Petrophysical & Petrographical Analyses of Mari X-1, X-2 & X-3 Gas Wells of Mari Gas Field, Central Indus Basin, Pakistan

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Session 2007-08

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ABSTRACT

To study reservoir rocks of the Mari Gas Field, the Petrophysical and Petrographical studies hav been carried out in Mari X-1, X-2 & X-3 wells. The gas was encountered in Zone-B Limeston Kirthar Formation, commonly known as Habib Rahi Limestone and Goru B Reservoir which deep reservoir. From Petrophysical interpretations, the volume of shale varies from 30 to 80 while calculated porosity in these reservoir rocks, varies between 10-20%. As the wells were dr therefore most of reservoir portion shows 70-100% of saturation of water and 0-30% saturation of hydrocarbons. Twenty one core samples of cretaceous age from the Mari X-1, X- & X-3 were also collected for Petrographical study reservoir rocks. On the basis of th Petrographic study, these core samples fall within five different categories of lithologiy i. sandstone, glauconitic sandstone, glauco-arenites, limestone and claystone. The Petrographic study of core sample also indicates effective porosity of about 10-20%.