



AAPG

DISCOVER

The Asia Pacific Region Newsletter

NOTE FROM PRESIDENT OF AAPG ASIA PACIFIC REGION

Peter Baillie, President of AAPG - Asia Pacific Region

The American Association of Petroleum Geologists (AAPG) was founded in 1917 with the purpose to foster scientific research, advance the science of geology, promote technology and inspire high professional conduct—a mission which still guides us today.

We are a global professional association that cares very much for our science and it is this appreciation of geological knowledge that distinguishes us in the petroleum industry, and helps us to promote the use of new concepts and ideas in our search for hydrocarbon resources.

We are continually looking at ways we can better meet our objectives and thus better serve our members.

The pace of development of our science is extraordinary, and there is a need for continued learning to stay up to date with current theories, concepts, ideas, and technologies. In supporting our student chapters, we hope to develop a life-long association with the AAPG that will continue to develop professional lives.

I keep telling young folks, the future is with you (most certainly not with my generation) and the future of the AAPG is with the students of today.

In due course we hope that Student Members become Associate Members (Young Professionals still obtain the same membership dues rate as students for the

first two years) then become a full-fledged Member. As Members progress in their careers, they in turn can contribute to the body of knowledge that constitutes our science, and thus help the next generation of young Members develop their careers.

We value your participation in all aspects of the Association, and in particular, welcome new volunteers to help us grow in the Asia Pacific Region.

Peter Baillie

President of AAPG - Asia Pacific Region



*Editorial Note: The next edition of **Discover** edition will be posted in December and will be our last edition with Claudia Bertoni as editor. We are most grateful to Claudia for volunteering her time and expertise to this endeavor. If you are interested in joining our editorial board as our next **Discover** Editor, please contact Adrienne Pereira at apereira@aapg.org for details.*

INSIDE THIS ISSUE

President's Note1

AAPG/EAGE GTW on "Profits & Pitfalls of Shallow Seismic Anomalies"2

Art Saller, Shell Asia Pacific AAPG Distinguished Lecture Tour3

Gas Hydrate Developments in India 4

Myanmar 's Exploration Potential5

AAPG - Asia Pacific Young Professional5

Student News and Activities5

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AAPG/EAGE GTW ON “PROFITS & PITFALLS OF SHALLOW SEISMIC ANOMALIES”

Kuala Lumpur, Malaysia, 4-5 June 2013

The first Geosciences Technology Workshop (GTW) to be held in Malaysia was successfully convened 4-5 June 2013, in Kuala Lumpur. Jointly organized by AAPG and EAGE, this event focused on “Profits & Pitfalls of Shallow Seismic Anomalies.”

Endorsed by PETRONAS and the Geological Society of Malaysia, the workshop presented a strong technical program with as many as 21 presentations. **Sessions** focused on **Petroleum System & Fractures, Profits in Shallow Anomalies, Pitfalls & Features and Concealing Deeper Potential**. Led by Paul Carroll of BHP Billiton, the Committee and Chairs ensured that the program provided interesting presentations and that workshop sessions were well organized and actively contributed to.

Committee and Chairs included:

Paul Carroll, BHP Billiton	Chris Howells, TGS
Robert Wong, PETRONAS	Keith Chan, Shell
Max Meju, PETRONAS	Mark Flynn, Hess
Arthur Barnes, PETRONAS	Melissa Johansson, SLB
Martin Brewer, PETRONAS	Mike Jones, SLB
Peter Woodroof, Petrofac	Jan van de Mortel, Weatherford
Jan Rindschwentner, Petrofac	Fariz Fahmi, Down Under Geosolutions

AAPG and EAGE would like to thank PETRONAS, the Geological Society of Malaysia, Paul Carroll, all Committee members and Chairs for their effort in seeing this first GTW in Malaysia to a successful conclusion.



Interested in being involved in a GTW either as a Convenor or a Committee Member? Contact Adrienne Pereira at apereira@aapg.org for details.

ART SALLER, SHELL ASIA PACIFIC AAPG DISTINGUISHED LECTURE TOUR

18 April to 10 May 2013



Art Saller visited Asia and Australia on an AAPG Distinguished Lecture tour 18 April to 10 May, 2013. The purpose of the trip was to represent AAPG and share geological ideas and goodwill with students, teachers and professionals in the Australian and Asian oil and gas communities. Fifteen talks were given at 12 different locations in six countries.

The tour began with talks to the Petroleum Exploration Society of Australia in the beautiful cities of Melbourne, Sydney and Brisbane. After a few airplane rides, a talk was given at the Shell Technology Center in the growing city of Bangalore, India. The next stop was at the University of Papua New Guinea in Port Moresby with a gathering of students, teachers and geologists sponsored by PNG Chamber of Mines and Petroleum and the university. Port Moresby was bustling in anticipation of the start of a large, local LNG plant.

The tour then shifted to a skyscraper in beautiful downtown Tokyo with Japex as the host for geoscientists from local petroleum companies, universities and research labs. Moving to South East Asia, Petronas kindly sponsored presentations at the Universiti Teknologi Petronas and the Twin Towers in Kuala Lumpur. The final stops on the tour were in Jakarta and Bogor, Indonesia, sponsored by Pertamina. After a talk at Pertamina Upstream in Jakarta, vibrant student chapters of AAPG were addressed at the University of Pakuan (Bogor), Trisakti University (Jakarta), and the University of Indonesia (Jakarta). Four different talks were offered: (1) Diagenetic evolution of porosity in carbonates during burial; (2) Pleistocene shelf-to basin depositional systems, offshore East Kalimantan, Indonesia: Insights into deep-water slope channels and fans; (3) Controls on hydrothermal dolomites and their reservoir properties; and (4) Sequence stratigraphy of classic carbonate outcrops in west Texas and southeast New Mexico with subsurface analogs. Each group chose one talk; some chose two.

Attendants varied from young college students in blue jeans to experienced professionals in suits, but all shared a love of geology and wore many smiles.



Art Saller's travel included planes, trains and automobiles, but mostly planes. His itinerary included 17 plane flights with 87 hours in the air covering approximately 40,000 miles (65,000 km). Many people helped make this trip safe and successful. Guruh Ferdianto, a volunteer with AAPG Asia Pacific, and Lorry Richardson of AAPG Tulsa, organized the trip and schedule with help from Adrienne Pereira of AAPG Asia Pacific in Singapore. Many others helped with arrangements at each stop including Louise Goldie-Divko, Phillip and Marina Cooney, Sue Slater, Ankush Singh, Bitan Munshi, Ankush Ghosh, Mick McWalter, Kazuyoshi Hoshi, Bahari Md Nasib, Ummi Farah Binti Mohamad Rosli, Noor Alyani Bt Ishak, Rick Major, Tavip Setiawan, Heribertus Satrio Wibowo, Zulkha Arfat, Dewi Syavitri, Rendra, Fakhmi, Renky Apriliani, Mill Sartika Indah, and Andi Mardianza. We sincerely thank everyone involved, as well as the AAPG Foundation and Art Saller's employer, Cobalt International Energy.



GAS HYDRATE DEVELOPMENTS IN INDIA

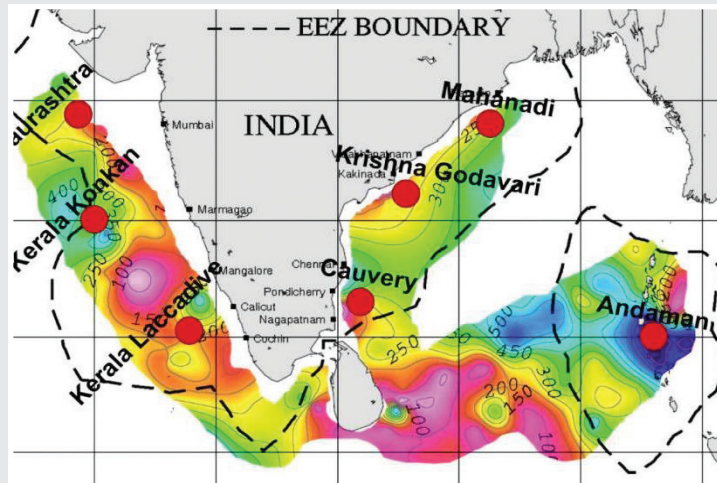
Vinay Sahay (Advisory Committee Member, AAPG Energy Minerals Division (EMD)) geo_vinay@yahoo.co.in

Gas hydrates are crystalline solids consisting of 99.9% methane and water. One volume of gas hydrates releases 164 volumes of methane gas and 0.8 volume of fresh water at standard temperature and pressure (STP). Gas hydrates are not stable at STP. They exist at higher pressure and lower temperature at a depth range which favors such conditions.

The Government of India formulated a National Gas Hydrate Programme (NGHP) in 1997 for exploration and development of gas hydrates resources in the country. The NGHP was launched by the Ministry of Petroleum & Natural Gas, India, and is technically coordinated by the Directorate General of Hydrocarbons (DGH). The NGHP is a consortium of national E&P companies (including Oil and Natural Gas Ltd., Gas Authority of India Ltd.) and national research institutions (National Institute of Oceanography, National Geophysical Research Institute and National Institute of Ocean Technology).

DGH, on behalf of the NGHP, has signed a Memorandum of Understanding (MOU) in the field of gas hydrates with Japan Oil, Gas, Metal Corporation (JOGMEC), Gas Hydrate R&D Organization (GHDO) of the Korea Institute of Geology, Mining and Materials (KIGAM), and the U.S. Department of Energy (USDOE). Another MOU with the U.S Geological Survey (USGS) is in the pipeline. DGH has been closely associated with the USGS, USDOE and JOGMEC scientists who have helped the NGHP scientists to gain knowledge, understanding and experience.

Reconnaissance surveys carried out by DGH in the East Coast and Andaman Deepwater areas in 1997 deciphered the most promising areas for gas hydrates. The surveys have indicated the presence of several gas hydrate leads/prospects. The NGHP has set a deadline of mid-2015 to commence commercial production of gas from gas hydrates. **Figure 1** illustrates the gas hydrate thickness map of the Indian shelf with identified promising gas hydrate bearing regions. After extensive studies from 21 drilling sites penetrating more than 9250 m of sediment section and recovering 494 cores,

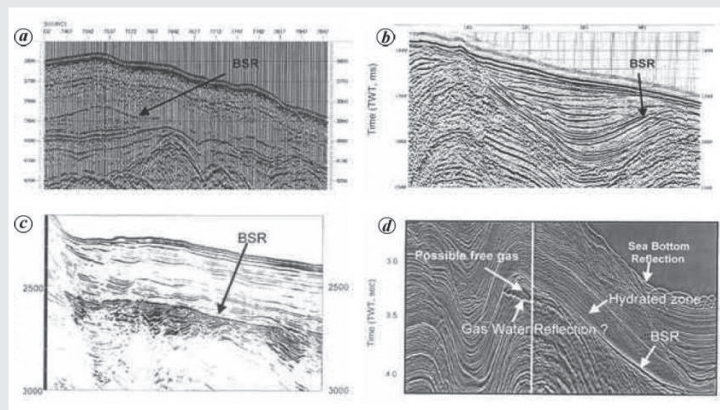


the National Gas Hydrate Program Expedition 01 has produced important results for the development of gas hydrate exploration in India. For instance, bottom simulator reflectors (BSRs) have been identified in five basins (Khrisna Godavari, Mahanadi, Andaman, Saurashtra, and the Kerala Konkan basin) through multi-channel seismic data analysis (**Figure 2**).

Prospective zones have also been successfully delineated in Krishna Godavari, Mahanadi, and Andaman Basins, along with proxies in Kerala Konkan and Saurashtra basins. The drilling and coring during the expedition validates gas emplacement in Miocene to Pleistocene/ recent sediments of eastern Indian margin. An outstanding 120 m thick gas hydrates section in fractured shale with 64% porosity in Krishna Godavari basin was discovered. This appears to be one of the richest gas hydrate accumulations discovered to date in the world. The program has also confidently determined the gas origin, the nature of the host rocks, permeability pathways, and presence of thickest and deepest gas hydrate occurrences. In total, a potential of 1900 trillion cubic meters of methane has been estimated within this exclusive economic zone of India.

Despite very promising potential, several challenges still have to be faced regarding gas hydrates development in India. The most challenging is the absence of proven technology to produce methane from gas hydrates on a commercial scale at the present time. In addition, much of the gas hydrate reserves worldwide are found disseminated in sandstone, therefore, most of the current research focuses on these deposits. However, the Indian scenario is different; the reservoir for gas hydrates in the Krishna Godavari basin is fractured shale, whereas the reservoir rock of gas hydrates in the Andaman basin is volcanic ash.

The NGHP has identified many key scientific and technical issues,



FROM PREVIOUS PAGE

such as: how to dissociate hydrates, efficiently release methane and allow its migration towards production wells? Which type of production wells will be viable technically and economically? How can the integrity of the hosting deposits be maintained, such that leakage of gas and impact to the environment are minimized? Which techniques are the most appropriate to produce methane from hydrates of fractured shale or volcanic ash?

Geohydrological and geomechanical issues are also present; The NGHP should address these issues for planning a successful National Gas Hydrate Program from exploration to commercial production of gas hydrates in India.

The future plans of the DGH include an Expedition 02 under

the auspices of the NGHP that would target the identification of sites for pilot production testing. The expedition would focus on identifying sites with sand-dominated gas hydrate occurrences, reasonably compacted sediments, and the occurrence of free gas below the gas hydrate stability zone. DGH activities should also focus on commercial production testing in fractured shale in the promising Krishna Godavari basin, and in volcanic ash gas hydrates of the Andaman Basin.

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Biography

Vinay K Sahay is an active member of AAPG and serves on the Energy and Mineral Division's Gas Hydrate Advisory Committee. He is a loyal long-time volunteer as the student chapter coordinator for India, Pakistan, Bangladesh, and Afghanistan chapters. Sahay graduated from IIT Bombay and Nagpur University with two master degrees in Applied Geology and Earth Sciences, respectively. Vinay currently provides geological services in Ethiopia after wide experience as a consulting geologist and academic teaching assistant in India. He has written several scientific articles, mainly focused on the exploration and production of natural resources. Website: <https://sites.google.com/site/vinaysahay/>

About AAPG's Energy Mineral Division (EMD)

Formed in 1977, EMD offers technical information, publications, and meeting programs to its AAPG members that cover energy resources such as coal and lignite, uranium, and geothermal energy as well as unconventional resources. As a Division of the AAPG, EMD is part of a global professional association of some 36,000 geologists working in the U.S. and abroad.

MYANMAR'S EXPLORATION POTENTIAL

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Introduction

Myanmar became independent from the United Kingdom in 1948 and its military took control of the country in 1962. Widespread international sanctions against Myanmar prevented most oil and gas companies in the past years from exploring and producing hydrocarbons there. Although some Asian companies (e.g., PTTEP, Petronas, ONGC, Daewoo, CNOOC) have had significant activity, the country has remained largely unexplored.

A series of reforms begun in 2008 have aimed to liberate the state-controlled economy. The opposition party occupied a number of seats in parliament following partial elections in March 2012, which has resulted in the lifting of most international sanctions, including those in the energy sector. This, along with a perception of promising hydrocarbon basins and a strategic location (just between India and China), has attracted large interest for international energy companies to invest in the country.

The first onshore license-round took place in 2011 where 18 blocks were offered, resulting in 10 awards. No major western companies participated in this round. A second onshore round was announced in January 2013 (after the lifting of international sanctions) and 18 blocks have been offered. For the first time in recent history, major and independent western companies (e.g. ENI, Woodside, OMV, Total) were prequalified to participate. The deadline for final offers is expected in September 2013. In addition, the first offshore round was announced in April 2013 and includes 11 shallow-water licenses and 19 deep-water licenses. Again, major international companies (e.g. Anadarko, Shell, Santos, ConocoPhillips, Statoil, BG, Hess, Woodside, Santos) were prequalified in July 2013. These companies were invited to visit the data room starting in mid-July.

Myanmar's basins

Although there could be up to 17 hydrocarbon sub-basins in Myanmar, these are grouped into three main geological provinces in this paper, following the USGS 2012 classification (**Figure 1**). There are two different and distinct phases in Myanmar's exploration history. The old onshore oil exploration phase has taken place mainly in the Central Burma Basin, whereas the more recent gas phase has taken place offshore in the Indo-Burman Province (offshore Rakhine) and the Irrawaddy-Andaman Province.

Onshore exploration

The Central Burma Basin is an Eocene fore-arc/back-arc system related to the subduction of the Indian plate beneath the Eurasian plate. It comprises five fore-arc sub-basins (Hukaung, Chindwin, Salin, Pyay and Ayeyarwady) and one back-arc sub-basin (Shwebo), separated by a volcanic arc. The thick sedimentary succession comprises marine sediments overlain by the fluvio-deltaic sediments of the Irrawaddy

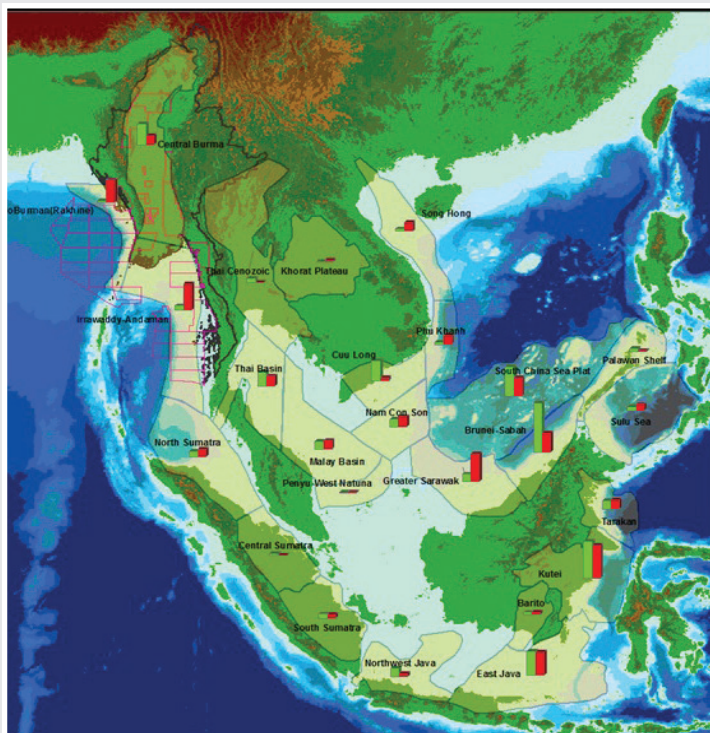


Figure 1. Mean total undiscovered resources of Southeast Asia basins together with licensing rounds in Myanmar. Red bars represent calculated mean undiscovered gas resources (BCFG); green bars represent undiscovered oil resources (MMBO). These values have been normalized to the percent of total resources (original sources USGS and IHS).

system. Traps are mainly structural, related to compression and extension episodes that have taken place since the Oligocene.

Exploration commenced in the late 19th century when the British ruled Myanmar. Little modern exploration has been carried out to date and targets have predominantly been shallow anticlines without 3D seismic coverage. Most of the production comes from Oligo-Miocene reservoirs. However, pre-Oligocene source rocks and reservoirs are proved and underexplored. According to Wood Mackenzie, remaining reserves are 1.4 TCFG and 600 MMB.

Offshore exploration

The Irrawaddy-Andaman Province is the southern extension of the Central Burma Basin. This province includes the Irrawaddy Delta, the Moattama Basin and the Mergui Terrace. Continued oblique subduction led to transtensional opening of the basin that ultimately created the Andaman spreading centre to the southwest. By the late Miocene, a change from transtension to transpression along the bounding Sagaing fault caused inversion, which was greater to the north of the Central

FROM PREVIOUS PAGE

Burma Basin. This caused southwards progradation of the Irrawaddy system. Onshore, in the Irrawaddy delta, there are several small oil and gas fields that produce from relatively shallow Miocene sandstones (e.g. Myanaung, Prome, Shwepyitha). Offshore, in the Moattama Basin and Mergui Terrace, there are a few multi-TCF gas fields producing from both clastic and carbonates formations (e.g. Yadana, Yetagun, Zawitka). The most prolific reservoirs are the Miocene reef buildups overlying the volcanic arc (Yadana, Sein, 3CA-X). The Mio-Pliocene deltaic to marine sandstones forming structural traps (e.g. tilted fault blocks, fault bounding anticlines) are another important play often supported by DHI's (Zawitka, Badamya and Yetagun Fields). According to Wood Mackenzie, remaining reserves are 12 TCFG and 86 MMB.

The Indo-Burman Province includes the accretionary prism and associated ophiolite/metamorphic belt caused by the oblique subduction of India beneath Eurasia. The province includes an onshore part that was folded and thrust earlier than the offshore part to the west. Accretion of fore-arc deep sediments has advanced progressively to the west since Eocene times. The most prospective part is the Rakhine Basin in which numerous oil and gas seeps and shallow hand-dug wells are known in Ramree and Baronga Islands. In addition, Daewoo discovered the Shwe Gas Field in 2007. This 4 TCFG discovery opened a new biogenic play with Pliocene turbidite sandstones from the Bengal Fan as reservoirs. According to Wood Mackenzie, remaining reserves for Rakhine are 4.2 TCFG. The offshore Rakhine is under-explored and anticipated as one of the most sought after areas for the current round.

To the west of Rakhine Basin are the very deep-water Bengal Fan basins. Several blocks are being offered in the licensing round. The Bengal Fan is the most extensive submarine fan in the world, sourced from the Ganges-Brahmaputra drainage system. Very little seismic and no well data are available along the Myanmar portion because no exploration has taken place at all. However, the possibilities of extending the Shwe play and the discoveries in Bangladesh waters to the south make these blocks attractive

Southeast Asia regional context

Between 2009 and 2011, the USGS completed a geology-based assessment (published in 2012) of the world's undiscovered conventional petroleum resources. The study reevaluates all the basins examined in the previous report published in 2000, but also includes new basins (e.g. the Arctic Circle). The results discussed in this paper include 25 provinces across Myanmar, Thailand, Laos, Cambodia, Vietnam, Malaysia, Indonesia, Brunei and the Philippines, which include all the important basins within the Sundaland microplate (**Figure 1**).

According to the USGS results for undiscovered resources, the mean total for oil, gas and condensate for these 25 Sundaland basins are 23 BBO, 369 TCFG and 11 BBC, respectively. Most of the assessed undiscovered oil resources are predicted within the most prolific and explored basins: Baram Delta/Brunei-Sabah Basin, Kutei Basins, Cuu Long, Thai Basin, and East Java. Less-explored basins that are expected to add important oil reserves are the South China Sea Platform and the Central Burma Basin. Again, most of the assessed undiscovered gas resources are predicted within the most prolific and explored basins: the Greater Sarawak and Kutei Basins, East Java, Baram Delta/Brunei-Sabah Basin, etc. Less-explored basins that are expected to add important gas reserves are Indo-Burman Province (offshore Rakhine), Irrawaddy-Andaman and the South China Sea Platform (**Figure 1**).

These results show how the greatest remaining potential is focused around the well-known Borneo deltaic systems (Baram/ Brunei-Sabah, Kutei and Greater Sarawak) distributed across Malaysia, Brunei and Indonesia. Actually, these three countries, together with Vietnam, have accounted for most of the discovered resources to date. However, exploring this remaining potential will probably be more challenging and costly, involving deeper targets and ultra-deep water depths. Also, competence is expected to be very high. The very under-explored South China Sea Platform may also contain huge oil and gas reserves. Unfortunately, this basin is located at the core of territorial disputes between China, Vietnam, Malaysia and the Philippines.

On the other hand, the recent opening of Myanmar to international investors brings promise to very under-explored areas that rank within the top five for oil and gas undiscovered resources in the region. In conclusion, the new economic, social and political framework of Myanmar, its strategic geographical location between India and China, and its under-explored and potentially prospective basins make it very attractive for western companies to invest in the country.

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Exploration Focus is a regular section dedicated to exploration activities around the Asia Pacific Region. If you are interested in submitting your article for a future issue of Discover, please contact Adrienne Pereira (apereira@aapg.org) for details.

MEET TAN CHUN HOCK, THE AAPG ASIA PACIFIC YOUNG PROFESSIONAL

Chun Hock's Profile

Education: Graduated in 2002 with a BSc (Hons) in Geology from University Malaysia Sabah and MSc. Petroleum Geoscience from Chulalongkorn University.

Tan Chun Hock is a Young Professional Member in AAPG's Asia Pacific Region who recently went to work as an appraisal geologist in the North Sea region. During his free time, apart from studying rocks in nature, Chun Hock volunteered to serve as Student Chapter coordinator for the Asia Pacific Region. Chun Hock plays an important role in recruiting experienced geoscientists to visit universities as often as possible, and sometimes gives short presentations about his career in the oil and gas industry to university and secondary high school students.

How did you get your current job?

This is related to my master degree thesis presentation. Chulalongkorn University's common practice is to invite recruiting managers from the industry to attend the presentation. Without knowing the audience personally (except that you know they could be your potential manager), I was asked questions from the floor and one particular person kept asking questions. I got to know him better during the breaks and he turned out to be the exploration vice president of Talisman from KL. That was how I got hired as an exploration geologist and have held this role since I left the university in September 2010.

What are your main responsibilities in the company?

As an exploration geologist, my day-to-day tasks are mainly to deal with regional data such as seismic interpretation and well data analysis. The main role of our team is to help management decide where to drill next by looking at the portfolio ranking that we have within the block. Building the most updated and precise regional play maps and ranking the prospects are some of the highlights of the end products. Of the four keys to a successful exploration target, namely charge, seal, trap, and reservoir, more than 70% of failures are related to charge and seal. Therefore, my task is to produce more reliable geological models. In early 2013 I moved to Aberdeen to work as an appraisal geologist in the Central North Sea. I am currently working on a HPHT appraisal well and building the conceptual geomodel for it.

How can Young Professionals play a vital role in AAPG?

I believe that YPs are playing a very important role in the industry as its new workforce. It is fundamental that YPs prepare for this task, so what other better way than to immerse yourself into the professional environment? I am thankful to the AAPG for providing this opportunity. With new technology, YPs now benefit from a borderless, instant and virtual way to communicate. It is important to understand that some of the issues you might face today were already answered yesterday.

Sharing knowledge within the same community and working towards a common goal is the best practice for all in the industry.

Do you have any advice or tips for the geoscience students out there who will be graduating and looking for a job?

Being prepared is not the only answer, as you will also need to know what you want to achieve in your career. This is a very broad and complex industry, so being a geoscientist implies working in different projects and roles. Thus, you should not be too picky for a start. Most companies nowadays have rotation plans for young graduates so that you will be exposed to various roles in a short timeframe. This can be very useful to help quickly gain the basic knowledge you need to get your job done right. On the other hand, if you have a specific expertise from your higher education (e.g. a PhD degree), you are potentially able to continue working in that particular area and stay in the same role for a long time.

My advice is that you should never seek a job for higher pay. If you do not like it, there are plenty of other jobs out there. Do some research on what types of job are available within your community and area of interest and talk to YPs or other professionals in the industry. They will be able to guide you. No companies out there do "charity work" so you must be able to convince them you bring added value to their geoscience workforce.

Now that you have graduated, what's next?

I want to continue to liaise with the universities to help them get connected to the industry. Exposing them to various talks and opportunities will be very rewarding for me, if I feel that I am able to help. I am also very pleased to see that my efforts are now bearing their fruits, as the YP ground is firming up by running our first ever event in Kuala Lumpur, and more Student Chapters are getting back online.

My vision is to form a stronger community within the YPs and keep everyone involved by sharing their common issues and concerns. While AAPG needs us as volunteers to help out on events such as GTWs, I am sure that we need AAPG even more as the common sharing platform for all geoscientists out there.

Interested in sharing your experience as Young Professional with our readers? Contact Adrienne Pereira (apereira@aapg.org) now for the chance to be featured in our future editions.



AAPG VISITING GEOSCIENTISTS PROGRAMME (VGP) 2013

Geology Department, Universiti Kebangsaan Malaysia, 17 March 2013

(Suraya Hilmi Hazim)

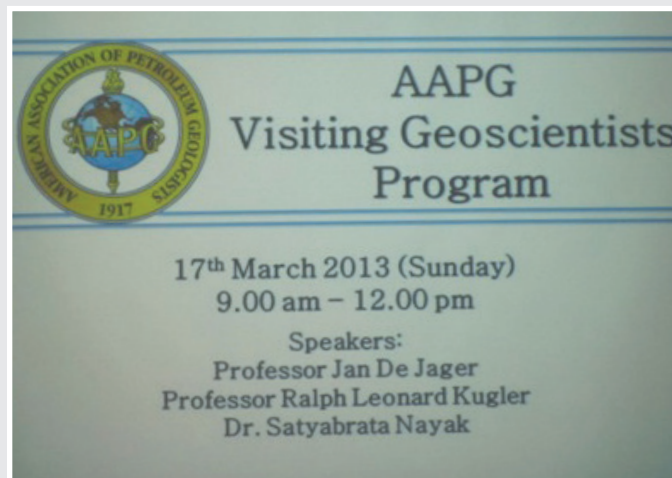
The AAPG Visting Geoscientists Programme offers students first-hand experience and career insights straight from professionals all over the globe. This programme has been going strong for 30 years, connecting students with professionals in the field of geology worldwide.

Universiti Kebangsaan Malaysia is proud to have played host to three amazing speakers: Professor Jan de Jager, Dr. Satyabrata Nayak and Professor Ralph Leonard Kugler with the help of AAPG Student Events Advisor, Mr. Tan Chun Hock of Talisman Energy.

The programme kicked off at 10 am with a short briefing. Students were broken up into groups according to their year of study – Year 1, Year 2 and Year 3 – with about 25 students per group. The students then proceeded to attend their respective sessions with each Visiting Geoscientist. The sessions went on concurrently in three venues, with venue swaps at every one-hour interval. Each batch of students made the most of their 60 minutes with each Visiting Geoscientist by listening intently to their talks and asking lots of questions.

We would like to thank the Visiting Geoscientists for traveling to Universiti Kebangsaan Malaysia to share their experiences with us and we look forward to meeting them again in the future. The students feel

very lucky to have been able to travel the “world” without leaving their classrooms in this three-hour programme. Special thanks to Mr. Tan Chun Hock for arranging this programme.



PETROLEUM GEOSCIENCE CONFERENCE AND EXHIBITION (PGCE 2013)

Kuala Lumpur Convention Center, 18 – 19 March 2013

This year, the Petroleum Geoscience Conference and Exhibition (PGCE 2013) welcomed its 36th installment of one of the largest geosciences events in South East Asia. The two-day programme was jam-packed with activities for anyone and everyone with an interest in the ever-growing industry of oil and gas. Among the activities lined up for this event were an array of technical exhibitions, geosciences conferences, short courses, field trips and even a student programme tailored for budding geologists.

The student delegation from UKM consisted of 23 students, 20 of which were sponsored by ExxonMobil under the Student Outreach initiative. The rest were sponsored by individual sponsors. The student delegation from

UKM was joined by the 20 students from Universiti Malaysia Sabah (UMS), also sponsored under ExxonMobil's Student Outreach initiative. All students sponsored under the ExxonMobil Student Outreach initiative received a white polo shirt courtesy of ExxonMobil.

The PGCE 2013 Student Programme began at 1.30 pm on March 18 with the Young Professionals Talk at the Plenary Theatre with speakers Mr. Fayaz Onn (ExxonMobil), Miss Farah Yasmin Yusop (PETRONAS Carigali) and Mr. Carl M. Curtis (KPOC). The talk focused on giving students a look into the oil and gas industry and how they, as the younger generation, play major roles in building the future of oil and gas.

FROM PREVIOUS PAGE

After three grueling rounds, the UMS-Hess team came out on top of the list, winning the coveted iPads and three complimentary Gala Night passes for them and their industry advisor.

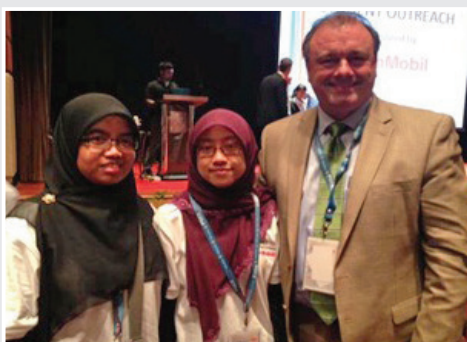
Later in the evening, the Student Award recipients and winners of the Student Geo-Quiz made their way to the Grand Hyatt Hotel for the Hollywood-themed Gala Night. All Student Award recipients received an Apple iPad each courtesy of ExxonMobil.

On Day 2, students were free to explore the exhibition and conference sessions at PGCE 2013. The students made the most of their time at the Exhibition Hall learning more about the oil and gas industry. Most students took the opportunity to introduce themselves to the people of the industry as

well as to look for internship/ job opportunities with the various companies there.

The event wrapped up with the closing ceremony at the banquet hall where there was a drawing. Lucky students brought home merchandise from various sponsors, including an iPad mini and a HP printer. All student delegations adjourned right after the ceremony.

We, the student delegates of UKM, had an amazing time at the 2013 Petroleum Geoscience Conference and Exhibition. We'd like to thank Exxon Mobil and our individual sponsors who helped us attend this prestigious conference. We look forward to more events like this in the future



37TH INDONESIA PETROLEUM ASSOCIATION CONVENTION AND EXHIBITION 2013 (37TH IPA CONVEX 2013)

Jakarta Convention Centre, 15-17 May 2013

The IPA Convention and Exhibition was held 15 -17 May 2013 in the Jakarta Convention Center with the theme, "Promoting Investment in a Challenging Environment." The convention center was filled with exhibitors from across the oil and gas industry—upstream to downstream—from service companies to operator companies. Here, people from different countries and geoscience disciplines gathered in one place to exchange views, strengthen business relationships and share the value of our work in the oil and gas industry.

The theme at the AAPG Student Chapter and Young Professionals booth was "Indonesia Heritage." Ronald and Mika, two Young Professionals from our Region, were present for extensive discussions regarding Student/YP activities.

Most of the students will soon graduate. While some will pursue their Masters degree abroad in France, Norway and in Indonesia, others are seeking employment here in Indonesia. Ronald shared his experiences of finding a job as well as his tenure as a development geologist and his current position as a wellsite geologist.

One of the key points of discussion was the membership renewal process. Most of the students don't know how to extend their AAPG membership

because they think it will be really expensive, so Ronald explained to them that, in reality, it's not expensive. For only US\$30, students can become an AAPG

member and access AAPG publications and benefits. Students also have the ability to continue their student membership for two additional years at no charge, which was really exciting for them.

Discussions were held between students and Ronald on what the oil and gas industry will look like in the upcoming years. The colossal face of the petroleum industry and the role of AAPG membership was a hot topic of discussion at this event. Some people inquired about the process of joining the AAPG and obtaining membership.

The IPA event was indeed a place that brought new and familiar faces together, re-engaged inactive AAPG members, addressed industry issues, and of course, discussed the role of Young Professionals to the future of AAPG.



FINAL OF AAPG IMPERIAL BARREL AWARD

Pittsburgh, Pennsylvania, 17 – 19 May 2013.

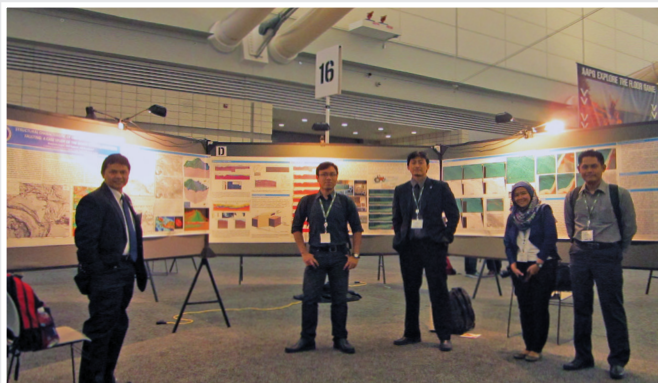
(Maisi Riswanti)

The global finals of the AAPG Imperial Barrel Award (IBA) was held in Pittsburgh, Penn., United States, 17-19 May 2013. Pittsburgh is the second-largest city in the state. As the commonwealth of Pennsylvania, the city is also known as “The Steel City” and “The City of Bridges.” The Asia Pacific Region was represented by the Institut Teknologi Bandung (ITB) from Indonesia. The final presentation took place in the David L. Lawrence Convention Center as part of the AAPG Annual Convention & Exhibition (ACE) 2013 program.

The journey started on May 15 as the ITB team departed from Soekarno–Hatta International Airport (CGK) at 5.45 am, and landed in Pittsburgh International Airport (PIT) after a 28-hour trip.

The next morning the team walked around downtown Pittsburgh to view the landmarks and skyscrapers of the city. In the afternoon, a “meet and greet” session was organized to review the presentation schedule, to meet the IBA Committee (especially Mike Mlynek and Chuck Caughey), and to meet other IBA teams.

A rehearsal for the ITB Team took place one hour before the finals at 8.00 am. The team was anxious but received encouragement from their Advisor, Professor Benyamin Sapiie. In front of nine judges and about 20 people in the audience, the team completed their 25-minute presentation and spent 10 minutes for Q/A. The team did their best to answer the judges’ questions, and they received helpful input from the judges as to the content of their presentation. The team then released their tension after the event by visiting Carnegie Science Center, the most visited museum in Pittsburgh, located in the Chateau neighborhood.



An IBA course was held the next day (May 19), followed the IBA Awards Ceremony which took place in Spirit of Pittsburgh Ballroom at the convention center. The AAPG ACE Opening Session and Awards Ceremony was then conducted, commencing with the winners of IBA 2013: the University of Utah (first place), University of Oklahoma (second place), and Sultan Qaboos University, Oman (third place). The team also attended the Asia Pacific Region Meeting convened by Region President Peter Baillie. Team members arrived safely home May 24. It was such a great experience for the team to participate in the competition and we deeply thank our advisors, Benyamin Sapiie and Dwi Harso Nugroho, Adrienne Pereira, Peter Baillie, Mike Mlynek and Ginny Fern for their generous help and support. Hopefully, the upcoming 2014 finalist of AAPG Asia Pacific Region will bring the trophy home.



AAPG ASIA PACIFIC STUDENT CHAPTERS ACHIEVEMENT IN 2013

(M. Amin Ahlun A.)

Three Asia Pacific Student Chapters have been awarded prestigious awards by the AAPG headquarters in two different fields; The University of Indonesia (UI) won first place in The Outstanding International Student Chapter Award, while Sriwijaya University (UNSRI) also of Indonesia, won an honorable mention for the same award. Another Indonesian chapter also shone in the AAPG Annual Video competition: Universitas Pembangunan "Veteran" (UPN) Yogyakarta won third place.

What is the secret to their consistency to make outstanding achievements? The UI SC, who was awarded a prize of USD \$1,500, stated the importance of collaborative approach and team work of all the chapter elements: "The outstanding award comes as a result of all the hard work and dedication. It's not only about the hard work of the president or its secretary or its course division or its multimedia division, but about the contribution from every member."

Moreover, they also explained that each member contributes by proposing creative ideas on how to make courses fun but at the same time are also able to fully grasp what instructors want the students to learn. "It was such a breakthrough year for our AAPG SC," they stated. "We managed to rack up many courses (technical and soft skills), and we worked together with SPE, IEEE and NACE student chapters to create the petroleum journey even more fun".

The creative ideas and breakthrough is a key success of UNSRI SC. As stated by the Chapter: "From 2012, we decided to change our recruitment programs for the executive committee. There are three steps such as curriculum vitae, interview, and the final project. For member recruitment, we do this at every course so everybody who is interested in petroleum geosciences can register to become a member."




UPN SC who was previously recognized as achieving honorable mention (third place) in 2012, has produced a great video profile that covers the chapter's activities from last year, which helped earn them third place.

The Outstanding Award (now Top International Chapter award) has been snatched by Asia Pacific chapters consistently since 2002. For the last four years, we built a powerful story in student chapter achievement where UPN (second place in 2012), UGM (first place in 2011), UNPAD (second place in 2011), UNDIP (first place in 2010), UGM (second place in 2010), and ITS (first place in 2009) were listed as the Top International Chapters.

AAPG Asia Pacific always provides strong support to the student chapters by promoting Visiting Geoscientist (VGP) and Distinguished Lecture (DL) programs under the coordination of Guruh Ferdianto. Student Chapter Coordinator Geovanni C. Kaeng and his team developed a strategic plan with student chapter management with the support of the Indonesian Student Chapters Oversight Committee.

Thanks also go to Peter Baillie, President of the Region, Adrienne Pereira, Programs Manager, and volunteers Ong Hock Kim, Tan Chun Hock and Vinay Sahay, who provide a world-class Imperial Barrel Award support system for the region.

AAPG Asia Pacific has always believed a successful student now will in the future become a successful professional, so let's wish them well for the marvelous journey ahead.

	First place winner of AAPG 2013 Student Chapter YouTube Video Contest. SDSU AAPG Student Chapter 2013 (Stereo) oleh SDSU AAPG 671x tayang
	Second place winner of AAPG 2013 Student Chapter YouTube Video Contest. UAF AAPG Student Chapter 2012-13 oleh Uaf Aapg 260x tayang
	Third place winner of AAPG 2013 Student Chapter YouTube Video Contest. AAPG UPN SC HIGHLIGHTS oleh Anselmus Arya 417.423x tayang

AAPG – Asia Pacific Region Affiliated Societies

- Association of Petroleum Geologists India
- Balochistan Geoscientists Association
- Geological Society of India
- Geological Society of Malaysia
- Geological Society of Thailand
- Japanese Association for Petroleum Technology
- New Zealand Association of Petroleum Geologists
- Pakistan Association of Petroleum Geoscientists
- Petroleum Exploration Society of Australia
- Southeast Asia Petroleum Exploration Society
- Indian Association of Petroleum Geoscientists