PHANEROZOIC

CENOZOIC

QUATERNARY

PALEOGENE

Colluvial units

Cgp_g	Quartzofeldspathic sand, silt, and gravel in colluvial deposits derived from granitic rocks
Cgs	Quartzofeldspathic sand, silt, and gravel in colluvial deposits derived from sedimentary rocks
Ckc	Carbonate-rich colluvial deposits derived from biochemical sedimentary rocks; dolomite and limestone
Cmp_l	Ferromagnesian colluvial deposits and lateritic soils derived from dolerite
Cmv_b	Ferromagnesian, red-brown sand and silt, with pisoliths; derived from basalt
Cqs	Quartz-rich sand, silt and gravel in colluvial deposits derived from sedimentary rocks
Cx_is	Micaceous colluvium derived from sedimentary rocks

Sheetwash unit

W	Clay, silt, sand, and ferruginous pisoliths in localized fans

Alluvial units

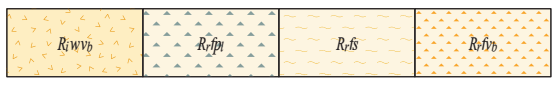
A	Clay, silt, sand, and gravel in channels and on floodplains
A_ac_b	Black soils (gilgai); grey to black smectitic clays on alluvial plains

Coastal (tide-dominated) units

T_b	Sand, silt, and mud in tidal channels
T_e	Estuary
T_f	Sand, silt, and mud on tidal flats; locally with salt crust
T_m	Sand, silt, and mud on mangrove flats

Residual or relict unit

R_s	Residual sand; locally iron-rich and rubbly, containing ferruginous pisoliths and nodules



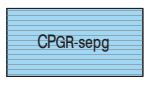
Residual or relict units

R_iwv_b	In situ weathered basalt
R_rfp_l	Ferruginous duricrust derived from dolerite
R_rfs	Ferruginous duricrust, massive to rubbly; derived from siliciclastic sedimentary rocks; includes iron-cemented reworked product
R_rfv_b	Ferruginous duricrust; pisolitic and locally rubbly; indurated weathered basalt as mesas and caps

PALEOZOIC

CARBONIFEROUS–PERMIAN

Grant Group



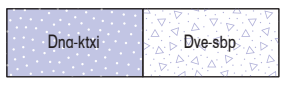
Sandstone, siltstone, diamictite, conglomerate, and shale; largely glacigene

DEVONIAN

FAMENNIAN

NULLARA LIMESTONE: well-bedded microbial, oolitic and peloidal limestone; locally dolomitized, sandy, or conglomeratic; Famennian back-reef platform facies in carbonate reef complexes

FRASNIAN–FAMENNIAN



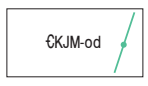
Dnu-ktxi NAPIER FORMATION: well-bedded to massive fore-reef, reefal slope, and basinal limestone; locally dolomitized and steeply dipping; locally microbial and sponge rich; some allochthonous blocks and debris flows, some sandstone (section only)

Dve-sbp VAN EMMERICK CONGLOMERATE: siliciclastic cobble to boulder conglomerate, minor sandstone and interbedded limestone; Frasnian and Famennian platform- to basin-level conglomerates associated with carbonate reef complexes

CANNING BASIN

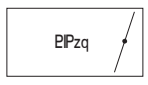
KALKARINDJI LARGE IGNEOUS PROVINCE

c. 510 Ma



MILLIWINDI DOLERITE: dolerite dyke

King Leopold Orogeny (c. 560 Ma)



Quartz vein; massive, crystalline, or brecciated; various ages from Paleoproterozoic to Phanerozoic

Dolerite dykes crosscutting the Paperbark Supersuite; commonly metamorphosed to amphibolite facies

NEOPROTEROZOIC

EDIACARAN

CRYOGENIAN

Mount House Group

THROSSELL SHALE: blue-grey or grey-green, poorly laminated, micaceous siltstone with minor shale interbeds; coarsening upwards with grey-green, fine-grained, flaggy, laminated, micaceous sandstone interbeds

TRAINE FORMATION: green to brown, coarse-grained, lithic sandstone with minor sandy dolomite and dolomitic sandstone; scattered glacial erratics up to 2.5 m diameter

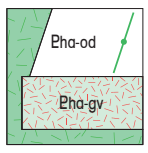
WALSH TILLITE: matrix-supported, polymictic pebble to boulder tillite, green siltstone and shale matrix; capped by microbial to stromatolitic dolomite

Beverley Springs Member: poorly sorted, pebbly quartz sandstone

LOUISA BASIN

Yampi Orogeny (1475–999 Ma)

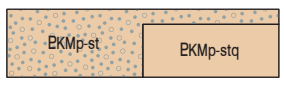
c. 1784 Ma



HART DOLERITE: dark-grey dolerite and gabbro, and pink to pale-grey, medium- to coarse-grained granophyre

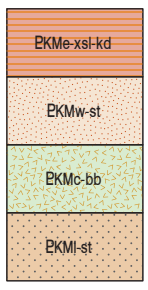
Pink to pale-grey, medium- to coarse-grained granophyre

Kimberley Group



ĐKMp-st PENTECOST SANDSTONE: quartz sandstone, pebbly sandstone, siltstone, and claystone (section only)

ĐKMp-stq Lower unit: quartz sandstone, feldspathic sandstone, and micaceous siltstone



ELGEE SILTSTONE: red-brown and grey siltstone and mudstone, stromatolitic dolostone, sandy dolostone, oolitic dolostone, and sandstone

WARTON SANDSTONE: white to buff quartz sandstone and feldspathic sandstone; siltstone interbeds; minor hematitic sandstone

CARSON VOLCANICS: massive and amygdaloidal basalt and basaltic volcaniclastic rock; interbedded quartz sandstone, feldspathic sandstone, siltstone, and mudstone

KING LEOPOLD SANDSTONE: white to pale-brown, medium- to coarse-grained quartz sandstone and pebbly quartz sandstone; minor siltstone and granule to pebble conglomerate

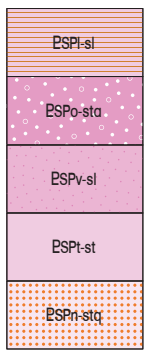
KIMBERLEY BASIN

PROTEROZOIC

PALEOPROTEROZOIC

Speewah Group

c. 1835 Ma [1]



LUMAN SILTSTONE: green and brown siltstone, mudstone, and thin-bedded sandstone; ferruginous, micaceous siltstone

LANSDOWNE ARKOSE: thin-bedded, purple-brown, grey, and white feldspathic sandstone with interbedded quartz sandstone; minor micaceous siltstone and mudstone

VALENTINE SILTSTONE: flaggy siltstone and mudstone, commonly micaceous or chloritic; minor, thin-bedded, feldspathic quartz sandstone and dacitic to rhyolitic, volcaniclastic siltstone

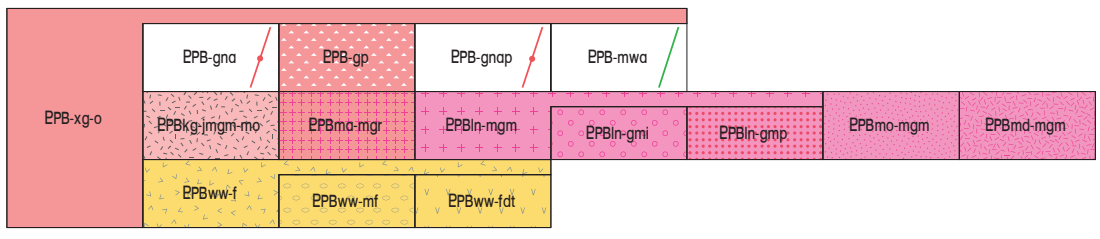
TUNGANARY FORMATION: buff and grey feldspathic sandstone, quartz sandstone, brown and green siltstone and mudstone

O'DONNELL FORMATION: fine- to coarse-grained quartz sandstone and lithic quartz sandstone, pebbly sandstone, chloritic siltstone and mudstone, and granule to pebble conglomerate

SPEEWAH BASIN

Halls Creek Orogeny (1832–1808 Ma)

Paperbark Supersuite



ĐPB-xg-o Granite, microgranite, gabbro, layered mafic–ultramafic intrusions, and felsic volcanic rock (section only)

ĐPB-gna Aplitic dyke; crosscutting earlier rocks of the Paperbark Supersuite

ĐPB-gp Pegmatite

ĐPB-gnap Quartz–feldspar porphyritic microgranite; as dykes crosscutting earlier rocks of the Paperbark Supersuite

ĐPB-mwa Isolated dykes of amphibolite

c. 1852 Ma [2] ĐPBkg-jmgm-mo KONGOROW GRANITE: foliated, porphyritic, biotite-rich metamonzogranite and metagranodiorite; contains mafic inclusions and mafic bands

ĐPBma-mgr MOUNT AMY GRANITE: foliated biotite–muscovite metasyenogranite; weakly porphyritic

1864–1862 Ma [2] ĐPBln-mgm LENNARD GRANITE: foliated, coarse-grained, porphyritic biotite metamonzogranite; minor metasyenogranite, metagranodiorite, and equigranular metamonzogranite

ĐPBln-gmi Monzogranite with zones rich in xenoliths of metasedimentary rocks

ĐPBln-gmp Coarse-grained, porphyritic monzogranite

c. 1862 Ma [2] ĐPBmo-mgm MONDOOMA GRANITE: foliated biotite metamicromonzogranite with quartz phenocrysts; minor metasyenogranite and metagranodiorite

ĐPBmd-mgm MOUNT DISASTER PORPHYRY: foliated, porphyritic, biotite metamicromonzogranite; phenocrysts of K-feldspar, plagioclase, and quartz

1862–1854 Ma [2] ĐPBww-f WHITEWATER VOLCANICS: porphyritic rhyolite to dacite; coherent lavas, subvolcanic intrusions, and pyroclastic deposits; commonly crystal rich; minor volcanic breccia, lapilli tuff, and volcaniclastic rock; locally foliated

ĐPBww-mf Foliated, crystal-poor, porphyritic metadacite and metarhyodacite; metamorphosed lava, tuff, and volcanic breccia

ĐPBww-fdt Dacitic and minor rhyodacitic ash-flow tuff; biotite rich

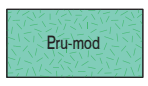
LAMBOO PROVINCE

KIMBERLEY CRATON

NORTH AUSTRALIAN CRATON

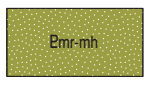
Hooper Orogeny (1870–1850 Ma)

1872–1861 Ma



RUINS DOLERITE: coarse- to fine-grained metadolerite; equigranular to porphyritic

1872–1864 Ma [3]



MARBOO FORMATION: thin-bedded, turbiditic metasandstone and quartz–chlorite–muscovite phyllite; hornfelsed adjacent to granite intrusions