

## ► LOCATION & PARKING

The workshop will be held at the National Research Center for Coal & Energy on the Evansdale Campus of West Virginia University in Morgantown, WV.

From I-79, take the Star City Exit (Exit 155) toward Morgantown. Follow Rt. 19 across the bridge and up the hill to the 3<sup>rd</sup> traffic light (WVU Coliseum). Turn right into the Coliseum parking lot for free parking and a free shuttle bus to the Engineering campus, or continue to the next traffic light and turn left for the paid parking lot at the four-way stop sign just past the NRCCE.

## ► LODGING

Participants who choose to stay in Morgantown during the two-day workshop will need to make their own reservations at one of several local hotels, including the Quality Inn (304-599-1680), EconoLodge (304-599-8181, or Hampton (304-599-1200). If you experience any difficulty in obtaining room accommodations, please contact us for additional options.

## ► REGISTRATION AND FEES

Please note that advanced registration is necessary to adequately plan the catered lunch, and will begin now and end January 2. **Registration may be limited.** The cost is \$175.00 for the 2-day workshop. Please complete the enclosed registration form and return it with a total of \$175.00 (U.S.) to the address listed. Please make checks payable to: **“West Virginia University.”** The registration fee covers the entire cost of the workshop, continental breakfast, morning and afternoon coffee breaks and lunch both days.

## ► PROFESSIONAL DEVELOPMENT HOURS (PDH)

Are you an Engineer or other professional out there who needs verification of these hours? Well, PTTC has banded together nationwide to assist in this process. Upon completion of a workshop, participants will be given a certificate of completion for the course and the appropriate number of hours for PDH credit. Each certificate will have the schedule on the reverse side for easy authentication.

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NRCCE/West Virginia University  
PTTC Appalachian Region  
P.O. Box 6064; Evansdale Drive  
Morgantown, WV 26506-6064  
Phone: (304) 293-2867x5446  
ADDRESS CORRECTION REQUESTED



# Fracture in Devonian Black Shale of the Appalachian Basin

*January 8-9, 2008  
Morgantown, WV*

## Hosts

**PTTC Appalachian Region  
Appalachian Geological Society  
Research Partnership to Secure  
Energy for America**

## Sponsors

**Natural Energy Development  
Corporation  
NGO Development Corporation**



► **WORKSHOP SCOPE**

**Course Outline:**

The success of horizontal drilling for enhanced recovery of natural gas is heavily dependent on the presence of systematic natural fractures. Because of the role that fractures play in draining matrix porosity, it behooves both geologists and petroleum engineers to develop the best possible understanding of natural fractures in black shale of the Appalachian basin.

**Objectives:**

This workshop is designed to provide as complete an understanding of fracture in Devonian rocks as possible in a 2-day setting. Fracture in any basin is a complex, multi-stage process that continues during the entire history of a basin. The PTTC workshop will provide a mechanical explanation for fracture generation during the burial, tectonic deformation and exhumation of Devonian rocks.

**Instructor**

Prof. Terry Engelder, Professor of Geoscience, The Pennsylvania State University. At PSU, Terry has taught all levels from general education classes for non-majors to equation-based graduate classes. Terry has taught workshops on rock fracture in China, Saudi Arabia, Brazil, Italy, Austria and the Czech Republic. He is recognized as one of the world's leading experts on fracture within petroleum systems.

**WHO SHOULD ATTEND**

Designed for geologists and engineers with an interest in, or who are actively working in, Upper Devonian plays in the Appalachian basin. Service companies, students, professors and government agencies also will find the program to be of interest and value.

► **ACCOMMODATION REQUESTS**

Persons needing a disability-related accommodation to participate in this workshop should contact Doug Patchen by January 5<sup>th</sup> at (304) 293-2867x5443, or [doug.patchen@mail.wvu.edu](mailto:doug.patchen@mail.wvu.edu).

► **SCHEDULE:**

Sign-in and course material distribution will begin at 7:30 a.m. on Tuesday, January 8, 2008. The workshop will begin at 8:00 a.m. and will continue until 5:00 p.m. There will be a break for lunch at noon, and morning and afternoon coffee breaks. This 8:00 to 5:00 schedule will continue on Wednesday the 9<sup>th</sup>.

► **VISIT US ON THE WEB**

<http://karl.nrcce.wvu.edu>

<http://www.pttc.org>

► **ADDITIONAL INFORMATION**

For additional information, contact Douglas G. Patchen 304-293-2867, x5443

[Doug.Patchen@mail.wvu.edu](mailto:Doug.Patchen@mail.wvu.edu)

Or, for course content information Terry Engelder 814-865-3620

[engelder@geosc.psu.edu](mailto:engelder@geosc.psu.edu)

► **The New PTTC – powered by AAPG**

**Registration Form**

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

The registration fee for the workshop is \$175. This cost covers the entire workshop, continental breakfast, a.m. & p.m. breaks and lunch. Please make checks payable to: **West Virginia University** and return with this registration form by January 2<sup>nd</sup> to: **Doug Patchen NRCCE/WVU P.O. Box 6064; Evansdale Drive Morgantown, WV 26506-6064**

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**REFUND POLICY**

Registrants who cancel prior to January 2nd will receive a full refund. No refunds will be issued after January 2<sup>nd</sup>.