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Offshore Petroleum Regulator
for Environment & Decommissioning

NEPTUNE E&P UK LIMITED
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Registered No.: 01483021

Date: 28th October 2022

Department for Business, Energy
& Industrial Strategy

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Crimon Place
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Dear Sir / Madam

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

CYGNUS, BORR PROSPECTOR 1 DRILLING PRODUCER WELL 44/12a-A1 (AC)

I refer to your amended application dated 28th October 2022, reference DR/2252/1 (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.

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**

CYGNUS, BORR PROSPECTOR 1 DRILLING PRODUCER WELL 44/12a-A1 (AC)

DR/2252/1 (Version 1)

Whereas NEPTUNE E&P UK LIMITED has made an application dated 28th October 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 agreement to the Oil and Gas Authority to the grant of consent for the project as detailed in the application, WONS_SCON/4746, WONS/13794/0/C/1 Version 1, WONS/13962/0/WT/1 Version 1 and WONS/13962/1/WT/1 Version 1.

Effective Date: 28th October 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 5 July 2022 until 30 November 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

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:

The Department has no comments at this time.

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: +44 (0)7471 358133



SCHEDULE OF SCREENING DIRECTION DECISION REASONS

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. This document 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 12.25" section with Low Toxicity Oil Based Mud (LTOBM)
- Drilling of 8.5" section using Low Toxicity Oil Based Mud (LTOBM)
- Drilling of 6" reservoir section using Low Toxicity Oil Based Mud (LTOBM)
- Completion including hydraulic fracturing
- Well Clean up and well test (maximum 144 hours flow and 1,980 tonnes hydrocarbon to be flared).

Description of project

DR/2252/1 Version 1 - This post screening direction amendment relates to the extension of the flow period of the well clean up and well test, due to the well clean up taking longer than anticipated. The flow time will be increased to a maximum of 144



hours but the total quantity of hydrocarbons which will be flared during the well clean up and test will be within the 1,980 tonnes of hydrocarbons as detailed in the original screening direction DR/2252/0 Version 5.

All other aspects of the project remain the same and the decision reasons below remain valid.

This project covers the drilling of the 12.25", 8.5" and 6" sections of the Cygnus 44/12a-A1 (AC) Well using the jack-up drilling rig the Borr Prospector 1, adjacent to the Cygnus Alpha Wellhead Platform (AWHP) (Cygnus A platform). This will be the 10th Well to be drilled from the Cygnus Alpha Platform.

The top section of the well was completed in June 2014 with the conductor being installed in the seabed (permit reference DRA/80). Following the placement of the conductor, the well was suspended in September 2014. The remaining sections of the well required to be drilled are the 12.25", 8.5" and potentially a 6" section which will all be drilled with LTOBM. The 12.25" section will be drilled with a LTOBM with a section length of 2,458m to the 9.625" casing point with a section length of 1647m. A 9.625" casing will be cemented into place to provide structural integrity. The 8.5" section will have a section length of 1,106m with a heavier LTOBM with a mud weight range of 14-14.5ppg. Upon completion of this section, a 7" casing will be cemented into position. Lastly, the 6" reservoir section is currently designated as a vertical section. It has a section length of 201.15m. All cuttings and LTOBMs associated with the drilling activities will be skipped and shipped to shore for processing and disposal. On completion of the drilling operations, the bottom hole assembly will be installed and hydraulic fracturing operations will be performed. Once the fracturing fluid has been injected, a fraction fluid flowback and clean-up will take place aboard the drilling rig and a short well test will be carried out prior to being flowed back to the Cygnus production facilities. Operations are expected to take 123 days to completion.

Drilling at the Cygnus A platform was assessed in the original scope for the Cygnus Field Development Environmental Statement (ES), reference D/4119/2011, submitted October 2011.

No cumulative impacts are expected to occur between this project and other existing projects due to the distance between them and the localised nature of any potential impacts.

It is not considered to be likely that the project will be affected by natural disasters. The risk of a major accident 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.

Other than the matters considered further below, there is not likely to be any significant impact of the project on population and human health.

Location of the Project



Having regard; in particular; 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 Cygnus gas field is located approximately 162 kilometres (km) northeast from the English coastline and 37km west from the UK/Netherlands boundary line. The operations are part of the development of the existing Cygnus field in UKCS blocks 44/11 and 44/12 and were included in the original scope of the ES D/4119/2011.

The project is in an area characterised by a predominantly sandy seabed and shallow well mixed waters with a water depth of 22 metres (m) Lowest Astronomical Tide (LAT). Wave heights within the Cygnus area ranges from 1.51 - 2.1m and the annual mean wave power is between 12.1 - 18kW/m. The Cygnus Field is located within the Dogger Bank Special Area of Conservation (SAC) and the Southern North Sea SAC.

The Dogger Bank SAC is designated due to the presence of the Annex I habitat 'Sandbanks which are slightly covered by seawater all the time'. The Dogger Bank covers 12,331 km² and is an extensive sublittoral sandbank in the SNS formed by glacial processes and submergence through sea-level rise. Across the Cygnus field, 73 recorded taxa in Block 44/11, 32 were polychaeta annelids (bristle worms) accounting for 63% of recorded individuals and 44% of the taxa. There were also 19 arthropod taxa (crustaceans, crabs, shrimps etc; 22% of individuals and 26% of taxa); 16 mollusc taxa (bivalves and snails; 11% individuals and 22% of taxa). Additionally, four echinoderm taxa were recorded, accounting for 1% of individuals and 5% of the taxa. Visible epifauna were sparse, consistent with mobile sandy sediments. Although seabed burrows were observed, densities were insufficient to constitute a 'sea pen and burrowing megafauna community' as listed under OSPAR (2008) list of threatened and/or declining species and habitats. There was no further evidence from geophysical data or seabed imagery of any other sensitive species or habitats within Block 44/12. Overall, the results of the species ranking and fidelity scores suggested a homogenous stable faunal community representative of the sandy sediments within the wider area.

As mentioned, the project is also within the Southern North Sea SAC which is designated as an area of importance for harbour porpoise. Harbour porpoise has been spotted in moderate densities in July, August and November and in low densities in April, May and June. Minke whale, long-finned pilot whale *Globicephala melas* and white-beaked dolphin have also been recorded in the vicinity of the Cygnus field. Minke whale have been recorded at low densities in May, July and August and long finned pilot whales in low densities in August. The Grey and Harbour seal density maps published by the Sea Mammal Research Unit (SMRU), reports the presence of grey and harbour seals in the Cygnus field as between 0-1 per 25km² confirming a sparse population. Seabird sensitivity during the operational period (July to November) ranges from low to extremely high in November. Fishing intensity in the vicinity of the Cygnus field is recorded as low on the Marine Management Organisation (MMO) interactive tool.



The proposed operations will coincide with fish spawning and/or nursery activity for a number of species.

The nearest cable to the proposed operation is the MCCA Active TAMPNET cable located approximately 1km to the northeast. No aggregate dredging and disposal sites, military activities, sites of marine archaeological interest, protected wrecks or planned offshore renewable energy developments have been identified within 40km of the proposed activities.

Given the location of the project, it is not likely that the areas identified at paragraphs 2(c)(i), (iii), (iv), (vi), (vii) of Schedule 5 to the Regulations will 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 on the environment from the activities associated with the project were assessed, including impacts arising from atmospheric emissions, seabed disturbance, physical presence, planned discharges and accidental spills.

Other than the matters considered further below, there is not likely to be any significant impact of the project on population and human health.

There is an existing 500 m radius safety zone around the Cygnus Alpha Platform, excluding unauthorised access of vessels, and prohibiting access to fishing vessels. No additional impacts to other marine users are identified as part of the operations at the A1 (AC) Well and the area is considered to be within an area of low traffic density.

There will be seabed disturbance and mortality of benthic fauna as a result of the location of the drilling rig using a 4-anchor mooring spread (including anchors, anchor chains) and the footprint of the spud cans. However, the rig is to be located on an existing gravel mat that was required during the previous drilling campaign and the impacts associated with the direct disturbance from the anchors, anchor chains and spud cans will be limited to 25,902.4 m². This direct impact and the indirect disturbance caused by suspended sediments are expected to be minimal and temporary, with recovery anticipated once the anchors, anchor chains and spud cans are removed. No cumulative impacts are expected to occur with any other existing or approved projects.

Discharge of offshore chemicals associated with the drilling of the well, cementing and completion operations have been assessed as not likely to have a significant effect on the environment. Offshore chemicals associated with LTOBM will be skipped and shipped.

The emissions associated with the project result from power demand of the mobile drilling unit, the associated well test and supply vessels. These emissions were



assessed as having a localised impact in the immediate area and it is expected the emissions will be rapidly dispersed and are not likely to have a significant impact.

There are no expected transboundary effects from the drilling, completion, well clean up and testing of the Cygnus A1 (AC) Well. The nearest boundary line (UK/Netherlands) is located approximately 37 km north-west of the operations. It is not considered likely that any planned operational discharges will be detectable with the environmental conditions and at this distance from the A1 (AC) well.

Although not a planned activity, a worst-case major accident scenario resulting from a potential well blow-out was modelled and assessed. The probability of a large oil spill from the proposed operations is low. Therefore, it is considered that the control measures in place to prevent loss of well control minimise the risk of an oil spill that could have a significant impact and the proposed operations carried out as planned are not likely to have a significant effect on the environment.

The drilling operations do not contradict any of the East Offshore Marine plan objectives and policies.

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