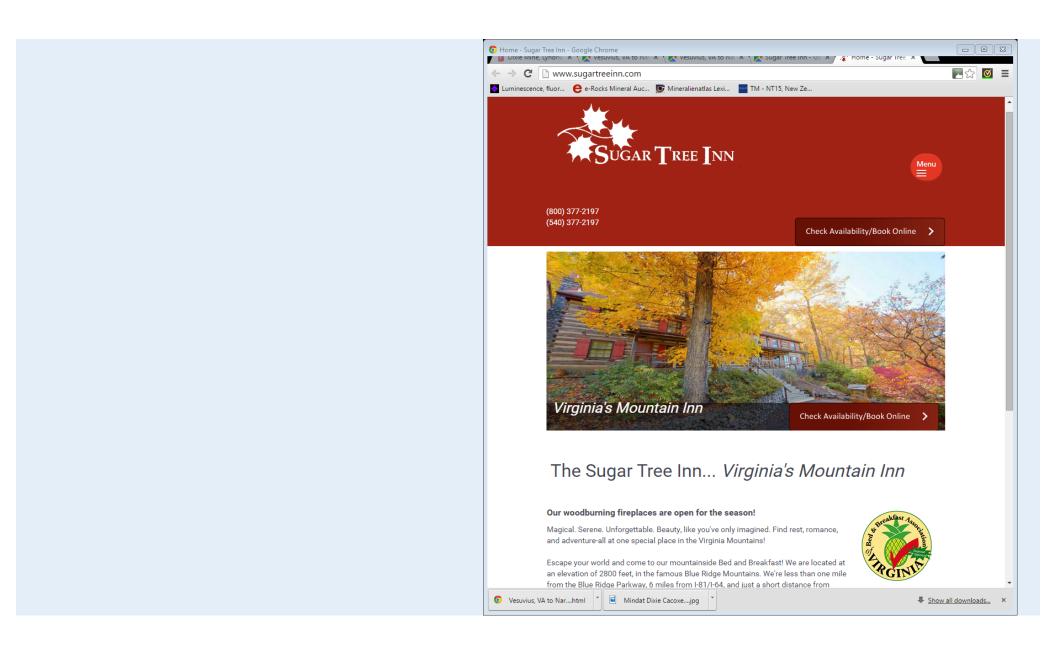
Dixie Mine near Vesuvius Rockbridge County, VA

Michael Pabst, Photographer
Specimens provided by Dean Hostetter, David Fryhauff, and Tom Tucker

Shenandoah Valley Gem and Mineral Society
October 12, 2015

An Iron and Manganese Phosphate Mine

- Located near the town of Vesuvius, VA.
- Ore body 4 to 25 feet thick for 1200 feet, up to 175 feet depth



Mindat Mineral List for Dixie Mine

• Cacoxenite $Fe_{24}AI(PO_4)_{17}O_6(OH)_{12}\cdot 17H_2O$

• Dufrénite $Ca_{0.5}Fe^{2+}Fe^{3+}_{5}(PO_4)_4(OH)_6\cdot 2H_2O$

• Natrodufrénite NaFe²⁺Fe³⁺₅(PO₄)₄(OH)₆·2H₂O – New, not reported

• Goethite α -Fe³⁺O(OH)

• Kidwellite NaFe³⁺(PO₄)₆(OH)₁₁·3H₂O

Manganite Mn³⁺O(OH)

• Rockbridgeite Fe²⁺Fe³⁺₄(PO₄)₃(OH)₅

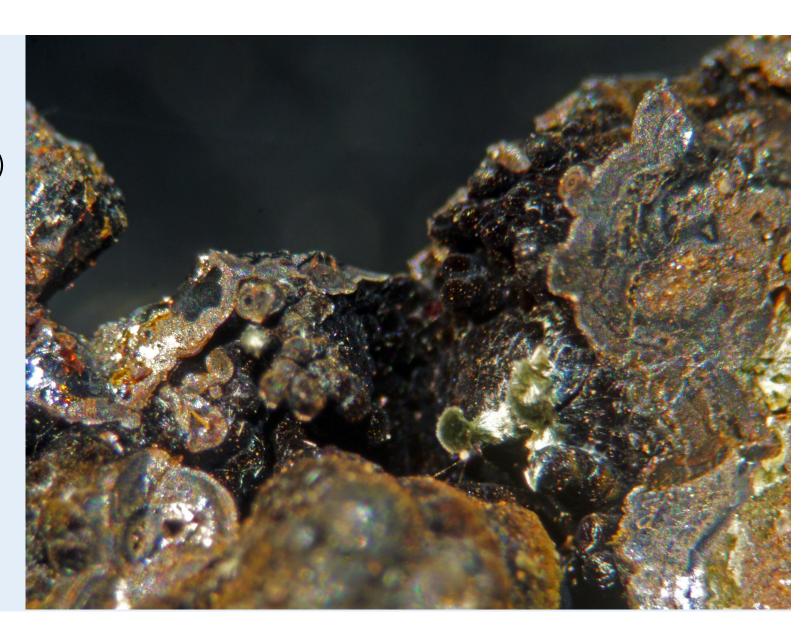
• Strengite FePO₄·2H₂O

Only 2 Photos on Mindat

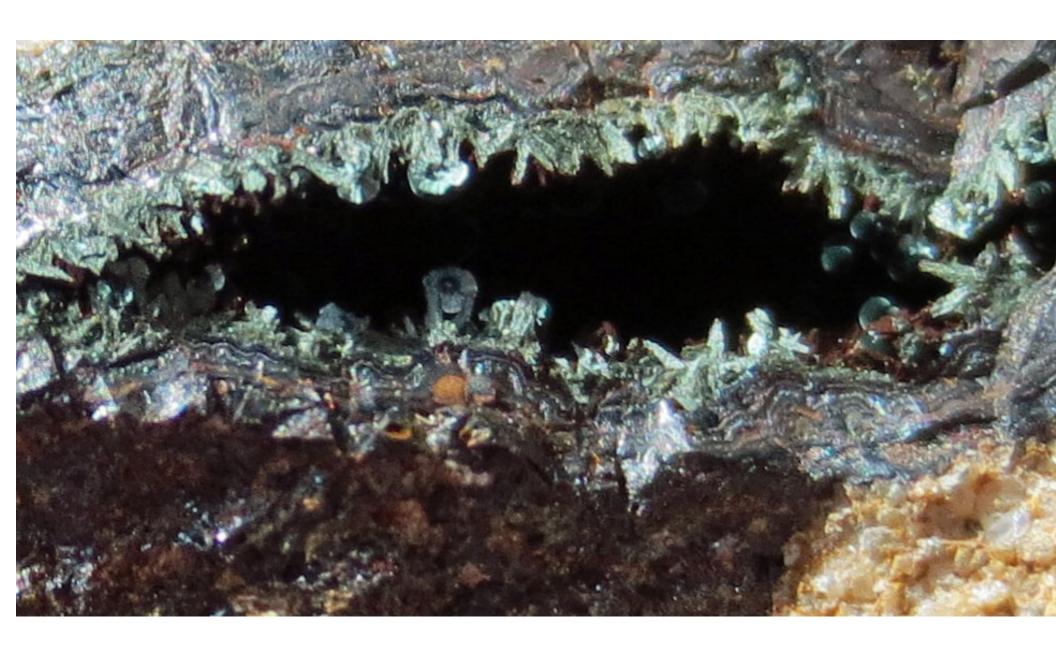
- Cacoxenite
- Rockbridgeite



Dufrénite (green) on Rockbridgeite (black)

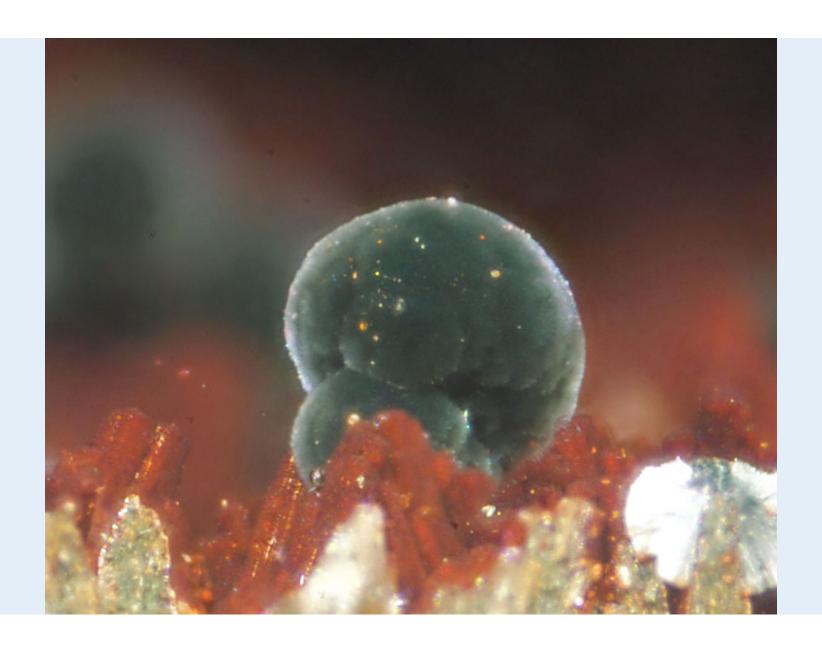












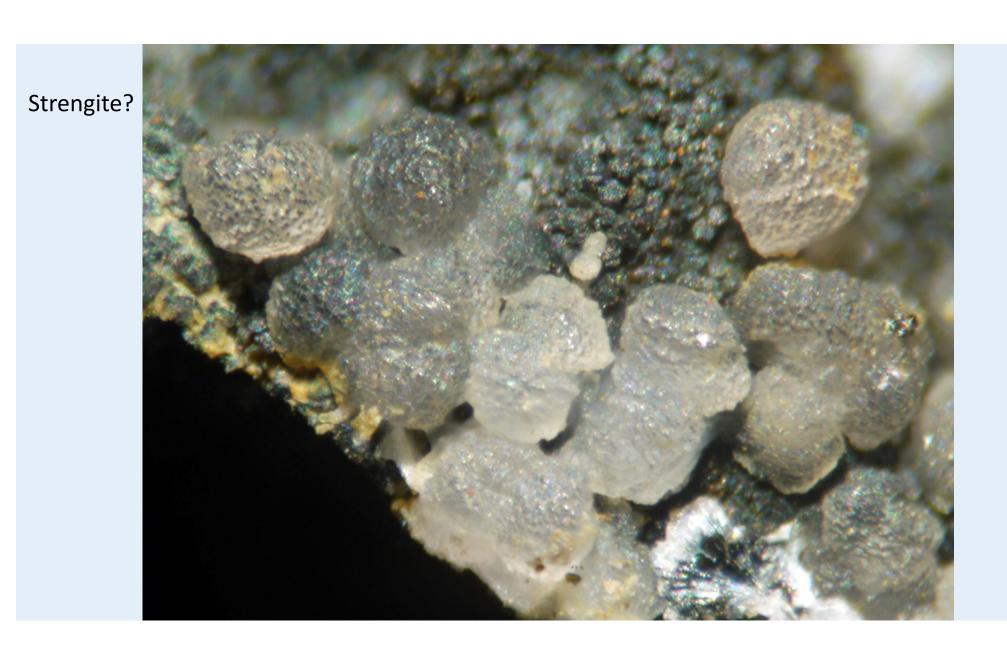
Dufrénite

 $Ca_{0.5}Fe^{2+}Fe^{3+}_{5}(PO_{4})_{4}(OH)_{6}\cdot 2H_{2}O$



Kidwellite on Beraunite





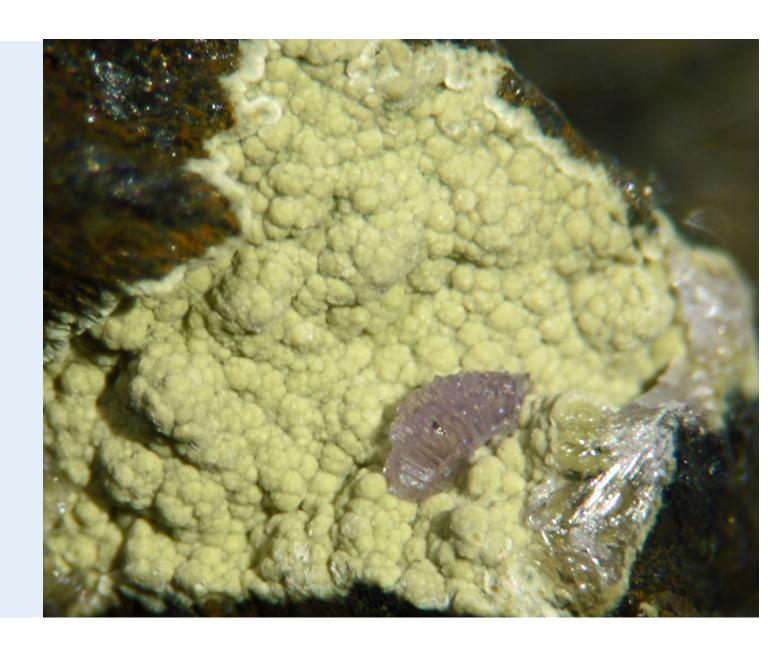


Strengite

Indian Mountain Alabama



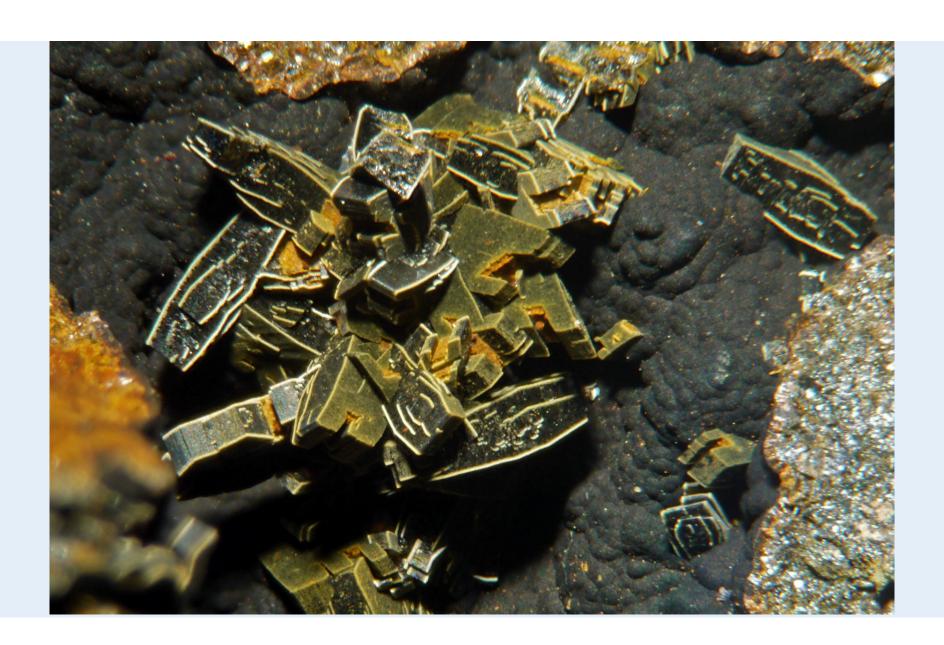
Strengite on Kidwellite

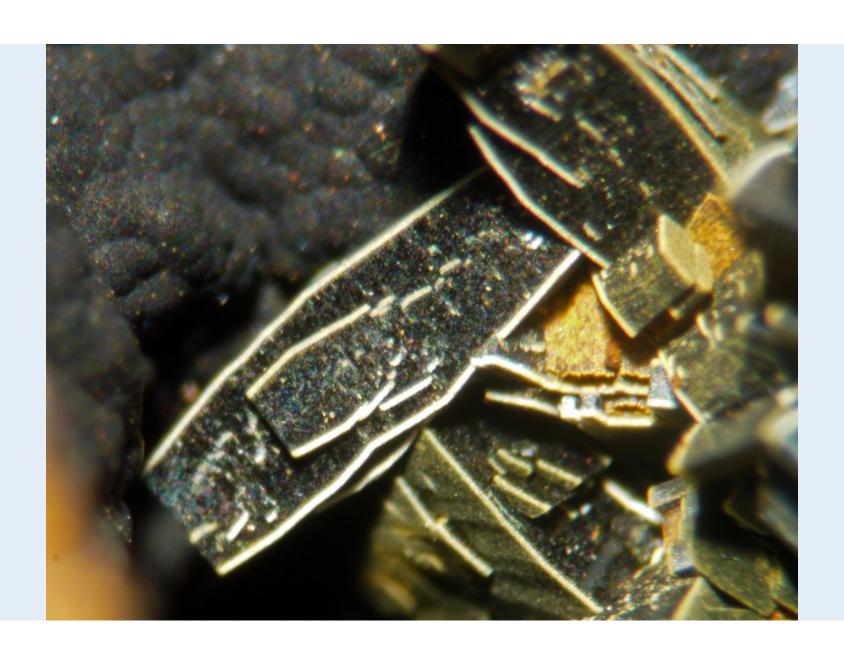


Strengite on Kidwellite









Natrodufrénite

 $NaFe^{2+}Fe^{3+}_{5}(PO_{4})_{4}(OH)_{6}\cdot 2H_{2}O$



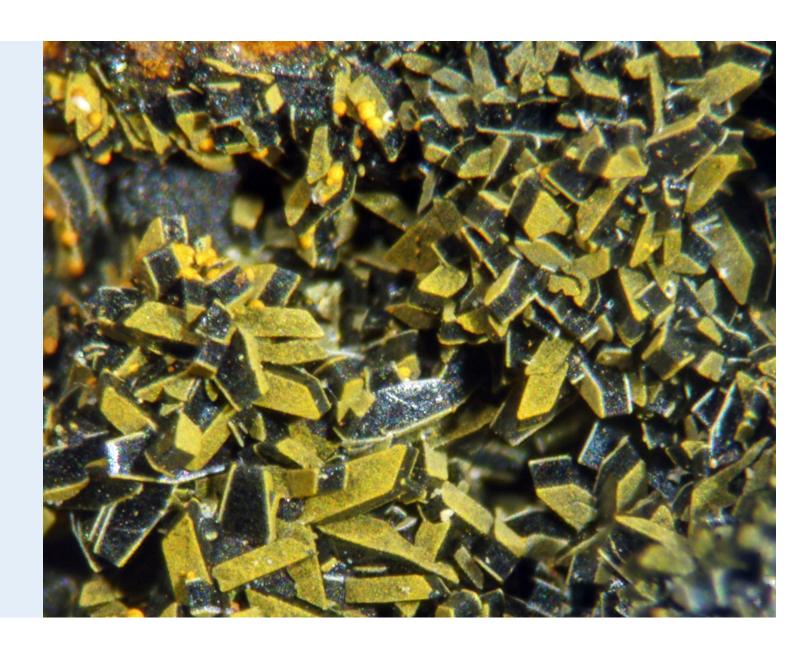
Natrodufrénite





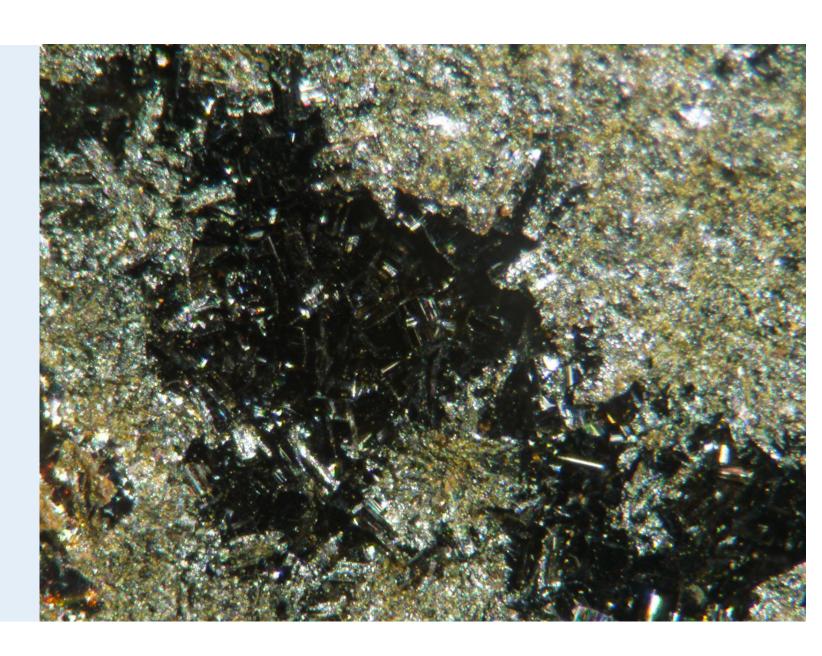
Natrodufrénite

Cacoxenite on Natrodufrénite

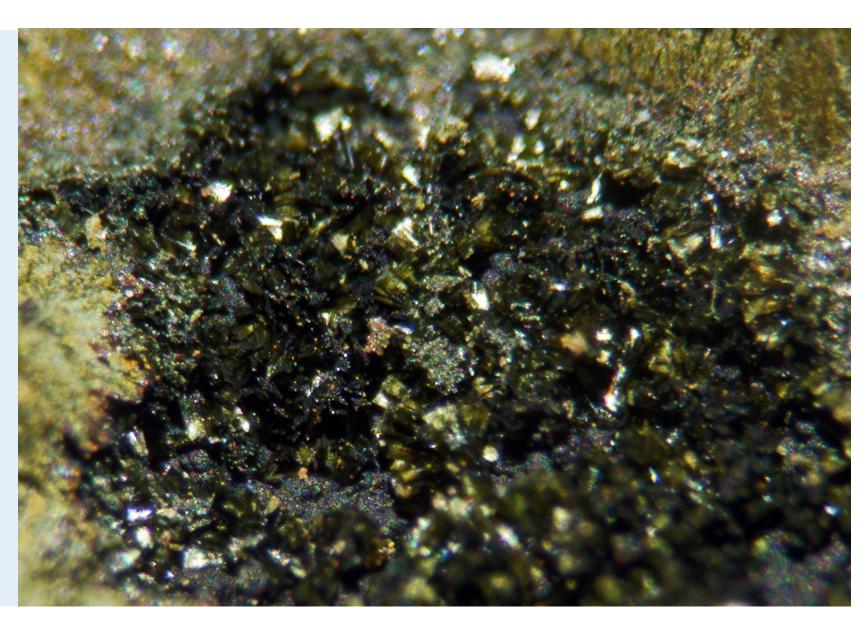


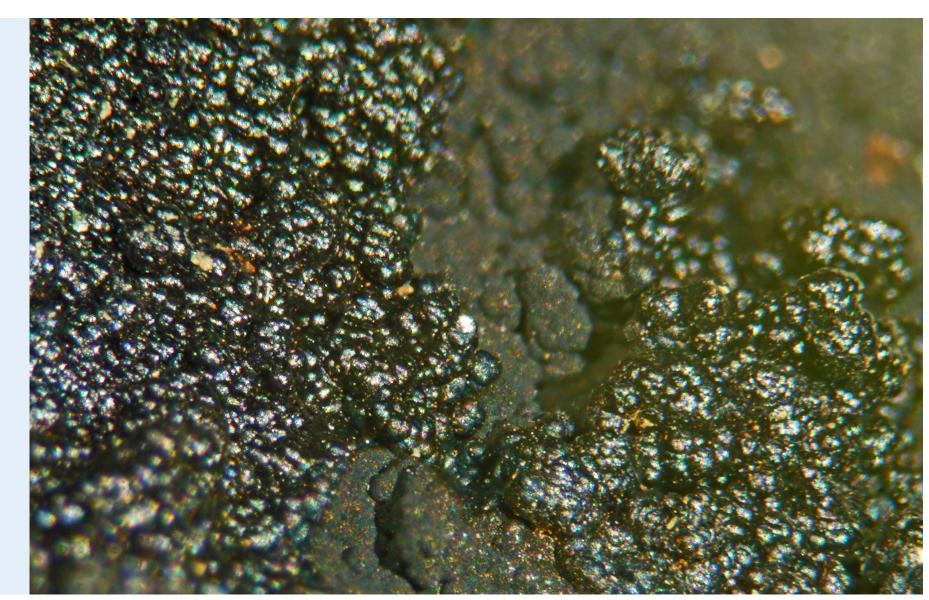


Rockbridgeite



Rockbridgeite crystals





Goethite

Quartz?

Quartz?

Drusy Quartz

Drusy Quartz

Bel Air Mine, La Chapelle Largeau, Deux-Sèvres, Poitou-Charentes, France

33 mineral species & varietal names listed,

Including many Uranium minerals: Studtite, Torbernite, Autunite, Phosphuranylite, Rutherfordine, Uranophane

www.mineralienatlas.de

Dufrénite

Bel Air Mine France

From Mineralienatlas.de

Photo by Jean-Marc Johannet

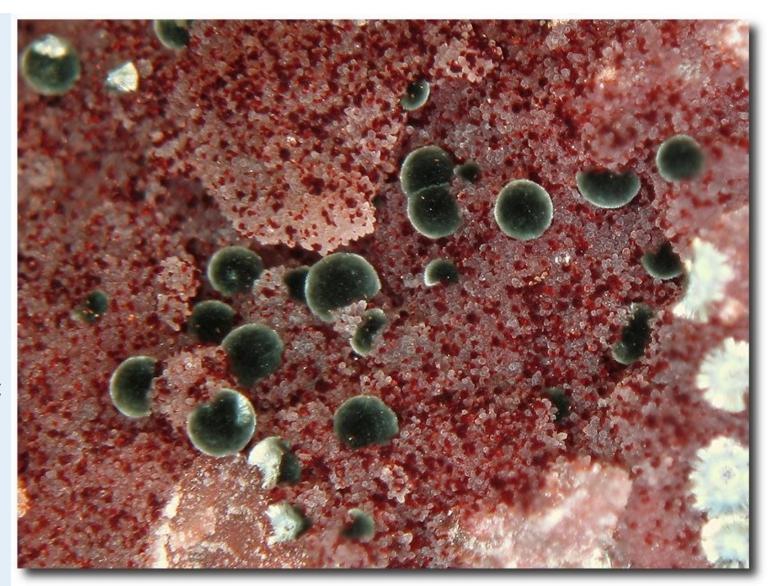


Dufrénite

Bel Air Mine France

From Mineralienatlas.de

Photo by Jean-Marc Johannet



The Great Strengite

Goals for Future Field Trip

- Have a nice hike in the woods
 - Bears?
 - Picnic?
- Add some minerals to our collections
- Look for uranium minerals with Geiger Counter
- Improve Mindat coverage of the Dixie Mine