Weatherford®

REAL RESULTS

ESS® Sand Screens Maximize Injection Rate and Sand Integrity While Significantly Reducing Completion Rig Time

Objectives

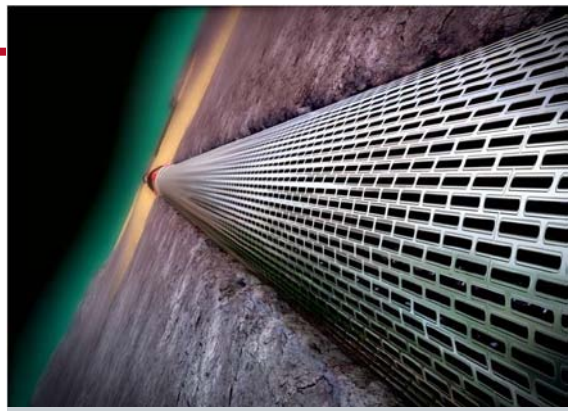
- Provide a competitively priced sand-control solution for a lower completion that maximizes flow while maintaining sand integrity.
- Up to 12% of the formation matrix consisted of non-quartz minerals that can become highly mobile when unrestricted, potentially plugging filter media.

Results

- Weatherford 4 1/2-in. *ESS* expandable sand screens were used after pre-job testing and analysis by the Weatherford sand laboratory showed the screen's weave aperture would provide the required integrity.
- Compliant expansion achieved with the *ESS* system eliminated the annular gap and stabilized the wellbore, restricting the movement of non-quartz minerals.
- *ESS* sand screens enabled the operator to deploy the completion to the required depth and expand the lower completion across the required zone in a single trip.

Value to Client

- Running *ESS* screens reduced rig time compared to what would typically be required for an openhole gravel pack.
- Because *ESS* technology is logistically less complex than other completion methods, it required less deck space, resulting in a safer working area and reduced logistics.
- The well was successfully brought on line and is consistently yielding 20,000 barrels of water injection per day with 1,421 psi (98 bar) surface injection pressure.



Weatherford's *ESS* expandable sand screens improve well productivity and significantly reduce costs compared to gravel packs. Because the *ESS* section is expanded compliantly against the wellbore, it eliminates the annular space and provides borehole support and sand exclusion, eliminating the need to place gravel for filtering formation sand.

Location
UK North Sea

Well Type
Water injector

Hole Size
6-in. openhole

Total Depth
7,050 ft (2,149 m)

Products/Services
- 4 1/2-in. *ESS* expandable sand screens
- EXR single-trip hanger/packer

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