

REAL RESULTS

HOMCO Patch Seals Unwanted Perfs To Enable Fracturing Deeper Target Zone in Extended Lateral

Objectives

• Set 30-ft HOMCO patch in the lateral of an onshore well to cover four open, 1-in.-diameter perforations and allow for fracturing operations in a lower zone. The open perforations were more than 5,000 ft into the lateral section of the well.

Our Approach

- Weatherford provided all of the cleanout tools, running tools, expansion tools, HOMCO patch, and personnel required for the installation. A cleanout run was performed with a stiff assembly sized 1/16 in. over the drift of the parent casing.
- Before actually running the HOMCO patch, Weatherford verified that it could be run through such a high dogleg: Using setting tools, the Weatherford team first ran a washpipe gauge of the same length and OD of the HOMCO patch to simulate tripping the patch through the high dogleg. Then the team ran the patch successfully through a maximum dogleg severity of 16.91°/100 ft—more than double the rating of the system—and expanded in the horizontal.
- After expansion, the HOMCO patch was isolated by packers and pressure tested to 9,500 psi. The patch provided permanent isolation of the unwanted perforations and allowed perforation guns and frac plugs to pass through the expanded patch to reach the lower zone.
- The well was then successfully fractured through the casing approximately 4,000 ft beyond the HOMCO patch.

Value to Client

- This was the deepest HOMCO patch installation to date, and the 30-ft patch was installed successfully with no environmental or safety incidents.
- The patch enabled the client to continue to fracture the deep target zone successfully through the casing.
- The HOMCO patch provided isolation where previous cement squeezes had failed.

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HOMCO patches enable fast, permanent fluid isolation and repairs to leaking casing. The HOMCO patch works, with minimal ID reduction, where cement squeezes have failed.

Location Northwest USA

Well Type Oil & Gas

Maximum Dogleg Severity 16.91°/100 ft

Parent Casing Size 4-1/2 in., 13.5 lb/ft P-110

Casing ID 3.920 in.

Casing Drift 3.795 in.

Expandable Liner

4-1/2 in., 13.5 lb/ft HOMCO Post-expanded ID: 3.620 in. Post-expanded drift: 3.495 in. Length: 30 ft

Setting Depth

16,196 to 16,226 ft (4,936.54 to 4,945.68 m)

Products/Services

- Weatherford Fishing & Rental
- Weatherford Solid Expandable Systems

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