

ANORTHOSTIC TROCTOLITE  
(UPPER PART OF UNIT VIII  
OF PARTRIDGE RIVER  
TROCTOLITE SERIES)

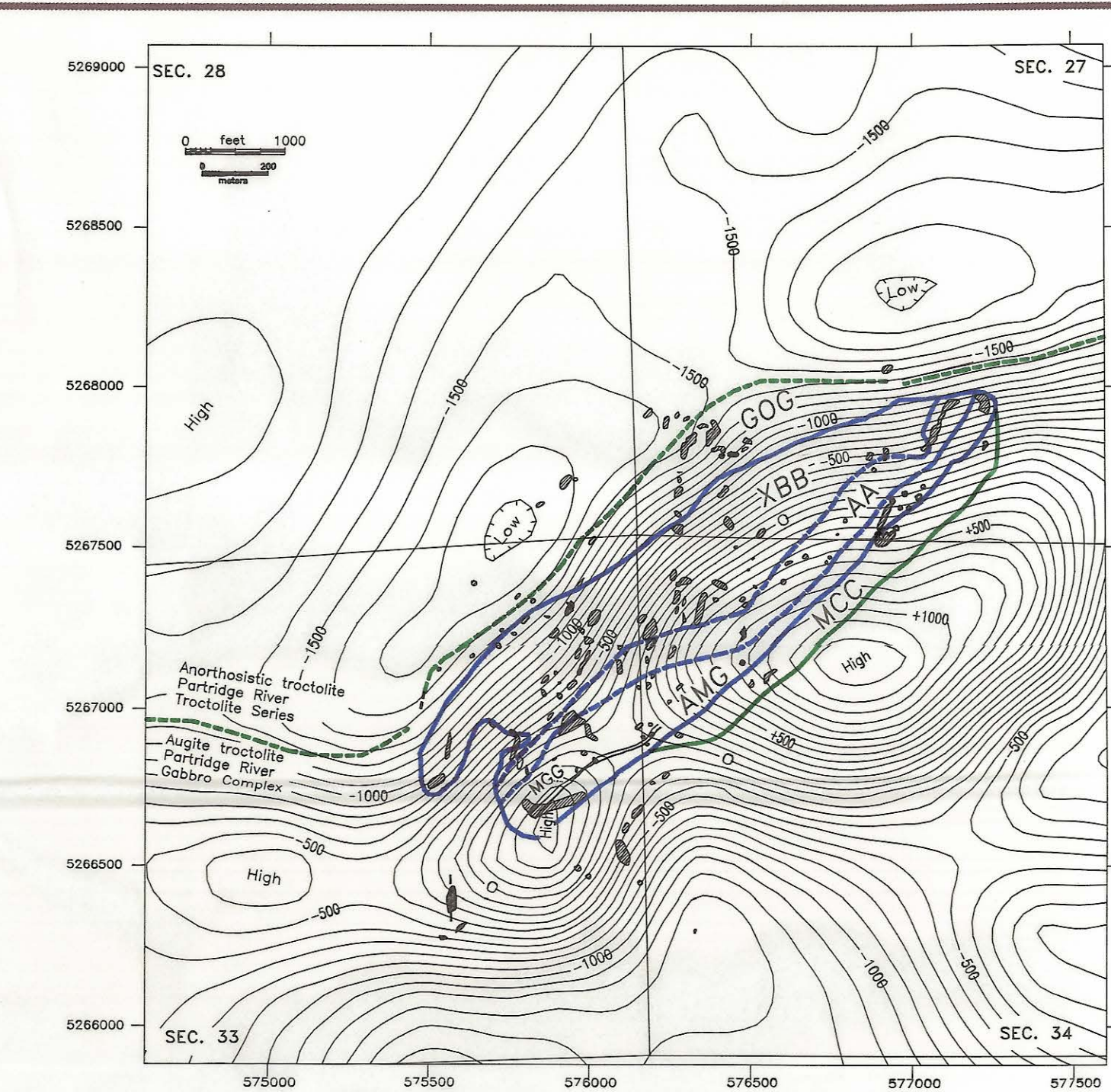
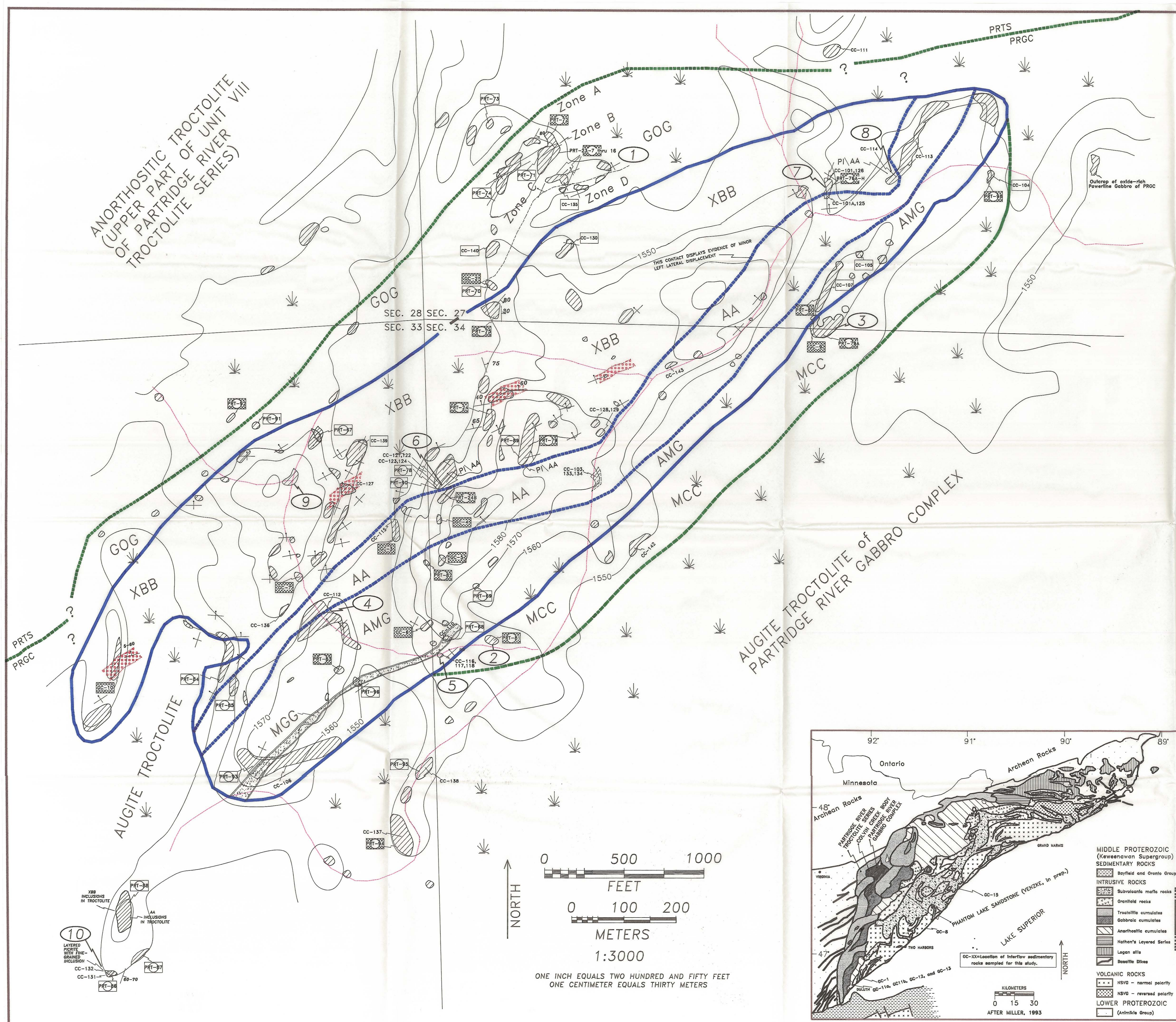


PLATE I  
NORTHERN COLVIN CREEK BODY  
ST. LOUIS COUNTY, MINNESOTA  
TOWNSHIP 59N, RANGE 13W  
PORTIONS OF SECTIONS 27, 28, 33, AND 34  
MAP BY RICHARD PATELKE, AFTER SEVERSON AND HAUCK, 1990  
FIELD WORK FROM APRIL, 1990 TO JULY, 1994.  
COMPILED AND DRAFTED APRIL, 1995.  
TOPOGRAPHY FROM USGS 7.5' ALLEN  
AND BABBITT SW QUADRANGLES, 1983

**GOG:** Gabbro to augite troctolite, ilmenite > magnetite, medium to coarse-grained, locally layered, with numerous local concentrations of olivine and Fe-Ti oxides.

**XBB:** Metasedimentary, plagioclase-diopside/augite-Fe-Ti-Mg oxide rock, fine-grained, bedded and cross-bedded, locally poikiloblastic and showing evidence of weak deformation, such as convolutions of bedding and rotation of pyroxene veins.

**PI-AA:** Pyroxene interval of AA unit, ferrosalite pyroxene-plagioclase-garnet-hercynite-sphene rock, fine- to coarse-grained, developed in rubby flow top of AA unit or in a "faint gouge" associated with offset along AA/XBB contact.

**AA:** Metavolcanic, plagioclase-augite-magnetite > ilmenite rock, fine to locally medium-grained, granoblastic, with recrystallized, augite-filled pipe amygdules perpendicular to contact parallel modal layering common.

**MGG:** Orthopyroxene bearing anorthositic gabbro, medium to coarse-grained, ophitic, with 10 cm chilled margin against AMG unit.

**AMG:** Metavolcanic, plagioclase-augite-olivine-magnetite > ilmenite rock, fine to locally medium-grained, granoblastic, with zones of rounded, recrystallized, augite-filled amygdules defining a contact parallel modal layering, some recrystallized plagioclase phenocrysts present.

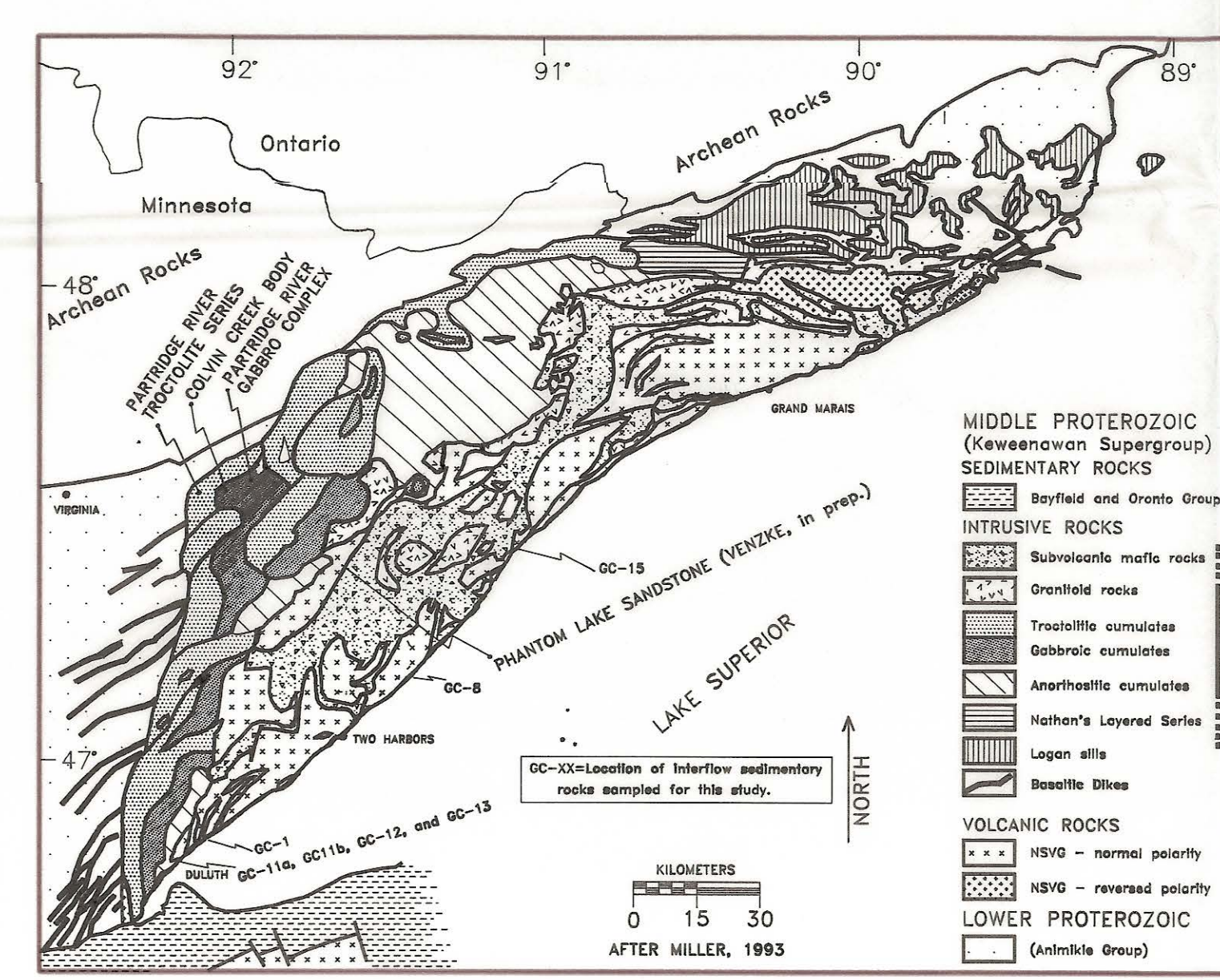
**MCC:** Gabbro to augite troctolite, locally ophitic and porphyritic, generally massive, weak to moderate granoblastic texture, some evidence of inclusions of AMG unit present.

**Anorthositic troctolite,** locally layered, with small anorthosite inclusions (Unit VIII of Partridge River Troctolite Series of the Partridge River intrusion. Severson and Hauck, 1990).

**Augite troctolite,** locally layered, numerous inclusions of fine-grained mafic rock (Unit of Partridge River Gabbro Complex of the Partridge River intrusion. Severson and Hauck, 1990).

- CC-118 HAND SAMPLE
- CC-110 HAND SAMPLE AND THIN SECTION
- PRT-93 HAND SAMPLE, THIN SECTION AND POLISHED SECTION
- CC-105 HAND SAMPLE, THIN SECTION, AND GEOCHEMISTRY
- CC-8 HAND SAMPLE, THIN SECTION, POLISHED SECTION, AND GEOCHEMISTRY

- CONTACT BETWEEN INTRUSIVE UNITS
- BOUNDARY OF INCLUDED UNITS OF COLVIN CREEK BODY
- BOUNDARY BETWEEN METAMORPHIC ROCK UNITS
- ZONE OF POIKILOBLASTIC AUGITE IN XBB
- BOUNDARY OF VARIATIONS IN LAYERING IN GOG
- STRIKE AND DIP OF BEDDING OR LAYERING (DOT INDICATES STRATIGRAPHIC TOP)
- AREA OF OUTCROP (GENERALLY DISCONTINUOUS)
- TRAIL
- SWAMPS
- CONTOUR INTERVAL EQUALS 10 FEET
- LOCALITY MENTIONED IN TEXT



0 500 1000  
FEET  
0 100 200  
METERS  
1:3000  
ONE INCH EQUALS TWO HUNDRED AND FIFTY FEET  
ONE CENTIMETER EQUALS THIRTY METERS