



Department
of Energy &
Climate Change

Environmental Statement (ES) Summary and Sign-Off

Title:	Loanan Exploration Well Environmental Statement (ES)
Operator:	JX Nippon Exploration and Production UK Ltd (JX Nippon)
Report No:	W/4179/2015
Submission Date:	30 September 2015
Block No:	214/23
Development Type:	Exploration Well
Reviewer:	Nicola Abrams
Date:	February 2016

A) Project Description:

JX Nippon is planning to drill the Loanan exploration well in Block 214/23 to target and evaluate the Vaila sands reservoir. The well is located approximately 82 kilometres (km) north-west of Uyea (Shetland Isles) and approximately 75 km from the UK/Faroes median line.

The well is located in a water depth of 701 metres (m) and will be drilled using a semi-submersible mobile drilling unit (MODU). The drilling programme is expected to commence in April 2016 and will last approximately 90 days. The well will comprise five sections, 42", 26", 17.5", 12.25" and 8.5". The 42" and 26" sections will be drilled using seawater and bentonite sweeps, and the 17.5" section will be drilled using Water Based Mud (WBM), with cuttings discharged directly to sea. The lower sections will be drilled using Low Toxicity Oil Based Mud (LTOBM) and cuttings will either be skipped and shipped to shore for treatment and disposal or treated using a thermomechanical cuttings cleaning system (TCC) to achieve an oil content of less than 1% oil on dry cuttings (by weight) prior to discharge below the sea surface.

Well logging will be undertaken, and if the well is successful a vertical seismic profile (VSP) will be undertaken. No well testing is planned. Following completion of drilling operations and subject to the necessary consent from the Oil and Gas Authority (OGA), the well will be plugged and abandoned in accordance with Oil and Gas UK Guidelines. All activities will be covered by an Oil Pollution Emergency Plan (OPEP), which will require to be approved prior to the commencement of operations.

B) Key Environmental Impacts:

The ES identified and discussed the following key activities as having the potential to cause an environmental impact:

- Seabed disturbance from cuttings discharge;

- Noise from drilling and VSP operations; and
- Loss of hydrocarbon resulting from a spill, an uncontrolled well-flow or a collision.

C) Key Environmental Sensitivities:

The ES identified the following environmental sensitivities:

- **Fish:** The Loanan well is located in the vicinity of a spawning ground for Norway pout, and nursery areas for anglerfish, cod, European hake, herring, ling, sandeel, whiting, common skate, blue whiting, mackerel and Norway pout. The spawning and nursery areas are extensive and the drilling operation is unlikely to have an impact on the fish species. In addition the west coast of the Shetland Isles is intensively used for aquaculture and shellfish harvesting, so the ES has considered the potential impacts of an accidental hydrocarbon spill on aquaculture and shellfish sites.
- **Seabirds:** The most abundant seabirds in the vicinity of the Loanan operations are fulmar, gannet, shag, Arctic skua, great skua, great black-backed gull, kittiwake, common tern, Arctic tern, guillemot, razorbill, black guillemot and puffin. Seabird vulnerability is high in February, March, May and July and low to moderate for the remainder of the year. It has been assessed that there are sufficient mitigation measures in place to prevent accidental spills that could have a significant impact on seabirds and this will also be covered in the OPEP.
- **Protected Sites:** The Loanan well is located within the Faroe-Shetland Sponge Belt Nature Conservation Marine Protected Area (FSSB NC MPA) which is designated for deep-sea sponge aggregations, ocean quahog aggregations and geodiversity interests (continental slope and associated channels, iceberg plough marks, prograding wedges and slide deposits, offshore sub-tidal sands and gravels and sand wave and sediment wave fields). There are also a variety of coastal protected sites on the western coast of the Shetland Isles, including Hermaness, Saxa Vord and Vallafeld Special Protection Areas (SPA). Taking into account the proposed mitigation, the drilling operation is not expected to have any significant impact on the FSSB NCMPA or the coastal SPAs.
- **Protected species:** Harbour porpoise has been recorded in the vicinity of the Loanan well during spring and summer. Bottlenose dolphins have not been recorded at the Loanan well location although they are known to occur within the Faroe-Shetland channel. Any disturbance of marine mammals is expected to be limited to the drilling period, and the localised disturbance is considered unlikely to have any significant impact.
- **Other users of the sea:** The Loanan well is situated within ICES rectangle 51E7, and the relative fishing effort is considered to be low. Shipping density in the vicinity of Block 214/23 is also regarded as low. 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.

D) Consultation:

Comments were received from the Joint Nature Conservation Committee (JNCC), Marine

Scotland (MS), the Maritime and Coastguard Agency (MCA) and the Ministry of Defence (MoD). The ES was also subject to public notice.

JNCC: JNCC confirmed that they have no objections.

MS: MS confirmed that they have no concerns.

MCA: MCA confirmed that they have no objections.

MoD: MoD confirmed that they have no objections.

Public Notice: No comments were received in response to the public notice.

E) Further Information:

Further information was requested from JX Nippon, to address the issues raised during the review. The information requested included clarification on the timing of operations, cuttings modelling, impacts on aquaculture, an assessment of the well blow-out scenario and cumulative impacts, in addition to a number of minor comments. The information provided by JX Nippon satisfactorily addressed the queries.

F) Conclusion:

Following review of the ES, the responses received from consultees and the additional information provided by JX Nippon, DECC OGED 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 sites or species or other users of the sea.

G) Recommendation:

On the basis of the information presented within the ES and advice received from consultees, DECC OGED is content that there are no environmental or navigational objections to approval of the proposals, and has advised the OGA that there are no objections to the grant of the relevant consents.

Approved

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Sarah Pritchard

Head of Offshore Environment Unit, DECC Offshore Oil & Gas Environment and Decommissioning (DECC OGED)