SYMBOLS

Geological boundary
- exposed
- concealed or gradational facies boundary

Fault
- observed
- concealed
- normal, tick on downthrown side
- thrust, triangle on upthrown side

Fold or bohemn, showing axial trace
- anticline or bohemn axis; exposed
- syncline; exposed
- overturned anticline; exposed

Bedding
- inclined, showing strike and dip
- horizontal
- trend from aerial photography

Palaeocurrent direction

Arghisto lineament

Neptunian dyke or major joint

Highway with national route marker

Formed road

Track

Aboriginal community: Womoli Community

Homestead: Pilliriled

Aboriginal name: Ouangmyer

Building

Yard

National Park boundary

Conservation Park boundary

Horizontal control, minor

Watercourse

Spring

Bore, well

Windpump

Dam, tank

Abandoned: abnd

Position doubtful: (P3)

Petroleum exploration well
- dry, abandoned: ◇ Chestnut 1

Quarry

Prospect

Mineral occurrence
- Diamond
- Rood metal: Rm

REFERENCE

CAINOZOIC — QUATERNARY

Qc Qh Qk Qs

Alluvial deposits — reddish sand and clay in channels and floodplains
Qh Black-soil deposits — black clayey gilgai soil
Qk Calcrete and tufa
Qs Sand/dune deposits — unconsolidated eolian and residual sands; minor silt and clay; includes low vegetated dunes

Czd Duricrust — siliceous and ferruginous deposits

TERTIARY — MIOCENE

Ti FITZROY VOLCANICS: lamprophyre dolmenites and associated pyroclastic rocks; some diamond bearing; largely or entirely covered by Quaternary soils

PALAEOZOIC — PERMIAN

Pn NOONKANBAH FORMATION: well-bedded deltaic to shallow-marine sandstone, siltstone, and shale; minor dolomite

PG GRANT GROUP: crudely bedded marine sandstone and siltstone; in port glacigene

CARBONIFEROUS — TOURNAISIAN

DCf FAIRFIELD GROUP: shale, sandstone, and fossiliferous limestone

Dcn LAUREL FORMATION: marine limestone, shale, siltstone, and sandstone

Dfy YELLOW DRUM SANDSTONE: fluvial to partalic sandstone and dolomite; minor shale and siltstone

Dfg GUNHOLE FORMATION: shallow-marine limestone, siltstone, and shale; minor dolomite

DEVONIAN — FAMENNIAN

Dw WINDJANA LIMESTONE: *reef-margin subfacies* massive, microbial reef limestone; locally dolomitized, commonly with many neptunian dykes

Dwo Large allochthonous blocks of WINDJANA LIMESTONE (reef) in fore-reef subfacies

Dl NULLARA LIMESTONE: *back-reef subfacies* well-bedded lenatrol, oolitic, and pelloidal limestone; locally dolomitized

DEVONIAN — FRASNIAN reef COMPLEXES

Dn NAPIER FORMATION: *reef/-slope, bine-reef, and biohermal subfacies*

Dnsc Famennian well-bedded to massive reef/d-slope and fore-reef limestone; locally dolomitized, sandy and grading to sandstone and steeply dipping to flat lying, with allochthonous blocks and debris flows in some horizons

Dns Frasnian and Famennian deep-water bioherms: stromatolite and *Receptaculites* sponge limestone; locally dolomitized

Dnr Frasnian well-bedded to massive reef/d-slope and fore-reef limestone; locally dolomitized, steeply dipping, with allochthonous blocks and debris flows in some horizons

Dnb **Barrer Member:** Famennian well-bedded to massive fore-reef limestone; locally dolomitized, sandy; and grading to sandstone, steeply dipping to flat lying, with large allochthonous blocks and debris flows in some horizons

Dnt **Terakatu Member:** Famennian well-bedded to massive sandstone grading into sandy limestone; with some allochthonous blocks of reef limestone

Dnkw **Kidnapp Member:**
Famennian well-bedded to massive reef/d-slope and fore-reef limestone; locally dolomitized, steeply dipping, with allochthonous blocks and debris flows in some horizons

Dnkr Frasnian well-bedded to massive reef/d-slope and fore-reef limestone; locally dolomitized, steeply dipping, with allochthonous blocks and debris flows in some horizons

Devonian reef complexes

DEVONIAN — FRASNIAN

Dp PILLARA LIMESTONE: *platform facies, undivided, mainly back-reef and lesser reef-flat subfacies* white to light-grey and yellow, medium-bedded, stromatoporoid and lenatrol limestone; locally dolomitized and sandy and grading into calcareous sandstone; may extend into Gneiton in subsurface

Dpr *Reef-margin and reef-flat subfacies* white to light-grey and yellow, massive to thick-bedded stromatoporoid and microbial reef limestone; locally dolomitized, with subordinate coralline limestone

Dpo Large allochthonous blocks of PILLARA LIMESTONE (reef) in fore-reef subfacies

DEVONIAN — FRASNIAN

Dx BIG SPRING FORMATION: sandstone, well-bedded to massive; locally calcareous, with massive siliciclastic conglomerate at the base; fan-delta and alluvial-cone deposits

Dc Conglomerate, siliciclastic, overlying Proterozoic rock of the Oscar Range

DEVONIAN — GIVETIAN

Do POULTON FORMATION: sandstone, shale, and siltstone; minor dolomite; marine (section only)

PROTEROZOIC — NEOPROTEROZOIC / PALAEOPROTEROZOIC

E Proterozoic rock, undivided (sections and stratigraphic relationships diagram)

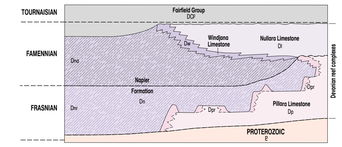
800–610 Ma: Beu Sedimentary rock

1865–1850 Ma: Eg Granitoid rock

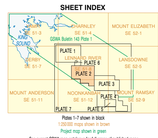
c 1855 Ma: Ew WHITEWATER VOLCANICS: volcanic and sedimentary rocks

1870–1840 Ma: Ei Metamorphic rock

STRATIGRAPHIC RELATIONSHIPS OF THE DEVONIAN REEF COMPLEXES



SHEET INDEX



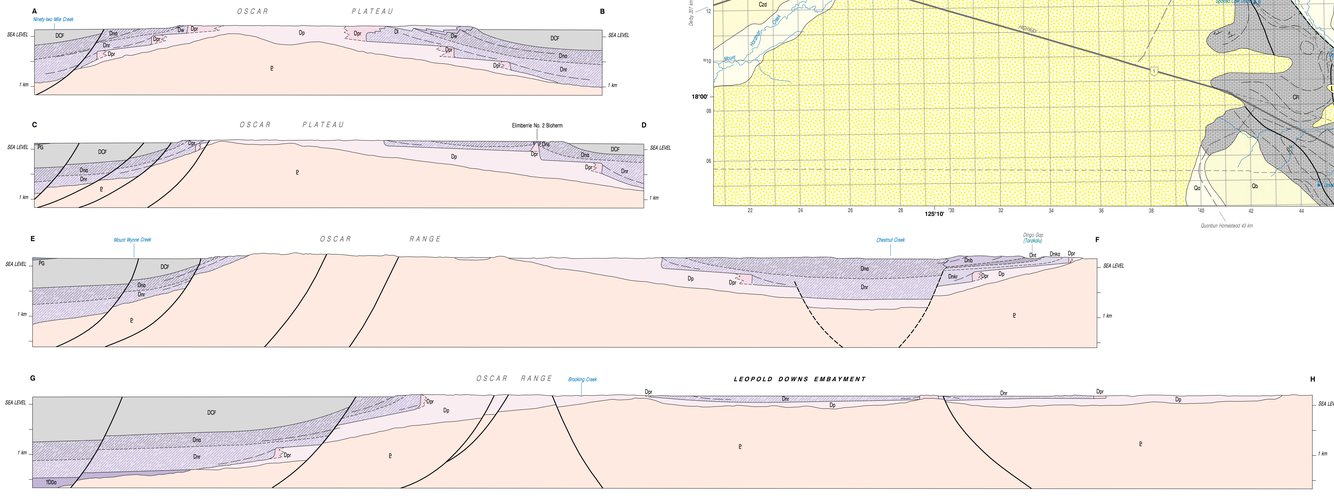
See current GSWA map catalogue for full range of published maps

DIAGRAMMATIC SECTIONS

NATURAL SCALE (MAP SCALE x 2)

SCALE 1:50 000

1000 Metres 0 1 2 3 4 Kilometres



Compiled by R. M. Hocking and P. E. Playford

Devonian geology by P. E. Playford, 1961–1995, R. M. Hocking, 1993–1995, N. F. Hurley 1983–1984, D. C. Lowry, 1961–1962, and W. B. Ward, 1985–1986

Precambrian geology modified from Griffin and Tyler, 1990

Edited by D. Ferdinando, N. Tetlow, F. Apidopoulos, G. Loon, and K. Greenberg

Cartography by E. Green, S. Colcloutt, T. Lenane, and B. Williams

Topography from the Department of Land Administration with modifications from geological field survey

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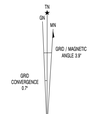

True north, grid north and magnetic north are shown diagrammatically for the centre of the map. Magnetic north is correct for 1996 and moves easterly by about 0.1° in 6 years

DEPARTMENT OF MINERALS AND ENERGY
L. C. RAWLINS, DIRECTOR GENERAL

GOVERNMENT OF WESTERN AUSTRALIA
HON. NORMAN MOORE, M.L.C.
MINISTER FOR MINES

GEOLOGICAL SURVEY OF WESTERN AUSTRALIA
DAVID BLIGHT, DIRECTOR

SCALE 1:100 000

1000 Metres 0 1 2 3 4 5 6 7 8 9 10 Kilometres

TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: AUSTRALIAN GEODETIC DATUM 1984
VERTICAL DATUM: AUSTRALIAN HEIGHT DATUM

Grid lines indicate 1000 metre interval of the Australia Map Grid Zone 51

OSCAR RANGE AREA

DEVONIAN REEF COMPLEXES OF THE CANNING BASIN

BULLETIN 145 PLATE 2

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