

Focused Technology Workshop Report
*“Exploration and Evaluation of Fractured Reservoirs with
Emphasis on Fault-Related Fracture Systems”*

“Produced Water: Reducing Problems and Cost”
June 18, 2003; Holiday Inn, Zanesville, OH

Assessment of the Workshop

The speakers for this workshop covered a lot of information, not only on water and related problems, but other types of well failure as well. They did a good job of presenting the material in their produced water manual, and added a lot of case studies from different areas. The mixed audience of geologists, engineers and well tenders appeared to be interested and asked questions throughout the day. It was interesting to note that the speakers did not believe the audience was asking enough questions, and asked me if this was normal. I answered that it was normal for them not to ask any; they actually were more involved in this workshop than in many others we have hosted.

One comment made by more than one person was that it would have been better if the workshop notebook had contained copies of the slides on which to take notes, rather than providing registrants only the text of the entire water booklet. It was possible to follow along in the book, if you were careful, but not all of the case studies on the slides were in the book, so some of the registrants got lost when the speakers went to a case study and then returned to the outline of the book.

Bob Kiker provided us with copies of the slides he used for two sections of the manual, and Rodney Reynolds provided us some of his slides, as well. Following the workshop, we sent copies of these slides to all registrants.

The workshop started well, with a statement that world water production in 1999 was 210 MM barrels, 3 times the world oil production. This seemed to get everyone's attention and make them realize that water production is a big problem. This opening statement was followed by three key questions: Do you know if you are producing more water than you need to? Are you using accepted techniques? If you are lifting a lot of water, are you satisfied that you are controlling your lifting costs?

Reference was made to the PUMP (Preferred Upstream Management Practices) questionnaire that was mailed out by PTTC. According to the responses, produced water is the largest problem identified by oil producers, who also specified the costs associated with lifting, treating and disposing of produced water as big issues. Again, this helped reinforce the importance of this workshop.

Attendees were told that everything in the water manual now in their possession has been proven somewhere, and much of it can be applied directly in this basin. Then, the actual workshop began, going through the manual, section by section.

I would have to conclude that this was one of the more practical workshops that we have done. However, I should have pointed out in my introductory remarks that it would be up to the attendees to apply case studies from other areas to a problem in their operating area; this workshop was not designed to solve their local problems for them.

Attendee List

Twenty four people pre-registered for the workshop, but one canceled and two were no-shows. However, walk-ins brought the number of attendees back to 24, plus the two speakers and one PTTC staff member. Of the registrants, all but 5 were from industry. About half of the registrants had attended previous workshops.

The list of pre-registrants/attendees is attached.

Evaluation Forms

Ten of the 19 producer/service company representatives submitted evaluation forms, along with 2 of the 5 registrants from geological surveys and West Virginia University. Comments on the forms, and the scores assigned, were favorable. Very few additional comments were made. The only one in fact, was from someone who wanted to hear more about Ohio production problems.

Only one topic was suggested for an upcoming workshop: well production techniques.

The original evaluation forms are attached.