



THE MINERAL VEIN

THE MINERAL SOCIETY OF MANITOBA NEWSLETTER

February 2010

RED LAKE GOLD

The January meeting of the Mineral Society featured a talk by Mr. Dave Busch, a consulting geologist and president of the Manitoba Prospectors and Developers Association. Dave is currently working for a junior exploration company which is undertaking a deep drilling program in the Red Lake area of northwestern Ontario in an effort to locate another high-grade gold deposit like the nearby Cochenour and Bruce Channel deposits now owned by Goldcorp. Dave has 35 years of experience in exploration and his talk was an eclectic mix ranging from descriptions of life in an exploration camp to the technical difficulty of trying to steer a 2.5 km long drill hole costing more than half a million dollars toward the intended target. He outlined the various steps of an exploration program beginning with surface works such as outcrop stripping (to get a good look at any mineralization and what controls it) and cutting "channel" samples with a diamond blade saw. Diamond drilling is typically the next step and requires special care when undertaken in a built up area like Red Lake. Property owners often must be compensated for the use of their land, \$20,000 in this case, and may impose restrictions like "zero discharge" from the drill rig. This latter restriction required construction of a large water treatment system to remove drill cuttings (the ground-up rock) from the drilling water and then reuse it, resulting in probably the "greenest" drill program ever in the area.

The Red Lake Mine, which consists of the former Campbell and Dickenson Mines, now consolidated into one operation by Goldcorp, is the richest major mine in the world, hosting more

than 28 million ounces of gold (past production + current reserves). The mine is the economic foundation of the towns of Red Lake and Balmertown, population 5,500, but as Dave pointed out it takes up an area less than 2 x 2 km. Gold mineralization is controlled by shear zones (faults) which channelled the ore-bearing fluids into suitable structural openings and/or chemical traps such as iron formations or a particular series of mafic volcanic rocks. Deposits in the Cochenour area are located along a specific shear zone which has been offset by a later north-south trending, calcite-filled fault, making the job of the exploration geologists much more difficult. For example, Gold Eagle's 6-10 million ounce deposit adjacent to Cochenour was not found until 2005 since the top of the deposit is 800m below surface. These deposits are mineralogically somewhat unusual in that there is a pervasive fine-grained andalusite alteration surrounding them and ~1/2 of the gold is in actinolite-rich sheared volcanic rocks rather than quartz veins.

Given the widespread system of mineralized shear zones and the large areas still to be tested at depth by deep-drilling and other modern exploration techniques, the potential for even more discoveries in the Red Lake area remains high and we wish Dave the best of luck.

As an add-on to Dave's presentation, John Biczok showed a series of slides graciously provided by Mr. Dave Joyce. Mr. Joyce is a mineral dealer who, for 6 years, had a commercial arrangement with Goldcorp to collect, prepare and sell gold specimens from the Dickenson mine. These slides illustrated the

(continued on Page 5)

THE MINERAL SOCIETY OF MANITOBA

c/o The Manitoba Museum
190 Rupert Avenue
Winnipeg, MB
R3B 0N2

<http://www.umanitoba.ca/geoscience/mineralsociety/index.htm>

The Executive:

President

John Biczok 889-7976

Vice President

Wendy Anthony 774-5613

Secretary:

Marion Foster 775-0625

Membership / Treasurer:

Jack Bauer 632-6934

Field Trip Chairman

Ken Fumerton 222-3416

Newsletter Editor

John Biczok 889-7976

Members at Large

Marjorie Turton 775-0625

John Frigo 254 6467

The Mineral Vein is published monthly from September to June.

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 raffle. 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 plus neighbouring provinces and states.

Membership: A single membership is \$15 while a family membership is \$20. Memberships run from October to October and the annual dues are payable each October.

Table of Contents

RED LAKE GOLD.....	1
THE MINERAL PIPELINE.....	2
WHERE ARE THEY NOW?	3
UPCOMING EVENTS	3
MEET THE COLLECTOR: TONY SMITH	3
Red Lake (continued).....	5



THE MINERAL PIPELINE News about mining developments of interest to collectors.

The New Britannia gold mine in Snow Lake and its parent company, Garson Gold Corp., have been taken over by Alexis Minerals Corp. The mine has been closed for 5 years but Alexis plans on undertaking a large exploration program in the area and conducting a full feasibility study on the deposit in 2010 to determine the economic viability of reopening the mine. I am unaware of any significant gold or other mineral specimens that have come from this mine but would appreciate any information on this subject our readers may have.

The Eden Lake alkaline – carbonatite complex has been acquired by Rare Element Resources from the previous owners, VMS Ventures. This unusual igneous complex is located 35 km NW of Leaf Rapids and, like many alkaline intrusions, contains a suite of uncommon, Rare Earth Element (REE for short) bearing minerals. The REEs include such elements as lanthanum, yttrium, cerium, and demand is increasing significantly for use in wind turbine, hybrid cars, etc. Similar complexes include the Mont St. Hilaire (Quebec) and Kola Peninsula (Russia)

sites, both well known to mineral collectors for their wide variety and abundance of well formed, normally rare minerals. The Eden Lake property is known to contain occurrences of strontium-REE-apatite, britholite, allanite, and REE mineral inclusions in andradite garnet. The new owners are now planning an exploration program. Let's hope they are successful and this leads to at least some exploratory excavations of these interesting minerals.

WHERE ARE THEY NOW?

Harvey Buck was a member of the MSM for several years in the late 1990's-early 2000's while a graduate student at the University of Manitoba. During this period, Harvey was researching a pegmatite in SE Manitoba under the supervision of famed pegmatite expert Dr. Petr Cerny. Since leaving the U of M, Harvey has worked as a consulting geologist in the mineral exploration field for the past few years, primarily in NW Ontario, and now lives in Thunder Bay.



Harvey has been a very knowledgeable and passionate mineral collector for many years. Growing up in Ottawa he was exposed to the large and active collector community there at that time and the mineral treasures of the National Museum of Natural History. His personal collection is still back home in Ottawa but he expects to move it to his new home before long. Work has left him little time for collecting

recently but he hopes to become more active in future and would welcome the chance to join members of the MSM on our field trips if his schedule permits. Harvey has very fond memories of his time in the Mineral Society and passes on his greetings and best wishes to all of the members.

UPCOMING EVENTS

February 3rd Meeting – Want to find maps of the best mineral or fossil collecting areas in Manitoba? Planning a collecting trip and want to avoid getting arrested (or worse!) for trespassing? Well then, the speaker at our February meeting will be of interest to you. **James Bamburak**, geologist with the Manitoba government Department of Innovation, Energy and Mines, will be this month's speaker. He will provide an **overview of how one accesses the department's written and online publications as well as a brief history of the department and some of its historic figures.** This information will be invaluable to anyone planning a collecting trip as it includes the location of mining claims, mineral prospects, geological maps, etc. Internet connections permitting, we hope to have an online demonstration during the presentation. James will also be leading a tour of the department's facilities later in the year on Earth Day, April 22nd.

Future Speakers:

We are hoping to have one of several graduate students at the University of Manitoba speak to us in the next few months on their research into alkaline-carbonatite complexes. John Biczok will be giving a presentation in the near future on the Royal Ontario Museum's new mineral gallery.

MEET THE COLLECTOR: TONY SMITH

Obtaining a Ph.D. in high-energy physics may seem like an unlikely lead-in to one of the premier mineral collections in Manitoba, but this is indeed the twist of fate that led Tony Smith into serious mineral collecting. He was born and raised in the Washington, D.C. area and began collecting there as a young boy of 12 for a couple

of years until his focus shifted to other pastimes during his teenage years (hmmm....sound familiar to anyone?). He moved on to the University of Rochester to pursue his Ph.D. in physics during which time he stopped in to visit a local “Rock Shop” and was hooked again. After graduation, Tony worked as a postdoc and then a research associate during the '70s and was eventually hired to run the computer control centre at the University’s cyclotron complex. It was during these early years in Winnipeg that he made his first serious mineral purchase, that of a 9 ¼” long Japanese stibnite. Like many young collectors, money was tight in those days but a time-payment plan with a cooperative dealer started Tony on his way to building his impressive collection.

After becoming acquainted with a few like-minded local collectors, Tony helped found our Mineral Society of Manitoba and has served it in every capacity over the years except one (field trip chairman), including that of newsletter editor for more than 9 years. In this time, his collection has grown to fill 4 display cases and the many drawers beneath them. He also made another major “acquisition” during this time, marrying a local history teacher named Sue and becoming a stepfather to her daughter Allison. Tony also operated a mineral dealership himself from 1978 to 2008. Under the name SALT Minerals (an acronym for Sue Allison Tony), he provided fine minerals at reasonable prices to local and mail-order clients.

Tony’s collecting has focused on a number of areas over the years including tourmalines, secondary uranium minerals, and specimens from what he considers the two greatest mineral localities in the world, Tsumeb, Namibia and Franklin/Sterling Hill, New Jersey. His current interests have expanded to minerals from the “classic” localities such as England; Bisbee, Arizona; Butte, Montana, and the Swiss/French/Austrian Alpine area (where he had the opportunity once to buy specimens from a Swiss roadside shop). Like many collectors he appreciates high-quality pieces in general, and those with a historic pedigree. Some of his (and your editors!) favourite pieces are a 3 x 3” cluster of azurite crystals from France, a large cluster of

yellowish barite crystals from Cumbria, England, and one of his newest treasures, a red rhodochrosite from the Sweet Home Mine in Colorado. Tony has done some field collecting in the past, most notably opening up a pocket of Herkimer Diamonds (quartz crystals) in Middleville, New York, but most of his pieces were acquired via the “silver pick” while at shows or through mail order, especially from the former dealer David New. Nowadays most of his acquisitions come via Internet auctions. With his keen eye and continuing passion for fine minerals, Tony continues to add great pieces to what is already one of the finest collections in the province.



Tony Smith in front of his mineral collection.



Tony’s Japanese stibnite.



Rhodochrosite, Colorado

Red Lake (continued)

the gold in veins underground, after the ore had been blasted, and once the specimens had been prepared. The samples come from a particularly rich section of the mine known fitting as the “High Grade Zone” which is thought to be later structure which remobilized the original mineralization into these spectacularly rich veins.

For further information on the gold deposits of Red Lake, visit www.goldcorp.com and www.davidkjoyceminerals.com

The following photographs were all kindly provided by Dave Joyce.



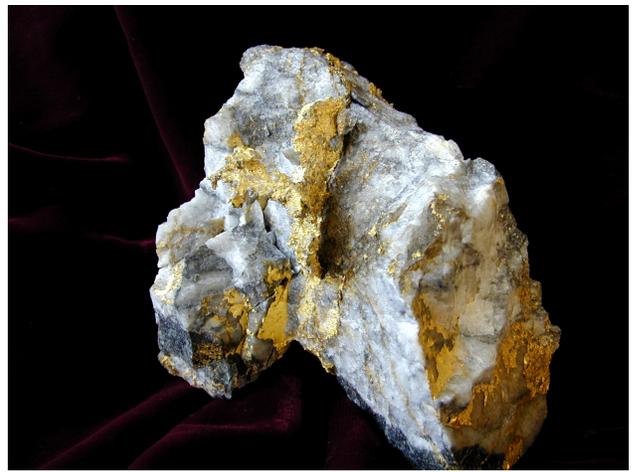
Newly blasted, very high grade gold ore at Goldcorp's Red Lake Mine



Close-up of the rich gold ore from which specimens will be prepared.



“The Big Flame” is 18cm high and contains about \$150,000 worth of gold. *Private collection.*



“The Super Leaf”, 14cm high, contains gold lined fractures in quartz. This type of host rock generally produces better specimens than gold in the sheared volcanic rocks. *Private collection.*



4cm high gold leaf on matrix. *Dave Joyce collection.*