

JOHN J. AMORUSO
Biographical Sketch



John J. Amoruso received a BS Degree in Geology from Tufts College, Medford, Massachusetts in 1952. After graduation, he entered the U.S. Navy for three years before entering graduate school. He received an MS Degree in Geology from the University of Michigan, Ann Arbor, Mich. in 1957.

He joined Pan American Petroleum Corporation (now Amoco Production Co.) in 1957, after having worked for its predecessor, Stanolind, in Oklahoma during the summer of 1956. During the period 1957-1969, he has held widely varied petroleum exploration assignments in the Four Corners Area, Uinta Basin, West Texas and the East Texas-North Louisiana Area. He opened offices in Houston as an Independent in 1969.

Mr. Amoruso is Certified as a Petroleum Geologist by the American Association of Petroleum Geologists and is Certified as a Professional Geologist by the State of Texas. He is also a member of the Society of Professional Geologists, the Houston Geological Society, and the East Texas Geological Society. He served as President of the Houston Geological Society during the 1972-73 term and has served as First and Second Vice President and Editor.

He is also a member of the American Institute of Petroleum Geologists, the American Institute of Professional Geologists, the Independent Earth Scientists, the Geological Society. He was President of the American Institute of Petroleum Geologists during the 1972-73 term and had served that

Mr. Amoruso was a Distinguished Lecturer for the 1973-74 Distinguished Lecture Series of the American Association of Petroleum Geologists. He is a two-time winner of the A.J. Levorsen Memorial Award given by the AAPG. His paper, "Possible Future Petroleum Provinces of the Gulf Coast-Jurassic," presented at the October 1970 Convention of the Gulf Coast Association of Geological Societies, won the Levorsen Award and First Place in the Best Paper Awards. His paper, "Smackover Stratigraphic Traps - New Production in 'Old' Areas," won the Levorsen Award at the 1973 Convention of the Southwest Section, AAPG and Third Place in the Best Paper Awards at the 1972 Convention of the GCAGS. He also presented a paper entitled "The Smackover Trend from Mexico to Florida" at the 1971 AAPG Convention in Houston. For purposes of this meeting, these papers have been integrated into one presentation.

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ABSTRACT

THE SMACKOVER TREND FROM MEXICO TO FLORIDA

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The Smackover trend within the United States extends approximately 1,000 miles from south Texas to western Florida. Prolific production has been obtained from this Upper Jurassic carbonate formation in east Texas, south Arkansas, north Louisiana and eastern Mississippi. Continuing exploration is currently extending the productive areas eastward into Alabama and western Florida and promises to extend production into south Texas.

Most of the production has come from Upper Smackover oolitic and pelletal limestones or their dolomitized equivalents. The three most important types of reservoir rocks are oomoldic dolomite, sucrosic dolomite and oolitic limestone with inter-oolite porosity. Reservoir porosity and permeability vary widely depending on the quality of the primary porosity, amount of secondary porosity development and the magnitude of porosity destruction.

Low relief anticlines with up to about 400 feet of closure are the most important structural traps in terms of present day production. These closures are usually associated with Louann salt swells which underlie the Smackover section. Fault traps, traps associated with high relief structures and salt piercements are of lesser importance at this time, but it is anticipated that they will provide major reserves as exploration continues.

Stratigraphic traps have become increasingly important exploration targets, particularly in the more mature areas where better well control adequately defines the potential trap. Major reserves have already been found in stratigraphic traps, and exploration for this trap type is rapidly increasing. Entrapment is generally provided by the updip termination of porous carbonate zones frequently, but not necessarily, in conjunction with low relief structural noses or closures.

Exploration of diverse Smackover traps has already resulted in prolific production over a significant portion of the trend. Continued exploration promises to extend the production into sparsely drilled areas and to discover significant new reserves even in the "old" producing parts of the trend.