

Our Ref: 01.01.01.01-5358U
UKOP Doc Ref:1278421



Offshore Petroleum Regulator
for Environment & Decommissioning

PETROFAC FACILITIES MANAGEMENT LIMITED
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Registered No.: SC075047

Date: 5th June 2023

Department for Energy Security &
Net Zero

AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Tel [REDACTED]

Fax

www.gov.uk/beis
bst@beis.gov.uk

Dear Sir / Madam

**THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING
AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS
2020
WELL 21/03d
LEVERETT PLANNED WELL**

A screening direction for the project detailed in your application, reference DR/2321/2 (Version 4), dated 16th May 2023 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**

**WELL 21/03d
LEVERETT PLANNED WELL**

DR/2321/2 (Version 4)

Whereas PETROFAC FACILITIES MANAGEMENT LIMITED has made an application dated 16th May 2023, 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/14583/0/PIDA/1, WONS/15462/0/IDA/1, WONS/15462/0/GS/1, WONS/15462/0/GS/2, WONS/15462/0/GS/3, WONS/15462/0/GS/4 and WONS/15462/0/GS/5.

Effective Date: 5th June 2023



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 3 November 2022 until 31 December 2023.

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:

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 Energy Security & Net Zero
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Tel [REDACTED]



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 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 the 21/03d Leverett appraisal well using the Paul B Loyd Junior mobile offshore drilling rig (MODU) in 3 sections (36" and 17.5" section using water based mud (WBM) and a 12.25" section using low toxicity oil based mud (LTOBM).
- Drilling of two side tracks using LTOBM to locations S and E (both comprising 12.25" and 8.5" sections).
- Drilling of three contingency sidetracks using LTOBM (one to location Cz (drilled as a 12.5" section), one to location W(12.25" and 8.5" sections) and one to location W(z) (8.5" section).
- Contingency re-spud (36" section using WBM) and mechanical sidetrack (12.25" and 8.5" section using LTOBM).
- The worst-case amount of water based cuttings to be discharged is 583,500 kg.



- The worst case amount of LTOBM contaminated cuttings to be treated to <1% oil on cuttings prior to discharge is 3,482,400kg.
- A wellbore clean-up will be performed resulting in 0.477 kg of LTOBM hydrocarbon discharged.
- A well test will be performed which will result in 519 tonnes of condensate and 1,216 tonnes of gas being flared.
- Following the well test, the well will be killed using brine. This will be circulated out of the wellbore and filtered to <30mg/l. This will result in 11.925 kg of LTOBM being discharged.
- Vertical Seismic Profiling (VSP) of the well will then also be performed using fibre optic technology. If this does not achieve the required results, Vertical Seismic Imaging technology may also be used.
- Plug and abandon well in accordance with UK Oil and Gas Authority guidelines.
- OGA (NSTA) consent application refs: WONS/15462/0/IDA/1, WONS/15462/0/GS/1, WONS/15462/0/GS/2, WONS/15462/0/GS/3, WONS/15462/0/GS/4 and WONS/15462/0/GS/5.

Note that the prelay and removal of anchors and installation and removal of the CAN-basic conductor support structure was previously assessed under DR/2321/0 (Version 3) (CAN-Basic conductor) and CL/1308/1 (Version 1) (later amended by CL/1308/2). Note that DR/2321/1 was rejected as the change related solely to the Consent to locate application.

Description of the Project

This project is the drilling of a subsea appraisal well 21/03/d in the Leverett field (OGA consent application references: WONS/15462/0/IDA/1, WONS/15462/0/GS/1, WONS/15462/0/GS/2, WONS/15462/0/GS/3, WONS/15462/0/GS/4 and WONS/15462/0/GS/5) using the Paul B. Loyd Jr anchored, semi-submersible drilling rig. The development has not been included in a previous ES.

The Leverett well is a new single well targeting condensate and gas. It is estimated that drilling will take up to 170 days and with applied contingency, the rig will be on location between the period of 14th June 2023 and 31st December 2023.

The main well will be drilled in three sections 36", 17.5" and 12.25". Sidetracks are also proposed to location 'S' and location 'W' with each comprising a 12.25" and 8.5" section. Contingency sidetracks are also applied for (to location c (z)) which would be drilled as one 12.25" section, to location W (12.25" and 8.5" sections) and to location W(z) (8.5" section). A contingency re-spud (36" section) and mechanical sidetrack (12.25" and 8.5" sections) has also been considered. In all cases, the 36" sections and 17.5" section would be drilled using Water Based Muds (WBM) which would be



directly discharged to the seabed with all smaller sections drilled with Low Toxicity Oil Based Mud (LTOBM) and treated using a thermo-mechanical cuttings cleaner (Inovatherm system) to treat the contaminated cuttings to an acceptable overboard discharge limit of <1% Oil on cuttings.

Recovered oil will be pumped back into the mud system and water will be disposed overboard if the oil in water content is <30 mg/l. Conductor casings and a 7" production liner will be cemented in place. On completion of drilling, the well will be cleaned up by circulating a sequence of fluid pills to remove the residual LTOBM fluids, followed by a viscosified push pill, all displaced by inhibited filtered brine. Fluid returns to rig will be separated and either skipped or shipped to shore, or where visibly LTOBM free, discharged. Prior to discharge, the brine will be filtered until the fluids are below 30 mg/l LTOBM hydrocarbons.

The well will then be perforated before conducting a well test and well clean up. During the unloading phase of the well test, the brine in the tubing will be pumped to a filter unit before being discharged overboard. The oil in water content from the filter unit will be an average of 30 mg/l and maximum instantaneous oil concentration of 100 mg/l. It is proposed that there will be six separate flow periods, ranging in duration from 3 hours to 18 hours. The cumulative flow period is 112 hours (this includes time for pressure build-up) and the resultant hydrocarbons will be flared (over 34 hours). Following this the well will be killed by bull-heading brine into the well. This brine will then be circulated out of the well and filtered to below 30 mg/l LTOBM hydrocarbons prior to being discharged overboard.

Following drilling and well testing, a VSP survey will be conducted to obtain accurate velocity information towards the eastern end of Leverett. A fibre optic VSP method is proposed in the first instance which will result in 20 shots over a 30 minute period. If this fails to obtain the necessary information, a further Vertical Seismic Imaging survey method may be deployed. This would result in 110 shots over a period of 3 hours 40 minutes.

The well will then be plugged and abandoned in accordance with Oil and Gas UK guidelines.

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 Leverett well location lies within a seaward licenced area, which has been licenced for the exploration and extraction of hydrocarbons. The project is located approximately 146 km east from the northeast coastline in Scotland and approximately 72 km the UK/Norwegian median line, in an area where water depth is approximately 142 m. The predominant current in the area is generally to the south-east. The project location is not within any protected areas, with the closest being The Scanner Pockmarks SAC, approximately 40 km distant.



The site-specific survey identified the seabed as comprising mud and sandy mud. Further to this, numerous elongated pockmarks were present in the area. However, there was a lack of evidence of shallow gas in the vicinity of depressions throughout the survey area and MDAC was not observed on camera ground-truthing data. The benthic fauna in the location is noted to include hermit crabs, shrimp, Norway lobster, sea pens, sea urchins and sea stars. 'Burrowed mud' (a Priority Marine Feature in Scottish waters) and the OSPAR listed 'threatened and / or declining species and habitats' habitats 'Sea-pen and burrowing megafauna communities' and Ocean quahog were identified from site specific surveys.

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 or nursery locations. The drilling period coincides with Nephrops and sandeel spawning periods. Both these species are benthic dwelling / spawning species and are therefore vulnerable to smothering from cuttings discharged at the seabed.

Sightings of cetaceans have been made all year in low to high densities throughout the drilling period. Atlantic white sided dolphin are the only species observed in high numbers in June, July and August at this location with other cetacean species being recorded in moderate or low densities. Seals are not expected to be seen at the remote location. Seabird presence in December and January shows a very high sensitivity to oil pollution with sensitivities in September and October considered medium. The project area is used for pelagic, demersal and shellfish fishing, with moderate effort of demersal gear when compared to other UKCS ICES rectangles. Shipping intensity at the project location is low. The well is 30km distant from other oil and gas platforms, but a number of exploration wells, subsea developments and pipelines are present. There are no renewable energy projects located within 40km of the project location. The project is not located in a military training ground. There are no wrecks of historical significance in the vicinity of the project.

Given the location of the project, the areas identified at paragraphs 2(c)(i), (iii), (iv), (v), (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 drilling rig and vessels, atmospheric emissions from vessel use, seabed disturbance, noise, marine discharges and accidental events such as a well blow-out.

The drilling rig and supporting vessels have the potential to cause interference to other users of the sea, namely fishermen and vessel traffic, however, the main operators of vessels in the area will be provided with advanced notice of the project and notification will be made to Kingfisher Information Services. The Emergency



Response and Rescue Vessel (ERRV) will also be situated on location whilst the drilling rig is present to alert other users of the sea to the presence of the rig and anchor locations outwith the 500m safety zone. In the event that CAN-Basic structures are not removed as part of this operation, a guard vessel will remain on site to afford navigational protection to this infrastructure. A guard vessel will also be present to afford navigational protection to the anchors which may remain on the seabed for up to two weeks following the rigs departure. Although fishing is moderate in the area, the mitigation proposed is considered appropriate and the impact on other sea users is deemed insignificant.

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. Drill cuttings and cement deposits are expected to impact an area with a radius of 50m as has been observed following drilling of the Finlaggan well in the same area. Recovery of faunal communities within the disturbed area may be expected following cessation of drilling. Therefore, based on the above, impacts on benthic communities from drilling of the well will be localised and not significant. 'Seapens and burrowing megafauna communities' and Ocean quahog are also unlikely to be significantly impacted due to the small impact area and limited potential for cumulative impacts.

The site survey identifies a mud habitat at this location, which is not well suited to sandeel spawning, therefore sandeel are unlikely to be present. Nephrops, on the other hand, were observed during recent survey work, but are relatively tolerant of smothering given their burrowing nature and are widely distributed. Impacts on Nephrops at the population scale are therefore considered unlikely given the small impact area.

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. Small volumes of reservoir hydrocarbons will be discharged to sea as a result of drilling the reservoir section, and small discharges of base oil will be discharged as a result of well clean-up and abandonment operations, but significant impacts from these discharges on the marine environment are not considered likely and represent the Best Practicable Environmental Option.

Emissions to air will occur from the drilling rig, associated support vessels, helicopters and from the well test proposed. Emissions from the proposed Leverett drilling operations, including the pre-drilling operations (already consented), would account for only a small percentage of the total CO₂ generated on the UKCS and from all UK sectors, ca. 0.16%.

The emissions will not have a detrimental effect to local air quality over the long-term, nor will it inhibit the ability to reach wider climate change goals. 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 length of time the vessels are on location, minimising fuel use, avoiding the unnecessary operation of power generation /



combustion equipment, minimising the flaring of hydrocarbons to what is strictly necessary and using modern technology to ensure efficient burning of hydrocarbons.

Noise associated with VSP operations is demonstrated to be insignificant alone and when considered in-combination with other ongoing operations.

There is not likely to be any significant impact from the project on population or human health. It is not considered to be likely that the project will be affected by natural disasters. No pollution or nuisances are foreseen from the project.

No cumulative impacts are expected to occur with any other existing or approved projects.

There are no expected transboundary impacts because of the project.

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. No Major Environmental Incident potential was identified.

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.