

UNIT	DESCRIPTION
Qhmm	Undifferentiated Cenozoic sediments (Q). Undifferentiated Quaternary sediments (Q). Man-made deposits including refuse areas and landfill (Qhmm).
Qhds	Modern shore face and associated aeolian dune sand (Qhds).
Qhbg	Beach gravel and shingle deposits (Qhbg).
Qh	Paralic clay, silt, sand and minor gravel deposits (Qh); of modern salt marsh and associated tidal flats (Qhs); unvegetated tidal flats (Qhsh).
Qil	Inferred undifferentiated paralic barrier complex and marine deposits (Qil).
Qhw	Aeolian and locally derived sand deposits, locally reworked by alluvial processes (Qhw). Aeolian dune and sheet sand (Qhwd).
Qhc	Colloidal (Qhc). clayey gravel derived from dolerite (Qhd); clayey gravel, partly consolidated in places, derived from Lower Permian Supergroup rocks (Qhd); sandy colloidal derived from Upper Permian Supergroup rocks (Qhpc).
Qa	Alluvial gravel, sand and clay (Qa); alluvial fans (Qaf). Alluvial and marsh deposits of modern flood plains, of gravel, sand, silt and clay commonly with organic top layer (Qam). Alluvial gravel deposits (Qag).
Qpa	Densely dissected alluvial fan proximal alluvial terrace and minor talus deposits containing boulders of weathered dolerite and Permian-derived rocks in places (Qpa).
Qpiv	Periglacial non vegetated scree deposits (Qpiv).
Ta	Talus dominantly of dolerite boulders and in places subordinate Permian Supergroup rocks (Tat). Talus dominantly of boulders of quartz sandstone of Upper Permian Supergroup with subordinate dolerite (Tatd). Talus dominantly derived from Palaeogene - Neogene basalt (Tatb).
Qpb	Semiconsolidated fine-grained marine sand with shell fragments (Qpb). Semiconsolidated fine-grained marine sand with subordinate dolerite (Qpbd). Talus dominantly derived from Palaeogene - Neogene basalt (Qpbd).
Qpsb	Semiconsolidated poorly consolidated conglomerate derived from Permian mudstone, and fine-grained sandstone, possibly equivalent to Mary Ann Bay Sandstone (Qpsb).
Qpvd	Low gradient alluvial fan and alluvial terrace deposits of interbedded gravel and coarse sand, clasts predominantly of dolerite and Permian Supergroup rocks (Qpvd); terrace deposits of clay, sand and minor gravel (Qpvc).
Qpd	Alluvial fan and colluvial deposits of angular gravel and sand, clasts predominantly of Permian Supergroup rocks (Qpd).
TQ	Semiconsolidated cross-bedded sand and minor gravel (TQd).
TQl	Silicestone and lag of silicestone (TQl).
TQch	Dominantly plastic clay, silty clay and sandy clay, with minor pebbly layers and subordinate gravel and well-sorted sand layers (TQch).
TQh	Undifferentiated piedmont, alluvial fan, alluvial terrace, exhumed alluvial, lag and possible beach gravel and poorly-cemented conglomerate containing pebbles and cobbles of dolerite or Permian-derived rocks (TQh).
Tcb	Undifferentiated Palaeogene - Neogene (T). Younger boulder-grade deposits with clasts dominantly of dolerite in pale brown gravelly clay matrix, Tarooona area (Tcb).
Tb	Basalt (Tb).

UNIT	DESCRIPTION
Tbal	Basaltic scoriaeous agglomerate, tuff and associated rocks (Tbal).
Tc	Semiconsolidated, pebble to boulder grade gravels with clasts of dolerite, Permian Supergroup rocks and basalt; with agglomerate, tuff, volcanic breccia and minor basalt (Tc).
Tsp	Sub-basalt or inferred sub-basalt very poorly consolidated, well-sorted sandstone, siltstone and claystone (Tsp).
Tec	Dominantly semiconsolidated silt and clay (Tec); with some lignitic horizons (Tec).
Tsal	Semiconsolidated interbedded pebble to cobble-grade gravel, sand and clay with an Early to Middle Eocene palynoflora at Tarooona (Tsal).
Tbd	Large boulder-to-cobble-grade sand deposits with clasts of dolerite and Permian Supergroup rocks; sandy clay matrix (Tbd).
Tcbu	Clay and gravelly clay with sparse to abundant dolerite boulders (Tcbu); green to orange-brown sandy clay with sparse to abundant dolerite boulders (Tcbu).
Tcb	Red sandy silty clay with rare quartz pebbles and dolerite boulders in places (Tcb); some areas with abundant surficial dolerite boulders indicated (Tcbu).
Tcbv	Deposits of very large (>2m) dolerite boulders in clay, and derived bouldery lag deposits (Tcbv).
Tes	Erosional surface.
Tpp	Undifferentiated Upper Permian Supergroup rocks (T). Freshwater, predominantly cross-bedded, quartzose, to ferruginous sandstone, commonly with overfused cross-bedding, and subordinate micaceous siltstone (Tpp). Knobcliff Formation (Tppk).
Tph	Freshwater, predominantly cross-bedded ferruginous sandstone and micaceous siltstone, minor thin beds of quartz-pebble conglomerate; upper interval less ferruginous (correlates of Ogden Coal Measures) (Tph).
Tpu	Undifferentiated Permian-Carboniferous sediments (P). Generally unfossiliferous, glaciomarine interbedded non-fossiliferous and fossiliferous mudstone, siltstone and minor poorly-sorted pebbly sandstone (Abels Bay Formation) (Tpu).
Tpuv	Moderately well-sorted, fine to medium-grained marine ferruginous sandstone with quartz gravels and pebbles and thin pebbly layers (Radox Sandstone) (Tpuv).
Tpud	Generally poorly fossiliferous glaciomarine fine-grained sandstone, siltstone and mudstone with common ironstones and pebble-rich patches; topmost beds richly fossiliferous; lower beds dominantly sandstone and variably fossiliferous (Mullins Formation) (Tpum); contact metamorphosed by dolerite (Tpum).
Tpuv	Interbedded, fossiliferous glaciomarine mudstone, siltstone and minor sandstone; ironstones present; thinner bedded than enclosing formations (Owen Bay Formation) (Tpuv); contact metamorphosed by dolerite (Tpuv).
Tpuo	Dominantly richly fossiliferous, interbedded glaciomarine grey biotitic and argillaceous limestone and calcareous siltstone; lower beds of fossiliferous siltstone basal pebbly sandstone bed in northern areas (Barradee Limestone, Nassau Siltstone and Radox Sandstone) (Tpuo); contact metamorphosed by dolerite (Tpuom).
Tpuo	Paralic, generally unfossiliferous dark grey mudstone and siltstone with thin beds of very fine-grained, well-sorted sandstone in places; minor glaciomarine intervals of sparsely fossiliferous, bioturbated dark grey siltstone and pebbly sandstone (Faulkner Group and Heilmann Formation) (Tpuo).
Tpin	Generally fossiliferous glaciomarine siltstone, calcareous siltstone and sandstone (Bundelle Formation) (Tpin); contact metamorphosed by dolerite (Tpin).

PERMIAN	TRIASIC	MEZOSOIC	PALEOGENE - NEOGENE	QUATERNARY
Lymingtonian Stage				
Bemachian Stage				
Tasmanian Stage				

### IGNEOUS ROCKS

Tb	Basalt (Tb). Basaltic lava (nepheline megacrite to nepheline benmoreite), locally interbedded with pyroclastics (Tbpm); basaltic lava (iodic nepheline hawthillite to nepheline megacrite) locally with minor agglomerate and small trachyte xenoliths (Tbt); basaltic lava (dominantly sodic hawthillite and pyroclastics, with rare to locally abundant trachyte xenoliths (Tbt); basaltic lava (nepheline hawthillite to iodine nepheline) with abundant trachyte xenoliths (Tbt).
Td	Dolerite (Td). Dolerite of grainsize 0 - 1.5mm (Ld), 1.5 - 3mm (Jd), >3mm (Ldc) indicated in places.

### CONTACTS

- Geological contact.
- Geological contact - inferred.
- Transitional geological contact.
- Limit of mapping of sub-unit within undifferentiated rock unit.
- Limit of detailed mapping.

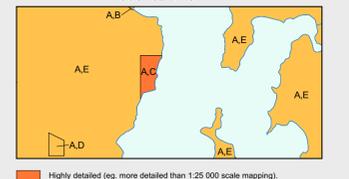
### FAULTS

- Fault.
- Fault - inferred.
- Fault - concealed.
- Normal fault (downthrown side indicated).
- Normal fault (downthrown side indicated) - inferred.
- Normal fault (downthrown side indicated) - concealed.

### LINEARS

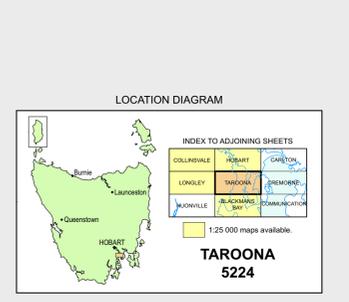
- Scarp.
- Lineament - visible on aerial photographs.

+	Strike and dip of bedding; right way up; horizontal.
+	Strike and dip of dominant joint set; vertical.
+	Strike of outcrop-scale fault with dip; vertical.
+	Generalised palaeocurrent direction.
+	Dip of contact.
+	Notable small outcrop or float/rag occurrence with rock unit indicated.
+	Construction material/industrial mineral/gemstone location.



Geology by C.R. Calver, B.Sc.(Hons) Ph.D. and M. Latynovic, B.Sc.(Hons) from the following sources (see source diagram):

- A.C.R. Calver, 2001. 1:25 000 scale mapping.
- B. STEVENSON, P.C. 1989. Site investigations at West Point, Sandy Bay. Tasmanian Department of Mines Technical Report 14: 115-117.
- C. LATYNOVIC, M., WAITE, A., CALVER, C.R., and FORTYTH, S.M. 2001. An investigation of land stability in the Tarooona area. Tasmanian Geological Survey Report 2001/01.
- D. MOORE, W.R. 1979. Geological Survey Paper 3. Whitewater Creek Damites, Kingston. Tasmania Department of Mines.
- E. LEAMAN, D.E. 1972. Geological Atlas 1:50 000 Series. Sheet 62 (83125). Hobart. Tasmania Department of Mines.



### REFERENCE THIS MAP AS:

CALVER, C.R. and LATYNOVIC, M. (compilers) 2002. Digital Geological Atlas 1:25 000 Scale Series. Sheet 5224 Tarooona. Mineral Resources Tasmania.

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Map produced by Spatial Information Services, Mineral Resources Tasmania.

Website: [www.mrt.tas.gov.au](http://www.mrt.tas.gov.au)

GDMS - MGA Zone 55. Contour Interval: 20 metres.

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