



URANIUM (ppm) IN STREAM SEDIMENTS (-80 mesh fraction)  
GEOCHEMICAL ORIENTATION SURVEYS FOR URANIUM  
IN SOUTHERN BRITISH COLUMBIA, 1975

By S.B. Ballantyne  
Geological Survey of Canada

LEGEND  
GRANITIC ROCKS

- D** Coarse-grained pink and grey biotite-hornblende syenite and/or monzonite. Related dykes of porphyritic trachyte, trachyandesite, latite and andesite.
- C** Dykes and stocks of coarse biotite-hornblende diorite, quartz diorite, minor amphibolite and pyroxenite.
- B** Medium-grained, slightly porphyritic biotite quartz monzonite, minor biotite-hornblende quartz monzonite and leucogranite.
- A** Porphyritic biotite-hornblende granodiorite, minor quartz monzonite.
- 1** Porphyritic biotite-hornblende and hornblende leucogranodiorite with megacrysts of pink and grey potash feldspar.
- 2** Biotite-hornblende and hornblende-biotite mesocratic granodiorite.

SEDIMENTARY AND VOLCANIC ROCKS WEST OF GRANBY RIVER FAULT  
N.B. Unit numbers correspond with those of Greenwood E 1/2 area, Little, H.W., and Thorpe, R.I., GSC Paper 65-1, PP. 56-60

- CENOZOIC**
- TERTIARY**
- Eocene or Oligocene**
- 17** Dark purplish-brown and purplish-green porphyritic augite-plagioclase andesite. Quartz-feldspar porphyry south of Toronto Creek. (Daly's Midway Group)
- JURASSIC?**
- 11** Flow breccia and massive greenstone, in part intrusive; 11a, interbedded conglomerate
- TRIASSIC**
- MIDDLE TRIASSIC**
- 9** Dark- and light-grey bedded limestone, commonly with chert pebbles and nodules; minor massive grey limestone and limestone breccia
- 8** RAWHIDE FORMATION: grey siltstone and silty sandstone
- MIDDLE AND (?) LOWER TRIASSIC**
- 7** Sharpstone conglomerate with abundant chert fragments; minor graded-bedded green siltstone, and limestone, some skarn
- PERMIAN AND/OR EARLIER**
- 6** KNOB HILL FORMATION: massive chert and greenstone; locally minor limestone with thin chert interbeds, and rusty argillite. 6a, mainly chert; 6b, mainly greenstone
- 4** Amphibolite breccia
- 3** Black to grey bedded argillite and siltstone; minor chert and calcareous shale

STRUCTURAL UNITS OF THE METAMORPHIC COMPLEX

- X** Crushed and mylonitized biotite leucogranite and biotite-hornblende leucogranodiorite
- IX** Biotite-hornblende granodiorite gneiss
- VIII** Clinopyroxene-hornblende leucosyenite, locally grading into leucogranite
- VII** Biotite leucogranodiorite gneiss, commonly garnetiferous
- VI** Ortho-amphibolite gneiss
- V** Fine-grained hornblende schist, and amphibolite; minor interlayered fine-grained biotite-garnet-quartz schist and staurolite-garnet-quartz schist
- IV** Amphibolite gneiss and schist with interlayered marble and/or calc-silicate, biotite-hornblende schist tremolite schist, and graphitic calcareous schist
- a** Marble and/or calc-silicate
- b** Biotite schist and calcareous schist
- III** Mainly coarse-grained garnet-biotite schist, sillimanite locally abundant; interlayered pegmatite, marble and/or calc-silicate, quartzite, and amphibolite
- a** Coarse-grained sillimanite-garnet-biotite schist with more than 30% pegmatite material
- b** Reddish to grey massive quartzite, minor reddish micaceous quartzite
- c** Marble and/or calc-silicate
- d** Various types of biotite schist and gneiss with more than 25% interlayered pegmatite material and leucogranite, and pyroxene-biotite schist and gneiss; minor interlayered calc-silicate, marble and quartzite (all boundaries are arbitrary)
- II** Reddish to white, coarse-grained, thick-layered quartzite with thin sillimanite-rich seams, and/or minor sillimanite-biotite paragneiss
- a** Marble and/or calc-silicate with minor pegmatite
- I** Mainly sillimanite-biotite paragneiss with minor biotite-garnet paragneiss and/or schist, calc-silicate and/or marble, amphibolite gneiss, quartzite, and interlayered pegmatite and calcareous biotite-schist
- a** Amphibolite gneiss
- b** Diopside-hornblende-feldspar-quartz gneiss
- c** Sillimanite- and/or biotite-paragneiss with more than 25% interlayered pegmatite (all boundaries are arbitrary)
- d**

Geological contact .....  
Height of land .....

Geology by V.A. Preto, 1965, 1966

From G.S.C. Paper 69-22

Base-map from British Columbia Forestry Map F82 E/1W at the scale of 1 inch to 1/2 mile

Samples collected by S.B. Ballantyne and K. Bottrill

Uranium analysis done by Atomic Energy of Canada Ltd. by delayed neutron activation technique

U content in ppm .....+19.0

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