



PROFESSIONAL DIVISION LUNCHEON TALK

- DATE** : Thursday, 29th October, 2009
- TIME** : 11:45 Hours
- VENUE** : Kalimantan and Maluku Room, Lower Level
Shangri-La Jakarta
Kota BNI
Jalan Jendral Sudirman Kav 1
Jakarta 10220
- SUBJECT** : "Heron Island (Great Barrier Reef): A Quaternary Analog for SE Asia Tertiary Isolated Carbonate Platforms"
- SPEAKER** : Toni Simo, Research Associate, ExxonMobil Upstream Research Company, Houston, Texas

ABSTRACT

Heron Island forms part of the Capricorn Group, located in the southern portion of the Australian Great Barrier Reef near the Tropic of Capricorn at 23.5°S. The Island is an isolated carbonate platform (reef), oval in shape (8x4 km), with water depths in the lagoon up to 6m and surrounding water depths up to 35 m in relation to the reef flat. The Island is affected by dominant winds from the southeast, dominant southward currents (longshore and Eastern Australian Current), and a tidal range that averages 2m. The currents and tidal range result in a platform-interior seawater residence time that is short, and the water is in good communication with the open ocean.

The Island, which belongs to the ecologic "hotspot" of marine biodiversity known as the Indo-Australian Archipelago, differs substantially from Caribbean examples that tend to dominate the carbonate literature (the default "reef model"). For instance, the Heron Island reef margin has little or no marine cementation, the

ecologic diversity makes the distinction between water-depth reef-zones less clear, and the vertical Holocene succession in the platform interior shows an overall upward increase of coral debris and in-place corals. These differences from Caribbean examples make Heron Island a much better analog for other Modern as well as Tertiary isolated carbonate platforms in SE Asia, many of which have limited marine cementation, a semi-continuous rim made by corals and algae, and a grainy platform interior with variable grain size and sorting.

This talk will introduce Heron Island Holocene facies and diagenesis, compare them to other Modern isolated carbonate platforms in SE Asia to gain an understanding of the controls on facies and diagenesis, and then apply this understanding to subsurface Tertiary examples in the region.



Quickbird image of Heron Island (center) showing the continuous rim around the platform interior and main facies belts

BIOGRAPHY

Toni Simo is a Research Associate for the ExxonMobil Upstream Research Company in Houston, Texas. After graduating with a Master of Science and PhD degree in geology from the University of Barcelona he became a professor

of geology at the University of Wisconsin. He joined ExxonMobil in 2006. Toni has authored numerous papers with a focus on carbonate sequence stratigraphy and the controls on carbonate platform and reef development.

FUTURE TALKS

Suggestions and volunteers for talks are always welcome. Topics should be relevant to exploration and production in Indonesia and/or be of interest to a wide range of disciplines.

Please contact the Luncheon Talks Chairman, Mark A. Thomsen, at ExxonMobil Oil Indonesia, phone: 571-5129, e-mail: mark.thomsen@exxonmobil.com

COST: Rp. 290.000,00 (IPA Prof. Div. Member) or Rp. 350.000,00 (Non IPA Prof. Div. Member) excluding drinks, payable at the entrance of the Kalimantan and Maluku Room;
CASH PAYMENTS ARE REQUIRED.

- Reservations and cancellations will be accepted until 15:30 hours on Wednesday, 28th October, 2009. Phones: 515-5959; fax: 5140-2545/46; e-mail: ipa@cbn.net.id or audrey.sahertian@ipa.or.id
- No reservations and cancellations will be accepted after this time.
- Members of IAGI, HAGI, and IATMI are welcome.

Please make sure that if you hold a reservation and are unable to attend that you notify the IPA Office as soon as possible otherwise you will be charged for cost of the meals.