

SwageSet V0 Packoff Stage Tool (POST)

Eliminates Need for a Liner Hanger, Saves \$300,000 and 2 Days of Rig Time in 2 HPHT Gas Wells

Objectives

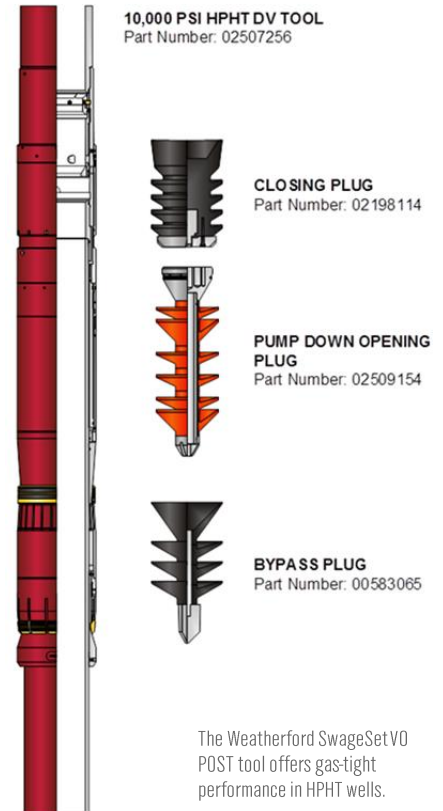
- Provide a secure two-stage cement job for a 12,720 ft (3,877-m) string of 9 5/8-in. 53.5-lb/ft casing in two high-pressure/high-temperature (HPHT) gas wells with temperatures up to 265°F (129°C) and formation pressures up to 11,500 psi (79.3 MPa).
- Prevent casing-to-casing annular (CCA) pressure—along with a costly workover—between the 9 5/8-in. and 13 3/8-in. casing strings.

Our Approach

- A Weatherford well-construction team recommended the SwageSet V0 packoff stage tool (POST), which provides a gas-tight seal that compares to that of a premium liner system and eliminates the need to run and tie back a liner-hanger system to the surface.
- The team prepared the POST and ran the tool through the 13 3/8-in. 72-lb/ft and 86-lb/ft casing. The tool passed through a 12-in. (305-mm) restriction to a depth of 12,720 ft (3,877 m). With the tool set at a depth of 10,452 ft (3,816 m), the first-stage cement was pumped and displaced.
- The team set the POST tool at a depth of 8,604 ft (2,927 m). They pressurized the toolstring and observed that the packer sheared at 1,400 psi (9.7 MPa). They set the packer and slips with 3,000 psi (20.7 MPa) of pressure and opened the POST tool with 3,500 psi (24.1 MPa) of pressure.
- They pumped and displaced second-stage cement without losses and closed the tool with 3,300 psi (22.8 MPa) of pressure. They drilled out the tool and confirmed string integrity with a casing pressure test.
- They repeated the operation on the second well. The operation achieved total zonal isolation in both wells with no CCA pressure.

Value to Customer

- The Weatherford SwageSet V0 POST tool enabled a secure two-stage cement job in two HPHT gas wells. The operation eliminated the need for a liner-hanger system, which saved US \$300,000 and 2 days of rig time.
- The operation achieved total zonal isolation with zero CCA pressure.
- The tool safely passed through a 12-in. (305-mm) restriction to set inside the 13 3/8-in. 72-lb/ft casing.



LOCATION

Kingdom of Saudi Arabia

WELL TYPE

Onshore HPHT gas producer

FORMATION

Sandstone, limestone, shale

SETTING DEPTHS

10,426 and 12,720 ft (3,178 and 3,877 m)

STAGE TOOL SETTING DEPTHS

8,604 and 10,452 ft (2,927 and 3,816 m)

CASING SIZE AND TYPE

9 5/8-in. 53.5 lb/ft

HYDROSTATIC PRESSURE

10,524 psi (72.6 MPa) second stage

PRODUCTS/SERVICES

- Model 786PD mechanical POST
- Float collar
- Float shoe

