



Produced Water: Reducing Problems and Costs

June 18, 2003

Appalachian Region PTTC Resource Center
WV Geological & Economic Survey
Appalachian Oil & Natural Gas Research Consortium

PTTC gratefully acknowledges that its primary funding comes through the US Department of Energy's (DOE) Office of Fossil Energy through the National Petroleum Technology Office (NPTO) and Strategic Center for Natural Gas (SCNG) within the National Energy Technology Lab (NETL).



" WORKSHOP OVERVIEW

- Do you know if you're producing more water than you have to?
- Do you know effective techniques for reducing water production?
- If you must lift a lot of water, are you sure that you are doing everything you can to control your operating costs?

Rodney Reynolds and **Robert Kiker** conducted a DOE-supported project to identify proven practices for reducing problems and costs in oil production. **Produced water** and associated issues were identified as **the most prominent constraint**.

Reynolds and Kiker worked together to develop a **concise manual** addressing these issues for smaller independents. The manual captures insights and preferred practices that are working. The manual and this workshop address key questions.

The course is designed for geologists, engineers, managers or others who will be involved in dealing with produced water, or will be making spending decisions that affect production programs.

❑ **WORKSHOP HIGHLIGHTS:**

- Basic properties and data management
- Well completion and its impact on water production
- High water production during primary production
- Water production during waterfloods
- Unexpected increases in water production
- Reducing lifting costs
- Corrosion and mechanical wear on equipment used in handling produced water
- Regulatory and environmental issues related to produced water

" **SPEAKER**

Rodney Reynolds is the Director of PTTC's North Midcontinent Region and a petroleum engineer with the Tertiary Oil Recovery Project (TORP) at the University of Kansas. Prior to joining TORP in 1990, he owned and managed his own petroleum engineering consulting company and was employed as a senior production engineer for Gulf Oil Corp. He has numerous publications, taught petroleum engineering courses on drilling and well completions at the University of Kansas, and instructed many industry workshops related to enhanced oil recovery and reservoir management. He has presented reservoir management workshops internationally. He has a BS in Petroleum Engineering from the University of Tulsa and has over 24 years of Midcontinent experience.

" **SCHEDULE**

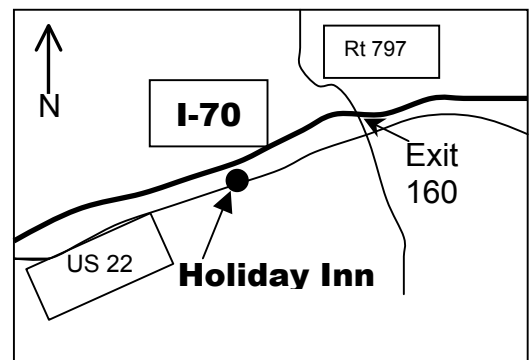
Sign-in, continental breakfast & workshop material distribution will begin at **8:00 a.m.** on Wednesday, **June 18, 2003**. The workshop will begin at **9:00 a.m.**, and will continue until **4:00 p.m.** There will be a break for lunch at noon, and coffee breaks in the morning and afternoon.

" **LOCATION**

The workshop will be held at the Holiday Inn, Zanesville, OH (see map). The Holiday Inn is located on U.S Route 22 off Exit 160 of Interstate 70.

For more detailed information:

<http://www.ichotelsgroup.com/h/d/HOLI/hd/ZZVOH>



" **LODGING**

Participants arriving the night before the workshop need to make their own reservations. The Holiday Inn, 4645 East Pike, Zanesville, OH 43701 has rooms available for workshop registrants for U.S. \$59/night plus tax. Phone (740) 453-0771 and ask for the PTTC rate.

" REGISTRATION AND FEES

Please note that advanced registration is necessary to adequately plan the catered lunches and will begin now and end June 12th. **Registration is limited.**

Please make checks payable to: **"West Virginia University."** The registration fee covers the entire cost of the workshop, continental breakfast, a.m. and p.m. coffee breaks and lunch.

" ADDITIONAL INFORMATION

Please read this flyer carefully before calling for information. Then, if additional information is needed, contact:

Katharine Lee Avary
WV Geological Survey
P.O. Box 879
Morgantown, WV 26507-0879
Telephone (304)594-2331
Fax (304)594-2575
E-mail avary@geosrv.wvnet.edu

" VISIT US ON THE WEB

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

<http://www.pttc.org>

REFUND POLICY

Registrants who cancel prior to June 12th will receive a full refund. No refunds will be issued after June 12th.

NAME: _____

COMPANY: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP CODE: _____

PHONE: _____ FAX: _____

Email: _____

The registration fee for this workshop is U.S. \$75.00. This cost covers the entire workshop, continental breakfast, a.m. and p.m. coffee breaks and lunch. Please make checks payable to **"West Virginia University"** and return with this registration form by **June 12, 2003** to:

**Katharine Lee Avary
WV Geological Survey
P.O. Box 879
Morgantown, WV 26507-0879**

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