



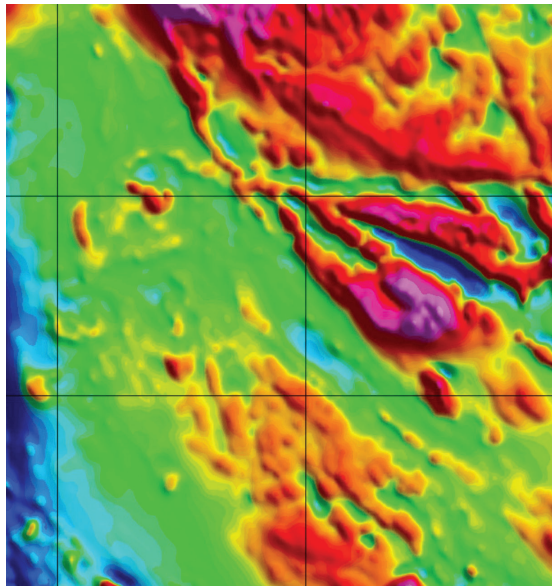
BIRD'S EYE TO BEDROCK AERIAL SURVEYS AID MINERAL DISCOVERY

A bird's eye view of the magnetic and radiometric characteristics of bedrock can help reduce the risk and cost to companies exploring for minerals, oil and gas.

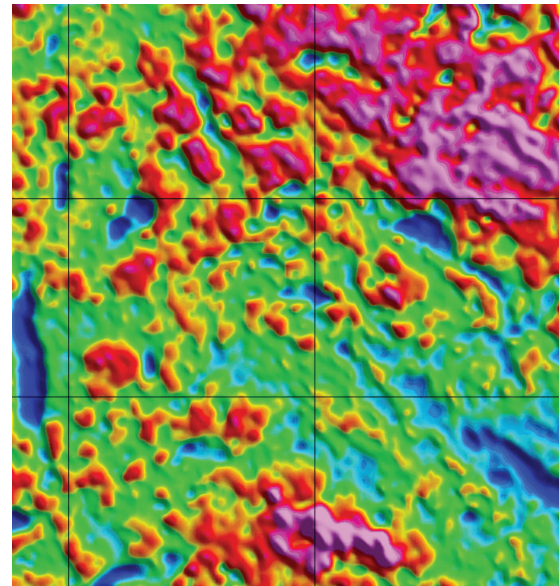
In response to the mountain pine beetle epidemic, three airborne magnetic and radiometric geophysical surveys were conducted between Prince George and Kamloops. Bedrock in these regions has significant potential for mineral deposits such as gold, copper, lead and zinc. Results of the surveys are available free from Natural Resources Canada.

Radiometric surveys measure concentrations of mineral elements and can provide insights into the nature of bedrock in a survey area. Naturally occurring elements in rock decay over time and emit radioactive gamma rays. Variations in these gamma rays are measured and can indicate areas favourable for mineral exploration.

Aeromagnetic surveys look for variations in the magnetic field of bedrock. Results from these surveys provide information on rock type, structure and depth, even when bedrock is covered by water, ice, vegetation or soil.



Highly magnetic
↑
Low magnetism



High potassium
↑
Low potassium

Aeromagnetic data reflect bedrock geology

Radiometric data reflect surface materials, e.g. potassium

These surveys are one of seven geoscience projects funded by the Government of Canada's Mountain Pine Beetle Program. Information from the surveys will serve as long-standing geophysical and geochemical frameworks for the area, supporting new geological mapping and practical mineral exploration.



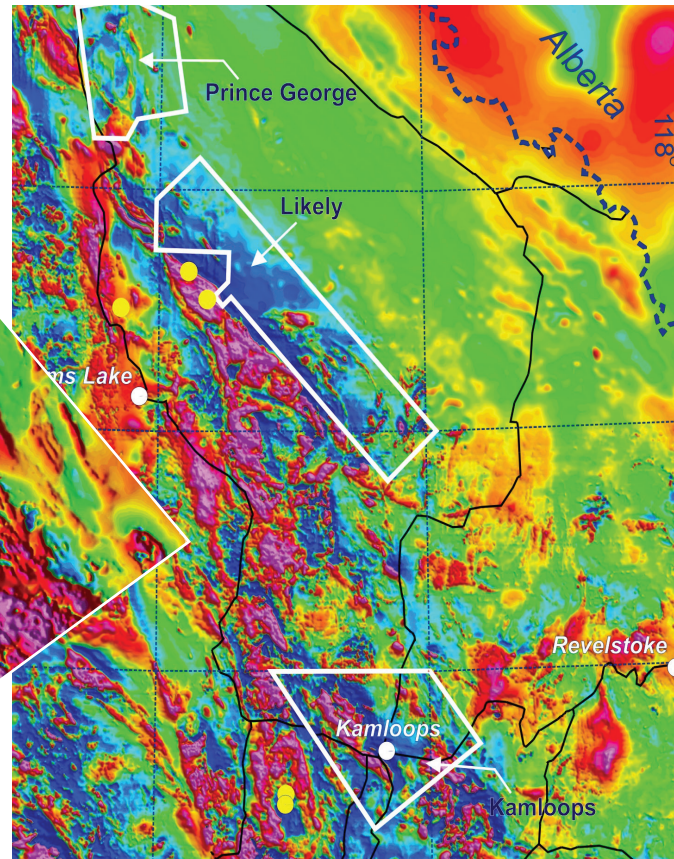
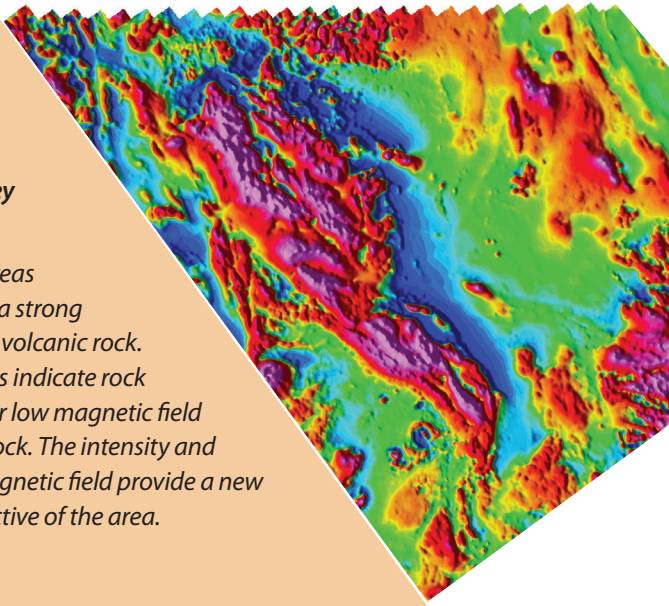
Over the three survey areas around Kamloops, Prince George and Likely, radiometric and magnetic data were collected simultaneously. Helicopters flew at an altitude of 125 metres along lines spaced 400 metres apart collecting 35,196 line kilometres of new data. Helicopter surveys have a low environmental impact and are a rapid, cost-effective way of acquiring data over large tracts of land.

Data from the Prince George and Kamloops surveys are available free to download from the web at gdr.nrcan.gc.ca. Data from the Likely survey will be released April 2009.

This project is part of the Collaborative Mountain Pine Beetle Geoscience Plan and complements other geological, geochemical and geophysical surveys by the British Columbia Geological Survey Branch and Geoscience BC.

Map showing results of a new high resolution geophysical survey near Kamloops

Red and orange areas indicate rock with a strong magnetic field like volcanic rock. Green or blue areas indicate rock with a moderate or low magnetic field like sedimentary rock. The intensity and patterns of the magnetic field provide a new geological perspective of the area.



For freely downloadable data from the aeromagnetic and radiometric surveys, as well as other Mountain Pine Beetle geoscience data, visit gdr.nrcan.gc.ca.

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For more information on Natural Resources Canada's Mountain Pine Beetle Program visit forest.forward.nrcan.gc.ca