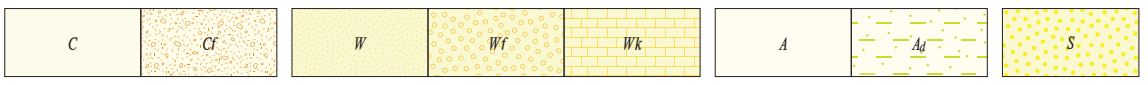
PHANEROZOIC

CENOZOIC

QUATERNARY

Unassigned



Colluvial units

C Quartz and rock fragments in a silt and sand matrix; includes ferruginous deposits

Cf Ferruginous rubble and scree

Sheetwash units

W Sandy and clayey distal sheetwash and slope deposits; no clearly defined drainage

Wf Low-gradient deposits of ferruginous sand, silt, and gravel

Wk Distal sheetwash with calcrete cutans and carbonate cement

Alluvial units

A Clay, silt, sand, and gravel in channels and on floodplains

Ad Unconsolidated, fine-grained deposits in alluvial drainage depressions, claypans, ephemeral lakes, and swamps; low-lying areas with internal drainage; typically thickly vegetated

Sandplain unit

S Quartz sand of mixed origin; includes residual and eolian sands

QUATERNARY

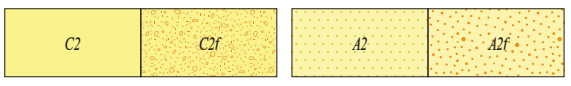
Colluvial units, third generation

C1 Quartz and rock fragments in an unconsolidated silt and sand matrix; includes ferruginous deposits

C1f Unconsolidated ferruginous rubble and scree

Alluvial unit, third generation

A1 Silt, sand, and gravel in active drainage channels and floodplains; includes ferruginous deposits



Colluvial units, second generation

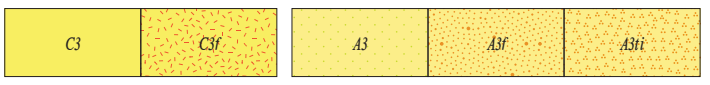
C2 Quartz and rock fragments in a partly consolidated silt and sand matrix

C2f Partly consolidated ferruginous rubble and scree

Alluvial units, second generation

A2 Partly consolidated silt, sand, and gravel; partly dissected by present-day drainage

A2f Partly consolidated ferruginous silt, sand, and gravel; partly dissected by present-day drainage



Colluvial units, first generation

C3 Quartz and rock fragments in a weakly cemented and compacted silt and sand matrix; deeply dissected valley-fill deposits

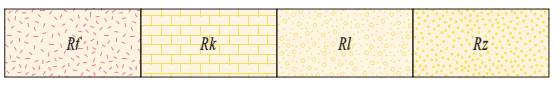
C3f Ferruginous rubble and scree in a weakly cemented and compacted silt and sand matrix; partly dissected

Alluvial units, first generation

A3 Weakly cemented and compacted silt, sand, and gravel; deeply dissected by present-day drainage

A3f Weakly cemented silt, sand, and minor gravel in older floodplains adjacent to older drainage

A3ti Sand and gravel with ferruginous cement; deeply dissected by present day drainage



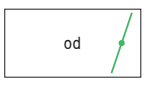
Residual or relict units

Rf Ferruginous deposits, including lateritic, ferruginous, and manganiferous duricrust

Rk Calcrete, developed in, and adjacent to alluvial channels; carbonate and vuggy opaline silica; dissected by major present-day drainage

Rl Saprolite and saprock of uncertain protolith

Rz Silcrete and brecciated siliceous caprock

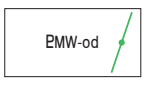


Dolerite dykes, sills, or plugs; fine- to medium-grained dolerite; age uncertain

NEOPROTEROZOIC

c. 755 Ma [1]

Mulka Tectonic Event (c. 570 Ma)



Mundine Well Dolerite Suite: dolerite dykes, sills, and small intrusions with locally abundant xenoliths and potassic alteration of wallrocks; includes minor quartz diorite, syenite, tonalite, and biotite monzogranite

Edmundian Orogeny (1026–954 Ma[2])

c. 1070 Ma

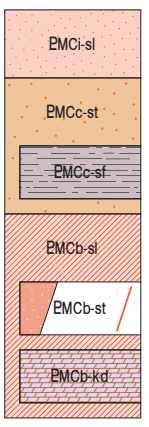
KULKATHARRA DOLERITE: dolerite and gabbro sills intruded into **Edmund Group** and **Collier Group**

WARAKURNA LARGE IGNEOUS PROVINCE

MESOPROTEROZOIC

Bangemall Supergroup

Collier Group



ILGARARI FORMATION: siltstone, mudstone, and fine-grained sandstone

CALYIE FORMATION: quartz sandstone, siltstone, mudstone, conglomerate, and dolostone

Siltstone, mudstone, and thin- to thick-bedded quartz sandstone

BACKDOOR FORMATION: siltstone, mudstone, and thin- to thick-bedded sandstone; minor chert and dolostone

Thin- to thick-bedded sandstone and minor siltstone

Thin- to thick-bedded dololutite, dolomitic siltstone, dolarenite, and siltstone

COLLIER BASIN

Mutherbukin Tectonic Event (1385–1171 Ma)

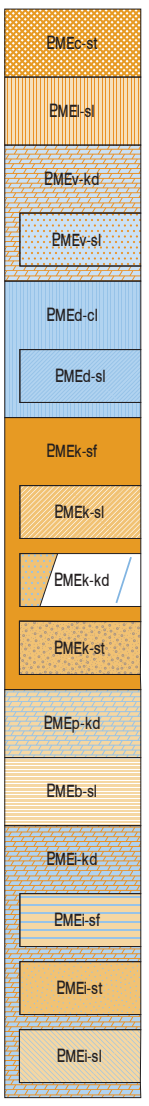
c. 1465 Ma

NARIMBUNNA DOLERITE: dolerite and gabbro sills intruded into **Edmund Group**

c. 1460 Ma

Bangemall Supergroup

Edmund Group



COODARDOO FORMATION: thin to very thick bedded lithic quartz sandstone; minor siltstone and mudstone

ULLAWARRA FORMATION: siltstone; subordinate fine-grained sandstone, dolostone, and chert; intruded by numerous dolerite sills

DEVIL CREEK FORMATION: laminated dolostone and dolomitic siltstone; local thick-bedded dolorudite

Siltstone, dolomitic siltstone, and dolostone

DISCOVERY FORMATION: massive or laminated chert, silicified mudstone, and siltstone; local silicified sandstone and conglomerate

Siltstone

KIANGI CREEK FORMATION: siltstone, mudstone, and thin to very thick bedded quartz sandstone; minor dolostone and conglomerate

Siltstone; minor fine-grained sandstone

Dolostone, siltstone, and sandstone

Medium to very thick bedded quartz sandstone and siltstone

CHEYNE SPRINGS FORMATION: undivided; dololutite, dolarenite, dolorudite, mudstone, siltstone, and minor sandstone

BLUE BILLY FORMATION: siltstone and mudstone; minor thin- to thick-bedded sandstone; locally sulfidic

IRREGULLY FORMATION: stromatolitic and non-stromatolitic dolostone, dolomitic siltstone, quartz sandstone, and conglomerate

Siltstone and thin to very thick bedded sandstone; minor dolostone

Sandstone, conglomerate, siltstone, and dolostone

Thick-bedded quartz sandstone; minor siltstone

EDMUND BASIN

PALEOPROTEROZOIC–MESOPROTEROZOIC

<1620 Ma

PROTEROZOIC

PALEOPROTEROZOIC

Mangaroon Orogeny (1677–1619 Ma[3])

Wyloo Group Bresnahan Group

Pebble- to boulder-conglomerate, pebbly sandstone, sandstone, siltstone, and mudstone (section only)

BRESNAHAN BASIN

Capricorn Orogeny (1817–1772 Ma[4])

c. 1806 Ma

ASHBURTON FORMATION: siltstone, thin to very thick bedded lithic quartz sandstone, pebble to cobble conglomerate, and felsic volcanic rock; lower greenschist facies (section only)

ASHBURTON BASIN