

**APACHE BERYL I LIMITED
BERYL FIELD PRODUCTION INCREASE**

Environmental Statement Summary

To: Wendy Kennedy

From: Mark Shields

Date: 14th December 2016

ES Title:	Beryl Field Production Increase
Operator:	Apache Beryl I Limited
Consultants:	Apache Beryl I Limited
Field Group:	OGA, Northern North Sea
ES Report No:	D/4190/2016
ES Date:	June 2016
Block Nos:	9/12a, 9/13a, 9/13b, 9/13c, 9/13d, 9/18a, 9/19c.
Development Type:	Increase in Production

Project Description

Apache Beryl I Limited (Apache) has submitted an Environmental Statement (ES) to support an application for an increase in production from the Beryl Field from 2016. The proposals relate to extending the field life, and the increase will in part be achieved by ongoing production well drilling operations from the Beryl platforms. However, there may also be circumstances when drilling operations may require the use of mobile drilling unit (MoDU).

The Beryl Field is located in the Northern North Sea. The field is largely within Block 09/13a but also extends into Block 9/18a, and is part of the Beryl area development which includes five satellite fields. All production operations are undertaken on two fixed platforms, Beryl Alpha and Beryl Bravo. The entire Beryl area development is located in Blocks 9/12a, 9/13a, 9/13b, 9/13c, 9/13d, 9/18a and 9/19c, and is situated 153 km east of the Shetland Isles and between one (1) and eight (8) km west of the UK / Norway median line.

The Beryl field began producing in 1977, with production peaking in 1988. Oil produced from the Beryl field is comingled with fluids from the satellite fields at Beryl Alpha and is stored in subsea cells until it is exported via shuttle tanker at a frequency of approximately one offload every 2 months. Gas from the field is used as fuel or for gas lift; or is re-injected for storage or maintenance of reservoir pressure; or is exported via the SAGE pipeline system to the SAGE Gas Terminal at St Fergus.

The proposed increase in production at the Beryl field exceeds both the ES Annex I production thresholds of 500 tonnes of oil per day and 500,000 m³ of gas per day. The increase in production is within the design processing capacity of the Beryl Alpha and Beryl Bravo platforms, and there is no need to modify the process plant to deal with the additional production. The production increase will result in comparatively minor increases in chemical use and discharge and produced water discharge, but is not expected to significantly increase the risk of chemical or oil spills. The entire Beryl area development is covered by an existing Oil Pollution Emergency Plan (OPEP).

Key Environmental Sensitivities

The Environmental Statement (ES) identified the following environmental sensitivities:

Fish Stocks: The Beryl field is located within spawning grounds for cod, haddock, Norway pout, saithe, whiting, mackerel and sandeels, and nursery areas for blue whiting, haddock, Norway pout and mackerel.

Seabirds: Seabird vulnerability is very high in October and high in January, July and December, and moderate to low for the remainder of the year.

Annex I Habitats: No Annex I habitats have been identified in the vicinity of the Beryl area.

Annex II Species: Harbour porpoise, Atlantic white-sided dolphins, white-beaked dolphins, and minke whale have been recorded in the general area, with most frequent observations between June and October. (Grey seals and harbour seals are unlikely to be present in large numbers because of the distance from their haul-out sites).

Protected Sites: The nearest Special Area of Conservation (SAC) is the Braemar Pockmark located 40 km to the south. The nearest Marine Protected Area (MPA) is the Central Fladen site located 100 km to the southwest.

Other Users of the Sea: Fishing effort is low to moderate through most the year, although there are periods of high fishing intensity in spring and early summer. Landings are primarily demersal species and *Nephrops*, although there is some trawling for industrial and pelagic species. The area is categorised as low shipping density.

Key Potential Environmental Impacts

The ES identified the following key potential environmental impacts:

Atmospheric emissions: The main sources of atmospheric emissions will be platform and MoDU power generation, and support and supply vessel and helicopter traffic.

Marine discharges: Additional production chemical usage is expected to be limited. If drilling is undertaken there will be additional chemical use and discharge but the chemicals used for drilling and completion operations will be selected on the basis of balancing least harm and technical function. Produced water volumes are also expected to increase, and it is expected that approximately 60% of the produced water will be discharged and the remainder will be reinjected for reservoir support.

Physical presence: If a MoDU is required for drilling operations, the physical presence of the installation has been identified as a potential impact, primarily in terms of potential interference with fisheries and navigation.

Physical disturbance: If a MoDU is required, the main sources of physical disturbance would be from anchoring operations and the discharge of drill cuttings.

Noise: No significant sound impacts have been identified.

Cumulative effects: Minor potential incremental or cumulative effects were identified in

relation to physical presence, physical disturbance, marine discharges, atmospheric emissions, noise and potential spills. However, none were considered to be significant in a regional context. No significant synergistic effects, where the joint effect of two or more processes is greater than the sum of the individual effects, were identified.

Accidental events: Control measures will be in place to minimise the risk of accidental events. The procedures to mobilise equipment to respond to any oil spill will be detailed in the Beryl Field OPEP.

Transboundary effects: The proposed drilling and production activities are not anticipated to result in any significant transboundary effects. In the event of a significant oil spill that crosses the median line and enters Norwegian waters, Apache would liaise directly with the Norwegian authorities and UK Government could decide that the NORBRIT Agreement should be implemented.

Consultee(s)

The Joint Nature Conservation Committee (JNCC), Marine Scotland (MS), the Maritime and Coastguard Agency (MCA), the Ministry of Defence (MoD) and the Northern Lighthouse Board (NLB) were consulted on the proposals, and did not raise any objections. The ES was also subject to public notice, but no comments were received.

Further Information

In response to consultee comments and a number of issues highlighted during the Department's review of the proposals, further information was requested from Apache. The response received from Apache on 13th December adequately addressed the issues raised.

Conclusion(s)

Following consultation and the provision of the additional information, the Department is satisfied that this project is not likely to have a significant impact on the receiving environment, on any sites or species protected under the Habitats Regulations or on other users of the sea.

Recommendation(s)

On the basis of the information presented within the ES and provided by Apache on 13th Decemeber, and the advice received from consultees, it is recommended that the ES should be approved and that the OGA should be advised that there are no objections to issuing consent for the proposed production increase, and that there are no environmental conditions directly related to the ES review that should be attached to the consent.

...*Wendy Kennedy*.....

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Wendy Kennedy

Date 16/12/2016

Head of BEIS EDU Offshore Oil and Gas Environment and Decommissioning

