**Thursday, November 15, 2007**

Petroleum Club • 800 Bell (downtown)
Social 11:15 a.m., Lunch 11:45 a.m.

To attend this meeting you can register online at www.sipes-houston.org, call (713 651-1639), fax (713 951-9659), e-mail (bkspee@aol.com), or mail your reservation to Mrs. B.K. Buongiorno (1001 McKinney, Suite 801, Houston, TX 77002) by Tuesday November 13, 2007. Payment is required by regular mail or pay at the door with check or cash. Members and Affiliates who register by that date pay $30. The cost is $35 for guests and new registrations at the door. No-shows will be billed.



*by **Tim Brown***
*Sierra Resources*

# Time is Fact and Depth is an Opinion But We Drill Wells in Depth

Most of us sooner or later will have to deal with seismic data that is presented mostly in depth. Most of us also have available computer workstations to aid us. To repeat what an early supervisor explained to me years ago: "Tim, I don't know how others might do it but we drill our wells in depth, not time. Go back and bring me a depth map." That started a long quest to derive accurate depth maps from seismic.

Depth conversion can be simple or it can be complex. Mostly we need to make a judgment call on what our purpose is in converting to depth and what resources are available to us. This talk is one person's review of the different routes that are available to us and a judgment of their efficacy, as achieved through using one given workstation system. Although this presentation is geared to one software system, much of the same approach should be applicable on other systems. I will present two cases as examples of why this is not a trivial process.

One is a South Texas example where the objective is to convert time horizons from a merged multi-survey 3D data set that ties hundreds of wells with a demonstrated velocity range of over 1000 feet per second from the high wells to the low wells. Due to the volume of data this is not something that you would want to do by hand.

The second example is also from South Texas. Here the problem is a large "horse tailing" up-to-the-coast fault which is dying laterally combined with a large gas field with multiple stacked pays and apparent gas-saturated shales causing a local velocity slowdown. ■

### Biographical Sketch

**Tim Brown** received a BA in geology from Duke University in 1965 and a Master of Science in geology from the University of South Carolina in 1967. Mr. Brown has over 38 years' experience in the oil and gas business. He has worked in most of the major basins in the United States along with international areas including the North Sea, Europe, the Mediterranean, South America, Indonesia, China and Australia. His past employers include Pan American Petroleum Corporation (Amoco), R. Brewer & Co. (international consulting firm, Executive V.P.), the successful oil and gas exploration firm TSB Exco Inc. and the highly respected oil and gas technology consulting firm Caex Services Inc, with the latter two both founded by Mr. Brown. Currently, he is Geophysical Manager for Sierra Resources LLC, Houston, Texas.