



**Continuing Education Short Course (40 PDHs)**

**TITLE: Waterflooding: Performance, Predictions and Surveillance**  
**INSTRUCTOR: Bill Cobb**

**Instructor Profile:** Bill Cobb is a petroleum engineering consultant who specializes in waterflooding and property management. Cobb has more than 30 years of experience in the petroleum industry including research, staff, and district positions for ARCO Oil and Gas. He has hands-on experience in the design, implementation, surveillance, and management of waterfloods in various waterflooding areas of North America as well as Australia, Africa, Europe, the Middle East, the North Sea, South America, and Southeast Asia. For more than 20 years, Cobb has directed a petroleum consulting firm in Dallas. Cobb served on the petroleum engineering staff at Mississippi State, where he taught reservoir engineering courses. He has conducted numerous one-week short courses on the subjects of waterflooding, pressure transient analysis and petroleum economics. Dr. Cobb recently served as the SPE Vice-President of Finance and a member of the SPE Board of Directors. He previously served as a Distinguished Lecturer for the SPE in 1993-94 and was recognized as a Distinguished SPE member in 1995. In 1999, he was presented with the SPE Reservoir Engineer Award. Cobb received B.S. and M.S. degrees from Mississippi State University and a Ph.D. from Stanford University, all in Petroleum Engineering.

**When?** April 11-15, 2005 8:00 am – 5:00 pm

**Where?** Sheraton Cavalier (Theatre Room), 2620 – 32<sup>nd</sup> Avenue N.E., Calgary, Alberta  
A Room Block has been arranged at the Sheraton Cavalier. For more information please contact reservations at (403)291-0192 or email reservations@sherton-calgary.com, noting the William Cobb Waterflood School.

**What this course will provide:** The seminar combines geology, rock and fluid properties, and immiscible displacement theory to develop waterflooding prediction techniques and to aid in the evaluation of actual waterflood performance behavior. Detailed predictions of oil and water producing rates, water injection rates, and recovery efficiency are presented. Selection of waterflood patterns (regular, irregular, peripheral), prediction of sweep efficiency (areal, vertical, and displacement), and an analysis of other variables, which control recovery efficiency, are included. Also discussed are waterflood surveillance techniques such as injection profile testing, pressure transient testing, step-rate testing, Hall plots, pattern balancing, bubble maps, volumetric sweep (reservoir conformance) evaluation, and injection efficiency determination. These surveillance techniques provide the engineer with data required for the efficient management of both new and mature waterfloods. Several waterflood case studies are reviewed.

**Who this course will benefit:** The course is ideally suited for engineers and geologists with several years of waterflood experience; however, the course is presented in a manner so that both beginning and experienced personnel will find the material very useful. The course content and example problems have been selected to teach and to illustrate important concepts. **This course qualifies for 40 PDHs (Professional Development Hours) as per APEGGA guidelines.**

**Cost:** SPE members and non-members: \$2235 CAD (Payment is due before the course begins.)

**Cancellation policy:** A fee of \$300 will be charged for cancellations less than 15 working days before the course begins. No refunds will be made for cancellations after the course begins, but substitutions are acceptable. Seating is limited and pre-registration is required. **In the event the course is cancelled, a full refund will be given to those who have pre-paid.**

Send this form via facsimile to SPE at (403) 263-3796, mail to 800, 540 – 5 Avenue SW, Calgary, AB T2P 0M2 or Email [info@speca.org](mailto:info@speca.org) ATTENTION: Janice Kyte

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Telephone ( \_\_\_\_\_ ) \_\_\_\_\_ Fax ( \_\_\_\_\_ ) \_\_\_\_\_

Email \_\_\_\_\_ Attendees @ \$2235.00 \_\_\_\_\_

\_\_\_\_\_ Cheques made payable to SPE (mail orders only)

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