

Technology Applications

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Tool Boosts Gas Production—Vortex Flow, LLC announced that its new Vortex DX downhole tools are boosting production of natural-gas wells through advanced liquid movement. The tools help prevent liquid loading by separating gas and liquids into a two-phase helical-flow pattern. Liquids flow in a helix pattern along the pipe wall, while gas travels through the center of the pipe. This vortex or rotating pattern prevents liquids from dropping out of the flow. As a result, liquids are removed from the well more consistently, enhancing gas production. A tool installed in a 3,000-ft-deep well in the San Juan basin evacuated fluid that had been 300 ft above the bottom of the tubing before installation. After tool installation, gas production increased from 1,200 Mcf/D to more than 2,000 Mcf/D. The design model uses five parameters: water and gas flow rates, well depth, and reservoir and wellhead pressures.

-Journal of Petroleum Technology (JPT), December 2003 edition, used with permission.