

## Nature: Study Sees Fracking Fall-Off

A study by University of Texas researchers, reported in *Nature* Dec. 3, foresees less shale oil and gas in America's future than promised in all the industry's projections.

The article by Mason Inman says that the Texas researchers have produced the most authoritative study of the U.S. "shale revolution" to date, by analyzing figures from individual blocks in the shale basins, at 20 times as high a resolution as the Energy Information Agency (EIA), which uses data by county.

The researchers analyzed four big shale gas fields, or "plays," which account for two-thirds of current U.S. shale gas production: Marcellus (in Pennsylvania), Haynesville (Texas/Louisiana), Fayette (Arkansas), and Barnett (Texas). They con-

cluded that natural gas production from these four fields would likely peak by 2020 (just five years away) at about 250 billion cubic meters of gas per year—some 10% higher than it is now—and fall by 2030 to 150 billion cubic meters annually.

By contrast, the EIA has consistently forecast shale gas production doubling by 2040, including 325 million cubic meters being recovered from the above four fields by that year. Several industry projections, including one by Goldman Sach, are far higher still, and have been the basis for extremely high and leveraged investments in shale "plays"—approximately 25% of all U.S. capital investment since 2010.

The argument already raised against the University of Texas study is that it does not assume continuing technological advance in shale fossil fuel recovery. But this is technological "advance" which makes such recovery more expensive, unstable, and environmentally degrading than the previous technology.

—Paul Gallagher