



West Virginia Geological and Economic Survey

Colloquium Series

Presents

Daniel J. Soeder

U.S. Department of Energy
National Energy Technology Laboratory
Morgantown, West Virginia

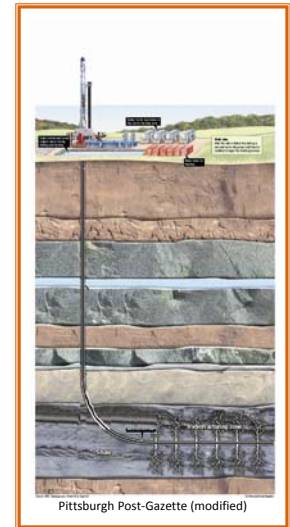
Date: **Monday November 08, 2010**

Place: [West Virginia Geological Survey, 1 Mont Chateau Rd, Morgantown, WV](#)

Presentation: **Begins at Noon**

Environmental Research on Natural Gas Production from the Marcellus Shale

The National Energy Technology Laboratory of the U.S. Department of Energy is performing geological characterization and environmental research on the Marcellus Shale and other shale gas resources. The goals of the environmental research are to collect rigorous data on the potential impacts of shale gas drilling and production on water resources, air quality, and ecosystems. Sources of drilling-related environmental impacts may include air emissions, land use changes, habitat fragmentation, ecological degradation, solids disposal, and possible contamination of surface streams and groundwater from improper disposal of produced water or flowback fluids. The investigation will collect baseline data from a planned drill site for at least a year prior to rig mobilization, and then monitor changes in environmental parameters throughout the drilling and production process. Related investigations on the potential direct effects of hydraulic fracturing on groundwater aquifers, and the chemistry of leachate from shale drill cuttings are either in the planning stage or underway. Scientific documentation of the environmental impacts from shale gas production is expected to help industry develop and improve drilling management practices, identify sensitive environmental indicators for more focused regulatory monitoring, and provide public information to civic groups concerned about environmental problems.



Dan Soeder is a research group leader and scientist with the U.S. Department of Energy (DOE) at the National Energy Technology Laboratory in Morgantown, West Virginia. His research interests include energy and environmental issues related to unconventional fossil resources such as shale gas, oil shale, enhanced oil recovery, and the geological sequestration of carbon dioxide. Prior to joining DOE in July 2009, Mr. Soeder was a hydrologist with the U.S. Geological Survey Water Science Center in Baltimore investigating the water resources of Maryland, Delaware and the District of Columbia.