

Monday, March 8, 2010

Westchase Hilton • 9999 Westheimer
Social Hour 5:30–6:30 p.m.
Dinner 6:30–7:30 p.m.

Cost: \$28 Preregistered members; \$35 non-members & walk-ups

To guarantee a seat, you must pre-register on the HGS website and pre-pay with a credit card.

Pre-registration without payment will not be accepted.

You may still walk up and pay at the door, if extra seats are available.

HGS General Dinner Meeting

Dwight “Clint” Moore
ION Geophysical Corporation

HGS General Dinner Meeting

Pioneering the Global Subsalt/Presalt Play: The World Beyond Mahogany (USA) Field

Ten years into the 21st century, the subsalt play that began in the U.S. offshore Gulf of Mexico during the 1980s has evolved into a growing global subsalt/presalt play of likely historic impact. Today, we are at the dawn of major reserve and production additions to the world oil & gas supply, as global subsalt/presalt petroleum exploration yields major results, not only in the Gulf of Mexico, but also off Brazil and West Africa. In the years ahead, these new discoveries will fuel further exploration & production below complex salt layers worldwide.

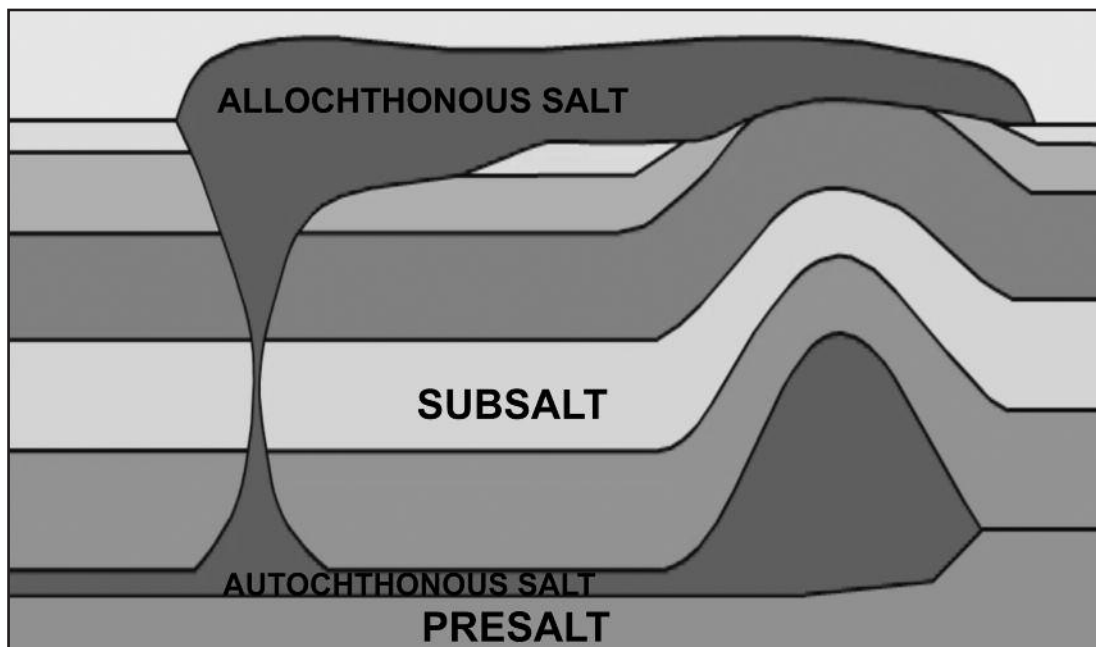
Since its inception the greatest challenge for the subsalt/presalt play concept has been explorers' difficulty in accurately imaging the seismic data below and around salt in order to identify the potential structures to drill. As a result of recent major advances

in seismic processing algorithms and computer processing speeds, explorers can now see subsalt/presalt images much more clearly. The most aggressive explorers are applying these latest technologies to more salt basins globally.

*There are now fewer limits on
the future global oil and gas
potential below salt*

Reverse Time Migration (RTM) represents the most recent and significant advance in seismic imaging below salt layers. Propelled by advances in workflows, computing power, and data management, RTM now provides the most accurate view of subsalt/presalt prospects, discoveries, and fields. In addition, improved seismic acquisition technology utilizing longer seismic cable lengths and denser, larger data volume collection programs, such as wide-azimuth (WAZ) and multi-azimuth (MAZ) geometries, provide extensive data volumes for the application of advanced RTM technology. Without accurate seismic imaging

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Subsalt vs. Presalt. Graphic: Mike Hudec, Bureau of Economic Geology, The University of Texas at Austin; Annotation: Clint Moore, ION Geophysical Corporation

technology, the drilling and development of prospects is much riskier and more expensive than desired.

Discovery and development of subsalt/presalt fields found in past decades using less-advanced pre-stack depth-imaging applied to short-offset 2-D and narrow azimuth 3-D seismic surveys, has resulted in the addition of significant reserves and production, but this represents only a fraction of the potential that will likely be globally discovered using new RTM technology. As was learned in the early years of exploring subsalt in the US Gulf of Mexico, we must accurately image below the salt layers in order to have sufficiently high success rates to justify future economic investments. There are now fewer limits on the future global oil and gas potential below salt and the likely discovery of substantial oil and gas reserves and production for the world of tomorrow. ■

Biographical Sketch

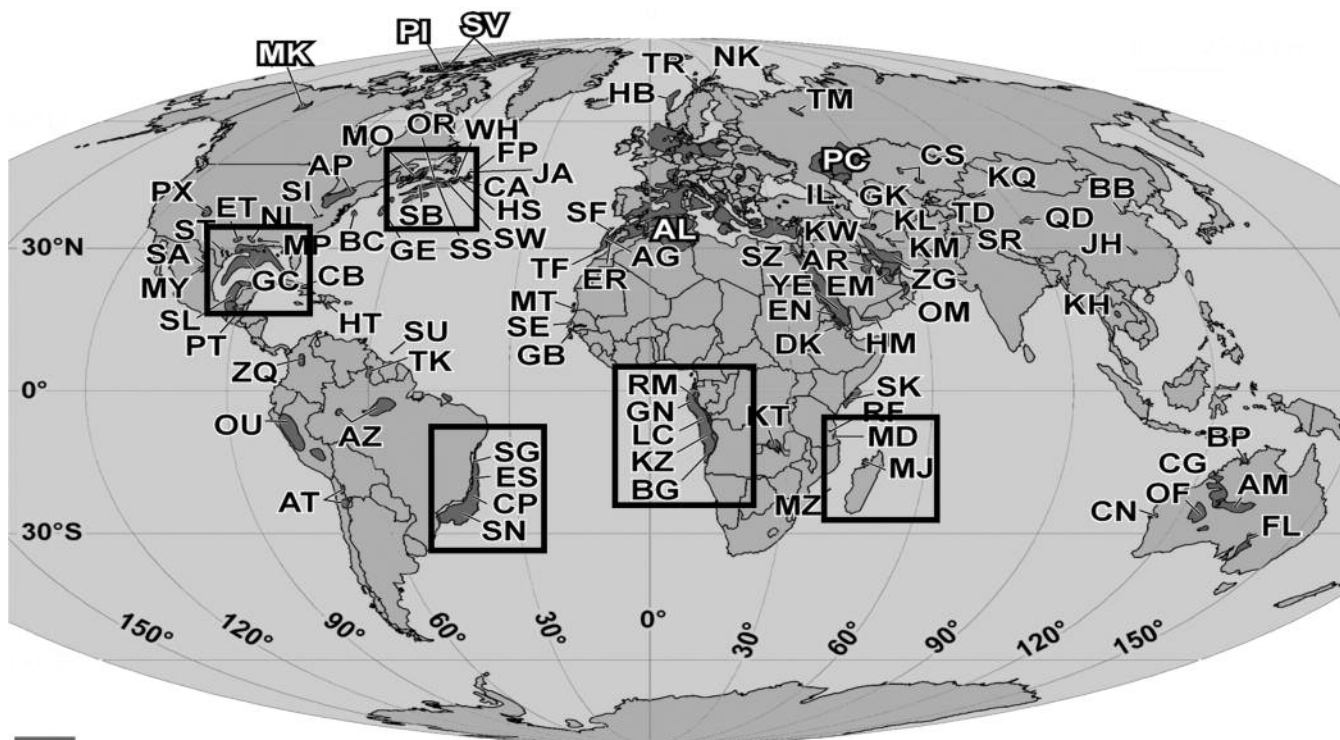
DWIGHT "CLINT" MOORE is presently Vice-President – Corporate Development at ION Geophysical Corporation. He has previously worked as a staff geoscientist, supervisor, and manager in petroleum exploration development, business development, and strategic planning at Diamond Shamrock-Maxus, Anadarko, and Murphy.



Mr. Moore has focused much of his 30+ year professional career on petroleum exploration and development offshore, especially in North America, where he has worked on the discovery and development of many offshore fields. He has extensive experience in salt tectonics, complex depositional systems, sedimentary and stratigraphic processes, subsalt/presalt petroleum exploration, development, and economics, and now subsalt/presalt seismic imaging.

Since 1985, he has intensely focused on subsalt/presalt exploration, as a result of his work on the Diamond Shamrock SMI Block 200 well, which discovered the first massive sands below a regional salt sheet in the offshore Gulf of Mexico. He joined Anadarko in 1987, where he was lead geoscientist in pioneering their subsalt play and concepts, which led to the discovery of Mahogany Field, the first productive subsalt field in the Gulf, as well as Tanzanite and Hickory fields.

He is a past-president (1994-95) of HGS and a past-treasurer of AAPG (1904-06), and has received the HGS President's Award, Distinguished Service Award, and Honorary Membership Award. He was Chief Editor of the HGS/NOGS guidebook, *Productive Low Resistivity Well Logs of the Offshore Gulf of Mexico*, and has produced multiple technical articles and presentations on subsalt/presalt exploration. Moore earned degrees with honors in geology and business administration/finance (economics minor) from Southern Methodist University in 1978.



■ Salt-Tectonic Basins
 5 major salt provinces—subsalt—presalt potential. Map graphic: Martin P. A. Jackson, Bureau of Economic Geology, The University of Texas at Austin; Box annotation: Clint Moore, ION Geophysical Corporation