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Ontario Geological Survey 2012. Ontario airborne geophysical surveys, magnetic and electromagnetic data, grid and profile data (ASCII and Geosoft® formats) and vector data, south Simcoe County area; Ontario Geological Survey. Geophysical Data Set 1070a.

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These data accompany:

Ontario Geological Survey 2012. Ontario airborne geophysical surveys, magnetic and electromagnetic data, halfwave data (binary format) and calibration data, south Simcoe County area; Ontario Geological Survey. Geophysical Data Set 1070b.

Maps 82 580 and 82 581

Airborne magnetic and electromagnetic survey, colour-filled contours of the residual magnetic field, south Simcoe County area, scale 1:20 000.

Maps 82 582 and 82 583

Airborne magnetic and electromagnetic survey, colour-filled contours of the EM decay constant, south Simcoe County area, scale 1:20 000.

Maps 82 584 and 82 585

Airborne magnetic and electromagnetic survey, colour-filled contours of the apparent conductance, south Simcoe County area, scale 1:20 000.

Maps 82 586 and 82 587

Airborne magnetic and electromagnetic surveys, shaded colour image of the first vertical derivative of the residual magnetic field, south Simcoe County area, scale 1:20 000.

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Users of OGS products are encouraged to contact those Aboriginal communities whose traditional territories may be located in the mineral exploration area to discuss their project.

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Geophysical Data Set 1070a

**Ontario Airborne Geophysical Surveys, Magnetic and Electromagnetic Data, Grid and Profile Data (ASCII and Geosoft® Formats) and Vector Data, South Simcoe County Area**

by Ontario Geological Survey

This publication can be downloaded from

[http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm\\_dir.asp?type=pub&id=GDS1070a](http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mndm_dir.asp?type=pub&id=GDS1070a)

## **Ontario Airborne Geophysical Surveys, Magnetic and Electromagnetic Data, Grid and Profile Data (ASCII and Geosoft® Formats) and Vector Data, South Simcoe County Area**

by Ontario Geological Survey

Airborne geophysics is an integral part and core function of the Ontario Geological Survey's ("OGS") geoscience activities. The Ministry's objective is to evaluate the Time-Domain EM method for delineating subsurface sand and gravel aquifers, some of which are associated with buried bedrock valleys in southwestern Ontario as part of its groundwater mapping activities. The area chosen was selected as a) it is within an on-going aquifer mapping project area, b) there is relatively good subsurface information as a result of recent drilling and c) it includes a variety of bedrock and surficial materials. This report describes a helicopter-borne geophysical survey carried out by Aeroquest Surveys (Mississauga, Ontario) in the south Simcoe County area.

Geophysical Data Set (GDS) 1070a includes the results of an airborne magnetic and AeroTEM™ time-domain helicopter electromagnetic (HEM) surveys flown in the southern part of Simcoe County in southwestern Ontario, in March 2012. The total number of line kilometres of this survey is 1898. GDS 1070a is contained on a single DVD.

This geophysical data set includes

- airborne magnetic and electromagnetic data—both raw and processed—in ASCII and Geosoft® (.gdb) file formats
- grids (in ASCII and Geosoft® (.grd) file formats) of the magnetic and electromagnetic products
- geoTIFF images of magnetic and EM decay constant grids
- vector (.dxf) files of flight path, EM decay constant, apparent conductance and magnetic contours
- constrained lateral EM inversion databases in ASCII and Geosoft® (.gdb) file formats
- sections of electrical conductance in TIF format
- and the survey and inversion processing reports in portable document format (.pdf)