



### Decision - Environment Plan Revision - Pluto 4D Marine Seismic Survey

This document provides notification of NOPSEMA's decision made under regulation 10 of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Environment Regulations) to accept an environment plan.

### **Submission information**

Titleholder:	Woodside Burrup Pty Ltd
Environment plan:	Revision: Pluto 4D Marine Seismic Survey Environment Plan (Rev 4), Document No: 10145570
Petroleum titles:	WA-34-L; WA-350-P R1; WA-82-AA
Date first submitted to NOPSEMA:	21 December 2015
Activities type(s) <sup>1</sup> :	Seismic survey
Activity overview: As described in the accepted environment plan.	The Pluto 4D (time lapse) MSS survey commenced late November 2015, and is expected to take approximately 55 days to acquire the survey data.  The Pluto 4D MSS will provide an improvement on the current seismic data set, both in terms of delivering a timelapse 4D monitor survey matching the spatial positions of the shots and receivers of the original Pluto 2004 3D vintage dataset, and a higher definition baseline of 3D seismic data for future 4D seismic acquisitions in both the Pluto and Xena fields. The 4D and 3D components of the survey will be undertaken as a single survey, using the same array and source volume, over the same operational area.  SURVEY DETAILS  The proposed Pluto 4D MSS has a total survey area of about 780 km2, surrounded by a 15 km buffer making up a total Operational Area of approximately 3,710 km2. The Operational Area is within 150 km north-west of Dampier and 25 km north-west from the nearest shoreline, the Montebello Islands.  The 'survey area' is the vicinity within which the majority of seismic acoustic emissions will occur for the purposes of acquiring data. Additionally, within the

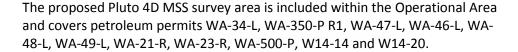
<sup>1</sup> Activity type as listed in the Offshore Petroleum and Greenhouse Gas Storage (Regulatory Levies) Regulations 2004

'Operational Area' the seismic source may be discharged at or below

full capacity (power) for the purpose of run-outs, source testing and soft starts.

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The proposed Pluto 4D MSS Operational Area covers the additional petroleum permits of WA-1-IL, WA-5-R, WA-427-P, WA-444-P, WA-15-R, WA-356-P and WA-253-P.

The Pluto 4D MSS is currently in operation, having commenced on 27 November 2015, is expected to take approximately 55 days to acquire, and is anticipated to be concluded in January 2016 subject to operational constraints and prevailing weather conditions.

#### **ACTIVITY SUMMARY**

Seismic surveying is commonly used in the oil and gas industry to improve understanding of subsurface geology.

For the Pluto 4D MSS, seismic data will be collected using a purpose-built seismic survey vessel towing dual acoustic source arrays and hydrophone cables, also known as streamers.

The acoustic emissions from the source arrays will be detected by the hydrophone cables and recorded on board the seismic vessel. The reflected sound is then processed to provide information about the structure and composition of geological formations below the seabed to identify potential hydrocarbon reservoirs.

For the Pluto 4D MSS, the source arrays will have a total volume of less than 3150 cubic inches and will be towed at a depth of 6 to 9 m. The vessel will tow up to 12 gel filled hydrophone streamers, which will be up to 7,000 m long, towed at a depth of up to 20 m and the distance between the hydrophone streamers will be approximately 100 m.

The seismic vessel will traverse the survey area in a series of pre-determined lines at a speed of approximately 7 to 9 km/h.

A support vessel will be present during the survey. Any vessels in the vicinity should keep well clear, particularly when the survey vessel is turning.

Decision:	Accepted
Decision date:	8 January 2015
Decision made by:	Environment Manager – Assessment and Inspection, Seismic and Production Operations



### **Basis of decision**

NOPSEMA has assessed the environment plan in accordance with its assessment policies and procedures. Having regard to all information provided by, and referred to in the environment plan, NOPSEMA is reasonably satisfied that the environment plan meets the criteria set out in Regulation 10A of the Environment Regulations.

## Next steps for the petroleum activity

An environment plan summary must be provided to NOPSEMA within 10 days of this acceptance. Regulation 11(4) requires that this document provide material from the accepted environment plan.

Once the summary document has been prepared to NOPSEMA satisfaction it will be published on NOPSEMA's website. NOPSEMA aims to have all environment plan summary documents published within 20 days of acceptance. This timeframe may vary should the document require amendment by the titleholder.

The titleholder is required to notify NOPSEMA 10 days prior to the commencement of the activity. This notification will be published on NOPSEMA's website.

# **Titleholder environmental performance requirements**

A titleholder is required to undertake a petroleum activity in accordance with the accepted environment plan. It is an offence under the Environment Regulations to act in a manner contrary to the accepted environment plan. A titleholder must submit a revision to the environment plan in response to a new or increased environmental impact or risk, or a significant modification or stage of the activity not provided for in the accepted environment plan.

# How to get further information

If you have any further questions regarding the activity it is suggested you contact the titleholder's nominated liaison person for the activity.

If you would like to access any further information regarding the decision, or would like to contact NOPSEMA please email <a href="mailto:environment@nopsema.gov.au">environment@nopsema.gov.au</a>.