard in accordance with MARPOL 73/78 prior to discharge
	Disposal of solid wastes and hazardous wastes	Reduction in habitat/ water quality from incorrect disposal	Very Low risk. Mainland recycling or disposal of wastes in accordance with the Waste Management Plan and MARPOL 73/78. Waste segregation onboard.
	Disposal of deck drainage	Reduction in water quality leading to adverse effects on marine life.	Very Low risk. Closed deck drainage system to holding tanks where clean water discharged overboard, and contaminated water directed to oil-water separator and discharged in accordance with MARPOL 73/78. Drill floor drainage treated and discharged in accordance with MARPOL 73/78.
	Cementing discharges	Reduction in habitat / water quality. Smothering of sensitive or environmentally important benthic communities.	Very Low risk. Cements are carefully selected and tested before use. Minimal cement discharge.

Aspect (Stressor)	Event/ Incident	Potential Environmental Impact	Risk Level and Management Approach
	Discharge of cooling water	Effects to marine life from elevation in sea temperature	Very Low risk. Cooling water discharged above sea level.
	Discharge of hydraulic fluid	Reduction in habitat / water quality.	Very Low Risk Low volume of low toxicity, biodegradable hydraulic fluid. Highly diluted.
	Discharge of oily water	Acute/chronic toxicity effects to marine life	Very Low risk. Discharge in accordance with MARPOL 73/78. No discharge of oily (>15 ppm hydrocarbons) bilge water.
Physical Interaction	Movement of rig/support vessels/ helicopter	Disturbance/ casualty to sensitive fauna from collision	Very Low risk. Adherence to procedures for moving the rig. Cetacean watch is maintained on all transits to/from port and during drilling activities. All vessels to maintain adequate separation distances from cetaceans.
	Presence of rig at well site	Displacement / disruption of other users of marine environment	Very Low risk. Notice to Mariners posted. Liaison with relevant authorities, fishermen and other commercial mariners to minimise conflict. Compliance with APPEA Code of Environmental Practice 2008.
Light spill	Artificial lighting from rig and support vessels	Alteration of sensitive marine fauna behaviour due to attraction to and/or deterrence of artificial lighting.	Very Low risk. Lighting minimum required to meet safety regulations. Compliance with APPEA Code of Environmental Practice.
Noise and vibration emissions	Noise from drilling operations	Disruption to behaviour patterns (attraction/ deterrence) of sensitive marine fauna	Very Low risk. Reporting of sightings of cetaceans and marine turtles to DSEWPaC.
	Noise from rig/ support vessel movements/ positioning	Disruption to behaviour patterns of sensitive marine fauna	Very Low risk. Maintain cetacean watch on all transits.

Aspect (Stressor)	Event/ Incident	Potential Environmental Impact	Risk Level and Management Approach
	Noise from helicopter	Behavioural disturbance to sensitive bird species or cetaceans.	Very Low risk. Compliance with EPBC Regulation 8.07 and APPEA Code of Environmental Practice 2008.
	Noise from VSP	Disruption to behaviour patterns of sensitive marine fauna Physiological damage to sensitive marine fauna	Very Low risk. No VSP operations start if cetaceans observed within 3 km of rig. Soft-start procedures implemented over 20 minutes. VSP operations stop if a whale is seen within 500 m of acoustic source. Day-time start for VSP where possible. Night-time VSP (if unavoidable) must be preceded by 2 hours of 'cetacean free' observations during daylight when no cetaceans are sighted.
Atmospheric emissions	Emissions from engines	Reduction in air quality	Very Low risk. Engines are maintained to manufacturers' specifications.
	Flaring of hydrocarbons	Reduction in air quality. Alteration of sensitive marine fauna behaviour due to attraction to and /or deterrence of light from flare.	Very Low risk. Use of 'green' type burners and flaring procedures to optimize combustion. Compliance with MARPOL 73/78 Annex VI (air pollution) requirements.
	Waste incineration emissions	Reduction in air quality	Very Low risk. Onboard incineration in accordance with the rig's Waste Management Plan and MARPOL 73/78.
Quarantine	Movement of rig into Australian waters	Introduction of exotic marine species	Very Low risk. Compliance with AQIS Australian Ballast Water Management Requirements 2001 and National Biofouling Management Guidance for the Petroleum Production and Exploration Industry 2009. Vessel and rig hull cleaning and inspection prior to departing Singapore
UNPLANNED OPERATIONS			
Physical disturbance of the seabed	Failure in drilling fluid system	Smothering of sensitive benthic communities	Very Low risk. Adherence to Petroleum Guidelines – Drilling Fluid Management (DoIR 2006).

Aspect (Stressor)	Event/ Incident	Potential Environmental Impact	Risk Level and Management Approach
Leaks and spills	Spill of chemical to sea	Acute toxic effects to marine fauna	<p>Very Low risk.</p> <p>Compliance with storage and handling procedures and spill contingency plan.</p> <p>Bunding in storage areas and drains plugged as per rig requirements.</p>
	Failure in drilling fluid system	Acute toxic effects to marine fauna	<p>Very Low risk.</p> <p>Volumes of base fluid on discharged cuttings <10 % by dry weight of base fluid on cuttings averaged over each hole section drilled.</p>
	Loss of drilling fluid during transfer	Acute toxic effects to marine fauna/ reduction in water quality	<p>Very Low risk.</p> <p>Bulk Fluid Transfer Procedure.</p> <p>Restrict procedure to daylight wherever possible.</p> <p>All transfers in accordance with procedures.</p> <p>Reinforced hoses with dry break couplings and safety break away couplings.</p> <p>Continuous monitoring of pressures and flow rates.</p>
	Loss of diesel during refuelling	Acute toxic effects to marine fauna/ reduction in water quality	<p>Very Low risk.</p> <p>Strict adherence to rig's refuelling procedure</p> <p>Operation restricted to daylight wherever possible.</p> <p>Approved Marine Oil Pollution Plan (MOPP).</p> <p>Australian Marine Oil Spill Centre (AMOSOC) oil spill resources available offsite.</p> <p>Reinforced hoses with dry break couplings and safety break away couplings.</p> <p>Continuous monitoring of pressures and flow rates.</p>

Aspect (Stressor)	Event/ Incident	Potential Environmental Impact	Risk Level and Management Approach
	Loss of diesel through rupture of support vessel or rig fuel tanks	Acute toxic effects to marine fauna/habitat/reduction in water quality	Very Low risk. Approved MOPP. Well-lit rig will include all required navigation lighting and radar. A standard 500 m radius exclusion zone will be established around the drilling rig. Notice to Mariners warning of the presence of the rig will be broadcast. Support vessels provide back-up radar coverage and radio communication. "Clean Class" vessels with internal fuel tanks with ballast water tanks between fuel tanks and hull.
	Loss of hydrocarbons to sea during flaring	Acute toxic effects to marine fauna/reduction in water quality.	Very Low risk. Approved MOPP. Operation reviewed via HAZID/Hazard and Operability Study (HAZOP). Continuous monitoring and test shut-in if fallout observed.
	Loss of well control	Acute toxic effects to marine fauna/reduction in water quality	Low risk. Rated BOPs installed for the well. BOP stack tested as per schedule. Approved MOPP in place and supplemented by Oil Spill Operational Response Plan (OSORP). AMOSC oil spill resources available offsite.

CONSULTATION

Consultations have been undertaken with the following stakeholders:

- ◆ Australian Fisheries Management Authority (AFMA)
- ◆ Australian Maritime Safety Authority (AMSA)
- ◆ Western Australia Department of Fisheries
- ◆ Commonwealth Fisheries Association
- ◆ Australian Southern Bluefin Tuna Industry Association
- ◆ A. Raptis and Sons
- ◆ JAMACLAN Marine Services
- ◆ Northern Fishing Companies Association
- ◆ TunaWest
- ◆ Recfishwest
- ◆ Western Australian Fishing Industry Council
- ◆ Western Australian Northern Trawl Owners Association

◆ Western Australia Seafoods.

The key outcomes of this consultation are summarised as follows:

- ◆ low levels of commercial shipping traffic are expected near the permit area.
- ◆ Southern bluefin tuna spawning occurs north of the permit area between September and April with a peak in December through to March; the Leeuwin Current may entrain juveniles through the permit area during operations.
- ◆ State fisheries activity is likely to be very low in the area of proposed drilling.

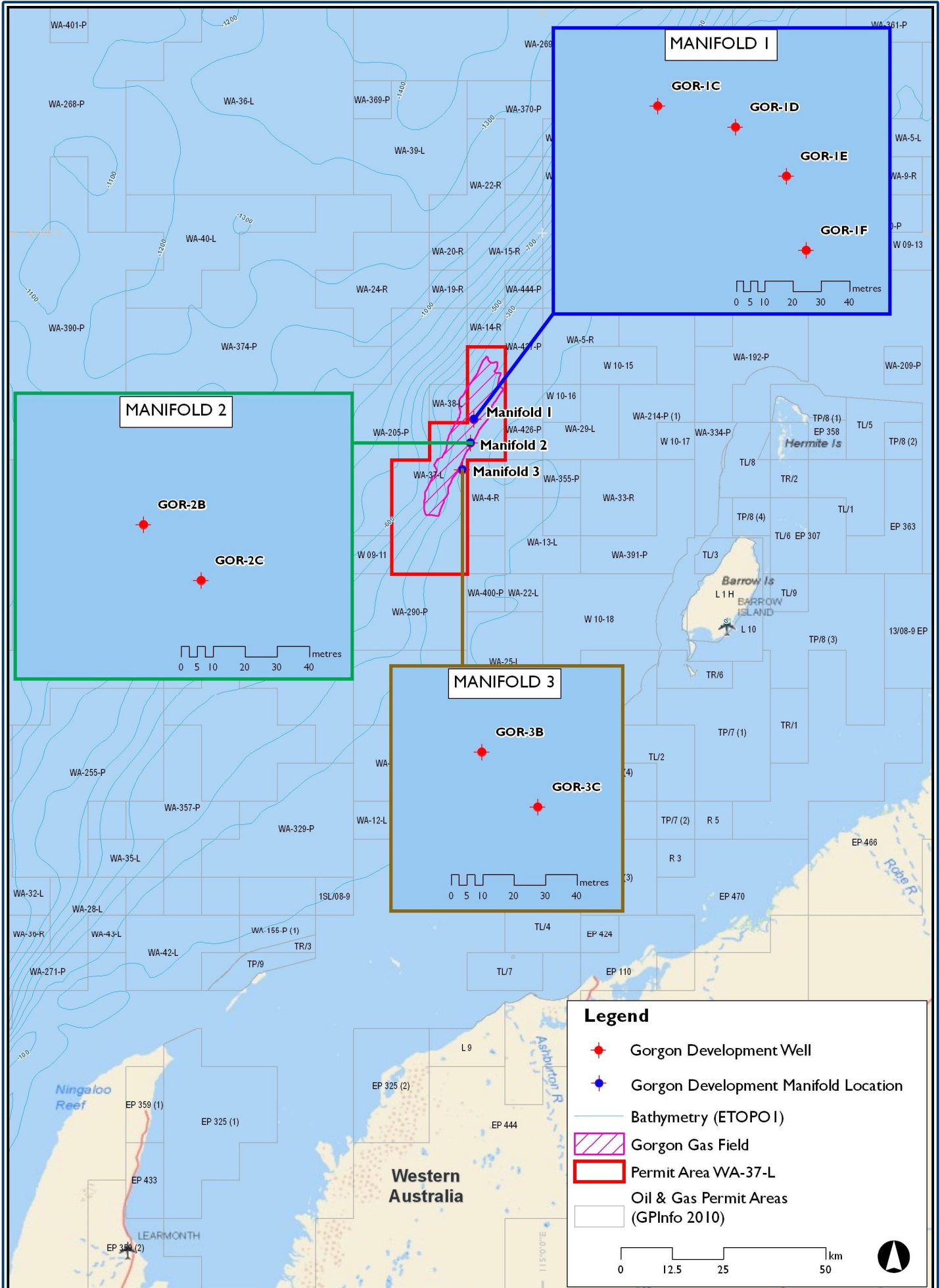
Chevron will maintain communications with relevant agencies, fishery groups and port authorities to ensure that they are informed of any aspects of the drilling program that may affect other users of the area.

CONTACT DETAILS

The proponent is Chevron Australia Pty Ltd.

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Legend

- ◆ Gorgon Development Well
- ◆ Gorgon Development Manifold Location
- Bathymetry (ETOPO I)
- Gorgon Gas Field
- Permit Area WA-37-L
- Oil & Gas Permit Areas (GPIInfo 2010)

0 12.5 25 50 km

Dwg Number: M10964-003
 Date: 16.05.11
 Revision: 0
 Scale: Map: NTS @ A4
 Drafted by: MA
 Source: ESRI Resource Centres, GP Info, Bathymetry derived from ETOPO I global relief model, Woodside



Figure 1

Proposed Well Locations