

Crystal Data: Tetragonal. *Point Group:* $\bar{4}2m$. As platy crystals to 1 mm, flattened on {001} and exhibiting {001}, {101}, and {112}, with {101} and {112} often striated.

Physical Properties: *Cleavage:* Perfect on {001}. *Fracture:* Splintery. *Tenacity:* Brittle. *Hardness* = 5.5 *D(meas.)* = n.d. *D(calc.)* = 3.644

Optical Properties: Transparent. *Color:* Colorless, light blue to medium greenish blue. *Streak:* White. *Luster:* Vitreous. *Pleochroism:* None. *Optical Class:* Uniaxial (–). $\omega = 1.623(1)$ $\epsilon = 1.619(1)$

Cell Data: *Space Group:* $I\bar{4}2m$. $a = 10.9515(5)$ $c = 10.3038(7)$ $Z = 4$

X-ray Powder Pattern: Gun claim, near the Itsi Range, Yukon Territory, Canada. 3.746 (100), 2.899 (96), 2.145 (69), 3.446 (60), 3.100 (51), 2.279 (44), 1.7584 (43)

Chemistry:	(1)	(2)
Na ₂ O	0.06	
BaO	46.35	45.59
CaO	7.35	8.34
FeO	0.15	
Al ₂ O ₃	0.17	
TiO ₂	0.06	
SiO ₂	34.91	35.73
<u>B₂O₃</u>	<u>[10.41]</u>	<u>10.35</u>
Total	99.46	100.00

(1) Gun claim, Yukon Territory, Canada; average of 3 electron microprobe analyses, presence of B was confirmed by EMPA, B₂O₃ calculated from crystal structure refinement; corresponding to Ba_{2.06}(Ca_{0.89}Al_{0.02}Na_{0.01}Fe_{0.01}Ti_{0.01}) $\Sigma=0.94$ (Si_{3.96}B_{2.04}) $\Sigma=6.00$ O₁₄. (2) Ba₂Ca(BSi₂O₇)₂.

Occurrence: In low-temperature, late-stage hydrothermal veins cutting a contact-metamorphic, Ba-rich skarn deposit adjacent to quartz monzonite.

Association: Cerchiarait-(Fe), diopside, pyrite, quartz, sphalerite, witherite.

Distribution: From the Gun claim, 4 km SE of Wilson Lake, south of the Itsi Range, Yukon Territory, Canada.

Name: For the *Itsi* Mountain Range, which gets its name from the language of the Kaska, a First Nations people of the area (“itsi” means “wind”).

Type Material: Natural History Museum of Los Angeles County, Los Angeles, California, USA. (#64072).

References: (1) Kampf, A.R., R.C. Peterson, and B.R. Joy (2014) Itsiite, Ba₂Ca(BSi₂O₇)₂, a new mineral species from Yukon, Canada: description and crystal structure. *Can. Mineral.*, 52(3), 401-407. (2) (2015) *Amer. Mineral.*, 100, 1326-1327 (abs. ref. 1).