

# Project Management Service Utilizes Technologies to Deliver Wells Ahead of Schedule

## MULTI-TEAM SOLUTIONS IMPROVE DRILLING EFFICIENCIES, SAVING AVERAGE OF 72 DAYS OF RIG TIME

ZUBAIR FIELD, BASRA, IRAQ

### CHALLENGES

- » Optimize drilling of wells with various formation difficulties (such as depleted reservoirs, fractured loss zones, and sloughy/reactive shale formations) to increase drilling efficiency and reduce costs
- » Increase overall productivity while also decreasing overall risks

### SOLUTIONS

- » Integrating and customizing Halliburton tools and technologies
- » Applying multi-team solutions to resolve demanding drilling complications and introduce new practices

### RESULTS

- » Multi-PSL technologies provided drilling efficiencies that ultimately reduced well delivery time and reduced NPT
- » Halliburton Project Management helped deliver wells in 72 days less time than the Zubair field average, compared to other project management teams

### OVERVIEW

An operator utilized Halliburton Project Management to increase overall productivity while decreasing the overall risks involved in the development of wells in the Zubair field in Basra, Iraq. The Halliburton project management team collaborated with product service line (PSL) teams from Sperry Drilling, Baroid, Drill Bits & Services, Cementing, Wireline & Perforating, and Completion Tools. This joint effort provided technology and solutions to combat troublesome formations where lost circulation, borehole instability, sulfurous water influx, shale swelling, bottomhole assembly (BHA) pack-off and differential sticking were all encountered. The outcome of this unique service helped to deliver these wells with an average of 72 days of saved time, compared to other project management teams. To date, the fastest Zubair directional well has been drilled in just 39 days.

**SAVED  
OPERATOR  
AVERAGE OF  
72 DAYS OF  
RIG TIME**

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### CHALLENGES

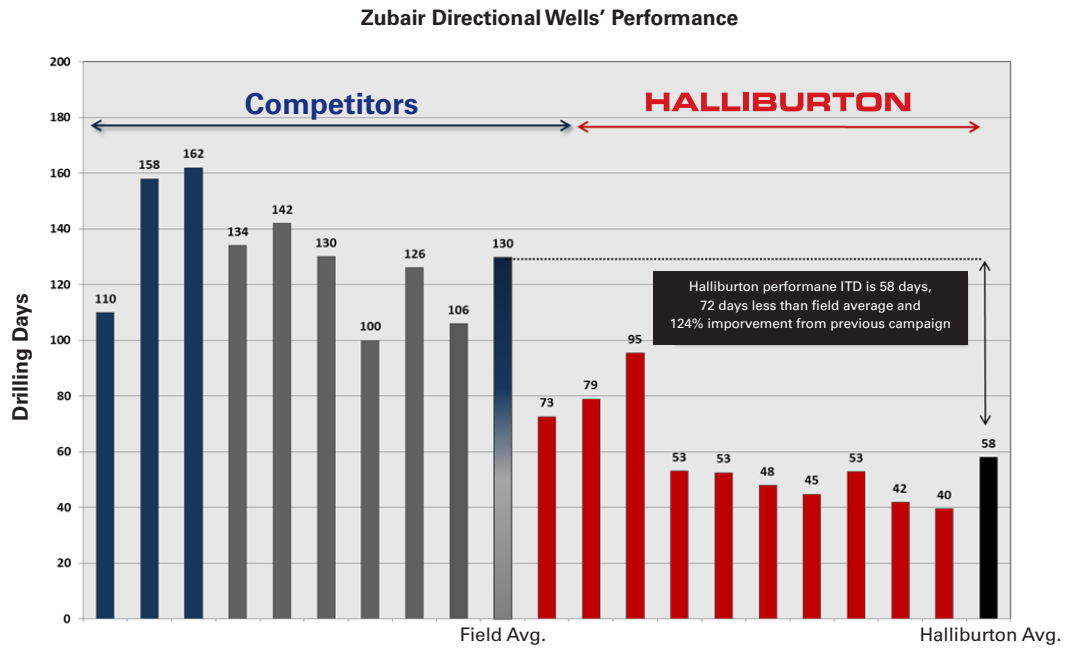
Formation problems along with drilling complexities were causing time delays and high costs for the customer. Halliburton was asked to implement its technologies, engineering services, and experience to optimize drilling and increase efficiency for the operator, as well as to unite its services and subject matter experts, through project management, to develop robust solutions.

### SOLUTIONS

The Halliburton project management team worked closely with the other Halliburton PSL teams to capture best practices and share lessons learned. Drill Bits & Services customized polycrystalline diamond compact (PDC) bits for each section in order to drill from shoe to shoe. Sperry Drilling replaced wireline logging with Logging-While-Drilling (LWD) tools, and cured losses with new technology that optimized BHA and mud motor selections. Baroid engineered and implemented drilling fluids that combated the formations that were susceptible to the losses, along with stability concerns, sulfurous water influxes, and shale swelling. With its Circumferential Acoustic Scanning Tool (CAST™) technology, the Cementing team provided the best bonding results for the production casing and liner. The Wireline and Perforating team and the Completion Tools team provided improvements in drilling optimization. This PSL collaboration produced drilling efficiencies that ultimately reduced both well delivery time and nonproductive time (NPT).

**RESULTS**

Halliburton drilled wells with an average time faster than any of the other competitors, thus exceeding the operator’s expectations. With an average of 72 days less than the field average, Halliburton improved its drilling time down to an average of 58 days per well.



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