



PARADISE RIVER
A preliminary version of this map was originally published by Anderson et al., 1986 and a brief description of rock types in the area was given by Gower et al. (1985). Most of the map is based on investigations carried out in 1984, but additional field data were collected and laboratory tests were carried out, especially mapping by the author in 2004, 2005 and 2007 along Highway 510 and 516. The present map incorporates field data collected by Gower (1982) and Chery (1978a, b), making use of original field notes collected by K.C. Cook and assistants and by M.E. Chery.

The map is augmented by follow-up examination of stained slabs, petrographic thin sections, and whole-rock geochemical analyses. UP geochemical results (Schärer et al., 1986; Scharer and Gower, 1988; Gower et al., 1991; Kono et al., 1996; McElm and St. Jacques data (Phryce et al., 1990; Schärer, 1991); K/Ar isotope data (Gower, 1981); Ar-Ar isotope data from Norman, 1988; R. D. Dallmeyer, unpublished - see digital database), and geochronometric data from Murty et al. (1992) are shown. Locations designated as mineral occurrences are based mostly on observations made during the 1984 field season, but include earlier and later reported discoveries (see Mineral Occurrences Table, current to 2009).

Since the preliminary map was published, interpretation for the region has evolved significantly, so there are major differences between the current and preliminary versions of the map, particularly regarding the depiction of thrusts and strike-slip faults, most of which are set to be confirmed. Unit modification is partly related to a completion approach applied to the whole of eastern Labrador, but border regions of the map have been revised as a result of data integration with adjacent map areas. Geological boundaries are moderately controlled from stereo data, and have been extrapolated using structural observations, regional aeromagnetic data, and topographic levels. Reinterpretation in border parts of the map area was assisted by relatively high-resolution aeromagnetic data. The 1:50,000 scale data have been digitized from maps originally based on aerial photographs or directly on topographic maps; the 1:250,000 scale data are based on topographic maps. The 1:250,000 scale data are based on GPS-supported readings.

As is characteristic of metamorphic and plutonic terranes, individual units are typically very complex, and commonly encompass different rock types. Generally, the unit polygons depicted are based on what was judged to be the dominant rock type present, but this approach was not universally followed due to the complexity of these situations, such as the need to emphasize minor rock types deemed to have high significance. All rock types recorded from any individual outcrop may be determined by consulting the field descriptions, using the field descriptions for that locality. The user is advised to field check, in the digital database, no attempt has been made to reconcile rock names applied to field outcrops, versus those applied to contour tables, or petrographic thin sections. Differences may be due to misinterpretation, more refined interpretations, but other reasons may apply, such as the sample (or the sample for this section) not being representative of its source. Unit designations and polygon labels applied are based on an awareness of such factors.

Recommended citation:
Gower, C.F., 2010. Geology of the Paradise River area (NTS sheets 13H/03, 04, 05 and 06), southeastern Labrador. Geological Survey of Mines Branch, Department of Natural Resources, Government of Newfoundland and Labrador, Map 2010-15, Open File 013H/0066.

Geological cartography by: T. Palatny, Cartographic Unit, Geological Survey, Department of Natural Resources
Digital NTS base maps (NTS 13H/03, 04, 05 and 06) used for this map are available from Surveys and Mapping Branch, Natural Resources Canada.
Magnetic declination at the centre of the map at the start of 2010 was 22° 42' W. Epochs are in metres above sea level. Contour interval is 20 metres.
UTM (Universal Transverse Mercator) Grid Zone 21, NAD (North American Datum) 83.

Correspondence:
Dr. C.F. Gower, Geological Survey, Mines Branch, Department of Natural Resources, Government of Newfoundland and Labrador, P.O. Box 8700, St. John's, NL A1B 4X8, Canada. Email: gower@gnss.gov.nl.ca
Copies of this map may be obtained from the Geoscience Publications and Information Section, Geological Survey, Mines Branch, Department of Natural Resources, Government of Newfoundland and Labrador, P.O. Box 8700, St. John's, NL A1B 4X8, Canada. Email: info@gnss.gov.nl.ca

NOTE: Map 2010-15 is one of twenty-five maps on the geology of the Grenville Province in eastern Labrador and adjacent eastern Makovik Province produced by the Geological Survey, Mines Branch, Department of Natural Resources, Government of Newfoundland and Labrador.
Mines Branch website: <http://www.gov.nl.ca/mines/index.html>
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