



Voyage SS01-2007

Bight Basin Geological Sampling and Seepage Survey: Sampling the Cretaceous Section of the Bight Basin, and Identifying Potential Natural Hydrocarbon Seeps

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This voyage was funded by the Australian Government's "Big New Oil Initiative" announced in the May 2003 budget. It aimed to enhance understanding of the petroleum prospectivity of the Bight Basin by:

- Increased understanding of the geological evolution and petroleum potential of the Bight Basin;
- Acquisition of geological samples from the pre-Campanian section of the basin;
- Investigation, identification, characterisation and sampling on sites of potential natural hydrocarbon seepage.

The main survey addressed existing knowledge gaps regarding the nature and distribution of potential source rock intervals in the Bight Basin. Our current knowledge of the hydrocarbon source potential of the basin is based on samples from wells drilled in proximal areas of the basin and geological models of the basin fill

derived from seismic interpretation. This survey aimed to sample the distal facies of potential source intervals of Albian-Santonian age, at locations on the seaward edges of the Ceduna and Eyre Terraces. The survey was also aimed to investigate potential natural hydrocarbon seepage at sites across the Ceduna Sub-basin, which could provide evidence for the presence of active petroleum systems.

Survey SS01-2007 achieved its scientific aims, including collection of additional samples. The survey collected high quality geophysical data with ~4600 line km swath data and ~2400 line km sub-bottom profiler

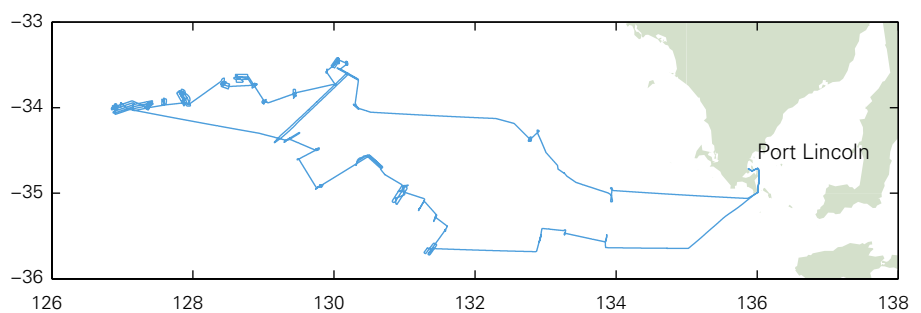
data. A total of 37 rock dredges were collected as well as a total of 69 gravity cores and 17 grab samples.

As a result of this voyage, rock samples are now being analysed for their petroleum source potential. Seepage sites were found, mapped and sampled to see if hydrocarbons are present in the seeping fluid. Both rock and fluid samples are being analysed by Geoscience Australia.

Itinerary

Departed Port Lincoln 08:10 hrs
Saturday 24 February 2007

Arrived Port Lincoln 08:00 hrs
Saturday 17 March 2007



> SS01-2007 voyage track