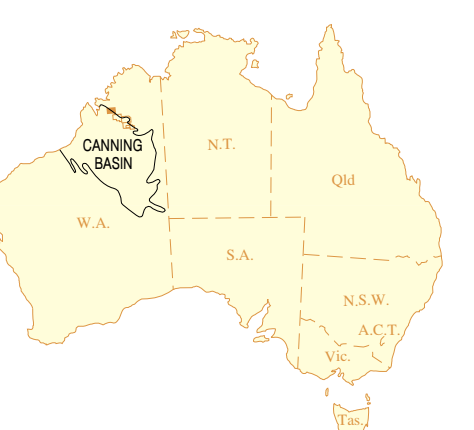
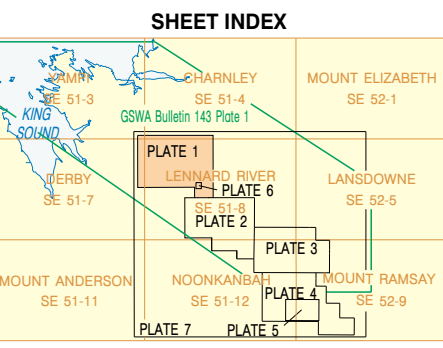
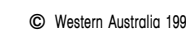


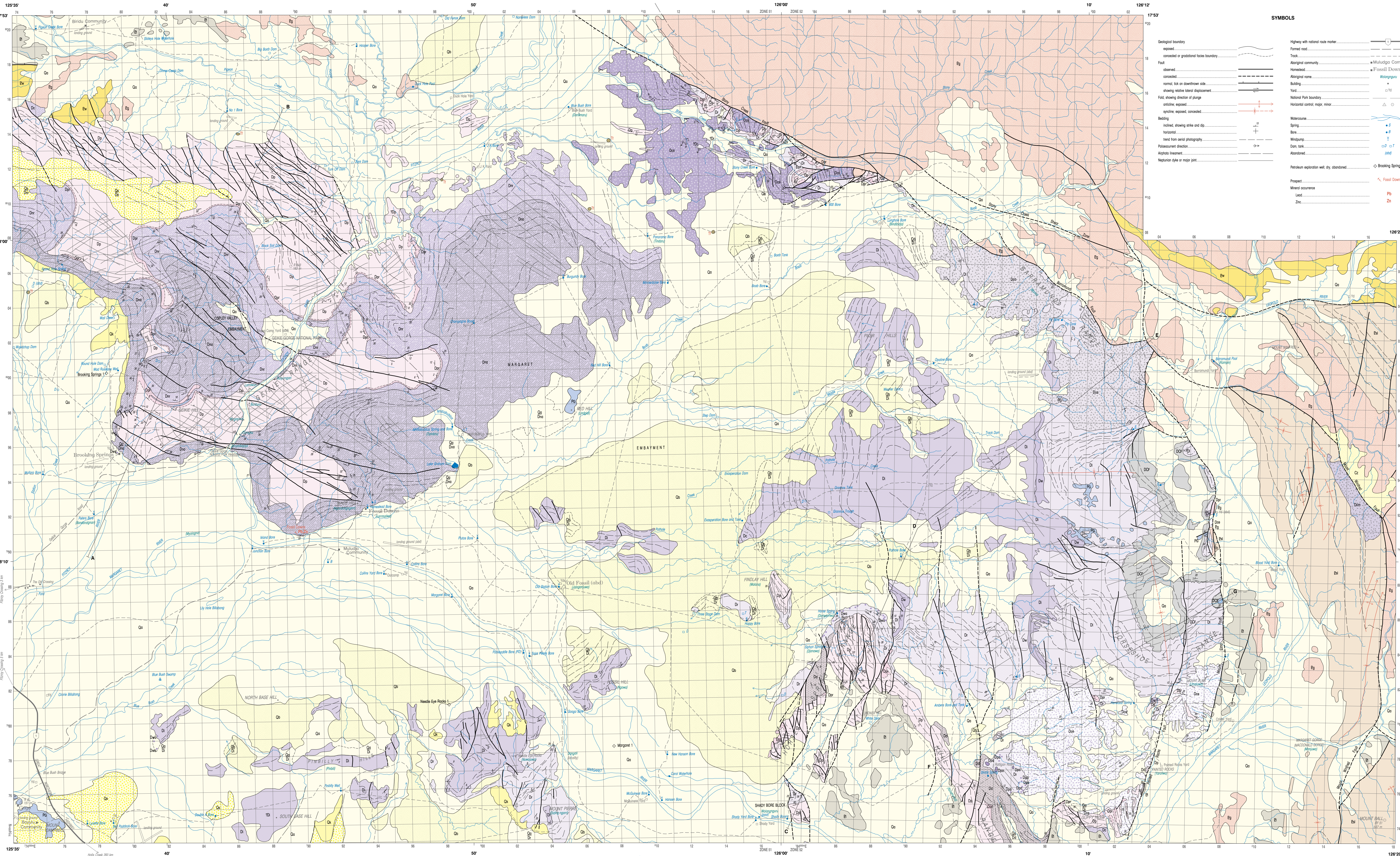


QUATERNARY	Cenozoic			
	Qe	Qd	Qa	Qf
TERTIARY	Qc	Alluvial deposits – recent sand, gravel and clay channels and flood Basal deposits – block gravel and Dunes and kals Serpentin deposits – silicified and vesicular sand dunes, minor Ced		
	Tt	TERTIARY VOLCANICS: tephritic diatremes and associated covered by Quaternary soil		
	Pt	LUTHERIA GROUP: well-bedded, shallow-marine to fluvial		
	Pd	SMART GROUP: crudely bedded, marine sandstone and silty		
	Dof	FAIRFED GROUP: shaly, sandstone, and brecciated lime		
CARBONIFEROUS	Dw	WINDJANA LIMESTONE: reef margin carbonate, massive, with many irregular dips		
	Dw + Dsp	Large diachthonous blocks of WINDJANA LIMESTONE		
JURASSIC TRIASSIC	Di	MALANA LIMESTONE: reef-marginal shallow well-bedded, disjointed, sandy, and conglomeratic		
	Dm	MAPER FORMATION: well-sorted, fine- and coarse sandstone		
DEVONIAN	Dm	Fornessien well-bedded to massive reef-top and locally massive and orange rich, some shaly		
	Dm	Frasnian and Fornessien well-bedded; shaly		
	Dm + Dsp	Fornessien well-bedded to massive reef-top and disjointed and orange rich, some disconformable		
PERMIAN	Dm	PILARA LIMESTONE: platform floor, unbedded, sandy, light grey and yellow, medium-bedded, stratopodoid and grading into calcareous sandstone, commonly fine bedded		
	Dm + Dsp	Aer-Beugen reef surface sediments white to light grey and micaceous reef limestone, locally dolomitized		
	Dm + Dsp	Large diachthonous blocks of PILARA LIMESTONE		
TRIASSIC JURASSIC	Dm	VAN EMERENDE CONGLOMERATE: silicificous conglomerate submarine deposits, fluvial to river deposits		
	Dm	Upper Van Emerende Conglomerate (gradually Fornessien)		
	Dm	BEHN CONGLOMERATE: silicificous conglomerate and deposits		
CRETACEOUS	Dm	POLSTON FORMATION: sandstone, silt- and shaly, in partly		
	D	Fornessien rock, undolomitic and stratigraphic relationships		
Eocene-Oligocene	Ds	Sedimentary rock		
	Ds	Sedimentary rock and diatreme		
	Dp	Granuloid rock		
c. 1800 Ma	Dp	WHITERIVER VOLCANICS:		
1500-1640 Ma	Bt	Metamorphic rocks		

Devotion conglomerates







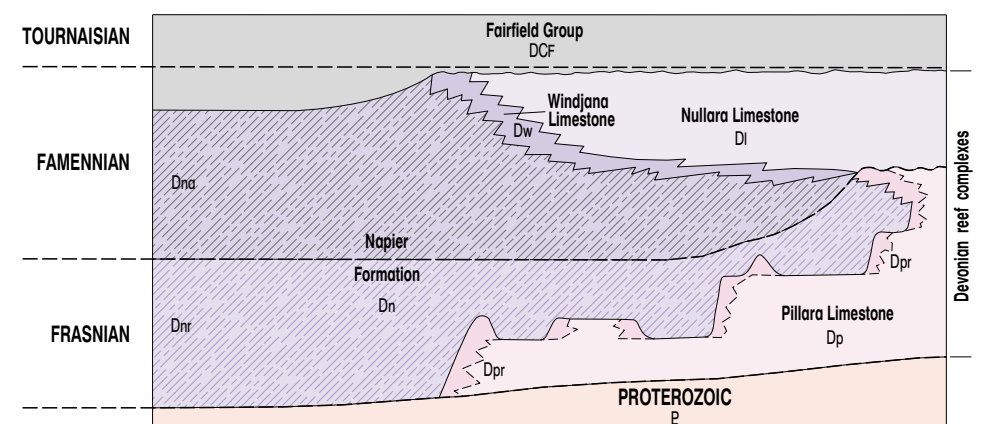
SYMBOLS

- Geological boundary
- road
- concealed or geological feature boundary
- Fault
- observed
- concealed
- normal, slip on downthrow side
- showing relative lateral displacement
- Fault, showing direction of plunge
- anticline, exposed
- syncline, exposed, concealed
- Bedding
- vertical, showing strike and dip
- horizontal
- trend from aerial photography
- Flow-surface direction
- Anticline, concealed
- Normal dip or major joint
- Highway with national route marker
- Trunk
- Abandoned community
- Homestead
- Abandoned road
- Building
- Yard
- National Park boundary
- Isolated coastal ridge, minor
- Watercourse
- Spring
- Dam
- Windpump
- Dam tank
- Abandoned
- Petroleum exploration well, dry, abandoned
- Propped
- Mineral occurrence
- Lead
- Zinc

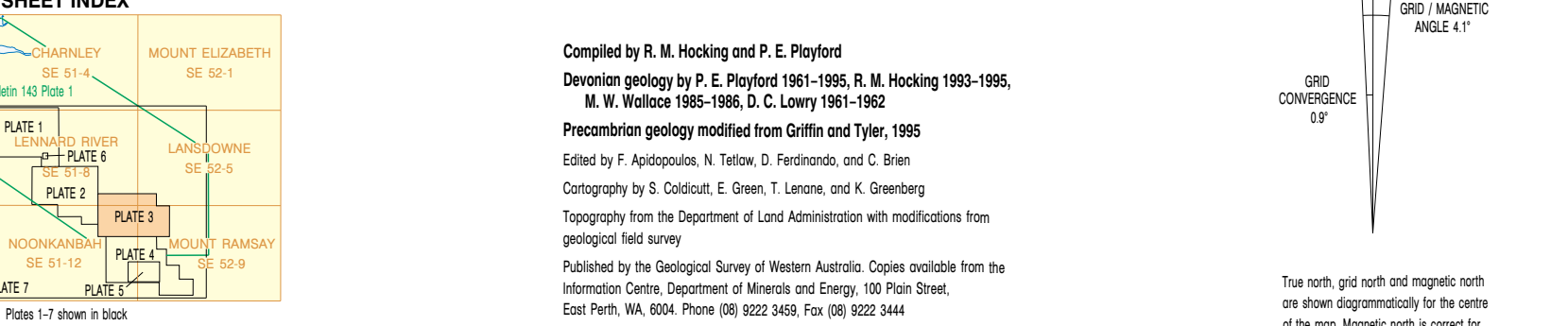
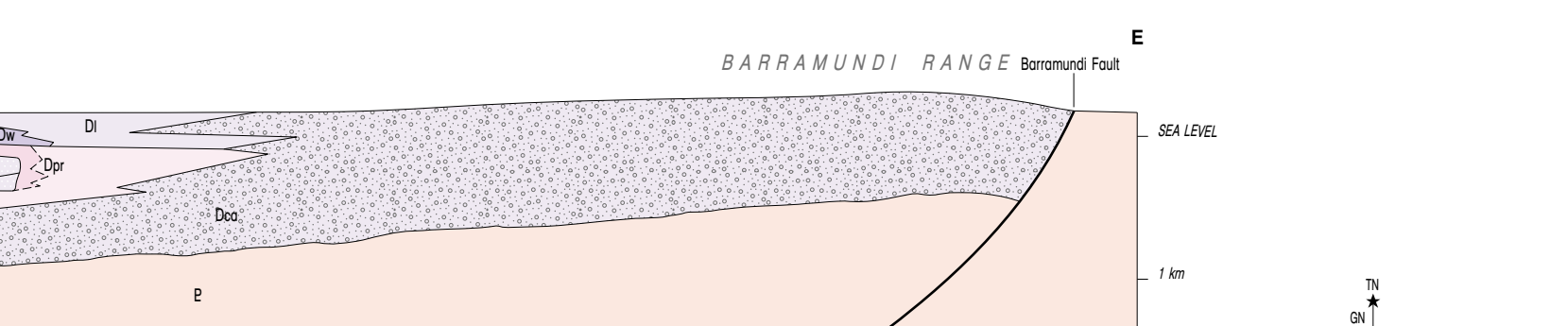
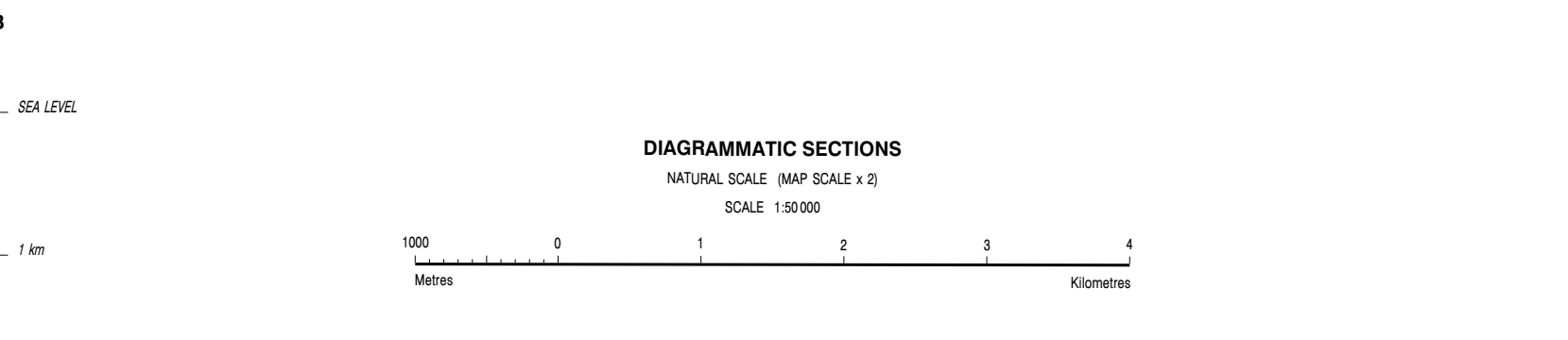
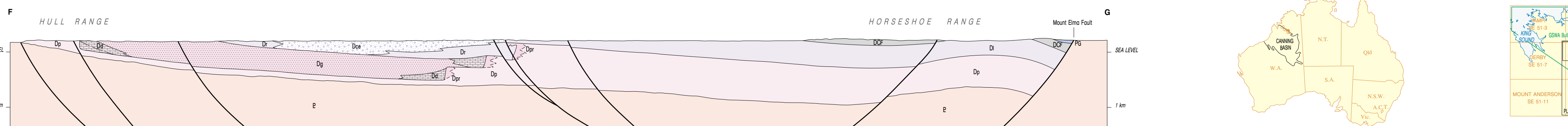
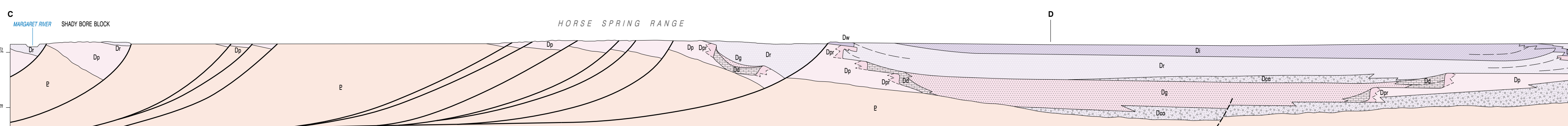
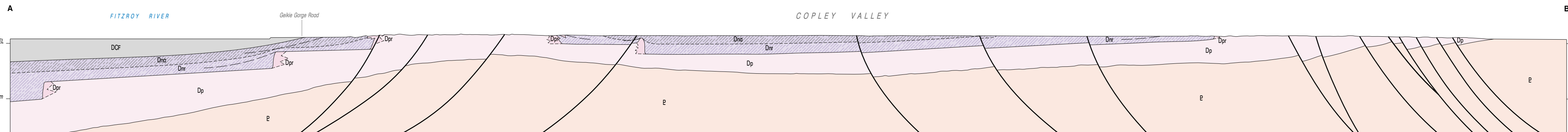
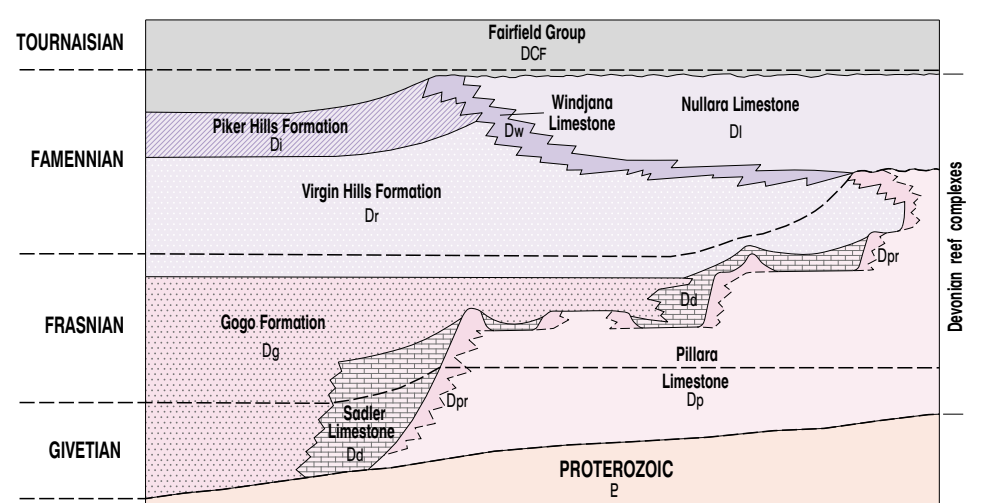
REFERENCE

- Qa Alluvial deposits—recent sand, gravel, and clay in channels and floodplains
- Qb Alluvial deposits—black clayey silt and clay
- Qc Coarse and fine
- Qd Sandstone deposits—unconsolidated sand and residual sandstone, minor silts and clay, includes low-velocity dunes
- Cz Alluvial and colluvial deposits
- T1 FTZROY VOLCANICS: large-scale dikes and associated pyroclastic rocks, largely or entirely covered by Quaternary soils
- PG GRANT GROUP: crudely bedded marine sandstone and siltstone, in part glauconitic
- DOF FAIRFIELD GROUP: shales, sandstone, and fossiliferous limestone
- Dv WINDJANA LIMESTONE: reef margin outcrops; massive dolomite and micritic reef limestone
- Dve = Alkaline blocks of WINDJANA LIMESTONE (vee) in marginal slope and basin floor
- Di ALKALINE LIMESTONE: basin reef outcrops; well-bedded fossiliferous, silty, and peloidal limestone, partly dolomitized; locally sandy and conglomeratic
- Di PIER HILLS FORMATION: marginal slope and basin floor; yellow and grey limestones, siltstone, and sandstone; locally conglomeratic
- Di IMPER FORMATION: marginal slope and basin floor; well-bedded to massive limestone, locally dolomitized; locally sandy and grading to sandstone; dolomitized blocks and debris flow in some horizons
- Di Formation well-bedded to massive limestone, locally dolomitized; locally sandy and grading to sandstone; dolomitized blocks and debris flow in some horizons
- Di FRASIAN LIMESTONE: marginal slope and basin floor; red to brown and grey, thick to thin-bedded limestone and dolomite; siltstone and sandstone; dolomitized blocks and debris flow in some horizons
- Di SANDER LIMESTONE: marginal slope and basin floor; grey, medium to thin-bedded limestone, contains scattered dolomitized blocks and some debris flow deposits
- Di GOGO FORMATION: basin floor and lower reef outcrops; grey, weathering yellow, siltstone, shale, and silt limestone
- Di PILLARA LIMESTONE: platform facies; undulating, mostly back-reef and lower reef for outcrops; white to light grey and yellow, medium-bedded, stratigraphical, coralline, and fossiliferous limestone; locally sandy and grading into calcareous sandstone
- Di Reef margin and reef flat outcrops; white to light grey and yellow, massive to thick-bedded, stratigraphical and micritic reef limestone; locally dolomitized, with subordinate coralline limestone
- Di Large dolomitized blocks of PILLARA LIMESTONE (vee) in marginal slope and basin floor
- Dv BARRAMUNDI CONGLOMERATE: Formation siliclastic conglomerate and sandstone; olivoid core, tan dolomite, and subordinate fine deposits; Frasnian in substrate
- Dv ELMA CONGLOMERATE: Frasnian and Famennian siliclastic conglomerate and sandstone; olivoid core and subordinate fine deposits
- Dv STONY CREEK CONGLOMERATE: Frasnian siliclastic conglomerate and sandstone; tan dolomite and subordinate fine deposits
- Dv MULLER CONGLOMERATE: siliclastic conglomerate overlying Proterozoic rocks; olivoid core deposits; precise age not known
- Dv Conglomerate and sandstone, unassigned
- E Proterozoic rock, undivided (sections and stratigraphic relationships diagrams)
- Dve Sedimentary rock
- Dv Sedimentary rock and debris
- Eg Gravelly rock
- Dv WINTWATER VOLCANICS: volcanic and sedimentary rocks
- E Metamorphic rock

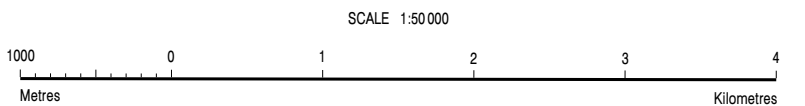
STRATIGRAPHIC RELATIONSHIPS OF THE DEVONIAN REEF COMPLEXES – NORTHWEST AREA



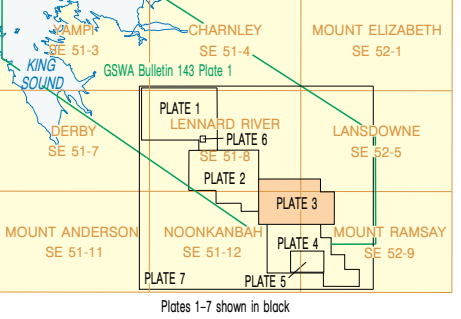
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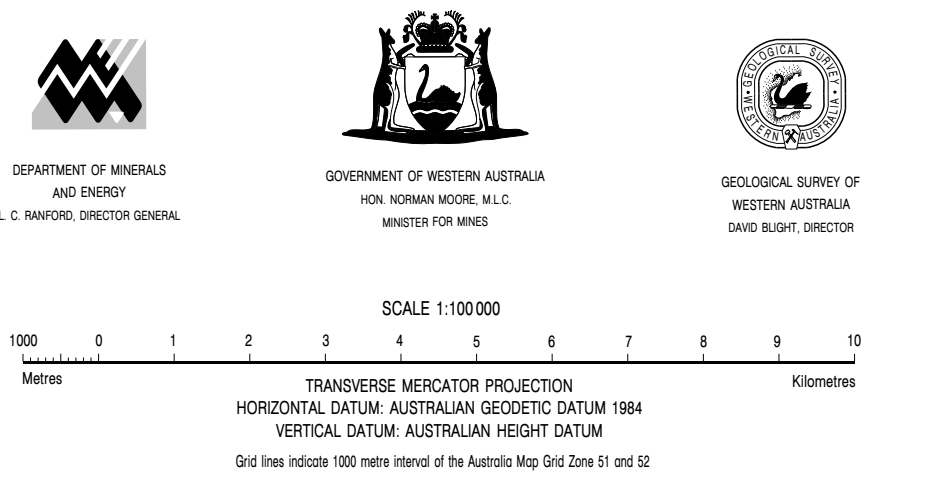
DIAGRAMMATIC SECTIONS
NATURAL SCALE: MAP SCALE x 10
SCALE: 1:50000



SHEET INDEX

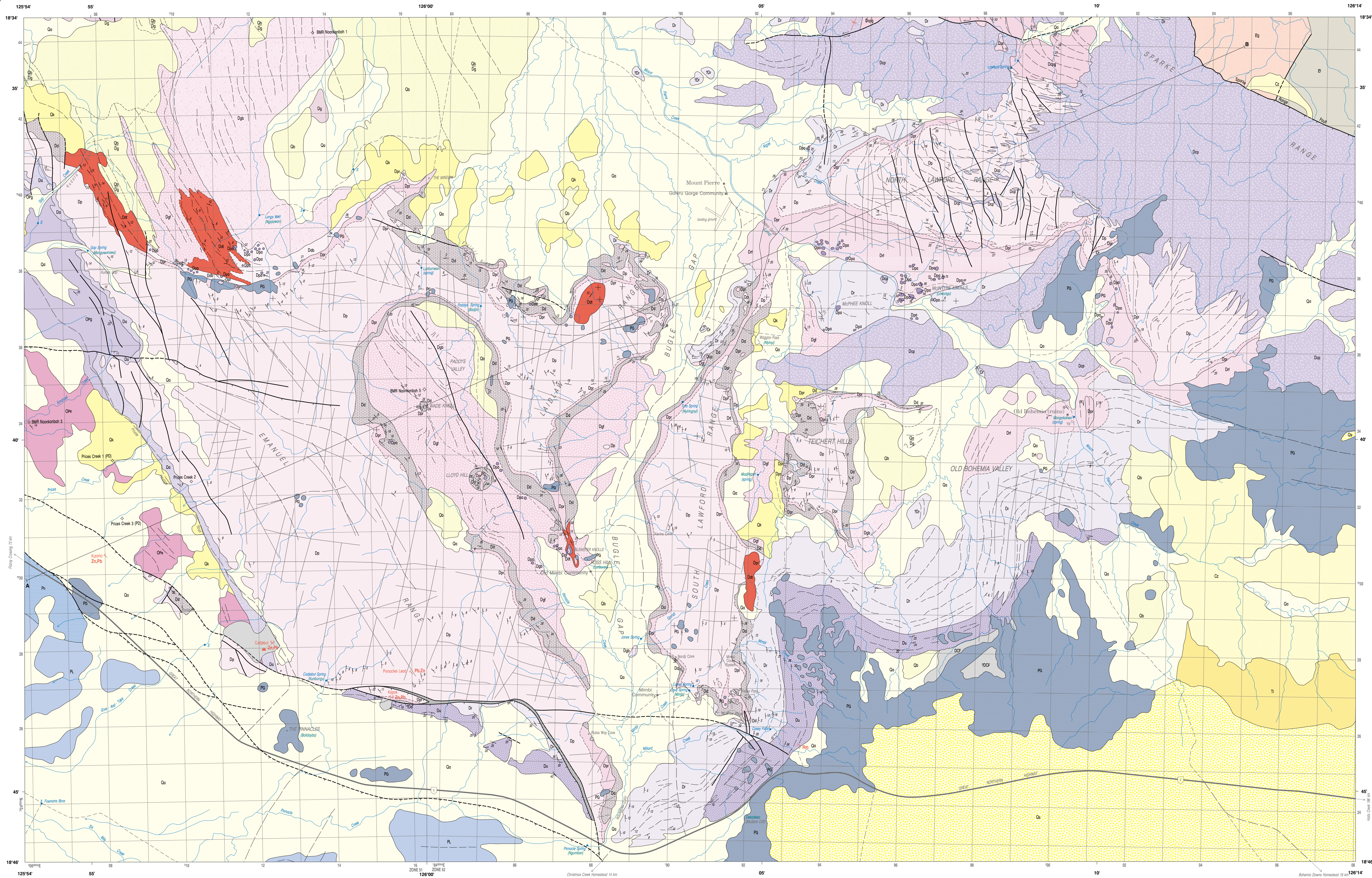


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Devonian geology by P. E. Playford 1981–1985, R. M. Hocking 1985–1986,
M. W. Hocking 1986–1988, D. C. Lavery 1989–1992
Proterozoic geology modified from Griffiths and Tyler, 1985
Edited by P. Apakapoulou, N. Trew, D. Pedersen, and C. Breen
Cartography by S. Colclough, E. Green, T. Lenn, and K. Greenberg
Topography from the Department of Land Administration with modifications from
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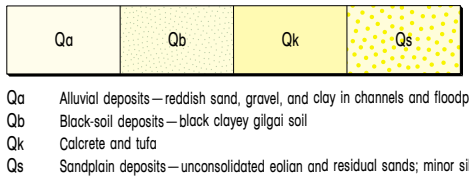


FOSSIL DOWNS AREA
DEVONIAN REEF COMPLEXES OF THE CANNING BASIN
BULLETIN 145 PLATE 3

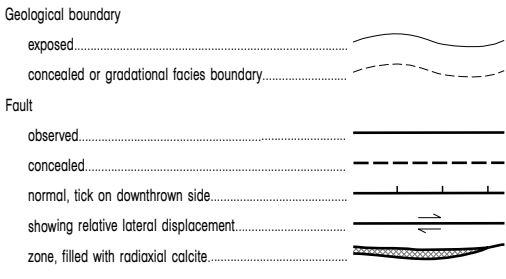




REFERENCE



REFERENCE



CAMBRIAN

QUATERNARY

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PERMIAN

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FRASNIAN

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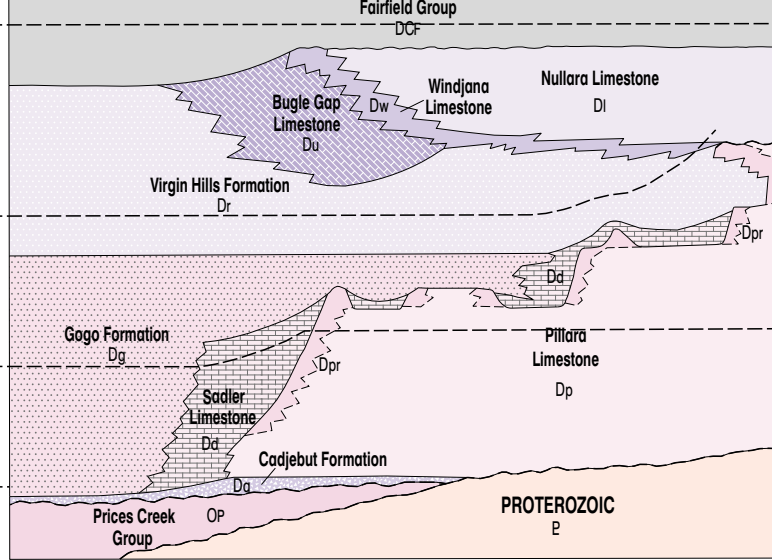
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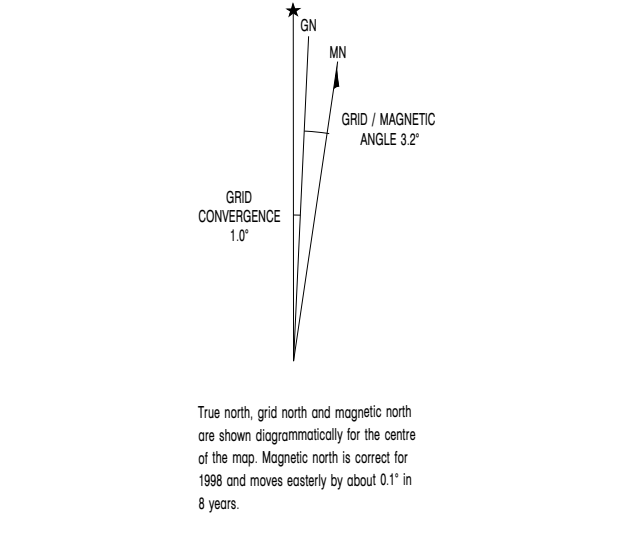
DEVONIAN

DEVONIAN

STRATIGRAPHIC RELATIONSHIPS OF THE DEVONIAN REEF COMPLEXES



SHEET INDEX



True north, grid north and magnetic north are shown approximately by the centre of the map. Magnetic north is correct for 1980 and moves easterly by about 0.1° in 8 years.

Scale 1:50,000

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM: AUSTRALIAN GEODETIC DATUM 1984

VERTICAL DATUM: AUSTRALIAN HEIGHT DATUM

Grid lines indicate 100 metres interval of the Map Grid Australia Zone 50 and 52

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A. E. Cockburn 1988, V. A. Pudney 1985-1986,

Permian geology modified from Tyler, Griffin, Playford, and Hocking, 1998,

and Griffin and Tyler, 1995

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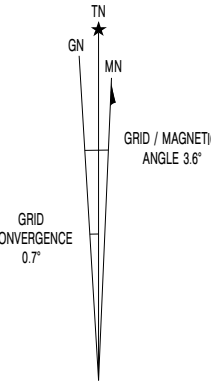
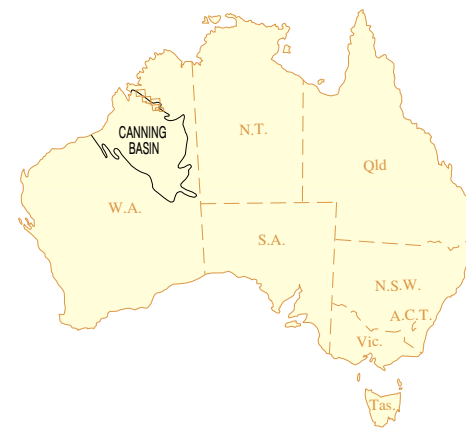
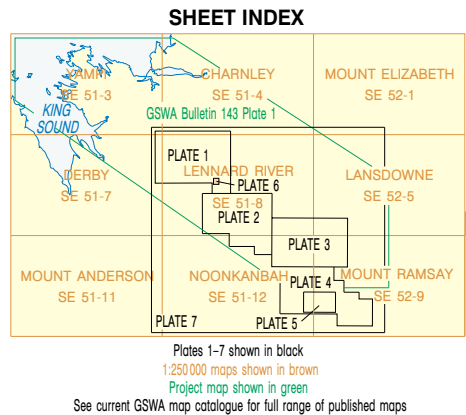
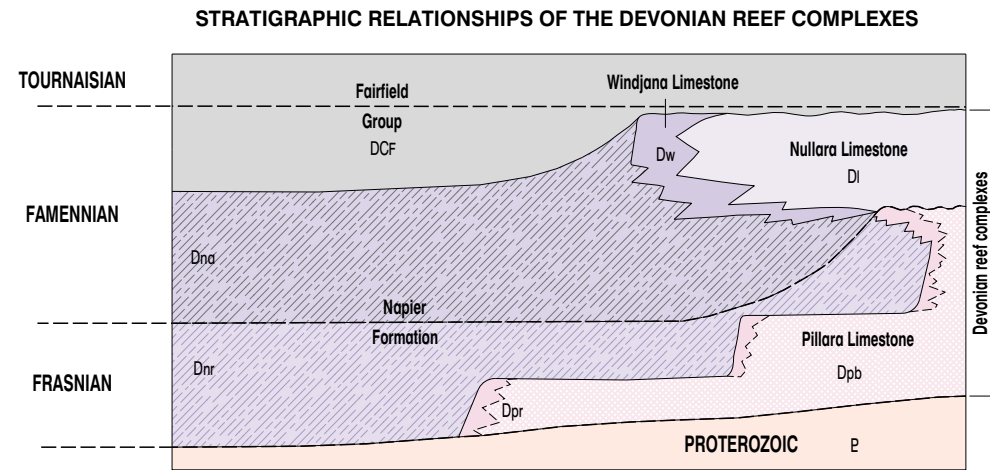
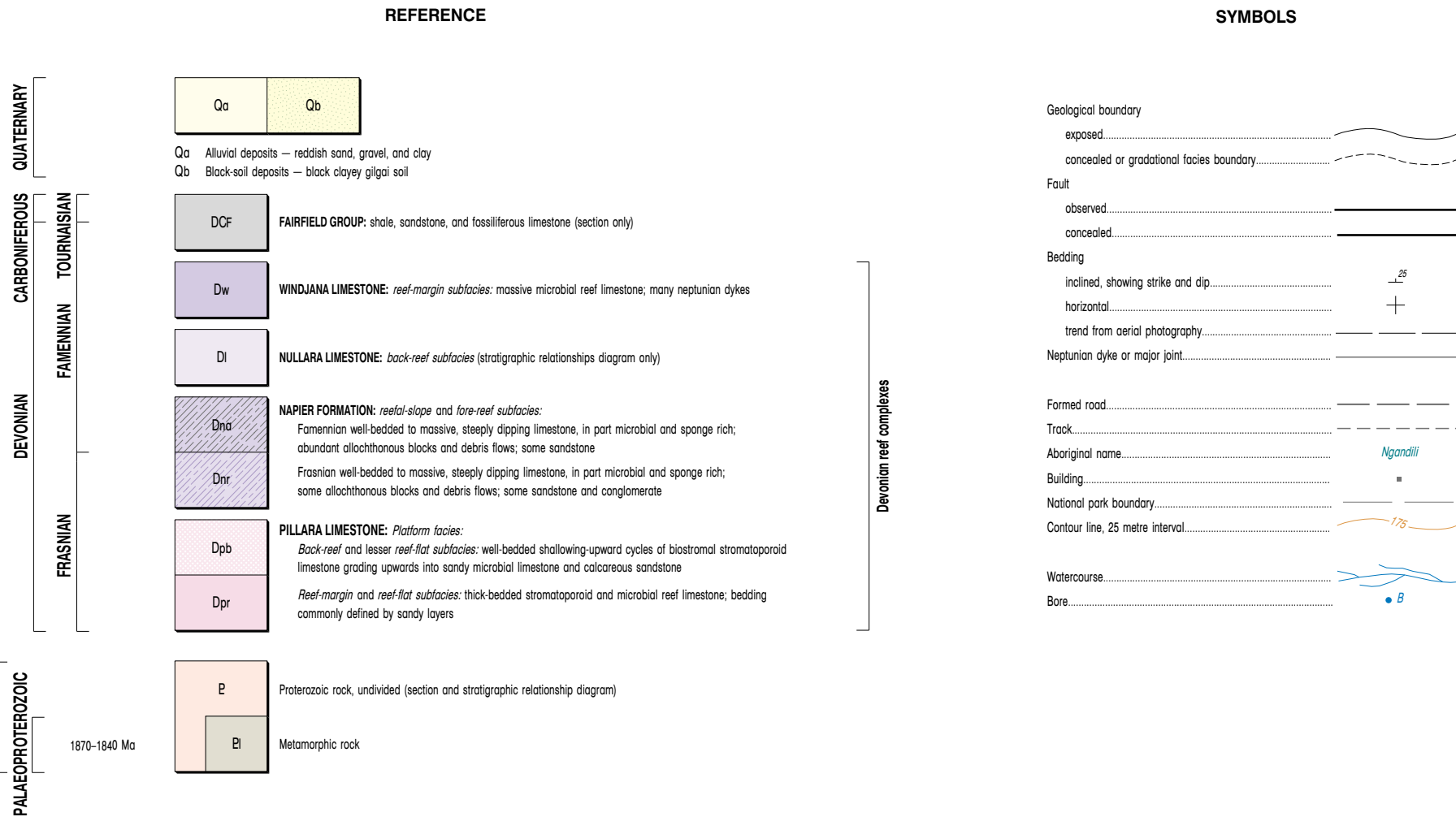
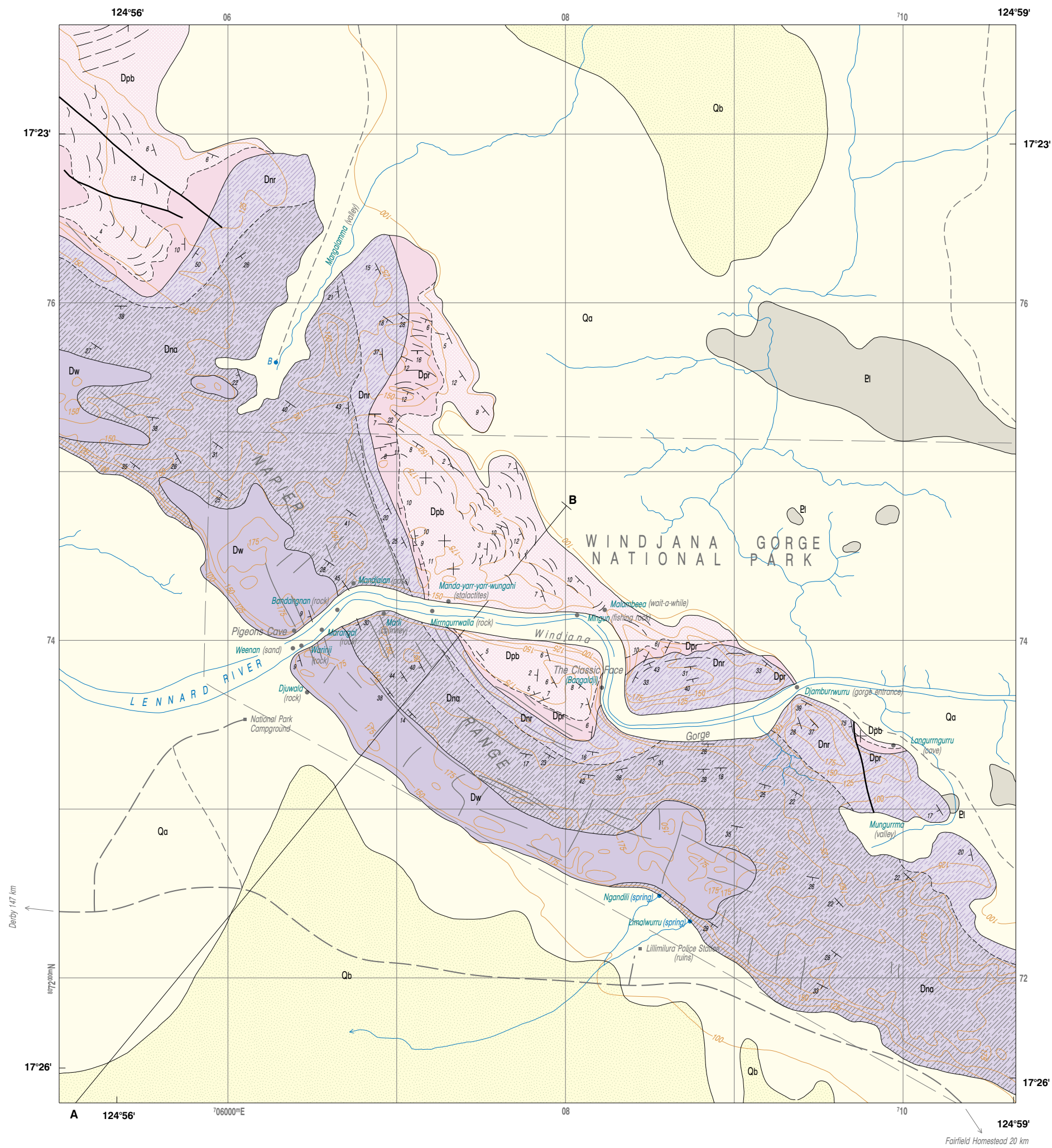
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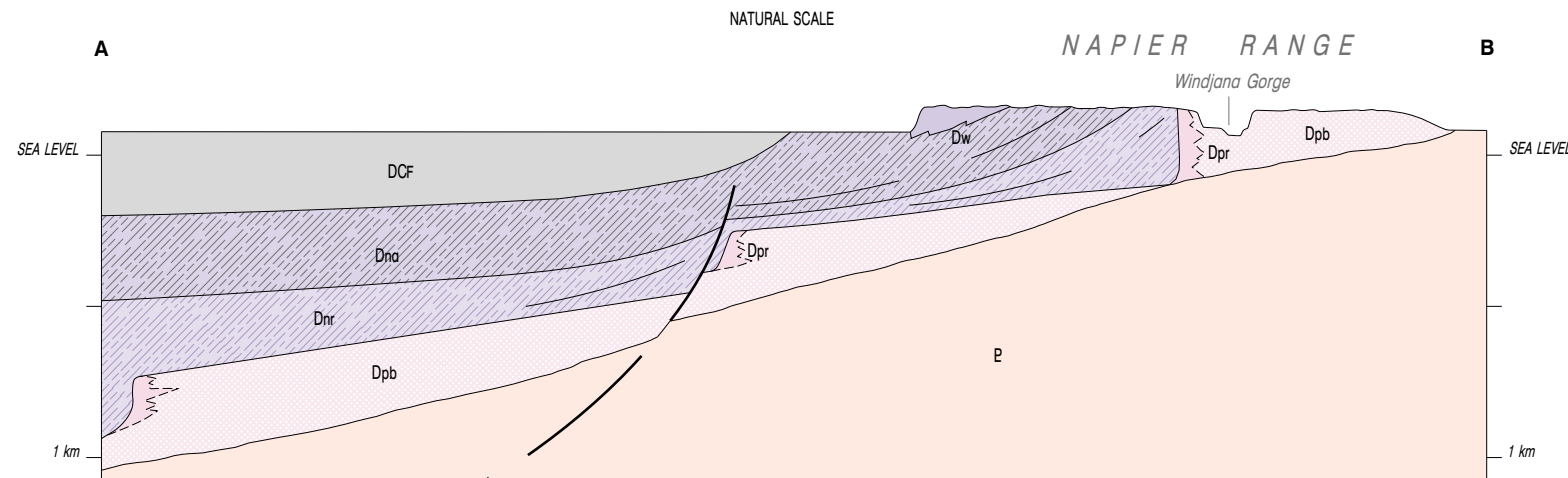
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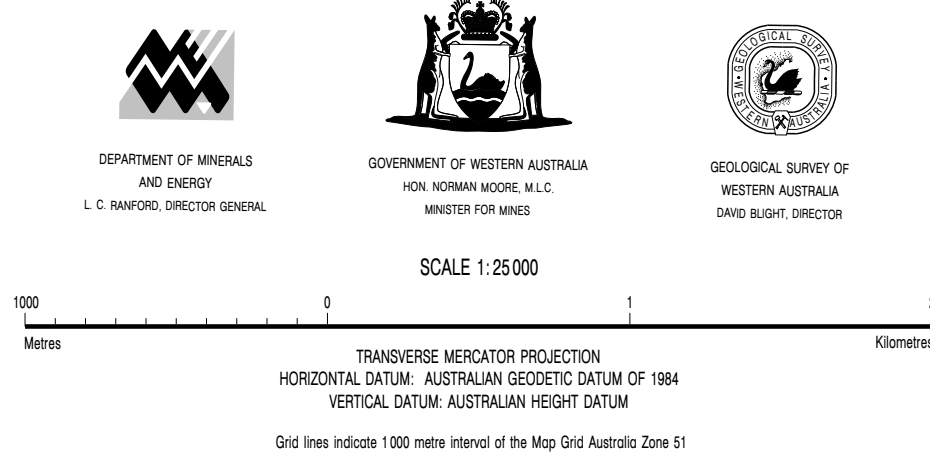
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WINDJANA GORGE

DEVONIAN REEF COMPLEXES OF THE CANNING BASIN

BULLETIN 145 PLATE 6

