Indonesia Report on
The 4th Petroleum Policy and Management (PPM) Seminar
October 4 - 7, 2005, Hua Hin, Thailand

GEOLOGY OF THE KUTEI BASIN

Tertiary Sedimentary Basins in Indonesia
Location Map of The Kutei Basin
**TECTONIC ELEMENT**

- The SW portion is occupied by Sunda Continental Crust
- The NE portion is bounded by Mangkaliat Platform
- The North and South of the basin are bounded by NW-SE trending Adang-Paternosfer and Mangkaliat Fault Zone.

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**GENERAL STRATIGRAPHY**

- Lower Eocene – Lower Middle Oligocene marine sediment of Kuaro and Telakai Formations
- Upper Oligocene – Lower Miocene of deep marine sediment of Pamaluan
- Lower Miocene platform carbonate of Bebulu Fm.
- Middle – Late Miocene deltaic sediment of Pulau Balang
- Pliocene paralic – deltaic sediment of Kampung Baru Formation.
**PETROLEUM SYSTEM**

**SOURCE ROCK POTENTIAL:**
- Paralic/deltaic/restricted shallow marine carbonaceous mudstone of the Tanjung Formation
- Shale of the Bongan Formation

**RESERVOAR POTENTIAL:**
- Eocene Tanjung Formation
- Carbonate facies of the Berai Formation Equiv. Kerendan limestone
- Miocene deltaic sediments of Balikpapan and Kp. Baru Formation

**SEAL POTENTIAL:**
- Oligocene shales
- Intraformational seal within deltaic sediments
**PETROLEUM SYSTEM**

- **TRAP POTENTIAL**
  - Structural trap
  - Monoclinal dips stratigraphic traps
  - Stratigraphic/structural trap (Oligocene carbonate buildup)
  - Clastic stratigraphic traps

- **HYDROCARBON MIGRATION**
  - Vertical Fault
  - Up Dip

**Regional Stratigraphy of Kutei Basin**

**COUNTRY’S PROGRAM IN KUTEI BASIN**

**Current Activities**

- Offering new exploration acreage area; especially focus in the offshore area
- Increasing production from mature fields
  - Today 70% oil produce from 30 years old Fields.
  - Ultimate recovery from these fields are often < 40%.
- Increase development of green Field Into Brown Fields
- Increase Production from mature fields by applying IOR/EOR Technologies.
Complete mature basin strategy is required.
Exploration policy to reduce upfront commitments, but to maximize ideas.
Sharing data; compete on interpretation and creativity.
Marginal fields require new players.
But do not forget where the bulk volumes are coming from.

LONG TERM PLAN FOR INDONESIA PPM CASE STUDY

Workshops Plan 2005-2006

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<tr>
<th>Workshop</th>
<th>Venue</th>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Workshop III</td>
<td>Surabaya</td>
<td>July 2005</td>
<td>PDO, part 2, Marginal Field, GeoX/gfullCycle, part 2</td>
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<td>Workshop IV</td>
<td>Denpasar</td>
<td>Feb 2006</td>
<td>IOR/EOR</td>
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<td>Dissemination Seminar</td>
<td>Jakarta</td>
<td>June 2006</td>
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Expert Visits Plan 2005-2006

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<th>Venue</th>
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<td>Economic Modeling of Oil Fields and Prospect by Use of GeoX</td>
<td>December, 2004</td>
<td>Jakarta</td>
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<tr>
<td>IOR/EOR</td>
<td>December, 2005</td>
<td>Anyer, West Java</td>
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<tr>
<td>Deep Water Technology</td>
<td>December, 2005</td>
<td>Bogor, West Java</td>
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On each EV Course, other MC Participants are welcome.

WS Preparation Meeting will be held, at least 2 (two) months prior the workshop.
**TENTATIVE LONG PLAN 2004-2006 FOR INDONESIA PPM CASE STUDY**

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<td>Plan for Development &amp; Op</td>
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<td>Economic Sensitivity Analysis</td>
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<td>We Invite some of oil companies</td>
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<td>who operate in the Kutai Basin</td>
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<td>Provide a seminar with special</td>
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<td>topic regarding all Indonesia</td>
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<td>PPM activities</td>
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<td>All the Indonesia PPM activities are fully supported by related institutions : i.e. DESDM, Migas, BPMIGAS, Lemigas.</td>
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**Venue for next workshop :**

Most of the participants recommend.....

*Denpasar, Bali!*

**PARTICIPATING IN OTHER CASE STUDIES**

- **4th Workshop on the Philippine (Sulu Sea) Case Study (March, 2005)**
  - 2 Indonesia participants (LEMIGAS Staff)
  - The topics, i.e. Development solution & fiscal framework, marginally economic fields can be compared to similar Indonesia activities

- **4th Workshop on Cambodia Khmer Basin Case Study (December, 2004)**
  - 2 Indonesia participants (LEMIGAS Staff)
  - The topics, i.e., petroleum economics as well as full cycle analysis of Prospect using GeoX are a guideline for implementing the use of GeoX in Indonesia

- **5th Workshop on Cambodia Khmer Basin Case Study (December, 2004)**
  - 5 Indonesia participants (LEMIGAS & BPM Migas Staff)
  - Special Concern as due to the fact that both institutions are actively involved in gas Technology and regulation

- **3rd Workshop on China Case Study of Western-Depression Sichuan Basin (June, 2005)**
  - 4 Indonesia participants (LEMIGAS & BP Migas Staff)
  - The topics, i.e. Gas development technology and gas market presented by the US Resource Person are a good lesson for sharing knowledge.
**Conclusion:**

Generally all PPM programme and activity are very useful to apply in the case study host countries.

**Recommendation:**

To disseminate more effectively the final result of the four PPM case studies, it is recommended to arrange a special seminar covering those four case studies at the same time, hosted by PPM Project and National coordinators.