

AGR drill ahead of AFE in the Eastern Mediterranean



OVERVIEW

AGR Well Management was contracted to deliver a deep water exploration well in the Eastern Mediterranean. The project was executed between October 2012 and January 2013 using the Noble Homer Ferrington semisubmersible rig, in a water depth of 1707 m. All geological targets were successfully penetrated and the well reached a total depth of 5,670 m, where a successful logging programme was performed.

CHALLENGE

Successful gas finds within the region are well published, however research indicated that major technical problems had been experienced on recent wells. A shallow flow was known to have been experienced on one offset well, and there were reports of lost Bottom Hole Assemblies through a rubble zone and when exiting the base of the salt formations which were known to be present throughout the region. AGR was challenged to set-up and execute a successful project, and deliver a top quartile performance compared to other Eastern Mediterranean wells

Complicating factors:

- First well drilled by AGR in the region
- First well drilled by the operator
- Risk of overpressure
- Geological uncertainty
- Very limited offset well information
- Drilling in a water depth of 1,707 m
- Evolving regulatory systems
- Extensive environmental sampling requirements during well operations
- Logistics challenges

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APPROACH

Despite the limited offset data available, a systematic engineered approach enabled AGR to deliver several optimisations

- The well design used by other operators was changed
- The requirement for specialist deep water cements to address shallow water flow was engineered out, saving \$1.8 mln
- Premium water based mud was selected to deliver improved hole stability
- The rubble zone exposure was managed by planned under-reaming
- Improved drilling practices addressed problems exiting the salt formations
- Service companies were integrated into the planning to ensure well services were optimised

RESULT

Following the successful mobilisation of the Noble Homer Ferrington and the conclusion of pre-spud operations, the well reached TD in 53 days.

All well objectives were achieved and all environmental regulation requirements were met.

Total well operations were completed in 83.42 days which is the best in-class well drilled when compared with other Eastern Mediterranean wells in >1500m water depth.

This performance delivered an \$8.3 million saving to the client compared to AFE.

The new well design approach, the high level of upfront planning and focused operational execution combined to deliver a class leading performance.

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