Chalk – the prolific, yet underexplored, low perm reservoir

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The North Sea Chalk has been known as a producing play for half a century, so how should this be underexplored?

Norway has been spoiled for choice when it comes to prolific, high permeability sandstone reservoirs and the Chalk has continued to be seen as a challenging and challenged niche play. However, with 50 years of development and production experience this is not really the case anymore.

Challenged by the central North Sea Chalks of the Upper Cretaceous and lowermost Paleogene, the industry responded and came up with profitable development solutions and by the late 90'ies the Lower Cretaceous marly chalks of the Sola and Tuxen formations, of even lower permeability, were proven profitable as well.

Applying the gained experience to the Chalk and marly chalk intervals on the Norwegian Continental Shelf may reveal new potential, if we dare look for something else than the traditional large salt dome structures in the south known for decades.

Have we fully understood the potential of the Chalk reservoirs in Norway? May the experience from the Chalk development facilitate development of other low perm chalky plays?

This presentation sets out with a brief overview of key aspects of Chalk as a reservoir rock. The northward continuation of the Chalk deposits is discussed and an introduction to 50 years of exploration and development experience is offered. We need to bridge and integrate the realms of exploration, development and production to quantify volumes, uncertainties and risk appropriately in order to make the Chalk prospects rank in the portfolios in the energy companies and thereby facilitate the unlocking of the Chalk potential.



Højerup Chalk Exposure, Stevns Klint, Denmark



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