

# **REAL RESULTS**

## ESS<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup>) 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.

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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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