

PHANEROZOIC
CENOZOIC
QUATERNARY
PERMIAN

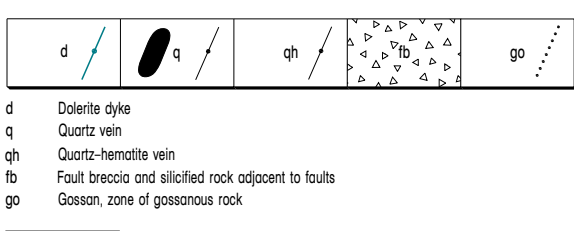
Qa	Qc	Ql	Qle	Qlg	Qd	Qp	Qs	Qw	Qb
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Qa Alluvial deposits—silt, sand, and gravel; in drainage channels and on floodplains
 Qc Colluvium—locally derived sand and gravel; in scree and outwash-fan deposits
 Ql Lacustrine deposits—clay, silt, and silty sand; playa and claypan deposits
 Qle Sand, silt, clay, and gypsum; in stabilized dunes adjacent to lacustrine deposits
 Qlg Reworked eolian deposits; clay, silt, and sand
 Qd Mixed lacustrine, alluvial, and eolian deposits—clay, silt, and sand; vegetated swamps and numerous claypans with fringing lunettes dunes
 Qp Eolian and lag deposits—sand with ferricrete granules and pebbles
 Qs Eolian deposits—sand, includes sheets and dunes within intervening sandy valleys
 Qw Colluvial and alluvial deposits—clay, silt, sand, and gravel; in distal outwash deposits in poorly drained areas; numerous small claypans
 Qb Eluvium—swelling clay soil (gilgai); characterized by 'crabhole' surface

Czag	Czc	Czg	Czl	Czk	Czz	Czx	Czg
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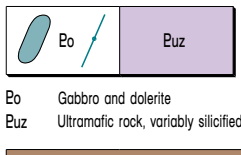
Czag Colluvium and alluvium; gravel and boulder beds; dissected by present-day drainage
 Czc Colluvium—variably cemented outwash talus; dissected by present-day drainage
 Czg Colluvium and eluvium; scattered boulders, cobbles, and pebbles on clay, silt, and sand; overlying and derived from the fluvio-glacial PATERSON FORMATION; partly consolidated
 Czl Laterite—ferruginous duricrust, massive to psillic
 Czk Calccrete—massive, nodular, and vuggy limestone; some surface silicification
 Czz Silcrete—siliceous and variably leached coprock with angular quartz grains
 Czx Chert breccia developed over dolomite; overlies YANDANUNYAH FORMATION
 Czg Gravel and boulder beds—dissected by present-day drainage

Pa PATERSON FORMATION: sandstone, claystone, conglomerate, and boulder beds; tillite and fluvio-glacial deposits



Disappointment Group	EDo	WOORA WOORA FORMATION: medium-grained ferruginous sandstone, lithic sandstone, quartz wacke, and siltstone	Ebf	McFADDEN FORMATION: laminated fine- to coarse-grained quartz sandstone, feldspathic sandstone, and quartz wacke; minor conglomerate and siltstone
	EDt	TCHUKARDINE FORMATION: medium- to coarse-grained sandstone, quartz wacke, siltstone, and shale; minor conglomerate		
Sunbeam Group	Et	BOONDAWARI FORMATION: glaucigenic diamicite, sandstone, siltstone, conglomerate, and shale		
	ESm	MUNDADJINI FORMATION: fine- to coarse-grained sandstone, conglomerate, and siltstone; minor shale and mudstone		

Tarcunyah Group	Ebn	NOOLOO FORMATION: thinly bedded to massive dolomite and limestone; minor thinly bedded, fine- to coarse-grained sandstone and siltstone; includes interbedded fine- to coarse-grained pebbly sandstone, wacke, siltstone, and shale; includes red to purple weathering shale and siltstone		
	Euv	Altered, pillowed mafic lava		
	Euc	WONGARLONG FORMATION: fine- to coarse-grained sandstone and quartz sandstone; minor siltstone, silty shale, and shale		
	Euy	YANDANUNYAH FORMATION: laminated to thin-bedded dolomite; interbedded with minor stromatolitic dolomite, dolomitic siltstone, shale, and siltstone	Euh	CHORURUN FORMATION: red-brown, medium- to coarse-grained sandstone, pebbly sandstone, quartz wacke, nodule-bearing sandstone, polymictic pebble to cobble conglomerate, and quartz pebble conglomerate; minor siltstone and tourmalinite siltstone, silty shale, and shale
	Eur	BROWNRIGG SANDSTONE: white to grey, fine- to medium-grained quartz sandstone and medium- to coarse-grained sandstone with scattered pebbles		
		Euw	WAROONGUNYAH FORMATION: laminated to massive dolomite, stromatolitic dolomite, sandy dolomite, siliceous oolite, siltstone, and shale	
	Eug	GOOGHENAMA FORMATION: medium- to coarse-grained sandstone, and polymictic pebble to cobble conglomerate		
	Eut	WATERS FORMATION: shale, finely laminated and locally stromatolitic dolomite, upward-fining sandstone-siltstone-shale rhythmic units, and sulfidic beds		
	Euu	GUNANYA SANDSTONE: medium- to coarse-grained arkosic sandstone; local beds of siltstone, grit, and conglomerate; abundant cross-bedding		
	Euk	KARARA FORMATION: medium- to coarse-grained arkosic sandstone; minor beds of quartz-feldspar wacke, shale, and conglomerate		



Lamell Group	ELi	ISELL FORMATION: thinly bedded carbonate rocks, calcareous siltstone, and minor shale			
	ELic	Dark grey carbonate rock; locally sulfidic			
	ELik	Pale grey to cream carbonate rock interbedded with shaly calcarenite; locally sulfidic			
Yeneena Supergroup	Throssell Group	ETb	BROADHURST FORMATION: shale, lithic wacke, sandstone, and dolomite	ETp	PUNGKULI FORMATION: shale, reddish brown to grey; minor sandstone, dolomite, and sulfidic rocks, stromatolitic
		ETba	Interbedded fine- to coarse-grained sandstone, siltstone, silty shale, dolomite, and stromatolitic dolomite		
		ETbq	Interbedded fine- to medium-bedded sandstone and siltstone; minor shale		
		ETbc	Carbonate rock and minor shale; commonly sulfidic		
		ETbb	Basalt		
	ETc	COOLBRO SANDSTONE: massive and thickly bedded sandstone; minor siltstone, shale, and carbonate rocks; basal conglomerate in some areas		ETpk	Dolomite, grey to cream or pink and finely laminated; minor sandstone, shale, and pyritic shale; metamorphosed
	ETcs	Shale or pelitic schist			
	ETca	Conglomerate; polymictic clasts generally well rounded and matrix-supported			
	ETt	TALIWAYA FORMATION: arkose to arkosic sandstone, medium- to coarse-grained			

c.1310 Ma	Eb	Amygdaloidal basalt; metamorphosed		
	Ege	Syenogranite and monzogranite: even-grained; massive to weakly foliated		
	Egf	Granitoid rock with feldspar phenocrysts; massive to strongly foliated		
	Egl	Leucogranite; medium- to coarse-grained; massive to weakly foliated		
	Egm	Leucogranite; coarse-grained with K-feldspar megacrysts; massive to weakly foliated		
	Egp	Pegmatite; quartz-K-feldspar-biotite-muscovite-bearing; massive to weakly foliated		

1765-1790 Ma	ERnb	Quartz-feldspar-biotite-(muscovite) gneiss		
	ERnc	Charnockite; quartz-K-feldspar-plagioclase-garnet-orthopyroxene gneiss		
	ERnm	Quartz-microcline-plagioclase-biotite-(muscovite) gneiss		
	ERng	Quartz-K-feldspar-plagioclase-garnet-(muscovite) gneiss		
	ERns	Mylonite; quartz-sericite(-K-feldspar-plagioclase-muscovite-biotite) rock		

Ruddell Complex (stratigraphic succession incompletely determined)	ERgp	Pegmatite; variably foliated and locally gneissic		
	ERgh	Orthogneiss to strongly foliated granodiorite to monzogranite; hornblende-bearing; medium- to coarse-grained; generally interleaved with, and contains inclusions of, amphibolite		
	ERgm	Leucocratic, muscovite-rich orthogneiss derived from fine- to medium-grained granite		
	ERga	Orthogneiss derived from porphyritic biotite granite to monzogranite; generally contains augen of K-feldspar		
	ERgg	Compositionally layered orthogneiss derived from fine- to medium-grained granite or monzogranite; contains alternating biotite- and feldspar-rich layers; local lenticular inclusions of metamorphosed mafic, ultramafic, and sedimentary rocks		
	ERgb	Banded garnetiferous granodioritic orthogneiss		
	ERge	Even-grained granitic to monzogranitic orthogneiss		
	ERgd	Biotite granodioritic orthogneiss		
	ERgo	Compositionally layered orthogneiss derived from fine- to medium-grained granite or monzogranite; includes alternating biotite- and feldspar-rich layers; local lenticular inclusions of mafic rocks		
		ERu	Metamorphosed ultramafic rock; chiefly serpentinite	
	ERa	Ortho-amphibolite; metamorphosed gabbro and dolerite		

c.1960 Ma	ERo	POYNTON FORMATION: quartzite, commonly micaceous, with thin intercalations of quartz-muscovite schist; minor psammitic gneiss and biotite-plagioclase-quartz schist		
	ERc	BUTLER CREEK FORMATION: banded paragneiss containing layers of quartz-feldspar(-biotite) gneiss, quartz-biotite schist, micaceous quartzite, quartz-muscovite schist, and amphibole-chlorite schist; local metamorphosed banded iron-formation		
	ERy	YANDAGOOGEE FORMATION: dominantly pelitic to semi-pelitic assemblage of quartz-mica schist, hematitic biotite schist, and minor intercalations of muscovite quartzite and quartzite; local quartz-feldspar-muscovite psammitic gneiss, pyritic graphitic schist, chert, and metamorphosed banded iron-formation		
	ERf	METAMORPHOSED Banded iron-formation and chert		
	ERw	FINGOON QUARTZITE: dominantly massive or layered micaceous quartzite; includes local quartz-muscovite schist and psammitic gneiss		
	ERx	LARRY FORMATION: intercalated banded quartz-feldspar-mica gneiss, quartz-mica schist, and quartzite; psammitic gneiss locally developed near top of formation		
	ERg	Lithologically layered orthogneiss derived from fine- to medium-grained granite or monzogranite; mafic, ultramafic, and metasedimentary rocks		

Unassigned units of various ages	ERb	Banded paragneiss containing quartz-feldspar(-biotite) gneiss, quartz-biotite schist, micaceous quartzite, quartz-muscovite schist, and amphibole-chlorite schist; local metamorphosed banded iron-formation		
	ERm	Quartz-chlorite schist and muscovite schist; metamorphosed shale		
	ERl	Quartz-mica schist; metamorphosed argillaceous sedimentary rock		
	ERi	Metamorphosed banded iron-formation and chert; includes silicified graphitic schist		
	ERic	Metachert and locally metamorphosed banded iron-formation		
	ERir	Graphite-quartz-garnet-biotite-sulfide schist and metamorphosed banded iron-formation; minor metachert		
	ERk	Carbonate schist; metamorphosed carbonate rock and calcareous sandstone		
	ERp	Quartz-biotite-plagioclase gneiss and schist, containing layers of quartzite and pelitic schist		
	ERs	Psammitic gneiss; includes fine-grained quartz-feldspar-muscovite gneiss, muscovite-rich gneiss, quartz-mica schist, and quartzite layers		
	ERq	Quartzite; commonly micaceous; thin intercalations of quartz-muscovite schist		
	ERqa	Quartz-aluminosilicate schist; quartz-kyanite-ilmenite schist, quartz-sillimanite-K-feldspar schist, and quartz-sillimanite-K-feldspar-garnet schist		
	ERan	Amphibolite; leucocratic, coarse- to fine-grained, plagioclase-amphibole rock; massive to foliated; meta-leucogabbro and meta-anorthosite		
	ERab	Epidote and quartz-bearing amphibolite; fine-grained		
	ERae	Amphibolite; mesocratic to leucocratic, silicified and epidotized; foliated		
	ERam	Clinopyroxene and quartz-bearing amphibolite; foliated and locally gneissic		
ERao	Garnet, clinopyroxene, and quartz-bearing amphibolite interleafed with granitic gneiss (ERga); foliated			
ERac	Orthopyroxene and clinopyroxene-bearing amphibolite; massive to foliated and locally gneissic			
ERag	Garnet, clinopyroxene, and quartz-bearing amphibolite; foliated and locally gneissic			

Canning Basin

Officer Basin

Yeneena Basin

PATERSON CROGEN