

Our Ref: 01.01.01.01-5097U
UKOP Doc Ref:1207952



Offshore Petroleum Regulator
for Environment & Decommissioning

ITHACA ENERGY (UK) LIMITED
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Registered No.: SC272009

Date: 31st May 2022

Department for Business, Energy
& Industrial Strategy

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Dear Sir / Madam

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

CAPTAIN, COSLPioneer DRILLING PRODUCER WELL 13/22a-AA4 planned well

A screening direction for the project detailed in your application, reference DR/2250/0 (Version 3), dated 18th May 2022 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 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**

CAPTAIN, COSLPioneer DRILLING PRODUCER WELL 13/22a-AA4 planned well

DR/2250/0 (Version 3)

Whereas ITHACA ENERGY (UK) LIMITED has made an application dated 18th May 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/14142/0/IDA/1.

Effective Date: 31st May 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 31 May 2022 until 31 October 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

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]
Fax



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:

Drilling of a new production well (UB05P), which will be drilled from a MoDU (COSL Pioneer) from Drill Centre C within the Captain field.

As part of this project, well 13/22a-A2Y will be suspended to allow the reuse of the subsea facilities for well UB05P at Drill Centre C. The drilling of the new well and the suspension of well 13/22a-A2Y will be batch worked from the COSL Pioneer.

The UB05P well be drilled using Water Based Mud (WBM), with a discharge to the environment

The new well will be drilled in 5 sections, with additional contingency sections added for the 8 "section if reservoir returns are poorer than expected.

After completion, the well will be isolated and shut in, ready for pipeline tie in.



There will be no vertical seismic profiling carried out on the well.

Description of the Project

The Captain development began production with the field tied back to a Floating, Production, Storage and Offloading Vessel (FPSO). There were 2 subsequent topside developments - a Bridge Linked platform which serves Area B and C drilling centres, and a Wellhead Protection Platform (WPP'A') which is a self-contained drilling rig position above Area A drill centre. Crude oil is exported from the FPSO via a shuttle tanker, and gas is exported and imported via the Frigg pipeline.

Operations are expected to last a total of 128 days, with 109 days to drill well UB05P and 19 days to suspend well A2Y. Well UB05P will be drilled with WBM, which will be discharged to sea along with the drill cuttings. A contingency sidetrack has been included for the well to allow for a worst-case drilling scenario to be assessed. A 500m safety zone will be established and the proposed project area is within a well-developed area of the Central North Sea and cumulative impacts from drilling discharges, atmospheric release and oil and chemical releases have been assessed.

It has been concluded that there will be no cumulative impacts expected to occur with this project due to the selection of low bioaccumulation water based muds, the proposed mitigation and the short duration of the project.

It is not considered to be likely that the project will be affected by natural disasters and 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 from 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 Captain field is located in the Outer Moray Firth area, approximately 191 km from the UK/Norwegian median line and 91 km from the Scottish mainland. Survey data shows the sediments within the area to be indicative of a relatively homogenous sediment type comprising sand, with a lower fines content. There are small, localised areas of muddy sand, with pebbles, cobbles and boulders, but the main sediment type is sandy mud/muddy sand. Sediments range within the region and are classified as 'deep circalittoral mixed sediments' and 'deep circalittoral mud'.

Mean water depth ranges from 96.5m in the west to 124.1m in the east of the area. Water depth at the drilling location is 105m, and the average wave height is 1.9m.



A survey of the area showed that epibenthic fauna was relatively sparse. The dominant epifauna were sea pens, with other species observed including Norway Lobster, starfish, brittle stars, polychaetes and gastropods. Sea pens were recorded at all survey stations, with an abundance ranging from occasional to frequent. Burrows created by the Norway lobster also ranged from common to abundant. A SACFOR assessment concluded that the Captain area would be considered to represent to OSPAR habitat 'Sea pens and burrowing megafauna communities'.

There was no evidence of the presence of the ocean quahog from the stills of video footage but there was evidence of its' shells in the grab samples taken.

Minke whale, long finned pilot whale, killer whale, bottlenose dolphin, white beaked dolphin, Atlantic white-sided dolphin and harbour porpoise have all been recorded in the vicinity of the Captain area. Densities of the species are categorised as low to moderate, with the exception of the white beaked dolphin which is high in August, and the harbour porpoise which is high in July. Grey and harbour seals may be encountered, and density maps show the presence of grey and harbour seals in the area of the project area as 5-10 individuals per 5km².

The Captain area is not situated within any conservation areas, with the nearest area of conservation interest being the Southern Trench NCMPSA which lies 45km to the south. This site is protected due to a variety of biodiversity and geological features including burrowed mud, sub-glacial tunnels and minke whale.

The Captain field lies within fishing designated ICES rectangle 45E8 and the proposed operations will coincide with fish spawning and/or nursery activity for a number of species. Fishing effort in the area is designated as of moderate importance, with pelagic fishing dominating the species type. Fishing in the area accounted for 1.5% of UK landings and 1.4% of total UK landings value in 2020. It is not anticipated that the drilling of well UBO5P will have a significant impact on the fishing industry in the area.

Seabird oil sensitivity in the vicinity of the Captain field is high from April - June, low in the summer months and increases to medium sensitivity towards the end of the year.

The closest wreck to the drilling location is 1.7km west, and it is not designated under the Protection of Military Remains or is of Historical Importance. The closest wind farm to the proposed project is the NE6 windfarm, which is 12km to the north. The closest active cable (KIS-ORCA) is located 44km from block 13/22 and there are no aquaculture sites or shellfish protected areas within the vicinity of the project area. There are no military restrictions within the block, and the nearest MoD practice and exercise area is 12km to the west of the well location. It is not anticipated that the proposed project will have a significant impact on either the wrecks, cables or windfarms.

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



change to 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 change to 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 from the change to the project on population and human health.

A 500m safety exclusion zone will be in place around the MoDU, which excludes unauthorised access of vessels and prohibits access to fishing vessels. Fishing within the area is of moderate importance to the fishing sector and shipping density is low. No additional impacts to other marine users are identified as part of the drilling of well UB05P. Therefore there are no significant effects likely in terms of physical presence from the proposed project.

Seabed disturbance will occur from a number of activities - from the discharge of WBM drill cuttings, the anchors used for the MoDU, the installation of the wellhead and the cementing of the conductor. Drilling chemicals adhered to the drill cuttings can also have a toxic effect on organisms within the area of discharge.

Cuttings from the WBM sections will be discharged at the seabed and into the water column. As part of the Captain Enhanced Oil Recovery (EOR) project, which is not part of this assessment, cuttings dispersion modelling was undertaken for the cumulative effect of drilling 3 wells in the Captain field. The volume of modelled cuttings is higher than the cuttings being discharged from the drilling of well UB05P, therefore the modelling assessment is relevant to this application, and can be used as a worst case scenario. The modelling assessment concluded that the drilling of the wells shows a burial depth of >6.5mm which occurs within 15 to 180m of the well, and covers an area of 0.019km², which reduces to 0.0087 km² after 10 years. The thickness of the cuttings pile rapidly decreases with increasing distance from the discharge, with burial depths >5cm limited to within 50m of the well, and burial depths exceeding 20cm extending less than 10m from the well location. A threshold of 6.5mm is a burial depth where studies have shown that in the absence of other stressors, there is a risk to more than 5% of the species most sensitive to change.

Seabed disturbance will result in the smothering and mortality of benthic fauna which will result in some short-term temporary impacts. Although ocean quahog were not identified in the photography surveys of the area, their shells were observed in the grab samples. Ocean quahog are sensitive to increased siltation above 30cm, and it is predicted that this smothering may cause some mortality to ocean quahog who are present in the area. The sea pen and burrowed mud habitats are also likely to be more sensitive to smothering above 30cm. Burrowed mud habitats are also used by the Norway Lobster, however it has been shown that they are tolerant to smothering and suspended sediment. As a result of cementing the conductor for the well, there



could be a discharge of cement within a 7.5m radius around the well (a cement patio). This cement patio will remain in place for the life of the well, and can be removed during the decommissioning phase of the field. The cement patio will also result in smothering and mortality of benthic fauna within the immediate area of the well.

There is therefore the potential for mortality of individual ocean quahog if present in the area, and the potential to effect sea pens and burrowing megafauna. However, given the small area affected in the field and the burial depth assessed at <6.5mm at 180m from the well, the impacts of the activities are not expected to affect the population levels across the North sea and it is expected that the benthic communities will regenerate in the area over time.

Noise generated from the project activities will not be significant, and it is concluded that the project is not expected to have a likely significant effect on the site in relation to harbour porpoise and the supporting habitats and prey.

There are no expected transboundary effects from the proposal to drill UB05P well. The nearest boundary (UK/Norwegian median) is located approximately 191 km from the proposed well location. It is not considered likely that any planned operational discharge (cuttings and chemicals) will be detectable at this distance from the well location.

The well to be drilled is a production well, and an assessment has been included within the project proposal to assess as a worst case, a well blow out within the Captain field, and the subsequent potential for a Major Environmental Incident (MEI). The assessment concluded that there is a potential for an MEI to occur, however the risk of an oil spill event as a result of a well blow out from well UB05P is minimal, and the developer has suitable mitigation in place to prevent such an occurrence.

The proposed drilling operation will utilise the COSL Pioneer's power generation equipment. Atmospheric emissions from the MoDU and the supply and support vessels, helicopter flights and the ERRV have been assessed. The MoDU owner has committed to providing a climate neutral drilling package by 2025 for all of its' assets, and has optimised operations on board the COSL Pioneer to reduce CO₂ and NO_x emissions. The drilling operations account for 0.097% of the total UKCS (2018) CO₂ emissions, and as emissions are expected to disperse rapidly, any deterioration of local air quality will be short term, and should not have a significant impact.

As a result of the UK's Government commitment to reducing the UK's net emissions, the developer has set up a short term goal of reducing all scope 1 and 2 CO₂ and CO₂(e) emissions by 25% from 2019 levels by 2025.

2) 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.



3) 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