

Minnesota Geological Survey
Miscellaneous Map Series M-189

**BEDROCK GEOLOGY OF THE GRAND MARAIS QUADRANGLE,
COOK COUNTY, MINNESOTA**

By

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This publication of M-189 supercedes the map distributed as Open File Report 10_05, although the open file report is still available via the MGS website.

scale: 1:24,000

Coordinate system: UTM, NAD83, zone 15n

The following is a list of the files available for download:

- index.pdf--this file
- m189.pdf--pdf image of the map plate with explanatory text
- m189.zip--zip file containing the following GIS components:
 - base_bw.tif--black and white image of the USGS quad basemap
 - base_bw.tfw--world file to locate base inside of GIS
 - geochem_sample.shp--point shapefile of locations where samples were collected and analyzed
 - gm_bedrock_pg.lyr--legend file to color geology polygons
 - gm_bedrock_pg.shp--polygon shapefile of the bedrock geology
 - gm_contact_fault.lyr--legend file to provide line style for contacts and faults
 - gm_contact_fault.shp--line shapefile showing contacts and faults
 - inset_area.shp--polygon shapefile showing location of inset area shown at 12k on the map plate.
 - line_symbols.lyr--legend file to style line symbol overlay
 - line_symbols.shp--line shapefile showing linear features
 - outcrop_pg--polygon shapefile showing outcrop locations
 - quad_outline.shp--polygon shapefile of quad area
 - structure_pts.lyr--legend files to style structure points
 - structure_pts.shp--point shapefile showing structure measurements and form
 - waterwell_loc.shp--point shapefile water well locations
 - xsec_ln.shp--line shapefile showing location for the cross section

Printed copies of the map can be requested from MGS Map Sales--612-627-4782.