

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. Forms fine-grained nodules, to 4 cm; also as spherulites of crystals with wedge-shaped terminations, to 0.7 mm.

Physical Properties: *Cleavage:* Present in two directions. *Fracture:* Uneven. *Tenacity:* Brittle. Hardness = 6-6.5 D(meas.) = 2.99(1) D(calc.) = 3.07(1)

Optical Properties: Transparent. *Color:* Colorless to white, light to dark yellow-orange to orange. *Streak:* White. *Luster:* Vitreous.

Optical Class: Biaxial (+). $\alpha = 1.637(1)$ $\beta = 1.638(1)$ $\gamma = 1.675(1)$ $2V(\text{meas.}) < 10^\circ$
 $2V(\text{calc.}) = 19(19)^\circ$

Cell Data: *Space Group:* $P\bar{1}$. $a = 6.573(1)$ $b = 6.445(1)$ $c = 6.369(1)$ $\alpha = 60.995(2)^\circ$
 $\beta = 61.257(2)^\circ$ $\gamma = 77.191(2)^\circ$ $Z = 1$

X-ray Powder Pattern: Chelkar, Kazakhstan.

2.92 (100), 3.22 (90), 2.84 (90), 5.69 (80), 2.79 (80), 3.13 (70), 2.14 (70)

Chemistry:	(1)	(2)	(3)
CaO	14.69	15.06	16.19
SrO	26.43	26.34	25.51
B ₂ O ₃	45.31	44.93	46.29
Cl	9.58	9.22	9.22
H ₂ O	[4.69]	[4.65]	[4.79]
-O = Cl	2.16	2.08	2.08
Total	98.54	98.12	99.92

(1) Kargan-tau, Kazakhstan; electron microprobe analysis, H₂O calculated from structure refinement; corresponding to Ca_{1.01}Sr_{0.98}[B_{5.02}O₉]Cl_{1.04}·H₂O. (2) Nepskoye, Russia, electron microprobe analysis, H₂O calculated from structure refinement; corresponding to Ca_{1.04}Sr_{0.98}[B_{4.99}O₉]Cl_{1.01}·H₂O. (3) Penobsquis deposit, New Brunswick, Canada; average of 3 electron microprobe analyses, H₂O calculated; corresponding to Ca_{1.08}Sr_{0.93}[B₅O₉]Cl_{0.98}·H₂O.

Mineral Group: Hilgardite group.

Occurrence: In marine evaporite salt deposits and salt domes.

Association: Sylvite, halite, boracite, anhydrite, gypsum, magnesite, quartz (Kazakhstan); hydroboracite, boracite, walkerite, veatchite, szaibélyite, pringleite, congolite, a clay-group mineral (New Brunswick, Canada).

Distribution: In western Kargan-tau, Inder uplift and from Chelkar, Caspian region, Kazakhstan; in the Nepskoye potassium salt deposit, near Ust'-Kut, Irkutsk district, Siberia, Russia. In the Penobsquis evaporite deposits, 12 km NE of Sussex, New Brunswick, Canada.

Name: For the region, *Kargan-tau*, Kazakhstan, that produced the first specimens.

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia.

References: (1) Pekov, I.V., E.V. Lovskaya, N.V. Chukanov, A.E. Zadov, V.N. Apollonov, D.Yu. Pushcharovsky, O. Ferro, S.A. Vino-gradova (2001) Kurgantaite, CaSr[B₅O₉]Cl·H₂O, revalidation of the mineral species and new data. *Zap. Vseross. Mineral. Obsheh.*, 130(3), 71-79 (in Russian, with English abs.). (2) (2002) *Amer. Mineral.*, 87, 1510-1511 (abs. ref. 1). (3) Grice, J.D., R.A. Gault and J. Van Velthuizen (2005) Borate minerals of the Penobsquis and Millstream deposits, Southern New Brunswick, Canada. *Can. Mineral.*, 43, 1469-1487.