



Gamma-ray Spectrometry Data
The airborne gamma-ray spectrometry data were recorded with an EG&G ORTEC GR-02 airborne spectrometer using NaI(Tl) crystals. The main detector array consisted of twelve crystals (total volume 50.4 litres). Two crystals (total volume 8.4 litres), shielded by the main array, were used to detect scattered background radiation (scatterer detector). The system recorded 256 channels for the NaI(Tl) detectors with a bin width of 1000 counts per second. Spectra were recorded at 1000 counts per second. The gamma-ray spectrometry data were recorded with an EG&G ORTEC GR-02 airborne spectrometer using NaI(Tl) crystals. The main detector array consisted of twelve crystals (total volume 50.4 litres). Two crystals (total volume 8.4 litres), shielded by the main array, were used to detect scattered background radiation (scatterer detector). The system recorded 256 channels for the NaI(Tl) detectors with a bin width of 1000 counts per second. Spectra were recorded at 1000 counts per second. The gamma-ray spectrometry data were recorded with an EG&G ORTEC GR-02 airborne spectrometer using NaI(Tl) crystals. The main detector array consisted of twelve crystals (total volume 50.4 litres). Two crystals (total volume 8.4 litres), shielded by the main array, were used to detect scattered background radiation (scatterer detector). The system recorded 256 channels for the NaI(Tl) detectors with a bin width of 1000 counts per second. Spectra were recorded at 1000 counts per second.

Magnetic Data
The magnetic field was sampled 10 times per second using a split-beam cesium vapour magnetometer (sensitivity = 0.005 nT) rigidly mounted to the aircraft. Differences in magnetic values at the intersections of control and traverse lines were computer-analysed to obtain a mutually levelled set of flight line magnetic data. The levelled values were then interpolated to a 100 m grid. The International Geomagnetic Reference Field (IGRF) defines the average GFI, tabulated for the year 2000. It was then removed. Removal of the IGRF, representing the magnetic field of the Earth's core, produces a residual component related essentially to magnetizations within the Earth's crust. The first vertical derivative of the magnetic field is the rate of change of the magnetic field in the vertical direction. Computation of the first vertical derivative reveals topographic features of the magnetic field and significantly improves the resolution of closely spaced and unexpected anomalies. A property of the first vertical derivative map is the coincidence of the zero-value contour with vertical contacts at high magnetic latitudes (Flood, 1965).

PLANIMETRIC SYMBOLS / **SYMBOLS PLANIMÉTRIQUES**

Topographic contour	Courbes de niveau
Drainage	Drainage
Wellhead	Terrain inondé
Building	Bâtiment
Canal Line	Canal
Road	Chemin
Trail	Sentier
Flight Line	Ligne de vol

ISOMAGNETIC LINES / **LIGNES ISOMAGNÉTIQUES**

250 nT	250 nT
50 nT	50 nT
10 nT	10 nT
Magnetic Depression	Dépression magnétique

MAP SHEET SUMMARY / SOMMAIRE DES FEUILLETS

GSCMGS Sheet / Feuillelet GSCM	MAP / CARTE
1. Natural Air Absorbed Dose Rate / Taux d'absorption naturel des rayons gamma dans l'air	
2. Potassium	
3. Uranium	
4. Thorium	
5. Uranium / Thorium	
6. Uranium / Potassium	
7. Thorium / Potassium	
8. Tertiary Radiation Map / Diagramme ternaire des radionucléides	
9. Residual Total Magnetic Field / Composante résiduelle du champ magnétique total	
10. First Vertical Derivative of the Magnetic Field / Dérivée première verticale du champ magnétique	

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GEOPHYSICAL SERIES / SÉRIE DES CARTES GÉOPHYSIQUES

NTS 64 P101 and part of NTS 54 M104 / SNRC 64 P101 et partie de SNRC 54 M104

AIRBORNE GEOPHYSICAL SURVEY OF THE GREAT ISLAND AND SEAL RIVER AREA, MANITOBA
LEVÉ GÉOPHYSIQUE AÉROPORTÉ DE LA RÉGION DE GREAT ISLAND ET SEAL RIVER, MANITOBA

RESIDUAL TOTAL MAGNETIC FIELD
COMPOSANTE RÉSIDUELLE DU CHAMP MAGNÉTIQUE TOTAL

Scale 1 : 50 000 - Échelle 1 / 50 000

Authors: Fortin, R., Coyle, M., Carson, J.M., and Kliss, F.

Location Map - Carte de Localisation

Digital versions of this map and the corresponding digital line data, gridded geophysical data and anomaly listings by individual survey areas may be downloaded, at no charge, from Natural Resources Canada's Geoscience Data Repository for Geophysical and Geospatial Data at <http://gdr.nrcan.gc.ca/banorama/>. The map and digital data are also available, for sale, from the Geospatial Data Centre, Geological Survey of Canada, 615 Booth Street, Ottawa, Ontario, K1A 0E8, Telephone: (613) 995-5326, email: info@geog.nrcan.gc.ca.

Les versions numériques de ces cartes ainsi que les données géophysiques en formats « profil » et « maille » et les listes d'anomalies peuvent être téléchargées gratuitement depuis le site de la Collection de données géophysiques et géospatiales de l'Entrepôt de données géospatiales de Ressources naturelles Canada (<http://gdr.nrcan.gc.ca/banorama/>). La carte et les données numériques sont aussi disponibles, moyennant des frais, au Centre de données géospatiales de la Commission géologique du Canada au 615, rue Booth, Ottawa (Ontario) K1A 0E8, Téléphone: (613) 995-5326, courriel: info@geog.nrcan.gc.ca.

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