

Case History

MPAS-e™ — Electronically Activated Remote-Set™ Openhole Packer

Problem

An operator wanted to isolate zones in an extended-reach well with controlled time to seal, but without a cement or servicing tool that requires an inner string, applied pressure, or pipe manipulation.

Solution

- Baker Oil Tools developed the interventionless MPAS-e packer to provide zonal isolation
- The MPAS-e packer is activated by a pre-coded (programmable) electronic device, which evaluates well conditions against pre-calculated measures to initiate hydrostatic setting
- The trigger device activated a timer which had to pass pre-set temperature, and pressure criteria before being active
- Once the timer started, a pre-determined time elapsed before the trigger allowed hydrostatic pressure to set the packer
- Hydrostatic pressure will continuously act on the packer, keeping it set

Results

- Enabled operator to achieve isolation in an extended reach well
- Saved the need for a fully cemented liner and perforations
- Saved operator approximate \$1.5 million
- Saved rig time by eliminating pipe run of inner string to set packers
- A three-zone completion using MPAS-e is now being planned

Project Details

Location: Offshore Qatar

Setting Depth: +/- 10,800 ft shoe depth, +/- 25,000 ft total depth

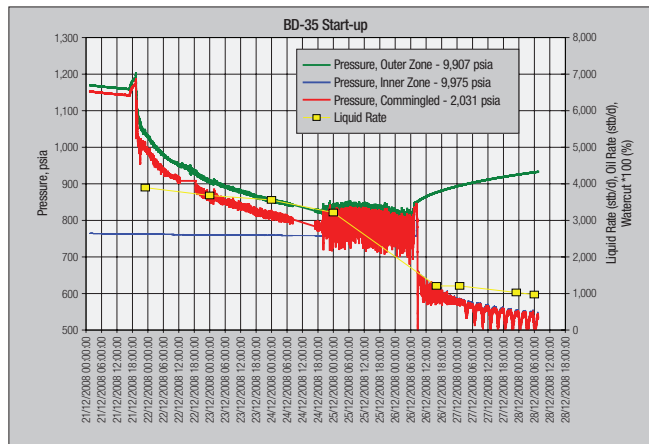
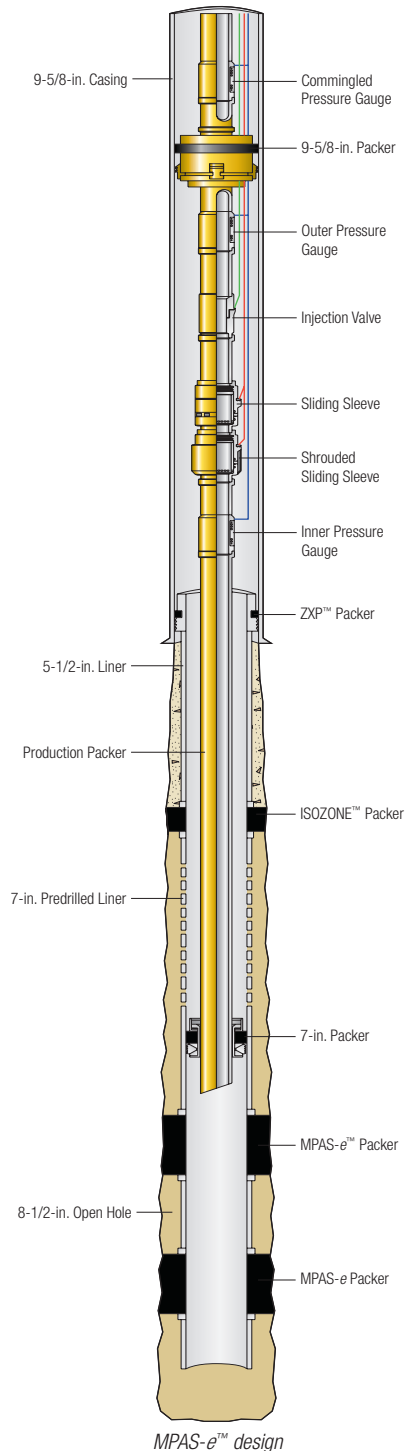
Production Mechanics: Intelligent sliding sleeves for each zone

Openhole ID: 8-1/2 in.

Packers: Two 5-1/2-in. x 8.0-in. MPAS-e electronic set hydrostatic packers

Other Baker Oil Tools Equipment

- Liner hanger packer completion system
- Inflatable external casing packer
- Stage cement valve



The plot shows that good isolation was achieved. Initially, the outer zone was open and the pressure declined while the inner zone pressure was steady. Then the zones were switched, and there is a noticeable indication when the outer zone builds up and the inner zone pressure drops.