

Our Ref: 01.01.01.01-6281U
UKOP Doc Ref:1354937



Offshore Petroleum Regulator
for Environment & Decommissioning

PETROGAS NORTH SEA LIMITED
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LONDON
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Registered No.: 05470844

Date: 30th July 2024

Department for Energy Security &
Net Zero

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Dear Sir / Madam

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

**Baker, Noble Resilient DRILLING EXPLORATION WELL 47/03f- Baker planned
well**

A screening direction for the project detailed in your application, reference DR/2483/0 (Version 3), dated 17th July 2024 has been issued under regulation 6 of the above Regulations. The screening direction notice, and any relevant conditions and comments 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.

Yours faithfully

Signature valid

Digitally signed by Department for Energy Security
and Net Zero
Date: 2024.07.30 15:59:15 BST
Reason: On behalf of the Secretary of State
Location: Offshore Petroleum Regulator for
Environment and Decommissioning



**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**

**Baker, Noble Resilient DRILLING EXPLORATION WELL 47/03f- Baker planned
well**

DR/2483/0 (Version 3)

Whereas PETROGAS NORTH SEA LIMITED has made an application dated 17th July 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 following applications, WONS/16512/0/IDA/1 Version 1 (Drilling of well), WONS/16714/0/WT/1 Version 1 (Well Test) WONS/16715/0/AB3/1 Version 1 (Well Abandonment)

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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 1 August 2024 until 31 January 2025.

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

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:

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

The drilling of an exploration well (Baker 47/03f) which will be drilled in the southern North Sea in Block 47/3f. Operations are expected to last 58 days and will be drilled at a new drilling location with no existing infrastructure.

The well will be drilled by a jack up mobile drilling unit (MODU), the Noble Resilient, which will have a 500m exclusion zone established whilst it is on location at Baker.

The MODU will jack up on location, it will not require any anchors to be used during its positioning as the well site is in open water.

Drilling of the 36" section will be undertaken riserless, using seawater and sweeps with drill cuttings discharged directly at the seabed.

Drilling of the 17" section will be undertaken using seawater and sweeps with cuttings discharged from the MODU

Drilling of the 12.25", 8.5" and 6.5" sections will use low toxicity oil-based mud (LTOBM). The cuttings from this section will be brought to the surface, separated from the LTOBM, skipped and shipped

Contingency sidetracks have been included to represent the worst case for assessment.

Drillstem testing will be undertaken with resultant hydrocarbons directed to high efficiency burners to be flared.

The drilling operations are detailed in the NSTA references WONS/16512/0/IDA/1 Version 1 (drilling of the well) & WONS/16715/0/AB3/1 Version 1 (abandonment of well) & WONS/16714/0/WT/1 Version 1 (Well test)

Description of the Project

The project is to drill an exploration well at the Baker gas field using the Mobile drilling unit Noble resilient, the well (No. 47/3f) is a commitment under the P2433 licence.

The upper 36" section will be drilled riserless using seawater and sweeps with the upper 15 meters further opened to 42" to accommodate a low pressure well head housing, the cuttings will be discharged directly onto the seabed. The well will be displaced to spud mud and the conductor cemented to the seabed.

The 17.5" section will be drilled to depth 50m above the reactive clays using seawater and sweeps. The cuttings will be returned to the MODU where they will be discharged to sea. The well will then be displaced to a KCl inhibited system.

The 12.25, 8.5 and 6.5 sections will be drilled with LTOBM, cuttings will be returned to the MODU and cuttings will be separated from the LTOBM (which is reused) and skipped and then shipped to shore for treatment at a licensed facility. There will be no discharge of fluids or chemicals used in the drilling of these sections. After completion of drilling the casings will be cemented in place and scraped, completions run and the well cleaned up and displaced to clean brine.

In a success case, coring and wire line logging of the well will be undertaken. In addition, the well will be perforated and a drillstem test will be completed with the purpose of cleaning up the well, to determine reservoir pressure and gather bottom hole fluids. Base oil and hydrocarbons will be sent to flare using high efficiency burners with no hydrocarbon drop out. The well will be flowed over a period of 40



hours, with the maximum amounts of hydrocarbons flared being 1,315 tonnes for gas and 43 tonnes for condensate.

The drilling operation may be temporarily suspended before the well has reached its intended depth. This suspension would be employed if the MODU was required to move to the nearby proposed Abbey well and complete the drilling of this appraisal well before returning to complete the Baker well. This option is being retained as the Abbey well is also to be drilled by the Noble resilient and must be completed in time for a planned operation later in the year. Thus, if delays are incurred during the Baker project the decision may be made to pause Baker and complete the proposed Abbey appraisal well. The suspension will occur above the 9 " or 7" shoe, before it enters any reservoir formation. The suspended well will be protected by a fishing friendly structure which will be deployed to the seabed and the Emergency Response Rescue Vessel (ERRV) on station at Abbey will monitor the vessel traffic at Baker to manage any interaction with other users of the sea.

After exploration operations have been completed the well will be permanently plugged and abandoned with the conductor cut to 3m below the seabed.

The operations will take 58 days to complete but due to potential delays or pauses in operation the project end date is 31st January 2025.

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 proposed drilling project is located in the Southern North Sea in the Baker gas field in block 47/3f. It is 37km from the English coastline at Yorkshire and 155km for the UK-Netherlands median line in a water depth of approximately 48m. The seabed in the vicinity of the well is sand with various proportions of gravels, with extensive areas of mega ripples. The seabed corresponds to circalittoral sand and circalittoral coarse sediment. Annual mean significant wave height is 1.21 m to 1.50 m and modelled data indicates maximum tidal rates are 0.073 metres per second (m/s) and 0.593 m/s for neap and spring peak flows respectively

Benthic surveys identified many parts of the seabed to resemble the Eunis level 4 biotope MD321 'Faunal Communities in Atlantic Offshore Circalittoral Coarse Sediment' which corresponds with the JNCC biotope SS.SCS.OCS . The level 5 biotopes under this classification are both infauna dominated, namely SS.SCS.OCS.GlapThyAmy 'Glycera lapidum, Thyasria spp. and Amythasides macroglossus in Offshore Gravelly Sand' and SS.SCS.OCS.HeloPkef 'Hesionura elonga and Protodorvillea kefersteini in Offshore Coarse Sand. Whilst infauna dominate the biotope notable epifauna were also observed in almost all seabed photographs and video, these included dead man's fingers (*Alcyonium digitatum*), hydroids (*Tubularia* spp.), hornwrack (*Flustra foliacea*) and dahlia anemones (*Urticina* spp.). No annex 1 stony or biogenic reefs were observed, two specimens of ocean



quahog were observed in grab samples which are classed as an OSPAR threatened or declining species.

The well site is within the Southern North SAC which protects harbour porpoise and is 2.5km from the Holderness offshore marine conservation zone (MCZ).

Five species of cetaceans have been spotted in the waters around the Baker well which is situated within SCANS IV Block NS-C in which harbour porpoise, bottlenose dolphin, common dolphin, minke whale and white-beaked dolphin have been recorded. Harbour porpoise is the only cetacean species expected to be found in relatively high numbers in the vicinity of the proposed well. Grey and harbour seals may be encountered in the area with moderate densities of grey and low densities of harbour seal.

The Baker area is important for kittiwake (*Rissa tridactyla*), guillemot (*Uria aalge*), puffin (*Fratercula arctica*), herring gull (*Larus argentatus*) and great black-backed gull (*Larus marinus*) but seabird sensitivity to oiling in the vicinity of the Baker well is low during the proposed operational window of August to January.

The proposed operations lie within the ICES rectangle 36F0 and the project will coincide with fish spawning and/or nursery activity for a number of species including cod (*Gadus morhua*), herring (*Clupea harengus*), lemon sole (*Microstomus kitt*), plaice (*Pleuronectes platessa*) (high intensity), sandeels (*Ammodytidae* sp.) sole (*Solea solea*) and sprat (*Sprattus sprattus*).

The most frequently used fishing gear in this ICES rectangle is pots and traps, followed by dredges, drift and fixed nets, with the most common species caught being crabs, lobsters and scallops. The 36F0 rectangle experiences a high intensity of fishing activity during the months when drilling is proposed, mainly by vessels over 10m in length. In 2022, a total of 3,204 days were spent fishing in ICES Rectangle 36F0 with a peak in effort recorded in August (370 days).

There are four wrecks within 5km of the proposed well but none are capable of being impacted. There are no submarine cables within block 47/3. This area is within an Air Force Department Danger Area and block 47/3 has conditions that the MOD must be notified before locating any structure on the surface. There are four aggregate sites within 40 km of the proposed Baker exploration well. The nearest is the Humber 1 aggregate production agreement area (operated by CEMEX UK Marine Ltd) which lies approximately 37 km southwest of the proposed well. The density of shipping traffic in the Baker location is relatively high due to the presence of fishing vessels, ferries between the UK and the rest of Europe, cargo and offshore support vessels.

There are three offshore windfarm projects within 40 km of the proposed Baker Exploration well. These are the proposed Hornsea Project Four cable corridor (Orsted Power UK Limited) approximately 8 km to the north. The active Westermost Rough wind farm (operated by Orsted Power (UK) Limited) approximately 23 km southwest and the active Humber Gateway wind farm (operated by E.ON Climate and Renewables) approximately 32 km to the southwest.



There is some oil and gas infrastructure nearby, namely the Minerva platform, operated by Perenco, approximately 8 km east southeast and the York platform, operated by Spirit Energy approximately 8 km south west of the proposed Baker exploration well location. There are also several pipelines in the vicinity, namely the active Cleeton CP to Dimlington gas pipeline (PL447) operated by Perenco, the Tolmount gas and methanol pipelines (PL4849 and PL4850 respectively) and the Apollo to Minerva gas pipeline (PL1937) operated by Perenco.

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.

The well will be drilled from the Noble Resilient MODU. There is currently no existing 500m safety zone in place as there is currently no infrastructure at Baker. A 500m safety zone will be in place once the MODU arrives on location, which will exclude unauthorised access of vessels and prohibits access to fishing vessels

An ERRV will be on site and in addition to providing emergency support to the Noble Resilient, it will also act as a guard vessel advising other users of the presence of the drilling operations. These duties will also include monitoring vessel traffic and liaising with any fishing vessels working near the Baker well during the potential temporary suspension. This monitoring work during the suspension will take place from its position alongside the MODU at Abbey (approximately 3km away). During the temporary suspension of the well, (when the MODU moves to Abbey), the Baker conductor/well head will sit proud of the seabed, consequently a fishing friendly protection structure will be placed over the conductor, which will protect the well from fishing interaction. A Consent to locate will be in place for the well and its protection structure for the suspension period. All appropriate notifications to mariners will be made prior to drilling activities commencing.

There are high levels of fishing activity and vessel traffic in block 47/3 so there will be some displacement of vessels from the 500m zone established around the MODU. This displacement will not cause a significant impact on sea users as the total area effected is small and the 500m zone will only be in place while the MODU is on location until 31st January 2025. Once the exploration operations are complete the conductor will be cut and removed and the well fully abandoned meaning there will be no restrictions on sea users in long term.



In summary it is considered that the drilling of the Baker well is not likely to have a significant impact on other offshore activities or other users of the sea either alone or in combination with other projects or activities.

Seabed disturbance will arise due to the presence of the MODU however the footprint of the MODU will be limited by the fact that it is not using anchors and the disturbance is limited to the placement of spud cans. The MODU will jack up on site using its 3 legs each terminating with a 8m² spud can which will be in contact with the seabed. The seabed disturbance from the placement of the jack up spud cans is approximately 603m². Further seabed disturbance will occur from the discharge of WBM and drill cuttings. Cuttings dispersion modelling at Baker was undertaken which showed cuttings will form a shallow layer on the seabed, with a cuttings thickness of >10mm reaching no further than 0.18km from the well and a thickness of 1mm no more than 0.73km. The cuttings layer is not expected to significantly alter seabed composition or impact benthic fauna. The currents in the Baker area are expected to aid quick dispersal of the cuttings which are not expected to form a persistent layer. Furthermore the use of low toxicity low bioaccumulation water-based muds will limit the impact on the benthic environment.

Discharge of offshore chemicals associated with the drilling of the well, cementing and completion operations have been assessed as being unlikely to have a significant effect on the environment. Noise generated from the project activities will not be significant, and it is concluded that the project is not likely to have a significant effect on the Southern North SAC in relation to the site's Harbour porpoise population, its supporting processes or prey.

The proposed operation will utilise an ERRV, supply vessels, helicopters and a MODU. Atmospheric emissions have been assessed from the diesel used for each vessel and the time spent on location. The total atmospheric emissions (CO₂(e)), from the vessels undertaking the project work is approximately 9,747.80 tonnes which accounts for 0.06% of the total annual UKCS CO₂(e) emissions (using 2022 as a baseline). The emissions may result in a short-term deterioration of the local air quality, but due to the relatively short duration of the work, and that the exposed conditions in the area will rapidly disperse the emissions, it is not anticipated that there will be a significant impact.

An assessment has been included within the project proposal to assess as a worst case, an uncontrolled well blow out, and the subsequent potential for a Major Environmental Incident (MEI). The assessment concluded that there was no potential for an MEI to occur, as the risk of a significant oil spill event is minimal, and the developer has suitable mitigation in place to prevent such an occurrence.

The drilling operations are in accordance with the East offshore marine plan objectives and policies.

It is not considered to be likely that the project will be affected by natural disasters.



There are no expected transboundary effects from the proposal to drill the Baker well.

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