



LEGEND

QUATERNARY

- Qu Undivided, unconsolidated glacial deposits. Includes till and glacioluvial gravel and sand forming eskers and terraces.

MIDDLE PROTEROZOIC

- M COPPERMINE RIVER GROUP
- M MACKENZIE DYKES: diabase, gabbro

EARLY PROTEROZOIC

CORONATION SUPERGROUP (E1b-E4)

- R5 CONWES LAKE FORMATION: limestone-argillite rhythmites, subordinate fine grained greywacke turbidites, about 1 km thick, interbedded lower contact with R4.
- R4 ASIAT FORMATION: lithologic: thin greywacke, dark grey medium to thick bedded turbidites, commonly grey. Minimum thickness 1.5 km, base interfingers with R5.
- R3 KIKER FORMATION: pelite with calcareous concretions, 2-5 cm in diameter. Thickness 50-100 m, conformable with R2.
- R2 FONTANA FORMATION: pelite, laminated, graphitic and sulphidic. Thickness is 50-200 m, increasing eastward, conformable with R1.
- R1 TREE RIVER FORMATION: pelite and fine grained quartzite, thinly interbedded, with a few lensoidal and/or glauconitic dolomite beds, 50 m thick, disconformable with Rocknest Formation.

EWORTH GROUP (E1b-E4)

- Ek Undivided Rocknest Formation
- Ej Top member: dolomite, micritic, grey, with micropelite and less common dolomite stromatolites, branching columnar stromatolites at top. Thickness is typically 100 m, conformable base.
- Ei Striped member: argillaceous dolomite interbedded with subordinate dolomite containing dolomite stromatolites and micritic tuffs. Thickness is typically 60 m, conformable base.
- Eh Thin member: cherty dolomite with dolomite stromatolites, interbedded with minor argillaceous dolomite. Thickness is typically 40 m, conformable base.
- Eg Red shale member: argillaceous dolomite and dolomite, minor intercalated dolomite intracrustal dolomite, recessive. Thickness 50 m, conformable base.
- Ef Dolomite stromatolite member: cherty dolomite, dark grey, with abundant linked dolomite stromatolites, and minor micritic tuffs, minor interbedded argillaceous dolomite, about 60 m thick, conformable base.
- Ee Pink chert member: dolomite, pink and cream, wave rippled, with abundant nodular chert, minor stromatolites, argillaceous dolomite, 40 m thick, conformable base.
- Ed Stromatolite member: stromatolite and thrombolite: cherty dolomite, subordinate argillaceous dolomite, cream cherty conical stromatolites at top.
- Ec Intracrustal member: dolomite with partially linked, elongate columnar stromatolites at base, dolomite intracrustal granitoid dolomite with minor stromatolites at top. Together Ec and Ed are resistant, and 150 m thick, conformable base.
- Eb Lower shale member: argillaceous dolomite with minor stromatolite dolomite, dark grey, cherty, dolomite micritic tuffs with minor dolomite at top, 60 m thick, conformable base.
- Ea Basal member: dolomite with subordinate stromatolite dolomite, dark grey, cherty, conical stromatolites and micritic tuffs at top. About 300 m thick, interfingers with E1c.
- E1c ODUCK FORMATION (E1b-E4)
- E1b Middle member: orthoquartzite and lithologic quartzite, medium to thick bedded, commonly trough crossbedded, with frequent pebbles conglomerate lenses. Interbedded argillite increases westward, at least 500 m thick, base not exposed.

Geological boundary (defined, inferred or covered)

Bedding (top known horizontal, inclined, vertical, overturned)

Bedding (top unknown (inclined, vertical, dip unknown))

Cleavage (inclined, vertical)

Concretion cleavage, dip known

Intersection lineation (bedding - cleavage)

Minor fold hinge, symmetry unknown

Minor fold hinge (symmetry: 'm', 's' and 'z')

Fault (defined, inferred or covered)

Fault with strike-slip (defined, inferred or covered)

Fault with dip-slip (solid circle indicates downthrow side, defined, inferred or covered)

Fault with oblique-slip (solid circle indicates downthrow side, defined, inferred or covered)

Thrust fault (defined, inferred or covered)

Thrust fault (with slickenside asymmetry)

Anticline (defined, inferred or covered)

Syncline (defined, inferred or covered)

Anticline overturned (defined, inferred or covered)

Syncline overturned (defined, inferred or covered)

Anticline or syncline (arrow indicates plunge)

The greatest proportion of geological mapping was by R. Timm and P. F. Hoffman, 1982 to 1983. Significant contributions were made by M. E. Gier, J. P. Grobinger, B. Johnson and S. B. Lucas. M. Cummins, M. D. Daymond, C. A. Gittins and M. R. Shogbe also provided data.

Compiled by R. Timm 1985, 1986

Geological cartography by M. G. Métro, Geological Survey of Canada

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Base map assembled by the Geological Survey of Canada from monochrome maps published at the same scale by the Surveys and Mapping Branch in 1979

Copies of the topographical editions covering this map area may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, Ontario, K1A 0G9

Magnetic declination 1991, 32°09'E decreasing 21.7" annually

Elevations in metres above mean sea level

LEGEND

- 1.7-0.4 Ga Post-orogenic cover
- 1.88-1.84 Ga Great Bear arc
- 1.88-1.88 Ga Hepburn intrusive suite
- 1.90 Ga Atlatzo and Grant Groups (ifit assemblage)
- 2.5-1.90 Ga Hotian arc
- > 1.97-1.88 Ga Takysak Formation (foredeep molasse)
- Recuse Group (foredeep flysch)
- Epworth Group (chert facies)
- Epworth Group (slope-rise facies)
- Dill, Vallent and Starbridge Formations (ifit assemblage)
- > 2.5 Ga Slave province

Simplified geological map of northern Wopmay Orogen (modified from Hoffman et al., 1988) showing location of map areas 1653A and 1654A. Major thrust faults are identified by lines with teeth on hanging wall. Transverse faults are shown with heavy lines oriented northeast or northwest.

The shaded ellipse on this sheet corresponds to the shaded circle in Sheet 2 and is, in effect, a strain ellipse indicating approximately 34% east-west shortening.

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Sheet 1 of 2, Map 1654A, Geology
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Geological Survey of Canada, Map 1654A, scale 1:50 000

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