Department of State Growth
MINERAL RESOURCES TASMANIA

DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
MOLE CREEK, SHEET 4439

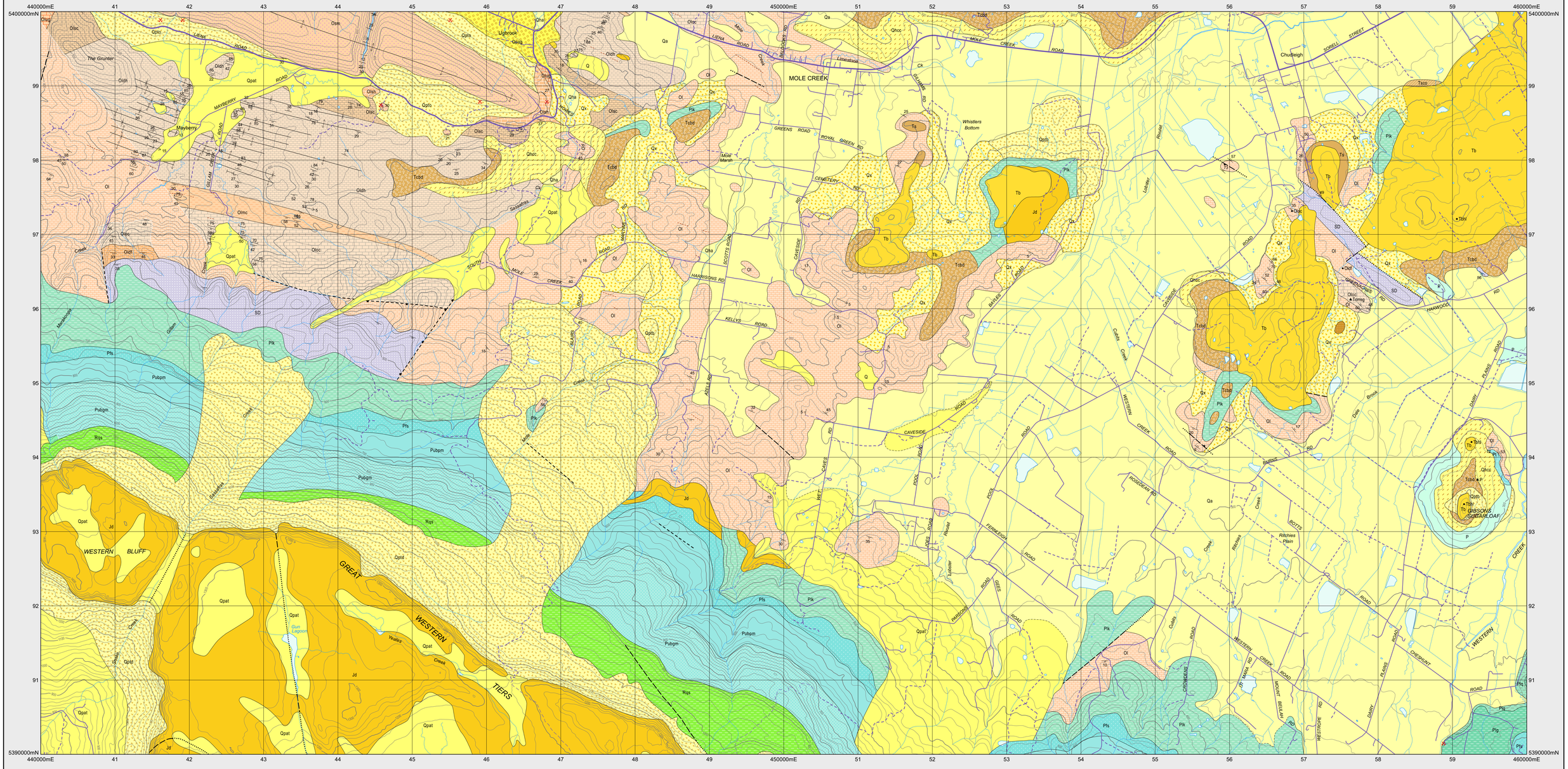
MOLE CREEK

Scale 1:25 000

0 500 1000 1500 2000 2500m

INDUSTRY TOURISM RESOURCES

Tasmanian Government



CENOZOIC

QUATERNARY

HOLOCENE

Q

- Qhcc — *Undifferentiated Quaternary sediments (Q). Alluvial gravel, sand and clay (Qa). Colluvium with dolerite boulders and cobbles derived from Paleogene-Neogene dolerite conglomerate (Qhcc).*
- Qha — *Alluvial gravel, sand and clay (Qa). Younger Stream alluvium, marsh and swamp deposits (Qha).*
- Qa
- Qpag — *Older alluvium, dominantly of river terraces, dominantly cobble-boulder gravel (Qpag).*
- Qx — *Slope deposits derived from Tertiary units (Qx).*

PLEISTOCENE

Q

- Qptb — *Basalt talus (Qptb).*
- Qptd — *Talus consisting dominantly of dolerite boulders (Qptd).*
- Qpto — *Quartz sandstone and conglomerate talus derived from Owen Group rocks (Qpto).*
- Qpat — *Till, talus and alluvial gravels (Qpat).*

PALEOGENE - NEOGENE

- Tb — *Basalt (Tb). Alkali olivine basalt/hawaiite (Tbhl).*

Ts

- Tcmsg — *Dominantly non-marine sequences of gravel, sand, silt, clay and regolith (Ts). Silicified gravel deposits (Tcmsg).*
- Tsco — *Inter-and sub-basalt gravels of predominantly quartzite pebbles (Tsco).*
- Tcbd — *Poorly sorted large boulder to pebble grade deposits, clasts dominantly of dolerite; clayey matrix (Tcbd).*

Erosional surface.

MESOZOIC

- Rqs — *Cross bedded quartz sandstone, feldspathic sandstone and shale (Rqs).*

PALEOZOIC

PERMIAN

P

- Pcjf — *Undifferentiated Permo-Carboniferous sediments (P). Carbonaceous sandstone and shale with plant fossils (Jackey Formation) (Pcjf).*
- Pubgm — *Unfossiliferous pebbly siltstone, siltstone and sandstone (correlate of Bogan Gap Group but including the Garcia Sandstone) (Pubgm).*
- Pubpm — *Sandstone, mudstone and pebbly mudstone with marine fossils (correlate of Poatina Group but excluding the Garcia Sandstone) (Pubpm).*
- Pfs — *Dominantly well-sorted quartz sandstone, normally cross-bedded or laminated and commonly with interbedded and laminated carbonaceous shale, lesser conglomerate and rare coal (Liffey Sandstone) (Pfs).*
- Plg — *Predominantly fossiliferous and erratic rich mudstone, shale, limestone and Sandstone (Golden Valley Group) (Plg).*
- Plk — *Interbedded conglomerate, pebbly sandstone and siltstone, and richly fossiliferous limestone (Kansas Creek beds) (Plk). Unfossiliferous dark grey pyritic mudstone (Quamby Mudstone) (Plq).*
- Plq
- Pt — *Tillite and erratic rich mudstone (Stockers Tillite) (Pt).*

Angular uncorformity.

UPPER PARMEENA SUPERGROUP

LOWER PARMEENA SUPERGROUP

PALEOZOIC

SILURIAN-DEVONIAN

ELDON GROUP

- SD — *Quartz sandstone, laminated siltstone and shale (SD).*

ORDOVICIAN

GORDON GROUP

- Oldf — *Dark grey limestone, dolomite, calcareous mudstone, minor quartz sandstone and black clay weathering products. In part fossiliferous (Gordon Group and correlates) (Ol). Coralline calcrudite, sparsely fossiliferous micrite and minor black shale (Den Formation) (Oldf).*
- Oloc — *Unfossiliferous dolomitic micrite, dolomitic siltites, dolomicrite and dolosiltites (Overflow Creek Formation) (Oloc).*
- Olmc — *Fossiliferous red to grey quartz siltstone, black shale, calcarenite and minor micrite (Mole Creek Formation) (Olmc).*

Ol

- Oldh — *Interbedded micrite and dolomitic micrite. Nodular chert and bioturbation common (Dogs Head Formation) (Oldh).*
- Olsc — *Interbedded micrite and slightly dolomitic micrite with basal calcarenite (Sassafras Creek Formation) (Olsc).*
- Olug — *Nodular micritic limestone and bioturbated pyritic mudstone. Sparsely fossiliferous (Ugbrook Formation) (Olug).*
- Olsh — *Oncolitic carbonate and minor dolomitic micrite and calcarenite (Standard Hill Formation) (Olsh).*

OWEN GROUP

- Osm — *Pale grey to pink, commonly cross-bedded quartz sandstone, coarse and pebbly towards base with tubicular trace fossils in upper sequences (correlate of Moina Sandstone) (Osm).*

INTRUSIVE ROCKS

MESOZOIC

JURASSIC

- Jd — *Dolerite and related rocks (Jd).*

CONTACTS

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

FAULTS

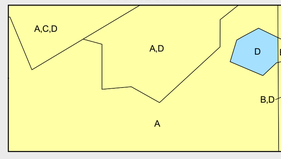
- *Fault.*
- *Fault - inferred.*
- *Fault - concealed.*
- *Normal fault (downthrown side indicated).*
- *Normal fault (downthrown side indicated) - inferred.*

LINEARS

- *Axial surface trace of major antiform.*
- *Axial surface trace of major synform.*
- *Lithological trend line, including bedding trace interpreted from aerial photographs.*

- *Strike and dip of bedding, right way up.*
- *Strike and dip of bedding, facing unknown.*
- *Strike and dip of cleavage of unspecified type and relative age.*
- *Strike of vertical cleavage of unspecified type and relative age.*
- *Trend and plunge of minor fold hinge line, unspecified relative age.*
- *Notable small outcrop with rock unit indicated.*
- *Notable small float or lag occurrence 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 M.J. Vicary, B.Sc.(Hons), 2004 as part of the Western Tasmanian Regional Minerals Program, from the following sources (see source diagram):

A JENNINGS, I.B. and BURNS, K.L. 1958. Geological Atlas 1 Mile Series. Zone 7 Sheet 45, Middlesex. Tasmania Department of Mines.

B BARTON, C.M., BRAVO, A.P., GULLINE, A.B., LONGMAN, M.J., MARSHALL, B., MATHEWS, W.L., MOORE, W.R., NAVQI, I.H. and PIKE, G.P., 1969. Geological Atlas 1 Mile Series. Sheet 46 (8214N), Quamby. Tasmania Department of Mines.

C BURRETT, C., BANKS, M., CLOTA, G. and SEYMOUR, D. 1989. Lithostraigraphy of the Ordovician Gordon Group, Mole Creek Tasmania. Rec. Queen Victoria Museum, No. 96.

D C. CALVER, B. WAINING Mapping and air photo interpretation, 2012-2013.

REFERENCE THIS MAP AS:

VICARY, M.J. (compiler) 2004. Digital Geological Atlas 1:25 000 Scale Series. Sheet 4439 Mole Creek. Mineral Resources Tasmania.

Map produced by Spatial Information Services, Mineral Resources Tasmania.

Website: www.mrt.tas.gov.au

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

LOCATION DIAGRAM

INDEX TO ADJOINING SHEETS

CETHANA	GOG	DELORAINE
LIENA	MOLE CREEK	MONTANA
BORRADAILE	LAKE MACKENZIE	QUAMBY BLUFF

1:25 000 maps available.

MOLE CREEK 4439

Map generated: 06-JUN-2024

WARNING: INKS ARE LIGHT SENSITIVE.