



THE MINERAL VEIN

THE MINERAL SOCIETY OF MANITOBA NEWSLETTER

August 2008

The Mineral Society of Manitoba
c/o The Manitoba Museum
190 Rupert Avenue
Winnipeg, MB
R3B 0N2
Published monthly from September to
June
Home page:
[http://www.umanitoba.ca/geoscience/
mineralsociety/index.htm](http://www.umanitoba.ca/geoscience/mineralsociety/index.htm)

Meetings are held on the first Wednesday of each month from September to May inclusive at the Manitoba Museum in room P47 on the Planetarium level. They begin at 7:30 PM and feature announcements, an invited speaker and a draw.

Members are encouraged to bring along any new, interesting specimens or specimens appropriate to the speaker's topic.

Field trips take place from May to September to interesting sites in Manitoba, neighboring provinces and states

2007-08 EXECUTIVE

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A NEW SEASON BEGINS

CLUB MEETINGS

September 3

Lori Stewart will be presenting some of the work she has done at Gillis Quarries.

Lori Stewart has been a previous MSM scholarship award recipient. She is doing research on Gillis Quarrie for her thesis. Gillis Quarries is that wonderful place where Ordovician fossil can be obtain with little effort

October 1 is our Annual General Meeting.

Here our new executive will be elected. If you have new ideas about how things should be run or complaints on how things have been run, speak up, offer to take a position. Take note that our newsletter is retiring from this position. Health issues are of a concern.

Scholarship Award

Mineral Society of Manitoba gives a yearly scholarship of \$500 to a University of Manitoba geology student. The Award Recipient for 2007-2008 is Bryon Ohryn.

Year End Reports



Mineral Society of Manitoba and Winnipeg Rock and Mineral Club BBQ & SWAP MEET June 1, 2008, 3: was poorly attended. Granted, it was a cold windy day. However the displays and items for sale and trade were interesting.

Field Trip Summary for 2008 Season

By Jack Bauer, President MSM

Gold Trip

Gold trip to the Sunbeam Mine was a success in spite of the rain. We also visited a pillow lava site that was polished by glaciers. Chatter marks and directional striations were visible at this site. Imagine Manitoba was once had erupting volcanoes under water.

Gypsumville Field Trip

This year's trip was reluctantly cancelled due to lack of participation. This field trip is organized and will be offered again next year. Jim Bamburak and Jack Bauer have put together a special itinerary to help explain this trip. These brochures will be saved and handed out at next year's Gypsumville trip.

Floodway Field Trip

After many months of negotiations with the Floodway Authority, we were granted permission to dig Selenites at the floodway. Thanks to **Brian Bilcowski** who initiated the process. Because the Floodway was such a high profile site, safety was the main concern of the Floodway Authority.

The site we have chosen to dig is proving to be a world-class site. Word has it that many "very nice" Selenite crystals have been collected there. My initial understanding was that only four types of Selenites were being formed. However there may be up to 8 different varieties **The larger crystalline form of**

Selenite, being a clear colourless crystal, is more rare than the other forms of the mineral. Satin Spar is usually fibrous, translucent white and satiny. The other forms of Gypsum are readily available in tabular, rosette or needle-like crystals, with Alabaster being the granular massive form of the mineral. Selenite crystals can be quite large, but the mineral itself is very soft and slightly flexible (although not elastic, meaning it can be bent but will not resume its original shape on its own). Often fibrous, it can be easily broken or scratched. In fact, all forms of Gypsum are soft (between 1 1/2 and 2 on the Mohs Scale) and can be scratched with just a fingernail. The Floodway crystals are normally rosettes with or without large blades or the



more rare blocky rosettes. Here is a picture of the type of Selenite which can be found in the Winnipeg Floodway.

More about the Floodway Trip

By Marjorie Turton

I hope everyone is having a great summer, and have been able to get out collecting.

My partner and I went collecting selenites at the floodway. I should say digging for selenites. We managed to extract a few after digging and probing in the mud. Later we spent some interesting afternoons cleaning off the mud using hair dryer, water and toothpicks. Is it really worth it? The selenites from the Winnipeg floodway are normally of the rosette kind. Here are examples of the kind



we got. Rosettes with large blades can be found but we didn't find any. Thursday's lightning and rain drove us away as we were getting into a zone which looked very promising.

There was talk of digging up a \$3,000 Selenite and who could claim it. Did I mention, this was a joint field trip between The Mineral Society of Manitoba and the Winnipeg Rock and Mineral Club? It was.

Here are a few pictures of our adventure:



Here is Jack Bauer starting the fencing. The dig area has to be fenced in to protect trespassers, human and others.



After some teasing, the other men helped to complete the surrounding fence. The foreground indicates that some digging commenced before the fence was in place.



The digging is in earnest now.

The holes are getting deeper and the selenites retrieved are becoming larger. It is difficult to determine if the crystals are clear or has a gritty appearance.



George Green and Marjorie Turton collected selenite shards or blades from the surface. These will be used for glue cards offered to students.

Here is what we learned about Selenites. Gypsum rosettes commonly occur in the clay layer of the earth's crust. In the same geological phenomenon gypsum forms in the clay as a result of rising and evaporating moisture while creating certain chemical concentrations. The water from rivers and streams floods sometimes which chemically concentrates the CaSO_4 , which is abundant in the soil. The calcium sulphate then crystallizes into the mineral gypsum ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$). As the water evaporates and deposits throughout the seasons, the gypsum crystals grow in the intergrain pore spaces trapping the surrounding loose sediment surrounding it. This phenomenon creates gypsum rosettes. These rosettes are usually found among areas of floods and are distributed throughout the banks of the floodway. Within these floodway deposits one can see the horizontal banding of the rosette forms. This banding may reflect changes in the permeability of the clays as well as the effect of depth and unfavourable growth conditions nearer to the surface.

There are two typical forms of rosettes found. In more shallow regions is an amber colored compact ball of intergrown crystals with small, thin blades pointing out from the core seems to be the standard. Sometimes large transparent amber blades protrude out of this core producing spectacular specimens. In deeper layers, the crystals in the rosette are

larger, more distinct and blocky. The specimens are typically yellow in colour, but can also be colorless. Large blades protruding from these rosettes are also blocky. In both forms, some of the large blades may have clay or a rock included. All the crystals are fluorescent and phosphorescent, glowing a pale white under ultraviolet light.



News Flash

News reports interview rock hounds at the floodway. August 21, Carol Sander, a Winnipeg Free Press reporter, accompanied by photographer and a member of the Floodway authority came to see and photograph what we were doing. Check out the Aug. 21 Winnipeg Free Press



Here is a Winnipeg Free Press picture of Jack Bauer holding up one of the larger Selenites. CBC also took pictures and interviewed Jack. Later we found CTV did a radio interview. The Winnipeg Floodway Authority (WFA) initiated all this attention. They were interested in providing some good community relations and also to remind people, that digging in the floodway is an activity controlled by the WFA.

Isn't this a beauty? No, it is not one we collected, but we did get a small one a little bit like this one.

Object and purpose of the Mineral Society of Manitoba:

“The object and purpose of Society shall be to establish and to conduct a non-profit, educational organization to promote, to enjoy, and to develop the study and practices of the various phases of mineralogy and related earth sciences.”

The above is an excerpt of our constitution. Constitutions tend to be dry reading but they always contain interesting bits of information. Copies of the constitution will be available for picking up at our next meeting.



Notice

This is the second last paper to be prepared by Marjorie Turton. September's publication will be my last. It is time for new ideas.

Thank you, members of Mineral Society of Manitoba for an interesting adventure.