

**Ithaca Energy (UK) Limited.
Athena Field Development
Environmental Statement Summary**

To: Sarah Pritchard

From: Angus Laurie

Date: 24 February 2009

ES Title:	Athena Field Development
Operator:	Ithaca Energy (UK) Limited
ES Report No:	D/4017/2008
ES Date:	August 2008
Block Nos:	14/18b
Development Type:	Tied-back development to FPSO

Project Description

The proposed development is located in Block 14/18b in the Central North Sea, approximately 116km north east of Fraserburgh.

The project comprises of:

- Re-entry and completion of three existing wells;
- Drilling, completion and testing of two further wells;
- Drilling and completion of water injection well;
- Installation of sub-sea manifold;
- Installation of 2.5 km pipeline – connecting drill centre to FPSO;
- Contingency rock dumping of up to 15,000 tonnes of rock;
- Modification and re-use of the Uisge Gorm FPSO;
- Field production and export operations including processing of crude oil at a peak rate of 3700 tonnes/day (P50).

Key Environmental Sensitivities

The EIA identified the following environmental sensitivities:

- Scottish Executive Environment and Rural affairs Department (SEERAD) have indicated that for Block 14/18, February – June is a period of concern for any potential seismic survey work. .
- The Athena field is on the edge of the Fladen ground and is in an area of commercial importance for demersal trawlers targeting the prawn (*Nephrops*) and white fish.
- Fish spawning area for whiting (Feb to June), Norway pout (Jan to April), Sprat (May to August);
- Nursery area for blue whiting, Norway pout and sprat;
- Seabird vulnerability is moderate for most of the year, with very high vulnerability during July and August.
- Moderate numbers of cetaceans e.g. white-beaked dolphin and Minke whale have been recorded in the summer months.
- Annex I Habitats: The project is not in the vicinity of any SAC's designated for Offshore

Natura 2000 habitats. Nearest designated sites are 116km away.

- Shallow pockmarks are present throughout the proposed development area but investigations of them have not found them to contain features of special conservation interest.
- Annex II Species: the harbour porpoise is the most common cetacean in the area with peak numbers recorded in the summer months. It may be occasionally present in Block 14/18. Common and grey seals are infrequent visitors to this area.

Key Potential Environmental Impacts

The following potential impacts and mitigation were addressed in the EIA:

- **Obstacles to other marine activities during operations** - Safety zones will be in operation throughout the drilling operations, FPSO installation and pipe-line laying operations, and other users of the sea will be notified of vessel presence. All subsea structures will be fishing friendly and will be submitted for inclusion on the Admiralty charts.
- **Seabed disturbance** – Rig anchoring will affect up to 3,600 m² of the seabed during each deployment. It is estimated that the area may be disturbed up to three times during field development. FPSO anchoring will disturb a limited seabed surface area.

The installation of the pipelines will disturb benthic fauna. However, the impact will be of a temporary nature, especially in the event of rapid re-colonisation.

The proposed rock dumping will also likely disturb the benthic fauna and change the local habitat, though it is thought the benthic communities will re-colonise the rock dumping area with the addition of opportunistic species.

Drilling the 36" and 17¼" hole sections with water-based mud (WBM) will generate 380m³ of cuttings for each well. These cuttings will be discharged to sea where they are predicted to disperse rapidly. The 12¼" sections will be drilled with Oil based mud (OBM) and all cuttings will be skipped and shipped to shore for licensed disposal.

Based on the evidence provided in the ES, the physical disturbance of the seabed is not considered to be significant.

- **Noise** – Drilling operations and day to day operation of the FPSO and shuttle-tanker will create intermittent levels of noise. There will be noise due to the installation of the FPSO anchor as the anchors will be piled in. The pipe lay vessels will also produce noise during installation operations. Though noise will be discernable to marine mammals over a wider area, subsea installation and pipe lay will be planned to last as short as time as possible with a 'soft start' where possible and impacts will be minimal and insignificant.
- **Atmospheric emissions** –The principal routine operational emissions during the proposed development programme would be of combustion products (CO₂, CO, NO_x, SO₂, CH₄ and VOCs) from power generation and engines on the rig, vessels associated with subsea installation, helicopters, flaring and power generation on the FPSO. In addition, there will be atmospheric emissions of methane and VOCs associated with the storage and offloading of crude oil.

Gas production in the early years of the Athena field will be used to supply fuel for power generation on the Uisge Gorm FPSO.

As a result of Athena drilling and FPSO activities, overall contributions to the UK and European CO₂ emissions totals are small. Local effects on air quality are mitigated

through the remote location of the Athena site. In order to minimize atmospheric emissions, Ithaca will ensure that well test equipment is selected to promote efficient burning of hydrocarbons.

- **Marine discharges** – small chemical discharges associated with the proposed commissioning of the pipeline and subsequent production operations are predicted. All chemicals are CEFAS registered and are not considered to be significantly harmful to the environment. Produced water will normally be injected into the reservoir but during periods of downtime, produced water containing process chemicals will be discharged to sea.
- **Accidental events** – Ithaca will have a dedicated Oil Pollution Emergency Plan OPEP for all exploration and production activities within the Athena field and particularly, the day to day operation of the Uisge Gorm FPSO.
- **Cumulative Impacts** – The cumulative impacts from the proposed drilling and production operations are not considered to be significant.

Public Consultation: No comments were received as a result of the public consultation exercise.

Consultee(s):

The statutory consultees for this project were JNCC and FRS. The following comments were received:

JNCC: JNCC requested further clarification on the pipe-lay technique, location of the FPSO anchors and the quantity of rock dumping. Clarification was subsequently fully represented in the further information provided by Ithaca to JNCC's satisfaction and recommendation for consent was issued.

FRS: FRS had no major concerns about the Athena Development and were content for DECC to approve the ES.

Further Information: In addition to the consultee comments a small number of issues, e.g. selection of hydraulic fluid and produced water treatment equipment, were highlighted by DECC and further information was requested.

Ithaca Energy Limited provided the additional information requested and where appropriate acknowledged comments and committed to incorporating them in future submissions. All issues were considered satisfactorily amended and clarified.

Conclusion(s):

Following consultation and the provision of the additional information on 26 January 2009, DECC and its consultees are satisfied that this project is not likely to have a significant impact on the receiving environment, including any sites or species protected under the Habitats Directive (92/43/EEC) or Birds Directive (79/409/EEC).

Recommendation(s):

On the basis of the information presented within the ES and advice from consultees it is recommended that the ES should be approved.

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Sarah Pritchard

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Date