



# Weatherford®

## REAL RESULTS

### ESS® System Extends Technical Limits with Single-Trip Expansion in NW Australia



### Objectives

- Install Weatherford's ESS system to increase well bore stability and achieve high gas production free of solids.
- Install a tie-back hanger/packer capable of withstanding annular pressure between the upper completion and the annulus below.

### Results

- The sand exclusion was installed successfully, comprising a 5 1/2-in., 18-ppf, 230-micron Petroweave® with the ESS lower sand-face completion design hung from a large bore EXR hanger/packer.
- Initial expansion used a solid cone with weight-on-bit (WOB) followed by Weatherford's axial compliant expander (ACE®) tool which compliantly expanded the ESS assembly to the well bore. An isolation seal assembly (7.375 in.) was also installed above the EXR packer to isolate the annulus.
- Cost and time was within budget, with total ESS installation time at less than two days, beating technical limits.
- A high production rate free of solids was achieved; higher production rates can be achieved with a larger choke size.
- This and other successful ESS installations to date have demonstrated the viability of displacing drill-in fluid to base oil in 8 1/2-in. open hole sections to the 9 5/8-in. ESS liner hanger (post-running ESS) to mitigate any related formation damage concerns.

### Value to Client

- Installation was deployed, set, and expanded in one successful trip.
- Installation was within time constraints and budget.



Weatherford's successful ESS installation ensured the completion was deployed, set, and expanded in one successful trip.

#### Client

Woodside Energy Ltd.

#### Location

Offshore NW Shelf Australia

#### Field

Perseus Over Goodwyn (POG)

#### Well Type

Gas producer

#### Setting Depth

10,183.7 ft (3,104 m) Measured Depth from the Rotary Table (MDRT)

#### Casing

9 5/8-in., 47 ppf

#### Hole Size

8 1/2-in. open hole

#### Products/Services

- ESS system
- ACE tool
- EXR hanger/packer

#### ESS Length

415 ft (126.5 m)



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