Like many others interested in micromounting, my prime interest is in self-collected material. In fact, I became interested in micromounting because many of the self-collected specimens I was finding were best appreciated with the aid of magnification. Unfortunately, as I became more sophisticated (spoiled?), I found that that finding the same old things in the same old locales was becoming mundane, almost boring. It as at this juncture in my self-collecting that I decided to try a new approach. I would try to locate minerals suitable for micromounts in quarries/mines not noted for micromounts and also try to add to the known minerals listed as occurring at a particular locale. The Weeks Mine was one of my first test locations for this new (for me) approach.

The Weeks Mine is popular with many New England collectors, especially those interested in obtaining lapidary material, the mineral most sought after being a powder blue, opaque beryl used for making cabachons or similar items. In addition to beryl, Morrill lists chrysoberyl, columbite/tantalite, garnet, molybdenite, pyrolusite, samarskite and vesuvianite as being found at the Weeks Mine. In the "Mineral Guide to New England" Morrill leaves out vesuvianite (I know of no New England pegmatite that has produced vesuvianite). In a more recent publication(1983) Morong adds gummite (not a mineral but a mixture of secondary uranium minerals), pink feldspar (albite) and mica (muscovite) to those listed by Morrill.

The Mine was studied, mined and mapped in the 1940's by the U.S. Bureau of Mines, as described in "U.S. Geological Survey Professional Paper 255". This paper should be read by anyone wanting a fairly detailed description of the geology and mineralogy of the Mine. It lists the same minerals as Morrill and Morong, minus vesuvianite, as occurring at the Weeks Mine. Chayes, in an article published in 1944, gives a fairly detailed description of the chrysoberyl occurrence at the Weeks Mine, but adds only blue tourmaline to the list of materials found there. Thus, what we have described, with the exception of the minerals chrysoberyl and samarskite, is a simple New Hampshire pegmatite that probably could typify any of a hundred mines or quarries.

My first few collecting trips to the Mine found me collecting what the literature said I should be finding, with the exception of vesuvianite and blue tourmaline, but with two surprises. The first surprise was several fist-size chunks of apatite which fluoresced the best yellow of any apatite I have from New England. It was easy to see why this mineral had been overlooked. It had a grayish-blue color, a hexagonal outline and could easily be mistaken for beryl. The second surprise was a few pieces of corroded fluorite in vugs in feldspar. Fine! Two minerals not listed in the literature as occurring at the Weeks, but no micromounts.

My first find suitable as a micromount was no surprise, but it was a welcome addition to my collection. Chrysoberyl occurs at the Weeks as platelets bordered by beryl and wedge muscovite.
After much diligent searching, I found one small, terminated chrysoberyl crystal. To date this is still my only micro-chrysoberyl from the Weeks. My next two minerals suitable for micro-mounting, while not being listed as occurring at the Weeks, were not truly surprises. I found pyrite in typical (for New England pegmatites) crusts which showed a few cubic faces and a lot of hard to discern other forms. I also found cyrtolite (a variety of zircon). Neither was a surprise, since I have found both in most New Hampshire and Maine pegmatites where I have collected.

For the next two years I didn't bother collecting at the Weeks, but did return in the Fall of 1982. What prompted my renewed interest in the Weeks Mine was that, in the Fall of 1982, the water table was extremely low. As previously mentioned, in the 1940's the U.S. Bureau of Mines had worked the Weeks for beryl, these workings being a westward extension of the main pit. In all the previous years I had collected at the Weeks, this area had been under 2 to 3 feet of water. But in the Fall of 1982, the water level was a good five feet lower. Thus, there was a whole new area to be dug through and explored. My first day of collecting brought the usual beryl crystals. However, several of these looked like they had been corroded, as if partially dissolved by hydrothermal fluids during the final moments of core consolidation. These pieces I put in the bucket with high hopes of finding bertrandite. Upon getting these pieces home and after cleaning them with my ultrasonic cleaner, I put them under the scope. No bertrandite, but some beautiful phenakite crystals, mica crystals and some beautiful beryl crystals! Not primary beryl, but secondary beryl which must have formed at the time of hydrothermal attack on the parent beryl. The micro beryl crystals were an especially welcome addition to my collection, since they are rarely found in New England.

The phenakite was of the prismatic habit, typical of the phenakite from Lord Hill, Stoneham, Maine, but with a better luster than any that I have from Lord Hill. The mica I first mistook for cookeite, due to its worm-like form. However, a fusibility test showed it to be mica, probably muscovite. The only other find of any interest that I made that day was a piece of feldspar which contained some etched fluorite in several vugs, a mineral I had previously found, but not a suitable micromount. I was about to chuck it. However, upon examining it under the microscope, I noted a single brown to tanish crystal embedded in the fluorite. I definitely had a micro, probably a new mineral for the Weeks, but only one crystal. I decided to set the piece aside.

Next week I was back collecting at the Weeks in the same area. Once again I found a piece of corroded beryl and, in an area someone else had recently collected in - an area washed clean by rain - I found a piece of feldspar shot through with brown blotches. No visible cavities, but what the heck...I whacked the piece in half, flung one piece back on the dump and threw the other piece in my pail. That was my last trip to the Weeks Mine that Fall due to the onset of winter.

That winter I was going through my rat-holed extras that had been collected in warmer times and then set aside for something to do in the winter. I came across that pail full of material
I had collected on my last trip to the Weeks. I quickly ran through most of the material (mostly leaverite) and finally was left with that piece of feldspar with the brown blotches. Under the microscope the brown blotches showed up as tapered hexagonal crystals. Not great crystals, but crystals... brown, resinous crystals that were familiar in appearance. But from where and what were they? Then it dawned on me. They were look-alikes for the parasite crystals found at Grants Mill, Rhode Island. Breaking a few of the crystals free from their matrix, I commenced running a few tests to either prove or disprove my tentative identification. First, a crystal fragment in HCl - nothing - a little heat from the propane torch. Great! Bubbles of CO₂. It was definitely a carbonate. Next, I turned to the Clerici's solution which many of us purchased through MMNE. Since I knew the specific gravity of parasite to be 4.36, I went directly to the vial containing the undiluted solution. The crystal fragment sank, thus proving the S.G. to be greater than 4.0. Hardness and fusibility tests both fit parasite. Thus, on the basis of the tests I had performed and on the basis of color, luster and habit, I decided that that I, indeed, had found parasite.

Next, my mind returned to that brown crystal embedded in fluorite I had previously set aside. Deciding that I needed to see more of my unknown, I carefully broke free some of the surrounding fluorite. A slight shift of the piece in my hand and the hexagonal outline became clearly evident. Same color, luster a little glassy. It was parasite, but as a good euhedral crystal. A quick check of all my available references found no mention of parasite occurring in New Hampshire. Thus, not only had I found a mineral new to the Weeks Mine, but if my identification is correct, I had found a mineral new to New Hampshire!

Thus, by concentrating my efforts on one mine and thinking small, I had found several interesting and welcome additions to my micromount collection...these in a typical New England pegmatite not known for its micromount potential. If you have a favorite pegmatite that is not known for its micromount potential, but one that does have enough macro material to sustain your collecting effort, give it a try for micros. You may be surprised at what you find.

Oh, yes, as most of you know, 1983 was not a dry year. Several checks during the year found my collecting area once again under 2 to 3 feet of water.

As a postscript I would like to add that, while I am aware that certain individuals have always gained some kind of a perverse thrill out of planting minerals in a mine or quarry that came from other locales, I do not feel that such was the case with any of the material I have described. This is not based on wishful thinking, but on the location of finds, the number of finds, the associated minerals, the matrix material and the size of the pieces.

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REFERENCES:


Gene is an avid field collector of Maine and New Hampshire pegmatite minerals. In addition to phosphates, he specializes in Franklin, NJ minerals and is one of the few who applies various testing methods to confirm his identifications.