



Énergie, Mines et Ressources Canada



GEOLOGICAL SURVEY OF CANADA COMMISSION GÉOLOGIQUE DU CANADA OTTAWA





Airborne Geophysics Section Mineral Resources Division Geological Survey of Canada







DEPARTMENT OF ENERGY, MINES AND RESOLICES

MANSTERE DE L'ENERGE DES MANES ET DES RESSOURCES

COMMISSION GÉOLOGIQUE DU CANADA

North Saskatchewan Ri 2A 2D1 2B1 8 3B1 ton 93B2 - dn 9 **4**A **4B** 4C 5B 501 In 1977 the Geological Survey of 5D Canada collected airborne gamma ray spectrometry data in the Edmonton Calgary region of Alberta. This data was published in 1985 as OF 1174 and 6 6A 6B2 6B1 Buffalo Lake Battle River 7A7B7C All data were sampled at 2.5 second intervals. The airborne radiometric measurements were made using a 256 channel spectrometer, with twelve 102x102x406 mm Nal(TI) detectors. The GSC Skyvan 8B2 8**B**1 8C was flown at a mean terrain clearance of 122 m with average ground speed of 190 km/h. The survey flight line direction and spacing was east-west and 30 kilometres, respectively. 9A **9B** Factors for converting the airborne measurements to concentrations were **0B2** 1 Ur 164.0 cps 1%K 80.0 cps 1 ppm eU 9.6 cps 1 ppm eTh 6.4 cps The exposure rate, in micro Roentgens per hour (μ R/h) has been computed from the measured concentrations of potassium, uranium and thorium (Grasty, R.L., Carson, J.M., Charbonneau, B.W., and Holman, P.B., 1984, Natural Background Radiation in Canada, 8 4

Airborne Gamma Ray Spectrometer Survey

of the

EDMONTON CALGARY RECONNAISSANCE AREA 1977 POTASSIUM (%)

presented at 1:500 000 scale as stacked profiles with an index base map. The current Open File presents this wide spaced flight line data as colour contour maps at 1:2 000 000 scale.

Uranium, thorium and potassium counts have been corrected for dead time, ambient temperature changes, background radiation, spectral scattering and deviations of terrain clearance from the planned survey altitude.

determined by relating the airborne count rates to the known ground concentrations of a test strip in the Ottawa area. The factors used to convert the airborne measurements to ground concentrations are:

Geol. Sur. Can., Bull. 360). To compare these data with earlier total count maps expressed in Units of Radioelement concentrations (Ur), the conversion factor is 1 μ R/h = 1.67 Ur.

Survey flown, compiled and funded by Airborne Geophysics Section Mineral Resources Division Geological Survey of Canada



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OFPARTMENT OF ENERGY MORES AND RESOLIRCES MINISTÈRE DE L'ÉNERGE DES MINES ET DES RESSOURCES 2D32B2 8 3B Edmonton 9 3B2 8 31 **4**B 4C 4D TIOKE 5B 503 5C2 In 1977 the Geological Survey of 5D Canada collected airborne gamma ray spectrometry data in the Edmonton Calgary region of Alberta. This data 6A 6B2 was published in 1985 as OF 1174 and presented at 1:500 000 scale as 6B1 Butte stacked profiles with an index base map. The current Open File presents Rattle River this wide spaced flight line data as colour contour maps at 1:2 000 000 scale. 7B All data were sampled at 2.5 second intervals. The airborne radiometric measurements were made 8 đ using a 256 channel spectrometer, with twelve 102x102x406 mm Nal(TI) detectors. The GSC Skyvan 8B2 **8B1** was flown at a mean terrain clearance of 122 m with average ground speed of 190 km/h. The survey flight line direction BC and spacing was east-west and 30 kilometres, respectively. **9** A Uranium, thorium and potassium counts have been corrected for dead 9B time, ambient temperature changes, background radiation, spectral scattering and deviations of terrain clearance from the planned survey altitude. 10A Factors for converting the airborne measurements to concentrations were 10B1 determined by relating the airborne count rates to the known ground concentrations of a **0B2** test strip in the Ottawa area. The factors used to convert the airborne measurements to ground concentrations are: 1 Ur 164.0 cps **11**A 11B 1%K 80.0 cps 1 ppm eU 9.6 cps 1 ppm eTh 6.4 cps The exposure rate, in micro Roentgens per hour (μ R/h) has been computed from the measured concentrations of potassium, uranium and thorium (Grasty, R.L., Carson, J.M., Charbonneau, B.W., and Holman, P.B., 1984, Natural Background Radiation in Canada, 8 Geol. Sur. Can. Bull. 360). To compare these data with earlier total count maps expressed in Units of Radioelement concentrations (Ur), the conversion factor is 1 μ R/h = 1.67 Ur.

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DEPARTMENT OF ENERGY, MINES AND RESOLICES MNISTÉRE DE L'ÉNERGIE DES MNES ET DES RESSOURCES *** 2D12B2B2 Beaven Lake 8 3B1 Edmorton 93B2 ĝ 4C 4B5B 501 In 1977 the Geological Survey of 5D Canada collected airborne gamma ray spectrometry data in the Edmonton 7 6 Calgary region of Alberta. This data was published in 1985 as OF 1174 and presented at 1:500,000 scale as 6A 6B2 6B1 Buffalo Lake stacked profiles with an index base map. The current Open File presents **Battle River** this wide spaced flight line data as colour contour maps at 1:2 000 000 scale. 7A7**B** 70 All data were sampled at 2.5 second intervals. The airborne radiometric measurements were made Ø using a 256 channel spectrometer, with twelve 102x102x406 mm Nal(TI) detectors. The GSC Skyvan oke 8A 8B2 **8B1** BC was flown at a mean terrain clearance of 122 m with average ground speed of 190 km/h. The survey flight line direction and spacing was east—west and 30 kilometres, respectively. 9A Uranium, thorium and potassium counts have been corrected for dead time, ambient temperature changes, background radiation, spectral scattering 9Band deviations of terrain clearance from the planned survey altitude. 10A Factors for converting the airborne measurements to concentrations were determined by relating the airborne count rates to the known ground concentrations of a 0B2 test strip in the Ottawa area. The factors used to convert the airborne measurements to ground concentrations are: 114 164.0 cps **11**A umheller 0 1%K 80.0 cps 1 ppm eU 9.6 cps 1 ppm eTh 6.4 cps 12A The exposure rate, in micro Roentgens per hour (μ R/h) has been computed from the measured concentrations of potassium, uranium and thorium (Grasty, R.L., Carson, J.M., Charbonneau, B.W., and Holman, P.B., 1984, Natural Background Radiation in Canada, 8 4 Geol. Sur. Can., Bull. 360). To compare these data with earlier total count maps expressed in Units of Radioelement concentrations (Ur), the conversion factor is 1 μ R/h = 1.67 Ur. Red Deer River

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. 2B1 8 3B1 9 3B2 dmonton Ø 21 4B40 5A 501 In 1977 the Geological Survey of 5D Canada collected airborne gamma ray spectrometry data in the Edmonton Calgary region of Alberta. This data was published in 1985 as OF 1174 and presented at 1:500,000 scale as 6**B**2 60 7B7C All data were sampled at 2.5 second intervals. The airborne radiometric measurements were made **BB1 8C** Uranium, thorium and potassium counts have been corrected for dead 9B Factors for converting the airborne measurements to concentrations were determined by relating the airborne count rates to the known ground concentrations of a 101 **0B2** 164.0 cps 1-1 Ir **11A** 1 % K 80.0 cps 1 ppm eU 9.6 cps 1 ppm eTh 6.4 cps The exposure rate, in micro Roentgens per hour (μ R/h) has been computed from the measured concentrations of potassium, uranium and thorium (Grasty, R.L., Carson, J.M., Charbonneau, B.W., and Holman, P.B., 1984, Natural Background Radiation in Canada,

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EDMONTON CALGARY RECONNAISSANCE AREA 1977 EQUIVALENT URANIUM/EQUIVALENT THORIUM

stacked profiles with an index base map. The current Open File presents this wide spaced flight line data as colour contour maps at 1:2 000 000 scale.

using a 256 channel spectrometer, with twelve 102x102x406 mm Na((T)) detectors. The GSC Skyvan was flown at a mean terrain clearance of 122 m with average ground speed of 190 km/h. The survey flight line direction and spacing was east-west and 30 kilometres, respectively.

time, ambient temperature changes, background radiation, spectral scattering and deviations of terrain clearance from the planned survey altitude.

test strip in the Ottawa area. The factors used to convert the airborne measurements to ground concentrations are:

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EQUIVALENT URANIUM/POTASSIUM

4C 6

30

3

5C2



INISTERE DE L'ÉNERGE DES IMES ET DES RESSOURCES

+ **32B2**

4B

dmorton 93B2

501

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3B1

5B

In 1977 the Geological Survey of Canada collected airborne gamma ray spectrometry data in the Edmonton Calgary region of Alberta. This data was published in 1985 as OF 1174 and presented at 1:500 000 scale as stacked profiles with an index base map. The current Open File presents this wide spaced flight line data as colour contour maps at 1:2 000 000 scale.

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Factors for converting the airborne measurements to concentrations were determined by relating the airborne count rates to the known ground concentrations of a test strip in the Ottawa area. The factors used to convert the airborne measurements to ground concentrations are:

3D

4D

1	Ur		164.0	cps
1	% K		80.0	cps
1	ppm	eU	9.6	cps
1	ppm	eTh	6.4	cps

The exposure rate, in micro Roentgens per hour (μ R/h) has been computed from the measured concentrations of potassium, uranium and thorium (Grasty, R.L., Carson, J.M., Charbonneau, B.W., and Holman, P.B., 1984, Natural Background Radiation in Canada, Geol. Sur. Can., Bull. 360). To compare these data with earlier total count maps expressed in Units of Radioelement concentrations (Ur), the conversion factor is 1 μ R/h = 1.67 Ur.

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2D1

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of the

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Line 2 10 km Scale 1:2000000



3 10 km Scale 1:2000000 Line

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Line 4 10 km Scole 1:2000000







Line 6 10 km Scole 1:2000000

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Line 7 10 km Scale 1:200000



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Line 8 10 km Scale 1:2000000







Line 12 10 km Scale 1:2000000