Historical Gas Drilling in Tompkins County
John Young (Lansing) and Lawrence Cathles (Department of Earth and Atmospheric Sciences, Cornell University)

While natural gas was discovered in New York in 1821, the story of gas drilling in Tompkins County starts in 1888 with the "Ithaca Deep Well", located in what's now the parking lot for Eastern Mountain Sports along Route 13 in the City of Ithaca. Drilled to a depth of 3,185' it passed through the Marcellus Shale but found only a non-commercial show of gas. It was the first of almost 100 mostly gas but also brine and geothermal wells that have been drilled to date in Tompkins County- some in every town in the county but most in Lansing and Groton.

It wasn't until 1939 that the County got its first commercially productive gas field - the Danby Field. The discovery well, the Mary Taubman # 1, had an initial production of 5 million cubic feet of gas per day from the Oriskany Sandstone, and wasn't abandoned until almost 30 years later. This well was located near the intersection of Comfort and Gunderman Roads in the Town of Danby. Then in 1942, the County's second commercial gas field was discovered - the Peruville Field, located along the Groton/Lansing town line. These wells also produced from the Oriskany Sandstone (just below the Marcellus). The best production reported in this field was 2.5 Million cubic feet of gas per day from a single well.

The County's deepest well to date is the 1959 Shepard # 1, drilled by CNG Transmission Corp. just north of the original Danby Gas Field. This well went to a total depth of 10,438 feet, passing through both the Marcellus and Utica shales, and encountered non-commercial shows of gas in three different formations. Two years later, NY State Natural Gas tried a similar deep well west of Ithaca near Route 79, but this well reported only a small volume of gas in the shallow Oriskany Sandstone despite being drilled to a depth of 8,903 feet.

Since then, numerous additional wells have been drilled in Tompkins County, including seventeen directional and horizontal wells, two 1,500' deep geothermal wells, and a variety of brine wells. One salt test near East Shore Circle in the Town of Lansing found over 1 million cubic feet of gas/day in 1977, but that well was never produced commercially. The county's most recent productive well, the Duddleston # 1, was completed by Chesapeake a few years ago in Ulysses Township near the intersection of Halseyville and Swamp College Roads. That well was hydrofractured and flare tested, but has yet to be put into commercial production.

Whether any additional wells will ever be drilled in Tompkins County is a matter for State and possibly local government to determine, but the county already has a long history of drilling and production, and has contributed several gas fields to the region's energy supply. Details on these early wells, plus geothermal wells, brine wells and more recent gas wells can be found at
http://www.dec.ny.gov/cfmx/extapps/GasOil/search/wells/index.cfm and in paper records at the NY DEC which we have posted at http://wwwblogs.cornell.edu/naturalgaswarming.