

MAP NOTES

Universal Transverse Mercator (UTM) Projection, Zone 20, Central Meridian 63°00' West.

North American Datum (NAD) 1983.

Base and digital elevation data derived from the Nova Scotia Topographic Database (NSTDB). Copyright Her Majesty the Queen in Right of the Province of Nova Scotia. The NSTDB is available from Service Nova Scotia and Municipal Relations (SNSMR), Land Information Services Division (LIS), Nova Scotia Geomatics Centre (NSGC), Amherst, Nova Scotia.

Contribution to the Natural Resources Canada and Nova Scotia Department of Natural Resources Joint Project "Geological Mapping for Mineral Development, South-central Cape Breton Island", part of Natural Resources Canada's Targeted Geoscience Initiative 2000-2003.

DISCLAIMER

The information on this map may have come from a variety of government and non-government sources. The Nova Scotia Department of Natural Resources does not assume any liability for errors that may occur.

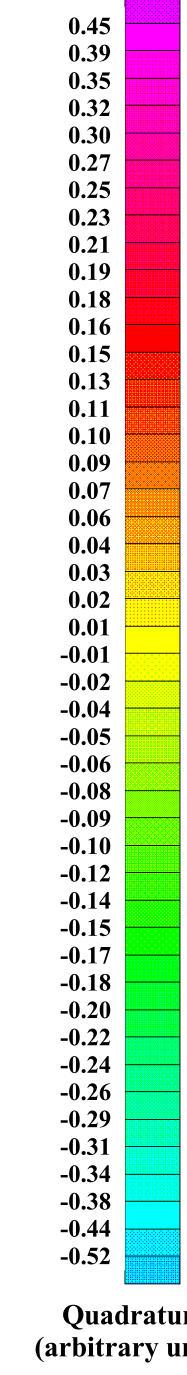
This map was printed using dye-based inks which are subject to fading. It is recommended that you store out of direct light when not in use to lengthen life of product.

REFERENCE

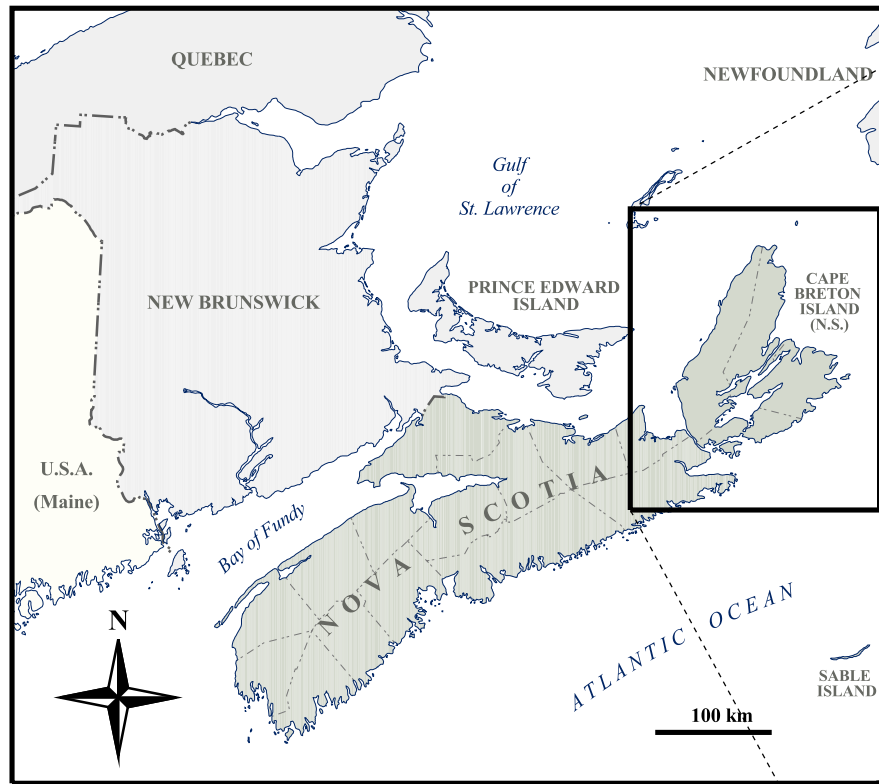
For more information on this map series, refer to:
 King, M. S. 2003. Report on High-resolution Airborne VLF-EM Processing and Enhancement, Targeted Geoscience Initiative, Cape Breton, Inverness, Richmond and Victoria Counties (NYS 11K/14, 11K/02 and 11K/03), south-central Cape Breton Island, Nova Scotia; Nova Scotia Department of Natural Resources, Mineral Resources Branch, Open File Report ME 2003-4.

AIRBORNE VLF-EM DATA Quadrature

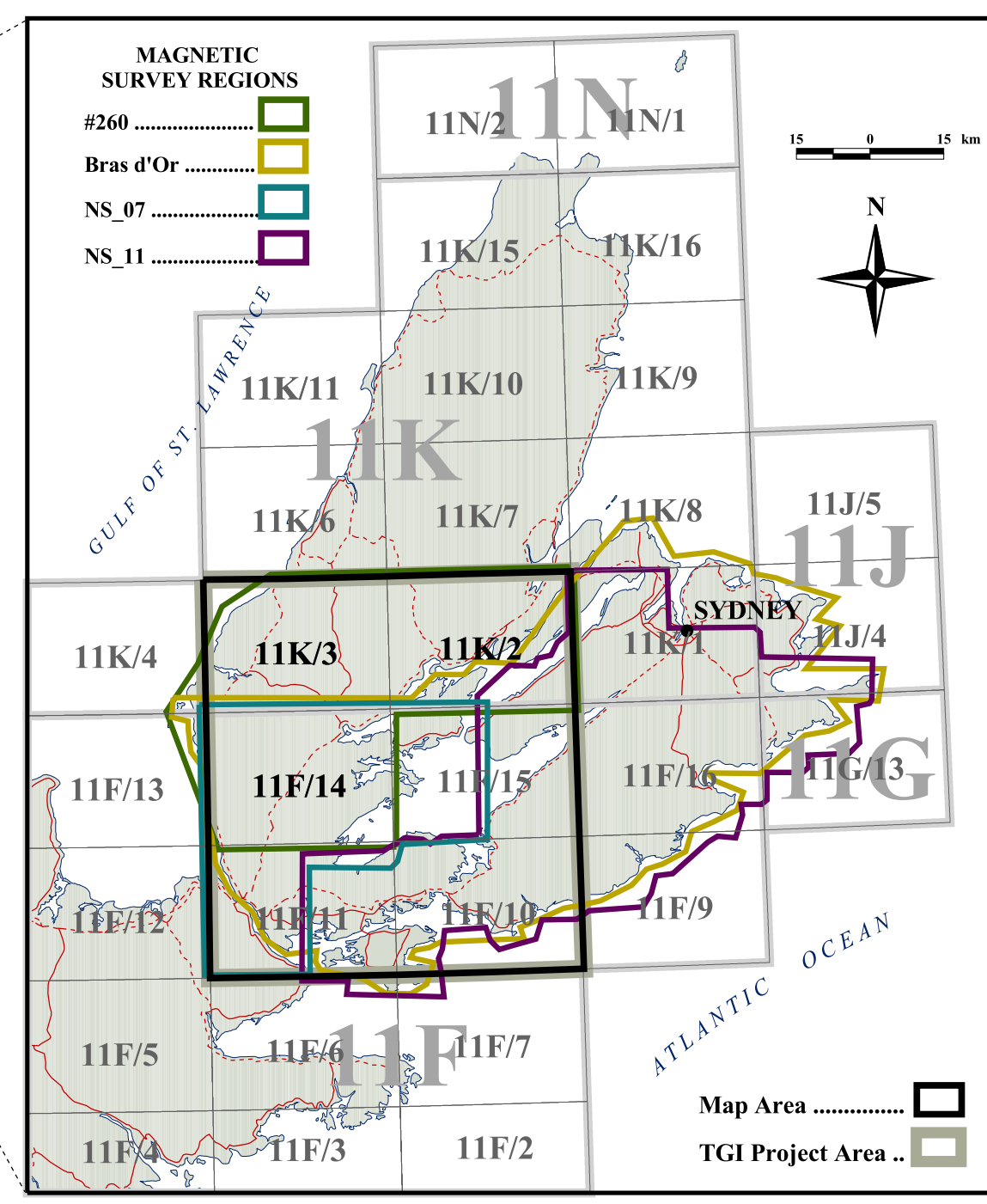
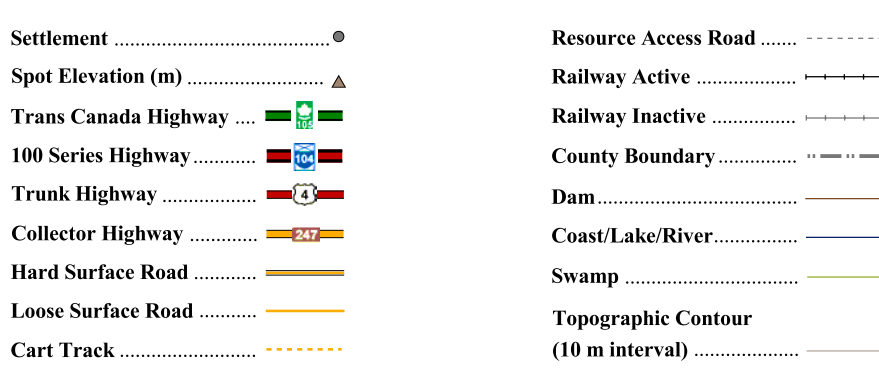
The airborne data used to generate this map were supplied by the Geological Survey of Canada - Geophysical Data Centre, 615 Booth St., Ottawa, Ontario, K1A 0E9. The original quadrature component Very Low Frequency Electromagnetic (VLF-EM) data were acquired as part of Project #260 "Western Cape Breton Island". In order to present the data in a gridded image these data were converted from profile-dipolar (i.e. cross-overs) to profile-monopolar (i.e. peaks) using a Fraser Filter. VLF-EM data are inherently biased by the orientation of the transmitter with respect to the survey area and underlying geology. For Project #260 and Western Cape Breton Island Line (Tx: Annapolis, Md) and Orthogonal (Tx: Cutler, Me) stations are essentially parallel (~220°) and generate virtually identical electromagnetic coupling patterns with respect to structural and stratigraphic trends in the survey area. Due to this factor, the filtered and decorrugated line and orthogonal station data were summed to increase the signal to noise ratio of the measured quadrature component in order to generate a single high-quality data set. Quadrature component VLF-EM data provide a measure of the electrical response (i.e. current channelling) along planar interfaces in the sub-surface, such as stratigraphic contacts and/or faults and fractures. The 24-bit colour map image was produced with a 20 m pixel size at 1:50 000 scale. Shading was from the southeast at 35° above the horizon. For complete details please refer to Open File Report ME 2003-4 by King.



REGIONAL KEY MAP



LEGEND



Airborne VLF-EM Quadrature Map for part of the Targeted Geoscience Initiative Project Area, South-central Cape Breton Island, Nova Scotia

SCALE 1:100 000



Nova Scotia Department of Natural Resources
 Mineral Resources Branch
 Open File Map ME 2003-39
 M. S. King
 Halifax, Nova Scotia
 2003



RECOMMENDED CITATION
 King, M. S. 2003. Airborne VLF-EM quadrature map for part of the Targeted Geoscience Initiative Project Area, South-central Cape Breton Island, Nova Scotia; Nova Scotia Department of Natural Resources, Mineral Resources Branch, Open File Map ME 2003-39, scale 1:100,000.