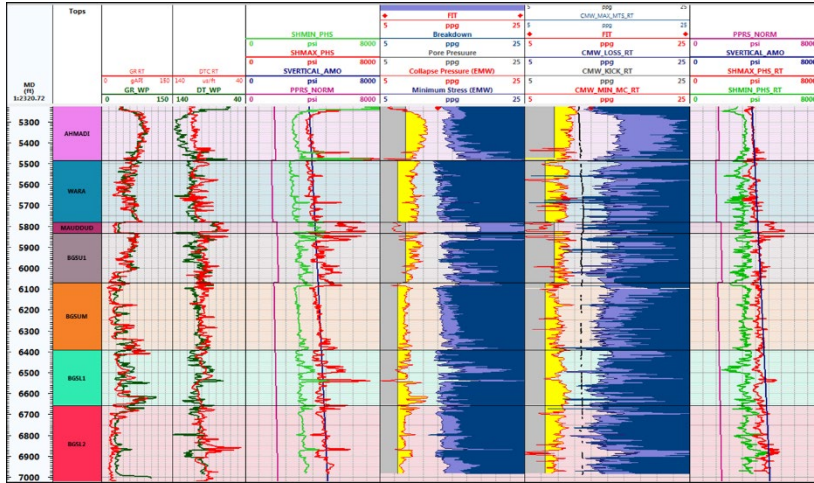


IES and LWD Services Provide High-Quality Data to Guide Drilling Through a Complex Well



Weatherford LWD tools obtained the above high-quality, real-time wellbore stability, pore pressure, and fracture gradient data during the operation.

LOCATION
Middle East

WELL TYPE
Onshore, oil producer

FORMATION
Shale

BOTTOMHOLE TEMPERATURE
143°F (62°C)

PRESSURE
4,360 psi (30.1 MPa)

DEPTH
5,200 to 7,000 ft (1,585 to 2,133 m)

PRODUCTS/SERVICES

- Interpretation and evaluation services
- Geomechanical analysis
- Predrill consulting
- Earth modeling
- CrossWave azimuthal sonic tool
- AZD azimuthal density sensor
- BAP bore and annular pressure sensor

Objective

- Obtain and analyze wellbore stability, pore pressure, and fracture gradient data to guide drilling in a geologically complex, tectonically stressed well.

Our Approach

- The Weatherford interpretation and evaluation services (IES) team met with the operator to review offset well histories and analyze their geomechanics to understand past drilling and instability issues.
- Using the well histories, the team developed a predrill mechanical earth model of the planned well to inform the drilling program.
- The logging-while-drilling (LWD) team deployed the CrossWave® azimuthal sonic tool, the AZD® azimuthal density sensor, and the BAP™ bore and annular pressure sensor.
- The real-time logging information from the LWD tools enabled the operator to better understand the rock behavior while drilling, navigate the challenging geomechanics, and reach target depth safely.

Value to Customer

- The IES team analyzed offset well histories to inform the drilling program. As a result, the LWD services team acquired high-quality data without well control issues or lost time while drilling.
- Compared to previous operations in nearby offset wells, Weatherford IES and LWD services saved the operator US \$200,000 in one well.

