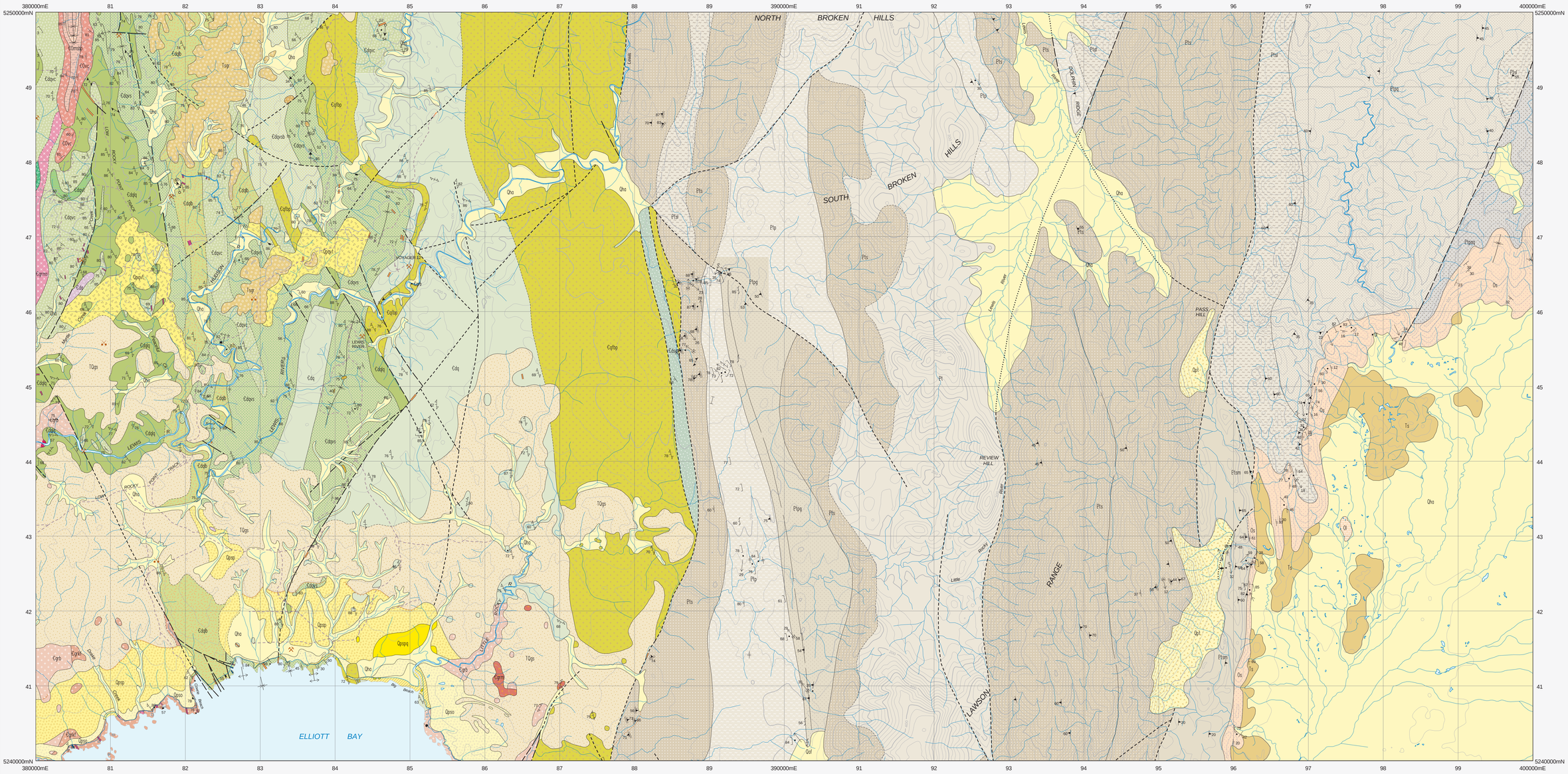
Department of Infrastructure Energy and Resources
MINERAL RESOURCES TASMANIA

DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
LEWIS, SHEET 3824

LEWIS

Scale: 1:25 000

0 500 1000 1500 2000 2500m



CENOZOIC

QUATERNARY

- **Qha** — *Stream alluvium, swamp and marsh deposits (Qha).*
- **Qhdb** — *Modern shore face and associated aeolian dune sand (Qhdb).*
- **Qc** — *Colluvial sand, gravel and clay (Qc).*
- **Qf** — *Ferricrete deposit of probable Quaternary age (Qf).*
- **Qaf** — *Alluvial fans (Qaf).*
- **Qpt** — *Talus, till and scree of probable Pleistocene age (Qpt).*
- **Qpqvt** — *Quartz vein-derived talus and scree (Qpqvt).*
- **Qpso** — *Older aeolian sand and sand dunes (Qpso).*
- **Qpsp / Qpspq** — *Sands and gravels associated with older marine platforms – probably includes marine, alluvial and slope deposits (Qpsp). Silicified gravel deposits, generally occuring as loose blocks (Qpspq).*

? *Erosional surface.*

LATE PALEOGENE – NEOGENE(?)

- **TQgs** — *Gravel and sand deposits associated with surface approx. 50m a.s.l. Includes vein quartz lag and probable younger alluvial deposits (TQgs).*
- **T: Tsgr** — *Undifferentiated Paleogene – Neogene (T). Rounded gravel, mainly vein quartz (Tsgr).*
- **T: Ts** — *Predominantly unconsolidated gravel, commonly rounded (Ts).*
- **T: Tcqbl** — *Basal lag deposit of mainly subangular vein quartz clasts (Tcqbl).*

Angular unconformity.

PALEOZOIC

ORDOVICIAN

- ♦ Ol — *Dark grey limestone, dolomite, calcareous mudstone, minor quartz sandstone. In part fossiliferous (Ol).* — GORDON GROUP (?)
- **Os** — *Mostly siliceous sandstone, grey to pink (Os).* — WATERLOO CREEK GROUP; CORRELATE OF OWEN GROUP (?)

CAMBRIAN

FURONGIAN

- **€Omshp** — *Mainly black pyritic shale and siltstone (€Omshp).*
- **€Omsh** — *Unit of green–grey thin–bedded micaceous siltstone (€Omsh).*
- **€Ovc** — *Volcaniclastic conglomerate and sandstone, with some siliceous sandstone in places (€Ovc).*

Unconformity.

CAMBRIAN SERIES 3

- **€dq** — *Mainly felsic volcaniclastic, volcanic and intrusive rocks, typically quartz–feldspar–phyric (€dq).*
- **€dqvc** — *Dominantly felsic volcaniclastic rocks, well bedded to massive. Includes sandstone, siltstone, minor conglomerate, probable pyroclastic rocks and minor felsic lavas (€dqvc).*
- **€dqvs / €dqcs** — *Dominantly volcaniclastic sandstone with minor siltstone, typically well bedded (€dqvs). Siliclastic conglomerate, sandstone and breccia (€dqcs).*
- **€dqvsb** — *Felsic volcaniclastic rocks containing significant detrital biotite (€dqvsb).*
- **€dqvt** — *Vitric ash unit (€dqvt).*
- **€dqlq** — *Quartz–feldspar–phyric lavas and/or intrusives (€dqlb).*
- **€dqlb** — *Quartz–feldspar–biotite–phyric lava and/or intrusive (€dqlb).*
- **€dsq** — *Bedded volcaniclastic sandstone, siltstone and minor siliceous sandstone abutting Precambrian rocks (correlate of Slicht Range Beds) (€dsq).*

CORRELATE OF EASTERN QUARTZ–PHYRIC SEQUENCE; CORRELATE OF MOUNT READ VOLCANICS

MESOPROTEROZOIC

TYENNAN REGION METASEDIMENTARY ROCKS

- **Ept: Pts** — *Metamorphic rocks, dominantly metaquartzite and metapelite (Ept). Dominantly quartzite (Pts).*
- **Ept: Ptsl** — *Platey or schistose micaceous quartzite (Ptsl).*
- **Ept: Ptsm** — *Quartzite with interlayered quartz–mica and mica–quarz phyllite (Ptsm).*
- **Ept: Ptp** — *Phyllite and quartz–schist (Ptpq). Dominantly phyllite (Ptp).*
- **Ept: Ptpq / Ptpqq** — *Quartz–mica and mica–quartz phyllite of predominantly light– to dark–grey colour (Ptpqq).*
- **Ept: Ptpg** — *Fine– to coarse–grained, often thinly banded, pelitic, garnetiferous quartz–mica and mica–quartz schist, commonly containing phengite, biotite, almandine, abite and chlorite. Minor gneiss, amphibolite and granite. Relatively high metamorphic grade (Ptpg).*

INTRUSIVE ROCKS

DEVONIAN

- **Dl** — *Lamprophyre dykes (Dl).*
- **qv** — *Quartz vein (qv).*

PALEOZOIC – CAMBRIAN

- **€dbc** — *Mafic dyke, typically chlorite–altered (€dbc).*

CAMBRIAN SERIES 3 — MOUNT READ VOLCANICS

- **€grb** — *Biotite granite–adamellite, medium to coarse–grained (€grb).*
- **€grs** — *Granite with strongly sericitised feldspar and biotite altered to opaques, muscovite and chlorite (€grs).*
- **€grm** — *Microgranite and porphyritic microgranite (€grm).*
- **€grms** — *Intensely sericite–quartz altered microgranite. May include minor thermally altered country rocks (€grms).*
- **€grkf** — *K–feldspar–phyric granite, medium to coarse–grained (€grkf).*
- **€gra** — *Granite–related aplite, microgranite or quartz–feldspar porphyry dyke (€gra).*
- **€qfbp** — *Quartz–feldspar–biotite porphyry, coarse–grained (€qfbp).*
- **€qdb** — *Quartz–feldspar–biotite–phyric lava and/or intrusive (€qdb).*
- **€da** — *Intermediate intrusive and/or lava (€da).*
- **€dqlq** — *Quartz–feldspar–phyric lava and/or intrusive (€dqlq).*
- ♦ €grn — *Local occurrence of granite, associated with high grade metamorphic rocks (€grn).*

Geological boundary – position accurate or approximate.
Geological boundary – inferred.
Fault – unspecified type, position accurate or approximate.
Fault – unspecified type, inferred.
Fault – unspecified type, concealed.
Lithological trend line, including bedding trace interpreted from aerial photographs.
Scarp.
Lineament visible on aerial photographs.
Axial surface trace of major fold, antiform.
Axial surface trace of major fold, synform.
Limit of mapping.
(white line) Limit of mapping of sub–unit within undifferentiated rock unit.

Strike and dip of bedding – right way up; overturned; facing unknown.
Strike of vertical bedding; facing unknown.
Strike and dip of cleavage of unspecified type and relative age; vertical.
Strike and dip of cleavage or foliation, relative local age S1; vertical.
Strike and dip of cleavage or foliation, relative local age S2; vertical.
Strike and dip of cleavage of unspecified type and relative age parallel to bedding, facing unknown.
Trend and plunge of minor fold hinge line, unspecified relative age; horizonta.
Trend and plunge of minor fold hinge line, unspecified relative age, symmetrical; vergence sinistral.
Trend and plunge of hinge line of reclined minor fold, unspecified relative age, symmetrical.
Trend and plunge of hinge line of minor fold with vertical axial surface, relative local age F2.
Trend and plunge of hinge line of unspecified relative age, minor synform.
Strike and dip of dominant joint set; vertical.
Strike and dip of igneous banding or platy alignment.
Strike and dip of ductile shear–band.
Strike and dip of mafic schlieren associated with granitic rock.
Strike and dip of metamorphic foliation other than cleavage; vertical; parallel to compositional layering.
Strike of dyke or vein, rock type or mineral specified in digital data; with dip; vertical.
Strike of vertical crenulation cleavage.
Generalised palaeocurrent direction, showing sense of movement.
Trend and plunge of mineral elongation lineation.
Field station for adjacent readings on the map.
Mineral deposit location – hardrock
Mineral deposit location – alluvial/tailings
Construction material/industrial mineral/gemstone location

Data derived from Mineral Resources Tasmania DEPOSITS database. Data point position has not been verified in every case.

Compiled by R.O. Reid, B.Sc. (Hons) and D.C. Green, B.Sc. (Hons), Ph.D. 2000 from the following sources (see responsibility diagram):

A PEMBERTON, J., VICARY, M.J., BRADBURY, J., CORBETT, K.D. 1991. Geology of the Elliott Bay – Mt Osmund area. Map 10. Mt Read Volcanics Project Department of Mines, Tasmania.

B Hall, W.D.M. et al. 1969 1 Inch:Mile Rocky Point and De Witt Geological Maps. Broken Hill Proprietary Company Limited. TCR 69_0555.

Updated by:

C Corbett, K.D. (2004), as part of the Western Tasmanian Regional Minerals Program.

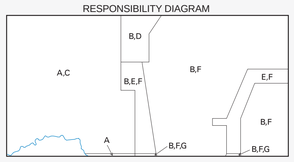
D Air photo and WTRMP geophysical data interpretation by M.J. Vicary, 2004.

E Limited traverses by W.D.M. Hall 2004 – 2005.

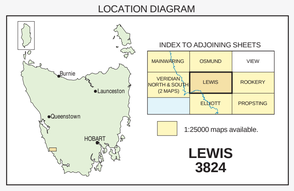
F Limited traverses by W.D.M. Hall and M.J. Vicary, 2006.

G Air photograph interpretation by W.D.M. Hall and M.J. Vicary, 2006.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



REFERENCE THIS MAP AS:

REID, R.O. and GREEN, D.C. 2000 (Compilers) . Digital Geological Atlas 1:25 000 Scale Series. Sheet 3824. Lewis. Mineral Resources Tasmania.

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Map produced by the Geoscience Information Branch of Mineral Resources Tasmania using G.I.S. software.

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

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