

**AAPG Annual Convention  
Salt Lake City, Utah  
May 11-14, 2003**

Wilfrido Solano-Acosta, Charles W. Zuppann, and John A. Rupp, Indiana Geological Survey, Indiana University, Bloomington, IN

### **Assessment of Oil and Gas Fields in Indiana for CO<sub>2</sub> Sequestration**

Atmospheric concentrations of CO<sub>2</sub>, Earth's most voluminous greenhouse gas, are presently about 32 percent higher than at the onset of the industrial revolution, some 150 years ago. Sequestering CO<sub>2</sub> in subsurface reservoirs is one method that has been proposed to reduce the volume of CO<sub>2</sub> entering the atmosphere. The Mid-continent Interactive Digital Atlas and Relational dataBase (MIDCARB) Project, funded by the U.S. Department of Energy, is a consortium of five states (Illinois, Indiana, Kansas, Kentucky, and Ohio), that was created to construct a digital atlas containing the geological and cultural information necessary to evaluate the potential for capturing and storing CO<sub>2</sub> in geological formations. This atlas includes data on oil and gas fields, CO<sub>2</sub> sources, saline aquifers, geologic controls, and industrial and public infrastructure.

Oil and gas exploration in Indiana began in the late 1800s, and more than 600 oil and gas fields have been produced since that time. Most are at or near the end of their economic lives, having gone through primary, secondary, and even tertiary recovery. These fields are optimal candidates for the long-term storage of CO<sub>2</sub>. A potential added benefit of storing CO<sub>2</sub> in nearly "dead" oil and gas fields is the recovery of additional petroleum.

An inventory of petroleum reservoirs in Indiana, including their size, production histories, and reservoir characteristics will help to determine the volume of CO<sub>2</sub> that could be stored and also will help to assess potential challenges that may be encountered.