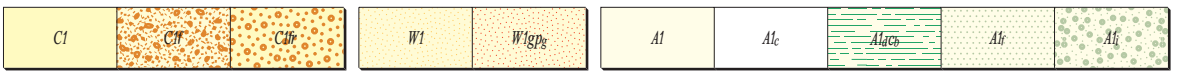
PHANEROZOIC

CAINOZOIC

QUATERNARY



Colluvial units

C1	Colluvial sand, silt, and gravel in outwash fans; scree and talus; proximal mass-wasting deposits; unconsolidated
C1f	Ferruginous colluvium; unconsolidated silt, sand, and rock debris; proximal mass-wasting of deposits
C1fr	Ferruginous colluvium; unconsolidated silt, sand, and rock debris; proximal mass-wasting of ferruginous duricrust

Low-gradient slope units

W1	Silt, sand, and pebbles in distal sheetwash fans; no defined drainage
$W1gp_g$	Quartzofeldspathic sand and quartz pebbles in sheetwash fans; derived from mass-wasting of granitic rocks

Alluvial units

A1	Alluvial sand, clay, silt, and gravel in active drainage areas
$A1_c$	Sand, silt, and gravel in active drainage channels; includes clay, silt, and sand in poorly defined drainage courses on floodplains
$A1_{dcb}$	Alluvial clay and silt in drainage depressions subject to flooding; poorly defined drainage channels, and local claypans; gilgai surface, generally vegetated
$A1_f$	Floodpain deposits; sand, silt, clay, and gravel adjacent to main drainage channels
$A1_i$	Mixed floodplain deposits; sand, silt, and clay adjacent to main drainage channels; numerous small claypans

Colluvial units

C2	Partly consolidated colluvial sand, silt, and gravel in proximal outwash fans; scree and talus; dissected by present-day drainage
$C2fp_g$	Variably consolidated quartzofeldspathic sand, silt, and clay on palaeoslopes; derived from mass-wasting of granitic rocks; ferruginous; dissected by present-day drainage

Alluvial unit

A2	Consolidated alluvial sand, silt, and gravel; dissected by present-day drainage

Residual or relict units

$R2c_bv_b$	Residual and sheetwash clay and silt containing fragments of basalt; expansive clay with gilgai surface; overlies basalt on areas of plateau; locally dissected by present-day drainage
$R2gp_g$	Variably consolidated eluvial and colluvial sand, gravel, and silt overlying, and derived from mass-wasting of granitic rocks; variably consolidated; dissected by present-day drainage
R2k	Residual calcrete; massive, nodular, and cavernous limestone; variably silicified; dissected by present-day drainage

PALEOGENE to NEOGENE

MILLSTREAM FORMATION: dolomite, calcareous dolomite, and calcrete; minor clay and basal conglomerate; local residual silcrete and chert breccia

Alluvial unit

A3	Consolidated alluvial sand, silt, and gravel along palaeodrainage lines; related to Hamersley Surface; dissected by present-day drainage

Residual or relict unit

R3f	Ferruginous duricrust and ferruginous colluvium; locally includes ferruginous alluvium; consolidated to partly consolidated; related to Hamersley Surface; dissected by present-day drainage

ROBE PISOLITE: pisolitic limonite, goethite, and hematite deposits; developed along palaeodrainage lines; dissected by present-day drainage

PROTEROZOIC

NEOPROTEROZOIC

c. 755 Ma [1]

ꝑRH-od	**Round Hummock Dolerite Suite:** dolerite dyke; fine to medium grained
ꝑMW-od	**Mundine Well Dolerite Suite:** dolerite dyke with locally abundant granitic xenoliths and potassic alteration of wallrocks; local syenite

ARCHAEAN

c. 2597 Ma [2]

2690–2629 Ma [3 4]

Hamersley Group

Mount Bruce Supergroup

Fortescue Group

MARRA MAMBA IRON FORMATION: banded iron-formation; minor chert, mudstone, and siltstone

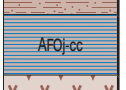
JEERINAH FORMATION

Shale and minor siltstone

Shale, chert, and dolomite; decimetre- to metre-scale bedding; includes uncommon, small domical stromatolites in dolomite

Thinly bedded dolomite; minor chert and shale

Shale, fine-grained sandstone, siltstone, and black chert



Blue-grey and black chert

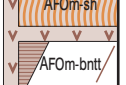
2718–2713 Ma [5 6]

MADDINA FORMATION

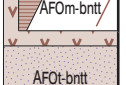
Basalt; massive, fine grained, vesicular, and doleritic; thick flows and/or sills, to thin flows; local very coarse gas cavities filled with quartz

c. 2713 Ma [6]

Kuruna Member: basaltic to andesitic volcaniclastic rocks (common accretionary lapilli), sandstone, siltstone, shale, and local stromatolitic limestone



Shale and siltstone



Basaltic to andesitic volcaniclastic sandstone, siltstone, and shale

2719–2715 Ma [3 6 7]

TUMBIANA FORMATION

Basaltic to andesitic volcaniclastic siltstone and sandstone; well bedded, with local cross-bedding and accretionary lapilli; common welded matrix; local stromatolites; local shale and quartz sandstone

Meentheena Member: lenticular units of stromatolitic, dark-grey siliceous limestone or dolomite within laterally variable sequences of volcaniclastic sandstone and siltstone (accretionary lapilli), calcareous sandstone, shale, and basalt; local quartz sandstone and conglomerate

2727–2721 Ma [6]

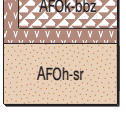
Mingah Member: basaltic to andesitic volcaniclastic sandstone and siltstone (common accretionary lapilli), and local quartz sandstone, shale, and thin lenticular stromatolitic carbonate units; locally thick basalt flows

2749–2735 Ma [6]

KYLENA FORMATION

Massive to vesicular basalt

Quartz sandstone

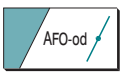


Coarse pillow breccia with fine-grained hyaloclastites; sandy matrix

2766–2752 Ma [3 6]

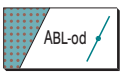
HARDEY FORMATION

Coarse to pebbly sandstone; minor pebble conglomerate; thickly bedded



Dolerite dyke or sill

c. 2772 Ma [9]



Black Range Dolerite Suite: dolerite dyke; local gabbro; weakly metamorphosed

HAMERSLEY BASIN

PILBARA CRATON

c. 2908 Ma [8]

Cutiduna Supersuite

BAMBOO SPRINGS MONZOGRANITE: biotite monzogranite, K-feldspar porphyritic; coarse grained; magmatic foliation

East Pilbara Granite–Greenstone Terrane

De Grey Supergroup

Nullagine Group

Unassigned

Psammite and pelite; interbedded (Section only)

Mosquito Creek Basin

Sisters Supersuite

c. 2928 Ma [5]

c. 2926 Ma [10]

ASTmu-gme	**MULGANDINNAH MONZOGRANITE:** fine- to medium-grained biotite monzogranite; weakly foliated
AST-gl	Heterogeneous, biotite leucogranite; fine to coarse grained and weakly foliated; commonly schlieric

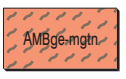
Gorge Creek Group

Undivided banded iron-formation; inferred from aeromagnetic data (Section only)

East Pilbara Granite–Greenstone Terrane

3199–3178 Ma [10 8]

Mount Billroth Supersuite



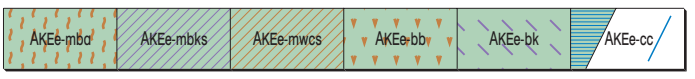
GOLDEN EAGLE ORTHOGNEISS: layered orthogneiss derived from tonalite, granodiorite, monzogranite, and pegmatite; includes layers and lenses of amphibolite and ultramafic schist

Kurrana Terrane

3350–3335 Ma [7 8]

Pilbara Supergroup

Kelly Group



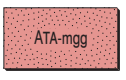
EURO BASALT

AKEe-mba	Medium-grained amphibolite and amphibolite schist; derived from basaltic volcanic rocks
AKEe-mbks	Chlorite–tremolite schist, derived from komatiitic basalt
AKEe-mwcs	Strongly sheared chlorite schist
AKEe-bb	Basalt, generally pillowed; minor massive dolerite, gabbro, and komatiitic basalt; metamorphosed
AKEe-bk	Komatiitic basalt, generally pillowed; metamorphosed
AKEe-cc	Chert; generally white, grey, and blue-black layered; locally massive blue-grey; weakly metamorphosed

East Pilbara Granite–Greenstone Terrane

3435–3425 Ma [11 12]

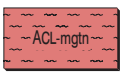
Tambina Supersuite



Equigranular, leucocratic granodiorite; generally medium grained; predominantly foliated

c. 3470 Ma [13]

Collina Supersuite



Heterogeneous, migmatitic, tonalitic–granodioritic orthogneiss