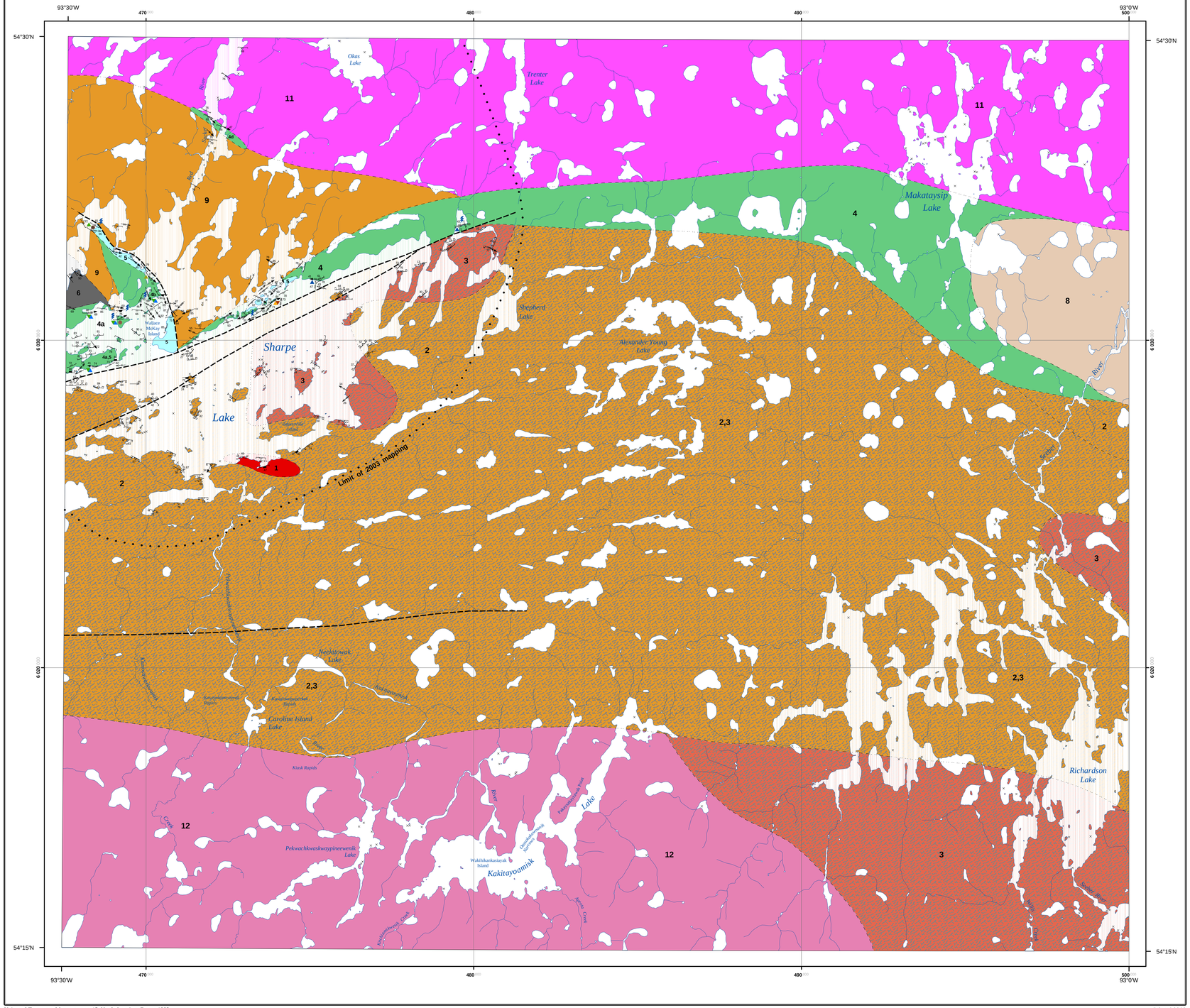
Preliminary Map: PMAP2003-5

Geology of the eastern Sharpe Lake area, Manitoba (NTS 53K5)



Universal Transverse Mercator, zone 15, North American Datum 1983

Printed 2003

Legend

Felsic plutonic rocks

- **12** Graphic granite, pegmatite, aplite
- **11** Hornblende granodiorite: potassium feldspar megacrystic, beige to pale pink weathering, grey buff; weakly foliated; coarse grained
- **9** Biotite tonalite: leucocratic, white weathering, white; weakly foliated; medium grained

Cross Lake assemblage

- **8** Meta-arenite and conglomerate:
  8a) Meta-arenite
  8b) Polymictic conglomerate; polymictic clast support; tonalite clast dominant

Oxford Lake assemblage

- **6** Metagreywacke, pebbly metagreywacke:
  6a) Feldspathic metagreywacke; biotite garnet bearing; sandstone with minor siltstone interbeds
  6b) Polymictic conglomerate; pebble, cobble bearing; matrix and clast support; volcanic derived felsic to intermediate composition, clasts dominant

Stull assemblage

- **5** Gabbro, diorite: includes post-Oxford Lake assemblage
- **4** Basalt: aphyric to sparsely plagioclase phyric; mafic tectonite; amphibolite:
  4a) Basalt: pillowed and massive flows; pale green to green weathering, green to grey; aphyric to sparsely plagioclase phyric
  4b) Basalt: pillowed and massive flows; pale green to green weathering, green to grey; aphyric; variolitic, 2 to 5 mm spherical epidotized domains typically near margins of pillows
  4c) Basalt: pillowed and massive flows; dark grey to black weathering, black; aphyric
  4d) Mafic tectonite: pale green weathering, green to grey; derived chiefly from basalt and gabbro

Richardson Arm gneiss complex

- **3** Granodiorite gneiss:
  3a) Granodiorite gneiss: biotite bearing; beige to pink weathering, grey to pale pink; moderately to strongly foliated, weakly layered; contains variable percentages of units 1 and 2
  3b) Augen granodiorite gneiss: tectonized granodiorite gneiss (3a)
- **2** Tonalite gneiss:
  2a) Hornblende tonalite: white to light grey weathering, light grey; weakly to moderately foliated; medium to coarse grained; forms the major injection in the tonalite gneisses
  2b) Hornblende tonalite gneiss: locally hornblende biotite bearing; white to light grey weathering, grey; moderately to strongly foliated, moderately to strongly layered; contains 5 to 50% xenoliths of unit 1
  2c) Schollen to stromatic hornblende tonalite gneiss: strongly foliated and parallel layered gneiss containing oriented, variably assimilated rafts of unit 1
- **1** Mafic to intermediate orthogneiss:
  1a) Layered amphibolite: grey to black weathering, dark grey to black; granoblastic to weakly foliated, compositionally layered
  1b) Mafic granulite: orthopyroxene and clinopyroxene bearing; granoblastic to weakly foliated, variably retrograded to garnet amphibolite

Symbols

- Geological contact
- Underwater contact
- Fault
- Limit of mapping
- Reef

Alteration

- chlorite
- chlorite, calcite
- epidite
- sericite, ankerite
- silicification

Mineral occurrences

- pyrite, pyrrhotite

Veins

- quartz vein

Layering

- Bedding: top unknown
- Pillow: top unknown

Foliation

- generation unknown
- generation 1
- generation 2
- generation 3 (retrograde shear fabric)
- generation 4
- generation 5

Gneissocity

- generation unknown
- generation 1
- generation 2
- generation 3
- generation 4 (retrograde shear fabric)
- generation 5 (fracture cleavage)

Faults and shears

- Fault: generation unknown
- Fault: dextral
- Fault: sinistral
- Shear: sense unknown
- Shear: generation 1

Lineation

- Stretching: generation unknown
- Stretching: generation 1
- Stretching: generation 2
- Stretching: generation 3
- Stretching: generation 4
- Fold axis: generation unknown
- Fold axis: generation 1
- Fold axis: generation 2
- Fold axis: generation 3
- Fold axis: generation 4
- Intersection: generation 3
- Intersection: generation 4

Geology by:
M.T. Corkery, C.J. Beaumont-Smith, S.D. Anderson and A.H. Bailes (2003)

Cartography by: M.E. McFarlane

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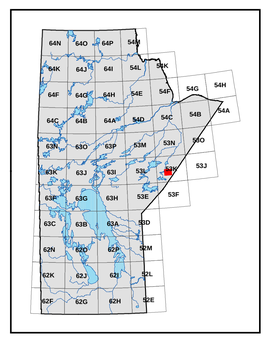
This map is a provisional summary of work carried out during the summer field season and is produced directly from the geologist's manuscript. It is not to be regarded as a final interpretation of the geology of the area.

SUGGESTED REFERENCE
Corkery, M.T., Beaumont-Smith, C.J., Anderson, S.D. and Bailes, A.H. 2003:
Geology of the eastern Sharpe Lake area, Manitoba (NTS 53K6);
Manitoba Industry, Economic Development and Mines, Manitoba Geological Survey,
Preliminary Map PMAP2003-5, scale 1:50 000.

1:50 000

0 1 2 3 4 5 kilometres

Index Map



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