

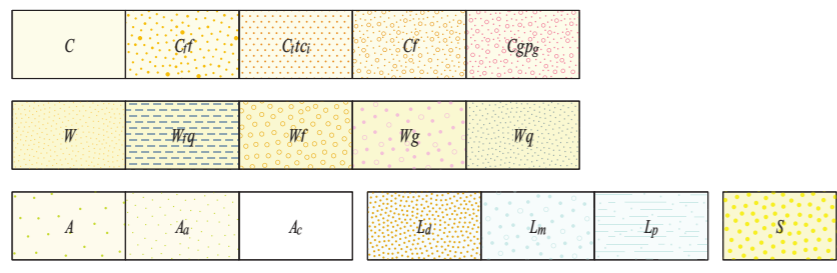
PHANEROZOIC
CENOZOIC

PROTEROZOIC

ARCHEAN

Murchison Supergroup

YILGARN CRATON



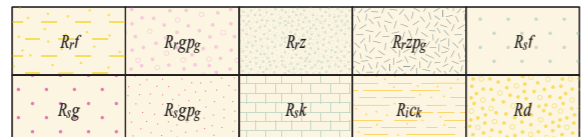
Colluvial units
 C Colluvium derived from different rock types; includes gravel, sand, and silt
 Cf Colluvial footslope containing ferruginous gravel and reworked ferruginous duricrust
 C1c1 Talus from banded iron-formation and chert; locally cemented
 Cf Ferruginous gravel and reworked ferruginous duricrust
 CgPs Quartzofeldspathic gravel, sand, and silt commonly derived from granitic rocks, their metamorphosed equivalents, and associated weathering products

Sheetwash units
 W Clay, silt, and sand in extensive fans; local ferruginous gravel
 Wq Clay, silt, and sand with abundant vein-quartz pebbles on sheetflood fan
 Wf Clay, silt, and sand with abundant ferruginous grit
 Wg Clay, silt, and sand sheetwash deposits, commonly derived from granitic rock
 Wq Clay, silt, and sand sheetwash deposits with abundant quartz-vein debris

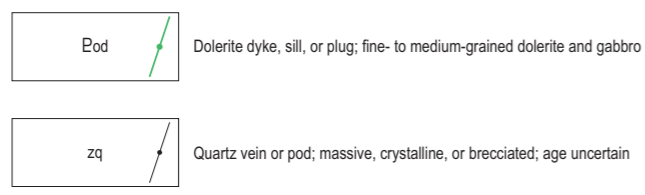
Alluvial units
 A Clay, silt, sand, and gravel in channels and on floodplains
 A1 Clay, silt, sand, and gravel on alluvial plains
 A2 Clay, silt, sand, and gravel in fluvial channels

Lacustrine units
 Ld Sand, silt, and gypsum in dunes adjacent to and within playa lakes
 Lm Mixed dunes, evaporite, and alluvial deposits; typically adjacent to playa lakes
 Lp Saline and gypsiferous evaporite deposits, clay, silt, and sand in playa lakes

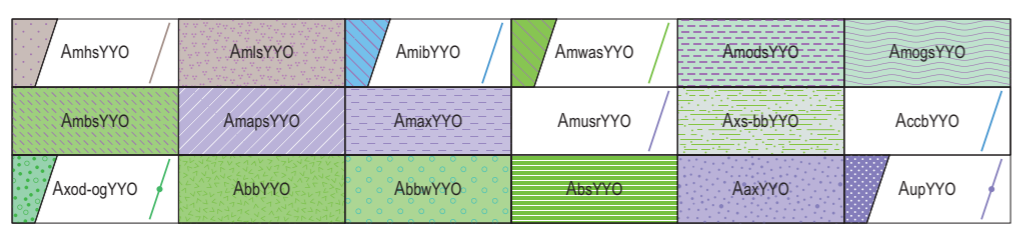
Sandplain unit
 S Residual and eolian sand with minor silt and clay; low vegetated dunes locally common



Residual or relict units
 Rf Ferruginous duricrust, massive to rubby; includes iron-cemented reworked products
 RgPs Undivided residual or relict material; mainly ferruginous and quartzofeldspathic duricrust over deeply weathered granite; minor kaolinized rock; includes mottled and leached zones of weathering profile
 Rz Silcrete
 RzPs Silcrete commonly derived from granite
 Rf Residual sand and minor gravel derived from ferruginous duricrust
 Rg Quartzofeldspathic sand, commonly over granite
 RgPs Quartzofeldspathic sand and minor silcrete over granite; sparse granite outcrop; includes mottled and leached zones of weathering profile
 Rk Residual sand and calcareous; nodular and pisolitic
 Rck Weathered rock dominated by kaolin and quartz; protolith uncertain
 Rd Undivided residual or relict material; mainly ferruginous and siliceous duricrust; minor calcareous and kaolinized rock



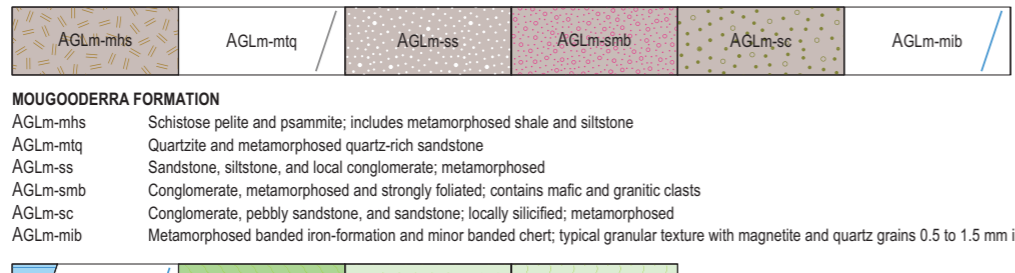
Bald Rock Supersuite
 Eod Dolerite dyke, sill, or plug; fine- to medium-grained dolerite and gabbro
 zq Quartz vein or pod; massive, crystalline, or brecciated; age uncertain



Waigama Suite
 ABRGme Equigranular monzogranite with 4–10 mm grain size
 ABRGmp K-feldspar-porphyritic to megacrystic monzogranite; locally with biotite up to 10%

AmhsYYO	AmisYYO	AmibYYO	AmwasYYO	AmodsYYO	AmogsYYO
AmbsYYO	AmapsYYO	AmaxYYO	AmusrYYO	Axs-bbYYO	AccbYYO
Axod-ogYYO	AbbYYO	AbbwYYO	AbsYYO	AaxYYO	AupYYO

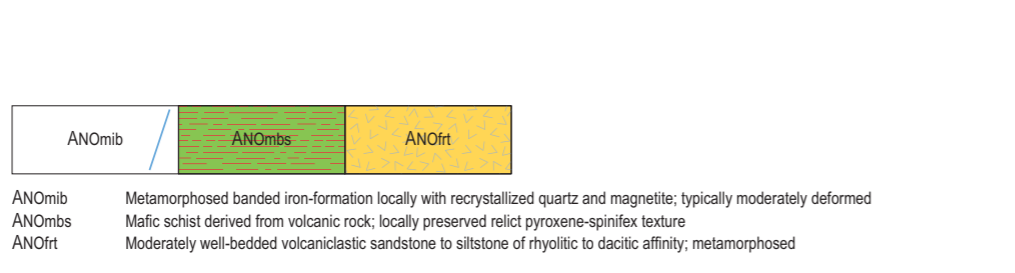
AmhsYYO Interlayered psammite and pelite; schistose
 AmisYYO Pelite; dominantly metashale and metasilstone; local andalusite and/or cordierite porphyroblasts
 AmibYYO Metamorphosed banded iron-formation and minor banded chert
 AmwasYYO Strongly foliated amphibolite and amphibolite schist; fine to medium grained; commonly lineated
 AmodsYYO Metadolomite; schistose; locally amphibolitic
 AmogsYYO Strongly foliated metagabbro
 AmbsYYO Mafic schist derived from fine-grained mafic rocks
 AmapsYYO Chlorite-tremolite(-talc) schist derived from peridotite
 AmaxYYO Metapyroxenite, medium-grained; deeply weathered
 AmusrYYO Tremolite-chlorite(-talc) schist; includes minor metamorphosed komatiitic basalt, metapyroxenite, and cumulate-textured zones
 Axs-bbYYO Sedimentary and basaltic rocks, with minor chert and banded iron-formation; metamorphosed; commonly deeply weathered
 AccbYYO Banded chert and ferruginous banded chert; includes minor banded iron-formation and quartzite; metamorphosed
 Axod-ogYYO Massive dolerite interlayered with minor gabbro; metamorphosed
 AbbYYO Basalt, metamorphosed; includes some amphibolite and amphibolitic schist derived from tholeiitic basalt; may contain some metamorphosed high-Mg basalt, and minor mafic intrusive and volcanoclastic sedimentary rocks
 AbbwYYO Variolitic basalt; locally basalt and/or pyroxene spinifex-textured basalt; metamorphosed
 AbsYYO Komatiitic basalt, commonly with pseudomorphed pyroxene-spinifex texture; metamorphosed and locally schistose; includes weakly metamorphosed tholeiitic basalt and minor mafic and ultramafic intrusive rocks
 AaxYYO Pyroxenite; medium- to coarse-grained; massive to weakly foliated; metamorphosed
 AupYYO Peridotite, metamorphosed; commonly serpentinized



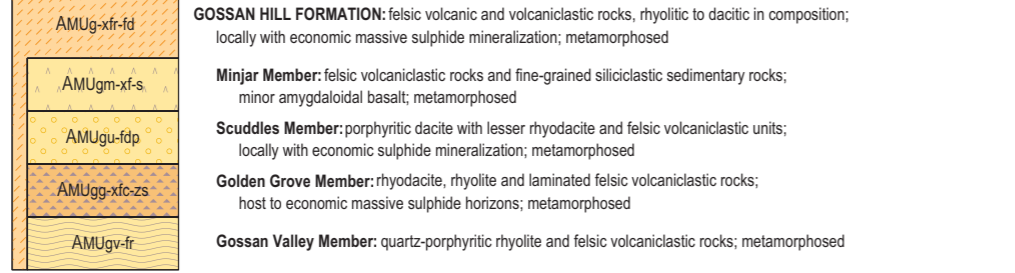
MOUGOODERRA FORMATION
 AGLm-mhs Schistose pelite and psammite; includes metamorphosed shale and siltstone
 AGLm-mtq Quartzite and metamorphosed quartz-rich sandstone
 AGLm-ss Sandstone, siltstone, and local conglomerate; metamorphosed
 AGLm-smb Conglomerate, metamorphosed and strongly foliated; contains mafic and granitic clasts
 AGLm-sc Conglomerate, pebbly sandstone, and sandstone; locally silicified; metamorphosed
 AGLm-mib Metamorphosed banded iron-formation and minor banded chert; typical granular texture with magnetite and quartz grains 0.5 to 1.5 mm in size



Polelle Group
 APOmib Metamorphosed banded iron-formation and minor banded chert; typical granular texture with magnetite and quartz grains 0.5 to 1.5 mm in size
 APOmbs Mafic schist with minor ultramafic schist; typically actinolite-tremolite-chlorite; locally strongly sheared
 APObbd Pillowed and spherulitic basalt with spherules locally abundant and up to 15 mm in diameter; metamorphosed
 APObb Fine to very fine grained basalt; locally moderately foliated; metamorphosed



Norie Group
 ANOmb Metamorphosed banded iron-formation locally with recrystallized quartz and magnetite; typically moderately deformed
 ANOms Mafic schist derived from volcanic rock; locally preserved relict pyroxene-spinifex texture
 ANOfrt Moderately well-bedded volcanoclastic sandstone to siltstone of rhyolitic to dacitic affinity; metamorphosed



Gossan Hill Formation: felsic volcanic and volcanoclastic rocks, rhyolitic to dacitic in composition; locally with economic massive sulphide mineralization; metamorphosed

Minjar Member: felsic volcanoclastic rocks and fine-grained siliclastic sedimentary rocks; minor amygdaloidal basalt; metamorphosed

Scuddles Member: porphyritic dacite with lesser rhyodacite and felsic volcanoclastic units; locally with economic sulphide mineralization; metamorphosed

Golden Grove Member: rhyodacite, rhyolite and laminated felsic volcanoclastic rocks; host to economic massive sulphide horizons; metamorphosed

Gossan Valley Member: quartz-porphyritic rhyolite and felsic volcanoclastic rocks; metamorphosed

2735–2700 Ma

<2809 Ma¹

2800–2735 Ma

c. 2749 Ma

c. 2795 Ma

2801–2793 Ma

c. 2813 Ma

c. 2950 Ma

c. 2951 Ma

c. 2947 Ma

c. 2962 Ma

c. 2963 Ma

c. 2959 Ma

2735–2690 Ma

Big Belt Suite

Rothsley Suite

Annean Supersuite

Warriedar Suite

Meeline Suite

Bunnawarra Suite

Thundellara Supersuite

Big Belt Suite

Rothsley Suite

Annean Supersuite

Warriedar Suite

Meeline Suite

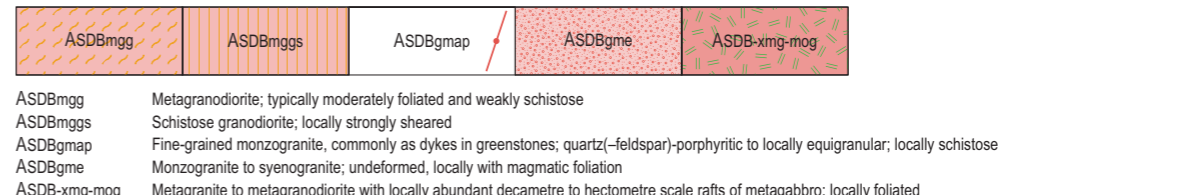
Bunnawarra Suite

Thundellara Supersuite

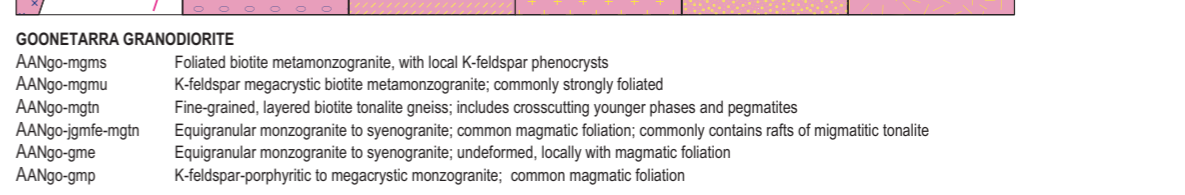
Big Belt Suite

Rothsley Suite

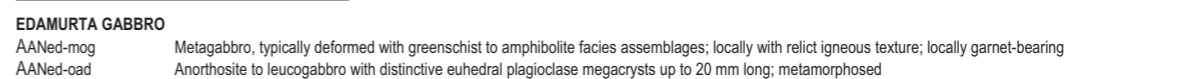
Annean Supersuite



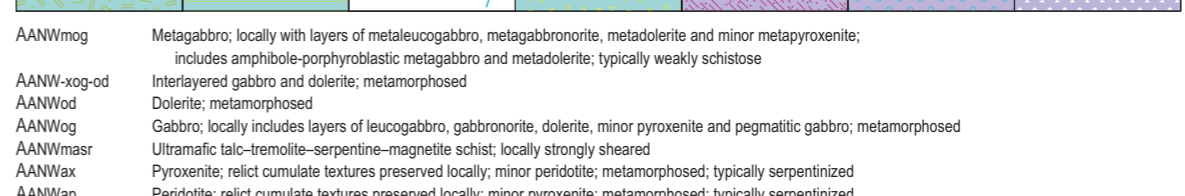
ASDBmng Metagranodiorite; typically moderately foliated and weakly schistose
 ASDBmgs Schistose granodiorite; locally strongly sheared
 ASDBgmap Fine-grained monzogranite, commonly as dykes in greenstones; quartz(-feldspar)-porphyritic to locally equigranular; locally schistose
 ASDBgme Monzogranite to syenogranite; undeformed, locally with magmatic foliation
 ASDB-xmg-mog Metagranite to metagranodiorite with locally abundant decimetre to hectometre scale rafts of metagabbro; locally foliated



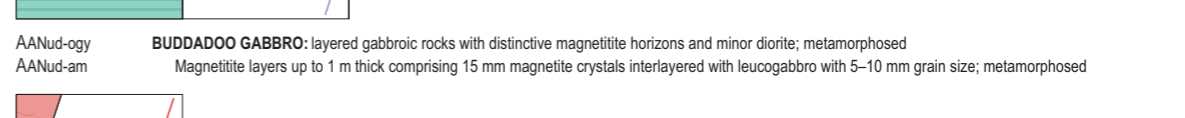
GOONETARRA GRANDIORITE
 AANgo-mgms Foliated biotite metamonzogranite, with local K-feldspar phenocrysts
 AANgo-mgmu K-feldspar megacrystic biotite metamonzogranite; commonly strongly foliated
 AANgo-mgtn Fine-grained, layered biotite tonalite gneiss; includes crosscutting younger phases and pegmatites
 AANgo-jgmfe-mgtn Equigranular monzogranite to syenogranite; common magmatic foliation; commonly contains rafts of migmatitic tonalite
 AANgo-gme Equigranular monzogranite to syenogranite; undeformed, locally with magmatic foliation
 AANgo-gmp K-feldspar-porphyritic to megacrystic monzogranite; common magmatic foliation



EDAMURTA GABBRO
 AANed-mog Metagabbro, typically deformed with greenschist to amphibolite facies assemblages; locally with relict igneous texture; locally garnet-bearing
 AANed-oad Anorthosite to leucogabbro with distinctive euhedral plagioclase megacrysts up to 20 mm long; metamorphosed



AANWmog Metagabbro; locally with layers of metalucogabbro, metagabronorite, metadolomite and minor metapyroxenite; includes amphibole-porphyroblastic metagabbro and metadolomite; typically weakly schistose
 AANW-xog-od Interlayered gabbro and dolerite; metamorphosed
 AANWod Dolerite; metamorphosed
 AANWog Gabbro; locally includes layers of leucogabbro, gabbronorite, dolerite, minor pyroxenite and pegmatitic gabbro; metamorphosed
 AANWmasr Ultramafic talc-tremolite-serpentine-magnetite schist; locally strongly sheared
 AANWax Pyroxenite; relict cumulate textures preserved locally; minor peridotite; metamorphosed; typically serpentinized
 AANWap Peridotite; relict cumulate textures preserved locally; minor pyroxenite; metamorphosed; typically serpentinized



AANud-ogy BUDDADOO GABBRO: layered gabbroic rocks with distinctive magnetite horizons and minor diorite; metamorphosed
 AANud-am Magnetite layers up to 1 m thick comprising 15 mm magnetite crystals interlayered with leucogabbro with 5–10 mm grain size; metamorphosed



ATHky-mgti KYNEA TONALITE: migmatitic tonalite (to granodiorite) gneiss with metamonzogranitic leucosomes



ATHgn-mgg GNOWS NEST GRANDIORITE: metamorphosed granodiorite to tonalite with K-feldspar phenocrysts up to 8 mm in 4–6 mm matrix
 ATHgn-mgta Metamorphosed tonalite to granodiorite with hornblende and K-feldspar phenocrysts up to 8 mm in 4–6 mm matrix