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GRAND BANK (1M/4), LAMALINE (1L/13), MARYSTOWN (1M/3) AND ST. LAWRENCE (1L/14) MAP AREAS

by D.F. Strong and H.S. Swinden

The 1977 field season was the third and last one for the completion of the Department of Mines and Energy-Memorial University of Newfoundland contract for 1:50,000 scale mapping of these four areas. As the Marystown and St. Lawrence maps have already been published, with the accompanying report in press, and the preliminary versions of the Grand Bank and Lamaline maps and report have been released, the following is kept especially brief.

The field season was spent checking and refining the geology of all four map areas, with an emphasis on detailed mapping and structural-stratigraphic studies of the key areas of the Grand Bank and Lamaline maps. Strong began fieldwork in May, with field assistant K. Jarrett; Swinden joined them for the months of August and September. Swinden did detailed mapping and structural studies of 15 key areas, with help from T.P. Fletcher (U.K. Institute of Geological Sciences) in the

stratigraphic studies of Cambrian rocks. Together they have suggested a correlation chart for the Late Precambrian-Cambrian rocks of the four map areas, a modified version of which will be included in the final report for the Grand Bank-Lamaline areas.

Petrological and geochemical studies have continued, with 350 rock analyses (major and trace elements) completed for samples from the Grand Bank and Lamaline map areas. These data show that most rock analyses are chemically comparable to those of the Marystown Group in the Marystown-St. Lawrence map areas. The major exceptions are those from the Burin Group occurring in the southeast corner of the Lamaline map area.

One week was spent with T.P. Krogh (Royal Ontario Museum) collecting 13 samples from all major units for radiometric dating of zircons by the uranium-lead method. Although zircons have already been separated from three of these samples, the dates will not be available before conclusion of this project.