TECH REPORT

**KUWAIT**

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|---|---|
| **Location** | Kuwait |
| **Rock compressive strength** | High |
| **Hole sizes** | 22 in; 16 in |
| **Casing sizes** | 20 in; 13.375 in |

## Background

When drilling 22-in and 16-in hole sections in a hard formation in Kuwait, an operator wanted to reduce downhole axial vibration and increase ROP to set 20-in and 13.375-in casing. Schlumberger recommended the 12-in Shock Sub impact and deviation reduction tool on 22-in and 16-in BHAs. This solution achieved drilling objectives, reducing axial vibrations and increasing ROP by 50% as well as extending the connection life of the BHA equipment and lowering the overall drilling cost per foot.

## Technology

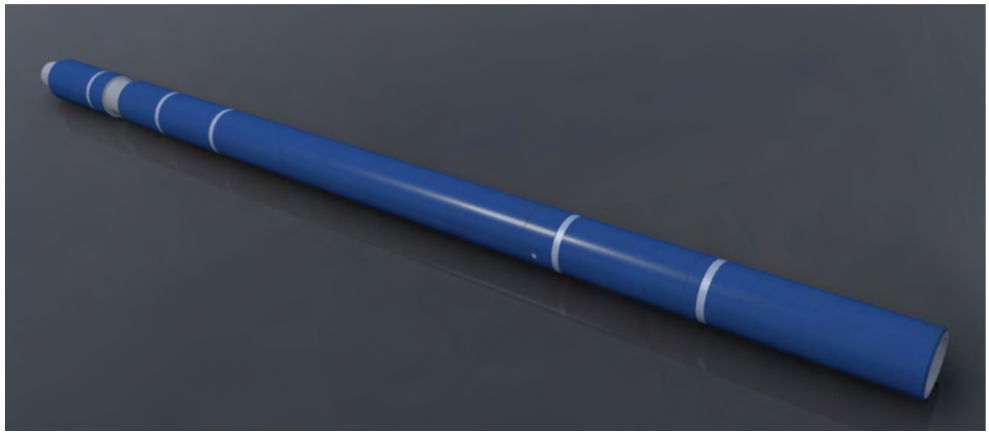
Shock Sub impact and deviation reduction tool



Schlumberger

# Shock Sub Tool Increases ROP 50%, Reduces Axial Vibrations While Drilling 22-in and 16-in Sections

## Impact and deviation reduction tool allowed setting 20-in and 13.375-in casing by protecting rig surface equipment, Kuwait



*The Shock Sub tool absorbs the variable axial dynamic loads produced by the drill bit during routine drilling and milling operations in hard formations. Reducing the impact loads helps to increase ROP, improve borehole quality, and extend the life of equipment—all translating to a lower cost of drilling per foot.*

slb.com/ShockSub