

# ELDORADO AREA

SASKATCHEWAN

THORIUM (208Tl)

Contour interval 1 count /5.0 sec.

The gamma radiation contours shown on the machine drawn contour map have been compiled from the profiles which are issued with these maps. Numbered flight-lines are plotted in position on each map. The detectors were 6, 9 x 4 inch NaI(Tl) crystals flown at a mean terrain clearance of 500 feet. The data has been corrected for background, height variation and Compton scattering in the crystals. Due to the statistical nature of the radiation considerable smoothing has been applied to the data. The contouring sequence is self-evident and points of local maxima are represented by triangles. The machine contouring was carried out using a technique developed by Holroyd & Bhattacharyya (GSC Paper 70-55).

Radiation from the ground is derived almost entirely from the uppermost 12 inches, irrespective of whether it is soil or rock. The Potassium, Uranium and Thorium maps represent the counts received in 5.0 seconds and in the case of the Integral for 1.0 seconds. The ratio maps represent the ratio of the counts of the respective elements. An approximate ground concentration may be obtained using the relation:

1 ppm Uranium  $\approx$  20 counts  
1 ppm Thorium  $\approx$  8 counts  
1 % Potassium  $\approx$  125 counts

Airborne radiometric survey 1969  
A. G. Darnley, R. L. Grasty  
Exploration Geophysics Division  
Geological Survey of Canada

75D	75C	75B
74M	74N	74O
74L	74K	74J

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MAR 1971

GEOLOGICAL SURVEY  
OTTAWA

