HydraWell

CASE STUDY

CO_2 Storage

Carbon Capture & Storage (CCS) Campaign

Perforation, Wash & Cement PWC® successfully deployed in first major carbon capture project

AT A GLANCE

Operator: Port of Rotterdam, CO_2 Transport Hub and Offshore Storage (PORTHOS)
Where: Dutch Continental Shelf
When: June 2022

HydraHemera™ PWC® flawless execution to restore annulus barrier above reservoir.

Permanent rock-to-rock barriers installed to prevent Hydrocarbon migration into the sea.

BACKGROUND

The £450m Porthos CCS Project is a joint venture between the Port of Rotterdam Authority, Gasunie, and Energie Beheer Nederland (EBN). The project forms part of the Netherland's fundamental goal to reduce emissions. With the support of various cross-sector organisations, the Porthos plan involves the transportation and storage of CO_2 from industry in the Port of Rotterdam.

Our PWC® system entered new territory thanks to the successful completion of our first Carbon Capture and Storage (CCS) project.

CLIENT CHALLENGE

The Netherlands has clear climate objectives. The emission of greenhouse gases must be reduced by at least 55% in 2030 compared with 1990. By 2050, the Netherlands must be climate neutral.

The Dutch Climate Agreement underlines the importance of CCS for the energy transition. Around 14% of CO_2 emissions in the Netherlands takes place in the Rotterdam port area, making the region's contribution to the national climate objectives extremely important.

The client challenge was to deploy a proven method to create a cross sectional barrier (caprock) of the reservoir – the type of formation that has no permeability.

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HYDRAWELL SOLUTION

Our technology provided a ground-breaking solution to complete a significant part of the key environmental undertaking, marking an important milestone for the future of CO_2 storage in the Netherlands.

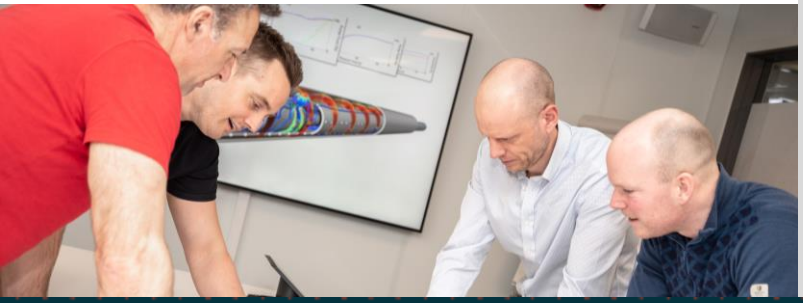
The project was performed on a jack up rig, with the benefit of having the wellhead on the seabed ensuring reduced costs and enhanced flexibility compared to a semi-submersible, not to mention less severe water depth.

The scope of work involved harnessing our PWC® technology to place a rock-to-rock barrier above the reservoir to prevent Hydrocarbon leakage into the sea. The innovative solution was deployed with flawless execution and in a single run, expertly showcasing the flexibility of our operations.

By deploying our proprietary PWC® technology, we delivered:

- Less operational risk
- Increased efficiency
- Optimum results

This nimble and flexible method is much in demand across a range of applications from permanent P&A and slot recovery to restoring annulus integrity and casing shoe repair.



RESULTS & BENEFITS

Combined with a sustainable and cost-effective approach, HydraHemera™ was an ideal fit for the Netherlands CCS project.

The campaign was delivered in less than 36 hours, which when compared to conventional methods, would have taken up to 8 days.

HydraWell established:

- Predictability of the entire project
- Client and contractor trust in our ability to deploy a proven method to create an effective cross sectional barrier

HydraWell (HQ)
Norsea Base, Bygg 104,
N-4056 Tananger,
Norway

www.hydrawell.no