### SOCIETY OF PETROLEUM ENGINEERS, NEW DELHI SECTION



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#### Chairman's Corner

ew Year has begun, so have begun the new aspirations and new goals. At the outset, let me wish you all the best for every endeavor we undertake either for ourselves or for the society, organizations and the Industry.

Our section is doing quite well in achieving the goals we set for ourselves. I have full confidence that SPENDSEC will be first in its group to win Section Membership Contest for the year 2005-06. I am pleased to share with you all that we have already surpassed the membership target for our section.

Recently, I was on visit to Johannesburg to attend World Petroleum Congress and to Kuala Lumpur, Malaysia in connection with Offshore Asia Conference as "Advisory Board Member" and to chair a session. Being a party to witnessing the surge of technological requirement for this part of the world I interacted with several industry partners, operators & service providers about the technology infusion in western offshore India. Just to share with you all, the kind of zest & enthusiasm which I have witnessed, with respect to technology identification, technology induction & technological infusion, was something that I feel we still have a long way to go. We do have such qualities in us, but the kind of perception & comprehensiveness which technology scouting & infusion demands has to be further heightened up. We need to be more innovative & more pragmatic. We have to develop an attitude of constantly hammering the issues before us in order to bring something better commensurate with ever changing dynamics of our industry.

Time has come to display our maturity – both in the field & off the field. Dialogues, interactions and networking are now turning quite vital. My visits abroad and continuous interactions with industry partners & governments have helped me a lot in delivering the best. Through SPE-New Delhi Section, I wish that each one of us start believing in power of dialogues & networking and start practicing it too.

Thanks & regards.

N.K.Mitra

# Sara reminds to prepare for the future

January Meeting Report-Chemical EOR by Sunil Kumar Singh

alk by Sara Thomas on January 16, 2006 under the aegis of SPE, New Delhi section, was just short of reminder to organizations involved in upstream business in India. What emerged from the discussion – Chemical EOR may be finally out of the laboratory, otherwise struggling to get a



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### In Response to



### **SPENDSEC Activities**

Dear Rahul.

I am pleased to say that Dr. Faroug Ali and I thoroughly enjoyed the DL tour to the New Delhi SPE Section in January. Among the 6 Sections visited during the tour, the New Delhi Section stands out as the highlight of the tour. Thanks to your carefull attention to details, our visit was trouble-free, and most comfortable. I wrote to Donna and Brian Wiggins about my wonderful experience at the New Delhi Section. They said that they knew Rabul Bali will make sure everything works out just fine for the DL.

Donna forwarded the news and the photographs you sent her. I am pleased to see that the lecture was well received. Perhaps you know that one of those pictures is at the spe.org site. Thank you, Rahul, for all the effort you put in to make the DL visit a success. Hope to see you again sometime at a conference or something.

Best regards. Sara Thomas SPE Distinguished Lecturer Perl Canada Ltd.

#### Technical Meetings Announcement

# Global Warming: Where Do We Stand?

Speaker- T S Ramakrishnan Wednesday, February 22, 2006, at 1900 Hrs



Magnolia, Convention Centre, India Habitat Centre, Lodhi Road, New Delhi To check details visit events section at our website at http://newdelhi.spe.org

**Sponsors:** 



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#### Calendar of Events

February Section Technical Meeting

Date: February 22, 2006

Place: Magnolia, India Habitat Centre, Lodhi Road

Time: 1900 Hrs

Topic: Global Warming: Where Do We Stand?

Speaker: T. S. Ramakrishnan, SPE Distinguished Lecturer

March Section Technical Meeting

Date: March 20, 2006

Place: Amaltas, India Habitat Centre, Lodhi Road

Time: 1900 Hrs

Topic: The Latest in Ways to Improve Asset Value

Through Better Water Management

Speaker: Steve K. Cheung, SPE Distinguished Lecturer

## Forthcoming Regional and International Events

Dates	Meeting	Location
6 - 9 Feb 2006	Advanced Wells in the Oilfield - ATW	Moscow, Russia
7 - 8 Feb 2006	In-well Optical Sensing - Subsea Well Applications - Are We Ready? - ATW	Galveston, Texas
12 - 15 Feb 2006	Middle East Colloquium on Petroleum Engineering Education	Dubai, UAE
19 - 22 Feb 2006	Project Management: Planning for Excellence - ATW	Shanghai, China
12 - 15 Mar 2006	Well and Reservoir Surveillance/Management in a \$60 Oil Price World - ATW	Bandar Seri Begawan, Brunei Darussalam
7 - 12 May 2006	Hydraulic Fracturing Beyond 2010 - Forum	Macau, China
14 - 20 May 2006	The Future of Smart Fields - Forum	Macau, China
11 - 14 Jun 2006	Managed Pressure Drilling - ATW	Phuket, Thailand

#### Continued from..... page 1

foothold against the high cost involved. Largely due to the rising cost of fuel, stage may be set for attempting ultimate recovery of whatever is left inside the reservoir and there is lot left (two trillion barrels!). It is indeed a time to run down the financials for EOR schemes again.

If the fuel cost is what it is today, I believe that the industry may even consider combining the requirement of field development to gain more physical reservoir contacts by way of in-fills, side tracks and horizontal sections with EOR schemes in a complimentary manner. Matter of fact, development schemes, targeting increased exposure to reservoir and inherent requirement of EOR schemes to reduce well bore spacing, go hand in hand. The problems related to scaling and front movements in Chemical EORs are expected to be less insurmountable than that it had been in the past. Sara pointed out the need to evaluate candidate reservoirs/ fields, when it is





not all over – from the point of view of mobility. This fact, I believe in the scales of economic prevailing, needs "bold" and "favourable" considerations by the industry. The concern, however, remains about sustaining background laboratory/ pilot efforts - which may not be effectively managed by operators on standalone basis. The important lesson coming from Chinese experience is all too clear. In a centralized system, China has been able to bear the cost of background requirements while daring to go for Chemical EOR schemes in mass, outnumbering the rest of the world. For the rest of world, the answer lies in consolidation of effort where few repositories of research, development and chemicals production are managed jointly by the majors in the upstream sector. This could be one of the ways to alleviate restricting nature of capital requirement to take the final plunge to uncover the remaining

Once again thanks to SPE, New Delhi Section and Sara for a stimulating talk.

## SPE membership grows 7%

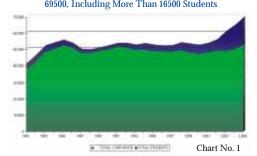
By Rahul Bali

At year-end 2005, 69,339 upstream industry professionals and students in 112 countries were members of SPE, up more than 7% compared with 64,383 at year-end 2004. SPE's 2005 membership includes a record 16,792 student members. Chart 1

The membership growth in India across the four section is shown in the chart 2. New Delhi Section(85) in nine months of establishment has surpassed North India Section (72).

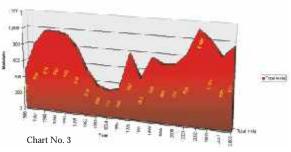
Chart 3 shows the total membership in India and in Middle East region. India has nearly 20% of middle east members.

2005 SPE Membership Reaches New Peak Membership Approaches 69500. Including More Than 16500 Students





Total SPE Membership in India

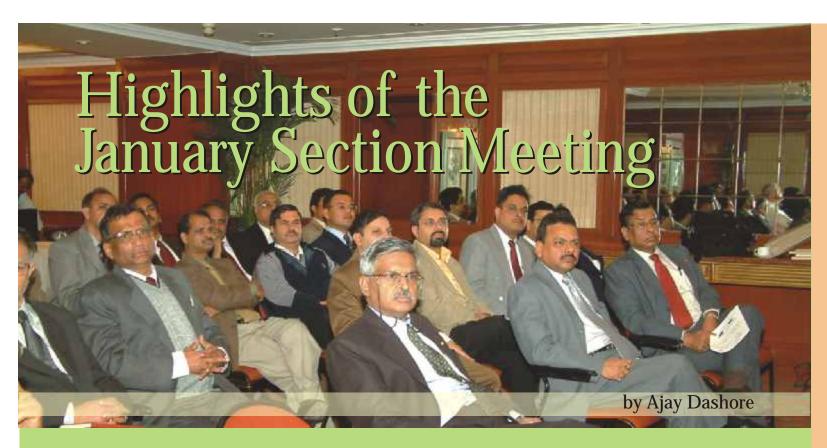


Charts compiled based on the SPE Membership Statistics

SPENDSEC NEWS JANUARY 2006







he January Technical cum Monthly Section meeting of SPE New Delhi Section was held on 16th January 2006 at India Habitat Centre, Delhi. Section Chairperson, Mr. N.K. Mitra welcomed the SPE Distinguished Lecturer Ms Sara Thomas from PERL Canada, Dr Farooq Ali and the SPE Delhi section members.

Dr Sara Thomas Research Manager in Petroleum Engineering and Research Laboratories (PERL) Canada Ltd then delivered a lecture on topic " Chemical EOR: The past Does it have a future?". She said that the insights gained from the past failures of chemical flood experiences globally have improved understanding of the chemical processes and it augurs well for future success of such processes.

In the near future, chemical EOR methods are likely to arrive in a big way for increasing recovery from the depleting reservoirs all over the world. The spiraling high crude prices has triggered the need and increased the importance of chemical methods for improving recovery. Presently there is two trillion barrels of oil which is still parked in the depleting reservoirs of the world and cannot be recovered by the conventional methods of production. on the reasons why chemical EOR methods have not been that successful in the past, the current status of chemical floods and the recent changes that make such changes

The lecture presented a comparative analysis of the two major methods of chemical flooding which have been commercial successes, namely, AlkaliSurfactant-Polymer (ASP) flooding and Micellar-Polymer (MP) flooding, touching upon their laboratory results, field-performances and process efficiencies in world-wide applications.

While Micellar flooding enables more recovery improvement (recoveries of more than 60 per cent of Oil-In-Place have been attained in the tertiary stage), the ASP method is more suited to heavy oils (with viscosities exceeding 35 centipoise) which are encountered in oil-fields of ONGC in north Gujarat (like Mehsana - the highest-producing onshore Asset of ONGC). ASP flooding is in an advanced stage of experimentation-cum-implementation in Viraj near Ahmedabad. The main reasons for unsuccessful application of chemical flooding in the past have been inadequate research resulting in sub-optimal understanding of individual reservoir geologies and improper appreciation of the chemical processes The lecture then shared some issues in screening and planning chemical floods.

The audience appreciated the lecture very much and took keen interest. This was visible in the highly interactive question answer session which followed the lecture. Section Chair presented the guest speaker with a memento after the lecture.

On this occasion, SPENDSEC News issue was also released. SPENDSEC also thanked ONGC for sponsoring the meeting and Schlumberger for sponsoring the newsletter. The meeting ended with a vote of thanks to the distinguished speaker and invitees.

## The Latest in Ways to **Improve Asset Value** Through Better Water Management

Steve K. Cheung ChevronTexaco Energy Technology Company

Many wells and reservoirs are prematurely abandoned due to excess water production, resulting in lost production and recovery. We need ways to delay water production in new fields, and to maximize efficiency in mature producing fields. This talk highlights some of the latest technology in prevention, diagnosis, mechanical/ chemical methods, and with supporting field case history. Specific applications for injector, producer, reservoirwide, and facility-related will be communicated. New near-wellbore and reservoir in-depth treatments will be particularly detailed. There will be discussions on Best Practices/ Lessons Learnt to improve the success rates, and mention of challenges ahead.



Steve Cheung is the Project Leader - Conformance Control at ChevronTexaco Energy Technology Company. He holds M.S. Petroleum Engineering from University of Southern California, and a Ph. D. in Chemistry from University of California, Irvine.

He has worked in the industry for over 25 years, and was Team Leader

- Produced Water Management, and Team Leader - Oilfield Chemistry. He teaches in-house Water Control Workshop worldwide and has consistently received the highest marks.

Steve also organized in-house worldwide Subsurface Conformance Control conferences, and taught graduate-level Petroleum Engineer class at USC. He has authored papers in Well Stimulation, Conformance Control, EOR, Reservoir Monitoring, and Flow Assurance. He has been invited to speak in many meetings in USA, England, France, Denmark, Brazil, Oman, and Malaysia. He was a SPE Technical Editor, chaired many sessions in SPE Annual Conference, and co-chaired a 2004 SPE-ATW.

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## Membership from Diverse Backgrounds



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In addition to engineers, we have geoscientists, chemists, physicists, consultants, IT professionals, financial analysts, educators, CEOs and students. Find out everything SPE can do for you at www.spe.org.



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