

Mineral Collecting in Ontario

a guide for rockhounds

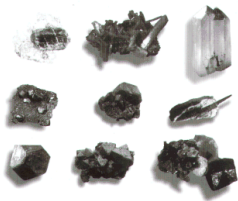


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Mineral Collecting in Ontario

Mineral collectors - or rockhounds, as they are often called - are always welcome in Ontario.

The province boasts a vibrant community of mineral hobbyists with a variety of mineral clubs located in cities and towns across Ontario. Many of these clubs host annual gem and mineral shows that give collectors a chance to gather, exchange ideas and swap samples.

Ontario also provides a wealth of geological settings. Geologists divide Ontario into three geological areas called provinces. Each contains a variety of rock types of similar age. The geological provinces - Superior, Southern and Grenville - together make up the Canadian Shield and provide mineral collecting opportunities that range from the complex, mineral-rich Grenville Province in the southeast to the volcanics of the Superior Province in the northwest. Many of the best collecting sites are located in popular recreation spots, where pristine lakes, the call of the loons, quiet and clean beaches, campfires and rockhound hikes through the woods meld to create a memorable vacation.

To provide a safe, enjoyable rockhounding vacation, Ontario has developed a Mineral Collecting Policy that recognizes the special needs of hobby collectors. It sets out the conditions under which rockhounds may collect minerals on Crown land; specifies the obligations of rockhounds to the owners of private surface and mineral rights; differentiates between hobby collectors and commercial mineral collectors; and outlines some areas where mineral collecting is not permitted.

The policy also reminds rockhounds that mineral collecting is a privilege rather than a right in Ontario. Respect for the environment, other land users, fellow collectors and your own safety is a key ingredient in this exciting and educational activity.



Geologists divide Ontario into three geological areas called provinces

1. The story of Ontario's geology is told in the publication ROCK Ontario (Ministry of Northern Development and Mines 1994). The 89-page book is available from the Mines and Minerals Information Centre in Toronto or MNDM's Provincial Information Centre in Sudbury. See Page 14 for addresses and telephone numbers.

What is Mineral Collecting?

Ontario recognizes two kinds of mineral collectors -- hobby mineral collectors and large scale/commercial mineral collectors. The difference between the two is the amount of rock each takes home at the end of the day. This is known as the threshold limit.

The threshold limit between hobby and large-scale collecting is defined as the amount one person can excavate using only hand tools and can carry unassisted from a specific site or location. The limit is allowed once per year per site.

Hobby mineral collecting means:

- Collection for personal pleasure, recreation or interest.
- The amount collected is below a specified threshold.
- The samples collected are for the collector's personal collection. This includes rocks or minerals collected to swap.
- The collector has no intention of selling the minerals he or she has collected.

If you dig out your samples with hand tools and carry them home unassisted, you are probably a hobby collector.

Large-scale or commercial mineral collecting means:

- Mineral collecting or extraction of minerals with the intention of selling; or
- The amount of mineral collected is above the threshold limit; or
- The collection is done with explosives or mechanical equipment such as pluggers, a backhoe or other heavy equipment.

Recreational gold panning and fossil collecting are considered mineral collecting and are covered by the mineral collecting policy, as is collecting by institutions for educational and scientific use.

Who Can be a Hobby Mineral Collector?

Hobby mineral collectors are defined as amateur mineralogists who enjoy collecting interesting rocks and minerals.

Anyone can be a hobby mineral collector in Ontario. You do not need a special licence or a permit. You do, however, need to know about the regulations governing the use of Ontario's mining lands and mineral rights.

The Ministry of Northern Development and Mines is the steward of Ontario's minerals and mining lands. It administers mining lands and gathers geological information that helps prospectors locate economic mineral deposits. It operates under the *Mining Act of Ontario*, which governs mineral exploration, mineral development and mine rehabilitation in the province.

Although the Ministry deals primarily with professional prospectors and mineral explorationists, it recognizes the recreational and educational benefits of hobby mineral collecting. Therefore, it has developed a mineral collecting policy that allows mineral collectors to enjoy their hobby throughout the province.

Mineral collecting is still a privilege, however, rather than a right.

Mineral collectors must observe conditions specified in the policy. They are responsible for collecting specimens safely and properly. Like other land users, mineral collectors must respect the environment and observe sound field practices. Mineral collecting activities must not conflict with other legitimate uses and users of the same land.



Mineral Collecting and the *Mining Act*

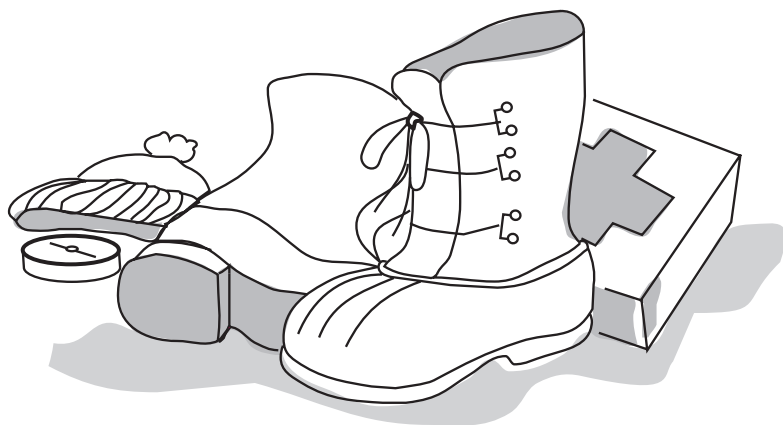
Ontario regulates mining and mineral activity through its *Mining Act*, which was developed with commercial operations in mind.

Under the *Mining Act*, minerals cannot be extracted or removed without a lease of the mining rights. In addition, the producer of minerals must be in compliance with Part VII of the *Act*, which ensures environmental protection and mine site rehabilitation.

Obviously, hobby mineral collecting would be impossible under these *Mining Act* provisions. Ontario has decided, however, that mineral collecting is a beneficial and popular activity that merits special consideration. Consequently, mineral collecting is regulated under a separate policy, known as the Mineral Collecting Policy.

This means that legislation and regulations developed for professional miners will generally not be applied to hobby mineral collectors -- as long as they stay within the definition of hobby mineral collecting, collect their samples safely, respect the environment and avoid conflicts with other land uses and users.

No special licence or land-use permit is required.



Mineral Collection

Sites and Techniques

There are some provisions under Ontario's mineral collecting policy that affect where and how you collect your samples.

Outside the heavily-settled southern part of the province, much of the unoccupied land is Crown land, meaning it belongs to the people of Ontario. Most Crown land is open to mineral collecting.

If the Crown owns the rights to both the surface and the minerals beneath it, hobby mineral collecting is usually allowed to the threshold limit.

If the Crown shares its rights with other owners, then other conditions may apply.

- Where the Crown holds the mining but not the surface rights, hobby mineral collecting is allowed to the threshold limit, providing the collector has the permission of the surface rights holder. The collector must follow any terms and conditions established by the surface rights holder, including any restrictions on extraction methods.
- Where the Crown holds only the surface rights, the mineral collector must first obtain permission of the mining rights holder. The owner of the mining rights can determine the amounts, terms and conditions of any mineral collecting activities. He or she may charge mineral collectors for extracting the minerals from the property.

Existing Rights and the Mineral Collector

Mineral collectors must obtain permission of the land owner or rights holder before going onto the land to collect samples. This permission should be in writing to protect both parties.

Some examples of existing rights are:

- Unpatented mining claims
- Land use permits
- Licences of occupation
- Leases
- Patents
- Ontario Northland Transportation lands
- Summer resorts

Sometimes a number of individuals will hold different kinds of rights on the same piece of land.

Mining rights may allow the holder the right to explore for, or extract the minerals on, in or under the land. These rights may be secured through a mining claim, which is a parcel of land that has been staked and recorded, or granted through lease, patent or licence of occupation.

Surface rights, on the other hand, may allow the holder every right in lands other than mining rights. For example, the land holder may not have ownership of certain tree types, or the sand and gravel may be owned by the Crown.

On some parcels of land, one owner will hold both the mining rights and surface rights. On other parcels, the rights of holders may be different. No matter what the ownership, the mineral collector needs the permission of the mining rights holder to take mineral samples, and the permission of the surface rights holder to enter on the land.

Mineral collectors cannot trespass on privately owned land. They must obtain the permission of the land owner.

Lands that are NOT Open for Mineral Collecting

Most Crown land is open for mineral collecting. There are, however, some lands where mineral collecting and other activities are restricted. They include:

- Public lands that are posted or otherwise marked to prohibit all or some activities. The local Ministry of Natural Resources office can give you information of lands posted under the *Public Lands Act*.
- Areas that are part of a mining hazard or are hazardous to those attempting to collect minerals. The local resident or district geologist will help you pinpoint these hazardous areas.
- Lands defined as First Nations reserves.
- Provincial and federal parks.
- Lands withdrawn from prospecting, staking, sale or lease under the *Mining Act*.

The mineral collector is responsible for determining the status of the land. Staff from the Ministry of Northern Development and Mines can help determine suitable collection sites in areas that are open for mineral collecting.

Mining Lands Consultants, located in communities across the province, have access to up-to-date claim maps via the Internet that show the status of mining lands in their divisions. These maps can be purchased from the Provincial Recording Office in Sudbury.

Special hazards to avoid:

Abandoned mine sites can be extremely dangerous and should be avoided by the mineral collector. Regulations for mines and mining sites require that special precautions be taken to prevent entry. When mine operators abandon surface mines, they must prevent access whenever there are hazards beyond the normal topographical features of the area and any time there is a danger of falling. Entrances to abandoned underground mines must be capped with reinforced concrete or filled and kept filled with material that will prevent entry.

If you come across an abandoned mine site where these precautions either have not been taken or have failed, **do not enter under any circumstances**. Report your discovery to the Ministry of Northern Development and Mines (addresses and phone numbers are listed on Pages 13 to 15) as soon as possible.

Mineral Collection

Sites in Ontario

Mineral collecting can occur anywhere - on beaches, along roadways, during hikes in the woods, any place where there are stones on the ground to be picked up, studied and admired.

Ontario has several locations, however, that offer superb mineral collecting opportunities.

Bancroft

One of Canada's best known rock collecting sites is located in the heart of Ontario's beautiful cottage country. Bancroft has been dubbed the Mineral Capital of Canada because of the number, variety and quality of the minerals found there. It has a long history of mining, with past producers of corundum, nepheline, sodalite, apatite, mica, marble, uranium, talc, beryl and feldspar.

Each Civic Holiday weekend (the first weekend in August), Bancroft hosts the Rockhound Gemboree, Canada's largest annual gem and mineral show. A guidebook is available with detailed directions to 30 sites in the region. Geologist-led mineral collecting field trips are held throughout the Gemboree, as well as every Tuesday and Thursday during July and August. There are also several privately owned fee-for-collecting sites, offering outstanding specimens of apatite, biotite, hornblende, titanite, feldspar, beryl, tourmaline, quartz, microcline, amazonite, euxenite, columbite and sodalite.

Thunder Bay

Thunder Bay is a paradise for amethyst and agate hunters. Several amethyst producers provide fee-for-collecting facilities at their Thunder Bay area mines. Amethyst products are sold both at the mines and at retail outlets in Thunder Bay. The area also boasts a new agate mine that is open to mineral collectors on a fee-for-collecting basis.

Atikokan

Steep Rock Mine, just northwest of Atikokan, is an open pit iron mine that has been out of production since 1982. Hematite, goethite, manganite, quartz, aragonite, siderite and other minerals may be found in carbonate zones. The Ministry of Natural Resources has collecting rules in place.

Bruce Mines

Copper ore in quartz is found south of the Trans-Canada Highway and east of Bruce Mines at an old mining site. Mineral collectors have found quartz/jasper puddingstone north of the highway.

Cobalt

Silver ore and cobalt can be found around this former silver mining boom town. The mining museum has specimens from around the world on view and provides a map for a self-guided tour of local mining operations.

Sudbury Region

This world-class nickel producer offers a variety of mineral-related activities. Nickel ore and rhyolite can be found in the roadcuts northwest of the city. Other locations within easy driving distance feature staurolite, chlorotoid, andalusite, garnets and almandine garnets. Science North runs a Path of Discovery tour bus to major mining sites and operates a rock swap area in the main building. Sudbury hosts an annual gem and mineral show in mid-July.

Timmins and Kirkland Lake

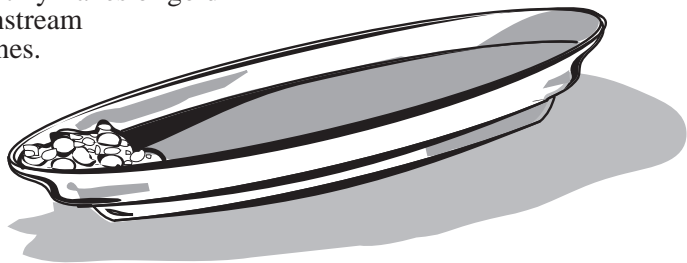
These well-known gold mining camps in northeastern Ontario feature gold and pyrite, several mine dumps, a depth of mining history and several mineral-related activities. In Timmins, the Gold Mine tour allows visitors to experience a miner's life deep beneath the earth.

Manitoulin Island

The largest freshwater island in the world contains numerous locations to observe and collect Ordovician- to Silurian-age fossils. Weathering of roadcuts and surface exposure provide the best opportunity to collect brachiopods, bryzoan and numerous varieties of corals that lived 400 million years ago.

Gold Panning Sites

Gold panning can be done anywhere mineral collecting is allowed. Ontario is not known as a place where gold can be easily found in streams, mainly because glaciers scoured and dispersed any placer gold concentrations that might have existed. Panning can, however, yield interesting results. Grains of garnet and magnetite can be recovered throughout much of the province and tiny flakes of gold may be found downstream from some gold mines.



Safe Collecting is Smart Collecting

Ontario welcomes mineral collectors, but it expects them to abide by the same safety standards and environmental practices followed by prospectors, mineral explorationists and other outdoor professionals.

Old mine sites need particular attention. Although these abandoned sites and workings are excellent collecting sites, they can also be very hazardous and unpredictable. Mineral collectors have to be on the lookout for several problem areas:

- Old shafts may be hidden in the undergrowth of bushes or ferns.
- Rock faces, cliffs and slopes may be dangerously unstable.
- Underground workings may fill with poisonous gases generated by power tools and generators.
- Deteriorating posts may have partially buried barbed wire.
- Danger signs may have been knocked over or removed.

The easiest way to deal with these hazards is to stay out of old workings. Restrict your collecting to the material above ground in visible and accessible locations. Leave the exploration of abandoned workings to the professionals who are trained and equipped for the risks.

Geography also imposes a need for special care. Ontario is a large province, with vast tracts of undeveloped wilderness and a changeable weather system. Mineral collectors who collect "off the beaten track" should equip themselves with a knowledge of bushcraft and survival techniques. Two common sense practices will reduce the chance of misadventure.

- Collect with a partner. The buddy system works as well in the bush as it does at the beach. It is recommended practice for anyone who works or plays in wilderness areas of Ontario.
- Tell someone where you are going and how long you will be.

In the Rockhound's Backpack

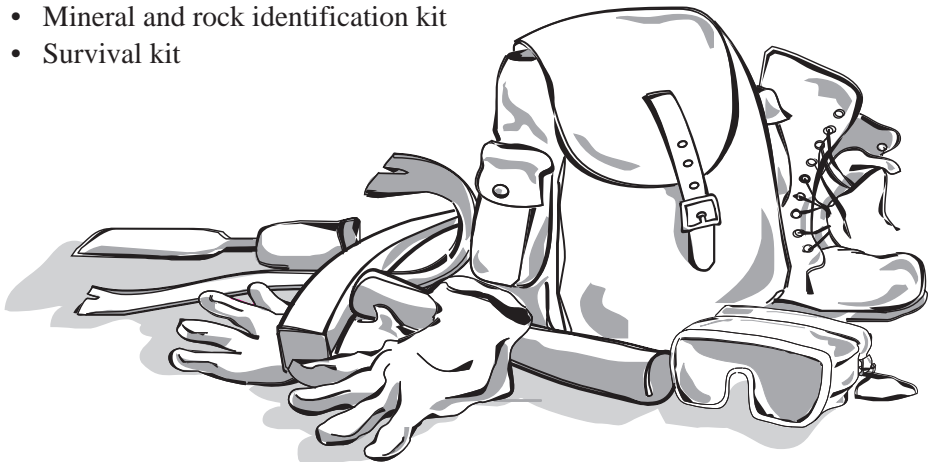
Mineral collecting requires little in the way of equipment apart from an interest in rocks and a love for the outdoors. There are a few pieces of gear that will allow a rockhound to collect and protect a wider range of samples.

Basic gear:

- Geologist's pick, mason's hammer or small sledge hammer
- Prybar and chisels (1/2-inch to inch)
- Packsack for specimens
- Plastic bags and newspaper to wrap and store samples
- Safety glasses
- Sturdy shoes or boots
- Compass

As you venture further off the beaten track, you should add some new pieces to your basic kit:

- Area maps (topographical, land status)
- Hand lens (10 or 15 power)
- Gloves
- Hardhat if you are planning to work in quarries or around rock faces
- Geological guidebooks and maps
- Mineral and rock identification kit
- Survival kit



An Ounce of Prevention

Anyone heading into the bush in Ontario, whether it is for an afternoon or several weeks, needs to carry essential survival items. As a bare minimum, your survival kit should contain:

- Compass and topographical map of the area
- Pocket knife (preferably an army-style survival knife)
- Wooden matches in a sealed pill bottle or film canister to keep them dry
- Candle
- Insect repellent
- Whistle and small mirror
- Roll of electrical tape
- Safety pins (in another pill bottle or film canister)
- A couple of large, orange garbage bags, which can be turned into highly visible tarps or used as emergency rainwear
- Small first aid kit

As the distance and length of your excursion increases, you should add more items to the kit, such as a flashlight, water decontamination tablets, nylon and bungy cord, extra clothes, high-energy food, a mess kit, snare wire and a small axe.

A serviceable first-aid kit should contain:

- First-aid manual
- More than the necessary amount of any prescription medicine
- Several rolls of one-inch and two-inch wide gauze bandage
- Sterile gauze dressings, about three inches square, for larger cuts
- Adhesive tape, self-adhesive bandages and antiseptic
- Triangular bandages
- Painkillers, such as acetaminophen or ASA tablets (optional)

Wrap these items in a separate waterproof bag, seal it with tape and put it in a readily accessible part of your pack.



Finding Information on Ontario's Mineral Policy

The Ontario Ministry of Northern Development and Mines can help mineral collectors determine the status of lands, give them advice on good collection sites and direct them to publications on mineral collecting.

Resident and District Geologists can advise collectors about mineral collecting sites in their districts, including areas that are considered hazardous.

Regional Resident Geologist's and District Geologist's offices provide advice and information on local geology, mineral exploration opportunities and activities, and public access to geological data, including industry assessment files, mineral deposits information and diamond drill core.

Mining Lands Consultants in the Mines and Minerals offices in Red Lake, Thunder Bay, Sault Ste. Marie, Timmins and Kirkland Lake provide *Mining Act* administrative services, answers to technical inquiries, access to the Mining Lands Claim information via the Internet, and the sale of claim tags and prospector's licences.

Claim maps are available for viewing at all Mining Lands Consultant's offices, the District Geologist's offices in Kenora and Sioux Lookout and via the Internet. All regional Mines and Minerals offices are over-the-counter sales outlets for publications which report on work performed in their region.

Mines and Minerals Division website: www.gov.on.ca/MNDM/MINES/mmdhpge.htm

MNDM Contacts

Kenora

Box 5050
810 Robertson St.
Kenora, ON P9N 3X9
District Geologist (807) 468-2813

Kirkland Lake

4 Government Rd. E.,
Kirkland Lake, ON P2N 1A2
Regional Resident
Geologist (705) 567-5242
Mining Lands
Consultant (705) 567-9242

Red Lake

Box 324, Ontario Government Building
Red Lake, ON P0V 2M0
Regional Resident Geologist (807) 727-3272
Mining Lands Consultant (807) 727-3284

Sault Ste. Marie

70 Foster Drive, Suite 200
Sault Ste. Marie, ON P6A 6V8
District Geologist (705) 945-6931
Mining Lands
Consultant (705) 945-6925

Sioux Lookout

Box 3000
 Queen and Fourth
 Sioux Lookout, ON P8T 1C6
 District Geologist (807) 737-2037

Southern Ontario

P.O. Bag Service 43, Old Troy Rd.
 Tweed, ON K0K 3J0
 Regional Resident
 Geologist (613) 478-3161

Sudbury

Level B3, 933 Ramsey Lake Rd.
 Sudbury, ON P3E 6B5
 Resident Geologist Program
 Senior Manager (705) 670-5955
 District Geologist (705) 670-5735
 Provincial Recording Office (see pg. 15)

Thunder Bay - North**Thunder Bay - South**

Suite B002, 435 James St. S.
 Thunder Bay, ON P7E 6S7

Resident Geologist Program
 NW Regional Manager (807) 475-1107
 Regional Resident
 Geologist (807) 475-1331
 Mining Lands
 Consultant (807) 475-1311

Timmins

Ontario Government Complex
 P.O. Bag 3060, Hwy 101 East
 South Porcupine, ON P0N 1H0
 Resident Geologist Program
 NE Regional Manager (705) 235-1612
 Regional Resident
 Geologist (705) 235-1615
 Mining Lands
 Consultant (705) 235-1600

Toronto

Rm. M2-17, MacDonald Block
 900 Bay St.
 Toronto, ON M7A 1C3
 Toll-free inside Ontario 1-800-665-4480
 District Geologist (416) 314-3800

Mines and Minerals Division - Sudbury

At the Willet Green Miller Centre in Sudbury, customer service functions with a province-wide focus include: publication sales, the Mines Library, access to ERLIS and the Internet, assessment files and geoscience information.

All Mines and Minerals publications are available for sale at the Publication Sales office located in the Willet Green Miller Centre in Sudbury. The Publication Sales office also handles all telephone, mail and fax orders.

Publication Sales

Ministry of Northern Development and Mines
 Willet Green Miller Centre
 933 Ramsey Lake Road, Level A3
 Sudbury, ON P3E 6B5
 Tel: 1-888-415-9845
 Tel: (705) 670-5691 (local calls)
 Fax: (705) 670-5770
 E-mail: www.gov.on.ca/MNDM/MINES/PUB/mmdpube.htm

Provincial Information Centre - Toronto

At the Mines and Minerals Information Centre in Toronto, customer service functions with province-wide focus include: publication sales, library, access to ERLIS, Internet and assessment files, and geoscience information.

Mines and Minerals publications of a provincial interest and of work performed in the Southern Ontario region are available for sale at the Mines and Minerals Information Centre.

Mines and Minerals Information Centre
Ministry of Northern Development and Mines
Rm. M2-17, Macdonald Block
900 Bay St.
Toronto, ON M7A 1C3

Tel: 1-800-665-4480
Tel: (416) 314-3800 (local calls)
Fax: (416) 314-3797

Provincial Recording Office - Sudbury

At the Willet Green Miller Centre in Sudbury, customer service functions with a province-wide focus include: sale of claim maps for the province, claim tags and prospector's licences; access to Internet client services; filing of all documents pursuant to the *Mining Act*; payment of all fees as noted in the *Mining Act*; provision of information associated with staking and interpretation of the *Ontario Mining Act*.

Provincial Recording Office
Ministry of Northern Development and Mines
Willet Green Miller Centre
933 Ramsey Lake Road, Level B3
Sudbury, ON P3E 6B5

Tel: Mining Lands Products** 1-888-415-9845
Tel: Mining Claim Inquiries 1-888-415-9845
Tel: (705) 670-5742 (local calls)
Fax: (705) 670-5681
Toll-free fax: 1-877-670-1444

**claim maps, claim tags,
prospector's licences



Notes

A Code of Ethics for Rockhounds

I will respect both private and public property, and will do no collecting on privately owned land without the owner's permission.

I will keep informed of all laws, rules, and regulations governing collecting on public lands, and will observe them.

I will, to the best of my ability, ascertain the boundary lines of property on which I plan to collect.

I will use no firearms or blasting materials in collecting areas.

I will cause no wilful damage to property of any kind - fences, buildings, signs, etc.

I will leave all gates as found.

I will build fires only in designated or safe places, and will make sure that they are completely extinguished before leaving the area.

I will discard no burning material - matches, cigarettes, etc.

I will fill all excavation holes which may be dangerous to livestock.

I will not contaminate wells, creeks, or other water supplies.

I will cause no wilful damage to collecting material, and will take home only what I can reasonably use.

I will leave all collecting areas free of litter, regardless of how found.

I will co-operate with field trip leaders and those designated in authority in all collecting areas.

I will report to my Club/Federation officers or other proper authorities, any deposit of material on public lands which should be protected for the enjoyment of future generations for public, educational and scientific purposes.

I will appreciate and protect our heritage of natural resources.

I will observe the "Golden Rule" and will use "Good Outdoor Manners" and will, at all times, conduct myself in a manner which will add to the stature and public image of rockhounds everywhere.

Courtesy of the Central Canadian Federation of Mineralogical Societies (CCFMS).



Ontario

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