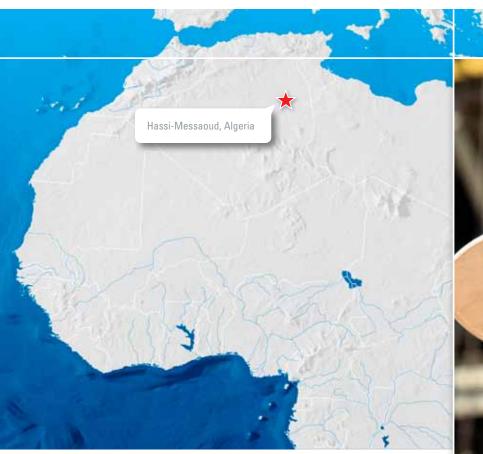
# **Schlumberger**



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Hassi-Messaoud Cementing and Stimulation Laboratory

Committed to operations in Algeria



With more than half a century working in Algeria, Schlumberger maintains its cementing and stimulation laboratory to support operations and respond to extraordinary field requirements in the country.

The Hassi-Messaoud Laboratory combines local knowledge with global expertise to implement the industry's most advanced technology and services for longer well life and increased production.

Highly experienced cementing and stimulation fluid experts staff the Hassi-Messaoud Laboratory. All undergo intensive training all over the world, making their technical skills and knowledge extensive. This personnel advantage is coupled with industry-leading technologies, methods, and equipment to meet operator needs with specialized solutions and designs. Because of the high activity in the region, the laboratory also collaborates on projects and development work with other Schlumberger locations.

#### **CEMENTING AND STIMULATION TECHNOLOGIES**

Through testing and simulations, the Hassai-Messaoud Laboratory has helped launch several key technologies in Algeria, such as LiteCRETE\* slurry system and FlexSTONE\* advanced flexible cement technology, which are now standard in the country. The LiteCRETE system enables long casing strings to be cemented across weak formations in a single operation, and FlexSTONE technology is especially valuable where long-term zonal isolation is required for high-pressure wells. The self-healing nature of LiteCRETE and FlexSTONE systems is critical for lengthening well life and protecting the environment of Algeria.







"The oil and gas industry in Algeria is constantly changing. With many challenges, we are always looking for a better way to get the job done well the first time."

Z. Rahmani, Cementing Section Head, Hassi-Messaoud Laboratory

Furthermore, EverCRETE\* CO2-resistant cement system has been deployed for zonal isolation in CO2-corrosive environments, and FUTUR\* active set-cement technology prevents sustained casing pressure in the face of cement/casing or cement/formation microdebonding. For fracturing tight gas reservoirs, StageFRAC\* multistage fracturing and completion services, ClearFRAC\* polymer-free frac fluid for high-conductivity fracturing, and PropNET\* hydraulic fracturing proppant-pack additive work to prevent sand washout.

#### **COMPLIANCE AND ENVIRONMENTAL EFFORTS**

The laboratory carries out standard API/ISO tests and is fully equipped to perform extensive mixing and formulation studies for both cementing and stimulation. Furthermore, it was built according to ISO 6 (or EU GMP Class B) standards for air cleanliness to protect Schlumberger employees and the environment in which they work. There is also a water recycling system that cools high-temperature equipment with 5 to 12  $\,\mathrm{m}^3$ /d of waste-free water.

### **INNOVATIVE EDUCATION**

New technologies are constantly introduced to operations in Algeria, not only supporting technical advances, but also providing training access and education to new engineers. The laboratory coordinates with the Schlumberger product center in Clamart and client support laboratory in Aberdeen to ensure proper implementation of new technologies. The success of this effort was shown with the completion of more than 10 new-technology engineering projects in less than 2 years.

#### **FEATURES**

## Use in extreme climates

- External temperature range of –40 to +50 degC
- Capabilities in the presence of earthquakes, termites, humidity, and high winds (up to 240 km/h)
- Thermal insulation
- Constant room temperature

#### Job efficiency

- Noise reduction
- Tolerated floor load of 1,300 to 1,800 kg/m<sup>2</sup>
- Heavy equipment (up to 1,500 kg) that can be set up anywhere in the laboratory

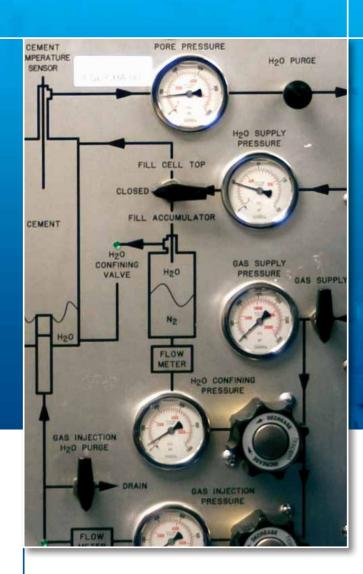
## Safety compliance

API/ISO-approved equipment for all services

# **COMMITMENT TO OPERATIONS IN ALGERIA**

- Local recruitment and staff development
- Continuous investments in Algerian infrastructure to enhance local service delivery capabilities
- Early transfer of the latest technologies, tools, and services developed worldwide

Supplying industry-leading technology, API/ISO-approved equipment, and highly trained personnel to cementing and stimulation jobs in Algeria—for longer well life and increased production



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