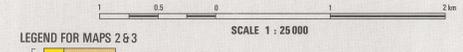


MAP 3. GEOLOGY OF THE HENTY RIVER-MT READ AREA

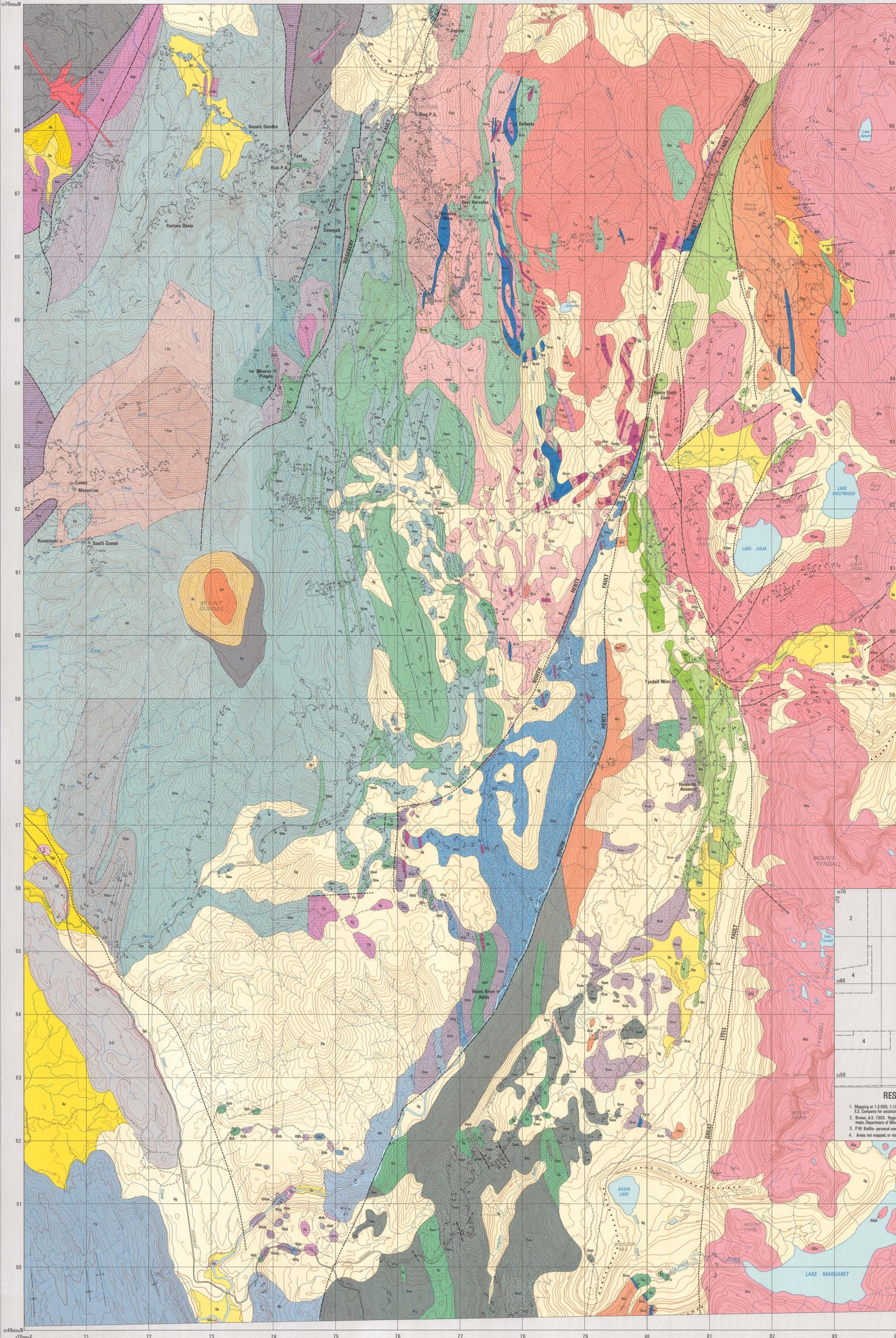
K.D. CORBETT B.Sc., Ph.D.



LEGEND FOR MAPS 2 & 3

QUATERNARY	Qa	Cultural features-waste dumps, etc.
	Qs	Talus and scree deposits.
	Qd	Alluvium and marsh deposits.
	Qc	Glacial deposits, mostly till. Marine ridge crests indicated (+).
	Qb	Occurrences of granitic intrusives indicated (G+).
	Q	Low angle unconformity.
TERTIARY	Tb	Basalt.
PERMIAN- ? CARBONIFEROUS	Pc	Conglomerate, sandstone, mudstone, poorly metamorphosed.
DEVONIAN- SILURIAN	Sb	Angular unconformity.
	Sa	Elton Group sedimentary sequence undifferentiated.
ORDOVICIAN	Oj	Gordon Group limestone sequence undifferentiated.
	Oi	Unconformity in some areas.
	Od	Interbedded siltstone and sandstone.
	Os	Interbedded siltstone and conglomerate.
EARLY ORDOVICIAN- LATE CAMBRIAN	Ca	Dominantly siltstone conglomerate.
	Cs	Interbedded siltstone, sandstone and gray conglomerate, with Lake Caroline facies - Marston Creek Sandstone Member.
	Cv	Volcaniclastic conglomerate, sandstone, breccia, minor siltstone - correlative of Lakes Conglomerate.
	Cd	Angular unconformity.

OWEN CONGLOMERATE-DENISON GROUP



WEST AND NORTH OF HENTY FAULT ZONE

DUNDAS GROUP

Qa	Felsic porphyry, generally intrusive, quartz-feldspar-phyric.
Qs	Conglomerate, polymict, with facies cherts in some units.
Qd	Dolomitic siltstone and sandstone with minor conglomerate.
Qc	Dominantly shale and siltstone, usually micaceous.
Qb	Quartzite interbedded with thick phyllitic mudstone-gray siltstone, minor conglomerate (Cq). Some dominantly siltstone units (Cq).
Q	Libic gneiss with interbedded siltstone (Cq). Some dominantly micaceous gneiss (Cq) and sulfurous gneiss (Cq) units indicated.
Ca	Basaltic andesitic volcanics (Cv). Basaltic lava and breccia of Mt. Read are (Cv). Andesitic lavas, breccias and tuff of Mt. Read are (Cv).
Cs	Basalts of Henty River-Dundas area (Cv).
Cv	Felsic lava with feldspar phenocrysts.
Cd	Felsic tuff and agglomerate generally quartz-feldspar-phyric (Cv). Units of the gneiss - vitro tuff (Cv) indicated.
C	Lower sequence of interbedded siltstone, siltstone, mudstone and quartz-feldspar vitro tuff of White Star Formation (Cv). Some tuff units (Cv) indicated.
C	Unconformity on Central Volcanic Sequence at Mt. Read.

EAST AND SOUTH OF HENTY FAULT ZONE

FARRELL-MURCHON SEQUENCE

Qa	Shale, sandstone and tuff sequence of Farrell State (F). Some dominantly siltstone units (F) and dominantly felsic tuff units (Fv) indicated.
Qs	Felsic volcanics, dominantly quartz-feldspar-phyric, of Marston Creek Sandstone Member.
Qc	Dominantly quartz-feldspar-phyric lava with minor intrusives in some areas.
Qd	Andesitic tuff and breccia with lenses of shale, jasper and carbonates.

TYNDALL GROUP

Qa	Volcaniclastic conglomerate and sandstone.
Qs	Crystal tuff, felsic tuff, agglomerate generally quartz-feldspar-phyric.
Qc	Shale, siltstone, sandstone.
Qd	Dominantly quartz-feldspar-phyric lava with minor intrusives in some areas.
Q	Andesitic tuff and breccia with lenses of shale, jasper and carbonates.

STICHT RANGE BEDS

Qa	Siltstone conglomerate and sandstone with interbedded siltstone, shale and minor tuff.
Q	Angular unconformity on Tyennon Precambrian rocks.

HENTY RIVER SEQUENCE - BETWEEN NORTH AND SOUTH HENTY FAULTS

Qa	Ultramafic siltstone-mudstone minor conglomerate sequence west of Henty Highway.
Qs	Ultramafic rock, serpentine and talc-carbonate rocks.
Qc	Dolomite.
Qd	Basaltic volcanics.
Q	Andesitic volcanics.
Q	Felsic tuff.
Q	Interbedded siltstone, mudstone and siltstone, with minor conglomerate and tuff, tuff of siltstone conglomerate (Cv) shown.

CENTRAL VOLCANIC SEQUENCE - RED HILLS-BASIN LAKE

Qa	Quartz-feldspar (> syenite + muscovite) porphyry, mostly intrusive.
Qs	Shale, siltstone, sandstone, minor tuff.
Qc	Felsic pyroclastic rocks, dominantly feldspar-phyric, including igneous units.
Qd	Dominantly feldspar-phyric lava of rhyolite to dacitic composition.
Q	Andesitic lavas, breccias, tuffs and intrusives.

WESTERN VOLCANO-SEDIMENTARY SEQUENCE-LANGDON RIVER

Qa	Quartz-feldspar (> syenite + muscovite) porphyry, mostly intrusive.
Qs	Dominantly felsic pyroclastic rocks, including vitro ash and quartz-feldspar-phyric crystal vitro vitro tuff.
Qc	Dominantly interbedded siltstone, shale and siltstone with minor tuff.

PRECAMBRIAN

Pc	Quartzite, schist, phyllite, minor dolomites of Tyennon Region.
----	---

CENTRAL VOLCANIC SEQUENCE - HERCULES-MT. BLOCK

Qa	Felsic porphyry, generally intrusive, quartz-feldspar-phyric (Fq). Spheralite feldspar - quartz porphyry (Fq).
Qs	Felsic pyroclastic rocks, including tuff, breccia, vitro ash, dominantly feldspar-phyric (Fq).
Qc	Felsic-bearing volcanic tuff of igneous type. Some black and ash flow siltstone (Fv).
Qd	Libic breccia and agglomerate.
Q	Crystal tuff, crystal felsic tuff, commonly bedded.
Q	Thin grained vitro tuff.
Q	Quartz-feldspar-phyric tuff, often with felsic clasts.
Q	Shale, siltstone, sandstone, minor tuff. Units of chert or chert - pyrite and an indicated (Cv).
Q	Dominantly feldspar-phyric lava of rhyolite, dacite or andesitic composition (Cv). Some units of andesitic lava (Cv) and quartz-feldspar vitro lava (Cv) shown. Sequence of basaltic-phyric lava and vitro tuff at Macintosh Bridge area indicated (Cv).
Q	Basaltic lava.

CHIMSON CREEK FORMATION

Q	Undifferentiated basaltic, siltstone, siltstone and red to green mudstone, with minor basalt and mafic to ultramafic rocks.
---	---

? PROTEROZOIC

Pc	Interbedded quartzite, shale, mudstone and sandstone sequence of Dundas and Marston areas. Siltstone metamorphic equivalent (Concord Schist) indicated (Pc).
----	--

? CRETACEOUS

C	Lampyrus.
C	Dolerite.

INTRUSIVE ROCKS

Qa	Quartz-feldspar porphyry.
Qs	Felsic intrusive, commonly spherulitic feldspar-quartz-phyric.
Qc	Basalt, dolerite.
Qd	Ultramafic rocks and serpentinite.
Q	Basaltic rocks.

OVERPRINTS AND MINERALISATION

Qv	Alveolus in volcanic rocks, usually with strong axiality: ser=sericite, pyr=pyrite, chl=chlorite, qtz=quartz.
Q	Area of strongly cleaved or disrupted rocks, usually associated with fault zones.
Q	Massive sulphide lens.
Q	Operating mine, prospect or abandoned mine.

INTRUSIVE ROCKS (continued)

Q	Granitic rocks - contact metamorphic indicated (+).
Q	Granitic rocks.
Q	Basaltic rocks.
Q	Ultramafic rocks and serpentinite.
Q	Basaltic rocks.

Geological boundary - accurate or approximate

Geological boundary - inferred or approximate

Fault - accurate or approximate (dip indicated)

Fault - inferred

Fault - concealed

Major fold - axial surface trace

Early fold

Late fold

Caroline basal locality

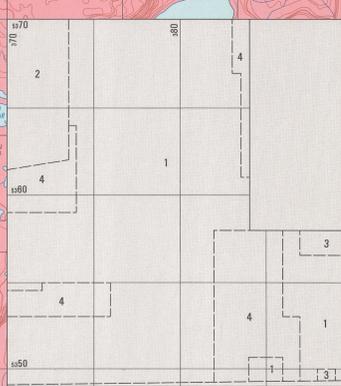
Stike and dip of bedding (strike shown, overturned facing indicated, vertical)

Banding in volcanic or gneissic rock, vertical banding

Stike and dip of cleavage, vertical cleavage

Minor fold with plunge-southward, uniform, unconfined

Limestone



1. Mapping at 1:50,000, 1:100,000 & 1:15,000 scales by K.D. Corbett, with acknowledgement to E.Z. Corbett for assistance with details in the Hercules area.

2. Brown, A.V., 1983. Regional geology of the Dundas-Mt. Lindsay Mt. Ramsay area. 1:250,000 map. Department of Mines.

3. P.W. Ballie - personal communication.

4. Areas not mapped, or visited on reconnaissance only.