MINERAL RESOURCES TASMANIA
DIGITAL GEOLOGICAL ATLAS 1:25 000 SERIES
SHEFFIELD, SHEET 4441

SHEFFIELD

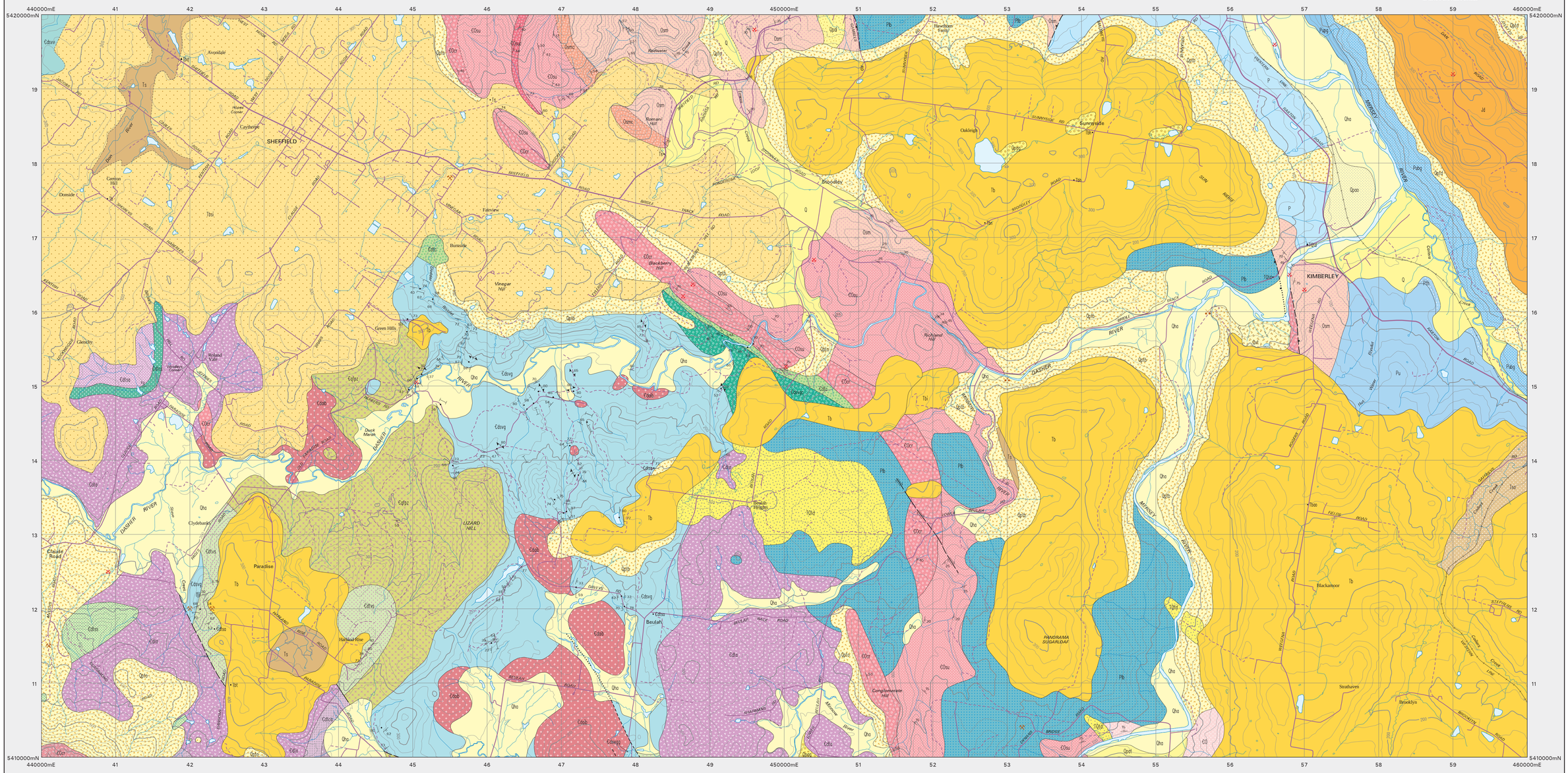
Scale: 1:25 000

0 500 1000 1500 2000 2500m

MINERAL RESOURCES TASMANIA

Tasmania

DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES



CENOZOIC

QUATERNARY

HOLOCENE

- **Qxt** — *Undifferentiated Quaternary sediments (Q); Landslide deposits predominantly derived from weathered Tertiary rocks (Qxt).*
- **Qha** — *Stream and river alluvium (Qha).*
- **Qpao** — *Older alluvium of river terraces (Qpao).*
- **Qpag** — *Older alluvium, dominantly of river terraces, dominantly cobble–boulder gravel (Qpag).*

PLEISTOCENE

- **Qst** — *Quaternary slope deposits: Quartz sandstone and conglomerate talus (Qpta). Basalt talus and landslide debris (Qptb). Dolerite talus (Qptd).*
- **Qpal** — *Clay and alluvial gravel with dolerite boulders in places (Qpal).*
- **Qpat** — *Till, talus and alluvial gravels (Qpat).*
- **TQtd** — *Boulders of Jurassic dolerite and minor quartzite pebbles in clay; reworked into Quaternary slope deposits in places (TQtd).*

Erosional surface.

TERTIARY

- **Tb** — *Basalt and intercalated sands, clays and conglomerate; usually deeply weathered; inferred from water bore logs and sparse lag (Tbs). Basalt (Tb); quartz tholeiite (Tbq); olivine tholeiite (Tbt), alkali olivine basalt (Tbas), hawaiite (Tbh), olivine nephelinite (Tbn) indicated. Inferred basalt (Tbi).*
- **Tbsi**
- **Ts** — *Sands, clays and conglomerate (Ts). Sand, quartzite gravel and clay, including interbasalt deposits (Wesley Vale Sand) of Oligocene age (Tso).*
- **Tso**

Erosional surface.

PALEOZOIC

PERMIAN

LOYNER/PARMEENER SUPERGROUP

- **Pubg** — *Undifferentiated Permo–Carboniferous sediments (P). Upper glaciomarine sequences of pebbly mudstone, pebbly sandstone and limestone (Pu). Sandstone, mudstone and pebbly mudstone with marine fossils (Bogan Gap Group) (Pubg).*
- **Pupg** — *Sandstone, mudstone and pebbly mudstone with marine fossils (Pratina Group) (Pupg).*
- **Pfh** — *Quartz sandstone and shale, carbonaceous in places, and minor conglomerate (Mersey Coal Measures) (Pfh).*
- **Pb** — *Poorly sorted pebbly mudstone, sandstone and minor conglomerate, marine fossils present in places (Spreyton Beds) (Pb).*

CARBONIFEROUS

Angular unconformity

PALEOZOIC

ORDOVICIAN

MOINA SANDSTONE — CORRELATE OF GORDON GROUP

- **Osm** — *Dominantly very fine- to medium-grained, purple, pink or white quartzarenite, locally cross-bedded or bioturbated (Osm).*
- **Osmc** — *Granule to pebble conglomerate, purple, pink or white, with up to 15% chert clasts (Osmc).*

Angular unconformity

LATE CAMBRIAN

WURAWINA SUPERGROUP — CORRELATE OF OWEN GROUP

- **€Osu** — *Pink quartzarenite, cross-bedded in places (€Osu).*
- **€Osuc** — *Quartzite-derived pebble conglomerate (€Osuc).*
- **€Ocr** — *Pale pink, quartzite-derived, closed- to open-framework, massive pebble–cobble conglomerate with minor pink quartzarenite beds (€Ocr).*

Angular unconformity

MIDDLE CAMBRIAN

MOUNT READ VOLCANICS — CORRELATES OF TYNDALL GROUP

- **€dtc** — *Mainly volcaniclastic conglomerate and sandstone with minor mudstone. Sparse quartzite clasts and clasts of granite in places (€dtc).*
- **€dfpz** — *Quartz–feldspar +/– pyroxene +/– hornblende phyric porphyry. Intrusive to locally extrusive (€dfpz).*
- **€fpq** — *Plagioclase–clinopyroxene–quartz porphyry, typically massive to brecciated (€fpq).*
- **€dtss** — *Mainly quartz–feldspar phyric massive volcaniclastic sandstone with some pebble conglomerate with clasts of quartz phyric rhyolite and rare quartzite (€dtss).*
- **€dto** — *Andesitic lava and associated volcaniclastic rocks, typically plagioclase–pyroxene phyric. Minor plagioclase phyric dacite lava, basalt lava, andesitic volcaniclastic sediments and breccias. Includes 'Beulah Andesite' (€dta).*
- **€dtcs** — *Siliceous conglomerate with quartzite and chert clasts, generally interbedded with coarse sandstone (€dtcs).*
- **€dtvs** — *Dominantly feldspar–quartz–pyroxene phyric crystal-rich volcaniclastic sandstone derived from andesitic and rhyolitic volcanics with interbeded vitric and pumiceous volcaniclastic sandstone and finely banded micaceous siltstone (€dtvs).*
- **€dtcc** — *Andesitic volcaniclastic conglomerate and sandstone. Typically crystal-rich with plagioclase–quartz–pyroxene crystals. Abundant andesite lava and minor quartzite clasts (€dtcc).*
- **€dtso** — *Mainly andesitic volcaniclastic sandstone with minor siltstone and conglomerate, typically with detrital plagioclase and pyroxene and clasts of andesite. Minor felsic detritus and quartzite clasts in some areas (€dtso).*

CORRELATE OF WESTERN VOLCANO-SEDIMENTARY SEQUENCE — Gog Range Greywacke

- **€dsvg** — *Marine volcano-sedimentary and sedimentary sequences of sandstone, siltstone, mudstone, conglomerate and breccia with some felsic to andesitic volcanic rocks. (Gog Range Greywacke) (€dsvg).*
- **€dsvgg** — *Dominantly non-volcanic sandstone and siltstone, typically siliceous–micaceous, massive to thinly bedded (€dsvgg).*
- **€dsvgc** — *Dominantly siliceous conglomerate and sandstone, typically rich in quartzite clasts (€dsvgc).*
- **€dsvv** — *Predominantly fine grained ashy volcaniclastic siltstone, with minor black–grey siltstone (€dsvv).*

INTRUSIVE ROCKS

JURASSIC

- **Jd** — *Dolerite (Jd).*

MIDDLE CAMBRIAN

MOUNT READ VOLCANICS

- **€dab** — *Andesitic–monzodioritic intrusives with biotite, hornblende, pyroxene, feldspar and quartz. Typically massive, pink to brown-weathering. Zircon U–Pb radiometric age 493.5 +/– 3.9 Ma from 447425mE 5410865mN. Includes Beulah 'granite' and related rocks (€dab).*
- **€qfpz** — *Quartz–feldspar +/– pyroxene +/– hornblende phyric porphyry. Intrusive to locally extrusive (€qfpz).*
- **€fpq** — *Plagioclase–clinopyroxene–quartz porphyry, typically massive to brecciated (€fpq).*

Geological boundary – position accurate or approximate.
Geological boundary – inferred.
Fault – position accurate or approximate.
Fault – inferred.
Fault – concealed.
Fault – normal – position accurate or approximate (with downthrown side indicated).
Fault – normal – position concealed (with downthrown side indicated).
Strike-slip fault (dextral) – position accurate or approximate.

Strike and dip of bedding facing known, right way up; vertical (facing indicated by single tic).
Strike and dip of bedding, facing unknown – dipping; vertical.
Strike and dip of cleavage, type and relative age unspecified – dipping; vertical.
Strike and dip of cleavage or foliation, relative local age S2; vertical.
Notable small outcrop with rock unit indicated.
Notable small float or lag occurrence, with rock unit indicated.
Field station for adjacent readings on the map.
Fossil location.
Mineral deposit location – hardrock
Mineral deposit location – alluvial
Construction materials location –

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

Compiled by M.P. McClenaghan, 2004 from the following sources (see Responsibility Diagram):

A JENNINGS, I.B; BURNS, K.L; MAYNE, S.J. and ROBINSON, R.G. 1959. Geological atlas 1:63360 Series, sheet 37 Sheffield. Tasmania Department of Mines.

B GULLINE, A.B., BRAVO, A.P. and NAGVI, I.H., 1973. Geological atlas 1:63360 Series, sheet 38 (8215S) Frankford. Tasmania Department of Mines.

C McCLENAGHAN, M.P. 2002. Reconnaisance geological mapping. Mineral Resources Tasmania, and Brown, A.V. 1992. Reconnaisance geological mapping. Mineral Resources Tasmania.

D Modified and updated by K.D. Corbett, 2004 as part of the Western Tasmanian Regional Minerals Program.

Updated from the following sources:

E C.R. Calver 2007. 1:25000 Geological mapping.

F C.R. Calver 2007. Reconnaisance geological mapping.

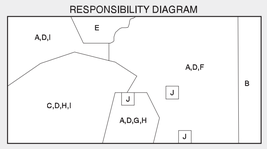
G VICARY, M.J. and JACKSON, S. 1993. Exploration No. 15:92 Bewlah Annual Report August 1992 - July 1993. RGC Exploration Pty Ltd TCR 93-3488.

H M.J. Vicary 2007. Updated as part of the TasExplore Project.

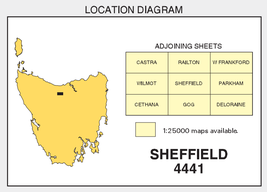
I Additional information from bore logs as at 2007.

J J.L. Everard 2007. Limited traverses.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



REFERENCE THIS MAP AS:
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AGD66 - AMG Zone 55. Contour Interval: 20 metres.

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