NT98-3 to 6

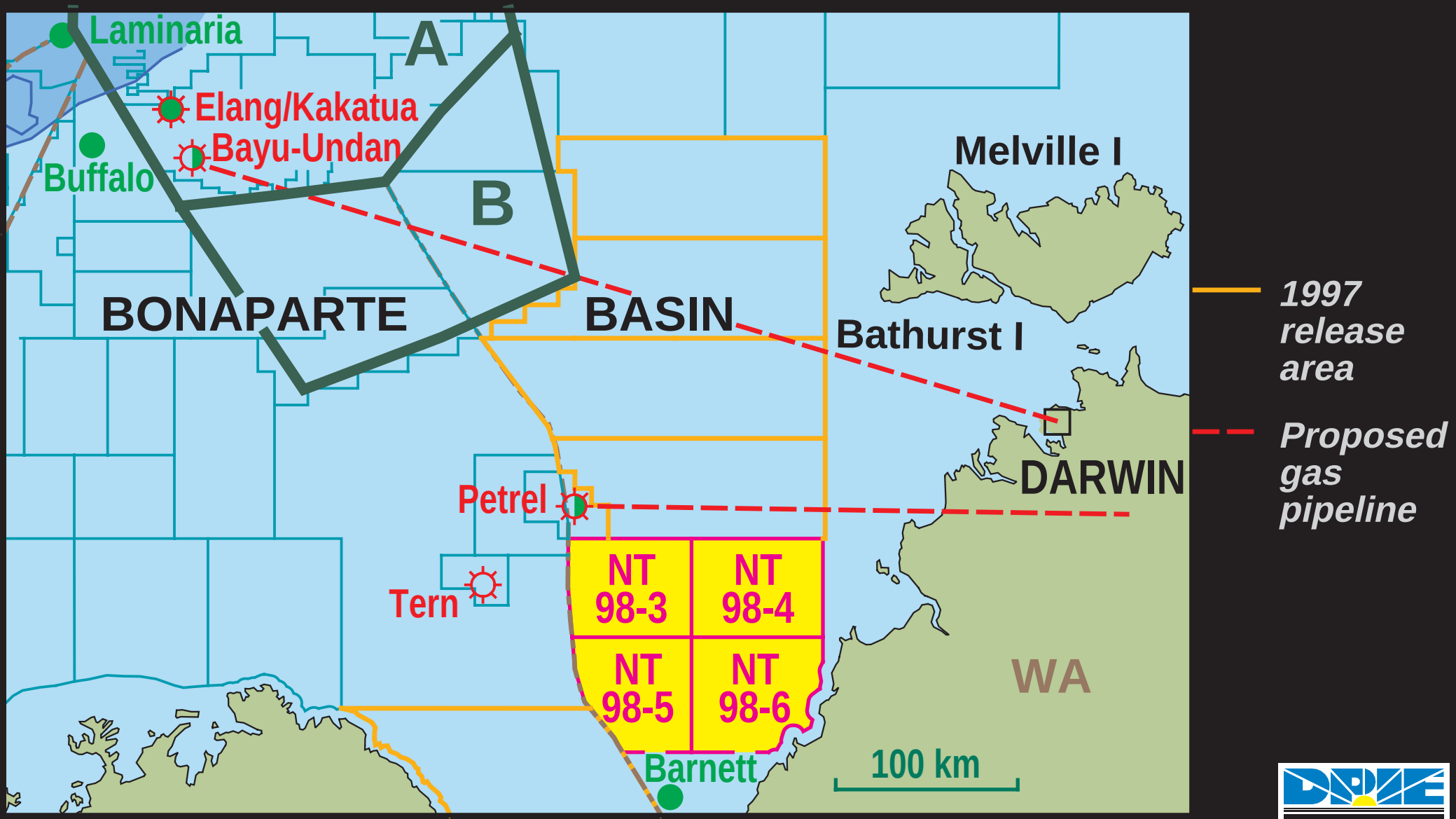
Petrel Sub-basin

Location Map
Point Summary
Structural Elements
Stratigraphy
Cross-Section (2)
Seismic
Source Rock Geochemistry (2)
Source Rock Distribution (2)
Oil Families
Petroleum Systems (2)

BACK

GALLERY

PETREL SUB-BASIN



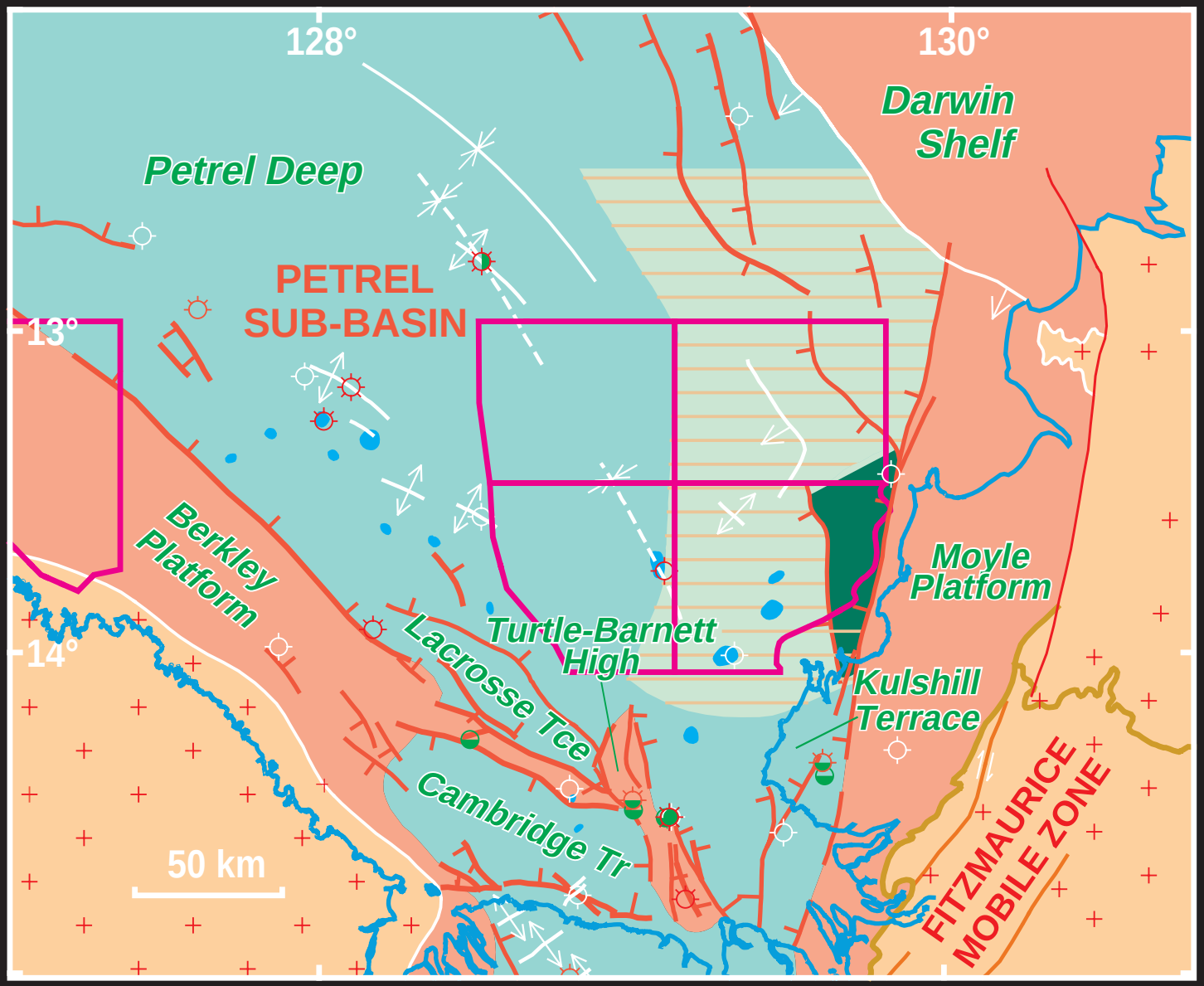
BRS 98/199

MENU

AREAS NT98-3 to 6 Bonaparte Basin, Petrel Sub-basin

- Proven gas & oil province
- Early Carboniferous, Early & Late Permian sources
- Carboniferous, Permian & Jurassic sandstones
- Fault, fault/stratigraphic & salt-related traps
- Only 2 wells in 14,500 sq km
- Relatively sparse, mainly pre-1980s seismic
- Pipeline & LNG plant mooted
- Water depth <20m to 100 m

STRUCTURAL ELEMENTS - PETREL SUB-BASIN



Salt diapir

Eastern "ramp"

? early Palaeozoic

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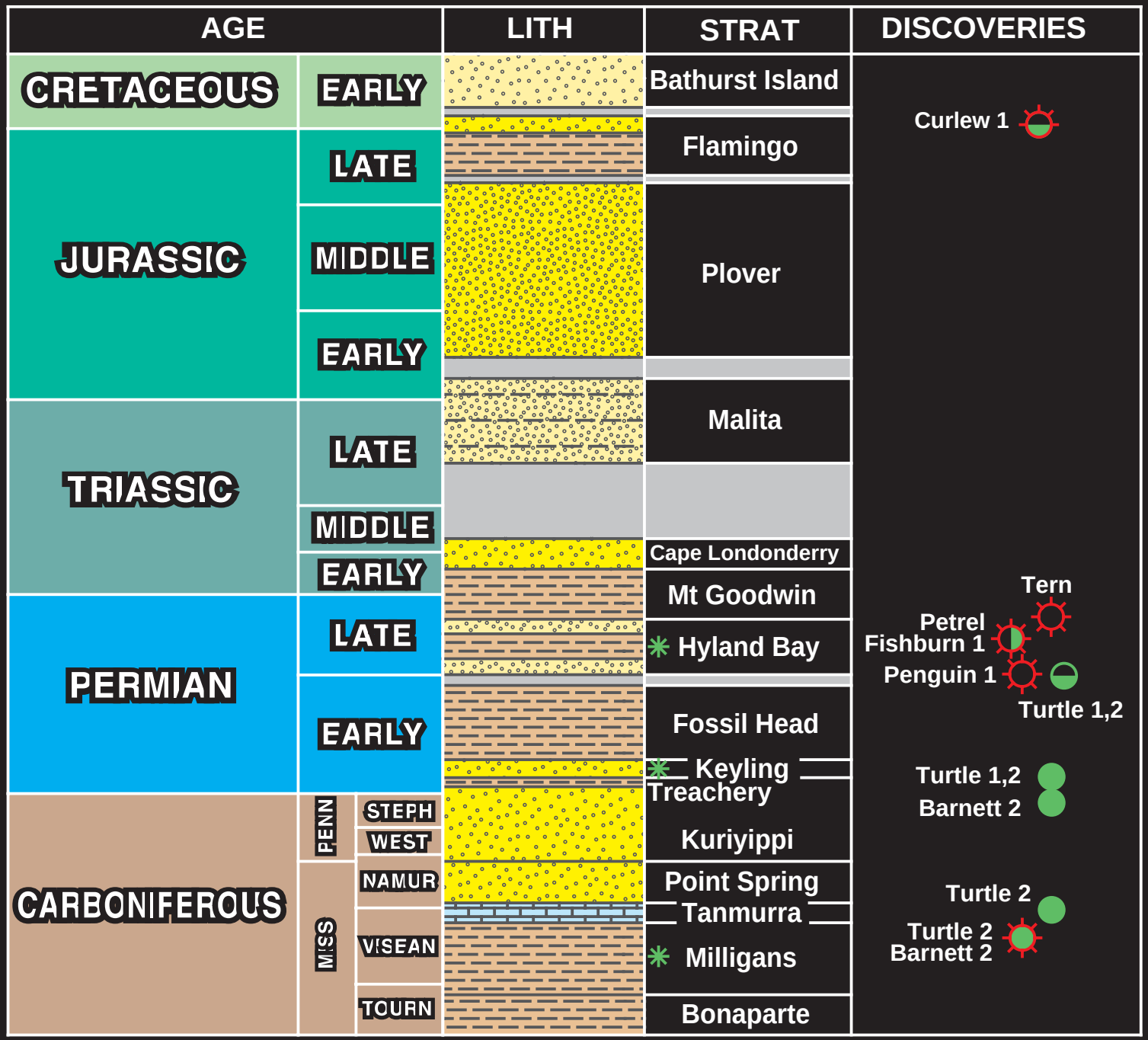
PETREL SUB-BASIN



Oil show

Oil

Oil & gas show

Gas

Gas/condensate

Source

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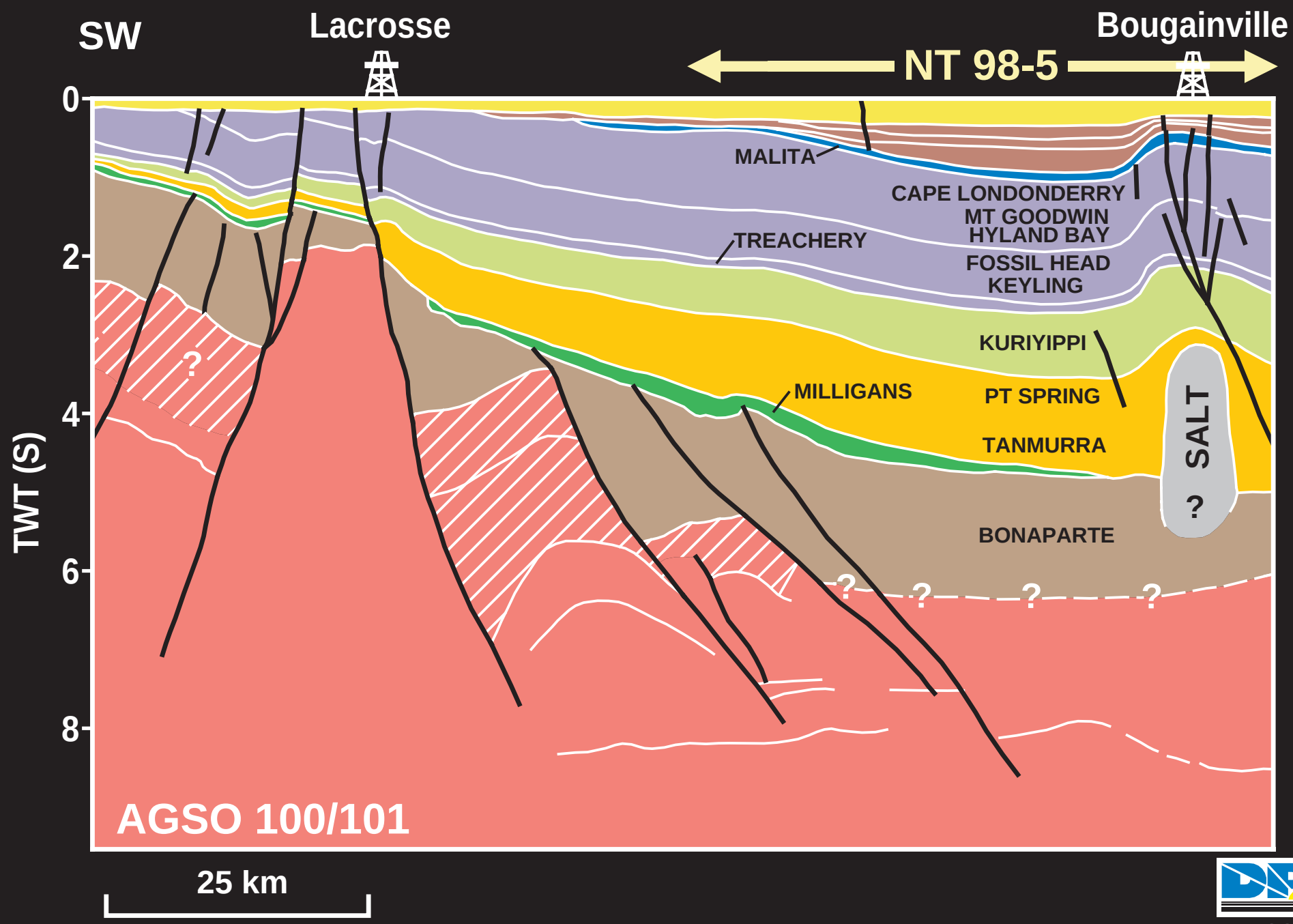

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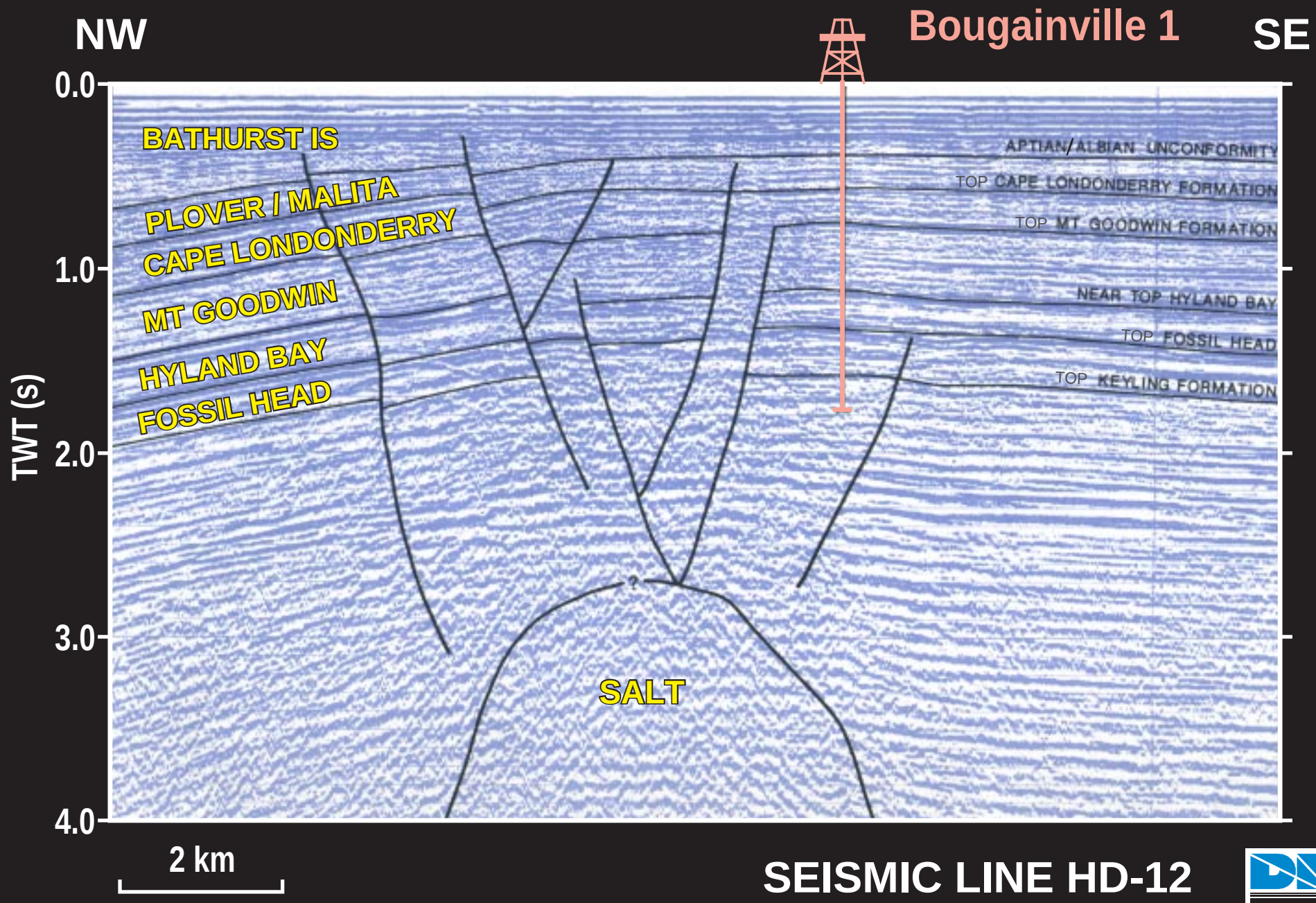

SEISMIC LINE HD-12

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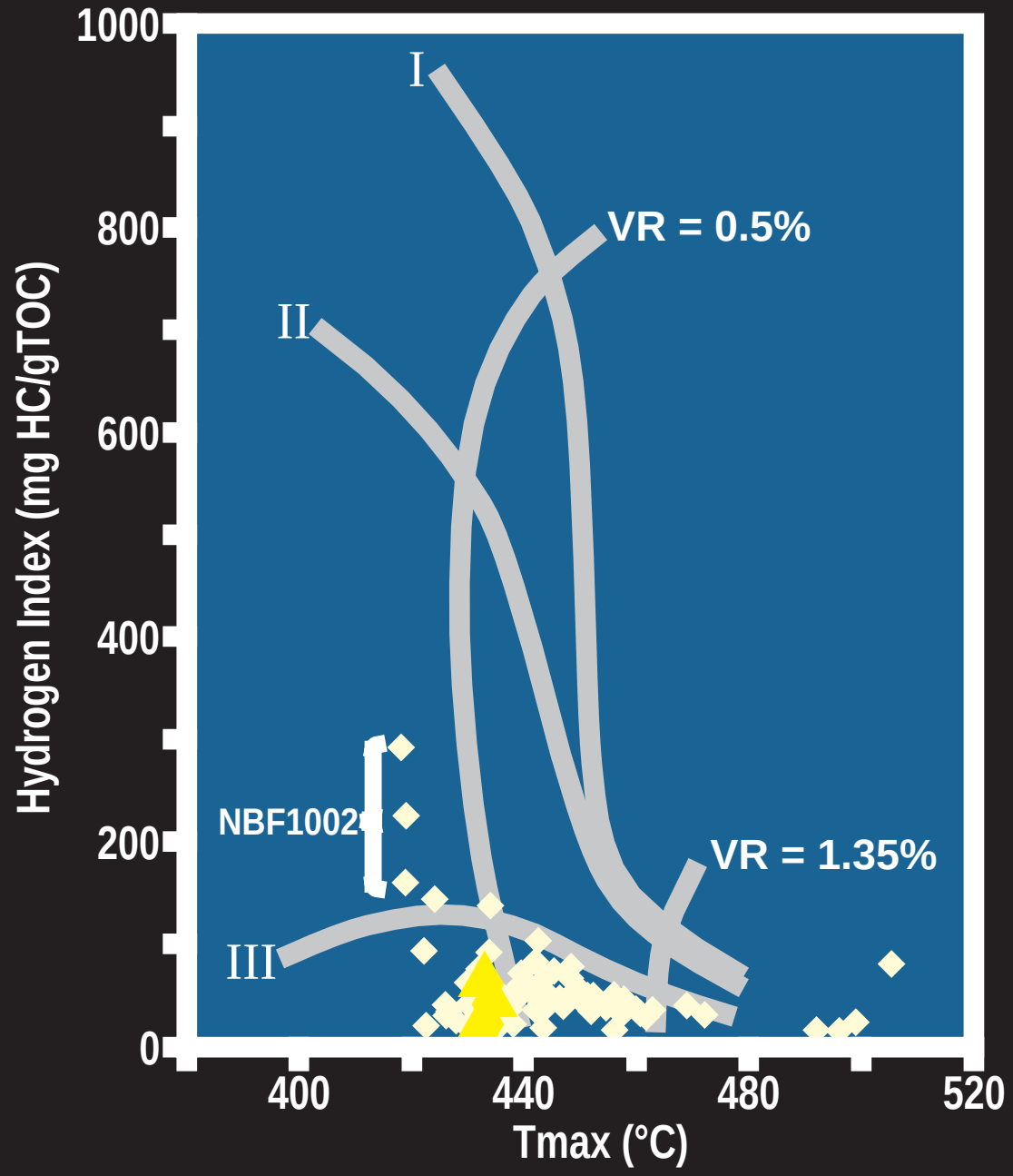
Early Carboniferous Rock-Eval, Petrel Sub-basin



◆ Milligans Fm

▲ Langfield Fm

AGSO
97/517

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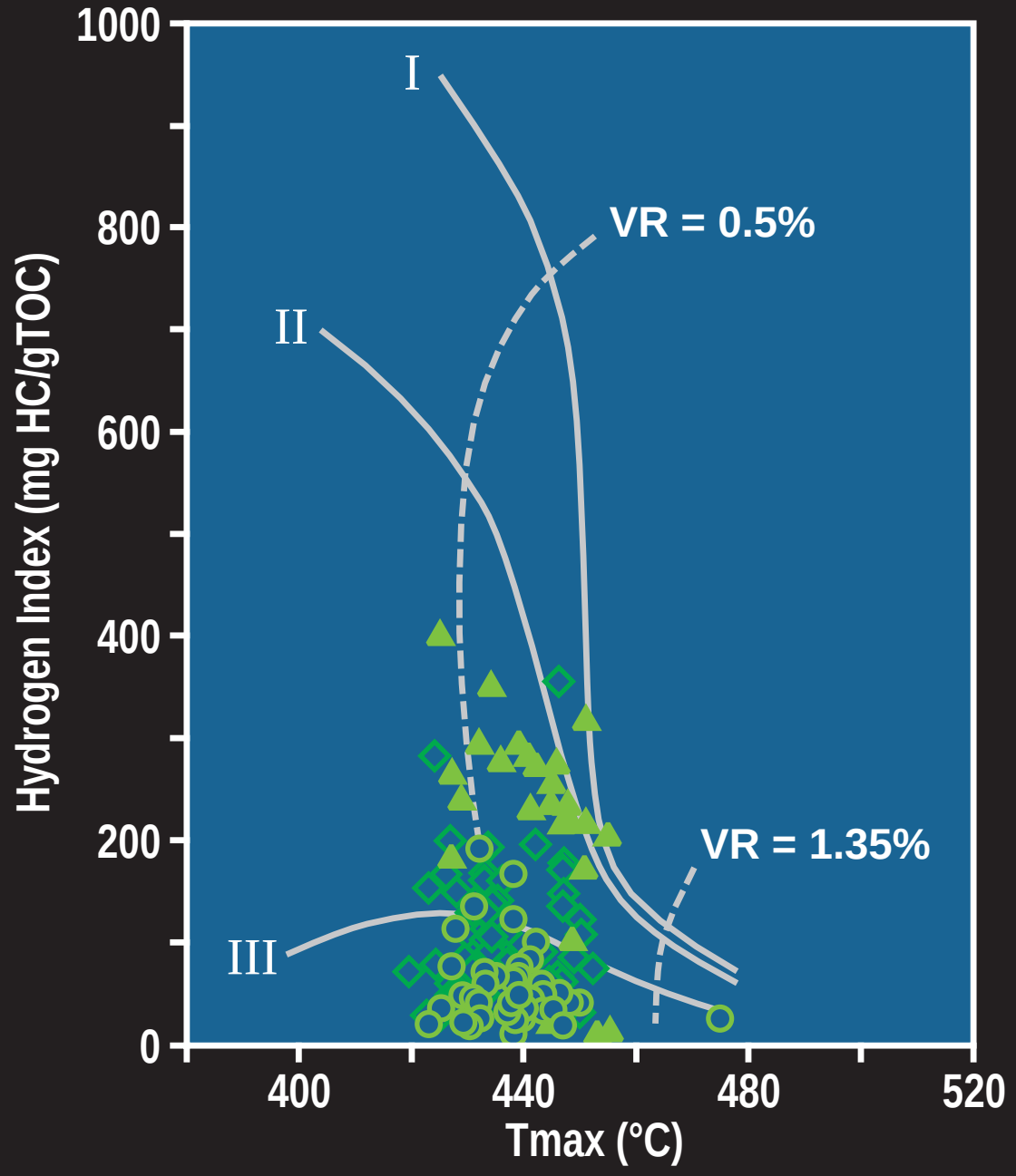
Permian Rock-Eval, Petrel Sub-basin



- Hyland Bay Fm
- Keyling Fm (coal)
- Keyling Fm (mudstone)

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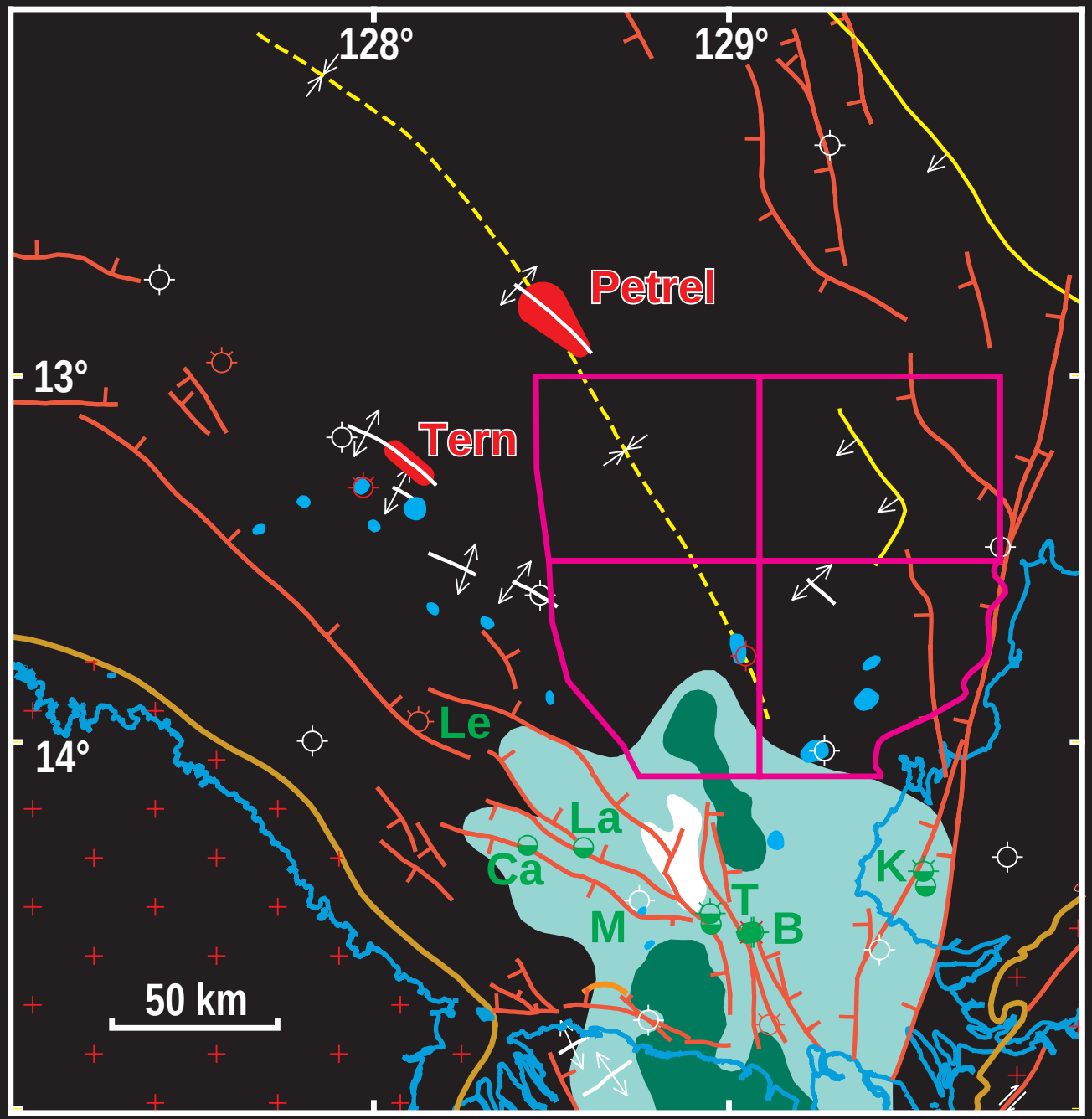
CARBONIFEROUS SOURCE ROCKS

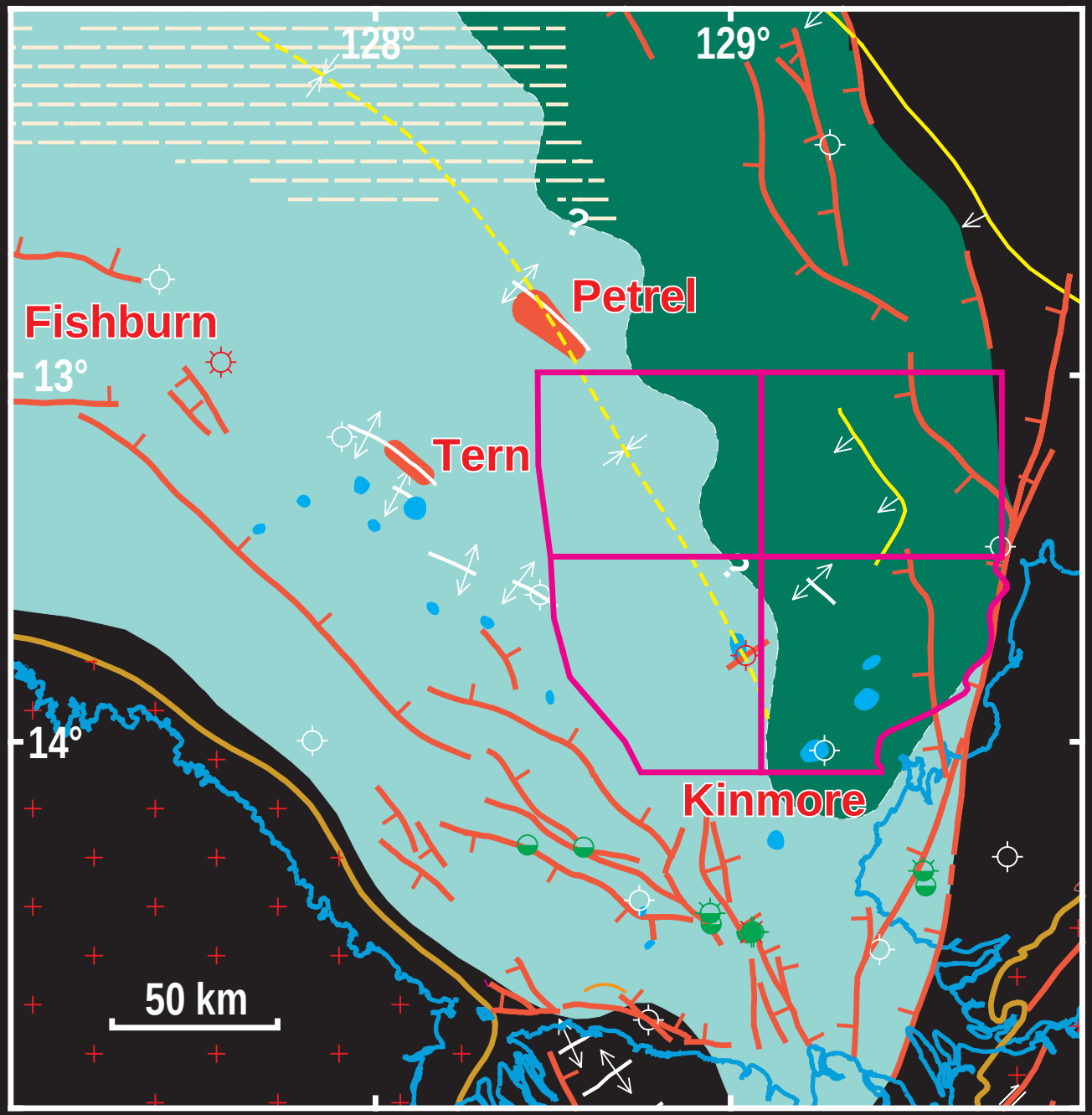


Milligans Supersequence

Postulated higher quality source rock

Salt diapir

PERMIAN SOURCE ROCKS



Permian

Postulated higher quality source pods

Keyling coaly shale

Hyland Bay

Salt diapir

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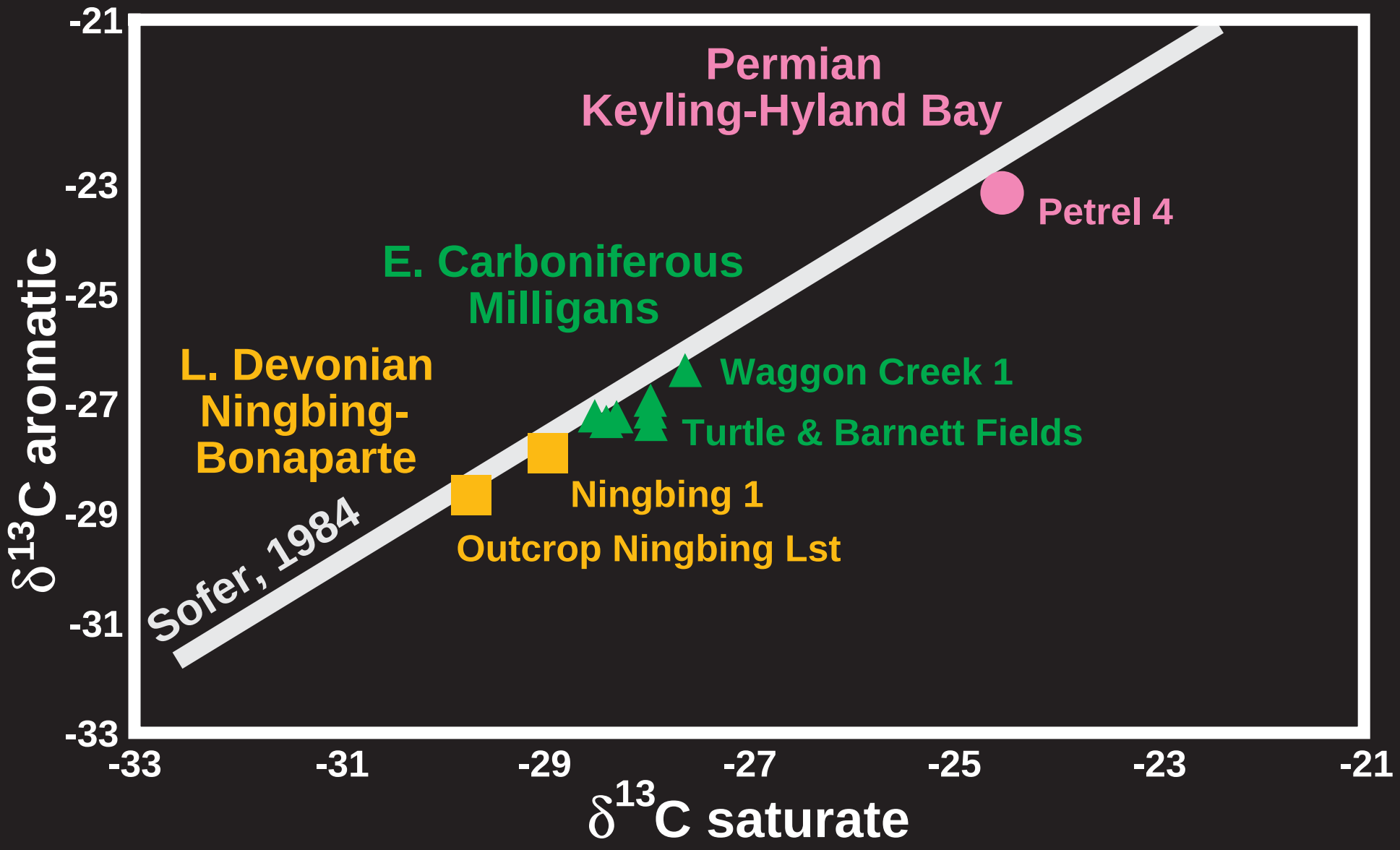
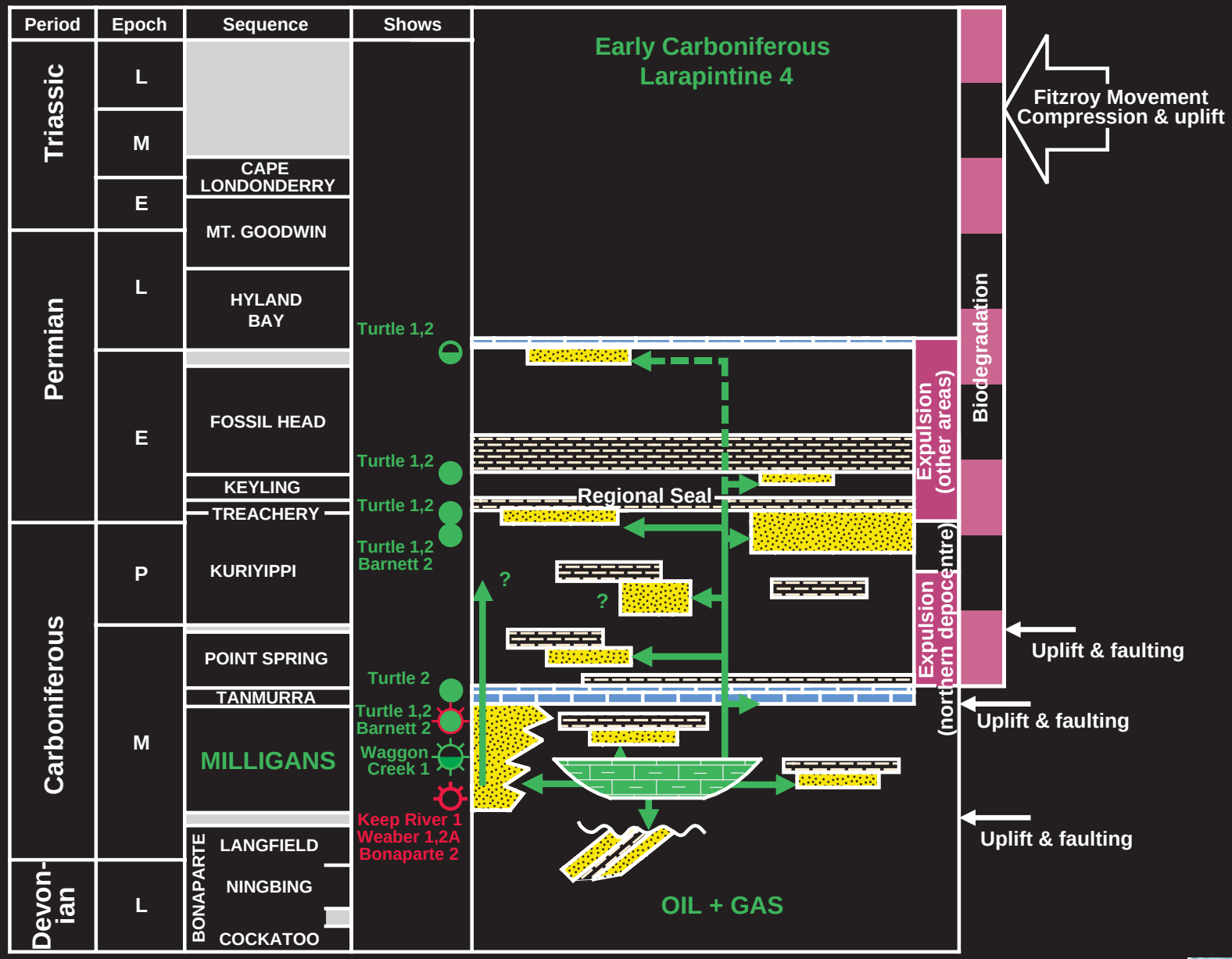
Isotopic composition of Petrel Sub-basin oils



MILLIGANS PETROLEUM SYSTEM



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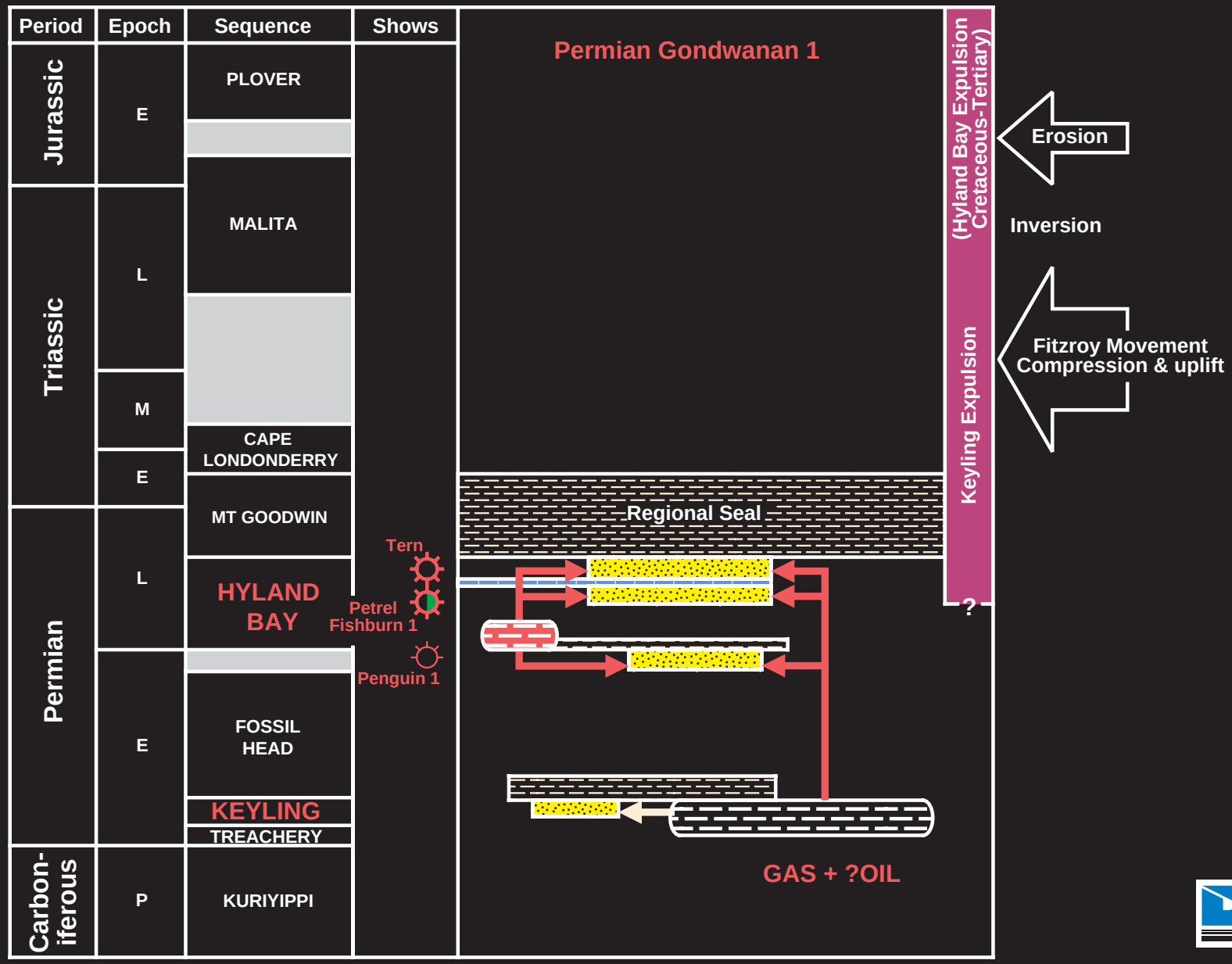
KEYLING - HYLAND BAY PETROLEUM SYSTEM



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