

Our Ref: 01.01.01.01-6021U  
UKOP Doc Ref:1330336



Offshore Petroleum Regulator  
for Environment & Decommissioning

SHELL U.K. LIMITED  
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Registered No.: 00140141

Date: 4th March 2024

Department for Energy Security &  
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Dear Sir / Madam

**THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING  
AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS  
2020**

**PENGUIN A {PENGUIN WEST}, Ocean Endeavor DRILLING PRODUCER WELL  
211/13a- Pan North West (A05) planned well**

I refer to your amended application dated 4th March 2024, reference DR/2450/1 (Version 1).

It has been determined that the proposed changes to the project is not likely to result in a significant effect on the environment, and therefore an environmental impact assessment is not required.

A screening direction is therefore issued for the changes to the project. An amended schedule of conditions, comments, and main reasons for the decision on the amended application, are attached. A copy of this screening direction will be forwarded to the application consultees, the Oil and Gas Authority and published on the gov.uk website.

If you have any queries in relation to this screening direction or the attachments, please do not hesitate to contact [REDACTED] on [REDACTED] or email the Environmental Management Team at [OPRED@energysecurity.gov.uk](mailto:OPRED@energysecurity.gov.uk).

Yours faithfully



**THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING  
AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS  
2020**

**SCREENING DIRECTION CONFIRMING THAT AN ENVIRONMENTAL IMPACT  
ASSESSMENT IS NOT REQUIRED**

**PENGUIN A {PENGUIN WEST}, Ocean Endeavor DRILLING PRODUCER WELL  
211/13a- Pan North West (A05) planned well**

**DR/2450/1 (Version 1)**

Whereas SHELL U.K. LIMITED has made an application dated 4th March 2024, under The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020, and whereas the Secretary of State has considered the application and is satisfied that the project is not likely to have a significant effect on the environment; in exercise of the powers available under regulation 6, the Secretary of State hereby directs that the application for consent in respect of the project need not be accompanied by an Environmental Impact Assessment, provided that the project is carried out as described in the application for the screening direction and in accordance with the conditions specified in the attached schedule.

In giving a screening direction under regulation 6 of the above Regulations, the Secretary of State accordingly gives agreement to the Oil and Gas Authority to the grant of consent for the project as detailed in the application, WONS/16354/0/C/1 Version 1 and WONS/16033/0/IDA/1 Version 1.

Effective Date: 4th March 2024

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## **THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2020**

### **SCHEDULE OF SCREENING DIRECTION CONDITIONS**

The grant of this screening direction is conditional upon the screening direction holder complying with the following conditions.

#### **1 Screening direction validity**

The screening direction shall be valid from 28 February 2024 until 31 October 2024.

#### **2 Commencement and completion of the project**

The holder of the screening direction must notify the Department for Energy Security & Net Zero (hereinafter called the 'Department') of commencement and completion of the project within two days:

a) of commencement of the project and

b) of completion of the project.

Notification should be sent by email to the Environmental Management Team Mailbox: [OPRED@energysecurity.gov.uk](mailto:OPRED@energysecurity.gov.uk)

#### **3 Nature of stabilisation or protection materials**

Sand bags

Eleven plastic sandbags will be deposited on the seabed. Seven will be depoloyed to mark the intended position of the spud nad respud locations. Four additional sandbags will be deployed as markers for the Transponders which will be deployed ontop of the sandbags. (The number of bags deposited should be the minimum required to provide the necessary protection, and any surplus bags must be returned to land). The area od each sandbag is approximately 0.45m x 0.2m in size.

Grout bags deposits

4 tonnes of grout contained within 1000 kilogramme capacity bags. (The number of bags deposited should be the minimum required to provide the necessary protection, and any surplus bags must be returned to land). These are to support the cocoon halves when in an open position.

#### **4 Prevention of pollution**

The holder of the screening direction must ensure that appropriate measures are



taken to minimise discharges, emissions and waste, in particular through the appropriate use of technology; and to ensure that necessary measures are taken to prevent incidents affecting the environment or, where they occur, to limit their consequences in relation to the environment.

## **5 Inspections**

Should the Department consider it necessary or expedient for an inspector appointed by the Secretary of State to investigate whether the conditions of the screening direction are being complied with, the holder of the screening direction shall afford the inspector with such facilities and assistance as the inspector considers necessary to exercise the powers conferred by the regulations. The holder of the screening direction shall additionally ensure that copies (electronic or paper) of the screening direction and any other relevant documents are available for inspection by the inspector at:

- a) the premises of the holder of the screening direction; and
- b) the facilities undertaking the project covered by the screening direction.

## **6 Check monitoring**

Should the Department consider it necessary or expedient to undertake an independent monitoring programme to assess the impact of the project covered by the screening direction, the screening direction holder shall afford the Department with such facilities and assistance as the Department considers necessary to undertake the work.

## **7 Atmospheric emissions returns**

Following completion of the project covered by the screening direction, the holder of the screening direction shall report all relevant atmospheric emissions, such as combustion emissions, extended well test emissions or flaring and venting emissions relating to a well test, using the appropriate Environmental Emissions Monitoring System (EEMS) reporting forms. In the case of atmospheric emissions relating to drilling projects undertaken from a fixed installation, they should be included in the annual EEMS reporting forms for the fixed installation.

## **8 Unauthorised deposits**

Following completion of the project covered by the screening direction, the holder of the screening direction shall recover any materials accidentally or temporarily deposited on the seabed, such as debris, temporary containers, structures or deposits, or scientific instruments, and shall return the materials to land. If it is not possible to recover any of these deposits, full details of the materials remaining on the seabed must be reported to the Department in accordance with the requirements of Petroleum Operations Notice No.2 (PON2).

## **9 Screening direction variation**



In the event that the holder of the screening direction proposes changes to any of the particulars detailed in the application for a screening direction, the holder must notify the Department immediately and submit an application for a post screening direction amendment. The post screening direction must be in place prior to the amended proposals taking effect.

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## COMMENTS ON THE APPLICATION FOR SCREENING DIRECTION

### Section 1

The attention of screening direction holders is drawn to the following provisions regarding The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020.

1) You are deemed to have satisfied yourself that there are no barriers, legal or otherwise, to the carrying out of the project covered by the screening direction. The issue of a screening direction does not absolve the screening direction holder from obtaining such authorisations, consents etc that may be required under any other legislation.

2) The Department would draw your attention to the following comments:

#### **DRA/1043, DR/2450/1**

The eleven sandbags detailed in this variation must be recovered as soon as the drilling operations have concluded.

3) All communications relating to the screening direction should be addressed to:

OPRED@energysecurity.gov.uk

or

Offshore Petroleum Regulator for Environment & Decommissioning  
Department for Energy Security & Net Zero  
AB1 Building  
Crimon Place  
Aberdeen  
AB10 1BJ

Tel [REDACTED]





## **SCHEDULE OF SCREENING DIRECTION DECISION REASONS**

The Secretary of State has decided that, based on the information provided, the project is not likely to have a significant effect on the environment. The main reasons for this decision are:

### **1) Decision reasons**

The following provides a summary of the assessment undertaken to determine whether an Environmental Impact Assessment is required for this project, summarises the information considered, the potential impacts and sets out the main reasons for the decision made. In considering whether an Environmental Impact Assessment is required or not, the following have been taken into account:

- a) the information provided by the developer.
- b) the matters listed in Schedule 5 of The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Regulations 2020) (the Regulations);
- c) the results of any preliminary verifications or assessments of the effects on the environment of the project; and
- d) any conditions that the Secretary of State may attach to the agreement to the grant of consent.

### **Characteristics of the Project**

Having regard, in particular, to the matters identified at paragraphs 1(a) to (g) of Schedule 5 to the Regulations, the characteristics of the project include the following:

### **Summary of the Project**

#### **DR/2450/1**

The change of project was requested to cover the installation of eleven sandbags within the 500m zone to support the spud locations as well as the installation of eight metrology transponders around the Penguins PAN-NW well.

#### **DR/2450/0**

- Drilling of PAN Northwest (A05) production well from the Semi-submersible mobile drilling unit (MODU) Ocean Endeavour;
- Drilling of the well in 5 sections: the 36" and 26" sections will be drilled with Water Based Mud (WBM);
- The 17.5", 12.25" and 8.5" sections will be drilled with Low Temperature Oil Based Mud (LTOBM);
- Installation of the Production flow base and cocoon to protect the wellhead;
- Completion of well
- Well clean-up involving flaring (96 hr flow);
- Close in the well and close cocoon
- Contingency options include installing the drilling guideline flow base for the drilling



phase and installation of the production flow base and cocoon later prior to the completion phase, after the BOP has been recovered and before installing the Xmas Tree.

- Contingency side-track/geological side-track for the lower sections only; re-spud for the upper sections;
- Contingent 6" section;
- Contingent suspension if the well is unsuccessful.

## **Description of the Project**

### **DR/2450/1**

This application is amended to include the option to deploy eleven plastic sandbags and eight metrology transponders around the Penguins PAN-NW Well. Seven sandbags will be deployed by the AHV to mark the intended position of the spud and re-spud locations (two at spud centre, one at the respud location and four bags as tolerance indicators around the centre point).

A further four sandbags will be deployed as markers for four of the transponders, which will be subsequently deployed over the sandbags. An additional two transponders will be deployed adjacent to the wellhead once installed (without sandbags). Two further transponders will be deployed directly onto the DC2 manifold - as these are not directly impacting the seabed they are not included in the seabed area of impact calculations.

The sandbags and transponders will be recovered by the MODU ROV upon completion of the metrology scope.

The area of impact for each sandbag is (11 in total) is approximately 0.45 m (45 cm) x 0.2 m (20 cm) in size. The area of impact for each transponder (6 in total) is approximately 0.9 m (90 cm) x 0.9 m (90 cm). Given the small overall area impacted (6.03m<sup>2</sup>), that the operations are being undertaken within an existing 500 m zone and the short duration of the deployment, any seabed impact would be expected to be negligible. The increase in scope within application DR/2450/1 does not impact the previous conclusions of DR/2450/0.

### **DR/2450/0**

The drilling of PAN NW well is part of the re-development of the Penguins field. The drilling of the production well will be from the MODU Ocean Endeavour. The rig will be held on location by up to 18 anchors (inclusive of six contingent anchors) which will be pre-laid prior to rig arrival. The project will be supported by up to 4 anchor handling vessels (AHV), supply vessels, an emergency support vessel and helicopter flights. A contingency wet storage area for the anchors will be used in the event of deck space being restricted on the AHVs.

The well will be drilled in 5 sections. The upper 36" and 26" sections with seawater and WBM, the lower 17.5", 12.25" and 8.5" with LTOBM. The WBM and cuttings will



be discharged to the seabed. The LTOBM and cuttings will be thermally treated on the rig, and cuttings discharged from the drill rig. The well will be cleaned-up prior to production phase. A cement patio, flowbase and cocoon (including 4 grout gabions) to protect the wellhead will be installed. Non-routine flaring of hydrocarbons is proposed during clean-up of the well as no pipeline infrastructure exists to produce the fluids back to a processing facility.

There are five synthetic oil-in-water waste streams resulting from the project which will be treated and analysed before discharge. Where specification for discharge can't be met, the waste will be returned to shore for treatment and disposal.

The project will take place from the earliest 28th February until 31st October 2024, taking 127 days to complete.

No significant cumulative impacts are expected to occur with any other existing or approved projects. There is not likely to be any significant impact of the project on population and human health. It is not considered likely that the project will be affected by natural disasters. No nuisances are foreseen from the project.

### **Location of the Project**

Having regard to the matters identified at paragraphs 2(a) to (c) of Schedule 5 to the Regulations, the environmental sensitivity of geographical areas likely to be affected by the project has been considered as follows:-

The proposed drilling project at the PAN NW well location is within the Northern North Sea in the Penguins West Field, UKCS Block 211/13a approximately 150 km east from the Shetland coastline in Scotland and adjacent to the UK/Norwegian median line, in an area where water depth is approximately 170m. The PAN NW well is part of the re-development of the Penguins field which started in 2019; 8 wells have been drilled, with the most recent, completed in 2022, Tybalt, Pan West, Rockhopper and PC04.

The project location is not within any protected areas, with the closest being 108 km away. Site-specific surveys identified the seabed as comprising of gravelly sand with varying proportions of shell accumulations, pebbles, cobbles, and boulders. The sediment type is described as circalittoral coarse sediment. The benthic species identified, correlated with expected assumptions and were more prevalent near or on cobbled and stony areas. The most commonly observed benthic fauna included sea urchins, starfish, anemones, polychaetes, hermit crabs, squat lobsters, shrimps, sponges, and sea cucumbers.

The project works and timing will take place at a time when a number of fish species may be found to be using the area as spawning, juvenile or nursery locations. Sightings of cetaceans are most common during the months of July and August. Seals are not expected to be seen at the remote location. Seabirds are most common in the area during the late summer months of August and September when expected density is 10-20 individuals per square km. The project area is primarily used for demersal fishing, but with a very low historical effort. Shipping intensity at



the project location is very low. The surrounding area comprises other oil and gas infrastructure within 11km, but is not within a military activity zone, with no telecommunications cables, marine aggregate sites or renewable energy locations in proximity. An unknown wreck was identified approximately 5.7km north of the location.

Given the location of the project, the areas identified at paragraphs 2(c)(i), (iii), (iv), (vi), (vii) and (viii) of Schedule 5 are not likely to be affected by the project.

### **Type and characteristics of the potential impact**

In accordance with paragraph 3 of Schedule 5 to the Regulations, the likely significant effects of the project on the environment have been considered. Potential effects to the environment from the activities associated with the project were assessed, with focus on the predominant impacts resulting from physical presence from the rig / vessels, atmospheric emissions from drilling rig including flaring, vessel use and helicopter flights, planned discharges to sea from chemical use and discharge, seabed disturbance from siting the rig, and accidental events such as an oil release.

The drill rig has the potential to cause interference to other users of the sea, namely fishermen and vessel traffic, however the rig and support vessels will be located in a safety zone for the well. Its presence within the safety zone means only authorised vessels would be allowed within the 500 m radius of the well, therefore excluding other users of the sea. Given the low importance of the fishing area and the low vessel traffic, and that the drilling project is a temporary activity - the impact is assessed not significant. A support vessel will be on site continually to monitor for vessel traffic and provide alerts.

The area of seabed disturbance resulting from temporary disturbance from rig positioning is 0.051km<sup>2</sup>. With an area of permanent impact of 0.386 km<sup>2</sup> from cuttings discharge, cement patio and sub-surface infrastructure. The main receptor impacted by seabed disturbance will be the benthic communities. Physical disturbance can cause mortality or displacement of benthic species in the impacted zone. Based on cuttings discharge modelling, deposition of cuttings with a thickness > 6.5 mm is not expected beyond 215 m from the drilling location. The temporary installation of the drill rig anchor system is not expected to result in significant changes to sediment properties and rapid recovery of faunal communities within the disturbed area may be expected through a combination of larval settlement and migration of animals from the adjacent seabed once the anchors and moorings are removed. Therefore, the impact on benthic communities will not be significant.

Offshore chemicals will be used and discharged during the drilling of the well. The use and discharge of the chemicals have been risk assessed and modelled in accordance with other regulatory requirements. The use and discharge modelling shows a low risk to the environment from the chemicals. Use and discharge of chemicals is not expected to have a significant impact on the environment.

The discharge of treated LTOBM cuttings will result in some impacts to marine



organisms resulting primarily from smothering and grain size change. The impact of drilling discharges on water quality and benthic fauna is predicted to be minimal as affects will be localised and short-lived. Moreover, given that recovery of the seabed and the associated benthic communities is likely to begin once drilling has been completed, the environmental impact of the discharged cuttings, within the impacted area, is assessed as not significant.

Emissions to air are possible from combustion plant used on the rig, support vessels, helicopter flights and any flaring activity. The flaring will not have a detrimental effect to local air quality over the long-term, and the contribution to climate impact is not significant. The environmental effects from emissions to air are not expected to have a significant impact on the environment.

The impact of the vessel emissions will be mitigated by optimising vessel efficiency (i.e. minimising the number of vessels used and vessel trips required to achieve the construction deliverables) and hence fuel use and avoiding the unnecessary operation of power generation / combustion equipment. The estimated emissions for flaring are those for the maximum volume of hydrocarbons anticipated to be flared.

Potential transboundary effects, in the context of this well, are accidental events leading to a loss of well control. The nearest boundary (UK/Norway Median Line) is approximately 6.5 km west of the operations. In the event of loss of well control, well fluids are modelled to cross the median line and result in beaching of fluids on the coastline in both the UK and Norway. It is considered unlikely that any planned operational discharge (chemicals) will be detectable at this distance from the well location. The well to be drilled is a production well and there is potential for a Major Environmental Incident (MEI) resulting from an uncontrolled well blow-out. However, the risk of an oil spill event because of a well blow out is minimal, and the developer has suitable mitigation in place to prevent such an occurrence. An Oil Pollution Emergency Plan (OPEP) is in place covering all operations from the Ocean Endeavour.

The operations will be carried out in accordance with the Scottish National Marine Plan objectives.

### **Decision**

Taking the above considerations into account, the Secretary of State has concluded that the project is not likely to have a significant impact on the environment and that an environmental impact assessment is not required.

### **2) Mitigation of significant effects**

The following are features of the project or measures envisaged that the developer has proposed to avoid or prevent what might otherwise have been significant adverse effects on the environment:

N/A