

## HGS Luncheon Meeting, February 28, 1996

### *Excavating an Oil Field Dinosaur—The Key to Dipmeter Quality Control*

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Dipmeters are extremely valuable tools, especially in the current environment of high-tech seismic exploration. They are integral in resolving velocities in 3-D surveys, essential in evaluating thin-bedded lithologies, and useful in defining bed dips in sub-salt or structurally complex plays. But too often, an explorationist views the tadpole plot itself as measured data. This is an error. The tadpole plot is simply one interpretation of the original resistivity data. In many cases, fresh information can be extracted from old dipmeters by re-examining and reinterpreting the raw resistivity data.

The correct correlation among different resistivity curves is the heart of dipmeter computation. Assuming that the dip tool functioned correctly, the accuracy of the tadpole plot is a direct result of the clarity of these correlations. In this talk, examples

will be used to show how the 60-inch raw resistivity data can be used as a valuable tool to assess the reliability of your old and new dipmeter data—perhaps even answering the age-old question, “What do I do if the dipmeter doesn’t fit the seismic?” ■



**Laura Bigley Puzio** is currently a consultant with Terradip in Houston. After graduating in 1980 with a B.S. in Geology from Michigan State University,

she began her career as a computer geologist for Exxon, USA. She became an exploration geologist for Getty Oil in 1982, and in 1984 moved to HNG (now Enron), where she

spent seven years exploring the Gulf Coast. In 1991, Ms. Puzio joined Terradip, a consulting firm specializing in salvaging dipmeters through the use of optical correlation.

**Anita R.P. Breimayer** graduated with a B.S. in Geological Engineering from Michigan Technological University in 1980. She spent seven years working for Tenneco Oil Company as a geological engineer. She was responsible for production and development geology for the Gulf Coast Offshore Division as well as the South America Division, and also initiated in-house optical correlation of dipmeters for Tenneco. In 1987, she left Tenneco to form Terradip, doing optical correlation on a world-wide scale for clients from Shell to Schlumberger. She currently operates the Terradip office in Tyler, TX.