

## Editor's desk



The organisers of the ASEG-PESA-AIG 2016 Conference and Exhibition in Adelaide did a fantastic job. The conference was well attended, given the downturn in the both the minerals and petroleum industries, and there was a good mix of presentations. The conference dinner, which was held in one of the Adelaide Oval grandstands with a superb view of the Adelaide Oval and cricketing memorabilia on display, was something to write – or text – home about. Some of the memorabilia were auctioned for charity (the ASEG RF) and I am still cheesed about missing out on the cricket ball autographed by the Earl of Twirl – just saying!

The presentations that seemed to excite the most interest at the conference were on passive seismic. This technique seems to have matured considerably in the last couple of years and is now demonstrably a rapid and cost effective means of mapping the thickness of regolith as well as elements within the regolith such as palaeochannels. Matt Owers and his colleagues, for example, gave a very interesting presentation entitled 'Passive seismic surveying for depth to base of palaeochannel mapping at Lake Wells, Western Australia'. There was also a lot of interest in presentations on 'big data', although the chat over coffee cups suggests that data processing algorithms have a long way to go, which makes Guy Holmes' commentary (*Data trends*) on versions of truth in this issue of *Preview* quite timely.

Generally speaking geophysicists on the minerals side of industry at the conference were cautiously optimistic about the future. Their optimism could be well founded as David Denham (*Canberra observed*) reports in this issue that the ABS statistics on mineral and petroleum exploration expenditure in the June quarter confirm that the expenditure on mineral exploration is recovering. Exploration on petroleum exploration, on the other hand, is still declining.

With one eye on the possibility that some money might be returning to mineral exploration we are publishing two highly practical guides to ensuring maximum return on investment in data acquisition programmes. One is a review of high productivity vibroseis techniques by Tim Dean at Curtin University, and the other is a comparison of magnetic susceptibility meters using samples from the Thompson Nickel Belt, Canada by Deng Deng and Richard Smith.

Last but not least, in this issue of *Preview* I have the pleasure of introducing a new Associate Editor for Minerals geophysics, Terry Harvey. We can all look forward to Terry's commentary on minerals geophysics in the coming months and years with almost as much pleasure as we can look forward to the next issue of *Preview* when we will be treated, once again, to a Don Emerson Christmas special – this time on Opal. I, for one, can hardly wait!

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This **Digital, Recording Vehicle-borne Magnetometer** from the ASEG virtual museum collection was generously donated by John Stanley, the inventor. It was built in 1978 at the Geophysical Research Institute at the University of New England and had a resolution of 0.1 nT @ 10 Hz. The rapid measurement rate capability of the caesium magnetic sensor demanded not just a method for automatically recording both the magnetic field measurement and the position at which each measurement was acquired, but it also demanded digital recording of this data and by 1978 this was becoming available. The data acquisition system was developed by Sonotek in Canada and could write magnetic measurement data triggered at programmable fixed distance increments along a traverse. Many thousands of survey km of magnetic data were acquired with this vehicle-borne system. With this system, magnetic data could be acquired at 1 m intervals while traversing at 40 kph.