WESTERN GAS

SASANOF-1 EXPLORATION WELL ENVIRONMENT PLAN

MAY 2021

Western Gas is planning to drill the Sasanof-1 exploration well in Exploration Permit WA-519-P, located in Commonwealth Waters in the Carnarvon Basin offshore Western Australia, starting at the earliest in Q1 2022 subject to approvals, vessel availability and weather constraints.

An Environment Plan for the proposed activities will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) and will be made available for public comment following a completeness check by NOPSEMA. NOPSEMA acceptance of this plan is required before any petroleum activity can commence.

The Environment Plan will cover well design and drilling operations, installation and testing of well safety equipment, well evaluation and plugging activities prior to the abandonment of the well.

Western Gas is Operator and 100% owner of WA-519-P and the adjacent Equus Gas Project.



ACTIVITY OVERVIEW

Earliest start date:

Q1 2022, subject to approvals, vessel availability and weather constraints

Approximate Location:

- ~207 km northwest of Onslow
- Latitude: 20.4871°S
- Longitude: 113.544°E

Approximate estimated duration:

 ~25 days, excluding weather and operational delays

Water depth:

~1071 m

Project vessels:

- Semi-submersible mobile offshore drilling unit (MODU)
- Activity support vessels, including general supply/support vessels and anchor handling vessel(s)

Distance to nearest marine park:

 ~23.6 km north of the Gascoyne Marine Park (Multiple Use Zone)

Exclusion zones:

- A temporary Petroleum Safety Zone with a radius of 500 m around the MODU during the activity. Unauthorised vessels are not permitted to enter this zone.
- A temporary Cautionary Area with a radius of 5 km around the MODU during the activity. Marine users will be permitted to enter this area but should take care for safety reasons.

Western Gas



Figure 2: Sasanof well location

PROPOSED ACTIVITY

Western Gas is planning to drill the Sasanof-1 exploration well in WA-519-P. Results from drilling activities will be used to confirm the presence of undiscovered oil and gas reservoirs, as well as to help inform Western Gas' understanding of its known discoveries in the area.

The Environment Plan for the activity will cover well design and drilling operations, installation and testing of well safety equipment, and well evaluation activities.

Best endeavours will be made to remove the wellhead. If the structure cannot be retrieved, it will be left in situ and the well location will be marked on nautical charts.

Drilling and support activities will typically be conducted on a 24-hour basis. The duration of these activities is subject to change due to project schedule requirements, drill rig and vessel availability, weather, and unforeseen circumstances. Listed below is a summary of key activities for the drilling of the well.

- Pre-drilling survey
- MODU positioning and anchoring
- Installation and testing of the blow
- out preventersDrilling of the well
- Cementing of the well
- Well evaluation
- Well plugging and abandonment
- Post-drilling survey
- Support operations, including vessel and helicopter movements

PROJECT VESSELS

Western Gas is currently considering vessel options, with the drilling rig likely to be a moored semi-submersible mobile offshore drilling unit (MODU). Typically, two or three vessels will support drilling activities, with at least one vessel in the vicinity to complete standby duties, if required. Supply vessels from either Onslow or Dampier will visit the selected MODU at regular intervals.

STAKEHOLDER NOTIFICATIONS

Notifications will be issued prior to the start of the activity to alert other marine users who may be operating in nearby waters. A temporary Petroleum Safety Zone and Cautionary Area will be in place during the drilling of the well. Drilling activities will be deemed complete following the MODU moving off station.

ASSESSMENT OF IMPACTS AND RISKS

Western Gas has assessed potential risks and impacts to the marine environment and relevant stakeholders, considering the timing, duration, location and the nature and scale of the proposed activity. Table 1 summarises key potential impacts resulting from planned and unplanned activities. Western Gas is consulting relevant stakeholders to help inform its management of these impacts and risks, and planning for the Environment Plan. Table 1. Risk and impact assessment, and associated management measures.

POTENTIAL RISKS/ IMPACTS	MANAGEMENT MEASURES
PLANNED ACTIVITIES	
Interactions with other marine users	Establishment of a temporary Petroleum Safety Zone with a radius of 500 m around the MODU during the activity. Unauthorised vessels are not permitted to enter this zone.
	Establishment of a temporary Cautionary Area with a radius of up to number km around the MODU during the activity. Marine users will be permitted to enter this area but should take care for safety reasons.
	Consultation with relevant stakeholders, including adjacent petroleum titleholders, commercial fishers and their representative organisations, and government departments and agencies to inform decision making for the proposed activity and the development of the Environment Plan.
	Western Gas will notify maritime safety agencies and other identified stakeholders of the MODU location and start and end dates for the activity.
Light emissions	Lighting is minimised to that required for safety and navigational purposes.
Seabed disturbance	Well location and site appraisal to identify and address well-specific hazards and drilling constraints.
	MODU mooring analysis and anchor deployment in accordance with drilling contractor standards.
	No anchoring of support vessels during drilling.
Planned discharges to the marine environment	All routine marine discharges will be managed according to legislative and regulatory requirements and Western Gas' HSE Corporate Management System where applicable.
	 Chemical use will be managed in accordance with contractor chemical selection and approval procedures.
Underwater noise	Measures will be in place for interacting with protected marine fauna as per Part 8 of the Environment Protection and Biodiversity Conservation Regulations 2000 should vertical seismic profiling be undertaken.
Waste generation	Waste generated on the MODU and support vessels will be managed in accordance with legislative requirements and a Waste Management Plan.
	Wastes will be managed and disposed of in a safe and environmental responsible manner that prevents accidental loss to the marine environment.
	 Wastes transported onshore will be sent to appropriate recycling or disposal facilities by a licenced waste contractor.
UNPLANNED ACTIVITI	ES
Hydrocarbon release	Oil Pollution Emergency Plan and Operational and Scientific Monitoring Plan will be in place.
	Appropriate vessel spill response plans, equipment and materials will be in place and maintained.
Invasive marine species	Contracted vessels will comply with Australian biosecurity requirements and guidance, and Australian ballast water requirements.
	 Vessels will be assessed and managed as appropriate to prevent the introduction of invasive marine species.
Marine fauna interaction	Compliance with Part 8 of the Environment Protection and Biodiversity Conservation Regulations 2000.

PROVIDING FEEDBACK

Please contact Western Gas before **25 June 2021** if you would like to comment on the proposed activities outlined in this information sheet or would like additional information.

Your feedback will be included in the Environment Plan for the proposed activity, which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for acceptance in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth).*

Please let us know if wish your personal/organisation details or any part of your feedback to remain confidential as a summary of your feedback and our response in the Environment Plan for this activity will be published on NOPSEMA's web site.

This Environment Plan for this activity will also be open to public review and comment and will be published **here** following submission by Western Gas and a completeness check by NOPSEMA.

Please contact Western Gas at: feedback@westerngas.com.au