SPE 108110: **Productivity and Drainage Area of Fractured Horizontal Wells in Tight Gas Reservoirs.**

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**Abstract:** This paper discusses the performance and productivity of fractured horizontal wells in heterogeneous, tight-gas formations. Production characteristics and flow regimes of unfractured and fractured horizontal wells are documented. The results show that if hydraulic fracturing affects stress distribution to create or rejuvenate natural fractures around the well, productivity of the system is significantly increased. Unless there is significant contrast between the conductivities of the hydraulic and natural fractures, hydraulic fractures may not significantly contribute to the productivity. For extremely tight formations, effective drainage area may be limited to the naturally fractured region around the well and the hydraulic fractures. It is also shown that very long transient flow periods govern the productivity and economics of fractured horizontal wells in tight formations. The results of this study are also applicable to oil production from fractured shale.