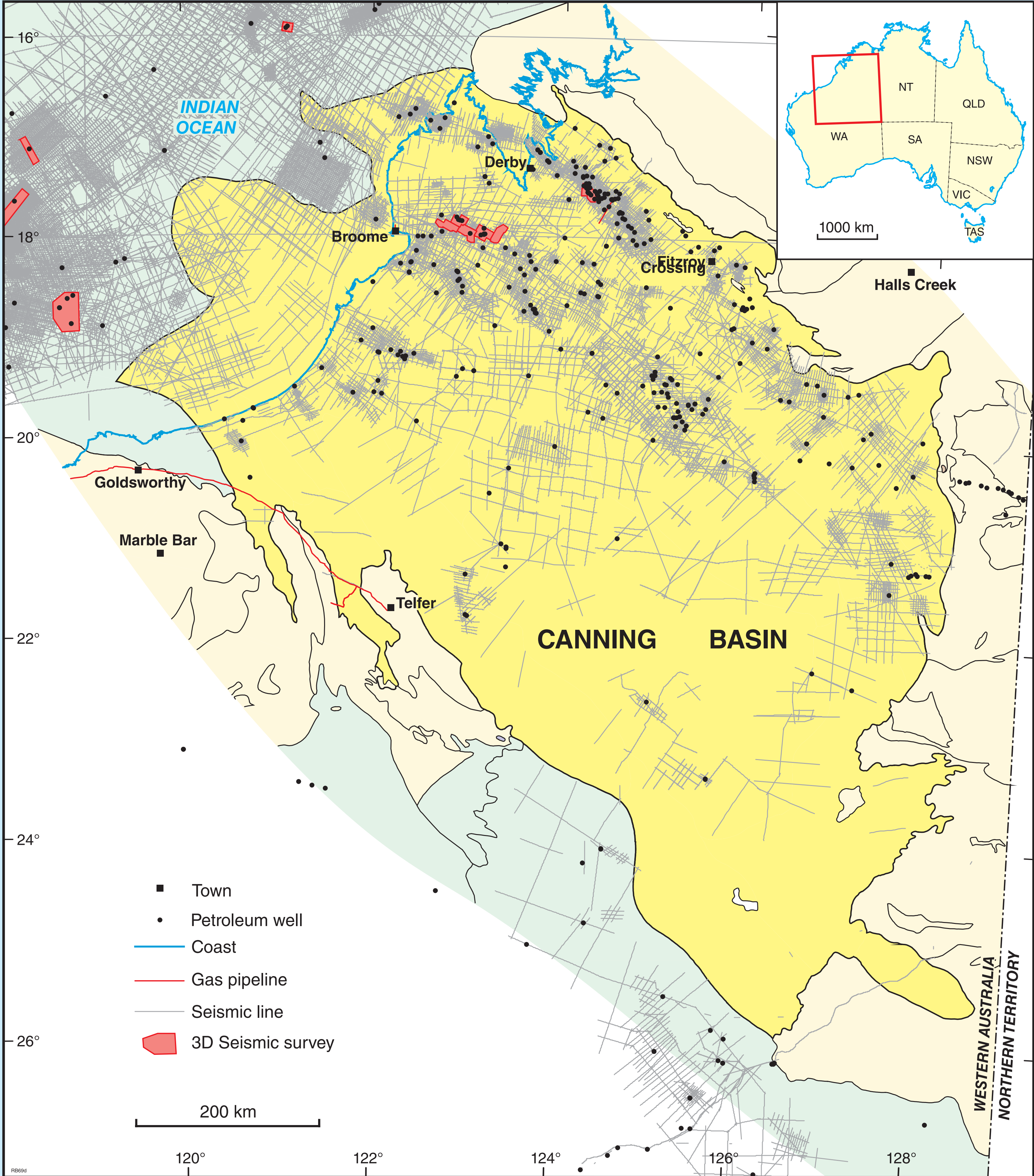


CANNING BASIN

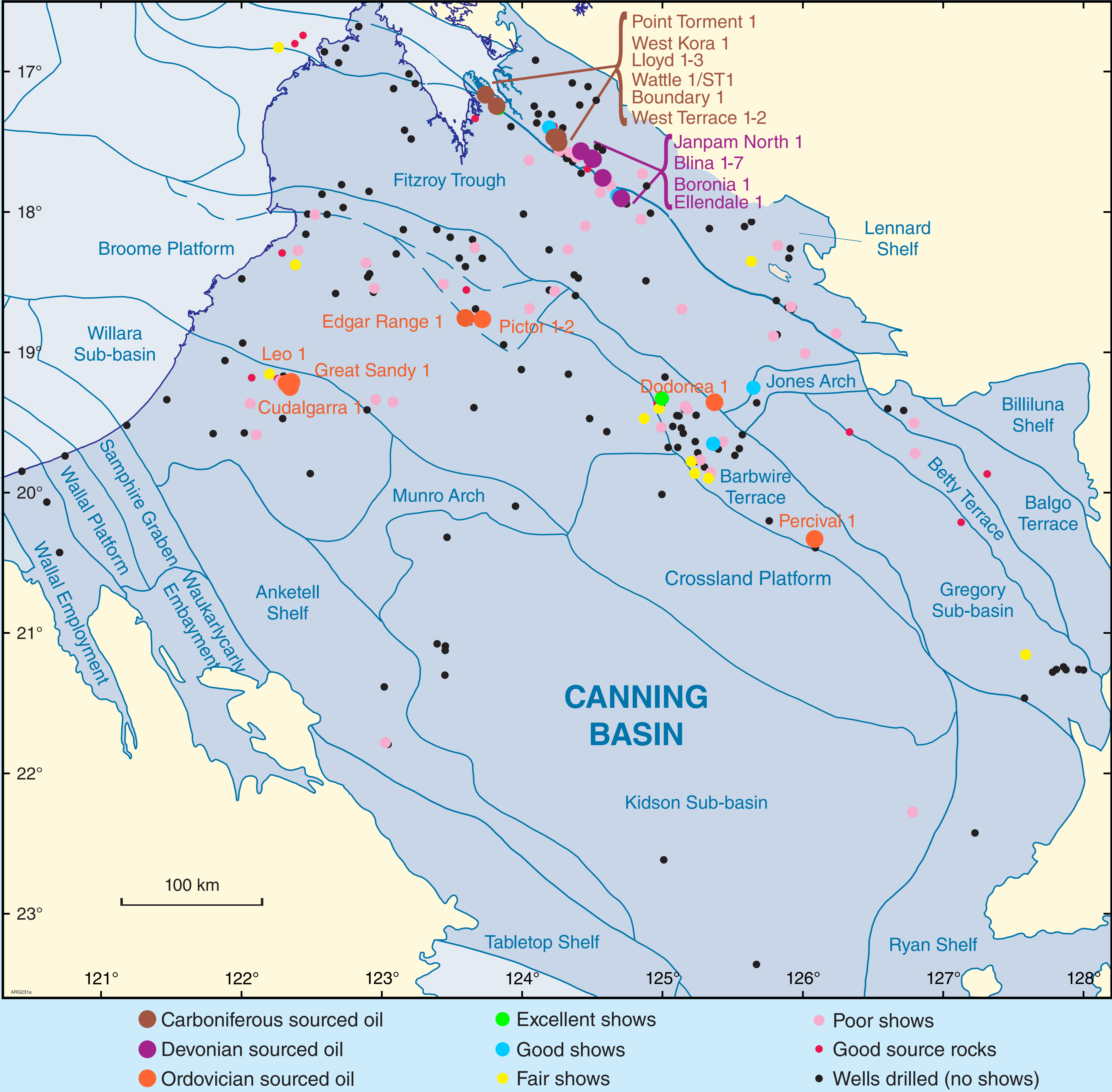
CONVENTIONAL PLAYS

The Canning Basin may be the least explored of the world’s Paleozoic basins with proven petroleum systems.

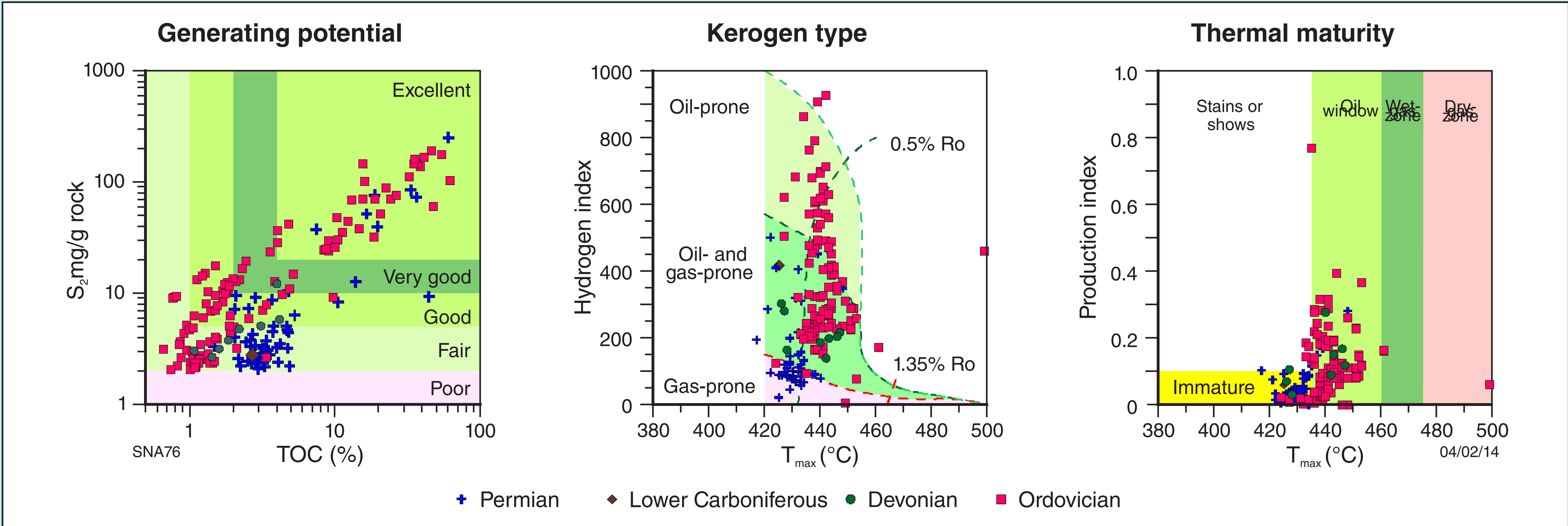
The Carboniferous dolomite oil play discovered by the Ungani 1 well in 2011 demonstrates that the basin is seriously under-estimated as a potential major hydrocarbon resource area, and that more exploration is warranted. Coming relatively late in the exploration history, the Ungani discovery challenges accepted wisdom that larger fields tend to be discovered early.



Map of the Canning Basin, showing 2D seismic lines, 3D seismic surveys and wells



Petroleum system classification of oil shows in the Canning Basin

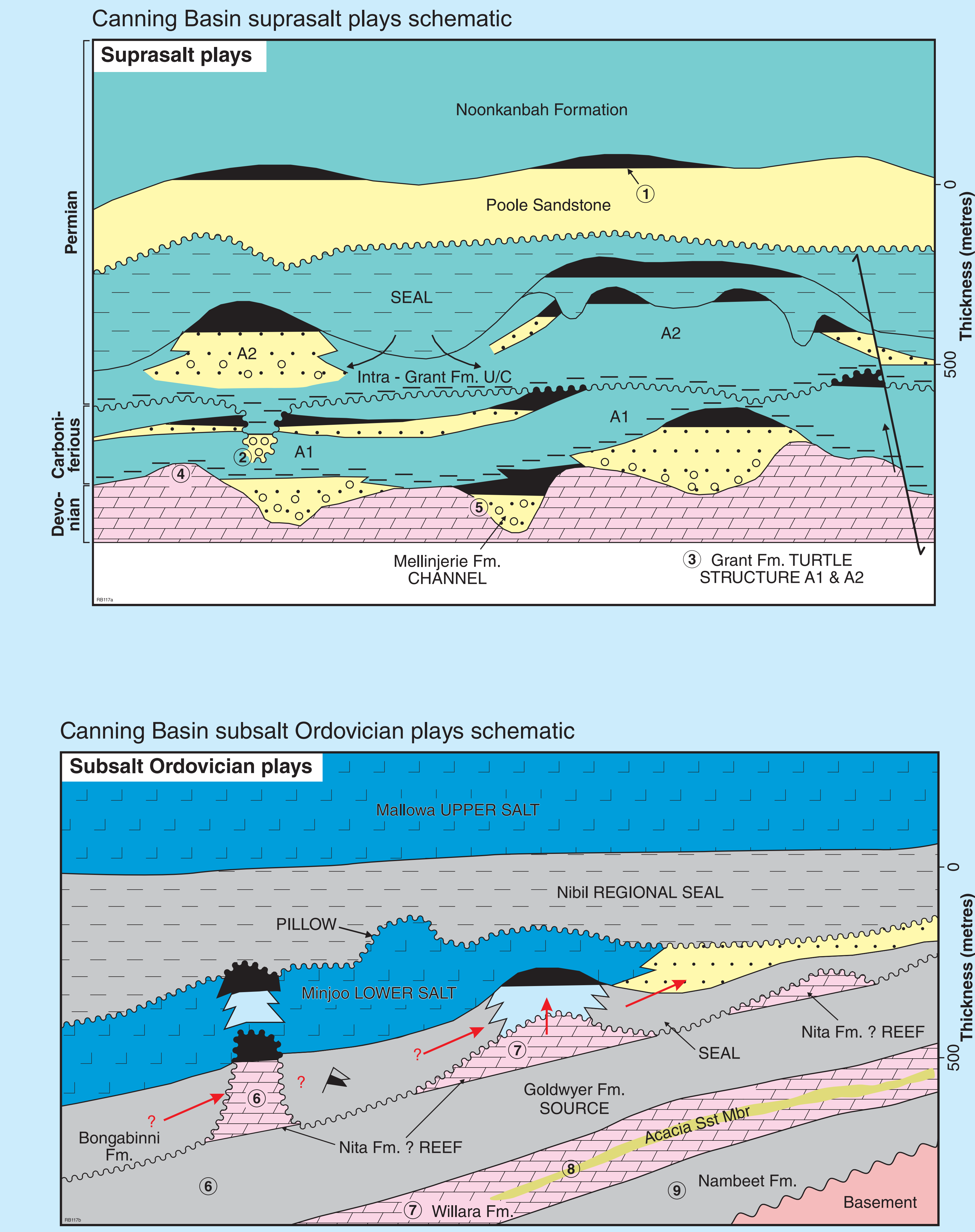


Geochemical evaluation of the Canning Basin's Ordovician, Devonian, lower Carboniferous and Permian source rocks

The three main Paleozoic petroleum systems recognized have source rocks as follows:

- Ordovician Goldwyer and Bongabinni Formations
- Devonian Gogo Formation
- Lower Carboniferous Laurel and Anderson Formations

Most Canning Basin wildcat wells are associated with reports of petroleum shows.



| Canning Basin suprasalt plays | | | |
|------------------------------------|-----|---|---|
| Age | No. | Play | International analogs |
| Permian | 1 | Poole Sandstone sealed by Noonkanbah Fm. | |
| | 2 | Truncated reservoirs, base Permian unconformity | |
| | 3 | Grant Group suprasalt sombrero dissolution features | Eastern flank of South Oman Salt Basin, giant oilfields |
| Permian Carboniferous | 3 | Grant Group, clastics | Unayzah Fm., Saudi Arabia; Oman |
| Lower Carboniferous–Upper Devonian | 4 | Laurel Fm., dolomites | Dnieper–Donets Basin, Ukraine |
| Devonian | 5 | Carbonate reefs and channel sands (stratigraphic traps) | Alberta Basin giant oilfields, Canada |
| Silurian | | Worral Fm suprasalt sombrero dissolution features | Eastern flank of South Oman Salt Basin, giant oilfields |

| Canning Basin subsalt Ordovician plays | | | |
|--|-----|--|---|
| Age | No. | Play | International analogs |
| Silurian–Ordovician | | Carribuddy Group Goldwyer Fm. Nita Fm. | Upper Carboniferous Paradox Basin, US |
| Ordovician | 6 | Fractured Nita and Goldwyer Fms | W. Texas Cambrian - Ordovician Ellenburger Dolomite, giant gasfields |
| | 7 | Nita Fm. dolomite and Upper Willara Fm., carbonate | Dolomite reservoirs, e.g. prolifically producing Red River Fm, Williston Basin |
| | 8 | Acacia Sst Mbr of Willara Fm. | |
| | 9 | Nambeet Fm., sandstone | Possibly Sirte Basin, Libya, giant gasfields and Murzuk Basin, Libya, giant oilfields |