

Our Ref: 01.01.01.01-3405U  
UKOP Doc Ref:1213833



Offshore Petroleum Regulator  
for Environment & Decommissioning

SHELL U.K. LIMITED  
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LONDON  
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Registered No.: 00140141

Date: 7th July 2022

Department for Business, Energy  
& Industrial Strategy

AB1 Building  
Crimon Place  
Aberdeen  
AB10 1BJ

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Fax

[www.gov.uk/beis](http://www.gov.uk/beis)  
[bst@beis.gov.uk](mailto:bst@beis.gov.uk)

Dear Sir / Madam

**THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING  
AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS  
2020  
211/13a  
PAN-WEST PLANNED WELL**

I refer to your amended application dated 7th July 2022, reference DR/2190/1 (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 [bst@beis.gov.uk](mailto:bst@beis.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**

**211/13a  
PAN-WEST PLANNED WELL**

**DR/2190/1 (Version 1)**

Whereas SHELL U.K. LIMITED has made an application dated 7th July 2022, 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 his agreement to the Oil and Gas Authority to the grant of consents for the project as detailed applications WONS/13715/0/C/1 and WONS/14517/0/EWT/1.

Effective Date: 7th July 2022



# **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 25 January 2022 until 31 August 2022.

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

The holder of the screening direction must notify the Department for Business, Energy & Industrial Strategy (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: [bst@beis.gov.uk](mailto:bst@beis.gov.uk)

### **3 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.

### **4 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.



## **5 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.

## **6 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.

## **7 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).

## **8 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:

N/A

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

bst@beis.gov.uk

or

Offshore Petroleum Regulator for Environment & Decommissioning  
Department for Business, Energy & Industrial Strategy  
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 assessments undertaken by OPRED 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**

- Drilling of Pan-West production well (consisting of 17.5, 12.25, and 8.5-inch sections);
- Completion of well;
- Well clean-up involving flaring (96 hr flow);
- Contingent side-track/re-drill option (36, 26, 12.25 and 8.5-inch sections only); and
- Contingent suspension if well unsuccessful.

Note: DR/2190/1 updates the length of well test from 96 hours to 240 hours only, with no increase in the total quantity of hydrocarbons to be flared.



## **Description of the Project**

The drilling of the production well will be facilitated by the anchored semi-submersible drill rig Ocean Endeavour and may take up to 91 days to complete. 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 an anchor handling vessel, a supply vessel, an emergency support vessel and helicopter flights. The well will be drilled in three sections, using low toxicity oil-based mud (LTOBM). The oil-based mud will be thermally treated, and cuttings discharged if within oil on cuttings specification. The well will be cleaned-up prior to production phase. 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. Drilling is planned to begin in February 2022, and the screening direction covers the period February 2022 to 31 August 2022.

No significant cumulative impacts are expected to occur with any other existing or approved projects. The risk of a major accidents and environmental effects from major accidents, such as a well blowout has been assessed. The Developer has control measures in place to reduce the risk of a major accident occurring and the probability of such an event occurring is very low.

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. 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.

## **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 Pan-West well location lies within a seaward licenced area, which has been licenced for the exploration and extraction of hydrocarbons. The project is located 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 170 m. The predominant current in the location is dominated by three Atlantic flows, with circulation variable in the centre.

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 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 11 km, 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 7.9km northwest 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 change to 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 deemed insignificant. A support vessel will be on site continually to monitor for vessel traffic and provide alerts.

The area of seabed disturbance resulting from rig positioning and discharge of drill cuttings is 0.1 km<sup>2</sup>. 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 effects will be localised and short-lived. Moreover, given that recovery of the seabed and the associated benthic communities is likely to begin once drilling been completed, the environmental impact of the discharged cuttings, within the impacted area, can be considered insignificant.

Emissions to air are possible from three main sources, (1) combustion plant used on the rig and vessels and (2) any flaring activity. The quantity of carbon dioxide equivalent from the vessels amounts to 0.069% of the 2018 total CO<sub>2</sub>e emissions from offshore oil and gas activity. Flaring from the project during well clean-up/well test for a worst-case 240 hr flow period, results in a carbon dioxide equivalent of 0.207% of UK offshore oil and gas flaring CO<sub>2</sub>e emissions based on 2018 data.

The flaring will not have a detrimental effect to local air quality over the ong-term, and the contribution to climate impact is insignificant. 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 minimising 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. Flaring duration will be determined by the well clean up objectives.

If an unlikely and unplanned accidental spill scenario from a well blow-out was realised, the expectation is that it could take 94 days before it is brought under control via self-kill (i.e. unable to sustain flow). The total volume of oil that would be released from the Pan-West well has been estimated at 363,122 m<sup>3</sup> - significantly less than the worst-case modelling of the Rockhopper well (a different well in the Penguins drilling campaign). The proxy modelling of the Rockhopper well suggests differences in expected results from a spill with that of the Pan-West well, given that the Pan-West well is expected to cease flow after 94 days. The proxy modelling



suggests that beaching of oil would occur and that a major environmental incident would be likely. The effects of a Pan-West release would be less, but a major environmental incident couldn't be ruled out. Appropriate mitigation measures will be in place and an approved oil pollution management plan to manage potential hydrocarbon releases will be in place prior to activities being undertaken.

There are no planned expected transboundary impacts as a result of the project.

## **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:

Not applicable