FRIENDS OF MINERALOGY - COLORADO CHAPTER

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Editor: Dub Crook

As with the Mineralogical Record, the CCFM newsletter will from time to time specialize on a single topic depending upon the response from the membership. Since the last newsletter, several articles have been submitted to the editor, all of which deal with various aspects of mineral collecting in Canada. Thus this can be appropriately dubbed "the Canadian issue".

As of now it appears that the next issue will deal primarily with our own state of Colorado. If you have any ideas, manuscripts, or new mineral information, please feel free to call or write the editor at any time.

Chapter News

The next regularly scheduled meeting will be November 9, 7:30 PM at the Denver Museum of Natural History. This is a very important meeting as it closes our first year in operation with the election of new officers. All members are strongly urged to attend.

The September meeting featured a slide presentation and talk by Stan Oswald of Mobil Oil on the minerals of San Benito County, California. The highlight of the meeting was the excellent photomicrographs of many of the well-formed minerals which occur near the Dallas Gem Mine.

Editorial from Jack Murphy, President, Friends of Mineralogy, Colo. Chapter

The Colorado Chapter of Friends of Mineralogy has completed its first official year as of November. Looking back over the past year, I am pleased with the growth of the Chapter, even though at times it seemed that progress was slow. I believe that we are filling a need in the mineralogical community and have made some accomplishments. There are interesting and important projects to look forward to in the coming years.

I want to extend my thanks to the entire membership for their support of this newly formed organization. Thanks also to the dedicated Directors and Officers who have helped the organization off the ground with a good legal foundation and initiated work on projects. I especially want to thank Phoebe Hauff for her efforts in acquiring speakers for the meetings and heading up our important committee on the Colorado Minerals publication. I also want to thank Steve Brighton who coordinated and prepared the exhibit case for the Denver show this year in September. I was unable to attend the show but all reports were that our case was excellent.

It is with regret that I announce that Dr. Florian Cajori, one of

our beloved members and Honorary Curator of Mineralogy at the Denver Museum of Natural History, passed away on October 8th after a short illness. Earlier this year, Dr. Cajori donated his fine mineral collection which greatly improved the quality of both the Museum's reference and exhibit minerals. A memorial fund has been established in Dr. Cajori's name for use to enhance this collection.

I am sorry to report that one of our valuable members, an Officer and Director, Steve Rose is leaving Denver to take on a new job for Homestake Mining Company in Casper, Wyoming. Steve was very interested in developing the Chapter and I know he will miss associating with his many friends in the Denver area.

We have been busy throughout the summer and have not worked much on F.M. projects. I hope, after the upcoming annual meeting and election, the membership can again set their sights on working together to provide information for Phoebe's committee on the Colorado mineral project. This is, in my opinion, one of the most important projects that we can be doing.

I urge the F.M.C.C. membership to provide comments or ideas or improvements they feel are important so we can continue to work harmoniously and effectively.

The Tanco Pegmatite, Southeastern Manitoba

by E. E. Foord

The giant Tanco deposit of Li-Rb-Cs-Ta-Nb-Be at Bernic Lake in southeastern Manitoba (180 km ENE of Winnipeg) is remarkable, and partly unique in several respects. Among pegmatites of its petrological and mineralogical type, the size of this pegmatite is surpassed only by the Bikita deposit of Southern Rhodesia. Another complex pegmatite of the same type but smaller in size is the Varuträsk locality in Sweden.

The Tanco pegmatite contains the largest known pollucite content, and at present, it supplies most of the world's production of tantalum. Its substantial spodumene reserve, consisting mainly of refractory-grade, high-purity material secondary after petalite, is available in commercial quantities from only a handful of other localities. The degree of rare element fractionation attained by this pegmatite reaches the extreme low values known for K/Rb, Rb/Cs, Nb/Ta, and other ratios.

Finally, as in all complex pegmatitic deposits, the Tanco pegmatite contains a wide variety of rare and trace elements as well as industrial minerals. These can be utilized only by careful management and specifically tailored processing methods, occassionally with the innevitable loss dictated by technical or economic necessity.

The interest of the Tanco pegmatite is an on-going project without a forseeable termination. The progress is mainly exploratory and advancing

mineralogical and geochemical studies are continuously improving the interpretation of structural control and paragenesis.

The Tanco pegmatite is virtually a mineralogcal treasuretrove with 60 species being described. Ore and mineral reserves are as follows:

Comodity	Tons	Grade
Ta	1,871,358	0.23% Ta_2O_5
Li	5,474,947	2.68% Li_2O
Cs	350,000	23.3% Cs_2O
Lepidolite	107,700	2.24% Li_2O
Quartz	780,000	pure

DON & DEE'S VERY SHORT TRIP TO CANADA

A collecting locality that we have wanted to visit for many years was the Bancroft, Ontario area. This area is noted for its alkalic pegmatitic and radioactive minerals. Some of the notable specimen minerals are: diopside, nepheline, sphene, hornblende, apatite, scapolite, microcline, peristerite, actinolite, allanite, and betafite.

In addition to Bancroft, we also wanted to visit the Francon Quarry near Montreal in neighboring Quebec, which is the one locality in the world for the mineral weloganite.

It's essential to review the pertinent literature and to acquire topographical maps prior to going to an area to collect. This we did on a very limited basis because of the lack of adequate time. (Ed; any of Anne Sabina's guidebooks are excellent for eastern Canada)

In preparation for this trip, we contacted a friend, Dave Lowrie, from Wayne State University, Detroit, who has done a lot of collecting in the Bancroft area.

Also our friends, Tom and Jan Michalski, who are fairly new to Colorado, were of great help. Tom and Jan showed us some excellent specimens they had collected in the Bancroft area over a period of a few years. They also gave us numerous collecting tips and general first hand information on the area.

Also in advance, we contacted another friend, Bob Gault, of the National Museum of Sciences in Ottawa. Once in Ottawa, we went to see Bob who showed us through the labs and also showed us representative minerals that were found in the Bancroft area and Francon Quarry. We met and talked with several of Bob's colleagues, Lou Moyd, Ridge Williams, Bob Walleigh, and Joel Grice, all of whom offered invaluable information.

In the case of the Bancroft area and with only four available days, it is necessary to prioritize the collecting areas that are of greater interest as there are many, many options available. This is where the problem begins. Fortunately we both agreed immediately on the specific localitites we wanted to visist.

Our first stop was at a roadcut not too far from Bancroft for plagioclase pseudomorphs after scapolite. One of our main interests is pseudomorphs so this was really very exciting when we found a few of these crystals.

We then went to the nepheline crystal area, near the Princess Sodalite Mine. The National Museum of Natural Sciences of Ottawa, bulldozed this area in 1966 and then again in 1972 for an Annual G.S.A. field trip. Later, this area was covered over. We were not able to find many good nepheline crystals.

We also visited a peristerite locality. Peristerite is a plagioclase feldspar with a blue chatoyancy (actually it is a complex intergrowth of albite and oligoclase causing the blue irredesence). When we were about to leave, we found a pocket of peristerite.

We drove to, but did not stop at, the fluor-richterite area near Wilberforce.

On Sunday, we drove about five hours from Bancroft to Montreal to collect at the Francon Quarry. Once in Montreal, we needed more specific directions. Have you ever tried to get directions in a city that is 99% French? Wow! After buying "un carte du Quebec" and checking the address in the phone book, we were able to locate the quarry. Apparently the only way to gain access to this quarry as an individual is to have the "museum connections" and our friends in Ottawa took care of this. Sunday is the only day that is available for collecting. Unfortunately, we found no weloganite. However, we did find a few specimens of dresserite, strontianite, and quite a bit of marcasite.

We drove back to Bancroft where we checked out a roadcut for diopside crystals. There was evidence of diopside, but we found no crystals that could be removed in good condition.

Our last stop was to the McFall's Lake diopside locality. This is written up in most of the literature, and many people have collected there. We did find a few diopside crystals.

Even though we did not find crystals at every locality, we feel it would have been possible had we had more time. This was truly an enjoyable trip for both of us. We saw and took slides of several collecting areas we had wanted to visit for amny years. The countryside, flowers, and lakes were beautiful. Also we were able to collect a pseudomorph and three species that we had not collected before: crystals of nepheline, peristerite, and diopside. The whole trip was truly a learning experience, and a lot of fun. We really needed about six more weeks in the area --- the same old problem.

No trip to Canada would be complete without a short stop-over at Mont St. Hillaire. This could easily be the most spectacular mineral locality in the entire world. Over 170 different mineral species have been recognized from this quarry. The deposit is basically a large open pit quarry which has cut into a nepheline syenite. Coarse pegmatitic phases are present throughout the quarry. Common minerals which can be collected by all are nepheline, albite, aegirine, phlogopite, narsarsukite, analcite, natrolite, astrophyllite, fluorite, ancylite, helvite, and eudialite. With a little luck, some of the rarer minerals can also be found, especially if the quarry is being actively worked at the time.

Access to the quarry is now restricted to large mineral collecting groups and school classes. Access for the entire day is $40, payable at the mine office. During the two days I was at the deposit in 1976, we collected over 80 different mineral species, mostly micromounts, but all in excellent condition.

If you are interested in reading more about Mont St. Hillaire, I suggest that you find one of the more common guidebooks to eastern Cananda (by Anne P. Sabina). This will give a fairly complete mineral list and a good description of the general geology in the area.

-Ed.

Again, I would ask that each of you sit down and think of just one fact that you know about local Colorado mineralogy and take the time to write or call me for the next newsletter. I am a transplanted Texan and unless you Coloradians help me out I may leave out a lot of important new information about Colorado. The address and number are:

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