



The Sterling Mine, 1920's



Sterling Mine, 1960's. Its demise was in 1986.

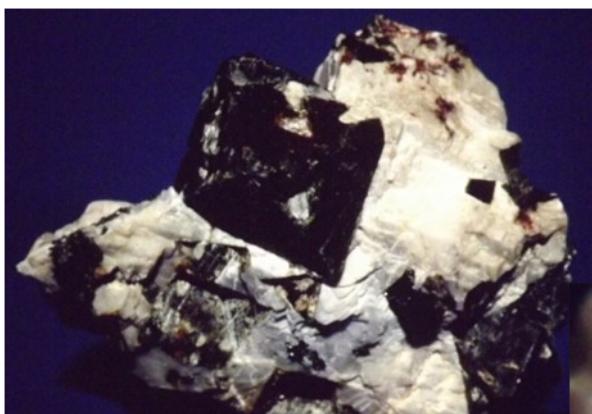


Sterling Mine today

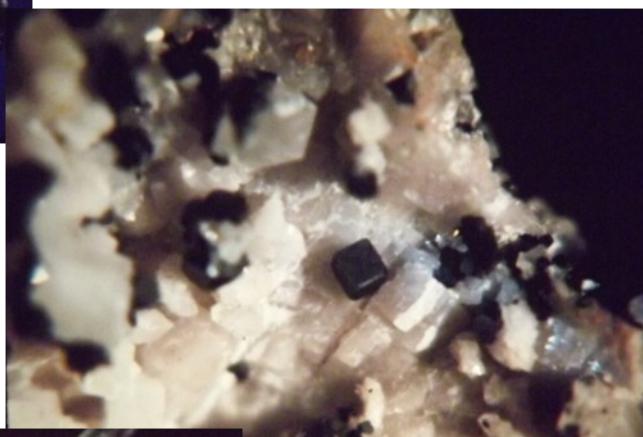


Sterling Mine pits today

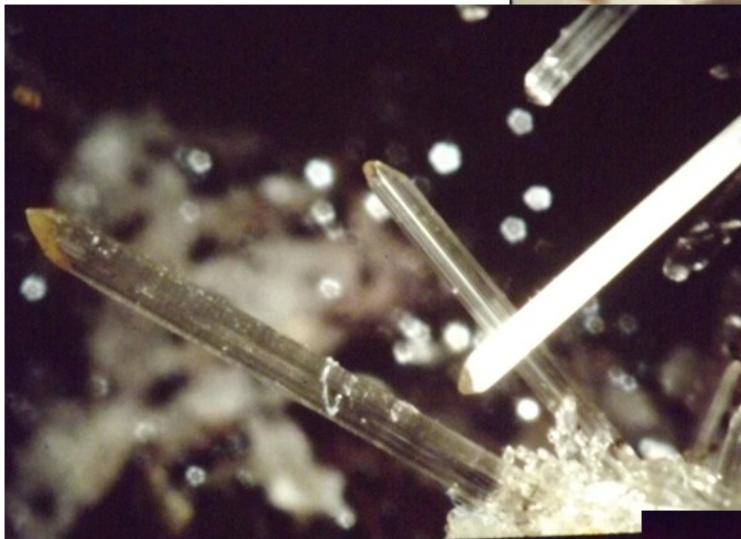
The Sterling mine has been re-opened as a museum. But be careful if you purchase rock souvenirs. The pile has been contaminated by rocks from all over the world.



Spinel in Franklin marble



Cubic Franklinite, micro-mount



Willemite, micro needles



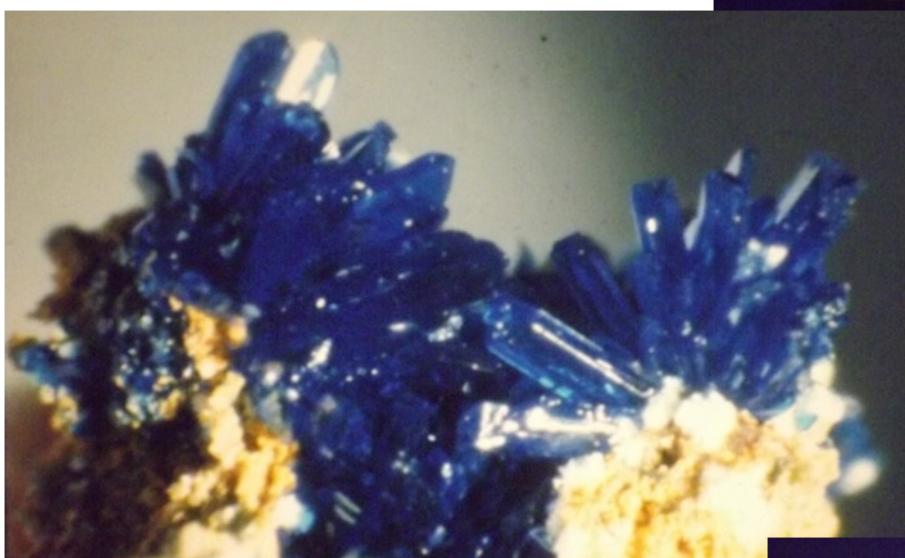
Zincite, micro-mount



Bladed Rhodonite



Bustamite, type locality



Azurite



Ramsburgite



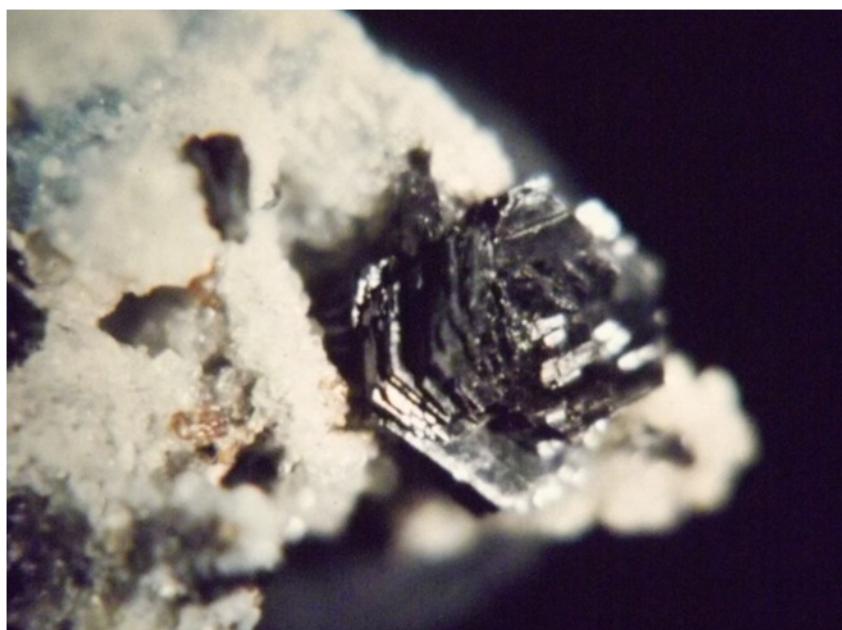
Grenibite barrels

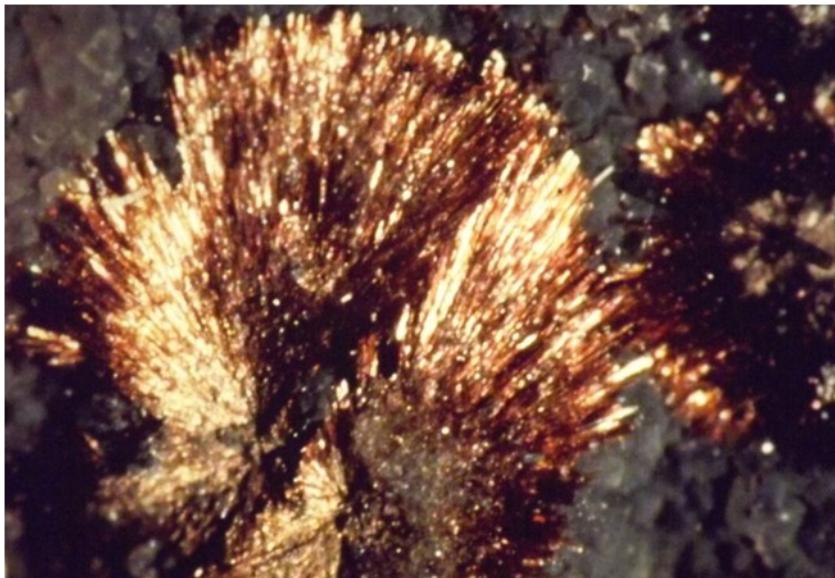


Grenibite needles



Anatase

Ilmenite rose, etched out  
of albite



Bostwickite, named after our speaker, Richard Bostwick.

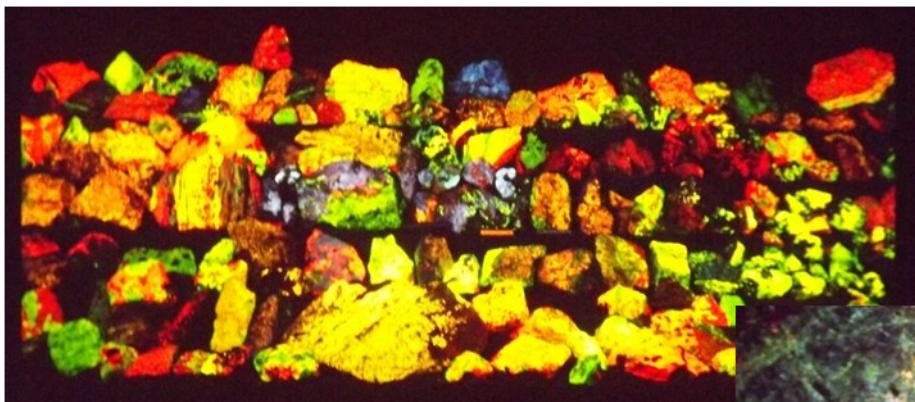
## ***Franklin and Sterling Hill: The Fluorescent Mineral Capital of the World***

### **by Richard Bostwick**

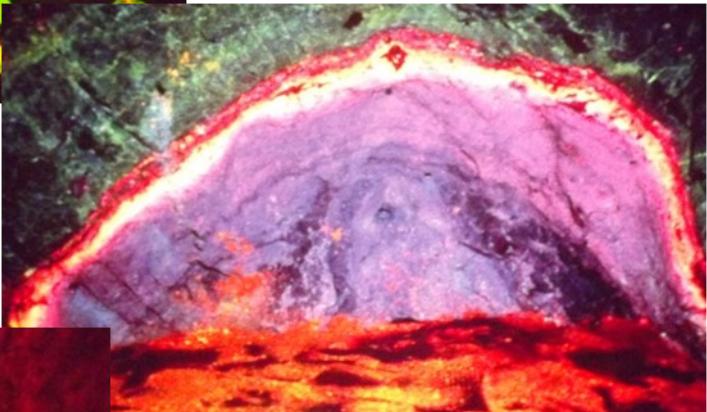
Richard gave a second talk on Sunday. He made the point that sometimes it is the beauty of the fluorescent minerals that bring people into the mineral hobby. But sometimes you run into the weirdest things when you go out collecting.

Collecting out on the dump in the daylight





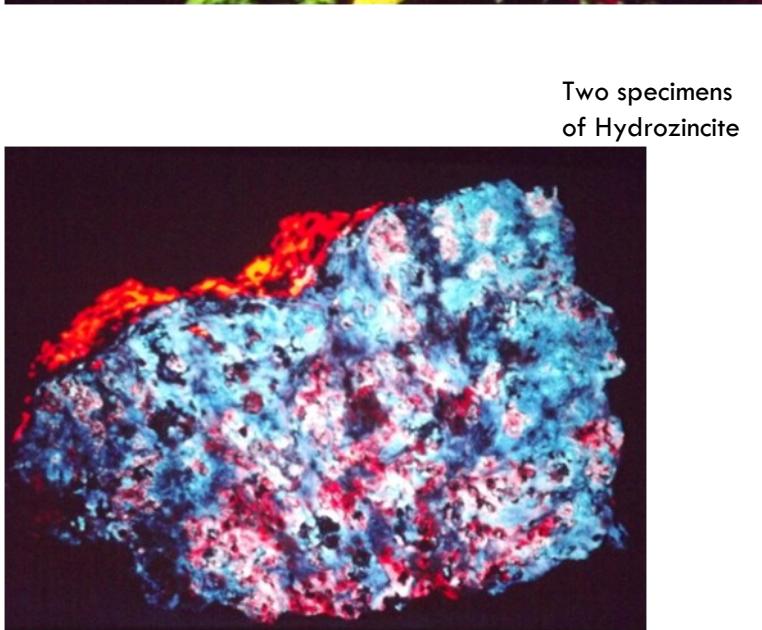
A colorful display at the museum



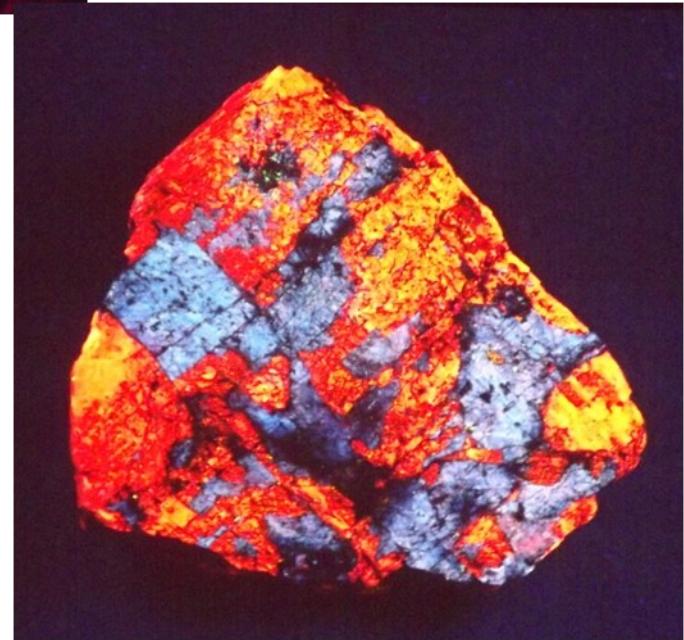
Rainbow Room in the mine

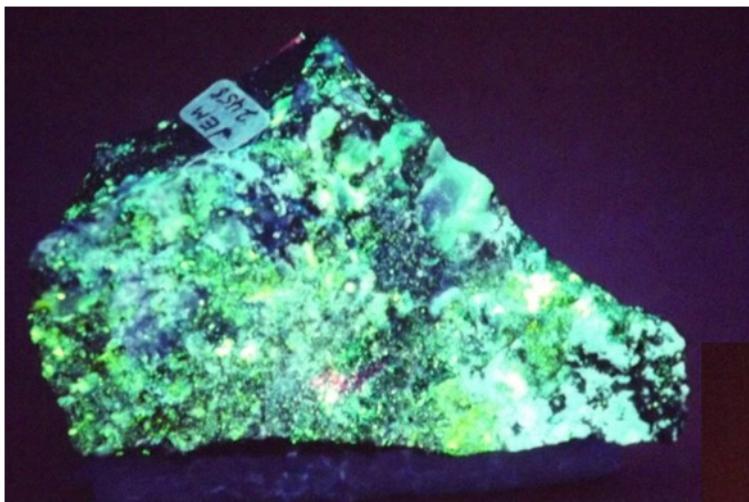


A pile of boulders in the mine

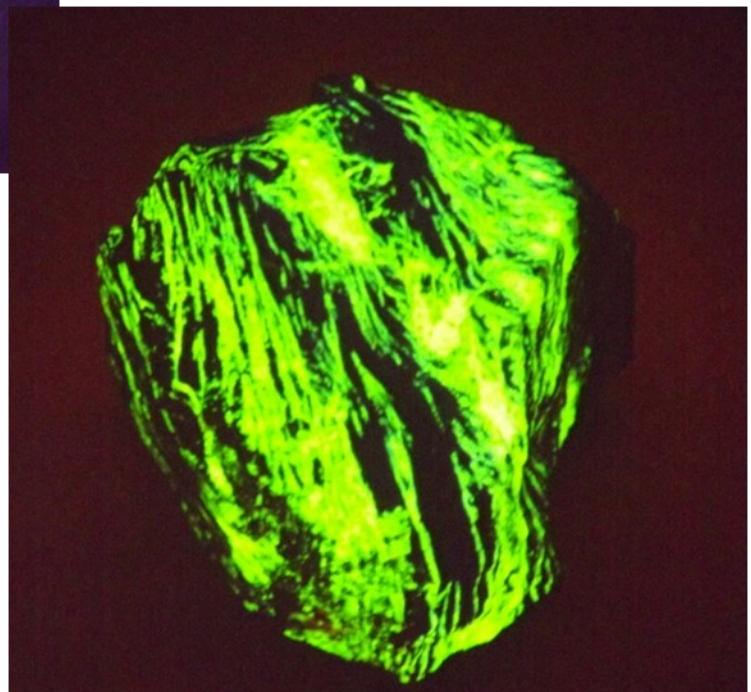


Two specimens  
of Hydrozincite

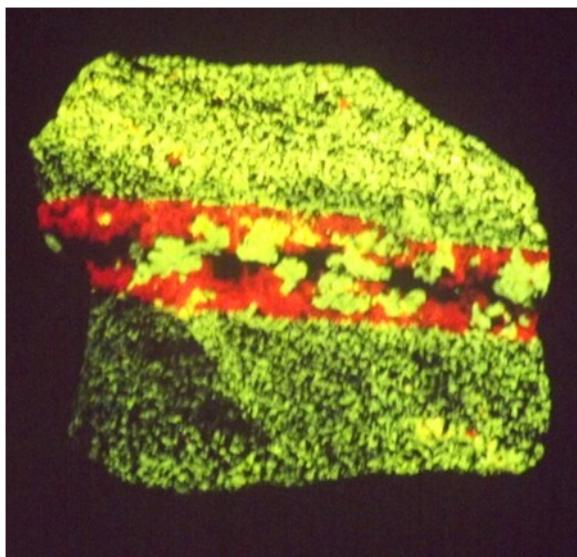




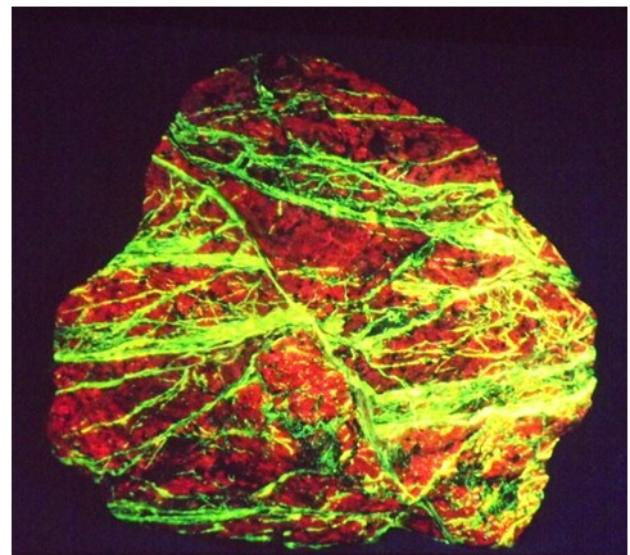
Willemite, pale blue is rare,  
activator is lead

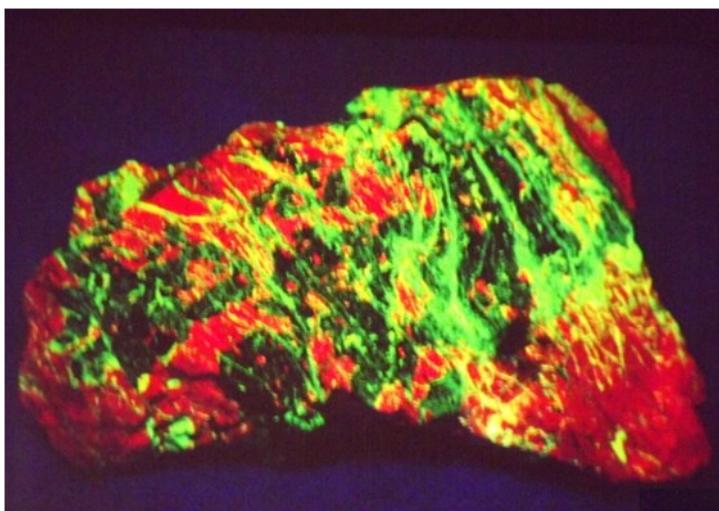


Willemite, stressed and strained

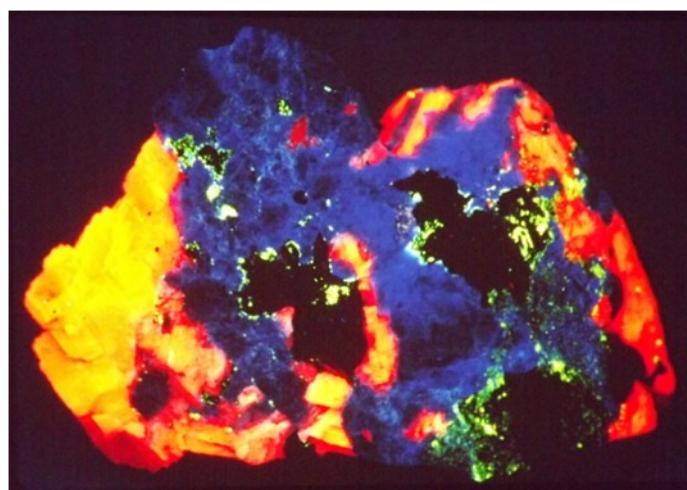
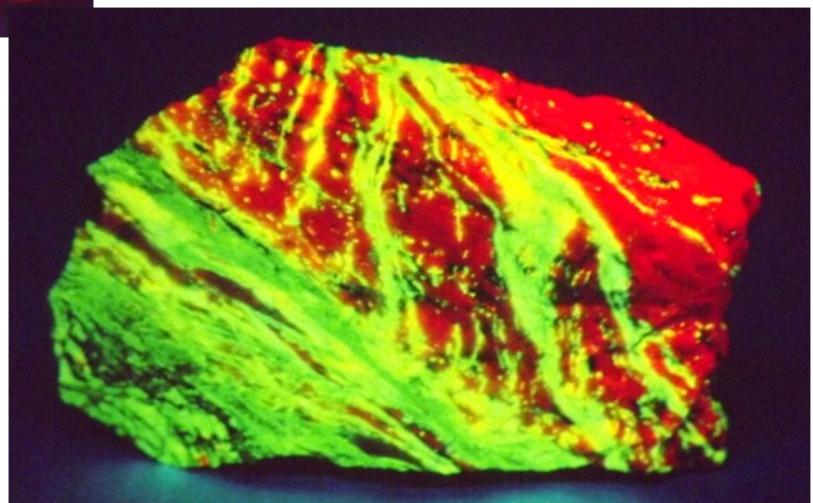


Willemite and calcite, 2 specimens

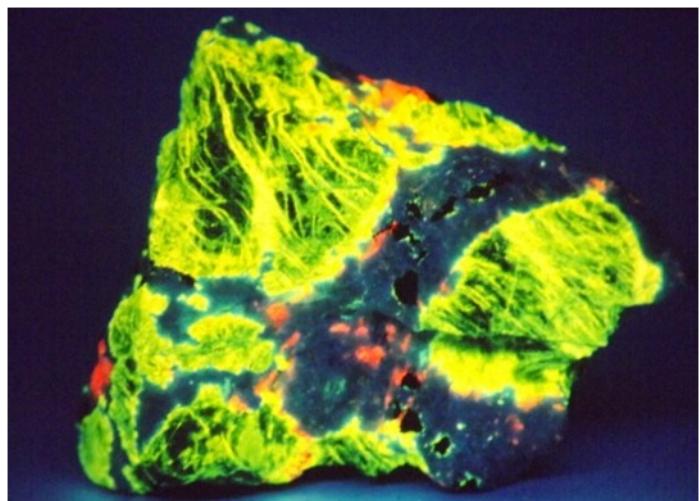




Willemite and calcite, 2 more specimens



Hardestonite, 2 specimens,  
blue fluorescence



As to be expected, it was a wonderful symposium. I have only given you a brief look at the many activities and specimens that were shared. The dealers, the silent auction, the dinner, the oral auction, the displays, etc. all came together to provide a wonderful weekend. Many thanks to everyone who helped and to the speakers for allowing me to share their slides with you.

# Symposium Mineral ID Contest by Bruce Kelley

Rob Woodside's Mineral ID contest at this year's symposium was a doozy! Here are the 34 specimens:



## Left half of the case



Right half of  
the case

**The Rules and the form:****Most entrants should be in Expert class****Past Winners and Pros in Master's class****One entry per person. No teams****Use the entry form and fill in the blanks****No penalties for wrong guesses. So guess away!****The entrants with the highest score in each class will win****The marks are final: No appeal****Please return completed forms to the Registration Desk by 3:30 p.m., Saturday****Hint: All localities end with a country name****GOOD LUCK!!!**

1. Perched \_\_\_\_\_, a variety of \_\_\_\_\_. A two word phrase describing the crystal: \_\_\_\_\_. With only this information what would be the HONEST locality? \_\_\_\_\_.
2. Orange \_\_\_\_\_ from \_\_\_\_\_ Mine, \_\_\_\_\_, \_\_\_\_\_. What is the crystal system of the orange mineral? \_\_\_\_\_.
3. Red \_\_\_\_\_ in metallic \_\_\_\_\_ from \_\_\_\_\_, \_\_\_\_\_. What kind of cleavage does the metallic mineral have? \_\_\_\_\_.
4. \_\_\_\_\_ replacing \_\_\_\_\_ from \_\_\_\_\_ Mine, \_\_\_\_\_, \_\_\_\_\_. Such a replacement is called a \_\_\_\_\_.
5. Dark \_\_\_\_\_ needles with grey needles that are most likely either \_\_\_\_\_ or \_\_\_\_\_ from \_\_\_\_\_, \_\_\_\_\_. How could you identify the grey?
6. Blue \_\_\_\_\_ and white \_\_\_\_\_. Name two polymorphs of this blue mineral. \_\_\_\_\_ and \_\_\_\_\_.
7. \_\_\_\_\_ from \_\_\_\_\_ District, \_\_\_\_\_. This is an ore of \_\_\_\_\_ and it crystallizes in the \_\_\_\_\_ system.
8. Tiny green \_\_\_\_\_ crystals were long dismissed as \_\_\_\_\_ or \_\_\_\_\_. Give the most productive locality for this material. \_\_\_\_\_ Mine, \_\_\_\_\_, \_\_\_\_\_.
9. Yellowish \_\_\_\_\_ altering to white \_\_\_\_\_ in pink \_\_\_\_\_ from \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
10. Purple \_\_\_\_\_ from \_\_\_\_\_ Mine, \_\_\_\_\_ Province, \_\_\_\_\_.
11. Orange \_\_\_\_\_ from \_\_\_\_\_ Mine, \_\_\_\_\_, \_\_\_\_\_. The orange crystals are a combination of positive and negative \_\_\_\_\_.
12. Dark green \_\_\_\_\_ from the \_\_\_\_\_ Pit, \_\_\_\_\_ Mine, \_\_\_\_\_, \_\_\_\_\_.
13. Red \_\_\_\_\_ in white \_\_\_\_\_ from \_\_\_\_\_, \_\_\_\_\_. Is the red crystal twinned? \_\_\_\_\_. If so what kind of twin? \_\_\_\_\_.
14. Blue \_\_\_\_\_ in white \_\_\_\_\_ from \_\_\_\_\_ Province, \_\_\_\_\_. What is the major crystal form of the blue mineral? \_\_\_\_\_. What mineral species was this blue mineral formerly called? \_\_\_\_\_.
15. Black \_\_\_\_\_ in white \_\_\_\_\_ from \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ Co., \_\_\_\_\_, \_\_\_\_\_.
16. Dark green \_\_\_\_\_ from \_\_\_\_\_ Claim, \_\_\_\_\_, \_\_\_\_\_ Co., \_\_\_\_\_, \_\_\_\_\_.
17. Yellow \_\_\_\_\_ and distinguishing pink \_\_\_\_\_ from \_\_\_\_\_ Mine, \_\_\_\_\_, \_\_\_\_\_.

18. Orange \_\_\_\_\_ crystals from \_\_\_\_\_ Mine, \_\_\_\_\_,
19. Black \_\_\_\_\_ and red \_\_\_\_\_ with white \_\_\_\_\_ from \_\_\_\_\_ Field, \_\_\_\_\_ Province, \_\_\_\_\_.
20. Gemmy green \_\_\_\_\_ on purplish \_\_\_\_\_ Anhydrite from \_\_\_\_\_, \_\_\_\_\_ Province, \_\_\_\_\_.
21. Blue \_\_\_\_\_ and minor green \_\_\_\_\_ from \_\_\_\_\_, \_\_\_\_\_ Parish, \_\_\_\_\_, \_\_\_\_\_.
22. Blue \_\_\_\_\_ is the only mineral listed at this locality at Mindat. The white might be minylite and under the scope there are green blades that could be \_\_\_\_\_ or \_\_\_\_\_. This specimen needs work and is from \_\_\_\_\_ Mine, \_\_\_\_\_ District, \_\_\_\_\_ Province, \_\_\_\_\_.
23. Greenish \_\_\_\_\_ and tiny clear \_\_\_\_\_ crystals from \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
24. Orange \_\_\_\_\_ with white to clear \_\_\_\_\_ and \_\_\_\_\_ from \_\_\_\_\_ Mine, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
25. \_\_\_\_\_ from \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
26. This metallic \_\_\_\_\_ has a twin habit called a \_\_\_\_\_ and is from \_\_\_\_\_ Mine, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
27. Yellow \_\_\_\_\_ in rock called \_\_\_\_\_ from \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
28. The purplish balls are an intergrowth of \_\_\_\_\_ and \_\_\_\_\_ but historically have been called just \_\_\_\_\_. This is from the \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
29. Bluish \_\_\_\_\_ containing radiating balls of \_\_\_\_\_ from the type locality \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
30. Gemmy \_\_\_\_\_ from the \_\_\_\_\_ Mine, \_\_\_\_\_, \_\_\_\_\_.
31. \_\_\_\_\_ was originally thought to be its dimorph \_\_\_\_\_. So far the only recorded locality is the \_\_\_\_\_ for the species which is \_\_\_\_\_ Mine, \_\_\_\_\_ Province, \_\_\_\_\_ Department, \_\_\_\_\_.
32. Greeny \_\_\_\_\_ balls with clear \_\_\_\_\_ and fibrous \_\_\_\_\_ from \_\_\_\_\_ Quarry, \_\_\_\_\_, \_\_\_\_\_ State, \_\_\_\_\_.
33. Pink \_\_\_\_\_ from \_\_\_\_\_ pegmatite (\_\_\_\_\_ claim), \_\_\_\_\_.
34. Yellow \_\_\_\_\_ and black \_\_\_\_\_ Hematite from \_\_\_\_\_, \_\_\_\_\_. The crystal system and crystal class of the yellow metallic is \_\_\_\_\_ and \_\_\_\_\_.

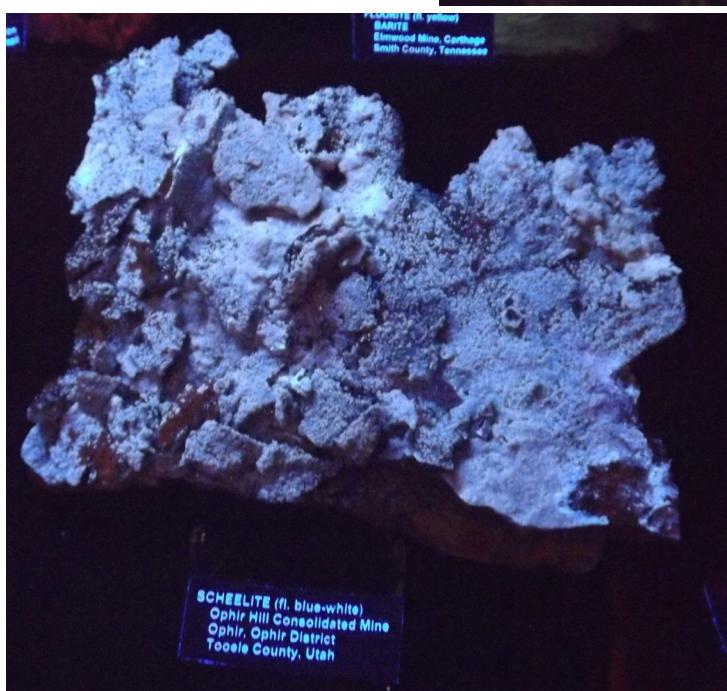
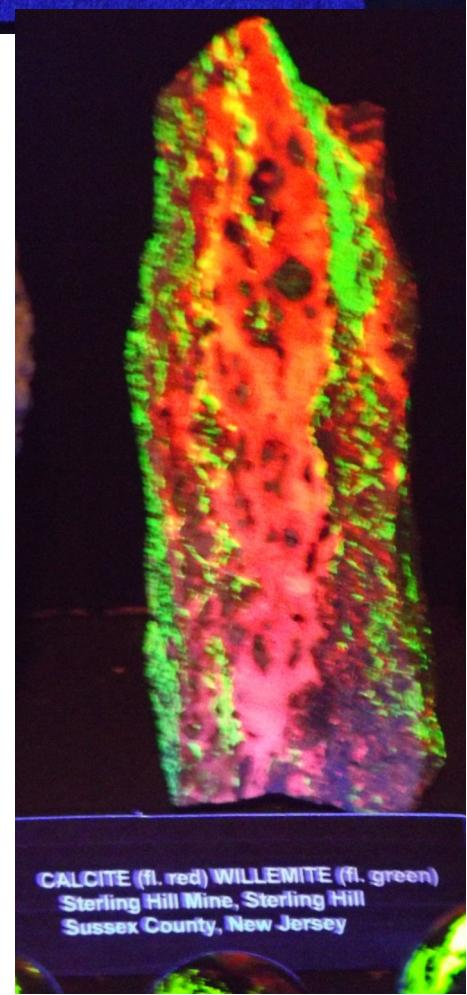
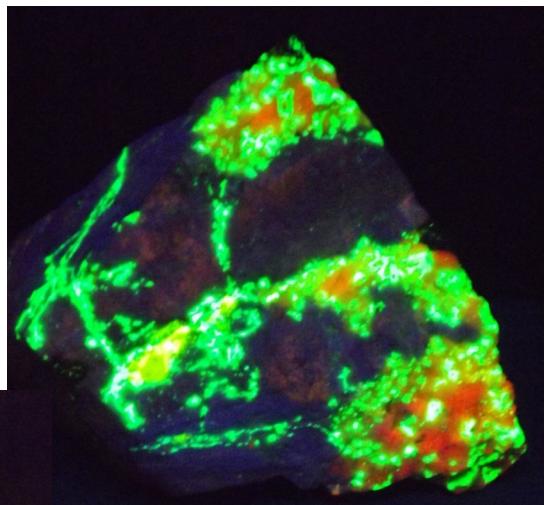
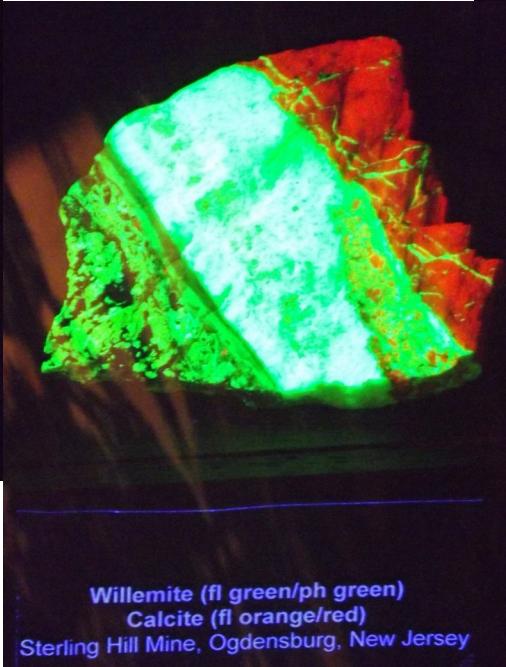
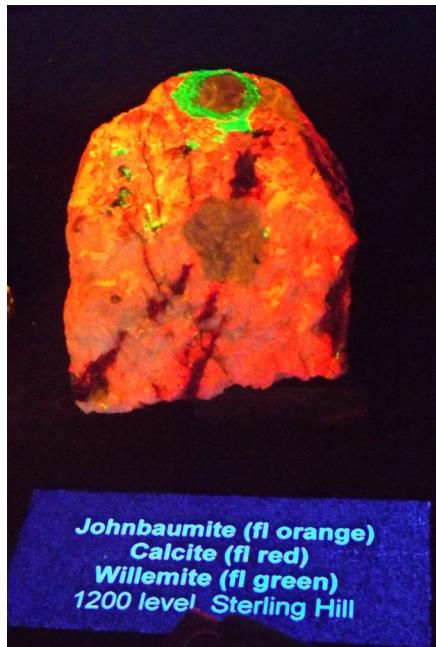
**And if you want to try your luck using the pictures, do not look at the next page where you will find the answer key.**

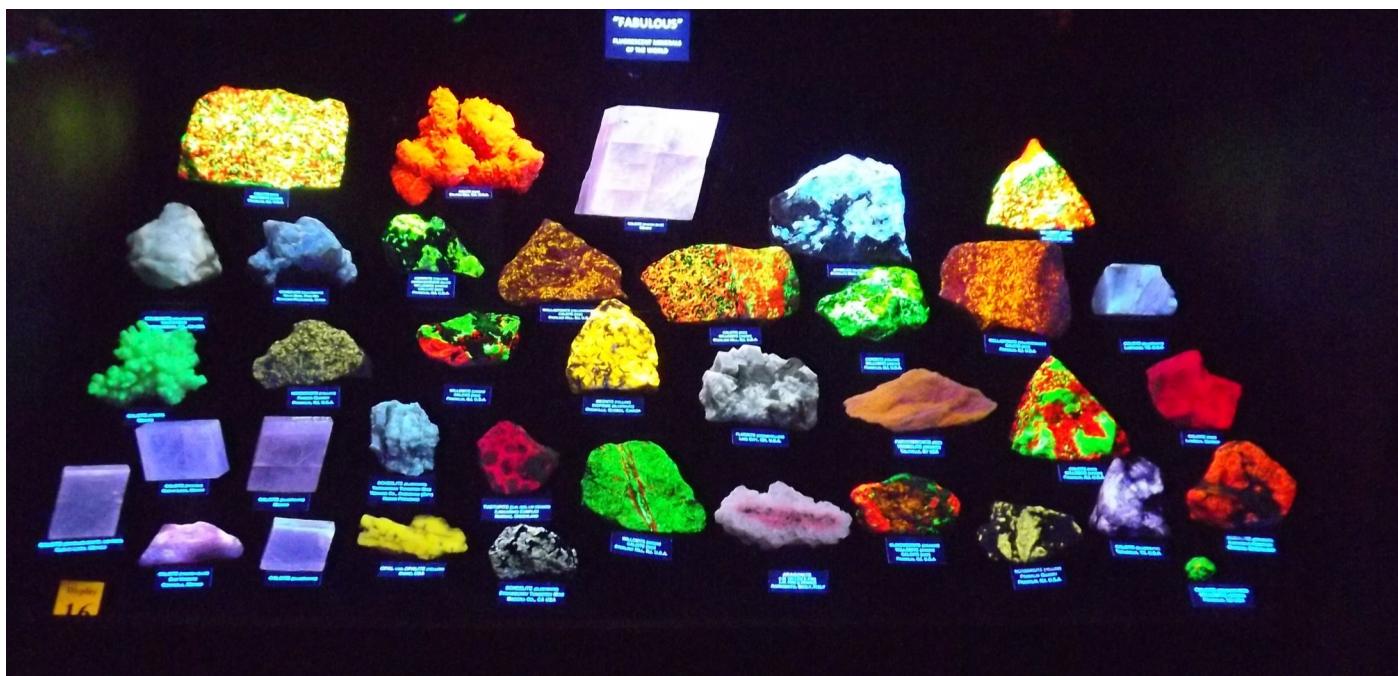
**And, the answer key:**

1. Perched Rock Crystal, a variety of Quartz. A two word phrase describing the crystal: Doubly Terminated. With only this information what would be the HONEST locality? Unknown.
2. Orange Spessartine from Wushan Spessartine Mine, Tongbei, China. What is the crystal system of the orange mineral? Cubic
3. Red Rhodonite in metallic Galena from Broken Hill, Australia. What kind of cleavage does the metallic mineral have? Cubic
4. Turquois replacing Apatite from La Caridad Mine, Sonora, Mexico. Such a replacement is called a pseudomorph.
5. Dark Berthierite needles with grey needles that are most likely either Boulangerite or Jamesonite from Herja, Romania. How could you identify the grey? Electron probe or x-ray diffraction
6. Blue Kyanite and white Quartz. Name two polymorphs of this blue mineral. Andalusite and Sillimanite
7. Skutterudite from Bou Azer District, Morocco. This is an ore of cobalt and it crystallizes in the cubic system.
8. Tiny green Sincosite crystals were long dismissed as Autunite or Tornbernite. Give the most productive locality for this. Ross Hannibal Mine, South Dakota, USA.
9. Yellowish Vlasovite altering to white Gittinsite in pink Eudialyte from Kipiwa, Quebec, Canada
10. Purple Sugilite from Wessels Mine, Northern Cape Province, South Africa
11. Orange Helvite from Wushan Spessartine Mine, Tongbei, China. The orange crystals are a combination of positive and negative tetrahedra.
12. Dark green Libethenite from the Mindola Pit, Nkana Mine, Kitwe, Zambia
13. Red Spinel in white Calcite from Mogok, Burma. Is the red crystal twinned? Yes. If so what kind of twin? Spinel
14. Blue Hauyne in white Calcite from Badakhshan Province, Afghanistan. What is the major crystal form of the blue mineral? Dodecahedron. What mineral species was this blue mineral formerly called? Lazurite.
15. Black Stilpnomelane in white quartz from Blanchard Hill, Bellingham, Skagit Co., Washington, USA
16. Dark green Luinaite-OH from Bald Hornet Claim, North Bend, King Co., Washington, USA.
17. Yellow Gold and distinguishing pink feldspar from Nugget Pond Mine, Newfoundland, Canada.
18. Orange Hydroxylbastnaesite-(Ce) crystals from Trimouns Talc Mine, Luzenac, France.
19. Black Hausmannite and red Andradite with white Barite from Kalahari Manganese Field, Northern Cape Province, South Africa.
20. Gemmy green Diopside on purplish Anhydrite from Ladjuar Medan, Badakhshan Province, Afghanistan.
21. Blue Liroconite and minor green Olivenite from Wheal Gorland, Gwennap Parish, Cornwall, UK.
22. Blue Sampleite is the only mineral listed at this locality at Mindat. The white might be minylite and under the scope there are green blades that could be atacamite or liebethenite. This specimen needs work and is from Engano Feliz Mine, La Pintadas District, Copiapo Province, Chile.
23. Greenish Augelite and tiny clear Quartz crystals from Tamboras Mine, Mundo Nuevo, Peru
24. Orange Svandbergite with white to clear Dolomite and Quartz from Mount Brussilof Mine, Radium Hot Springs, B.C., Canada
25. Fluorapatite from Ipira Complex. Bahia, Brazil. This metallic Cubanite has a twin habit called a trilling and is from Henderson No. 2 Mine, Chibougama, Quebec, Canada
26. This metallic Cubanite has a twin habit called a trilling and is from Henderson No. 2 Mine, Chibougama, Quebec, Canada
27. Yellow Narsarsukite in rock called Hornfels from the Poudrette Quarry, St-Hilaire, Quebec, Canada.
28. The purplish balls are an intergrowth of Leifite and Eirikite but historically have been called just Leifite. This is from the Poudrette Quarry, St-Hilaire, Quebec, Canada.
29. Bluish Chalcedony containing radiating balls of Ferrierite-Mg from the type locality Kamloops Lake, B.C., Canada.
30. Gemmy Grossular from the Jeffery Mine, Quebec, Canada.
31. Anorpiment was originally thought to be its dimorph Orpiment. So far the only recorded locality is the type locality which is Palomo Mine, Castrovirreyna Province, Huancavelica Department, Peru.
32. Green Gyrolite balls with clear Hydroxyapophyllite- K and fibrous Okenite From Malad Quarry, Mumbai. Maharashtra State, India.
33. Pink Hureaulite from Jocão pegmatite (Cigana claim), Conselheiro Pena, Minas Gerais, Brazil.
34. Yellow Pyrite and black Hematite from Rio Marina, Elba Island, Italy. What is the crystal system and crystal class of the yellow metallic is cubic and pyritohedral

## Fluorescent Displays: A Photo Essay

Imagine a whole room glowing like this !







## Micromounters Hall of Fame Award by Beth Heesacker

Don Howard, a member of the Micro Mineral Study group and editor of the Micro Probe newsletter for that group, traveled to Baltimore this October to be inducted into the Micromounters Hall of Fame at the Baltimore Mineral Society Symposium.

The Hall of Fame was established in 1975 to

honor those who have supported and promoted this aspect of the mineral hobby to the highest degree. Those selected have often written articles or a column for a notable mineral publication, founded a micromount symposium or club, given lectures, promoted and taught micromounting to others, built sizeable collections, discovered new minerals etc. By their efforts over a period of years, they have earned a worldwide reputation among mineral collectors in general and especially among micromounters.

[from the Baltimore Mineral website—  
<http://www.baltimoremineralsociety.org/halloffame/historyandmembership.html> ]

Congratulations to Don on this honor. I know personally that he richly deserves this honor. In addition to his attendance at our regular meetings, he attends the Northern California Mineralogical Association meeting bringing back many flats of micro minerals to share with the Micro Mineral Study Group and holds monthly mineral identification meetings which a few of us “newbies” attend. He has been very helpful in helping me identify many minerals in my collection.





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### PNWFM CALENDAR

**Micro-Mineral Study Group — November 7, 2015, 9-5**  
**Clark County P. U. D. Building**  
**1200 Fort Vancouver Way**  
**Vancouver, Washington**

**Seattle Mineral Market - May 21- 22, 2016, 10 -6**  
**Lake City Community Center,**  
**12531 NE 28th Ave NE, Seattle, WA 98125**

**42st Annual Symposium, October 14-16, 2015**  
**Minerals of Butte and other Copper Localities**  
**Red Lion Inn**  
**Kelso, Washington**

**2017: 43rd Annual Symposium, October 13–15, 2017**  
**Minerals of Morocco**  
**Red Lion Inn**  
**Kelso, Washington**