

THESE TERMS GOVERN YOUR USE OF THIS DOCUMENT

Your use of this Ontario Geological Survey document (the “Content”) is governed by the terms set out on this page (“Terms of Use”). By downloading this Content, you (the “User”) have accepted, and have agreed to be bound by, the Terms of Use.

Content: This Content is offered by the Province of Ontario’s *Ministry of Northern Development and Mines* (MNDM) as a public service, on an “as-is” basis. Recommendations and statements of opinion expressed in the Content are those of the author or authors and are not to be construed as statement of government policy. You are solely responsible for your use of the Content. You should not rely on the Content for legal advice nor as authoritative in your particular circumstances. Users should verify the accuracy and applicability of any Content before acting on it. MNDM does not guarantee, or make any warranty express or implied, that the Content is current, accurate, complete or reliable. MNDM is not responsible for any damage however caused, which results, directly or indirectly, from your use of the Content. MNDM assumes no legal liability or responsibility for the Content whatsoever.

Links to Other Web Sites: This Content may contain links, to Web sites that are not operated by MNDM. Linked Web sites may not be available in French. MNDM neither endorses nor assumes any responsibility for the safety, accuracy or availability of linked Web sites or the information contained on them. The linked Web sites, their operation and content are the responsibility of the person or entity for which they were created or maintained (the “Owner”). Both your use of a linked Web site, and your right to use or reproduce information or materials from a linked Web site, are subject to the terms of use governing that particular Web site. Any comments or inquiries regarding a linked Web site must be directed to its Owner.

Copyright: Canadian and international intellectual property laws protect the Content. Unless otherwise indicated, copyright is held by the Queen’s Printer for Ontario.

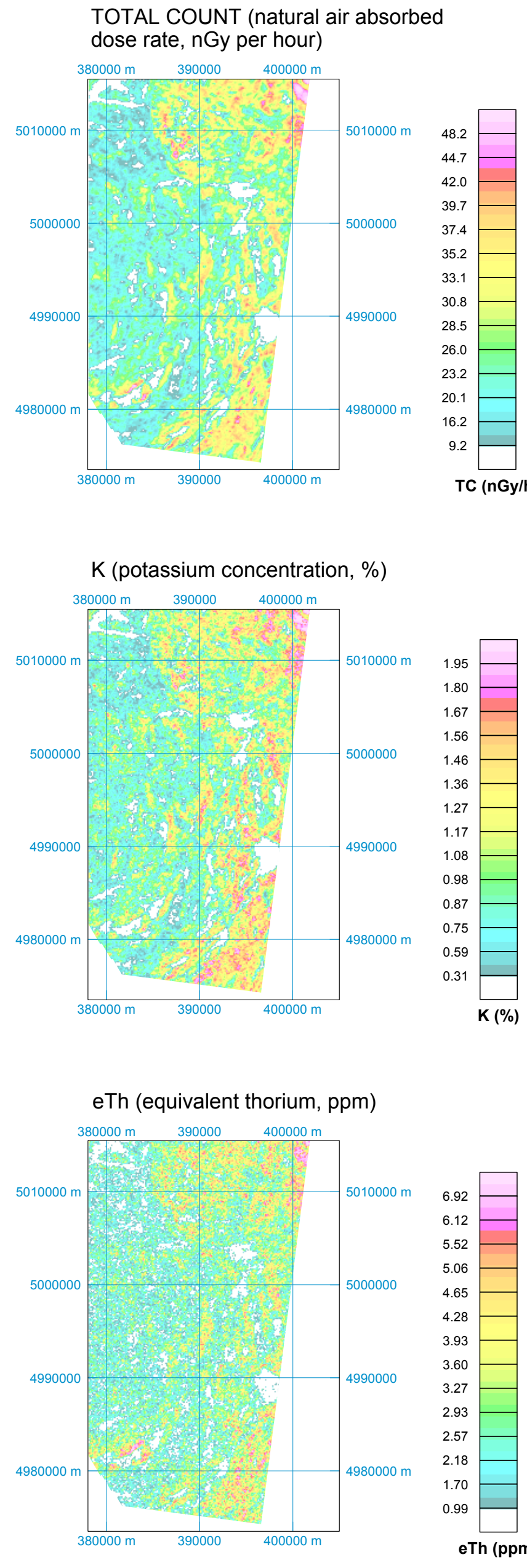
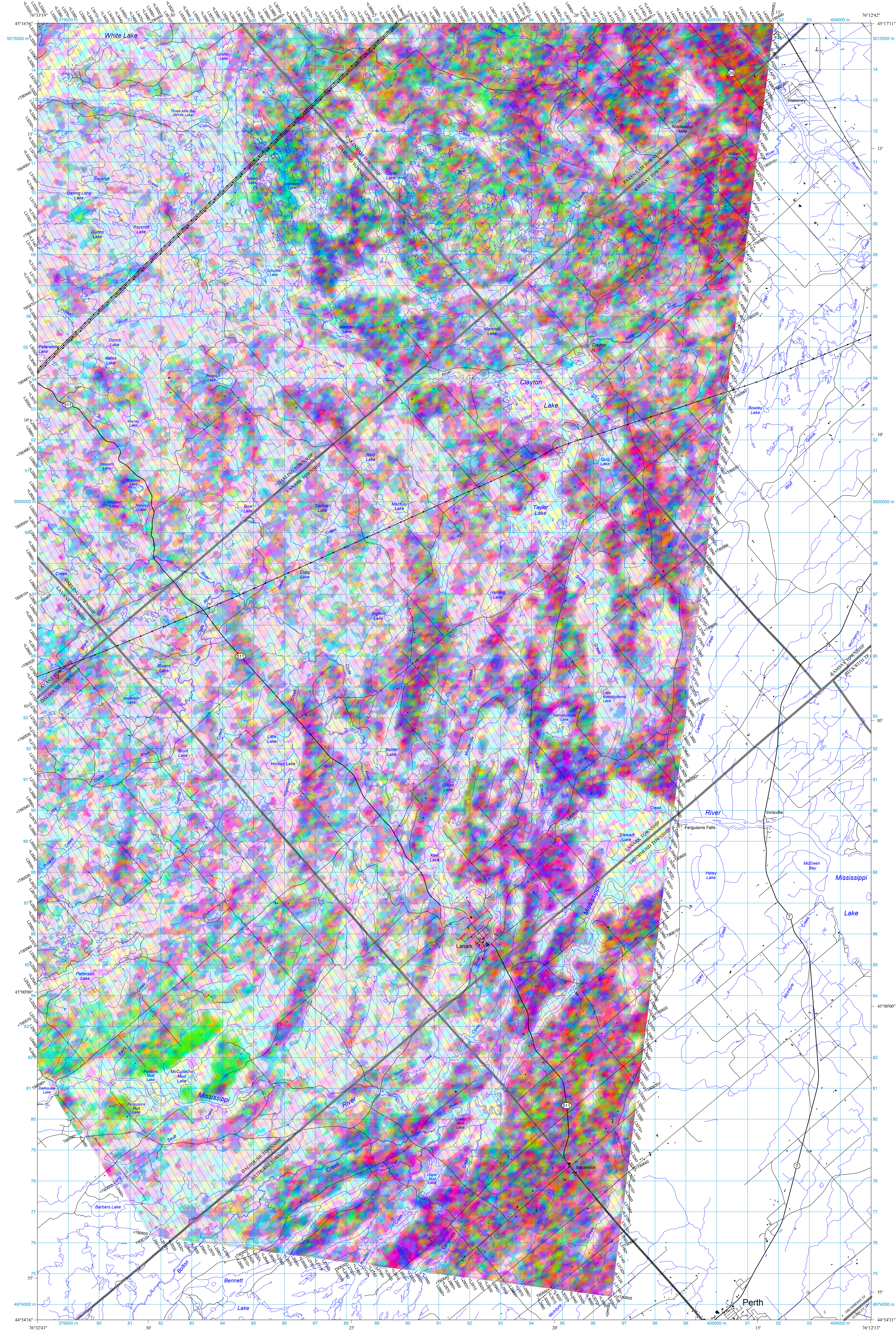
It is recommended that reference to the Content be made in the following form:

Ontario Geological Survey 2014. Airborne magnetic and gamma-ray spectrometric surveys, ternary radioelement image, Renfrew area; Ontario Geological Survey, Map 82 613, scale 1:50 000.

Use and Reproduction of Content: The Content may be used and reproduced only in accordance with applicable intellectual property laws. *Non-commercial* use of unsubstantial excerpts of the Content is permitted provided that appropriate credit is given and Crown copyright is acknowledged. Any substantial reproduction of the Content or any *commercial* use of all or part of the Content is prohibited without the prior written permission of MNDM. Substantial reproduction includes the reproduction of any illustration or figure, such as, but not limited to graphs, charts and maps. Commercial use includes commercial distribution of the Content, the reproduction of multiple copies of the Content for any purpose whether or not commercial, use of the Content in commercial publications, and the creation of value-added products using the Content.

Contact:

FOR FURTHER INFORMATION ON	PLEASE CONTACT:	BY TELEPHONE:	BY E-MAIL:
The Reproduction of the Content	MNDM Publication Services	Local: (705) 670-5691 Toll-Free: 1-888-415-9845, ext. 5691 (inside Canada, United States)	Pubsales.ndm@ontario.ca
The Purchase of MNDM Publications	MNDM Publication Sales	Local: (705) 670-5691 Toll-Free: 1-888-415-9845, ext. 5691 (inside Canada, United States)	Pubsales.ndm@ontario.ca
Crown Copyright	Queen’s Printer	Local: (416) 326-2678 Toll-Free: 1-800-668-9938 (inside Canada, United States)	Copyright@gov.on.ca



SURVEY PARAMETERS

AIRCRAFT
Type: Piper Navajo PA-31
Registration: C-GJBB, C-GJBG

MAGNETOMETER
Type: Geometrics caesium-vapour
Sensitivity: 0.005 nT
Noise level: 0.05 nT
Sample interval: 10 readings per second
Sensor location: wing tips (transverse separation - 14.783 m)
Compensation: RMS AADCI
Data Acquisition: GEDAS

GAMMA-RAY SPECTROMETER SYSTEM
Type: Radiation Solutions RS-500
Downward-looking crystal volume: 33.6 L
Upward-looking crystal volume: 8.4 L
Number of channels: 1024
Sample interval: 1 reading per second
Sensor location: near centre of aircraft
Potassium window: 1370 to 1570 keV
Uranium window: 1860 to 1860 keV
Thorium window: 2410 to 2810 keV
Total count window: 410 to 2810 keV

NAVIGATION SYSTEM
GPS receiver: Novatel OEM4 ProPak
GPS sample interval: 1 reading per second
Radar altimeter: Thompson CFS 530A
Radar sample interval: 10 readings per second
Barometric altimeter: Seta 270
Barometric sample interval: 10 readings per second
Video flight path camera: Panasonic GPNR402 HRSV
Navigation-Acquisition: GEDAS

BASE STATION
Type: GEM Systems GSM-19W
Magnetometer sample interval: 1 reading per second
GPS sample interval: 1 reading per second

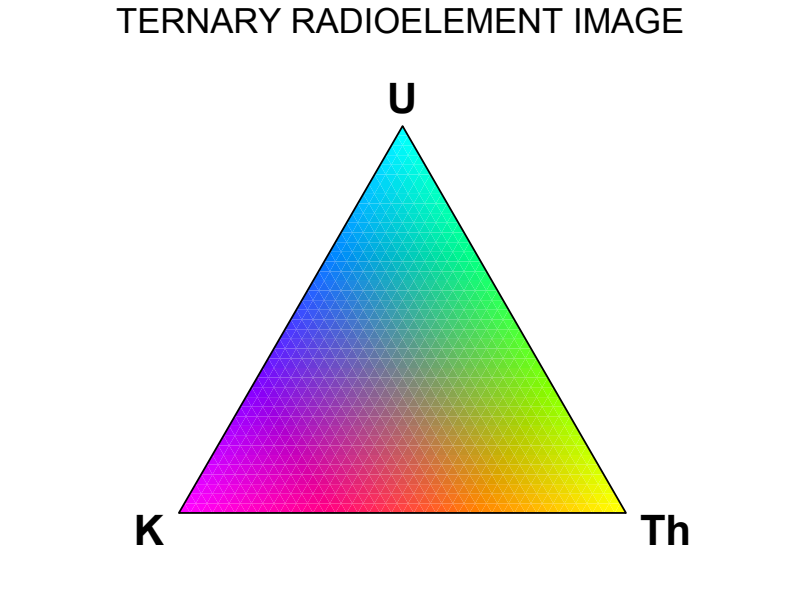
SURVEY SPECIFICATIONS
Survey date: October 8, 2013 to November 6, 2013
Nominal aircraft terrain clearance: 125 m
Traverse line spacing: 200 m
Control line spacing: 2000 m
Traverse line direction: 0° azimuth
Control line direction: 60° azimuth


COORDINATE SYSTEM
Projection: Universal Transverse Mercator
Datum: NAD83
Central meridian: 75°00' W (UTM zone 18N)
Central scale factor: 0.9996
False easting: 500 000 m
False northing: 0 m

LEGEND

FLIGHT LINE INFORMATION

Line number → 2701
← Line direction
← Fiducial





Ontario Geological Survey

MAP 82 613

AIRBORNE MAGNETIC AND GAMMA-RAY SPECTROMETRIC SURVEYS

Ternary radioelement image

RENFREW AREA

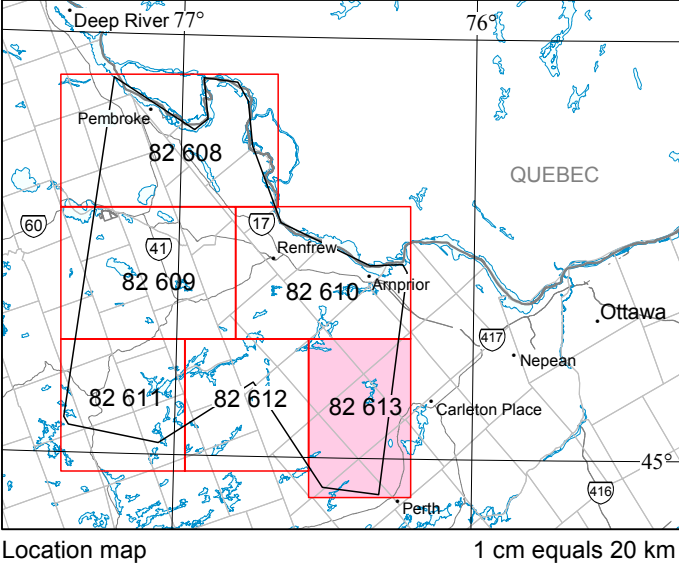
Scale 1:50 000

1 km 0 1 2 km

NTS References: 31 C/15,16; F/1, 2, 7, 8

© Queen's Printer for Ontario, 2014.

This map is published with the permission of the Director, Ontario Geological Survey.



DESCRIPTIVE NOTES

Introduction

The data comprising this map are derived from the results of an airborne magnetic and gamma-ray spectrometric survey carried out by Goldair Airborne Surveys. The survey was flown using two Piper PA-31 Navajo aircraft. Each aircraft was equipped with three Geometrics magnetic sensors, Radiation Solutions gamma-ray spectrometers, GPS navigation systems and digital data acquisition systems.

Ternary Radioelement Map

The ternary radioelement image was prepared by modulating the red, green, and blue (RGB) components of the colour spectrum using the normalized radiometric counts of potassium (K), equivalent thorium (eTh) and equivalent uranium (eU), respectively. The RGB image was then combined with total count (TC) mapped as intensity. Brighter areas display zones of higher total count. The total count tends to outline unit boundaries and structure.

The gamma-ray spectrometer response represents radioactivity emanating from the upper 30 cm of the Earth's surface. The surface concentrations are influenced by varying amounts of outcrop, overburden, vegetation cover, soil moisture and surface water.

SOURCES OF INFORMATION

Base map information derived from the Ontario Land Information Warehouse, Land Information Ontario, Ontario Ministry of Natural Resources, scale 1:50 000.

Magnetic declination for the centre of the map area was approximately 12°58.9'W in 2014.

CREDITS

Data acquisition, data compilation and map production by Goldair Airborne Surveys, Saskatoon, Saskatchewan.

Project management and quality assurance by Paterson, Grant & Watson Limited, Toronto, Ontario.

Contract management, base maps and map surrounds by the Ontario Ministry of Northern Development and Mines, Sudbury, Ontario.

Every possible effort has been made to ensure the accuracy of the information presented on this map; however, the Ontario Ministry of Northern Development and Mines does not assume liability for errors that may occur. Users should verify critical information.

Corresponding digital data for this survey are available from the following Ontario Geological Survey publication:

Ontario Geological Survey 2014. Ontario airborne geophysical surveys, magnetic and gamma-ray spectrometric data, grid and profile data (ASCII and Geosoft® formats) and vector data. Renfrew area. Ontario Geological Survey, Geophysical Data Set 1074.

Issued 2014.

Information from this publication may be quoted if credit is given. It is recommended that reference be made in the following form:

Ontario Geological Survey 2014. Airborne magnetic and gamma-ray spectrometric surveys, ternary radioelement image, Renfrew area. Ontario Geological Survey, Map 82 613, scale 1:50 000.

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.