



# Offshore Petroleum Regulator for Environment & Decommissioning

BP Exploration Operating Company Limited

## Environmental Statement Summary Vorlich Development

**To:** Jonathan Ward  
**From:** Nienke Mayo  
**Date:** 3 August 2018

<b>ES Title:</b>	Vorlich Environmental Statement
<b>Developer:</b>	BP Exploration Operating Company Limited
<b>OGA Field Group:</b>	Central North Sea
<b>ES Report No:</b>	D/4209/2018
<b>ES Submission Date:</b>	4 April 2018
<b>Block Nos:</b>	30/01c, 30/01f, 30/06a
<b>Development Type:</b>	Field Development

### Project Description

BP Exploration Operating Company Limited (BP) propose to develop the Vorlich field as subsea tieback to the FPF-1 Floating Production Vessel (FPV). The field development will consist of drilling two production wells and installation of subsea infrastructure, including a tie-in manifold, a 10 km production pipeline to transport the production fluids to FPF-1 FPV and a control umbilical.

The Vorlich field is located in Blocks 30/01c and 30/01f in the central North Sea, approximately 241 kilometres (km) east of the Scottish mainland and approximately 23 km from the UK/Norway median line. Water depths in the area range from approximately 75 – 90 metres (m). Reserves at Vorlich are estimated to be 34 million barrels of oil equivalent.

The wells will be drilled using a conventional semi-submersible drilling rig, with the top hole sections being drilled using water based mud (WBM). The lower sections will be drilled using low toxicity oil based mud (LTOBM). Each well will generate approximately 1,500 tonnes of WBM and cuttings which will be discharged to sea, and approximately 320 tonnes of LTOBM cuttings which will be skipped and shipped ashore for treatment and disposal. The wells will be connected to a manifold which will be piled.

Pipelay operations to install the production pipeline and umbilical will be conducted using a dynamically positioned reel-lay vessel. The pipeline will be trenched and buried using a mechanical plough. An estimated 25,000 tonnes of rock, and concrete mattresses and grout bags will be required to mitigate against upheaval buckling, and to protect pipeline crossings and subsea infrastructure. Minor modifications are required to the FPF-1 FPV Natural Gas Liquids (NGLs) processing plant and installation of a new chemical skid to accommodate the production from Vorlich.

Drilling is scheduled to take place in Q2 2019; subsea installation and commissioning is scheduled for Q2 2020 and first oil is expected in Q3 2020. All activities will be subject of an Oil Pollution Emergency Plan (OPEP) that will need to be approved prior to commencement of operations.

### **Key Environmental Impacts**

The Environmental Statement (ES) identified and discussed the following as having the potential to cause an environmental impact:

- Physical presence of the drilling rig and subsea infrastructure;
- Disturbance to the seabed;
- Discharges to sea;
- Atmospheric emissions;
- Underwater noise;
- Interaction with other users of the sea; and
- Accidental events.

### **Key Environmental Sensitivities**

The ES identified the following environmental sensitivities:

- Fish: The Vorlich field is located within spawning grounds for cod, mackerel, lemon sole, plaice, sandeels and Norway pout; and within nursery areas for anglerfish, cod, herring, mackerel, blue whiting, ling, hake, haddock, Norway pout, plaice, sandeels, spotted ray and spurdog. However, spawning and nursery areas are extensive and the proposed development is unlikely to have any impact on these species.
- Seabirds: Seabird sensitivity is low throughout the year. It is considered that sufficient mitigation measures are in place to prevent accidental spills that could impact seabirds, and BP will have an approved OPEP in place for the Vorlich field before operations commence.
- Protected habitats: The closest protected areas to the Vorlich field are the East of Gannet and Montrose Fields Nature Conservation Marine Protected Area (NCMPA) and the Fulmar Marine Conservation Zone (MCZ), both of which lie approximately 30 km from the Vorlich field. The proposed development is not expected to have any significant impact on these or any other protected habitat.
- Protected species: Harbour porpoise, white-beaked dolphin, white-sided dolphin and minke whale have all been recorded in the area. Grey and common seals inhabit coastal and inshore waters adjacent to Scotland and have occasionally been observed to travel long distances when foraging. However, both species are unlikely to be

present in large numbers in the Vorlich field. No disturbance of marine mammals, or any other adverse impacts on marine mammals, are anticipated in relation to the proposed development.

- Other users of the sea: The Vorlich field is located within ICES rectangle 42F2 and fishing effort in the area is considered to be relatively low. Shipping density in the vicinity of Blocks 30/01 and 30/06 is relatively high. Appropriate navigational controls will be put in place and it is not anticipated that there will be any significant impact on other users of the sea as a result of the proposed development.
- In-combination, cumulative and transboundary effects: No significant in-combination, or cumulative effects are anticipated as a result of the Vorlich development. Potential transboundary effects were considered as part of the hydrocarbon spill modelling assessment, but these were concluded to not be significant.

### **Key Mitigation Measures (including environmental or monitoring conditions)**

No significant adverse impacts are anticipated that would warrant specific mitigation measures or monitoring conditions. All activities will be undertaken in line with commitments detailed in the ES and best industry practice.

### **Consultation**

The Joint Nature Conservation Committee (JNCC), Marine Scotland (MS), the Maritime and Coastguard Agency (MCA) and the Ministry of Defence (MoD) were consulted on the project. The ES was also subject to public notice.

**JNCC:** JNCC confirmed that they had no objections.

**MS:** MS confirmed that they had no objections.

**MCA:** MCA confirmed that they had no objections.

**MoD:** MoD confirmed that they had no objections.

No comments were received in response to the public notice.

### **Further Information**

Further information was requested from BP to address issues raised during the internal BEIS OPRED review. The information requested mainly related to clarification on atmospheric emissions, installation method for the pipeline and umbilical, and justification of the risk matrix conclusions. The additional information received from BP on 6 July 2018 and 30 July 2018 addressed all of the issues that were raised.

### **Determination**

Following review of the ES, the responses received from consultees and the additional information provided by BP, BEIS OPRED is satisfied that this project will not have a significant adverse impact on the receiving environment or the living resources it supports, or on any protected habitats or species or other users of the sea.

On the basis of the information presented in the ES, the advice received from consultees and the additional information provided by BP, BEIS OPRED is content that there are no objections, and agrees to the Oil & Gas Authority issuing the necessary consent for the proposals.

*Jonathan Ward*

*07/08/2018*

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Jonathan Ward  
Director, Environmental Operations  
BEIS OPRED

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Date