

Gas-Tight Reconnection to Surface Enables Reentry into Abandoned Exploration Wells and Avoids Redrilling

Novel use of Casing Reconnect system cost-efficiently converts two plugged and abandoned wells into producers

Two offshore exploration wells that had been plugged and abandoned were reconnected to surface and readied for production, avoiding the expense of drilling new wells.

Operator needed to reconnect cut casing to surface

After drilling two exploration wells offshore East Java, Saka Indonesia Pangkah Limited (SIPL) cut the 13³/₈-in and 9⁵/₈-in casings at the seabed and plugged the wells. Once construction of the surface platform and facilities was completed, the operator wanted to reconnect the casings to surface with full metal-to-metal seal integrity and commence production. The alternative was to drill new wells, which would entail delay and high cost.

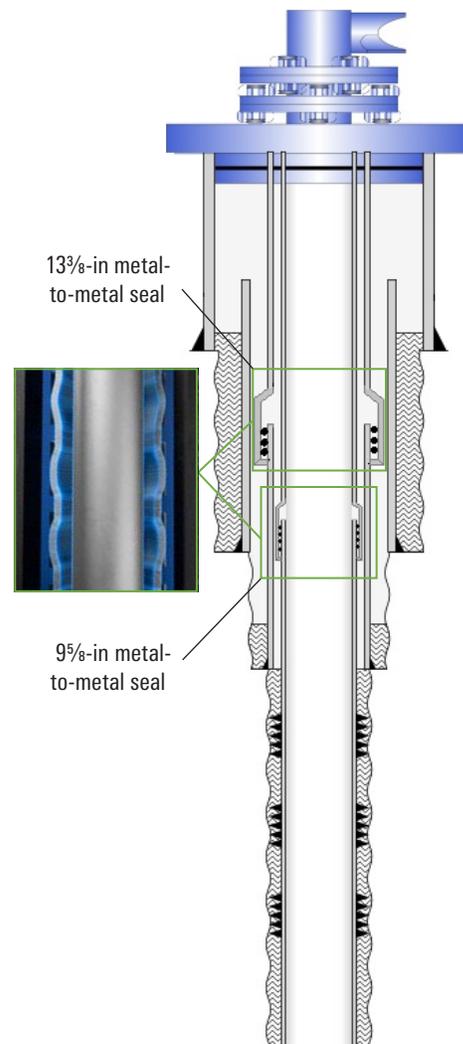
Casing repair system enabled a novel solution

Schlumberger recommended its Casing Reconnect* metal-to-metal, gas-tight casing repair system. The 13³/₈-in casing was cut and dressed to ensure that the top of the casing was in good condition. An appropriate length of casing was then run with a Casing Reconnect system receptacle on the bottom, which was landed over the casing stump. For this size of casing, the reconnection system was run using a slip-type casing hanger and spaced out without any issues.

The expansion tool was deployed to a predetermined depth, using a depth latch locator profile. Subsequently, pressure was applied via hydraulic lines and controlled from surface to activate the tool. As a result, the casing stump morphed into the receptacle, rejoining the two strings with 14 metal-to-metal sealing points, exceptional axial load capability, and no loss of ID. The connection is validated to ISO 14310 V0. After the morphing operation was complete, the new 13³/₈-in casing was cut at the surface wellhead position and connected to the BOP. The procedure was repeated for the 9⁵/₈-in string.

Restoration of well integrity enabled production without drilling new wells

Both wells were restored, and completion strings with gas lift valves were installed without any issues. They are now ready to commence production. This was the first use of the Casing Reconnect system for well reentry to convert exploration wells into producers and avoid drilling new wells, enabling SIPL to shorten the time to first hydrocarbons.



Casing Reconnect system restored the integrity of casing strings to surface after they had been cut at the seabed during P&A, enabling production from two exploration wells without need of new wells.

"I'm very proud that we are responsible for the first implementation of this technology in Asia Pacific."

Avep Disasmita
President Director PT Saka Energi Indonesia (PGN Saka)