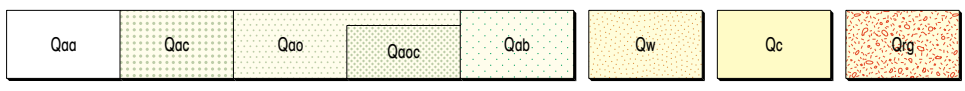
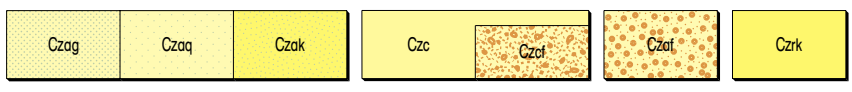
PHANEROZOIC

CAINOZOIC

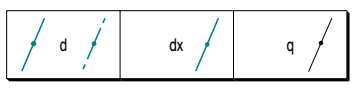
QUATERNARY



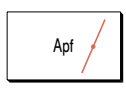

Qaa Alluvial sand and gravel in rivers and creeks; clay, silt, and sand in channels on floodplains
Qac Clay and silt in claypan deposits on floodplains
Qao Alluvial sand, silt, and clay on floodplains
Qaoc Mixed floodplain deposits with numerous small claypans
Qab Alluvial sand, silt, and clay in floodplains, with gilgai surface in areas of expansive clay
Qw Sheetwash deposits — silt, sand, and pebbles on distal outwash fans; no defined drainage
Qc Colluvium — sand, silt, and gravel in outwash fans; scree and talus; proximal mass-wasting deposits
Qrg Quartzofeldspathic eluvial sand with quartz and rock fragments; overlying and derived from granitoid rock



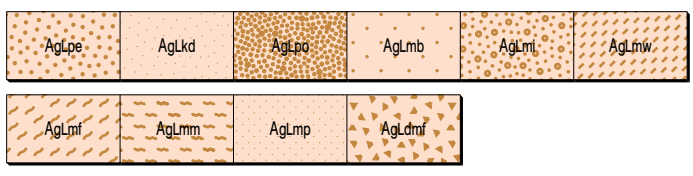

Czag Alluvial gravel, unrelated to recent drainage; dissected by present-day drainage
Czaq Alluvial gravel deposits, dominated by vein-quartz debris, unrelated to recent drainage; dissected
Czak Alluvial calcrete; massive, nodular, and cavernous limestone; variably silicified; dissected by present-day drainage
Czc Colluvium — dissected consolidated clay, silt, and sand deposits; derived from adjacent rock outcrops
Czcf Ferruginous silt, sand, and gravel; variably consolidated and dissected
Czaf Pisolitic limonite deposits, developed along palaeodrainage lines; dissected by present-day drainage
Czrk Residual calcrete; massive, nodular, and cavernous limestone; mainly silicified




d Dolerite and gabbro dykes; interpreted from aeromagnetic data where dashed
dx Dolerite dykes, with abundant granite xenoliths locally; potassic alteration
q Quartz vein

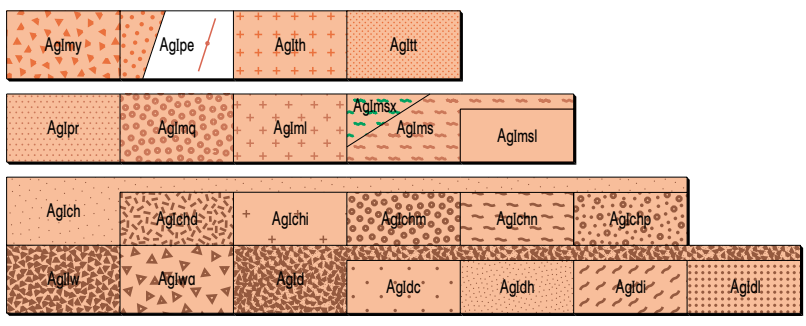



Quartz(–feldspar) porphyry dyke; fine-grained; massive




**CARLINDI GRANITOID COMPLEX**

AgLpe Pegmatite; metamorphosed
AgLkd **KADGEWARRINA MONZOGRANITE:** muscovite–biotite(–garnet) monzogranite; equigranular to weakly porphyritic; massive to weakly foliated; metamorphosed
AgLpo **POOCATCHE MONZOGRANITE:** muscovite–biotite monzogranite; seriate to porphyritic; massive to weakly foliated; locally abundant pegmatite; metamorphosed
AgLmb Fine- to coarse-grained muscovite–biotite monzogranite; massive to weakly foliated; metamorphosed
AgLmi **MINNAMONICA MONZOGRANITE:** porphyritic biotite(–muscovite) monzogranite; fine- to coarse-grained; quartz and K-feldspar phenocrysts; massive to weakly foliated; metamorphosed
AgLmw Biotite(–muscovite) monzogranite, equigranular to weakly K-feldspar porphyritic; locally highly leucocratic and ghost-banded; massive to weakly foliated; metamorphosed
AgLmf Biotite monzogranite, strongly foliated; seriate to K-feldspar porphyritic; related to AgLmp; metamorphosed
*c.* 2940 Ma[6] AgLmm Mylonitized monzogranite; related to AgLmp; metamorphosed
AgLmp Biotite monzogranite, porphyritic (K-feldspar) to seriate; massive to weakly foliated; locally strong flow-alignment; metamorphosed
AgLdmf Diorite, granodiorite, monzogranite, and abundant felsic to mafic inclusions and dykes, strongly foliated; metamorphosed




**PIPPINGARRA GRANITOID COMPLEX**

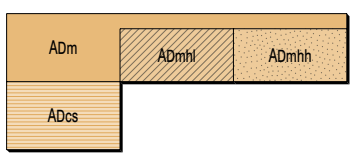
AgImy **MYANNA LEUCOGRANITE:** biotite–muscovite monzogranite; locally with quartz and K-feldspar phenocrysts; massive to weakly foliated; metamorphosed
AgIpe Pegmatite; metamorphosed
AgIth **THELMAN MONZOGRANITE:** fine- to medium-grained muscovite–biotite(–garnet) monzogranite; equigranular to weakly porphyritic; massive to weakly foliated; metamorphosed
AgItt **TABBA TABBA LEUCOGRANITE:** fine- to medium-grained biotite(–muscovite) granite; seriate to equigranular; massive to weakly foliated; metamorphosed
AgIpr **PETERMARER MONZOGRANITE:** biotite-monzogranite; seriate to strongly K-feldspar porphyritic; massive to weakly foliated; locally with strong flow-alignment; locally abundant inclusions of CHILLERINA GRANODIORITE; metamorphosed
*c.* 2940 Ma[5] AgImq Leucocratic and porphyritic biotite monzogranite with quartz and feldspar phenocrysts; massive to weakly foliated; metamorphosed
AgIml Leucocratic biotite monzogranite; massive to weakly foliated; metamorphosed
*c.* 2940 Ma[6] AgIms Biotite monzogranite, seriate to porphyritic K-feldspar; fine- to medium-grained; massive to weakly foliated; local strong flow-alignment; metamorphosed
AgImsx Biotite monzogranite, seriate to porphyritic K-feldspar with greenstone and granitoid inclusions; metamorphosed
*c.* 2930 Ma[6] AgImsl Biotite monzogranite, seriate to porphyritic K-feldspar, highly leucocratic and locally strongly ghost-banded; metamorphosed
AgIch **CHILLERINA GRANODIORITE:** hornblende–biotite granodiorite to K-feldspar porphyritic monzogranite; massive to moderately foliated; metamorphosed
AgIchd Granodiorite and monzogranite, strongly net-veined by diorite; metamorphosed
*c.* 2945 Ma[6] AgIchi Granodiorite magmatically interleaved with massive to weakly foliated, seriate to K-feldspar-porphyritic leucogranite; injection migmatite; metamorphosed
AgIchm K-feldspar porphyritic monzogranite and lesser granodiorite; mesocratic; local inclusions of granodiorite; metamorphosed
*c.* 2945 Ma[6] AgIchn Strongly foliated biotite(–hornblende) monzogranite, and granitic gneiss
AgIchp Plagioclase-porphyritic granodiorite; strongly foliated in shear zones; metamorphosed
AgIlw **MALLINDRA WELL GRANODIORITE:** hornblende–biotite granodiorite and tonalite; massive to moderately foliated; locally inclusion-rich; metamorphosed
*c.* 2955 Ma[5] AgIwa **WALLAREENYA GRANODIORITE:** hornblende–biotite granodiorite and tonalite; massive to moderately foliated; locally inclusion-rich; metamorphosed
AgId Hornblende–biotite diorite and granodiorite; massive to moderately foliated; locally inclusion-rich; metamorphosed
AgIdc Coarse-grained diorite and granodiorite; metamorphosed
AgIdh Hornblende-megacrystic, coarse-grained diorite and gabbro; massive to weakly foliated; metamorphosed
AgIdi Magmatically interleaved metagabbro and coarse-grained diorite and granodiorite; metamorphosed
AgIdl Coarse-grained, leucocratic biotite(–hornblende) granodiorite and monzogranite; massive to moderately foliated; metamorphosed

ARCHAEAN

Pilbara Supergroup

De Grey Group

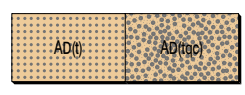
< 2990 Ma[5]




ADm **MALLINA FORMATION:** interbedded shale, siltstone, and medium- to fine-grained wacke; minor layers of chert; metamorphosed
ADmhl Chlorite-rich, laminated shale and siltstone; metamorphosed
ADmhh Cordierite hornfels, strongly contact-metamorphosed shale, siltstone, and wacke

**CONSTANTINE SANDSTONE**

ADcs Poorly sorted subarkose and wacke; lesser interbeds of shale; metamorphosed

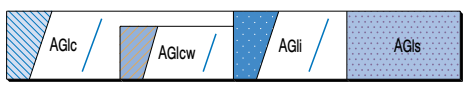



**Unassigned units**

AD(t) Turbiditic wacke; medium- to coarse-grained; abundant chert clasts; local graded units; minor pebble beds and shale; metamorphosed
AD(tqc) Turbiditic wacke; locally subarkosic; fine- to coarse-grained; abundant chert clasts; well-developed graded units; metamorphosed

Gorge Creek Group

*c.* 3020 Ma[2 3]



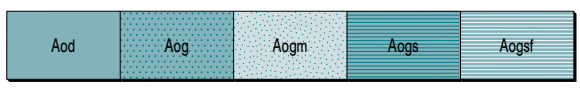

**CLEAVERVILLE FORMATION**

AGlc Chert; metamorphosed
AGlcw Chert; weakly banded, grey and White; metamorphosed
AGli Banded iron-formation; locally includes banded quartz–magnetite–grunerite rock; metamorphosed
AGls Metamorphosed, fine- to medium-grained wacke; locally interleaved with serpentine- and tremolite-rich schist and metamorphosed iron-formation and ferruginous siltstone

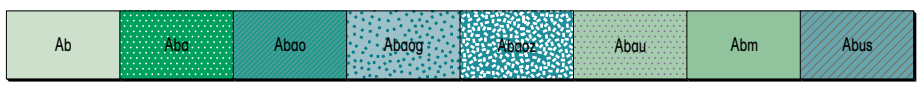
Unassigned


As Sedimentary rock, undivided; metamorphosed
Aci Banded iron-formation; locally includes banded quartz–magnetite–grunerite rock; metamorphosed
Acil Banded iron-formation; strongly recrystallized and limonitized
Acq Banded White and grey chert, and quartzite; local minor jaspilite and iron formation; locally includes banded quartz–grunerite rock; metamorphosed
Anp Paragneiss; medium-grained, strongly recrystallized sedimentary rock

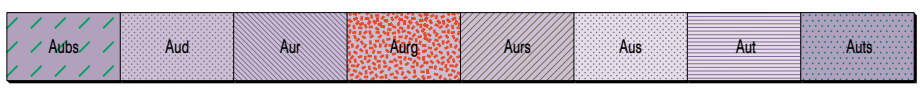

Afp Feldspar porphyry; locally with hornblende phenocrysts; metamorphosed
Afpx Metamorphosed feldspar porphyry containing abundant greenstone xenoliths
Afs Quartz–sericite(–feldspar–epidote–actinolite) schist




Aod Dolerite; metamorphosed
Aog Medium- to coarse-grained metagabbro; foliated to massive
Aogm Melanogabbro; massive to moderately foliated; metamorphosed
Aogs Fine- to medium-grained plagioclase–hornblende–actinolite–epidote schist after gabbro; locally includes interleaved talc–serpentine–chlorite schist
Aogsf Fine- to medium-grained plagioclase–hornblende–actinolite–epidote schist; includes abundant interleaved quartz–sericite–epidote schist

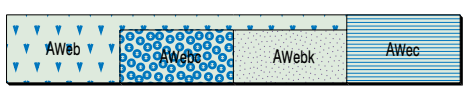



Ab Metabasalt; locally plagioclase-phyric
Aba Amphibolite; fine- to medium-grained amphibole–plagioclase–quartz–sericite–epidote rock
Abao Medium-grained amphibolite
Abaog Medium-grained garnetiferous amphibolite
Abaoz Amphibolite; silicified
Abau Interleaved amphibolite and talc–tremolite–serpentine–chlorite schist
Abm High-Mg basalt and olivine basalt; locally preserved pyroxene-spinifex textures; metamorphosed
Abus Interleaved actinolite schist, talc–tremolite–chlorite schist, and quartz–sericite schist; locally mylonitized



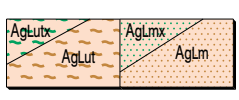

Aubs Talc–tremolite–chlorite schist interleaved with amphibolite and actinolite schist
Aud Dunite replaced by serpentine(–talc–tremolite–chlorite) rock; locally preserved, medium-grained olivine-cumulate texture
Aur Tremolite–chlorite–talc schist
Aurg Tremolite–chlorite–talc schist; intruded by abundant granitic dykes
Aurs Tremolite–chlorite–talc schist interleaved with metasedimentary rocks
Aus Serpentinite; serpentine–tremolite(–talc–chlorite) rock after peridotite; locally preserved, medium-grained olivine-cumulate texture
Aut Talc–serpentine–chlorite schist; locally preserved olivine- and pyroxene-spinifex textures
Auts Interleaved talc–serpentine–chlorite schist, quartz–sericite schist, cordierite hornfels, and actinolite schist

Warrawoona Group




**EURO BASALT**

AWeb Fine- to medium-grained mafic schist and amphibolite; after tholeiitic and high-Mg basalt, and dolerite sills
AWebc Carbonate-altered and schistose basalt; local intense silicification; metamorphosed
AWebk Komatiitic basalt and komatiite; locally pillowed and with olivine-spinifex texture; metamorphosed
AWec Carbonate-altered and silicified, fine- to medium-grained mafic schist after basalt




**CARLINDI GRANITOID COMPLEX**

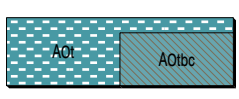
*c.* 3475 Ma[7] AgLut **MOTHERIN MONZOGRANITE:** interleaved monzogranite, granodiorite, gneiss, and pegmatite; moderately to strongly foliated; and intruded by abundant sheets of massive to weakly foliated muscovite-bearing monzogranite and pegmatite; metamorphosed
AgLutx Interleaved monzogranite, granodiorite, gneiss, and pegmatite, with abundant greenstone xenoliths; metamorphosed
*c.* 3485 Ma[4] AgLm Fine- to coarse-grained biotite monzogranite; metamorphosed
AgLmx Fine- to coarse-grained biotite monzogranite, with abundant greenstone xenoliths; metamorphosed

Pilbara Supergroup

Coonterunah Group

*c.* 3515 Ma[1]


**COUCAL FORMATION:** mafic schist and amphibolite; locally silicified




AOt **TABLE TOP FORMATION:** fine- to medium-grained amphibolite; after tholeiitic basalt and dolerite
AOtbc Interleaved chlorite schist, amphibolite, talc schist, and metamorphosed banded iron-formation

PILBARA CRATON