

## Editor's Page



Dear Reader,

As you are aware, the Petroleum industry in India is poised for an unparalleled growth. With the initial discovery of a large gas field by Reliance, followed by another large gas field by GSPC, followed by the recent strikes by ONGC, and still larger strikes on the anvil – all in Deep waters of Eastern India – one can legitimately say that the giant is finally waking up. A corollary to these discoveries is that the industry will need to leverage the latest technologies in all the allied disciplines including Geophysics to capitalize on these discoveries. These developments beckon geophysicists to sharpen their tools and techniques to find and produce hydrocarbons with enhanced efficiency. A professional society such as SPG and its periodical like Geohorizons can indeed play a vital role in this collective endeavor. The question is will they and to what extent? So far as the former is concerned, it has proved its eminence through lectures, courses, workshops, and international conferences - each surpassing the previous.

However Geohorizons, on the other hand, has yet to trigger excitement among the geophysics community at large. Contrast this with Kolkata2006. As a chairman of its technical committee, I witnessed, then, a flood of technical papers with authors vying for a visible slot in the conference. Even with eight editors on our board, and a lead time of six months at our hand, we had to struggle to find inspiring contributions for Geohorizons. Finally, nearly half the pages in this issue have come from contribution from the editors. Admittedly, a paper in a periodical does not bring with it the limelight of a presentation in a conference. But is that the sole reason for this apathy, I wonder? Your feedback would benefit Geohorizons.

Notwithstanding this feeble interest of the geophysics community at large in this periodical, which after all is theirs, there have been some notable contributions in this issue of Geohorizons. As I said in the opening paragraph, the discoveries in deep waters have challenged the geophysicist. The challenges are in imaging the subsurface with ultra-refined resolution, nurturing the amplitudes to the extent that they provide diagnostic tools for quantifying the extent of the pool, its contents, and its exploitability. Peter Stewart et. al, through their paper, *Solutions for Deep Water Imaging* provide you the details of this subtle art of imaging in deep waters.

Andy Macgregor's *tutorial on AVO* will be useful for appreciating the role of amplitudes as a diagnostic tool for hydrocarbons while the article, *Fluid contacts as exploration and development tool; a case Study* N K Khatri et. al supplements the tutorial. JVSSN Murty concludes his deliberations on *Migration Aperture* initiated in the previous issue.

It has been gratifying to note that the feature *Points to Ponder (PTP)* has been liked by a large number of readers. We continue with this feature. It includes, among several teasers, an exciting problem on why wave fronts do not travel backward towards the source even though predicted by Huygens' Principle. As deliberated in that PTP, a rigorous answer to the question can only come through analysis of the wave equation (or its integral formulation). The paper, *A Proof of Huygens' Principle* by Liu Zhiexiu provides this rigorous solution to the haunting puzzle.

We bring two new features in this issue. *What is new?* is intended to provide the readers with the latest, path breaking developments in different disciplines allied to exploration geophysics. Tapan Mukerji tells us in this issue what is the latest in Rock Physics.

We introduce yet another new feature in this issue, *From another angle...* Our perception of the things around us often get too canalized. To break this canal vision, it is sometimes desirable to see things through a different angle. We intend to bring to you articles from eminent personalities to write in this column. In this issue, Professor B B Bhattacharya writes about the problems that universities face in designing a syllabus for students of Geophysics to meet diverse requirements of different industries.

Did you try your hand at *Geofuzzle* in the last issue? If yes, check this one out! It will challenge you further.

**C. H. Mehta**