



FRIENDS OF MINERALOGY

Pennsylvania Chapter

NEWSLETTER

Vol. 11, No. 2, June, 1983

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PRESIDENT'S MESSAGE

Everything within the Chapter appears to be under control as we quietly slip into the summer season. There have been some interesting activities during the few months since we gathered at the 1982 Fall Symposium,

Spring Meeting: Phoenixville

The Chapter's Spring Meeting, a guided tour through the Phoenixville mining complex, was well attended and rated a success. Mineralogy, geology, and local history were covered by the leaders, three individuals well versed on their subjects. Chairman Robert Walker made all the preliminary arrangements with the landowners, who graciously allowed the access to their properties which made the tour a reality.

Bob Walker, whose avocation has been collecting Phoenixville District minerals, gave us a complete rundown of minerals available from this area. Joe Varady, also a dedicated collector from the Phoenixville area, covered the history of the mining district. Dr. Robert C. Smith, II, geologist with the Pennsylvania Survey and a collector since boyhood, provided the geological story of the mines. The three guides provided additional input at the various mines, and revealed treasured bits of information collected over many years, thus making the tour most enjoyable for everyone.

A reproduction of Bulletin No. 67 of the Pennsylvania Survey, Lead and Zinc Ores of Phoenixville, by Benjamin L. Miller, was prepared to provide a background on the mineralogy and various mines of the Phoenixville area. The publication was guided through the printing and binding stages by Paula and Jay Lininger, who maintained their usual high standards and quality to produce the Chapter's Special Publication No. 3. It was a job well done and will be appreciated as a reference and a collector's item. Copies from the limited edition will be available at the book table at the Fall Symposium, for \$1.50.

The Spring Meeting was attended by approximately fifty members and friends, who all participated and contributed in various ways to make the meeting a success.

F.M., Pa. Chapter, Business

The Board of Directors, Officers, and Chairmen took part in an April meeting to discuss present and future plans for the Chapter.

A review of the present status of the Memorial Fund for research grants was presented by Bryon Brookmyer. He outlined eligibility rules and the methods which will be employed to select the recipients. The addition of the Memorial Fund to the regular Chapter business will require some modification of the By-Laws. The principal additions will be the fund management and control, as well as the disposition of money in the Fund in the event the Chapter becomes inactive or dissolves. Thomas O'Neil, F.M., Pa., Treasurer, reported that the Memorial Fund has been

PRESIDENT'S MESSAGE (cont'd)

set up into a special account, thereby eliminating any overlap with the regular Chapter finances, which, by the way, are secure and solvent. It is hoped that this separation will help to entice contributions into the Memorial Fund.

Membership Chairmen Marge and Vince Matula, report that new members are being added steadily. There have been some dropouts, but the membership appears to have stabilized at 75 to 80 members. Editor Juliet Reed reports that the absence of a Newsletter appears to be a good reminder to send in both 1982 and 1983 dues.

The Board of Directors will need three new members, to be installed at the Fall Symposium in November. Any member interested in joining the group should contact Jacob E. Dryer (412-881-0376) or myself (717-845-5265) within the next month to six weeks. Nominations of other members will be accepted as well.

We have two nominees for the 1983 Life Membership award, made in 1982 to Thomas O'Neil and Allen V. Heyl. These names, with any others you care to nominate, will be given to the Board for consideration. Nominations for Honorary Membership will also be considered. Presentations will be made at the Symposium Banquet.

Fall Symposium Chairman George Buchanan reports "all systems go." George has put together a fine program, with an excellent group of speakers. As you can see by the list of subjects and speakers as well, as the traditional activities to which we all look forward, it will be a stimulating weekend. Look over the Program on page 7 and send in your Registration Form and check or money order to Juliet Reed, the Registrar. Plan to join us for the weekend or any part of the Symposium, especially the convivial banquet, when we will hear Dr. Peter Leavens discuss the pegmatites of Amelia, Virginia. A list of motels is available for those who may not be familiar with the West Chester area. By the way, this is our first Symposium at West Chester State University, which has recently been elevated from the status of a State College.

Our Chapter will have an opportunity to display and sell our publications at the Mineralogical Society of Pennsylvania Show, Saturday and Sunday, October 15 and 16, at Warrington, Bucks Co., Pa. Juliet Reed needs Chapter members to help at the display of mineralogical books and publications, a joint effort of the two groups. Local clubs are invited to show their newsletters and collectors are needed to provide information, especially to newcomers. Please contact Juliet before the Show (215-688-6180) or stop by when you arrive, to sign up for an hour or two.

Best wishes to all. Have a safe and good vacation. Enjoy the summer's activities. Hope to see you all at the Fall Symposium.

Donald Schmerling

MEMBERSHIP INFORMATION

Dues: Send \$5.00 (\$3.00 for members over 62) for 1983 dues, which include those for the national organization, to Friends of Mineralogy, Pa. Chapter, c/o Marge and Vincent Matula, R.D. #4, Allentown, PA 18102.

New Members: C.B. Sclar
Dept. of Geological Sciences
Lehigh University
Bethlehem, Pa. 18015

Allan F. Antisdell
219 Gittings Ave.
Baltimore, Md. 21212

Address Change: Carl Kuehn, P.O. Box 1367, State College, PA 16801

THERE'S GOLD IN THEM THERE HILLS

During the last three years, Jim Quickel and Martin Anné have been surveying Adams, Lancaster, and York Counties for gold. The object of the search was to find the limits of the area, and where the gold was coming from. We are still trying to answer both of these questions, and believe neither will be solved in our lifetime.

Don Schmerling had found gold in these three counties some two years before we started, so we had a base for the study. Jim had found gold in Lycoming and Clinton Counties, but living far from those areas, we did not attempt to include them. Gold has been reported from Bucks, Montgomery, Berks, and Chester Counties, so we believe it may still be found there and hope in the future to check out some streams in those areas (perhaps some F.M./Pa. members will go hunting).

We started by checking the streams in which Don had already found gold. So far, we can report gold from most of the streams of York County, and streams south of Route 30 in Lancaster County. Sample Run, Beaver Falls, Aislés Run, and Muddy Run are among some of the York County streams where we found gold. In Lancaster County, try prospecting Peters Creek, Conawago Creek, Muddy Run, Wisser Run, Haines Branch, and Pequea (try the "no-name" creeks, as well).

Anyone who would like more information about locations, panning, etc., may contact me at 509 Maple Street, Wrightsville, PA 17368.

Martin Anné

WINFIELD QUARRY OPEN HOUSE

W.O. Faylor has announced that this year the "Open House" in the Winfield Quarry will be held only once, on Saturday, September 17th, from 8 a.m. until 4 p.m. As in the past, there will be a food stand in the parking lot, serving hot sandwiches, hot and cold drinks, and homemade pie.

"We ask each club planning to participate in our Open House to brief all participants, including members, friends, and families on their behavior and adherence to the attached rules and regulations," says Mr. Faylor in the handout. Noncompliance could mean elimination of any future visits.

Mr. Faylor recommends that all participants be made aware of the fact that there is a steep climb into and out of the quarry and anyone not physically able to climb steep hills coming out of the quarry on their own should not walk down. No automobiles, trucks, vans, motorcycles, etc. are allowed at any time in the quarry, but parking is provided for vehicles, close to the quarry rim.

Welcoming collectors to this event, Mr. Faylor stated, "We sincerely wish to continue our open house visitations for mineral clubs and their friends, for we realize that our quarry has some attractive and interesting specimens not found in many other quarries. With your help and cooperation, we will be able to continue this visitation. Happy hunting."

NEWS AND NOTES

Jay Lininger reports that recently he was able to collect on a weekend at the Valley Quarry, formerly the Teeter Quarry. Well known for zeolites in the Triassic hornfels, the quarry is located in Cumberland Township just southeast of Gettysburg, Adams County, off Rt. 140. A map, mineral list, and geological description may be found in Mineral Collecting in Pennsylvania (Geyer, Smith, and Barnes, 1976, Pennsylvania Geological and Topographic Survey G33).

PENNSYLVANIA FIELD TRIPS OF THE 1930's (Part II)

Editor's Note: In a recent letter, Dr. Allen V. Heyl, of Evergreen, Colorado, included these notes for his talk at the November, 1981, Fall Symposium. Part I appeared in the September, 1982, Newsletter (Vol. 10, No. 3).

"Continuing our trip, we went south to Unionville and east to Corundum Hill, where at the old pits south of the central road intersection we found massive blue-black corundum, and some small crystals of corundum encrusted with paragonite. From there we went north to Beryl Hill, where there was, at that time, a pegmatite pit just northeast of the farm-house, along the road. A long search produced nothing unusual, but we remembered the old description of the beryl lying loose in the fields back of the farm-house towards the creek. Here I alone was lucky, finding a 5-inch piece of one of the giant beryl crystals for which the locality is legendary.

"We then turned eastward towards Media. We stopped for a short visit at Lenni, and found some of the dull bluish-green variety of orthoclase called "lennilite," or "delawareite" (old names now discredited), and in the long-closed quarry east of the station, some chabazite as pink crystals, with a little stilbite. This stop was followed by one at Blue Hill, south of Media, where we found many clusters of beautiful doubly terminated blue-green small quartz crystals.

"We stayed overnight at Media in a cheap little hotel, as our cash was so sparse, and ate in an equally cheap diner. After the movies (we saw "It Happened One Night" with Claudette Colbert and Clark Gable), I spent the night ill with food poisoning!

"The next morning we drove a short distance southwest of Media to Mineral Hill, where we parked along the highway and in the gutters found fine, bladed, grass-green (chromian?) actinolite and white sillimanite with chromite grains. At the small abandoned pegmatite quarry along Chrome Run, near Crump's Quarry (see Gordon's Mineralogy of Pennsylvania, 1922, p. 191), we had phenomenal luck, finding a fine group of the "amazonstone" variety of microcline and several excellent samples of oligoclase (varieties "sunstone" and "moonstone") as well as some deep green beryl crystals, which might be called "emerald." Note that the Gordon volume reports blue-green beryl in the woods southwest of the quarry. Down the small Chrome Run, we panned an abundance of perfect shiny chromite octahedrons, plus some columbite, small hexagonal crystals of corundum, and a few grains of a very lustrous mineral, possibly samarskite or fergusonite.

"After an abortive attempt to find the old corundum localities near Black Horse then a rural area southwest of Mineral Hill, we drove south towards Chester to the famous Deshong's quarries on Ridley Creek, one-half mile west of Leiperville, within greater Chester. Even this long ago, the quarry was long abandoned, and except for one corner, was filled with rubbish, so our collecting area was very limited. Fortunately, we did find some fine microcline crystals in the pegmatite rock, a little yellow beryl, some spessartine garnet, pink zoisite of the variety "thulite," and some large muscovite plates. Was this the last collecting ever done at this quarry?

"After an overnight stop, we drove west past Chadd's Ford to the pegmatite quarry on Jacob Swayne's farm, south of Fairville, Pennsbury Township, Chester County, almost into Delaware. Here we found huge plates of muscovite with fine, reticulated, dendrites of magnetite and flattened red inclusions of almandine garnet.

"In Part III, we'll continue our trip, around Chester, Lancaster, and Montgomery Counties."

Allen V. Heyl

NOTICE

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NICKELIAN SERPENTINE FROM WOOD'S CHROME MINE, LANCASTER CO., PA.:Further Data on Genth's Type Specimen

Through the kindness and courtesy of Professor Mary E. Wagner, University of Pennsylvania, and LeAnn Srogi, a graduate student, I was able to sample, at Hayden Hall, specimen No. 416.1618, which is material originally collected and analyzed by Professor Genth from Wood's Chrome Mine. The analysis of this material, called "nickel gymnite" (later "genthite") by Genth, was included by Gordon in the Mineralogy of Pennsylvania (1922, p. 124) and reproduced in the F.M., Pa. Chapter Newsletter, Vol. 8, no. 2, June, 1980, with remarks concerning the high summation of total H_2O (19.09%). This analysis, in Professor Genth's own handwriting, is still preserved with the University of Pennsylvania mineral collection.

The X-ray diffraction powder pattern recorded on page 6 was obtained from the Phillips-Norelco Diffractometer at Western Illinois University ($CuK\alpha_1$ lines). These lines suggest a serpentine with nickelian clinochrysotile structure, perhaps mixed-layered with (magnesian) clinochrysotile. Antigorite occurs as a possible phase and a hydrated nickelian clinochrysotile may also be present (hydration was suggested by Professor Genth after his original analysis). Crystallinity of the material is also poor and there may be inhomogeneous replacement of magnesium by nickel. It appears to be a less pure serpentine mineral phase than the chartreuse material kindly donated to the writer in 1979 by Martin Anné and described in Vol. 8, no. 2, June, 1980 and Vol. 9, no. 2, June, 1981, of the F.M., Pa. Chapter, Newsletter.

The material itself is massive, powdery, colliform, and light apple green, with brown to black coatings. The luster is dull compared with the material collected by Martin Anné, which has a more waxy luster and coats chromite. The hardness of Mr. Anné's material is 3.5-4, while that of Genth's material is less than 3.

Under high power magnification (400x) with the polarizing microscope, the material is colliform and fibrous, with moderate birefringence. Optic figures are very vague, with the figure biaxial (-) and revealing a high 2V.

$$\alpha = 1.548$$

$$\beta = 1.557 \quad (\text{indices are variable})$$

$$\gamma = 1.568$$

$$\epsilon = \text{yellow-green}$$

$$\beta = \gamma = \text{apple-green}$$

Genth's material seems to possess a less discrete and less pure, more disordered, mixed-layered structure of nickelian clinochrysotile and clinochrysotile (with some antigorite) than that of Martin Anné's samples.

Chemical, optical, and X-ray studies together seem to indicate that a mixed-layered pecoraite-clinochrysotile is the major phase. The dull luster may indicate some dehydration since the sample was analyzed by Genth in 1851. However, scanning electron microscope analysis and possible reanalysis of H_2O^+ (OH-) and H_2O^- (interlayer and loose-absorbed water) will be necessary on this sample for fuller documentation, and a co-operative project with interested mineralogists at the United States Geological Survey is tentatively planned at this time.

David F. Hess
Western Illinois University

NICKELIAN SERPENTINE FROM WOOD'S CHROME MINE, LANCASTER CO., PA.:Further Data on Genith's Type Specimen (cont'd)X-ray Diffraction Data

<u>Ave. d-spacing</u>	<u>I measure-- I background</u>	<u>hkl</u>	<u>Species</u>
7.52 Å	2	002 ?	Hydrated nickelian clinochrysotile ?
7.39 Å) 7.37 Å)	4	002	Nickelian clinochrysotile
7.28 Å	4	002	Clinochrysotile
4.55 Å) 4.54 Å)	2	020	Clinochrysotile
4.525 Å	2	020	Nickelian clinochrysotile
4.25 Å) 4.24 Å)	1	210	Antigorite ?
3.64 Å	3	004	Nickelian clinochrysotile clinochrysotile
3.37 Å	2	?	?
3.34 Å	6	?	?
2.64 Å	4	130	Nickelian clinochrysotile
2.56 Å	1	$\bar{1}202$	Antigorite ?
2.51 Å) 2.49 Å)	3 4	$\bar{1}601$	Antigorite ?
2.46 Å) 2.44 Å	4	202	Nickelian clinochrysotile and Clinochrysotile
1.82 Å	2	008, $\bar{2}051$	Chrysotile
1.54 Å) 1.53 Å)	6	060	Nickelian clinochrysotile and Clinochrysotile
1.51 Å	3	?	?
1.44 Å	2	00 $\bar{1}0$, 063	Clinochrysotile