

Our Ref: 01.01.01.01-5300U
UKOP Doc Ref:1248150



Offshore Petroleum Regulator
for Environment & Decommissioning

PETROFAC FACILITIES MANAGEMENT LIMITED
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Registered No.: SC075047

Date: 28th December 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
DRILLING FINLAGGAN - 21/05c - F3H PRODUCTION WELL**

A screening direction for the project detailed in your application, reference DR/2294/0 (Version 5), dated 14th December 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**

DRILLING FINLAGGAN - 21/05c - F3H PRODUCTION WELL

DR/2294/0 (Version 5)

Whereas PETROFAC FACILITIES MANAGEMENT LIMITED has made an application dated 14th December 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/1501/0/IDA/1, WONS/1501/0/GS/1 and WONS/1501/0/C/1.

Effective Date: 28th December 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 28 December 2022 until 31 May 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:

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]



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 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 has 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 the 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 the Finlaggan field F3 development well in quadrant / block 21/05c;
Two sections: 26" x 36" x 42" and 17.5" drilled with Water Based Mud (WBM);
Two sections: 12.25" and 8.5" drilled with Low-Toxicity Oil Based mud (LTOBM);
A contingency 8.5" section drilled with drilled with Low-Toxicity Oil Based mud (LTOBM);
Run and cement conductor casings, 9-5/8" casings and a 7" production liner;
Suspend well and attach xmas tree;
Perforate and produce.
OGA (NSTA) consent application refs: WONS/1501/0/IDA/1,
WONS/1501/0/GS/1 and WONS/1501/0/C/1

Description of the Project



This project is the drilling of a subsea development well 21/05c-F3H in the Finlaggan field (OGA consent application references: WONS/1501/0/IDA/1, WONS/1501/0/GS/1 and WONS/1501/0/C/1) using the Paul B. Loyd Jr anchored, semi-submersible drilling rig. The development has not been included in a previous ES.

The F3H well is a new single well targeting condensate and gas. The well will be tied back to the existing Finlaggan manifold and produced at the Britannia platform. It is estimated that drilling will take 57 days (to reach reservoir interval) and with applied contingency, the rig will be on location for 140 days between the period of 23rd November 2022 and 31st May 2023. The Department approved an application to pre-lay anchors from the 23rd November 2022 and the well has an anticipated spud date of 18th January 2023.

The well will be drilled in four sections 26" x 36" x 42", 17.5", 12.25" and 8.5" and includes a contingency 8.5" section. Water Based Mud (WBM) will be used for the top two sections which will be directly discharged, and Low Toxicity Oil Based Mud (LTOBM) used for the lower sections, where contaminated cuttings will be treated using Inovatherm technology 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, a 9 5/8" casing and a 7" production liner will be cemented in place. Well contents will be displaced to inhibited seawater to clean and remove solids and contaminants. Fluid returns to rig will be separated and either skipped or shipped to shore or where visibly LTOBM free, discharged. 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 28.8mg/l. It is proposed that there will be seven separate flow periods, ranging in duration from 24 hours to 2 hours. The cumulative flow duration is 48 hours and the resultant hydrocarbons will be flared. The well will then be suspended and xmas tree installed before being handed over for production.

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.

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.

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: -

Well 21/05c-F3H is located approximately 168 km from the Scottish coastline and 54km southwest of the UK/ Norwegian median line. Water depth at the drilling location is 140 metres.

Winds predominate from the southwest and north-northeast. In winter, wind strengths are typically 4-6 (6-11 m/s) with higher winds of force 8-12 (17-32 m/s) being much less frequent. Winds of force 5 (8 m/s) and greater are recorded 60-65% of the time in winter and 22-27% of the time during the summer months. Surface tidal currents average 0.30 m/s at spring tides and less than 0.15 m/s at neap tides. The main direction of the tidal currents at the Finlaggan location is towards south-southwest (SSW) on the flood and towards north-northeast (NNE) on the ebb.

Predictive seabed mapping indicates mud and sandy mud to be present. Survey results at Finlaggan identified a mud-dominated habitat with numerous pockmark features evident across the survey area. Seabed sediments were interpreted to comprise 'silty clay' across the survey area and 'burrowed mud' as the predominant habitat.

No significant hydrocarbon or metal contamination of the sediments was identified.

Broadscale habitat maps show the presence of 'deep circalittoral mud' and 'Burrowed mud - seapens and 'burrowing megafauna in circalittoral fine mud' in the Finlaggan area. Seabed surveys in the vicinity of the proposed well confirm this, classifying the sediments as 'offshore circalittoral mud'. Frequent bioturbation, "lebensspuren" (animal tracks) and burrows of varying densities were found at every station in the site specific survey. The conspicuous fauna present included Echinodermata, such as *Gracilechinus acutus* , and *Astropecten irregularis* , Crustacea such as *Pagurus spp* . and the burrowing *Nephrops norvegicus* . Burrows of varying sizes were observed throughout the camera transects with frequent evidence of polychaetes and crustaceans. Additionally, seapens such as *Pennatula phosphorea* and *Virgularia mirabilis* were commonly recorded, with the latter recorded in all stations. Furthermore, Cerianthidae were present in the majority of transects in the suspected form of the burrowing anemone *Cerianthus lloydii* . Comparison of the recent site specific survey with historical surveys in the area indicate a stable benthic community.

There is no evidence of any Annex I habitats in the area. Accumulations of shells, boulders and debris were observed in some of the pockmarks identified, however, none of the pockmarks showed potential for occurrence of the EC Habitats Directive Annex I habitat 'Submarine Structures made by Leaking Gases'. The nearest Special Area of Conservation (SAC) designated for pockmarks is the Scanner Pockmark 33 km northeast. The nearest Nature Conservation Marine Protected Area (NC MPA) is the Norwegian Boundary Sediment Plain MPA which is located 44 km away and is designated for Ocean quahog (*Arctica islandica*) and the sand and gravel habitats that support this species. The frequency of the burrows exhibited at Finlaggan indicate the presence of 'Seapens and burrowing megafauna in circalittoral fine mud'.



'Burrowed mud' is listed as a Scottish Priority Marine Feature (PMF) and 'Seapen and burrowing megafauna communities' as an OSPAR Threatened and/or Declining habitat. Juvenile Ocean quahog and shells of this species were identified in the most recent site specific survey. Ocean quahog are listed by OSPAR as a threatened or declining species.

The proposed operations coincide with spawning periods for cod, lemon sole, *Nephrops* (Norwegian lobster), Norway pout and sandeel. Recent scientific reports indicate the area is not well suited to the spawning of cod given the absence of coarse, sandy sediments. Likewise, the high percentage of fines (67.2 - 77.9%) found in the sediments at Finlaggan and water depths indicate the site is not well suited to the spawning of sandeel. Lemon sole and Norway pout are pelagic spawning species. *Nephrops* and *Nephrops* burrows were identified in site surveys. Several species use the area as a nursery ground including anglerfish, blue whiting, cod, European hake, haddock, herring, lemon sole, ling, mackerel, *Nephrops*, Norway pout, plaice, sandeel, spotted ray, sprat, spurdog and whiting. Of these species; anglerfish, blue whiting, cod, herring, ling, mackerel, Norway pout, sandeels, spurdog (spiny dogfish) and whiting are listed as a PMF species in Scottish waters.

Seabirds observed at the well location include northern fulmar (*Fulmarus glacialis*), sooty shearwater (*Puffinus griseus*), Manx shearwater (*Puffinus puffinus*), European storm petrel (*Hydrobates pelagicus*), northern gannet (*Morus bassanus*), Arctic skua (*Stercorarius parasiticus*), great skua (*Stercorarius skua*), black-legged kittiwake (*Rissa tridactyla*), great black-backed gull (*Larus marinus*), common gull (*Larus canus*), lesser black-backed gull (*Larus fuscus*), herring gull (*Larus argentatus*), common guillemot (*Uria aalge*), little auk (*Alle alle*) and Atlantic puffin (*Fratercula arctica*). Long term decline in some seabird species has been observed. Seabird sensitivity to accidental spill is low in quadrant/ block 21/5 for the proposed drilling period and the operation is located 168 km from shore.

Atlantic white sided dolphin (*Lagenorhynchus acutus*), Bottlenose dolphin (*Tursiops truncatus*), harbour porpoise (*Phocoena phocoena*), Killer whale (*Orcinus orca*), Minke whale (*Balaenoptera acutorostrata*), Risso's dolphin (*Grampus griseus*) and White beaked dolphin (*Lagenorhynchus albirostris*) have been sighted in the Finlaggan area. Only Risso's dolphin (moderate density) and bottlenose dolphin (low density) have been observed during the proposed operational period. All cetaceans are 'species of national importance' (European protected species - Annex IV of the habitats directive and PMF). Harbour porpoise and bottlenose dolphin are Annex II listed. Sightings of cetaceans are low to moderate for the proposed project period. Grey and harbour seals (Annex II listed and PMF) are unlikely in significant numbers 168 km from shore. Seal density offshore at Finlaggan is low.

The project area is covered by Scotland's National Marine Plan. The 21/05c-F3H well is in International Council for the Exploration of the Seas (ICES) rectangle 44F0, an area targeted by trawl gears for demersal fish and shellfish. Landings and value of demersal and shellfish species are considered moderate in a UK context. Demersal and shellfish fishing effort has fluctuated since 2017 and is considered moderate in a UK context. Landings, value and effort for pelagic species has remained consistently



low in a UK context, over the last five years.

Shipping levels are considered moderate as compared to other area of the North Sea. There are no military restrictions. The drilling rig will be located within an existing 500m safety zone, however mooring lines will extend beyond this zone. The nearest oil and gas surface structure is located 12 km to the northeast. There are no marine cables, renewable energy, marine aggregates or wrecks in the vicinity of the proposed operations.

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.

The discharge of chemicals used to drill the well, including drill fluids, cementing, completion and well clean-up operations have been assessed and are not considered to have a likely significant environmental impact.

During normal cementing operations any discharges of cement mixture are limited to minor cement discharge at the seabed in securing the tophole section and residual volume from cleaning out mixing units after use with chemicals risk assessed with no likely significant environmental impact. Formation of a cement patio around the well is not expected and this has not been observed when drilling adjacent wells.

Cuttings from the LTOBM sections will be treated using Inovatherm technology 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.

Fluids from cleaning the well and running the completions consist of inhibited seawater containing residual base oil (LTOBM) to be contained and either skipped and shipped (visibly oily) or filtered to confirm a concentration of 30ppm or less and discharged (visibly clean). Reservoir hydrocarbons will not be returned in the inhibited seawater and will be flared as part of a well test. The well test will result in 435 m³ (ca. 335 tonnes) of condensate and 34.2 MMscf of gas, being flared. Seven flaring periods are proposed ranging from 2 - 24 hours. Discharges have been assessed and are not considered to have a likely significant effect on the environment.

The closest marine protected area is 33km from the project (Scanner pockmark). Impacts from discharges on PMF and OSPAR listed habitats and species will be



localised. Seapens and burrowing megafauna communities are expected to be lost within the small, direct impact area associated with drill cuttings (within 50m of the well), anchoring activities (0.10km²) and installation of the wellhead protective structure (34.2m²), however, these communities are considered highly recoverable over a short period of time. Ocean quahog are intolerant of high siltation rates (described as 30cm of sediment in a single event), but are tolerant of sedimentation rates below this. Ocean quahog are not expected to be significantly impacted, given that sedimentation rates are only likely to exceed 30cm with 50m of the well. Although the proposed project coincides with fish spawning and nursery species, the species most at risk from smothering such as cod, and sandeel are not likely to be present due to the sediment types and water depths found at Finlaggan. *Nephrops* may be impacted in the direct impact areas (as described above), however, this area is very localised and unlikely to impact *Nephrops* populations, given their widescale distribution. It can be concluded that the project will not have a significant effect on seabed habitat, benthic/ fish species.

Operations covered by this permit will coincide with low seabird sensitivity for Quadrant/ block 21/5. Mitigation is in place to ensure the risk of any release or discharge that could be harmful to seabirds is minimised. The project is not considered to have a significant impact on seabirds.

As noted above a range of whale and dolphin species have been sighted in quadrant / block 21/5 but in low to moderate numbers during the proposed drilling period. Other species may be present but not observed. All cetaceans are species of national importance, Annex IV European protected species and harbour porpoise is also Annex II listed under the Habitats Directive. Given the natural avoidance behaviour of cetaceans, it is not expected that these species would be significantly impacted by the project.

The project is located within a statutory 500m safety exclusion zone with mooring lines extending out with this area. The safety zone excludes unauthorised access by vessels and prohibits access to fishing vessels. Anchors and chains out with the 500 m safety zone will be monitored by a guard vessel (prior to rig arrival and following rig departure) and by the Emergency Response and Rescue Vessel (ERRV) once the rig is on location. A 'fishing friendly' well head protective structure is also proposed. Significant impacts on other sea users are therefore not anticipated. The mooring system proposed is the same as has been used on other wells in the area and recent surveys have not identified any hazards to other sea users as a result of previous anchoring activities, therefore none are expected for this operation.

Atmospheric emissions as a result of vessel use, and flaring associated with well clean up and testing are expected to result in short-term deterioration in air quality at a local level, but under most conditions, rapid dispersion is expected to levels approaching background within a tens of metres of the source. The operation is estimated to contribute to 0.097% of the total atmospheric emissions (including CO₂e) associated with UK offshore activities in a year and therefore not expected to have a significant impact on the environment.



There are no expected transboundary effects from the drilling operations from the project location. The nearest boundary (UK/Norway Median Line) is located approximately 54km away. It is not considered likely that any planned discharge will be detectable at this distance from the drilling site.

Although not a planned activity, a worst-case major accident scenario resulting from a potential well blow-out was modelled and assessed. As a gas/ condensate reservoir, 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 which 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 Scottish Marine Plan objectives and policies. It is considered that the drilling of the well is not likely to have a significant impact with other offshore activities or other users of the sea and no cumulative impacts are expected to occur.

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:

There are no significant adverse effects on the environment.