



# West Virginia Geological and Economic Survey Colloquium Series

Presents

**Valerie L. Smith**

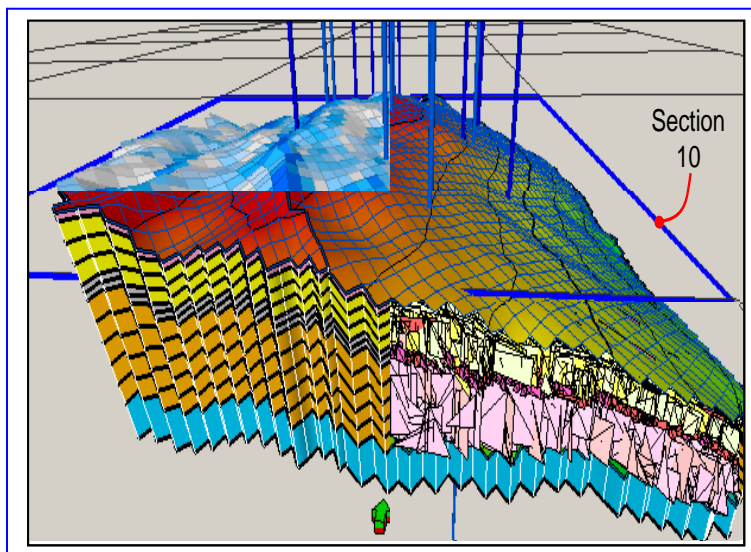
Department of Geology and Geography  
West Virginia University

Date and Time: **Monday November 17, 2008 at Noon**

Place: **Large Conference Room behind Publication Sales**

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## Modeling Natural Fracture Networks: Establishing the Groundwork for Flow Simulation at Teapot Dome, Wyoming



The development of a reservoir scale fracture model is undertaken using data for the Tensleep oil reservoir at Teapot Dome, Wyoming. The Tensleep reservoir intervals are formed in tight eolian sands that produce primarily from open fracture systems. FMI logs were used to define the dominant systematic fracture sets existing in the reservoir. Local fracture characteristics are combined with 3D seismic analysis to produce a layered starting model of the reservoir scale fracture systems suitable for flow simulation.

*Coordinator's Note:* This talk will cover some of the research our speaker conducted for her thesis. Val will discuss how she used Petrel, a sophisticated software program developed by Schlumberger, to perform the 3D modeling. However, she promises that her presentation will not be *too* technical, and will have many eye-catching graphics as well as nice photos of Wyoming. So you don't have to be a geologist to appreciate this talk (but it might help).

