

Minerals in Australia's Marine Jurisdictions

TIMOTHY F. MCCONACHY¹, WILLIAM J. MCKAY², GERALD MUELLER²,
YANIS MIEZITIS², KEITH R. PORRITT², RONALD G. SAIT²,
CHRISTOPHER J. YEATS¹

¹ *CSIRO Exploration and Mining*

² *Minerals Division, Geoscience Australia*

In November 2004, Australia lodged with the United Nations Commission on the Limits of the Continental Shelf possible new maritime boundaries in relation to Australia's continental shelf extending beyond 200 nautical miles from the Territorial Sea Baseline. If agreed by the Commission, just over half of Australia's land mass will lie below the sea, and Australia will have one of the largest marine jurisdictions in the world (14.41 million km²). With these jurisdictions comes a responsibility to manage and sustain the marine environment. The knowledge of minerals and their resource potential is part of this responsibility but is generally poorly known. World wide there is a growing interest in marine minerals, as evidenced by recent commercially-driven exploration in neighbouring waters of New Zealand and Papua New Guinea, a resurgence of off shore diamond exploration, and potential for typical land-based styles of mineralisation, for instance such as those found in the Gawler Craton, to extend into accessible shallow waters. The long term supply of building aggregate is also a major issue near coastal cities, and marine sand deposits have strategic importance, though fraught with perceived environmental and political complexities. A joint project to compile the first offshore minerals map of Australia's marine jurisdiction is being undertaken by CSIRO's Division of Exploration and Mining and Wealth from Oceans National Research Flagship, Geoscience Australia and all seven State/Territory Geological Surveys. It is hoped that the map will act as a catalysts to address the issue of marine mineral potential in the "New" Australia for strategic and longer term resource planning, and to provide natural laboratories to test new marine discovery technologies.