OF NOVA SCOTIA ENERGY, MINES AND RESOURCES DEPARTMENT OF MINES AND ENERGY GEOPHYSICAL SERIES
(HIGH RESOLUTION AEROMAGNETIC VERTICAL GRADIENT) MINERAL RESOURCES AND GEOLOGICAL SERVICES GEOLOGICAL SURVEY OF CANADA 40,058 G 11 F/12e 61° 52'30" 55'00" 62° '00'00" 57'30" 62° 00'00" 40,056 G 11 F/5e PUBLISHED 1980 This map has been compiled from digitally-recorded high sensitivity aeromagnetic data obtained by two self-orienting rubidium-vapour magnetometers installed in twin tail booms mounted on the GSC Beechcraft B80 aircraft. The magnetometers are vertically separated by a distance of 2.08 metres with each measuring the total magnetic field to a resolution of 0.005 gammas.

Flight altitude was 150 m above ground at 300 m average flight line spacing. Double control lines were flown at an average spacing of 12 kilometres.

The vertical gradient values, which approximate closely to the first vertical derivative of the earth's total field, are obtained by dividing the difference between the total field readings of the two magnetometers by their vertical separation.

The vertical gradient data was filtered with a digital operator to remove instrument noise. The vertical gradient data from the control lines was not used in the compilation of the map. The data was edited, compiled, levelled and gradient values for contouring interpolated onto a square grid (0.25 cm grid spacing at the published map scale) by automatic computer processes. The final data grid was contoured and plotted using the automatic contouring program and digital plotter facilities of Dataplotting Services Ltd. The survey data used to compile this map is available in digital form from the Geological Survey of Canada at the cost of retrieval and copying.

Airborne survey and digital compilation was carried out by Resource Geophysics and Geochemistry Division, Geological Survey of Canada. The survey operations took place in October and November 1977 and October 1978 using Beechcraft Queenair 65-B80 aircraft C-FWZG.

The topography for this map was reproduced from 1:50,000 topographical map sheets, published by the Department of Energy, Mines and Resources, Ottawa.

Funds for this survey were provided jointly by the Canada Department of Regional Economic Expansion, the Geological Survey of Canada, and the Nova Scotia Department of Mines and Energy.

Copies MAP 40,057 G 11F/12d MAGNETIC CONTOUR LINES +.5 gammas/metre... NOVA SCOTIA +.1 gammas/metre... +.025 gammas/metre... -.5 gammas/metre.... SCALE 1:25,000 -.1 gammas/metre..... -.025 gammas/metre..... (1 gamma = 1 nanotesla in SI units) Flight lines..... MAP 40,057 G FEET 2000 1000 0 1000 2000 3000 4000 5000 Flight altitude: 150m above ground level 60558 TOTAL PROPERTY PROPER 11F/12d NOVA SCOTIA 2000 METRES METRES 500 1000 1500

INDEX MAP

11 E/10h

40,069 G

11 E/7h

oTHORQUEN 11E/9c&d

11 E/9e&f

11 E/8e&f

40,064 G

11 E/16 a&b

40,063-G

11E/9g&h

40,062 G

40,061 G

11E/8g&h

40,060 G

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