Micro-mineral Collecting in the Greater Nashua, NH Area

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On the last Sunday afternoon of August, I ventured out to do some local mineral collecting. In these days of $4 dollar-a-gallon gasoline, staying in one's own backyard is becoming more attractive! The south central region of New Hampshire possesses few bonafide mineral collecting sites. However, a diligent collector, especially a micro-mineral collector, can frequently be rewarded in this area.

The Ground Round restaurant, that occupied the corner of Exit 8 and Amherst St. in Nashua, was recently raised to make way for a new four story hotel. A ledge at the rear of the lot was blasted as part of the site preparation. Driving by on Amherst Street, this ledge appeared to be the same rock type as present at Mine Falls Park, Nashua, and at the Audley Quarry in Merrimack. Both of these sites have produced nice micro Anatase and Brookite in recent years. These minerals are found in very thin quartz crystal lined seams in the local country rock. This new construction site is on a line midway between Mine Falls Park and the Audley Quarry. During a half-hour visit to this Exit 8 ledge area, I selected about five pounds of rock with thin quartz seams evident. The fine powder limonite that frequently fills these seams makes it impossible to spot the 0.5 to 2mm micro anatase crystals in the field. The success, or failure, of my effort would have to wait until I returned home.

Next, I moved on to a spot on Rt. 3 in Merrimack, across from the BAE plant. A few months ago I had noticed a pile of rock that appeared to have come from the Audley Quarry, (a couple of miles further north). I collected several pounds here also. I again selected thin quartz seam pieces, plus some chunks that appeared to have feldspar and calcite with voids. I noticed a (hidden) steep talus of about a half an acre size, downhill to the east of the rock piles, (a future visit?). Apparently this site was being backfilled for some time.

My next stop was the entrance to the Audley Quarry. This quarry remains heavily posted. I was fortunate to have collected here during its first two years of operation, when it was neither posted nor gated.

Finally, I returned for a look at the (Rt. 93) Exit 10 road cut, (the "Merrimack Industrial Interchange"). This is a very large, steep walled, road cut from which I had collected prehnite and zeolite minerals during (and shortly after) the cut blasting. I wanted to see if any of these minerals could still be collected here. The prehnite occurs as green, lustrous, botryoidal, euhedral, groups to about one inch in gas bubble voids in a basalt dike. By New Jersey or Connecticut standards, the prehnite here is not notable, but for New Hampshire, it is as good as I have seen. Yes, the dike is still discernable, and the prehnite is still collectable, (with difficulty). While examining the road cut face I came across a seam that had a few, small, clear crystals exposed. I thought they might pop off if I tried to collect them, but I gave it a shot anyway. I managed to get two pieces with the crystals still attached.

So, what did I find?

From the Ground Round, Exit 8 site, I found just ONE half-dollar sized piece with micro anatase, (in the five pounds I brought home). This piece contained about a dozen ½ to 1 mm pale brown to clear anatase crystals on a matrix of micro quartz crystals. The clear anatase can be difficult of spot to the inexperienced eye. Their shape, high luster, and horizontal striations aid in picking them out in a background field of clear micro quartz crystals. The Ground Round site also yielded a couple of small plates of milk white micro adularia, (orthoclase), crystals.

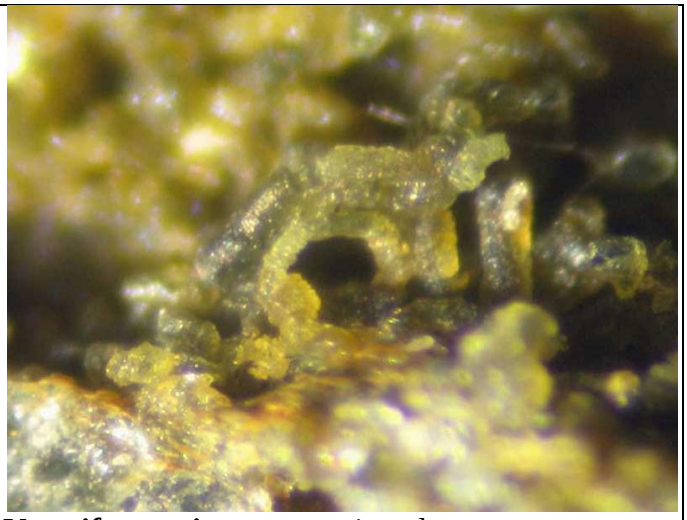
From the Rt. 3 Merrimack site I obtained ONE specimen of a weathering calcite seam with some very sharp, water-clear, prismatic, stilbite crystals. Stilbite of similar habitat occurs at Mine Falls Park. These crystals are about 1 mm in length. Also found in this rock dump was an interesting, pale green, vermiform mica group mineral.

A quick look under the scope at the clear crystals from the Exit 10 site revealed them to be Fluorite octahedrons. I had not observed fluorite from this road cut previously. This is only the second occurrence of Fluorite I have seen from Hillsboro County, NH, (the other being non-

euhedral crystalline blebs from the Rt. 101 – 101A interchange in Amherst/Milford). I cleaned these fluorites first with muriatic acid, and then followed with a soaking in bleach to remove organic stains. The fluorite octahedrons are clear, lustrous, with a slight blue tinge. They fluoresce blue white under UV light.

Below are some photos of my finds. I would have liked to include a photo of the Stilbite specimen, but despite many tries, I could not get a satisfactory image of the clear stilbite crystals on the milky calcite background.

Fluorite. Largest crystal 3 mm
Rt. 93 Exit 10 Merrimack Industrial Interchange, Merrimack, NH



Vermiform mica group mineral,
2 mm FOV
Rt. 3 Merrimack, NH

Anatase, 2 xls. Larger, red arrow, 0.8 mm.
Exit 8 – Amherst St. Nashua, NH

Orthoclase var Adularia, Crystals to 3 mm
Exit 8 – Amherst St. Nashua, NH