Department of State Growth
MINERAL RESOURCES TASMANIA

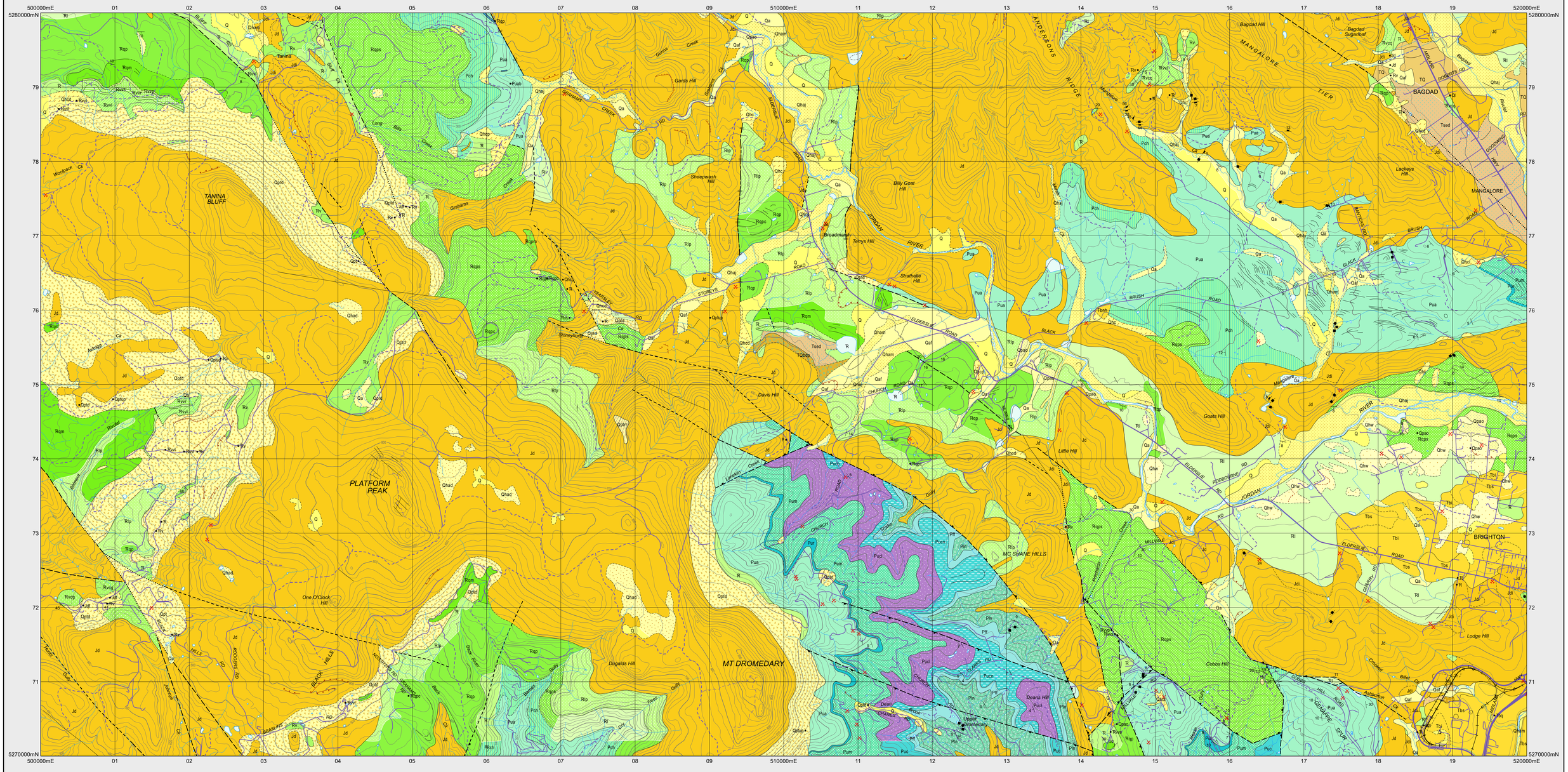
DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
BROADMARSH, SHEET 5027

BROADMARSH

Scale 1:25 000

0 500 1000 1500 2000 2500m

Tasmanian Government



CENOZOIC

QUATERNARY

Q

- **Qhmm** — *Undifferentiated Cenozoic sediments (TQ); undifferentiated Quaternary sediments (Q). Man made deposits (Qhmm).*
- **Qhw** — *Aeolian and locally derived sand (Qhw).*
- **Qhc** — *Colluvium (Qhc) - sandy, derived from Upper Parmeener rocks (Qhcp), derived predominantly from Lower Parmeener rocks (Qhcl), clayey gravel derived from dolerite (Qhcd).*
- • **Ql** — *Lag deposits (Ql).*
- **Qhab** — *Swamp deposits (Qhab). Highland marsh deposits with common protruding dolerite outcrops and boulders (Qhad).*

Qa

- **Qhaj** — *Alluvial gravel sand and clay (Qa), alluvial fans (Qaf). Holocene alluvium (Qhaj), alluvial and marsh deposits of modern flood plains composed of gravel, sand, silt and clay commonly with dark coloured top layer (Qham).*
- **Qpao** — *Alluvial terrace deposits (Qpao).*

TQ

- **Qptr** — *Dolerite scree deposits (Qptr).*
- **Qpt** — *Talus and remobilised talus deposits (Qpt). talus predominantly of dolerite boulders and in places subordinate Parmeener rocks (Qptd), predominantly of Upper Parmeener sandstone and sand (Qpts), silty talus breccia derived from Lower Parmeener rocks (Qptp), talus of dolerite and notable Upper Parmeener rocks (Qptup) of dolerite with notable amounts of Upper Parmeener quartzose sandstone (Qptdq), predominantly of Lower Paemeener and dolerite (Qptdp).*
- **TQgl** — *Lag deposits of siliceous cobbles, possibly derived from Paleogene-Neogene deposits (TQgl).*
- **TQgc** — *Mottled white, mustard coloured, brown and maroon clayey sand with scattered well-rounded siliceous cobbles and pebbles, possibly extremely weathered unit Tcdc (TQgc).*
- **TQbd** — *Boulder deposits dominantly of weathered to extremely weathered dolerite and Parmeener clasts (TQbd).*
- **TQbdp** — *Deposits dominantly of small dolerite boulders with notable clasts of Lower Parmeener rocks (TQbdp).*

PALEOGENE - NEOGENE

- **Tcdc** — *Conglomerate, clasts dominantly of dolerite to cobble or small boulder size, zeolite cemented matrix with some quartz sand (Tcdc).*
- **Tb** — *Basalt (Tb); nepheline hawaiite (Tbnh); tholeiite (Tbs); quartz tholeiite (Tbq); inferred basalt beneath soil or Cenozoic deposits (Tbi).*
- **Tcbdi** — *Inferred dolerite boulder bed or Paleogene-Neogene weathered Jurassic dolerite bedrock (Tcbdj).*
- **Tsed** — *Dominantly plastic poorly-consolidated light cream, grey or tan coloured mudstone, siltstone and sandstone with some soft, friable sandstone (Tsed).*

Erosional surface

MESOZOIC

TRIASSIC

Rv

- **Rvcg** — *Undifferentiated Permeener Supergroup rocks (PR). Undifferentiated Upper Parmeener Supergroup rocks (R). Thick- to thin-bedded volcanic lithic sandstone, siltstone, mudstone and coalseams, fossil plants on some horizons (Newton Coal Measures in part) (Rvcg). Undifferentiated Upper Parmeener below unit Rvcg (Ri). Dominantly medium-coarse-grained sandstone, minor mudstone minor mica and feldspar content, sandstone to mudstone ratio is <= 3:1, contains clay pellet conglomerate (Rlp).*
- **Rvcq** — *Interbedded cross-bedded white quartzose sandstone, quartz-rich lithic sandstone, siltstone and mudstone; intervals with much dark grey carbonaceous mudstone, thin lenticular coal seams and fossil plants in places (Rvcq).*
- **Rvvl** — *Interbedded yellow brown or grey carbonaceous siltstone, mudstone and thin-to thick-bedded quartz-rich lithic, arkosic sandstone, some fossil plants, common siltstone palaeosols (Rvvl).*
- **Rvvs** — *Predominantly fine-grained quartz sandstone, commonly partly silicified, interbedded with mudstone and lithic sandstone at places (Rvvs).*
- **Rvvr** — *Predominantly brown, buff, grey carbonaceous and green siltstone and mudstone, interbedded with lithic sandstone, quartz sandstone and thin beds of silicified sandstone (Rvvr).*
- **Rvvp** — *Lenticular variable medium- to coarse-grained sandstone, generally contains quartz granules and locally quartz pebbles (Rvvp).*

Rv = Rvcg + Rvcq + Rvvl + Rvvs + Rvvr + Rvvp.

Rlp

- **Rqm** — *Interbedded micaceous brown, red-purple, green and grey carbonaceous siltstone, shale, mudstone and planar bedded, ripple-laminated or cross-bedded sandstone (Rqm).*
- **Rqpc** — *Freshwater predominantly cross-bedded quartzose to feldspathic sandstone commonly with overturned cross-bedding and subordinate micaceous siltstone with some red-purple beds, sparse plant and vertebrate fossils (Rqp), contact metamorphosed by Jurassic dolerite (Rqpm), intervals predominantly of siltstone, shale, mudstone and sandstone indicated (Rqpc), intervals of thickly bedded medium-coarse-grained quartz sandstone and very minor usually black shale layers and sandstone to shale ratio normally > 10:1 (Rqps). Unit Ru contact metamorphosed by Jurassic dolerite (Rm).*
- **Rqp** — *Freshwater cross-bedded arkosic to quartzose sandstone and micaceous siltstone, thin beds of quartz pebble conglomerate near base in many areas; upper interval less feldspathic (correlate in part of Cygnet Coal Measures) (Pch).*

Ri

- **Rqps** — *Undifferentiated Permo-Carboniferous sediments (P). Generally unfossiliferous, glaciomarine interbedded non-fissile and fissile siltstone and silty sandstone, common bioturbation, lone-stones; uppermost beds of laminated to massive grey siltstone (Abels Bay Formation) (Pua), thin marker horizon of granule sandstone indicated (probable correlate of Blackwood conglomerate) (Puab.)*

R

- **Pch** — *Undifferentiated Upper Parmeener Supergroup rocks (R). Thick- to thin-bedded volcanic lithic sandstone, siltstone, mudstone and coalseams, fossil plants on some horizons (Newton Coal Measures in part) (Rvcq). Undifferentiated Upper Parmeener below unit Rvcg (Ri). Dominantly medium-coarse-grained sandstone, minor mudstone minor mica and feldspar content, sandstone to mudstone ratio is <= 3:1, contains clay pellet conglomerate (Rlp).*

PR

- **Pua** — *Cliff forming massive, bioturbated to homogeneous, moderately well-sorted feldspathic quartz sandstone with thin pebble-and cobble-rich layers (Risdon Sandstone) (Pur).*
- **Puab** — *Generally poorly fossiliferous interbedded glaciomarine fine-to medium-grained sandstone and fissile to non-fissile siltstone with common lonestones and pebble rich patches, top beds richly fossiliferous, lower beds generally coarser-grained and variably fossiliferous (Malbina Formation) (Pum).*
- **Pur** — *Dominantly richly fossiliferous, interbedded glaciomarine grey bioclastic and argillaceous limestone and calcareous siltstone overlain by fossiliferous siltstone in some areas (Berriedale Limestone in part) (Puc).*
- **Pum** — *Dark grey richly-to sparsely-fossiliferous glaciomarine siltstone and calcareous siltstone and basal fossiliferous poorly-sorted pebbly sandstone (Nassau Siltstone and Rayner Sandstone) (Pucn).*
- **Puc** — *Paralic siltstone and fine-grained sandstone, variably bedded - massive, laminated, flaser bedded, rippled, thin beds of cross-laminated or wavy-bedded sandstone, glaciomarine intervals and rare thin beds of pebbly granule sandstone (Faulkner Group) (Pff).*
- **Pucl** — *Generally fossiliferous, fissile and non-fissile glaciomarine siltstone and sandstone, with lonestones; richly fossiliferous central interval with some impure limestone; upper interval dominantly of less fossiliferous micaceous siltstone (Bundella Formation) (Pln).*
- **Pucn**
- **Pff**
- **Pln**

PERMIAN

P

UPPER PARMEENER SUPERGROUP

LOWER PARMEENER SUPERGROUP

REKUNIAN SERIES

- Lymingtonian Stage
- ?——?
- Bernacchian Stage
- Tamarian Stage

IGNEOUS ROCKS

MESOZOIC — CENOZOIC

PALEOGENE - NEOGENE

- **Tb** — *Basalt (Tb), nepheline hawaiite (Tbnh), tholeiite (Tbs), quartz tholeiite (Tbq), inferred basalt beneath soil or Cenozoic deposits (Tbi).*
- **Tbn** — *Olivine nephelinite (Tbn).*

JURASSIC

- **Jd** — *Dolerite (Jd), dolerite inferred beneath soil or Cenozoic deposits (Jdi), insitu or transported dolerite masses (Jdt) indicated.*

CONTACTS

- *Geological contact.*
- *Geological contact - inferred.*
- *Igneous intrusive contact.*
- *Limit of mapping of sub-unit within undifferentiated rock unit.*
- *Limit of detailed mapping.*

FAULTS

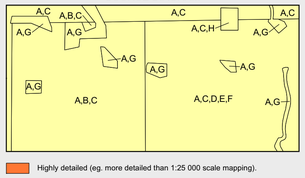
- *Fault.*
- *Fault - inferred.*
- *Fault - concealed.*
- *Normal fault (downthrown side indicated).*
- *Intrusive boundary along pre-existing fault with subsequent post-intrusive movement.*

LINEARS

- *Scarp.*
- *Slope break.*
- *Lineament - visible on aerial photographs.*
- *Lithological trend line, including bedding trace interpreted from aerial photographs.*

- *Strike and dip of bedding, right way up.*
- *Strike and dip of dominant joint set.*
- *Strike of dominant joint set, vertical.*
- *Notable small outcrop with rock unit indicated.*
- *Construction material/industrial mineral/gemstone location.*

SOURCE DIAGRAM



- Highly detailed (eg. more detailed than 1:25 000 scale mapping).
- Detailed systematic (eg.1:25 000 map or equivalent detail).
- Regional systematic (eg.1:50 000, 1:63 360 map or equivalent detail).
- Regional mapping less detailed than 1:63 360 map or equivalent (all other scales).
- Reconnaissance mapping with sparse ground traverses.
- Remote sensing and/or geophysical interpretation with limited or no ground information.

Compiled by S.M. Forsyth, B.Sc., 2002 from the following sources (see source diagram):

A LEAMAN, D.E. & LEGGE, P.J. 1975. Geological atlas 1:50 000 series. Sheet 75 (8312N), Brighton. Tasmania Department of Mines.

B WOOLLEY, D.R. 1959. The geology of the New Norfolk - Black Hills district. Paper and Proceedings of the Royal Society of Tasmania. Vol. 93 Pages: 97-110.

C S.M. Forsyth. Roadside mapping and aerial photo interpretation 2002.

D MCDOUGALL, I. 1959. The geology of the Pontville ? Dromedary area. Tasmania. Papers and Proceedings of the Royal Society of Tasmania. Vol. 93 Pages: 59-70.

E SUTHERLAND, F.L. Cainozoic volcanic rocks. In Leaman, D.E. 1977. Geological atlas 1:50 000 series Expl. Rep. Sheet 75 (8312N), Brighton.

F J.L. Everard. Personal communication - 2002.

G S.M. Forsyth. New mapping 2002.

B CROMER, W.C. 1999. Site plan. In CLARK, M. 1999. Development Proposal and Environmental Management Plan for a Landfill Waste Depot off Black Brush Road, Mangalore. Midall Pty. Ltd. MRT library reference catalogue Dev. 363.7285.

REFERENCE THIS MAP AS:

LEAMAN, D.E., MCDOUGALL, I., WOOLEY, D.R., FORSYTH, S.M. (compiler), CROMER, W.C. 2007. Digital Geological Atlas 1:25 000 Scale Series. Sheet 5027 Broadmarsh. Mineral Resources Tasmania.

Base data from the LIST, Copyright State of Tasmania.

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Website: www.mrt.tas.gov.au

GDA94 - MGA Zone 55. Contour Interval: 20 metres.

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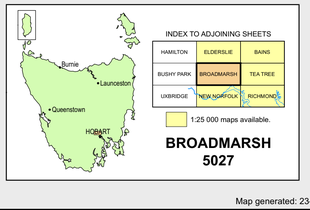
LOCATION DIAGRAM



Map generated: 23-APR-2024

WARNING: INKS ARE LIGHT SENSITIVE.