

PHANEROZOIC

CAINOZOIC

QUATERNARY



**Sheetwash units, present day**

*W* Silt, sand, and gravel deposited on low-gradient slopes with no clearly defined drainage channels  
*Wf* Ferruginous sheetwash, derived largely from adjacent ferricrete and ironstone

**Alluvial units, present day (second generation)**

*Af* Clay, silt, sand, and gravel deposited in channels and adjoining areas within channel systems

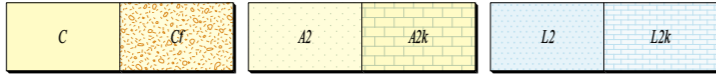


**Lacustrine units, present day (second generation)**

*Lh* Clay, silt, and sand in saline lakes (playas), primarily developed in palaeodrainage systems  
*Lld* Silt and sand in dunes associated with lacustrine systems; primarily fringing saline playas  
*Llg* Gypsiferous and saline bedded deposits adjacent to lakes  
*Llm* Clay, silt, and sand in mixed dune-and-playa terrain associated with lacustrine systems  
*Llk* Calcrete and gypcrete associated with saline lake systems

**Eolian units**

*E* Sand and minor silt in sandplain and dunes; largely eolian; minor residual component  
*Ed* Sand in longitudinal and network dunefields; primarily eolian, currently inactive



**Colluvial units**

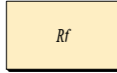
*C* Gravel, sand, and silt, commonly consolidated and dissected  
*Cf* Ferruginous colluvium, largely derived from adjacent **FRERE FORMATION**

**Alluvial units (first generation)**

*A2* Consolidated and semi-consolidated sand, silt, and gravel associated with palaeodrainage systems  
*A2k* Calcrete associated with alluvial systems; includes some calcrete now associated with lakes

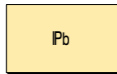
**Lacustrine units (first generation)**

*L2* Consolidated, partly reworked sediment in older lakes related to palaeodrainage systems  
*L2k* Calcrete associated with palaeodrainage systems; locally dissected and karstified

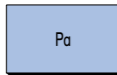


**Residual unit**

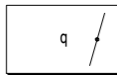
*Rf* Ferruginous duricrust; nodular, pisolitic, and massive ferricrete, and associated debris; includes some overlying residual sand



**Pb BARDSLEY FORMATION:** poorly sorted sandstone, siltstone, and granule conglomerate; local valley-fill deposit



**Pa PATERSON FORMATION:** poorly sorted sandstone, siltstone, and polymictic conglomerate; glaciogene

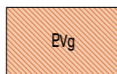


**q** Quartz vein

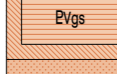
**Edmundian Orogeny**



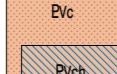
*Ed* Dolerite dyke or sill; dashed where interpreted from aeromagnetic data, intruded into **Scorpion Group**  
*Edg* **GLENAYLE DOLERITE:** fine- to medium-grained dolerite, in sills, intruded into **Salvation Group**



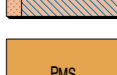
**Evg GLASS SPRING FORMATION:** poorly sorted, cross-bedded sandstone and pebble conglomerate



**Evgs** Siltstone and shale interval



**Evc COONABILDIE FORMATION:** siltstone and fine-grained lithic sandstone, commonly rippled



**Evch** Varicoloured chert



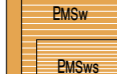
**EMS** Undivided **Scorpion Group**



**EMSm MILLURY FORMATION:** quartz sandstone and subordinate siltstone, rippled and cross-bedded



**EMSms** Siltstone and minor sandstone, poorly exposed



**EMSmo** Cobble and boulder conglomerate; subordinate sandstone



**EMSy WILLY WILLY FORMATION:** interbedded stromatolitic dolomite, siltstone, and sandstone, commonly contorted bedding



**EMSw WONYULGUNNA SANDSTONE:** quartz sandstone and subordinate siltstone, predominantly cross-bedded; local basal conglomerate



**EMSws** Siltstone interval, possibly evaporitic in subsurface



**EMSwx** Sandstone showing giant cross-bedding, basal facies of **WONYULGUNNA SANDSTONE**

PROTEROZOIC

MESOPROTEROZOIC

PERMIAN

c. 1070 Ma<sup>1</sup>

c. 1210 Ma<sup>2,3</sup>

>1460 Ma<sup>3,4</sup>

<1620 Ma<sup>3,4</sup>

Salvation Group

Scorpion Group

Bangemall Supergroup

SALVATION BASIN

SCORPION BASIN

PROTEROZOIC

PALAEOPROTEROZOIC

ARCHAEOAN

<1808 Ma<sup>5</sup>

<1876 Ma<sup>5</sup>

<2048 Ma<sup>5</sup>

<2027 Ma<sup>5</sup>

c. 1840 Ma<sup>6</sup>

c. 2648 Ma<sup>7</sup>

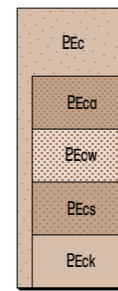
c. 2664 Ma<sup>7</sup>

Ecarahedy Group

Tooloo Subgroup

Mooloolool Group

**Stanley Fold Belt (?1760 Ma)**



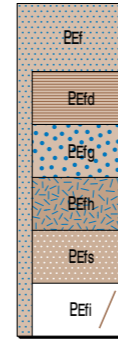
**EEc CHIALL FORMATION:** undivided; siltstone and sandstone, cleaved and sheared in Stanley Fold Belt

**EEcA** Texturally mature quartz sandstone to quartz arenite, commonly silicified, and interbedded siltstone; includes **Princess Ranges Member**

**EEcW** **Wandiwarra Member:** siltstone, shale, and sandstone, commonly silicified

**EEcS** Siltstone and shale, commonly laminated; minor fine-grained sandstone

**EEcK** **Karri Karri Member:** laminated shale, generally finely and evenly laminated, and siltstone; minor sandstone



**EEf FRERE FORMATION:** undivided, granular and laminated iron-formation, silicified granular iron-formation, siltstone, shale, and chert

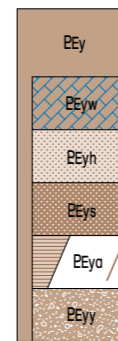
**EEfd** **Windidda Member:** stromatolitic carbonate, jasper, and peloidal jasper

**EEfg** Granular iron-formation and silicified granular iron-formation, in places peloidal, locally supergene enriched; minor siltstone, shale, and chert; locally replaced by chlorite and stilpnomelane

**EEfh** Massive green chert

**EEfs** Siltstone and shale; minor granular iron-formation

**EEfi** Banded iron-formation; supergene-enriched granular iron-formation



**EEy YELMA FORMATION:** undivided; quartz sandstone, siltstone, shale, and stromatolitic dolomite and associated chert breccia

**EEyw** **Sweetwaters Well Member:** stromatolite dolomite, microbial, and chert breccia derived from dolomite

**EEyh** Stromatolitic dolomite, dolomitic sandstone, and chert breccia derived from dolomite

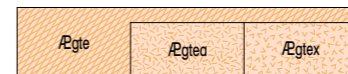
**EEys** Siltstone and shale; minor chert

**EEya** Quartz sandstone; minor pebble conglomerate

**EEyy** **Yadgimurrin Member:** polymictic conglomerate, matrix supported



**EYmk KILLARA FORMATION:** fine- to coarse-grained mafic intrusive rock, as sills



**EAgte** **TEAGUE GRANITE:** leucocratic K-feldspar granite  
**EAgtea** Quartz-microcline-(albite-stilpnomelane) granite; brecciated and silicified  
**EAgtex** Quartz-albite-microcline-(garnet-aegirine augite) granite



**Agak** Medium-grained, leucocratic K-feldspar granite  
**Agzq** Hornblende quartz monzonite



**Ag** Granitoid rock, undivided; generally monzogranite  
**Agm** Biotite monzogranite, generally porphyritic  
**Agmk** Monzogranite with potassic alteration (subsurface only)



**As** Metamorphosed sedimentary rock, undivided  
**Af** Metamorphosed felsic volcanic rock  
**Afp** Metamorphosed feldspar porphyry



**Ab** Metamorphosed mafic rock; undivided  
**Abe** Metabasalt with epidote, garnet-epidote, or clinopyroxene-epidote-chlorite alteration

ECARAHEDY BASIN

YERRIDA BASIN

YILGARN CRATON