

GDS1251 METADATA

GENERAL INFORMATION

Title

Ontario Airborne Geophysical Surveys, Magnetic and Gravimetric Data, Grid and Profile Data (ASCII and Geosoft® Formats) and Vector Data, Mozhabong Lake Area

Alternate Title

GDS1251

Author(s)

Ontario Geological Survey

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Abstract

As part of an ongoing program to acquire high-quality, high-resolution airborne geophysical data across the Province of Ontario, the Ministry of Northern Development, Mines, Natural Resources and Forestry does, from time to time, acquire existing proprietary data. The geophysical data that comprise this survey were kindly donated by Nuclear Waste Management Organization (NWMO).

Geophysical Data Set (GDS) 1251 includes the results of an airborne magnetic and gravity survey, totalling 10,057 line-kilometres, flown over the Mozhabong Lake area of northeastern Ontario, approximately 50 km north-northeast of the community of Elliot Lake, Ontario. The survey covered an area of 974 square kilometres. The survey was conducted in 2016 to 2017 by Sander Geophysics Ltd., Ottawa, Ontario, for the Nuclear Waste Management Organization, Toronto, Ontario.

This geophysical data set includes 1) 20 m × 20 m grids and GeoTIFF images of the magnetic and gravity data and derivatives; 2) airborne magnetic and gravimetric profile data—both raw and processed—in ASCII (.xyz) and Geosoft® (.gdb) file formats; 3) grids (in ASCII (.gxf) and Geosoft® (.grd) file formats) of the magnetic and gravity data and derivatives; 4) database of Keating correlation coefficient anomalies in ASCII (.csv) and Geosoft® (.gdb) file formats; 5) database of magnetic profile data in ASCII (.xyz) and Geosoft® (.gdb) file formats; 6) database of gravimetric profile data in ASCII (.xyz) and Geosoft® (.gdb) file formats; 7) vector (.dxf) files of flight path, magnetic and gravity contours, and Keating correlation coefficient anomalies; and 8) survey report in portable document format (.pdf).

Survey Parameters:

Survey type: magnetic and gravity

Dates flown: April 27, 2016 to March 2, 2017

Survey conducted by: Sander Geophysics Ltd., Ottawa, Ontario

Survey conducted for: Nuclear Waste Management Organization, Toronto, Ontario

Survey size: 10,057 line-kilometres

Survey area: 974 square kilometres

Traverse-line orientation: north-south

Traverse flight-line spacing: 100 m

Control-line orientation: east-west
Control-line spacing: 500 m
Nominal aircraft terrain clearance: 70 m
Magnetic survey type: single sensor
Magnetometer type: cesium split beam
Magnetometer sensor location: tail stinger
Magnetic sampling interval: 10 readings per second
EM survey type: N/A
EM domain: N/A
EM height: N/A
VLF-EM: none
Gamma-ray survey: none
Gravity survey: vertical component
Gravity survey type: Sander Geophysics Ltd. AIRGrav
Gravity initial sampling interval: 10 readings per second

These data accompany geophysical Maps 60516 to 60535, which are available separately from the digital data set.

Additional information can be found within a readme file provided with the product.

Purpose or Objective

Airborne geophysics is an integral part and core function of the Ontario Geological Survey's (OGS) geoscience activities. This magnetic and gravimetric survey was acquired as part of the Ontario Geological Survey's Precambrian bedrock geology mapping program to provide high-quality and high-resolution geophysical data to help better define geological features, and to assist in mapping the geology of the area.

The objective of this product is to collect and disseminate geoscience information for Ontario.

Keywords

Geological Survey
Geology
Ministry of Northern Development, Mines, Natural Resources and Forestry
NDMNRF
Ontario Geological Survey
OGS
Geophysical Data Set
GDS
Airborne Magnetic (Total)
Airborne Magnetic (Residual)
Airborne Gravity
Airborne Gravity (Vertical Component)
Geophysical
Geophysics, General
High Resolution Total Field Magnetism
Residual Magnetic Field
Residual Total Magnetic Field

Business Themes

Geological Survey

Geology

GEOGRAPHIC INFORMATION

Geographic bounding box (decimal degrees)

North bounding latitude:	47.0338°
West bounding longitude:	-82.4531°
East bounding longitude:	-82.0125°
South bounding latitude:	46.7026°

Description of Completeness: irregularly shaped study area - completeness not available

MAPPING INFORMATION:

Grid Coordinate System Used:	Universal Transverse Mercator
Map Projection:	Transverse Mercator
Horizontal Geodetic Datum:	NAD83
Vertical Datum:	NAD83
Horizontal Position Accuracy of Features:	Precise ±5 m
Vertical Position Accuracy of Features:	Precise ±5 m

DATA SOURCE INFORMATION

Data Source Type and Description

Includes Bibliographic Information: Product includes references to other sources of information

Data Source Type and Description

Direct Field Collection: Data acquisition and data compilation by Sander Geophysics Ltd., Ottawa, Ontario for Nuclear Waste Management Organization, Toronto, Ontario. Survey conducted from April 27, 2016 to March 2, 2017. Data reprocessing and map production by SHA Geophysics (formerly Scott Hogg and Associates Ltd.), Toronto, Ontario.

Current Status of the Data: Complete

Frequency of Changes or Additions to be made to the Data: Not Planned

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