UNCONVENTIONAL HYDRATE INHIBITION FOR AN OFFSHORE SOUR LEAN GAS PRODUCTION

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ABSTRACT
In offshore wet sour gas production with long pipelines, hydrate and corrosion inhibition is required and essential to ensure safe, reliable and cost-effective operations. Kinetic Hydrate Inhibitors (KHIs) are used for flow assurance because of their advantages over conventional thermodynamic inhibitors, such as their low dosage requirements. Subsequently, they have limitations mainly at high subcooling conditions, typically above 22 °F (12 °C). Qualifying a KHI for a gas with Structure I hydrates is more challenging, as the typical hydrate encountered in the industry is with Structure II. Compatibility of the KHI with other chemicals, such as the corrosion inhibitor (CI) and methanol is another issue that increases the difficulty of finding a suitable chemical package (KHI/CI). In this paper, the challenges faced in qualifying such a package for Karan offshore wet sour gas project will be discussed. Karan gas field, which has a production capacity of 1,800 MMscfd, is expected to start producing in 2011.

Keywords: gas hydrates, kinetic inhibitors, Karan

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** Retired from Consulting Services Department of Saudi Aramco