

**Colluvial units**

- C* Colluvium derived from different rock types; includes gravel, sand, silt and clay
- C<sub>p</sub>* Clay, silt, and sand of mixed origin in pediplain deposits; subcropping bedrock
- C<sub>pg</sub>* Quartzofeldspathic clay, silt, and sand of mixed origin in pediplain deposits; subcropping bedrock
- C<sub>g</sub>* Gravel, sand, and silt, commonly derived from quartzofeldspathic rocks and associated weathering products

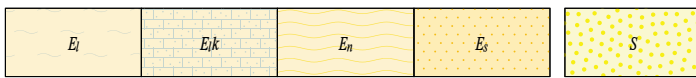
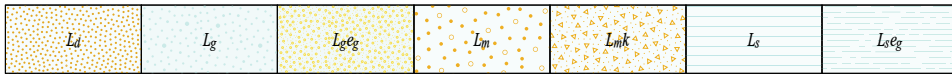
**Sheetwash units**

- W* Clay, silt, and sand in sheetwash fans
- W<sub>f</sub>* Clay, silt, and sand with abundant ferruginous grit
- W<sub>g</sub>* Clay, silt, and sand, commonly derived from quartzofeldspathic rocks
- W<sub>wpm</sub>* Clay, silt and sand derived from weathered metamorphosed monzogranite and monzonite



**Sheetwash units**

- A* Sand, silt, and clay in alluvial drainage depressions, claypans, and ephemeral floodplain lakes; low-lying areas with internal drainage
- A<sub>u</sub>* Superficial channel commonly terminating at a sheetwash zone; ephemeral
- A<sub>v</sub>* Clay, silt, sand, and gravel in alluvial fans
- A<sub>y</sub>* Sand, silt, and clay in localized depressions within eolian sandplain



**Lacustrine units**

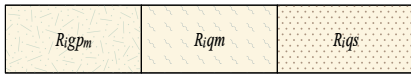
- L<sub>d</sub>* Sand, silt, and gypsum in dunes adjacent to and within playa lakes
- L<sub>g</sub>* Silt, sand, and gravel in halophyte flats adjacent to playa lakes
- L<sub>geg</sub>* Lithified and unconsolidated gypsum and clay, in locally well-bedded deposits fringing salt lakes
- L<sub>m</sub>* Mixed dune, evaporite, and alluvial deposits, typically adjacent to playa lakes
- L<sub>mk</sub>* Calcareous dune, evaporite, and alluvial deposits, typically adjacent to playa lakes
- L<sub>s</sub>* Saline lake, rimmed by evaporitic gypsum and carbonate deposits
- L<sub>seg</sub>* Saline lake deposit; predominantly comprising evaporitic gypsum

**Eolian units**

- E<sub>l</sub>* Unconsolidated to consolidated, quartz-dominated eolian sand in longitudinal dunefield
- E<sub>lk</sub>* Calcareous sand in longitudinal dunefield
- E<sub>n</sub>* Net-like dunefield
- E<sub>s</sub>* Unconsolidated, quartz-dominated eolian sand overlying alluvial-playa plain

**Sandplain unit**

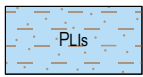
- S* Residual and eolian sand with minor silt and clay; low vegetated dunes locally common



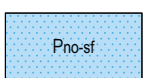
**Residual or relict units**

- Rlqgpm* Quartzofeldspathic sand, silt, and clay derived from weathered monzogranite and monzonite, and metamorphosed equivalents; localized outcrops of weathered bedrock
- Rlqgm* In situ weathered metamorphic rocks; quartz-rich
- Rlqgs* In situ weathered sedimentary rocks; quartz-rich
- Rrfm* Ferruginous duricrust, massive to rubby; derived from metamorphic rocks; includes iron-cemented reworked products
- Rrfpg* Ferruginous duricrust, massive to rubby; derived from granitic rocks; includes iron-cemented reworked products
- Rrfpm* Ferruginous duricrust, massive to rubby; derived from metamorphosed granitic rocks; includes iron-cemented reworked products
- Rrls* Ferruginous duricrust and iron-cemented products derived from sedimentary rocks
- Rrfvt* Ferruginous duricrust, massive to rubby; derived from felsic volcanic rocks; includes iron-cemented reworked products
- Rrkk* Calcrete; undifferentiated
- Rrkkg* Groundwater calcrete; locally forms low mounds; nodular to massive; commonly with alternating layers of carbonate and chalcedony
- Rrzz* Silcrete; residual or relict siliceous duricrust

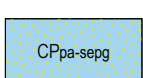
**Fitzroy Movement (237–199 Ma)**



**Liveringa Group:** sandstone and siltstone, minor conglomerate, and coal

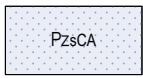


**NOONKANBAH FORMATION:** siltstone, shale, and sandstone; minor carbonate

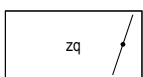


**PATERSON FORMATION:** conglomerate (including diamictite), sandstone, and siltstone; largely glaciogene

**Alice Springs Orogeny (450–298 Ma)**

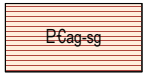


Sandstone and siltstone, eastern Canning Basin

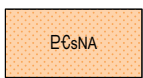


Quartz vein or pod; massive, crystalline, or brecciated; age uncertain

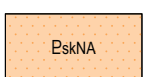
**Petermann Orogeny (580–520 Ma)**



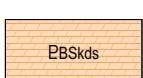
**ANGAS HILLS FORMATION:** interbedded conglomerate and sandstone, minor mudstone



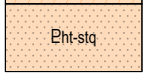
Undivided sedimentary rocks of the western Amadeus Basin



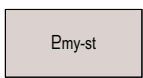
Siltstone, carbonate, evaporites, and sandstone; undifferentiated lower formations of the western Amadeus Basin



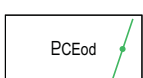
**Bitter Springs Group:** dolomite, stromatolitic dolomite, siltstone, and sandstone; evaporitic in subsurface



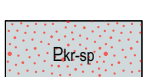
**HEAVITREE FORMATION:** quartz sandstone and quartzite; lesser siltstone and pebbly conglomerate



**MUNYU SANDSTONE:** quartz sandstone and conglomerate

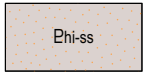


**Central Desert Dolerite Suite:** dolerite dyke



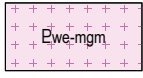
**KIWIRRKURRA FORMATION:** red-weathering lithic sandstone, quartz sandstone, and conglomerate

**Chewings Orogeny (1590–1570 Ma)**

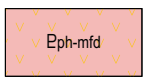


**HIDDEN BASIN BEDS:** quartz sandstone, sublithic sandstone, shale, and siltstone

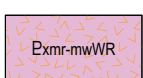
**Liebig Orogeny (1640–1630 Ma)**



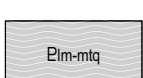
**MOUNT WEBB GRANITE:** metamonzogranite; metasyenogranite, metagranodiorite, and metatonalite



**POLLOCK HILLS FORMATION:** metadacite, metarhyodacite, and volcanoclastic metasedimentary rock

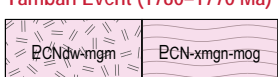


**Warumpi Province metamorphic unit:** undivided granitic gneiss and metamorphosed, felsic to mafic volcanic and volcanoclastic rocks (section only)

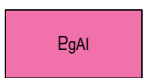


**LAKE MacKAY QUARTZITE:** interbedded quartzite and quartz-mica schist

**Yambah Event (1780–1770 Ma)**

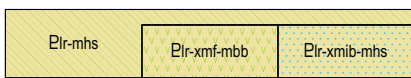


**ECNdW-mgm** DWARF WELL GRANITE: coarse-grained biotite metamonzogranite  
**ECNxmgn-mog** Granite gneiss interlayered with metagabbro

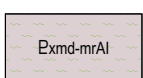


**Aileron Province granitic unit:** granitic rock

**Stafford Event (1810–1790 Ma)**



**Elr-mhs** LANDER ROCK FORMATION: interbedded psammitic and pelitic schist; quartz-muscovite schist; may include metamorphosed banded iron-formation and metavolcanic rocks  
**Elr-xmf-mbb** Felsic volcanic metasandstone and metaconglomerate, interbedded with amygdaloidal metabasalt  
**Elr-xmib-mhs** Metamorphosed banded-iron formation, interbedded with psammitic and pelitic schist



**Aileron Province metamorphic unit:** undivided metasedimentary and meta-igneous rocks

CARBONIFEROUS – PERMIAN

CANNING BASIN

<781 Ma

AMADEUS BASIN (Phase 1)

CENTRALIAN SUPERBASIN

<896 Ma<sup>1</sup>

<1050 Ma<sup>2</sup>

<1099 Ma

MURRABA BASIN

c. 975 Ma

<1633 Ma

1647–1633 Ma

c. 1677 Ma

<1750 Ma

1779–1767 Ma<sup>3,4</sup>

c. 1773 Ma

<1840 Ma

Carrington Suite

WARUMPI PROVINCE

NORTH AUSTRALIAN CRATON

AILERON PROVINCE

ARUNTA OROGEN