

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. As subparallel aggregates and divergent sprays of thin prisms elongated along [100] with a square cross section and chisel-like termination, to 0.2 mm; also as aggregates of curved bladed crystals, flattened on {001}. *Twinning:* Ubiquitous multiple penetration and reticulated twins by rotation on [100] and [120] and about the normal to {001}; sometimes leading to pseudo-hexagonal platelets.

Physical Properties: *Cleavage:* Poor on {001}. *Tenacity:* Brittle. *Fracture:* Irregular to splintery. Hardness = 4.5 D(meas.) = n.d. D(calc.) = 6.574 Dissolves slowly in concentrated HCl.

Optical Properties: Translucent. *Color:* Dark orange-brown to black. *Streak:* Dark orange-brown. *Luster:* Subadamantine.

Optical Class: Biaxial. $n(\text{calc.}) = 2.473$ Extinction || [100]. *Pleochroism:* Medium brown along [100], dark orange-brown along [010]*.

Cell Data: *Space Group:* $P\bar{1}$. $a = 5.0278(7)$ $b = 7.5865(11)$ $c = 10.2808(15)$ $\alpha = 91.968(12)^\circ$ $\beta = 99.405(12)^\circ$ $\gamma = 109.159(10)^\circ$ $Z = 2$

X-ray Powder Pattern: Red Lead mine, Dundas, Tasmania, Australia.

3.052 (100), 3.254 (85), 3.427 (52), 2.5015 (47), 1.9818 (42), 2.923 (40), 1.7694 (36)

Chemistry:	(1)	(2)
PbO	58.90	60.79
SrO		0.51
MnO ₂	23.34	24.63
<u>CrO₃</u>	<u>13.46</u>	<u>11.40</u>
Total	95.70	97.33

(1) Blue Bell claim, California, USA; average of 2 electron microprobe analyses; corresponds to $\text{Pb}_{1.97}\text{Mn}_{2.01}\text{O}_5(\text{Cr}_{1.01}\text{O}_4)$. (2) Red Lead mine, Tasmania, Australia; average of 2 electron microprobe analyses; corresponds to $(\text{Pb}_{2.07}\text{Sr}_{0.04})_{\Sigma=2.11}\text{Mn}_{2.15}\text{O}_5(\text{Cr}_{0.87}\text{O}_4)$.

Occurrence: A secondary mineral derived by weathering primary minerals including oxides and sulfides in the presence of acidic groundwater.

Association: Coronadite, fluorite, goethite, opal, pyromorphite, quartz, wulfenite (Blue Bell claims); coronadite, lithiophorite, crocoite (Red Lead mine).

Distribution: At the Blue Bell claims, 11 km west of Baker, San Bernardino County, California, USA., and at the Red Lead mine, Dundas, Tasmania, Australia. Also found at the Milford no. 3 mine, Goodsprings district, Nevada, USA.

Name: Honors Robert E. Reynolds (b. 1943), former Curator of Earth Sciences at the San Bernardino County Museum, Redlands, California, USA, for over four decades of contributions to studies of the mineralogy and paleontology of the Mojave Desert region.

Type Material: Natural History Museum of Los Angeles County, Los Angeles, California, USA [63559, 63560, and 63561 (Blue Bell claims) and 63562 (Red Lead mine)].

References: (1) Kampf, A.R., S.J. Mills, R.M. Housley, R.S. Bottrill, and U. Kolitsch (2012) Reynoldsite, $\text{Pb}_2\text{Mn}^{4+}_2\text{O}_5(\text{CrO}_4)$, a new phyllosmanganate-chromate from the Blue Bell claims, California and the Red Lead mine, Tasmania. *Amer. Mineral.*, 97, 1187-1192.