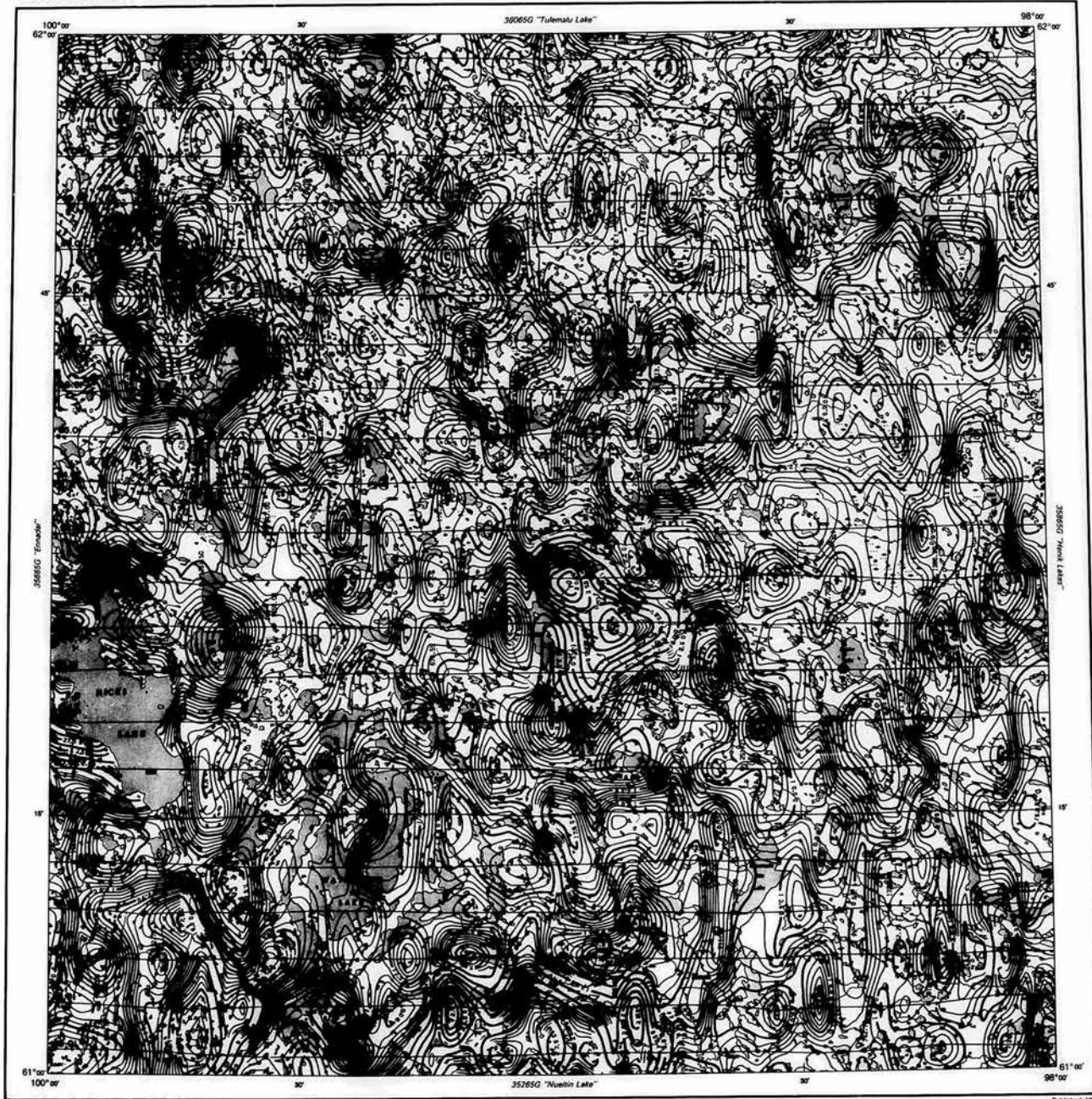




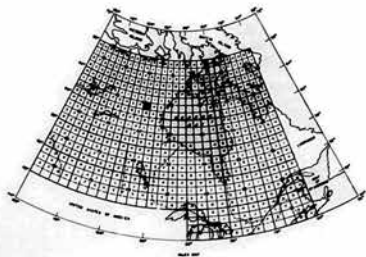
GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES

GEOPHYSICAL SERIES (AIRBORNE GAMMA-RAY SPECTROMETRIC)

TOTAL COUNT 656



Published, 1977



Contour Interval: 0.5 m
Flight Line and Fiducial

**TOTAL COUNT
MAP 35765G**
WATTERSON LAKE
DISTRICT OF KEEWATIN
NORTHWEST TERRITORIES

SCALE 1:250,000
5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 METERS

COPIES OF THIS MAP MAY BE OBTAINED FROM THE DIRECTOR GENERAL,
GEOLOGICAL SURVEY OF CANADA, OTTAWA

Uranium Reconnaissance Program Airborne Gamma-Ray Spectrometer Survey, 1976, flown and compiled by the Canadian Terra Survey Ltd., Consortium director, Kenning Earth Sciences Ltd., and Northway Survey Corporation Ltd.

The topography for this series of maps was reproduced from 1:250,000 topographical map sheets published by the Department of Energy, Mines and Resources, Ottawa.

This map was compiled from airborne gamma-ray spectrometric data recorded digitally along the flight lines shown. The spectrometer, with 30 lines of sodium iodide (NaI) detectors, recorded gamma radiation in four channels, with the following energy ranges:

Channel 1	2.0 - 2.8 MeV
Channel 2	1.8 - 2.6 MeV
Channel 3	1.6 - 2.4 MeV
Channel 4	1.4 - 2.2 MeV

Channels 1, 2 and 3 were centered on the 2.02 MeV ²³²Th photo peak, the 1.76 MeV ²³²Th photo peak and on the 1.46 MeV ²³²Th photo peak, respectively. Counts were accumulated in these channels and recorded at one second intervals. The channel 4 counts were averaged and recorded at one second intervals. The detectors were thermally stabilized to minimize spectrum drift. The survey aircraft was flown at a constant survey altitude of 400 feet and at a ground speed between 150 knots and 240 knots.

The data were corrected for dead time, atmospheric changes in temperature, background radiation, spectral scattering and absorption of gamma rays from the planned survey altitude. Corrected count rates from channels 1, 2 and 3 were converted to concentrations of equivalent thorium, equivalent uranium and potassium, using conversion factors determined for each gamma-ray spectrometer used in the survey. The total count rates from channel 4 were converted to units of radiometric concentration. The conversion factors which differed among the 3 aircraft used, are approximately those listed below:

Channel 1	1 ppm = 1.0 cps
Channel 2	1 ppm = 1.0 cps
Channel 3	1 ppm = 1.0 cps
Channel 4	1 ppm = 1.0 cps

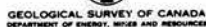
Data were smoothed using 40 data points along the flight lines (spacing values over 1000 m) and 2.5 kilometer intervals along track and 5 kilometer intervals across track, and contoured.

The contoured values are surface radiometric concentrations averaged over areas of approximately 700,000 square meters. These areas generally include some surface, vegetation, and small bodies of water. Consequently the concentrations indicated by the contour map are generally lower than the concentration in bedrock.

**TOTAL COUNT
WATTERSON LAKE**

This document was produced
by scanning the original publication.

Ce document est le produit d'une
numérisation par balayage
de la publication originale.



POTASSIUM (K)
MAP 35765G

WATTERSON LAKE

DISTRICT OF KEEWATIN
NORTHWEST TERRITORIES

Uranium Reconnaissance Program Airborne Gamma-Ray Spectrometer Survey, 1976, flown and compiled by the consortium of Terra Surveys Ltd., consortium director), Kenning Earth Sciences Ltd., and Northway Survey Corporation Ltd.

The topography for this series of maps was reproduced from 1:250,000 topographical map sheets published by the Department of Energy, Mines and Resources, Ottawa.

COPIES OF THIS MAP MAY BE OBTAINED FROM THE DIRECTOR GENERAL
GEOLOGICAL SURVEY OF CANADA, OTTAWA

This map was compiled from airborne gamma-ray spectrometer data recorded digitally along the flight lines shown. The spectrometer, with 50 lines of sodium iodide (NaI(Tl)) detectors, recorded gamma radiation in four channels, with the following energy ranges:

Channel 1	2.42–2.82 MeV
Channel 2	1.66–1.86 MeV
Channel 3	1.36–1.56 MeV
Channel 4	0.60–2.82 MeV

Channels 1, 2 and 3 were centered on the 2.62 MeV Ti^{44} photo peak, the 1.76 MeV Bu^{110} photo peak and on the 1.46 MeV K^{40} photo peak, respectively. Counts were accumulated in these channels and recorded at one second intervals. The ten-scc clearance was averaged and recorded at one second intervals. The detectors were thermally stabilized to minimize spectrum shift. The survey aircraft were flown at a planned survey altitude of 400 feet and at a ground speed between 190 mph and 240 mph.

The data were corrected for dead time, atmospheric changes in temperature, cloud radiation, spectral scattering and deviations of terrain clearance from the planned survey activity. Corrected count rates from channels 1, 2 and 3 were converted to concentrations of equivalent thorium, equivalent uranium, and potassium, using conversion factors determined for each gamma-ray spectrometer used in the survey. The total count rates from channel 4 were converted to units of radon gas concentration. The conversion factors which differed among the 2 spect used, are approximately those listed below:

Channel 1	1 $\mu\text{g m}^{-3} \text{Th} =$	4 cps
Channel 2	1 $\mu\text{g m}^{-3} \text{U} =$	8 to 10 cps
Channel 3	1 $\mu\text{g m}^{-3} \text{K} =$	70 to 80 cps
Channel 4	1 $\text{m}^3 =$	140 to 180 Bq

Channel 4
Data were smoothed using 40 data points along the flight lines (rejecting values over water), gridded at 2.2 kilometer intervals along track and 5 kilometer intervals across track, and contoured.

The contoured values are surface oil-dispersant concentrations averaged over areas of approximately 700,000 square meters. These areas generally include some outcrop, overburden, seamounts and small bodies of water. Consequently the concentrations indicated by the contour map are generally lower than the concentration in bedrock.

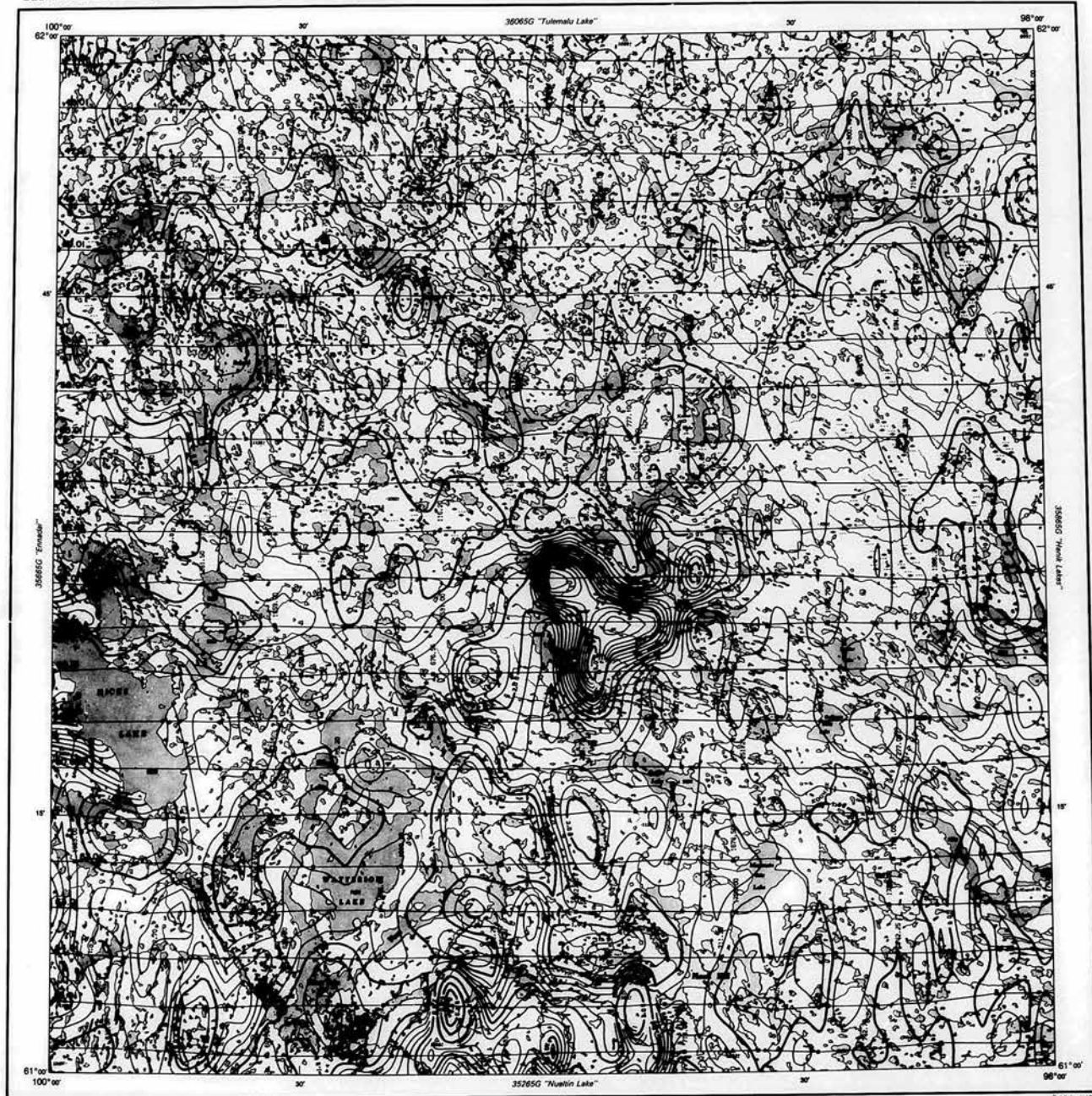
POTASSIUM (K)
WATTERSON LAKE
MAP 387050



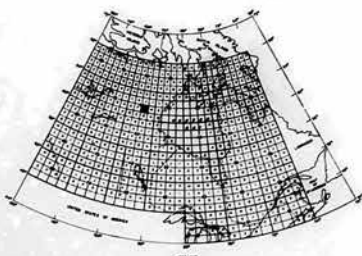
GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES

GEOPHYSICAL SERIES (AIRBORNE GAMMA-RAY SPECTROMETRIC)

EQUIVALENT URANIUM (eU) 65G



Published, 1977



Contour Interval: 52 ppm
Flight Line and Fictitious

SCALE 1:250,000
1:250,000

COPIES OF THIS MAP MAY BE OBTAINED FROM THE DIRECTOR GENERAL,
GEOLOGICAL SURVEY OF CANADA, OTTAWA.

EQUIVALENT URANIUM (eU)
MAP 35765G
WATERSON LAKE
DISTRICT OF KENWATIN
NORTHWEST TERRITORIES

Uranium Reconnaissance Program Airborne Gamma-Ray Spectrometer Survey, 1976, flown and compiled by the consortium of Terra Survey Ltd., Vancouver, British Columbia, Kerting Earth Sciences Ltd., and Northwest Survey Corporation Ltd.

The topography for this series of maps was reproduced from 1:250,000 topographical map sheets published by the Department of Energy, Mines and Resources, Ottawa.

This map was compiled from airborne gamma-ray spectrometer data recorded digitally along the flight lines shown. The spectrometer, with 50 lines of sodium iodide (NaI) detectors, recorded gamma-ray radiation in four channels, with the following energy ranges:

Channel 1: 2.42-2.82 MeV
Channel 2: 1.86-2.26 MeV
Channel 3: 1.38-1.78 MeV
Channel 4: 0.82-1.22 MeV

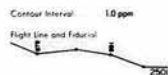
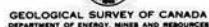
Channels 1, 2 and 3 were summed on the 2.82 MeV 1" photo peak, the 1.78 MeV 8" photo peak and on the 1.42 MeV 4" photo peak, respectively. Counts were accumulated in these channels and recorded at one second intervals. The channel 4 data were summed and recorded at one second intervals. The data were thermally stabilized to minimize spectrum shift. The survey aircraft was flown at a planned survey altitude of 400 feet and at a ground speed between 120 km/h and 240 km/h.

The data were corrected for dead time, atmospheric changes in temperature, background radiation, spectral scattering and deviations of sensor distance from the planned survey altitude. Corrected count rates from channels 1, 2 and 3 were converted to concentrations of equivalent thorium, equivalent uranium, and potassium, using conversion factors determined for each gamma-ray spectrometer used in the survey. The total count rates from channel 4 were converted to units of radon concentration. The conversion factors which related counts to the 2.42 MeV peak are approximately those listed below:

Channel 1: 1 ppm eU = 8 cps
Channel 2: 1 ppm eU = 8 to 10 cps
Channel 3: 1 ppm eU = 10 to 12 cps
Channel 4: 1 ppm eU = 140 to 160 cps

Counts were summed using 40 data points along the flight lines representing values over areas of approximately 100,000 square meters. These areas generally include some outcrops, overburden, and small bodies of water. Consequently the concentrations indicated by the contour maps are generally lower than the concentrations in bedrock.

EQUIVALENT URANIUM (eU)
WATERSON LAKE
MAP 35765G



EQUIVALENT THORIUM (eTh)
MAP 35765G

WATTERSON LAKE
DISTRICT OF KEEWATIN
NORTHWEST TERRITORIES

Uranium Reconnaissance Program Airborne Gamma-Ray Spectrometer Survey, 1976. flown and compiled by the consortium of Terra Surveys Ltd., Icosurium directors, Kenting Earth Sciences Ltd., and Northway Survey Corporation Ltd.

The topography for this series of maps was reproduced from 1:250,000 topographical map sheets published by the Department of Energy, Mines and Resources, Ottawa.

COPIES OF THIS MAP MAY BE OBTAINED FROM THE DIRECTOR GENERAL
GEOLOGICAL SURVEY OF CANADA, OTTAWA

This map was compiled from airborne gamma-ray spectrometer data recorded during the flight lines shown. The spectrometer was 30 miles in southern Idaho just off the coast of the Pacific Ocean. The map was compiled from the following flight lines:

Channel 1	1.00 - 2.00 MeV
Channel 2	2.00 - 3.00 MeV
Channel 3	3.00 - 4.00 MeV
Channel 4	4.00 - 5.00 MeV
Channel 5	5.00 - 6.00 MeV
Channel 6	6.00 - 7.00 MeV
Channel 7	7.00 - 8.00 MeV
Channel 8	8.00 - 9.00 MeV
Channel 9	9.00 - 10.00 MeV
Channel 10	10.00 - 11.00 MeV
Channel 11	11.00 - 12.00 MeV
Channel 12	12.00 - 13.00 MeV
Channel 13	13.00 - 14.00 MeV
Channel 14	14.00 - 15.00 MeV
Channel 15	15.00 - 16.00 MeV
Channel 16	16.00 - 17.00 MeV
Channel 17	17.00 - 18.00 MeV
Channel 18	18.00 - 19.00 MeV
Channel 19	19.00 - 20.00 MeV
Channel 20	20.00 - 21.00 MeV
Channel 21	21.00 - 22.00 MeV
Channel 22	22.00 - 23.00 MeV
Channel 23	23.00 - 24.00 MeV
Channel 24	24.00 - 25.00 MeV
Channel 25	25.00 - 26.00 MeV
Channel 26	26.00 - 27.00 MeV
Channel 27	27.00 - 28.00 MeV
Channel 28	28.00 - 29.00 MeV
Channel 29	29.00 - 30.00 MeV
Channel 30	30.00 - 31.00 MeV
Channel 31	31.00 - 32.00 MeV
Channel 32	32.00 - 33.00 MeV
Channel 33	33.00 - 34.00 MeV
Channel 34	34.00 - 35.00 MeV
Channel 35	35.00 - 36.00 MeV
Channel 36	36.00 - 37.00 MeV
Channel 37	37.00 - 38.00 MeV
Channel 38	38.00 - 39.00 MeV
Channel 39	39.00 - 40.00 MeV
Channel 40	40.00 - 41.00 MeV
Channel 41	41.00 - 42.00 MeV
Channel 42	42.00 - 43.00 MeV
Channel 43	43.00 - 44.00 MeV
Channel 44	44.00 - 45.00 MeV
Channel 45	45.00 - 46.00 MeV
Channel 46	46.00 - 47.00 MeV
Channel 47	47.00 - 48.00 MeV
Channel 48	48.00 - 49.00 MeV
Channel 49	49.00 - 50.00 MeV
Channel 50	50.00 - 51.00 MeV
Channel 51	51.00 - 52.00 MeV
Channel 52	52.00 - 53.00 MeV
Channel 53	53.00 - 54.00 MeV
Channel 54	54.00 - 55.00 MeV
Channel 55	55.00 - 56.00 MeV
Channel 56	56.00 - 57.00 MeV
Channel 57	57.00 - 58.00 MeV
Channel 58	58.00 - 59.00 MeV
Channel 59	59.00 - 60.00 MeV
Channel 60	60.00 - 61.00 MeV
Channel 61	61.00 - 62.00 MeV
Channel 62	62.00 - 63.00 MeV
Channel 63	63.00 - 64.00 MeV
Channel 64	64.00 - 65.00 MeV
Channel 65	65.00 - 66.00 MeV
Channel 66	66.00 - 67.00 MeV
Channel 67	67.00 - 68.00 MeV
Channel 68	68.00 - 69.00 MeV
Channel 69	69.00 - 70.00 MeV
Channel 70	70.00 - 71.00 MeV
Channel 71	71.00 - 72.00 MeV
Channel 72	72.00 - 73.00 MeV
Channel 73	73.00 - 74.00 MeV
Channel 74	74.00 - 75.00 MeV
Channel 75	75.00 - 76.00 MeV
Channel 76	76.00 - 77.00 MeV
Channel 77	77.00 - 78.00 MeV
Channel 78	78.00 - 79.00 MeV
Channel 79	79.00 - 80.00 MeV
Channel 80	80.00 - 81.00 MeV
Channel 81	81.00 - 82.00 MeV
Channel 82	82.00 - 83.00 MeV
Channel 83	83.00 - 84.00 MeV
Channel 84	84.00 - 85.00 MeV
Channel 85	85.00 - 86.00 MeV
Channel 86	86.00 - 87.00 MeV
Channel 87	87.00 - 88.00 MeV
Channel 88	88.00 - 89.00 MeV
Channel 89	89.00 - 90.00 MeV
Channel 90	90.00 - 91.00 MeV
Channel 91	91.00 - 92.00 MeV
Channel 92	92.00 - 93.00 MeV
Channel 93	93.00 - 94.00 MeV
Channel 94	94.00 - 95.00 MeV
Channel 95	95.00 - 96.00 MeV
Channel 96	96.00 - 97.00 MeV
Channel 97	97.00 - 98.00 MeV
Channel 98	98.00 - 99.00 MeV
Channel 99	99.00 - 100.00 MeV

The data were corrected for dead time, atmospheric absorption, temperature, terrain, and other factors. The data were then converted to a digital format and stored in a file. The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format. The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The gamma-ray counts were then converted to a digital format and stored in a file. The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital format.

The data were then processed to produce the map shown. The map was produced using a computer program that calculated the gamma-ray counts for each channel and then converted them to a digital

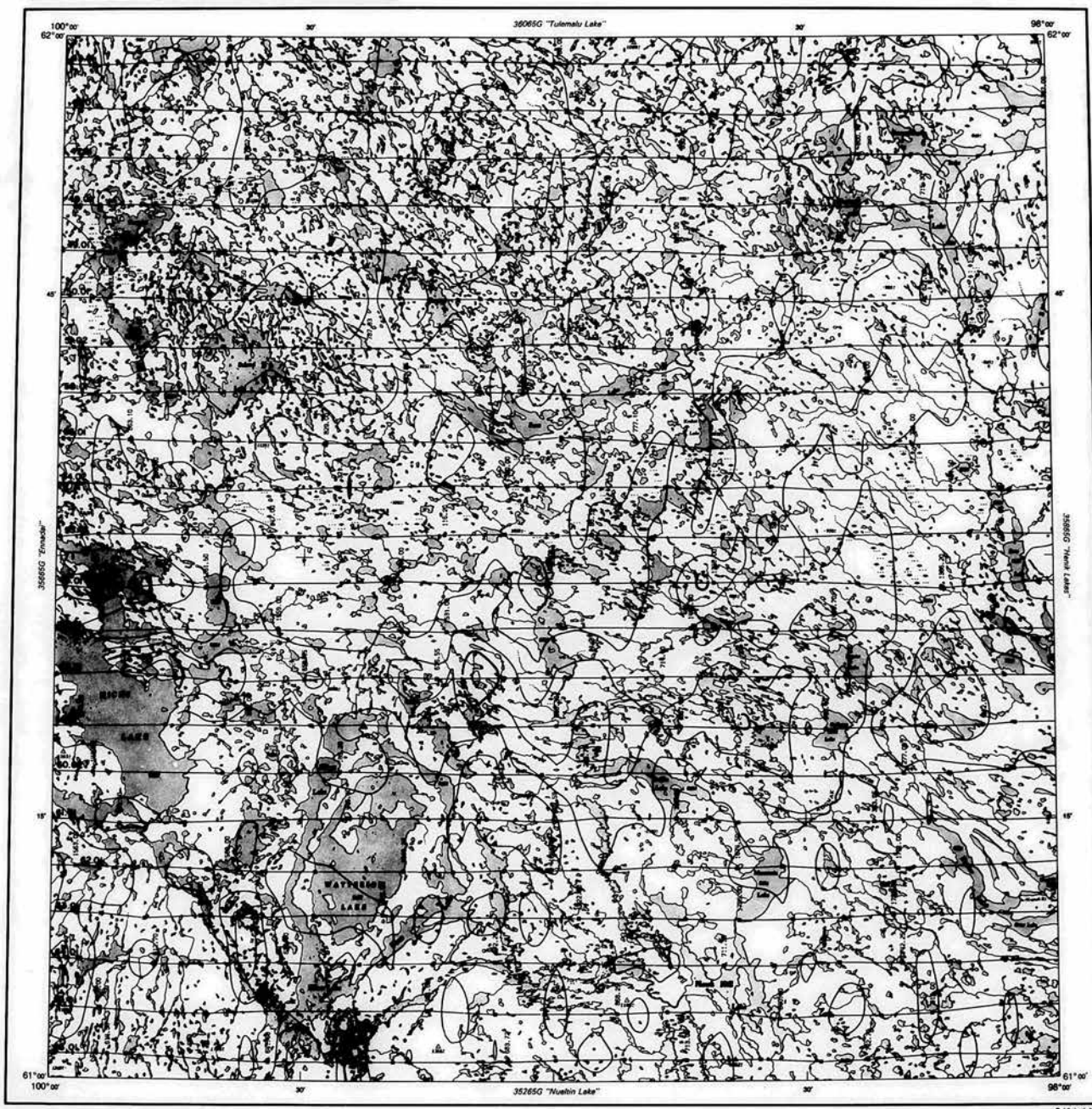
EQUIVALENT THORIUM (eTh)
WATTERSON LAKE
MAP 357856



GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES

GEOPHYSICAL SERIES (AIRBORNE GAMMA-RAY SPECTROMETRIC)

4U/5TH RATIO 659



Published, 1977

4U/5TH RATIO
MAP 35765G

WATTERSON LAKE DISTRICT OF KEEWATIN NORTHWEST TERRITORIES

Union Reconnaissance Program Airborne Gamma-Ray Spectrometer Survey, 1976. Town and compiled by the consortium of Terra Survey Ltd., Kootenay, British Columbia, and Northern Survey Corporation Ltd.

The topography for this series of maps was reproduced from 1:250,000 topographical map sheets published by the Department of Energy, Mines and Resources, Ottawa.

This map was compiled from airborne gamma-ray spectrometer data recorded digitally along the flight lines shown. The spectrometer, with 30 lines of sodium iodide (NaI) detectors, recorded gamma radiation in four channels, with the following energy ranges:

Channel 1 2.42 - 2.82 MeV

Channel 2 1.88 - 2.28 MeV

Channel 3 1.34 - 1.74 MeV

Channel 4 0.80 - 1.20 MeV

Channels 1, 2 and 3 were corrected on the 2.02 MeV ¹³⁷Cs photo peak, the 1.18 MeV ⁴⁰K photo peak and on the 1.46 MeV ²¹⁴Pb photo peak, respectively. Counts were also corrected in these channels and recorded at one second intervals. The channel distance was averaged and recorded at one second intervals. The detectors were thermally stabilized to minimize spectral shift. The survey aircraft was flown at a planned survey altitude of 400 feet and at ground speed between 180 mph and 240 mph.

The data were corrected for dead time, atmospheric changes in temperature, background radiation, spectral scattering and deviations of terrain clearance from the planned survey altitude. Corrected count rates from channels 1, 2 and 3 were converted to concentrations of equivalent thorium, equivalent uranium, and potassium, using conversion factors determined by each gamma-ray spectrometer used in the survey. The total count rates from channel 4 were converted to units of radon concentration. The conversion factors shown opposite the 3 air-cm² cells are approximately those listed below:

Channel 1 1 gpm 4th = 8 cps

Channel 2 1 gpm 4th = 8 to 12 cps

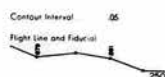
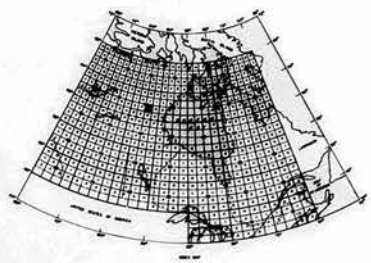
Channel 3 1 gpm 4th = 70 to 80 cps

Channel 4 1 gpm 4th = 140 to 160 cps

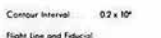
Data were smoothed using 40 data points along the flight lines (spacing values over 400 ft) and at 2.2 km intervals along track and 3.5 km intervals across track, and contoured.

The contour values are surface concentration concentrations averaged over areas of approximately 100,000 square meters. These areas generally include some outcrop, overburden, swamps and small bodies of water. Consequently, the concentrations indicated by the contour maps are generally lower than the concentrations in bedrock.

4U/5TH RATIO
WATTERSON LAKE
MAP 35765G



COPIES OF THIS MAP MAY BE OBTAINED FROM THE DIRECTOR GENERAL, GEOLOGICAL SURVEY OF CANADA, OTTAWA.



U/K RATIO
MAP 35765G

WATTERSON LAKE

DISTRICT OF KEEWATIN
NORTHWEST TERRITORIES

Unium Reconnaissance Program Airborne Gamma-Ray Spectrometer Survey, 1976, flown and compiled by the consortium of Terra Surveys Ltd. (consortium directors), Kenfig Earth Sciences Ltd., and Northway Survey Corporation Ltd.

The topography for this series of maps was reproduced from 1:250,000 topographical map sheets published by the Department of Energy, Mines and Resources, Ottawa.

This map was compiled from airborne gamma-ray spectrometer data recorded digitally along the flight lines shown. The spectrometer, with 50 litres of sodium iodide (NaI(Tl)) detectors, recorded gamma radiation in four channels, with the following energy ranges:

Channel 1	2.42 – 2.82 MeV
Channel 2	1.66 – 1.86 MeV
Channel 3	1.06 – 1.46 MeV
Channel 4	0.46 – 0.86 MeV

Channels 1, 2 and 3 were centered on the 2.52 MeV Ti^{44} photo peak, the 1.76 MeV Ba^{134} photo peak and on the 1.46 MeV K^{40} photo peak, respectively. Counts were accumulated in these channels and recorded at one second intervals. The timer clearance was minimized and recorded at one second intervals. The detectors were thermally stabilized to minimize spectrum shift. The survey aircraft were flown at a planned survey altitude of 400 feet and at

The data were corrected for dead time, atmospheric changes in temperature, background radiation, spectral scattering and deviations of sensor clearance from the planned survey altitude. Corrected count rates from channels 1, 2 and 3 were converted to concentrations of equivalent thorium, equivalent uranium, and potassium, using conversion factors determined for each gamma-ray spectrometer used in the survey. The total count rates from channel 4 were converted to units of radionuclide concentration. The conversion factors

Channel 1	1 ppm aTn =	6 cps
Channel 2	1 ppm aU =	8 to 10 cps
Channel 3	1 %K =	70 to 80 cps
Channel 4	1 ur =	140 to 180 cps

The contained wastes are surface radionuclide concentrations averaged over areas of approximately 700,000 square meters. These areas generally include some outcrops, overburden, swamps and small bodies of water. Consequently the concentrations indicated by the contour map are generally lower than the concentration in bedrock.

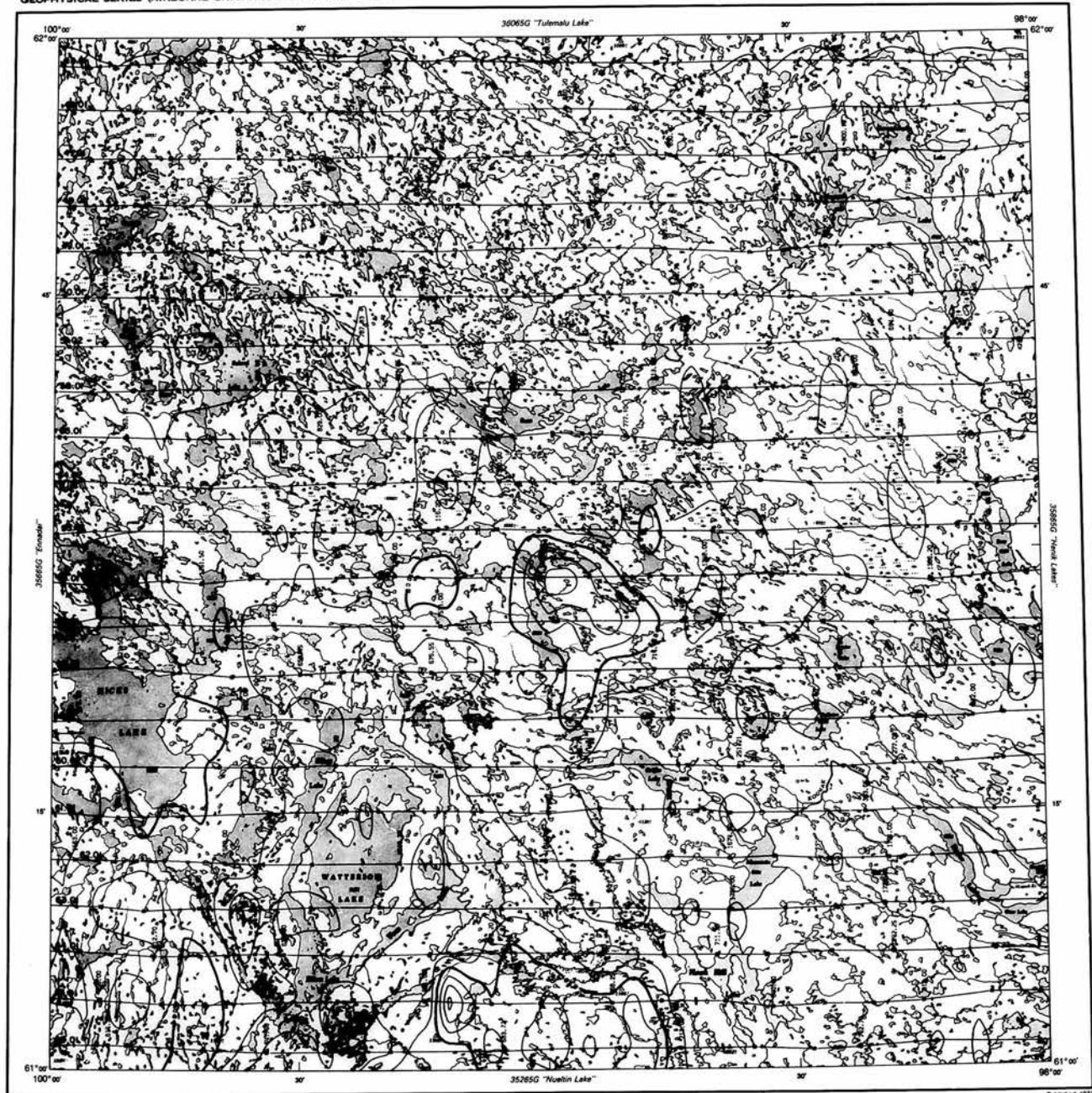
6U/K RATIO
 WATTERSON LAKE
 MAP 38750



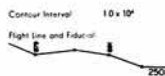
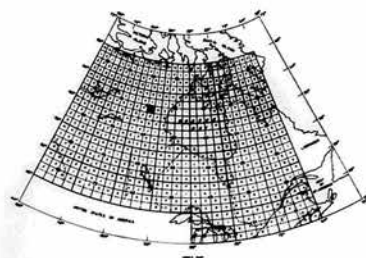
GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES

GEOPHYSICAL SERIES (AIRBORNE GAMMA-RAY SPECTROMETRIC)

*Th/K RATIO 650



Published, 1977



COPIES OF THIS MAP MAY BE OBTAINED FROM THE DIRECTOR GENERAL,
GEOLOGICAL SURVEY OF CANADA, OTTAWA

*Th/K RATIO MAP 35765G **WATTERSON LAKE** DISTRICT OF KEEWATIN NORTHWEST TERRITORIES

Uranium Reconnaissance Program Airborne Gamma-Ray Spectrometer Survey, 1976. Town and compiled by the Corporation of Terra Survey Ltd., (Geophysical division), Keston Earth Sciences Ltd., and Northway Survey Corporation Ltd.

The topography for this series of maps was derived from 1:250,000 topographical map sheets published by the Department of Energy, Mines and Resources, Ottawa.

This map was compiled from airborne gamma-ray spectrometer data recorded digitally along the flight lines shown. The spectrometer, with 50 lines of sodium-iodide (NaI) crystals, recorded gamma-ray data in four channels, with the following energy ranges:

- Channel 1: 7.0 - 2.52 MeV
- Channel 2: 1.80 - 1.58 MeV
- Channel 3: 1.35 - 1.18 MeV
- Channel 4: 0.40 - 2.52 MeV

Channels 1 and 2 were channelized on the 2.62 MeV ²¹⁴Pb photo peak, the 1.18 MeV ²¹⁴Pb photo peak, and on the 1.46 MeV ⁴⁰K photo peak, respectively. Counts were accumulated in these channels and recorded at one second intervals. The channel clearance was averaged and recorded at one second intervals. The detectors were thermally stabilized to minimize spectrum drift. The survey aircraft was flown at a planned survey altitude of 400 feet and at a ground speed between 180 knots and 240 knots.

The data were processed using a computer program which corrected for atmospheric absorption, scatter, and variations of terrain clearance from the planned flight altitude. The data were then converted to concentrations of equivalent thorium, equivalent uranium, and potassium using conversion factors determined for each gamma-ray spectrometer used in the survey. The total count rates from channel 4 were converted to units of radiometric concentration. The conversion factors which produced the 3.0 count rates are approximately those listed below:

- Channel 1: 1 ppm ²³²Th = 6 cps
- Channel 2: 1 ppm ²³⁵U = 8 to 10 cps
- Channel 3: 1 ppm ⁴⁰K = 15 to 20 cps
- Channel 4: 1 ppm ²³²Th = 140 to 160 cps

Data were inspected using 40 data points along the flight lines (spacing values over water); gridded at 2.5 kilometer intervals along track and 5 kilometer intervals across track and contour.

The contour values are further supplemented by concentrations averaged over areas of approximately 750,000 square meters. These areas generally include some outcrop, overburden, swamps and small bodies of water. Considerably the concentrations indicated by the contour map are generally lower than the concentrations in bedrock.

*Th/K RATIO
WATTERSON LAKE
MAP 35765G