



CASE STUDY

Superior's Debut Installation and Successful Remote Opening of its Barrier Valve

ITS TIMELY DEVELOPMENT AND DELIVERY FOR SERVICE IN A CHALLENGING ENVIRONMENT

An International operator planned to drill and complete an open-hole well in the Natuna Sea, offshore Indonesia. Completion trajectory and reservoir conditions made the standard design challenging.

Superior was chosen to support the installation of the lower completion, providing the CompSet™ HP II Packer, Hydraulic Well Barrier Valves (X-HBV), DynaFlo™ DB screens and slip-on Swell Packers.

The completion plans included an open-hole standalone screen application, run on Superiors' SRTS™ annular release running tool. Once the screens are placed on-depth, the CompSet™ packer is set and the X-HBV valve is closed, as the service tool is retrieved from the well.

Superior designed, tested and delivered its first ever recloseable, remotely-opened hydraulic barrier device. Some of the advanced features of this product consist of a variable indexing mechanism, independent actuation and high-power open section, in conjunction with a highly debris tolerant ball-type barrier mechanism. This variant also had a mechanical shift-open profile positioned well above the ball, which allowed a seal-stack below the wash-pipe shifter during installation, to provide additional volume for debris.

With in-depth planning, engineering, qualification, delivery and performance, Superior Energy successfully demonstrated their technical capabilities in providing top-notch tools.

CHALLENGES

- » Designing, testing, and qualifying a highly challenging product
- » On-time delivery to meet the operational schedule
- » Successful field installation and performance with zero NPT

SUPERIOR ENERGY SOLUTION

- » Swift design, development and qualification of a barrier-type product
- » A stellar debut performance of the X-HBV
- » Time Savings
 - Valve set for 8 +/- 1 cycle opening
 - Actuated and triggered open remotely as per operational requirements
 - Opened remotely on the first attempt, without necessitating an expensive intervention

VALUE

- » Simple and reliable product for barrier valve needs
- » Cost-effective solution to reduce overall completion expenses
 - The remote hydraulic opening of the valve on the first try enabled the customer to complete the well within budget, and move into the production phase without delay
- » This Superior product with demonstrated reliability provides extreme flexibility to the end-user