

PIRSA Releases Warburton Basin GIS Data Atlas

More than a decade of research in the Warburton Basin has culminated in the release of a new GIS Data Atlas by PIRSA.

During the last 15 years, the former South Australian Department of Mines and Energy, now PIRSA, conducted research projects on the Warburton Basin stratigraphic framework, biostratigraphy, reservoirs, seals, rock types and the enigmatic weathered horizon around the Cooper/Warburton interface. Researchers included Colin Gatehouse, the late Dr Dave Gravestock, Jacque Hibburt and more recently Rod Boucher and Xiaowen Sun.

Using Targeted Exploration Initiative SA funding, PIRSA commissioned Rod Boucher of Linex Pty Ltd to bring together Warburton Basin research concepts and data into a comprehensive atlas. The atlas has been

compiled on a CD which incorporates new and existing petroleum databases including:

- relevant reports in pdf format;
- scanned core photographs;
- scanned composite logs;
- excerpts from scanned well completion reports;
- scanned seismic lines;
- spreadsheets of formation tops, and
- digital thin section images.

ArcExplorer GIS projects are also included, with subcrop maps, tectonic and magnetic interpretations, wells, petroleum shows and tenements, so key data are readily accessible via GIS front ends.

The CD dataset aims to provide company geologists and mud loggers in an office or mudlogging truck on a wellsite with sufficient information to quickly and accurately identify

Warburton Basin rock units. It was compiled and developed in-house for Rod Boucher by PIRSA Petroleum Group and Publishing Services and is available free by emailing PIRSA at pirsa.petroleum@saugov.sa.gov.au.

The Early Palaeozoic Warburton Basin formed the primary target for the first petroleum exploration conducted in the state's northeastern corner in the late 1950s by Santos and Delhi. The discovery of gas in the overlying Cooper Basin in 1963 understandably and dramatically changed the focus of exploration in the region for the next 40 years.

Shows and discoveries of oil and gas in diverse Warburton Basin rock types over the last decade, and the influx of new explorers following the expiry of PELs 5 and 6 in the region, have renewed interest in the under-explored basin.