

**Hydrocarbon Resources Limited
East Irish Sea Block 113/27b Drilling Operations
Environmental Statement Summary**

Title:	East Irish Sea Block 113/27b Drilling Operations
Operator:	Hydrocarbon Resources Limited
Consultants:	RPS Energy HSE & Risk Management
Report No:	D/4102/2010
Submission Date:	December 2010
Quad/Block No:	113/27b
Project Type:	Drilling of three wells (one exploration, appraisal and development well)
Reviewer:	Dr Sarah Dacre
Date:	1 st March 2012

Project Description

Hydrocarbon Resources Limited (HRL) are planning to drill three wells in Block 113/27b. Drilling operations will comprise a single development well in the Rhyl prospect, a single appraisal well in the Rhyl North prospect and a single exploration over the Whitehaven prospect. The wells will be drilled using the jack-up rig, *Noble Byron Welliver*.

The rig is expected to be on location at Whitehaven for 49 days, followed by 43 days at the Rhyl location and 54 days at the Rhyl North prospect. Each well will be drilled using Water Based Mud (WBM) and the total quantity of cuttings anticipated to be discharged is 1087 tonnes.

For the Rhyl North and Whitehaven wells, if no hydrocarbons are identified, the wells will be plugged and abandoned. However, if discoveries are made, a well test will be undertaken and if successful, the wells will be suspended and xmas trees installed for further development.

Key Environmental Sensitivities

The EIA identified the following environmental sensitivities:

- **Fish Stocks:** The area is within spawning grounds for cod (January to April), whiting (February to June), sole (March to May), sprat (May to August) and *Nephrops* (all year round). Nursery grounds for plaice, herring and haddock are also located within the project area.
- **Seabirds:** Seabird vulnerability is high in March, April, September, November and December..
- **Annex I Habitats:** There was no evidence of Annex I Habitats in the vicinity of the proposed drilling operations.
- **Annex II Species:** Harbour porpoise and grey seal are infrequently observed in the vicinity of the project area.
- **Other Users of the Sea:**
 - British Telecom-MT1 Groundle to Silecroft cable lies 130 metres to the south of the Rhyl well location at its closest approach.
 - The proposed wells are within 0.1km and directly within the Walney and Walney Extension Offshore Wind Farm (OWF) areas respectively.

Key Potential Environmental Impacts

The EIA identified the following potential impacts and related mitigation:

- **Physical interference:** With regard to fishing and shipping activity, appropriate mitigation measures will be put in place. e.g. 500m exclusion zone. Other measures include Kingfisher Bulletins, Notices to Mariners and liaison with fisherman. Impacts on fisheries and navigation are not considered to be significant.

Pipeline crossing agreements have been put in place with respect to the British Telecom-MT1 Groundle to Silecroft cable.

HRL and DONG Energy will undergo continuous engagement concerning their activities. Agreements were finalised between both parties in order that activities could be progressed with the minimum of interference.

- **Noise:** Drilling operations will have a typical source level of 140dB re 1mPa@1m and is considered to be the most significant noise source associated with the project. Background noise levels (97dB) will be reached within a kilometre of the source. Due to the localised and temporary nature of the drilling operations noise impacts are not considered to be significant.
- **Marine discharges:** All chemicals used for the drilling operations are selected by HRL on the basis of technical compatibility and environmental performance and the marine environment is sufficiently dynamic to facilitate rapid dispersion. A more detailed risk assessment of the all the proposed chemical use and discharge relating to the drilling operations will be undertaken in the subsequent applications for chemical permits.
- **Seabed disturbance and coastal processes:** The drilling operations will directly impact the seabed, the most significant being through the deposition of drill cuttings and potential rig stabilisation. The species composition of the benthic communities within the area have shown to be relatively resilient to the effects of sediment mobilisation and would recover rapidly from seabed disturbance. The predicted drill cuttings settlement levels is also anticipated to be comparable to natural erosion and deposition and unlikely to have any significant smothering effect.
- **Accidental events:** A number of control measures will be in place to minimise the risk of accidental events. HRL will develop Oil Spill Emergency Plans (OPEP) and Emergency Procedure Plans. Modelling of the worse-case diesel spill has been undertaken and included in the EIA.
- **Cumulative impacts:** The proposed drilling operations are located in the vicinity of and within the boundary of Walney and Walney Extension OWF. HRL and DONG Energy will undergo continuous engagement concerning their activities. Agreements were finalised between both parties and it is unlikely that the projects will have a significant effect in-combination with each other in terms of activity scheduling. The drilling of the wells are being drilled with adequate temporal space as not to cause cumulative impacts.
- **Transboundary Impacts:** No transboundary impacts are likely as a result of this project.

Consultation

Comments were received from the Marine Management Organisation (MMO), Centre for Environment, Fisheries and Aquaculture Science (CEFAS), the Joint Nature Conservation Committee (JNCC), Natural England (NE), Crown Estate (CE), Environment Agency (EA), Marine Coastguard Agency (MCA), Ministry of Defence (MOD) and East Riding Council.

There were no objections to the proposed drilling operations.

Public Notice: Public notice of the ES elicited representations from Walney (UK) Offshore Windfarms Limited (WOWL) and DONG Energy Walney Extension (UK) Limited (DEWE). Hydrocarbon Resources Limited, WOWL, DEWE and the Department corresponded throughout the ES process and representations from WOWL and DEWE were withdrawn. There were no sustainable environmental objections to the proposed drilling operations.

Additional Information

Hydrocarbon Resources Limited provided the requested information on the 24th August 2011. All the issues raised were satisfactorily addressed.

Conclusion

On the basis of the information presented within the ES and the additional information provided by Hydrocarbon Resources Limited, and the advice received from consultees, DECC OED is content that there are no environmental or navigational objections to approval of the ES.

Recommendation

It is recommended that the ES should be approved.

Approved

...*Sarah Pritchard*.....05/03/2012.....

Sarah Pritchard- Head of Environmental Operations

Date