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Tight Gas Fracturing in the Middle East and North Africa

J.R. Shaoul* (StrataGen Engineering), C.J. de Pater (StrataGen Engineering) & B. Vos (StrataGen Engineering)

SUMMARY

There exists a huge potential for tight-gas development in the Middle East and North Africa, through the application of hydraulic fracturing (both propped and acid). Although hydraulic fracture stimulation is not widely used in this area, there is some history of tight gas development using hydraulic fracturing in a number of countries.

Oman has the most widespread development of tight-gas resources, in the Saih Rawl and Barik fields. Saudi Arabia has also developed some deep tight gas in the same reservoir, as well as from carbonate formations. A large number of gas/condensate wells have been fracture stimulated in Egypt, although these were not truly "tight-gas" wells. There has even been tight gas fracturing in Jordan, to a very limited extent.

In North Africa, the bulk of tight-gas fracturing has been exploration well work in Algeria. More recently, tight-gas wells have been fracture stimulated in Morocco and Tunisia as well.

In this paper, we will provide an overview of the experience and lessons learned from all of these developments, based on material published by ourselves and our customers and in-house data. Since our company has been involved to some extent in almost all of these projects, we have a unique overview on the experience built-up with tight gas fracturing in the region. This paper will provide a good starting point for engineers in the Middle East region who are only now starting to look at tight-gas developments and would like to know what has already been done.

References

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