

APPENDIX 8-A KEY TO GEOLOGICAL MAPPING SYMBOLS

Era	Period / Epoch	Geological symbol	Formation Name	Group or key association	Structural Element	Lithological Description
Cainozoic	Quaternary / undifferentiated	Qa	Alluvium	Valley and Floodplain Sediments	Recent cover	Clay, silt, sand, gravel; floodplain alluvium
Cainozoic	Quaternary / undifferentiated	Qf	Floodout Sheets and Small Fans	Valley and Floodplain Sediments	Recent cover	Sand, gravel, clay; floodout sheets and small fans
Cainozoic	Quaternary / undifferentiated	Cz	Floodplain Alluvium	Valley and Floodplain Sediments	Recent cover	Soil, sand
Cainozoic	Pleistocene	Qpa	Floodplain Alluvium	Valley and Floodplain Sediments	Recent cover	Clay, silt, sand, gravel; flood plain alluvium on high terraces
Cainozoic	Tertiary	Td	Duricrustic Palaeosols			Duricrusted palaeosols at the top of deep weathering profiles, including ferricrete and silcrete; duricrusted old land surfaces
Mesozoic	Middle Jurassic - Late Jurassic	Ji	Injune Creek Group		Surat Basin	Calcareous lithic sandstone, siltstone, mudstone, coal, conglomerate
Mesozoic	Middle Jurassic	Jh	Hutton Sandstone	Bundamba Group	Surat Basin	Pale brown to pale grey, poorly sorted, medium-grained, feldspathic sublabile sandstone (at base) and fine-grained, well-sorted quartzose sandstone (at top); minor dark grey carbonaceous siltstone, mudstone and rare pebble conglomerate
Mesozoic	Early Jurassic	Je	Evergreen Formation	Bundamba Group	Surat Basin	Labile and sublabile, fine to medium-grained sandstone, carbonaceous mudstone, siltstone and minor coal; local oolitic ironstone
Mesozoic	Early Jurassic	Je/1	Evergreen Formation/1	Bundamba Group	Surat Basin	Pale grey to greenish grey, flaggy, fine to medium-grained, micaceous, labile to sublabile sandstonene; pale green or khaki mudstone, carbonaceous mudstone; minor white siltstone and coal
Mesozoic	Early Jurassic	Je/2	Evergreen Formation/2	Bundamba Group	Surat Basin	Mudstone, siltstone and fine-grained sublabile to labile sandstonene; oolitic chamositic ironstone at the base
Mesozoic	Early Jurassic	Je/o	Evergreen Formation - oolitic ironstone	Bundamba Group	Surat Basin	Fine lithic sandstone, siltstone, mudstone, yellowish brown to brown, oolitic or pelletal ironstone
Mesozoic	Early Jurassic	Jp	Precipice Sandstone	Bundamba Group	Surat Basin	White to brown, poorly sorted, thick-bedded, cross-bedded, fine to very coarse-grained, pebbly quartzose sandstonene; minor white to yellowish brown, laminated siltstone (in upper part), carbonaceous shale, lithic sublabile sandstonene, granule conglomerate

Mesozoic	Early Triassic	Rr	Rewan Group		Bowen Basin	Lithic sandstonene, pebbly lithic sandstonene, green to reddish brown mudstone and minor volcanilithic pebble conglomerate (at base)
Palaeozoic	Early Permian	Pbu	Buffel Formation	Back Creek Group	Bowen Basin	Brown, purple or white, massive to thick-bedded, fossiliferous limestone that grades locally into white chert or silicified limestone; some volcanilithic sandstone, conglomerate, breccia and blue-green mudstone and calcilutite
Palaeozoic	Late Carboniferous - Early Permian	CPvc/a2	Camboon Volcanics/a2		Connors-Auburn Province	Dark grey, greenish to brownish grey or purple, fine to medium-grained, porphyritic andesite (locally amygdaloidal); minor polymictic granule to cobble conglomerate, andesitic tuff and rhyodacitic(?) ignimbrite
Palaeozoic	Late Carboniferous - Early Permian	CPvc/b	Camboon Volcanics/b		Connors-Auburn Province	Dark grey, fine-grained, porphyritic olivine basalt
Palaeozoic	Late Carboniferous - Early Permian	CPvc/ia	Camboon Volcanics/ia		Connors-Auburn Province	Fine-grained, welded, lithics-poor, crystal-rich, dacitic(?) ignimbrite with abundant feldspar crystals
Palaeozoic	Late Carboniferous - Early Permian	CPvc/r5	Camboon Volcanics/r5		Connors-Auburn Province	Purplish grey rhyolite lava
Palaeozoic	Late Carboniferous - Early Permian	CPvc/s	Camboon Volcanics/s		Connors-Auburn Province	Grey to brown, poorly sorted, granule to boulder conglomerate; minor grey, lapilli tuff and volcanic sandstonene
Palaeozoic	Permian	Pwj	Rangal Coal Measures, Bandanna Formation, Baralaba Coal Measures	Blackwater Group	Bowen Basin	Sandstone, siltstone, mudstone, coal, tuff, conglomerate
Palaeozoic	Late Permian	Pbf	Flat Top Formation	Back Creek Group	Bowen Basin	Siltstone, lithic sandstone, mudstone, conglomerate and minor coquinitic sandy limestone and tuff
Palaeozoic	Late Permian	Pbo	Oxtrack Formation, Brae Formation, Pindari Formation	Back Creek Group	Bowen Basin	Brown, fossiliferous, flaggy, silty limestone grading into calcareous siltstone and mudstone, silicified limestone and coquinite; minor fossiliferous chert and white lithic sandstone and siltstone
Palaeozoic	Late Permian	Pbr	Barfield Formation	Back Creek Group	Bowen Basin	Green to dark blue, locally calcareous mudstone with local calcareous to phosphatic concretions and glendonites; lithic and feldspathic sandstone and minor conglomerate; minor lapilli tuff and volcanilithic pebble conglomerate; rare andesite
Palaeozoic	Late Permian	Pwb	Baralaba Coal Measures	Blackwater Group	Bowen Basin	Calcareous mudstone and shale, coal and feldspatholithic sandstonene; minor lithic sublabile sandstonene, tuff, bands of calcareous sandstonene nodules and concretionary ironstone
Palaeozoic	Late Permian	Pwy	Gyranda Subgroup	Blackwater Group	Bowen Basin	Siltstone and shale with minor tuff and volcanilithic sandstone and rare coal (lower part - Banana Formation); calcareous sandstone, mudstone and siltstone (upper part - Wiseman Formation)