

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. Crystals, bladed, flattened on {001}, elongate and striated parallel to [100] with no terminations, to 5 mm; typically in subparallel intergrowths.

Physical Properties: *Cleavage:* Perfect on {001}, good on {010}. *Fracture:* Irregular. *Tenacity:* Flexible. Hardness = ~ 4 D(meas.) = n.d. D(calc.) = 4.044

Optical Properties: Transparent to translucent. *Color:* Brown. *Streak:* Cream to pale brown. *Luster:* Silky.

Optical Class: Biaxial (+). $\alpha = 1.730(3)$ $\beta = 1.735(6)$ $\gamma = 1.755(3)$ $2V(\text{meas.}) = \text{n.d.}$
 $2V(\text{calc.}) = 53.6^\circ$ *Pleochroism:* Brown. *Absorption:* $Y \gg X > Z$. *Orientation:* $X \approx b$; $Y \approx c$; $Z \approx a$.

Cell Data: *Space Group:* $P\bar{1}$. $a = 5.3437(7)$ $b = 11.6726(15)$ $c = 14.680(2)$ $\alpha = 91.337(4)^\circ$
 $\beta = 96.757(4)^\circ$ $\gamma = 103.233(4)^\circ$ $Z = 1$

X-ray Powder Pattern: Esquire #8 claim, eastern Fresno County, California, USA.
 2.911 (100), 2.665 (100), 3.629 (73), 1.5597 (73b), 3.457 (70), 2.089 (66), 3.859 (62)

Chemistry:	(1)	(2)
SiO ₂	19.60	20.97
TiO ₂	0.75	0.80
Al ₂ O ₃	1.40	1.50
Fe ₂ O ₃		6.08
FeO	25.70	22.02
MgO	0.70	0.75
CaO	0.47	0.50
BaO	36.30	38.83
P ₂ O ₅	4.52	4.84
H ₂ O		1.67
CO ₂		2.04
Total	89.44	100.00

(1) Esquire #8 claim, eastern Fresno County, California, USA; electron microprobe analysis, CO₃ and OH confirmed by IR and calculated from structure refinement, corresponding to $(\text{Ba}_{5.45}\text{Ca}_{0.19})_{\Sigma=5.64}(\text{PO}_4)_{1.47}\text{O}_{0.30}(\text{CO}_3)(\text{Fe}^{2+}_{6.60}\text{Mg}_{0.40})_{\Sigma=7}(\text{Fe}^{3+}_{1.64}\text{Ti}^{4+}_{0.22}\text{Al}^{3+}_{0.14})_{\Sigma=2}(\text{Si}_{7.51}\text{Al}_{0.49})_{\Sigma=8}\text{O}_{26}(\text{OH})_4$. (2) $\text{Ba}_6(\text{PO}_4)_2(\text{CO}_3)\text{Fe}^{2+}_7\text{Fe}^{3+}_2(\text{Si}_4\text{O}_{12})_2\text{O}_2(\text{OH})_4$.

Occurrence: An alteration product of gillepsite along fractures and parting planes in a sanbornite-bearing rock.

Association: Gillespite, titantaramellite, celsian, sanbornite, anandite, quartz, the Fe²⁺ analogue of ericssonite (California); gillepsite, titantaramellite, fenocooperite (Arizona).

Distribution: Esquire #8 and #7 claims along Big Creek in SE¹/₄ SW¹/₄, Section 22, T11S, R25E, Mount Diablo Meridian, eastern Fresno County, California; Trumbull Peak, Maricopa Co., Arizona, USA.

Name: Honors Alfred (Fred) Devito (1937–2004) a prominent mineral collector (micromounts), field collector and contributor to the California mineralogical community.

Type Material: Natural History Museum of Los Angeles County, Los Angeles, California, USA (catalog nos. 61591, 61592, 61593, 61594).

References: (1) Kampf, A.R., G.R. Rossman, I.M. Steele, J.J. Pluth, G.E. Dunning, and R.E. Walstrom (2010) Devitoite, a new heterophyllosilicate mineral with astrophyllite-like layers from eastern Fresno County, California. *Can. Mineral.*, 48, 29–40. (2) (2010) *Amer. Mineral.*, 95, 1596–1597 (abs. ref. 1).