



## President's welcome

Welcome to the 24th ASEG Conference in Perth, my home town.

Perth, on the west coast of Australia, is the most isolated city in the world, being more than 2600 km by road from Adelaide, the nearest large city. Perth is a city inextricably linked with mining and oil and with geophysics.

First settled by Europeans in 1831, Perth lies on the ancestral lands of the Noongar people who lived here for more than 30 000 years. They fished and hunted around the area now occupied by the Perth Convention Centre, which at that time was a swamp teeming with birdlife and a breeding area for fish.

European settlement changed the lives of the Noongar people as they became disenfranchised, banished from their homelands, and suffered the ravages of European diseases. Agriculture spread rapidly from Perth with no natural boundaries although the deeply weathered soils of the Mallee belt to the east of Perth were not very fertile and farmers struggled to clear native vegetation and with drought. With clearing came rapid onset of dryland salinity and salinisation of waterways. Geophysics has been shown to be highly effective in defining how parts of the landscape become saline and how farmers can better design remedial actions.

Exploration of the inland yielded very little in the way of mineral wealth until late in the 19th century. On Christmas Day 1885, a prospector called Charlie Hall discovered a 28-ounce nugget at Halls Creek and a rush of almost 15 000 people ensued and petered out within 3 months. It was the start of gold mining in Western Australia that continues today. However, it was not until the discoveries at Coolgardie (1892) and Kalgoorlie (1893) that the great mineral riches of Western Australia were revealed. Like the first European settlement these

discoveries changed Western Australia for ever. The population exploded from less than 50 000 to over 250 000 within 10 years and more discoveries followed. Today the Western Australian population is around 2.5 million, of whom around 92% live in the south-west. It remains a sparsely populated state with less than one person per square kilometre.

In the 1880s coal was discovered in the Collie Basin 210 km to the south-east of Perth in a small rift basin. A coal mining industry was established in the 1890s and continues to the present day. The first report of the Bureau of Mineral Resources (now Geoscience Australia), formed in 1946, was a gravity survey to define the extent of the Collie Basin.

Rough Range in the Carnarvon Basin of Western Australia was the first commercial oil discovery in Australia, made by West Australian Petroleum, assisted by the newly formed Bureau of Mineral Resources. In 1966 West Australian Petroleum discovered the first Australian commercial gas-field near Dongara in Western Australia and soon after a pipeline was built to Perth.

While the ASEG was formed in Sydney in 1970, Perth became the centre for mineral geophysics in Australia in the late 1960s and early 1970s when reports of a new IP anomaly could send a junior mineral explorer's shares soaring.

WMC, an innovative exploration company, led much of the development of new techniques with the adoption of TEM from the USSR and development of SIROTEM with CSIRO to assist in exploring beneath the deep conductive regolith that covers much of the Western Australian landscape.

Aerodata, a small West Australian company, pioneered the use of high-resolution airborne geophysics for mapping geology by surveying large

areas in the eastern goldfields. A new goldrush ensued when exploration companies realised they could use this tool, not to directly detect new deposits but to map the areas where gold deposits were most likely to occur.

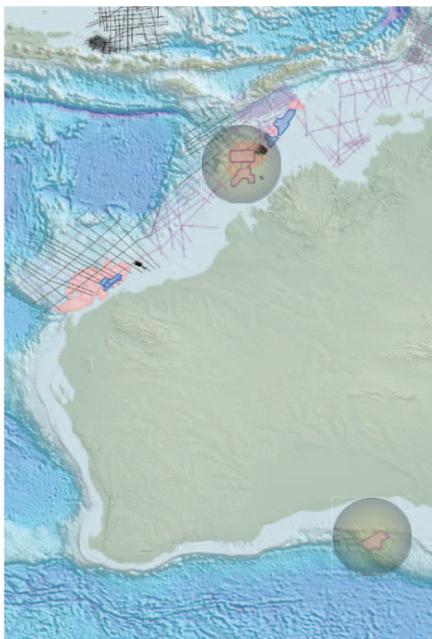
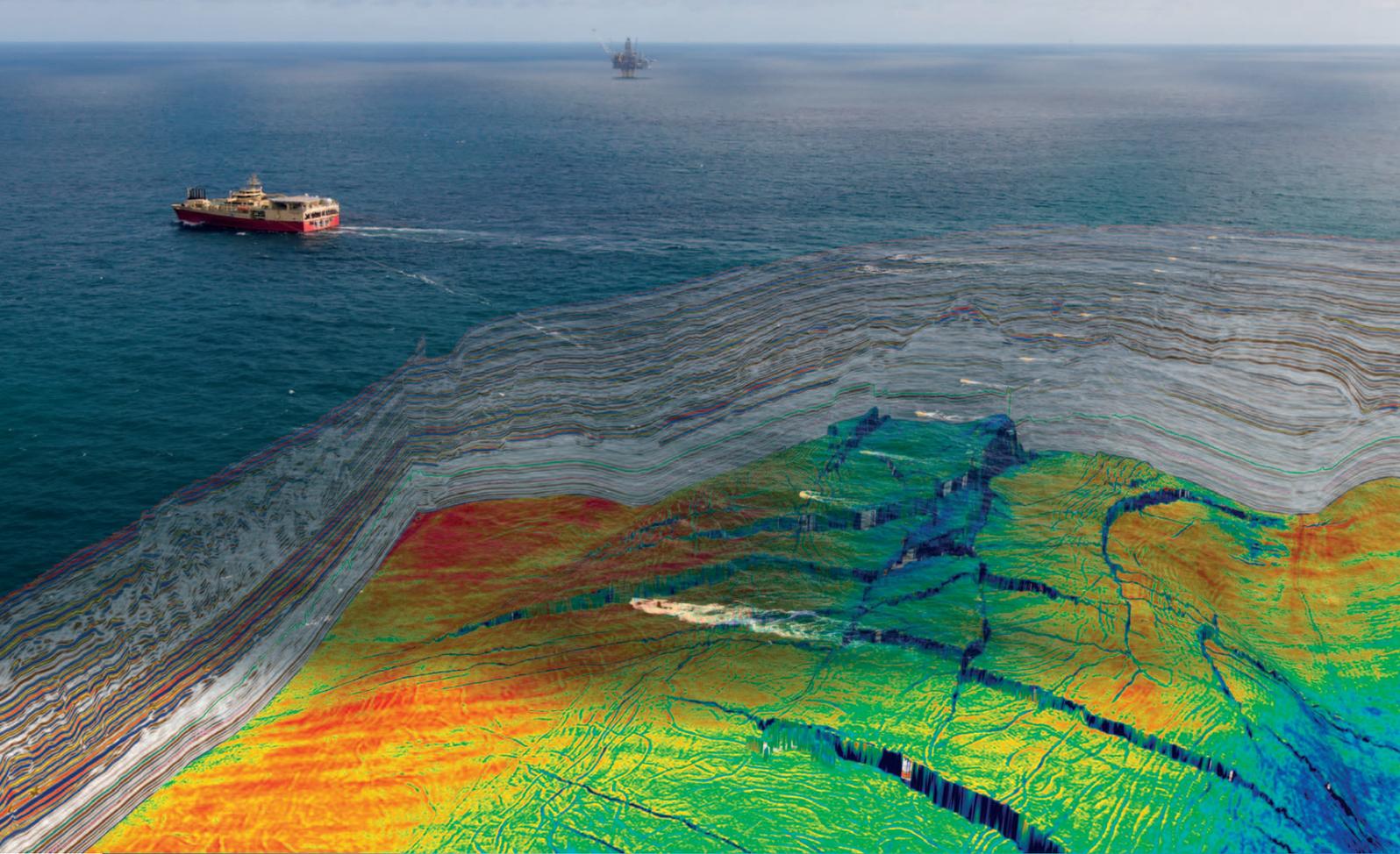
Aerodata and its subsidiary World Geoscience Corporation went on to fly the first high-resolution AEM surveys in Australia using newly digital AEM systems. These surveys were first used for dryland salinity but went on to be used in mapping regolith, detecting palaeochannels for gold deposit and assisting in the discovery of new deposits in a new boom in the 1990s, 100 years after gold was first discovered.

Today Perth is home to a wide range of geophysical service companies in both minerals and petroleum, including Western Geco, PGHS, CGG, ION and GPX Surveys.

On behalf of my colleagues in the ASEG and particularly the Perth community I welcome you to Perth, a boom and bust town that has grown out of mineral wealth into a modern city on the edge of Australia. February is a great time to be in Perth. The weather hopefully will have cooled a little from the summer heat of January.



Greg Street  
*President ASEG*



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