Unconventional Drilling Methods for Unconventional Reservoirs In the US and Overseas

H. A. von Schoenfeldt
CDX GAS, LLC, Dallas, Texas, USA
hilmar@cdxgas.com

ABSTRACT

Recent advances in drilling technologies have allowed some operators to re-evaluate the economic viability of developing unconventional low permeability reservoirs that had been previously discounted due to poor production performance. CDX Gas, LLC of Dallas, Texas has developed a patented drilling system that has dramatically enhanced production recoveries from tight coals and shales.

The *Z-Pinnate Drilling and Completion Technology*™ (Pinnate Technology) employs horizontal drilling techniques in a multi-lateral pattern that create an efficient and environmentally friendly recovery method. Up to 1200 acres or more may be drained from a single small well site. This significantly reduces the number of wells needed to deplete a project area, thereby minimizing the surface disturbance caused by building of locations, gathering systems, and production facilities. By minimizing the impact on the environment, this technique also reduces project development costs and improves project economics.

China has large CBM resources but has not yet achieved commercial production, despite over $100 million invested during the past decade in conventional vertical-well production technology by U.S. companies. This is largely due to the low permeability of many Chinese coals. Pinnate Technology appears ideally suited to turn these low-permeability reservoirs in the anthracites and semi-anthracites of north-central China into a viable source for natural gas.