

## The Devil's Hole Horst Prospect Offshore UK North Sea

Farmin Opportunity - Under Appraised Development 76 MMBO Contingent Resources with large 1.2 BBO Prospective Resources upside

**Hydrocarbon Play Concept:** The DHH prospect is an overlooked basin margin play concept.

This play is proven to occur in the recent giant Johan Sverdrup oil field (2.2 to 3.2 BBO) discovered in 2010.

Johan Sverdrup oil field proves long distance (30 to 70kms) Oil migration occurs.

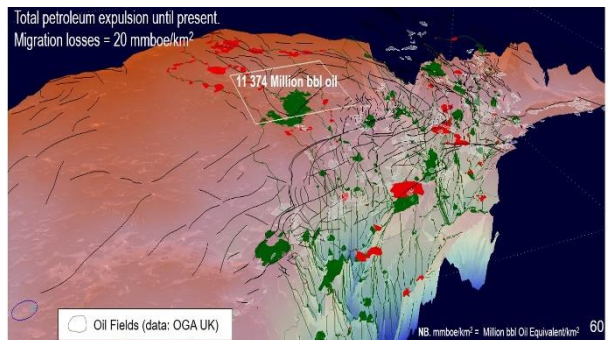


Figure 2: IGI Report 3D view of the modelled oil migration pathway from the Jurassic source rock in the Central Graben.

### Link to License Agreement:

[UK OGA Licence P2321](#)

### 1967 DST Results:

Two DST's were carried out over a high porosity high oil saturation 5m thick dolomite. DST 1 and 2 were compromised by the cement job that had created a 2" sheath around the borehole blocking up the reservoir. A third DST, DST 3, was over a non-reservoir section.

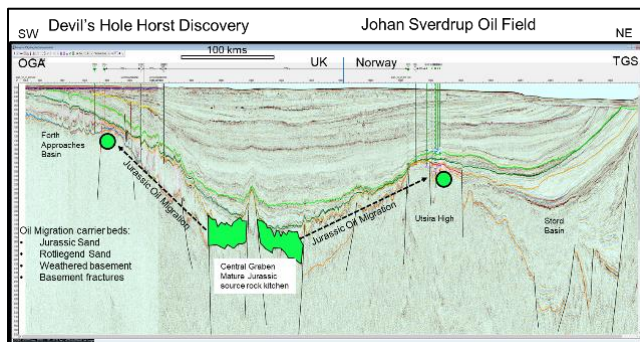


Figure 1: Regional seismic line through Johan Sverdrup on right and DHH prospect on left.

### Mean Prospective Resources:

- **Jurassic Sand: 1.2 BBO**
- **Upper Dolomite: 76.5 MMBO (Contingent Resources)**
- **Lower Dolomite: 412 MMBO**
- **Devonian Sands: 10 MMBO**

## Mapping:

Two released wells within the licence area. Over 3000kms of 2d seismic data.

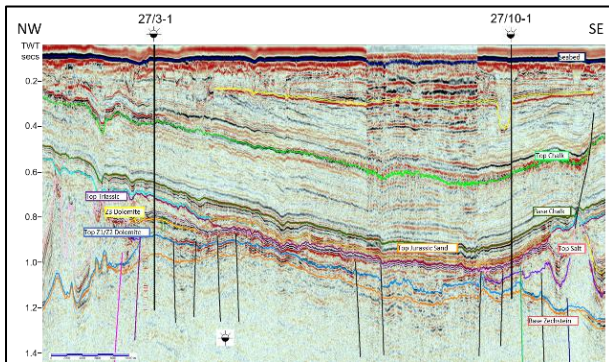


Figure 3: Well Tie Line through two old Amoco wells

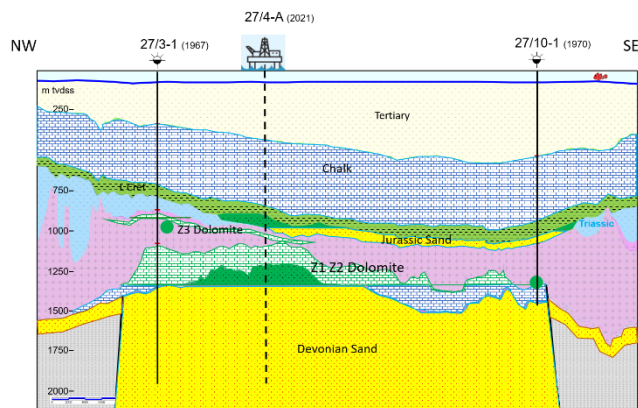


Figure 4: Geological Cross Section with contacts and Prospects

## Prospects:

The Jurassic sand exploration prospect is a large stratigraphic closed structure with an area of 282 sq kms. Jurassic sand reservoir is proven in well 27/10-1 but absent in the updip 27/3-1 well.

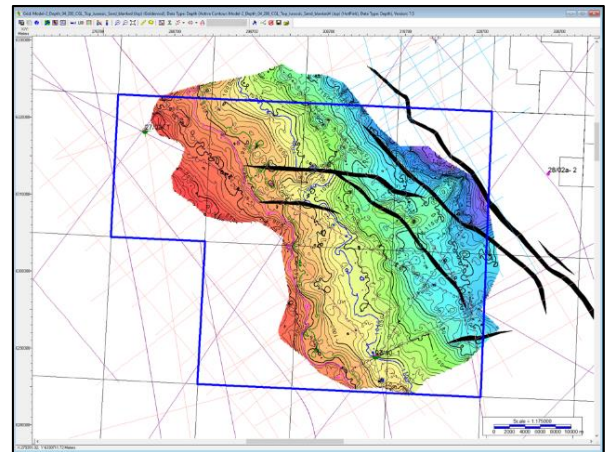


Figure 5: Top Upper Jurassic Sand Depth Structure – 1.2 BBO Prospective Resources

The Upper Dolomite Z3 discovery appraisal prospect is a large four-way dip closure at Top Salt level.

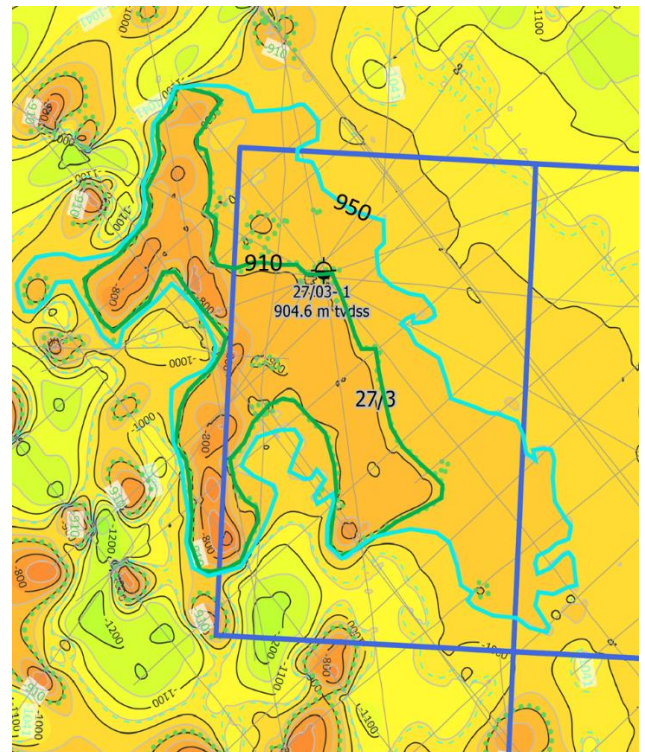


Figure 6: Top Z3 Upper Dolomite – 76 MMBO Contingent Resources. ODT 910m contour highlighted in green.



The Lower Dolomite Z1 Z2 exploration appraisal prospect is a large 900 sq kms four-way dip closure covering 7 UK blocks.

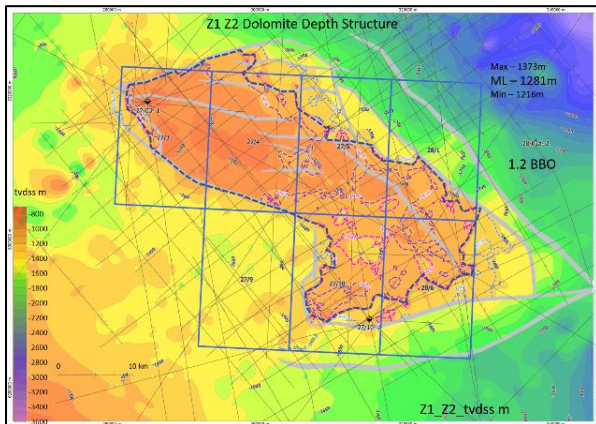


Figure 7: Z1 Z2 Lower Dolomite Zechstein Depth Structure – Most Likely Contact – 1281m 654 sq kms (161,607 acres) four-way dip closure – 412 MMBO

## Petrophysics:

### 27/3-1: Z3 Dolomite

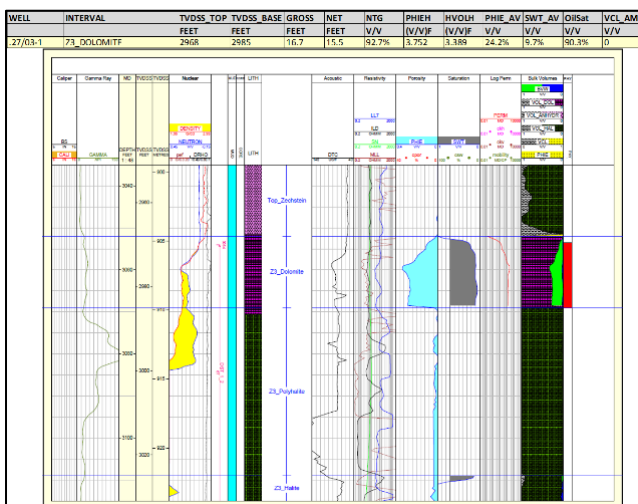


Figure 8: 27/3-1 Z3 Upper Dolomite Pay Zone 910m ODT - 90% Oil Saturation 24% Porosity 15.5 feet net thickness and good oil shows.

27/10-1 Z1 Z2 Dolomite\_Downdip well found 10% porosity in thin 2 feet net oil pay zone.

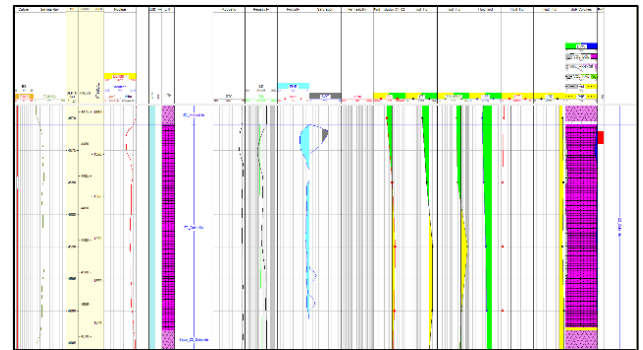


Figure 9: 27/10-1 Lower (Z2) Zechstein Dolomite - Average Porosity - 10%, 2 feet Net Pay.

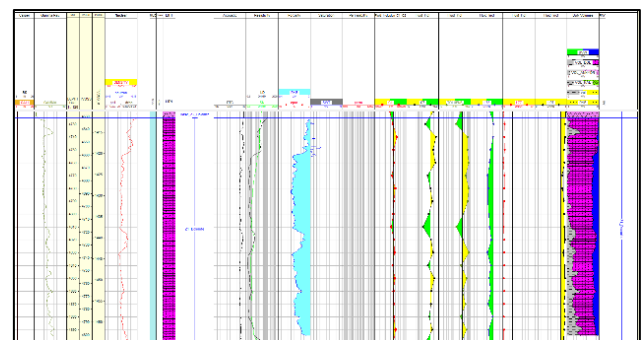


Figure 10: 50m thick Z1 Dolomite mapped to extend updip from the well across the complete structure – porosity 20%.

The downdip well, 27/10-1, penetrated an Upper Jurassic Sand with 78 feet gross thickness and a high 94% N/G porous sand with 24% porosity.

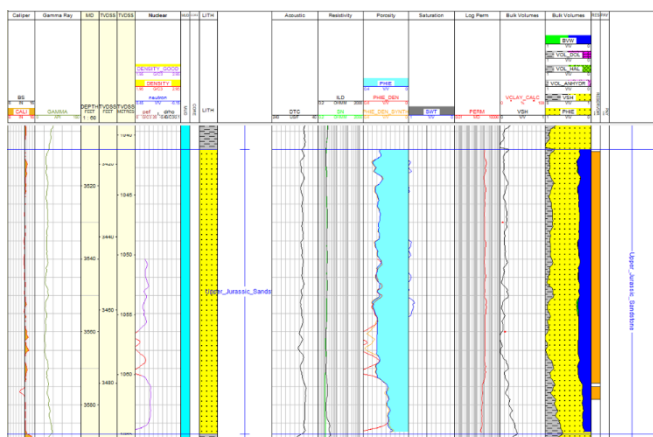


Figure 11: 27/10-1 Jurassic Sand with 78 feet with 24% porosity.

### Work Programme:

A licence obligation of 225 Sq Kms 3D seismic survey at an estimated gross cost of £6M is expected to be acquired in 2020.

An Appraisal Exploration Well will be drilled in a water depth of 260 feet (80m) to a depth of 6530 feet (1990m) at an estimated gross cost of £12M. This is due to be drilled in Phase C. There is a drill or drop decision in May 2021. Phase C ends in May 2023.

### Offer:

NSNR, who owns 100%, is offering up to 50% licence equity in return for the incoming party's commitment to contribute to seismic, well cost and back costs.

DEADLINE FOR FARM IN OFFERS IS 31<sup>ST</sup> JANUARY 2020.

### Further information:

A 60-page more detailed Information Memorandum is available together with ODR and PDR for due diligence.