			С	Cih	Cig	Cf	Cg	Cmpr	W	Wrg	₩f				
Opport       Control of the control of th			A	Aa	-44	Lg	Lgeg	Lgt	Lm	Lp	S	Sf			
			Colluvial units           C         Colluvial           Crh         Colluvia           Crq         Talus fi           Cf         Ferrugi           Cg         Quartzi           Cmpr         Lithic-ri           Sheetwash units         Colluvia	ium derived from different ial footslope dominated by from quartz vein inous gravel and reworke tofeldspathic gravel, sand ich colluvium dominated l	t rock types; includes gravel, so y sand rich in heavy minerals ed ferruginous duricrust d, and silt commonly derived fro by mafic and ultramafic rock	and, and silt m granitic rock and associa	ted weathering products								
			W     Clay, s       Wfq     Clay, s       Wf     Clay, s       Alluvial units     A	silt, and sand in extensive silt, and sand with abunda silt, and sand with abunda silt, sand, and gravel in ch	e fans; local ferruginous gravel ant vein-quartz pebbles on shee ant ferruginous grit nannels and on floodplains	tflood fan									
August 1       Image: Display in the second se	CENOZOIC		$\begin{array}{ccc} A_a & \text{Clay, s} \\ A_\nu & \text{Alluvial} \\ \textbf{Lacustrine units} \\ Lg & \text{Silt, sar} \\ Lg e_g & \text{Lithified} \\ Lg k & \text{Bedded} \\ Lm & \text{Mixed } o \\ Lp & \text{Saline } a \end{array}$	silt, sand, and gravel on a il fan deposits; includes g und, and gravel in halophy d and unconsolidated gyp d carbonate, silt, and clay dunes, evaporite, and allu and gypsiferous evaporite	Illuvial plains ravel, sand and silt /te flats adjacent to playas usum and clay, in locally well be / deposits in shallow lakes adja uvial deposits; typically adjacen e deposits, clay, silt, and sand	tded deposits fringing salt l cent to streams and rivers t to playa lakes in playa lakes	lakes								
L       L       L       L       L       L         20.2000       L			Sandplain units S Residu: Sf Undula	ual and eolian sand with n ating sandplains and dune	ninor silt and clay; low vegetate es; sand, silt and clay in variabl	d dunes locally common e proportions; derived in par	rt from ferruginous materi	ial	1	_					
20:300       Apple Section 2.5 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)			<i>Rd</i> Residual or relict un	Rice	Rickpg	Riw	<i>R</i> <sub>r</sub> f	R <sub>r</sub> z	Rrzz						
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			$Rd$ Undivid $R_ic_k$ Weather $R_ic_kp_g$ Kaoliniz $R_iw$ Deeply $R_rf$ Ferrugi $R_rz$ Silcrete	ded residual or relict mate ered rock dominated by k ized granite v weathered rock; protolith inous duricrust, massive fe	erial; mainly ferruginous and sili kaolin and quartz; protolith unce h undetermined to rubbly; includes iron-cement	ceous duricrust; minor calcr rtain ed reworked products	ete and kaolinized rock								
$ \left  \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$			R <sub>r</sub> 22 Slicrete	Dolerite dyke, sill, or	k in silica cement	dolerite and gabbro									
1       1			zq	Quartz vein or pod; n	massive, crystalline, or brecciat	ed; age uncertain									
Also also also also also also also also a			Agy	AgpvY	AgtaY	AgnpqY									
23-52 00 M       Org			AgY Gran AgpvY Pegr AgtaY Tona AgnpqY Qua	nitic rocks, undivided; me matitic granite; muscovite alite with hornblende pher artz–feldspar porphyritic ro	etamorphosed e bearing; metamophosed nocrysts; local small, elliptical, ock, as dykes; metamorphosed	mafic xenoliths; metamorph	osed								
287-350 M <b>V D </b>	2630–2600 Ma	Bald Rock Supersuitu Walganna Suite		Monzogranite, locally	rich in muscovite and biotite;	predominantly with equigran	ular texture and locally K	-feldspar porphyritic; metar	morphosed						
265-260 Ma       Image: i		Suite	AJU-mg	t 2 (D <sub>2</sub> : 2665–264	40 Ma) × ×										
2890-2865 Ma       Performation Event 1 (D; 2: 2676 - 2665 Ma)         2890-2865 Ma       Performation Event 1 (D; 2: 2676 - 2665 Ma)         2890-2865 Ma       Performation Event 1 (D; 2: 2676 - 2665 Ma)         2890-2865 Ma       Performation Event 1 (D; 2: 2676 - 2665 Ma)         2890-2865 Ma       Performation Event 1 (D; 2: 2676 - 2665 Ma)         2890-2865 Ma       Performation Event 1 (D; 2: 2676 - 2665 Ma)         2890-2865 Ma       Performation Event 1 (D; 2: 2676 - 2665 Ma)         AUtginggin mix       AtUgunggin mix         AUtginggin mix       AtUgunggin mix         AUtginggin mix       Atugo miggin mix         AUtginggin mix       Atugo mix         AUtgin mix       Atugo mix         <	2665–2640 Ma	Jungar	AJU-mg Biotii AJU-mgms F	ite metagranite; dominant Foliated biotite metamonz	tly metamonzogranite; minor m zogranite; minor metagranodior	etagranodiorite, metasyenog te, metasyenogranite, and r	granite, and metapegmat metapegmatite; fine to co	ite; fine to coarse grained; l aarse grained; locally gneiss	locally gneissic sic						
2800-2865 Ma 2 ATU-ingge-mbb Chalsasse metagranodicite dive backadati falls of amphibolitic metabasati; locally storely shared quark veins, and shared pegmatilic rocks ATUci-ingmu Athermatic and the metagranodicite; commonly foliated ATU-ing ATU-ing ANO-mbb ANO-		ite	Deformation Even	at 1 (D <sub>1</sub> : 2676–266 ATUcu-mgms	5 Ma) ATUcu-mgmu	ATU-mg									
ATU-mg       Metamonzogranite to metagranodorite; commonly foliated         ATU-mg       ANO-mbo       ANO-mbo         ANO-mbo       Metabasati interlayered with dominantly paramitic sedimentary rocks; locally chlorite-rich and strongly sheared       AANK-igg-mog       AANK-igg-mog       AANK-igg-mog         ANNO-mbo       Anno-mbo       Amphibolite and local metabasati; fine to medium grained; typically foliated and lineated       ANNo-msr       Termolite-chlorite(-taic) schist         ANO-mbo       Basalt, locally pillowed and/or vesicular, massive to weakly foliated; locally strongly sheared and metamorphosed       Termolite-chlorite (-taic) schist       AANK-mgr       AANK-mgr <td< td=""><td>2690–2665 Ma c.2680 Ma <sup>1, 2</sup></td><td>Tuckanarra Su</td><td>ATU-jmggn-mba Gnei CUN ATUcu-mgms k it ATUcu-mgmu k</td><td>issose metagranodiorite NDIMURRA MONZOGRA K-feldspar megacrystic bi includes minor schlieric gr K-feldspar megacrystic bi</td><td>with abundant rafts of amphibo ANITE iotite metamonzogranite; schist neiss with well developed K-fel iotite metamonzogranite; strong</td><td>iitic metabasalt; locally stror ose and typically with a stro dspar augen, sheared quart ly foliated</td><td>ngly sheared ngly foliated, platy fabric z veins, and sheared peg</td><td>; matitic rocks</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	2690–2665 Ma c.2680 Ma <sup>1, 2</sup>	Tuckanarra Su	ATU-jmggn-mba Gnei CUN ATUcu-mgms k it ATUcu-mgmu k	issose metagranodiorite NDIMURRA MONZOGRA K-feldspar megacrystic bi includes minor schlieric gr K-feldspar megacrystic bi	with abundant rafts of amphibo ANITE iotite metamonzogranite; schist neiss with well developed K-fel iotite metamonzogranite; strong	iitic metabasalt; locally stror ose and typically with a stro dspar augen, sheared quart ly foliated	ngly sheared ngly foliated, platy fabric z veins, and sheared peg	; matitic rocks							
ANO-bb         ANO-xmbb-md       Metabasalt interlayered with dominantly psammitic sedimentary rocks; locally chlorite-rich and strongly sheared         ANO-xmbb-md       Metabasalt interlayered with dominantly psammitic sedimentary rocks; locally chlorite-rich and strongly sheared         ANO-mba       Amphibolite and local metabasalt; fine to medium grained; typically foliated and lineated         ANO-musr       Tremolite-chlorite(-talc) schist         ANO-bb       Basalt; locally pillowed and/or vesicular, massive to weakly foliated; locally strongly sheared and metamorphosed			ATU-mg M	Metamonzogranite to met	tagranodiorite; commonly foliate	ad			ΓΓ	AAN-mod	Amphibolitic metadolerite wi	th relict porphyritic igneous te	tture; minor epidote		
ANO-xmbb-md ANK-mgrs			ANO-bb		dominanth,trtr		ab and about the state			AANK-jgg-mog	AANK-jmg-md	AANK-jmggn-mus	NK-jmgm-mog		
	2820–2800 Ma		ANO-xmbb-md Meta ANO-mba Amp ANO-musr Tren ANO-bb Basa	abasait interlayered with of phibolite and local metaba molite-chlorite(-talc) schis alt; locally pillowed and/or	cominantly psammitic sedimen asalt; fine to medium grained; ty st r vesicular; massive to weakly	ary rocks; locally chlorite-rid pically foliated and lineated foliated; locally strongly shea	cn and strongly sheared	d		+ + + AANK-mg	AANK-mgg	AANK-mgns A	ANK-mgrs	AANK-mgs	AANK-mgta

AANK-jgg-mog Granodiorite with locally abundant rafts of metagabbro up to 20 m long; metamorphosed



ARCHEAN

- AANK-jmg-md Metagranitic rock, locally sheared with abundant rafts and lenses of sheared quartzite, psammite, and pelite
- AANK-jmggn-mus Gneissose metagranodiorite with abundant rafts of ultramafic schist; locally strongly sheared
- AANK-jmgm-mog Metamonzogranite with muscovite-rich patches; abundant decimetre-sized rafts of metagabbro; locally strongly schistose
- AANK-mg Metagranitic rock, locally sheared; includes deeply weathered rocks Metagranodiorite, typically with sparse biotite schlieren; locally with rafts of amphibolite derived from intrusive rocks AANK-mgg
- AANK-mgns Granitic gneiss with local pronounced micaceous foliation
- AANK-mgrs Syenogranitic schist
- AANK-mgs Schistose metagranitic rock, locally strongly sheared; includes deeply weathered rocks
  - Amphibole-rich metatonalite; locally sheared
- AANK-mgta Granitic rocks; metamorphosed; includes deeply weathered rock AANK-g
- AANK-gg Granodiorite, typically with sparsely distributed biotite schlieren; locally with rafts of amphibolite
- Microdiorite; euhedral plagioclase phenocrysts in a glassy matrix; predominantly as dykes; metamorphosed AANK-giap
- AANK-gm Monzogranite; typically with biotite phenocrysts; locally with rafts of amphibolite
- AANK-gmv Muscovite-bearing monzogranite; locally includes biotite; metamorphosed
- AANK-gnpq Quartz-feldspar porphyritic rock, as dykes; metamorphosed

AANna-jmog-md.	AANna-mog	AANna-moga	A	ANna-mat	AANna-musr

AANna-jmog-md Metagabbro with relict hornblende oikocrysts; abundant rafts of recrystallized psammite, pelite, and quartzite; locally strongly sheared at lithological contacts

AANna-mog Metagabbro with local amphibole pseudomorphs after pyroxene; relict igneous texture typically well preserved; locally strongly sheared Metagabbro with amphibole pseudomorphs after pyroxene and local primary amphibole oikocrysts; locally strongly sheared

- AANna-moga AANna-mat
- Serpentinite, fine grained; strongly sheared; rare igneous textures preserved AANna-musr Tremolite -- chlorite(-talc) schist; strongly sheared
- Dolerite; locally grades into hornblende gabbro; metamorphosed AANna-od

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AANnm-mat (	AANnm-xom-mat

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AANnm-xom-ax	AANnm-oa	AANnm-om	AANnm-oml	AANnm-owl	AANnm-ot	AANnmôx

## Middle zone

AANnm-mat Serpentinite, fine grained; strongly sheared; rare igneous textures preserved

- AANnm-xom-mot Megacycles of serpentinite grading into pyroxenite, gabbronorite, and anorthosite; typically with hornblende-oikocrystic units; gabbroic rocks dominant; metamorphosed AANnm-xom-ax Gabbronorite interlayered with pyroxenite; locally with minor interstitial hornblende; metamorphosed
- AANnm-oa Anorthosite with weak plagioclase lamination and crystals up to 8 mm; metamorphosed; locally as intrusive sheets with chilled margins
- AANnm-om Gabbronorite; locally grades into leucogabbronorite and pyroxene-rich gabbronorite layers with minor interstitial hornblende; metamorphosed
- AANnm-oml Leucogabbronorite with minor interstitial hornblende; locally grades into layers of gabbronorite; locally as intrusive sheets with chilled margins; metamorphosed
- AANnm-owl Leuconorite; locally grades into leucogabbronorite and norite with minor interstitial hornblende; metamorphosed
- AANnm-ot Troctolite; locally grades into gabbronorite and leucogabbronorite with minor hornblende oikocrysts; metamorphosed
- Coarse pyroxenite with minor gabbronorite; local hornblende; metamorphosed AANnm-ax

AANni-mat	AANni-mog	AANnl-moma		
	AANnl-om		AANnl-ax	1

2800 Ma 3

AANnl-moma Metagabbronorite with amphibole pseudomorphs after pyroxene; local primary amphibole oikocrysts AANnl-xom-ax Gabbronorite interlayered with pyroxenite; local interstitial hornblende; metamorphosed Gabbronorite; locally grades into leucogabbronorite and pyroxene-rich gabbronorite layers with minor interstitial hornblende; metamorphosed AANnl-om Troctolite; locally grades into olivine gabbronorite and leucotroctolite with minor hornblende oikocrysts; metamorphosed AANnl-ot

AANnl-ax	Coarse pyroxenite with minor gabbronorite; local interstitial hornblende; metamorphosed	

AANnu-mad	AANnu-mas	AANnu-mat	
AANnu-ob	AANnu-axo	AANnu-ac	AANnu-go

## Ultramafic zone

AANwi-oml

Lower zone AANnl-mat

AANnl-mog

Metadunite with relict olivine cumulate texture; minor pyroxene amphibole and Cr-spinel; locally strongly sheared AANnu-mad

- AANnu-mas Ultramafic schist derived from intrusive rocks; serpentine dominant, and locally abundant talc and tremolite; strongly sheared
- Serpentinite, fine grained; strongly sheared; rare igneous textures preserved AANnu-mat
- AANnu-ob Pyroxene-rich gabbronorite with interstitial hornblende; metamorphosed

AANwi-aro/

- AANnu-axo Orthopyroxenite with very coarse grain size, typically >10 mm; locally grades into norite and websterite; metamorphosed
- AANnu-ac Chromitite layer in peridotite with secondary oxide minerals; locally recrystallized; metamorphosed
- AANnu-ao Olivine pyroxenite with relict olivine cumulate texture; locally grades into layers of pyroxenite and gabbronorite; metamorphosed Pvroxene peridotite with relict olivine cumulate texture and interstitial pvroxenes; minor interstitial hornblende; metamorphosed AANnu-ap

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			14. HAHAL MARY

c.2813 Ma

AANwi-xmog-mg Metagabbro and meta-leucogabbro; grades into metagabbronorite; locally schistose and sheared, with abundant metagranite, aplite, and granophyre intrusive sheets predominantly parallel to foliation AANwi-moa Amphibolite derived from intrusive rocks; locally strongly foliated

- AANwi-mof Meta-anorthosite with amphibole schlieren after flattened clinopyroxene oikocrysts; locally strongly sheared
- Metagabbro with amphibole pseudomorphs after pyroxene; grades into metagabbronorite; locally sheared; locally magnetite-bearing AANwi-moa
- Leucogabbronorite grading into gabbronorite, anorthosite, and leuconorite; with locally very coarse-grained ophitic texture; metamorphosed AANwi-oml
- gnetite-rich gabbro and leucogabbro; metamorphosed

		AANwi-am	Magnetitite, with recrystallized magnetite and ilmenite surrounding serpentinized olivine and plagioclase; grades into magnetite-n
		AANwc-xad-o	AANwc-on AANwc-on AANwc-ol
	EX	AANwc-ogc	AANwood AANwood
	MPI		Corner Well Gabbro
	8	AANwc-xad-ot	Dunite with relict olivine cumulate texture; grades into layers of troctolite, mela-troctolite and olivine gabbro; metamorphosed
ite	S	AANwc-oa	Anorthosite in decimetre-thick layers with weak plagioclase lamination and crystal size up to 8 mm, grading locally into leucog
ະ	B	AANwc-om	Gabbronorite with modal igneous layering; locally grades into leucogabbronorite; metamorphosed
ine	8	AANwc-op	Melanocratic norite to gabbronorite, locally with orthopyroxene cumulate crystals up to 20 mm; metamorphosed
eel	Ā	AANwc-ol	Olivine gabbro grading into olivine gabbronorite; metamorphosed
Σ	₩,	AANwc-oac	Clinopyroxene cumulate gabbro (grain size <20 mm), locally amphibolitized: metamorphosed

- b leucogabbro and leucogabbronorite; metamorphosed Gabbronorite with modal igneous layering; locally grades into leucogabbronorite; metamorphosed AANwc-om
- AANwc-op Melanocratic norite to gabbronorite, locally with orthopyroxene cumulate crystals up to 20 mm; metamorphosed
- AANwc-ol Olivine gabbro grading into olivine gabbronorite; metamorphosed
- Clinopyroxene cumulate gabbro (grain size <20 mm), locally amphibolitized; metamorphosed AANwc-ogc
  - Pyroxene cumulate gabbro (grain size <20 mm), with locally abundant orthopyroxene grading into coarse norite; metamorphosed

nmi Terrane

(oua

Murchison Domain

Serpentinite, fine grained; strongly sheared; rare igneous textures preserved Metagabbro with amphibole pseudomorphs after pyroxene

NARNDEE IGNEOUS COMPLEX

Boodanoo Suite

Mount Ken



Leucogabbro grading into anorthosite and gabbro; locally abundant clinopyroxene oikocrysts up to 30 mm enclose euhedral cumulate plagioclase crystals; metamorphosed Olivine gabbronorite grading into olivine gabbro and olivine leucogabbronorite; minor modal layering; metamorphosed

## Ultramafic zone AANwu-xmad-oa

Chromite-bearing metadunite interlayered with gabbro and anorthosite; locally disseminated chromite in metaperidotite; well-defined layering on a metre scale preserved locally; metamorphosed