



Weatherford®

REAL RESULTS

HOMCO® Casing Patch Isolates Perforated 5 1/2-in. Casing in Marcellus Shale Well Within 18 Hours, With Only 0.300-in. Reduction in ID

Objectives

- Permanently isolate a 3-ft (1-m) section of perforated 5 1/2-in. casing while providing a maximum pass-through diameter, minimizing the impact on flow, and quickly returning the well to production. The well was producing and on a snubbing unit, and a static condition had to be achieved before installation.
- Install a liner capable of withstanding 9,000 psi (62 MPa) maximum surface-treating pressure through 14 stages of sand fracturing.

Results

- A 30-ft (9.1-m) × 1/8-in. mild steel, HOMCO casing patch was inserted into the existing 5 1/2-in. casing, covering the perforations, and expanded from the bottom up.
- After expansion, the original ID of 4.778 in. was reduced to 4.478-in., a reduction of 0.300-in. The resulting ID was still large enough to enable wireline equipment and fracturing plugs to pass through, and allow the largest volume of fracturing fluid to be pumped downhole.
- Weatherford ran a caliper log run after every other stage of fracturing to monitor the patch throughout the entire operation.
- The patch successfully withstood cycling fracture pressures of up to 9,000 psi (62 MPa).
- The operator pumped approximately 7 million lb (3.1 million kg) of sand through the patch without any wall loss.

Value to Client

- Using Weatherford's HOMCO casing patch enabled the operator to isolate the perforated interval and continue the operation, saving rig time and operation costs when compared to multiple cement squeezes.
- The HOMCO casing patch was run in one trip and required no additional shoe drillout.
- The HOMCO casing patch provided a robust solution that withstood high fracturing pressures and enabled the operation to be completed as planned.

The versatile *HOMCO* casing patch is designed to seal perforations, collar and thread leaks, splits, and limited corroded areas in tubing and casing; to provide added protection during squeeze jobs; and to be effective at any depth.



Location
Northern Pennsylvania

Formation
Marcellus shale

Well Type
Onshore, gas producer

Casing Type
5 1/2-in., 20.0 ppf

Patch Size
30 ft (9.1 m)

Products/Services

- HOMCO casing patch
- Wireline services
- Multisensor caliper tool
- Casing-collar locator

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