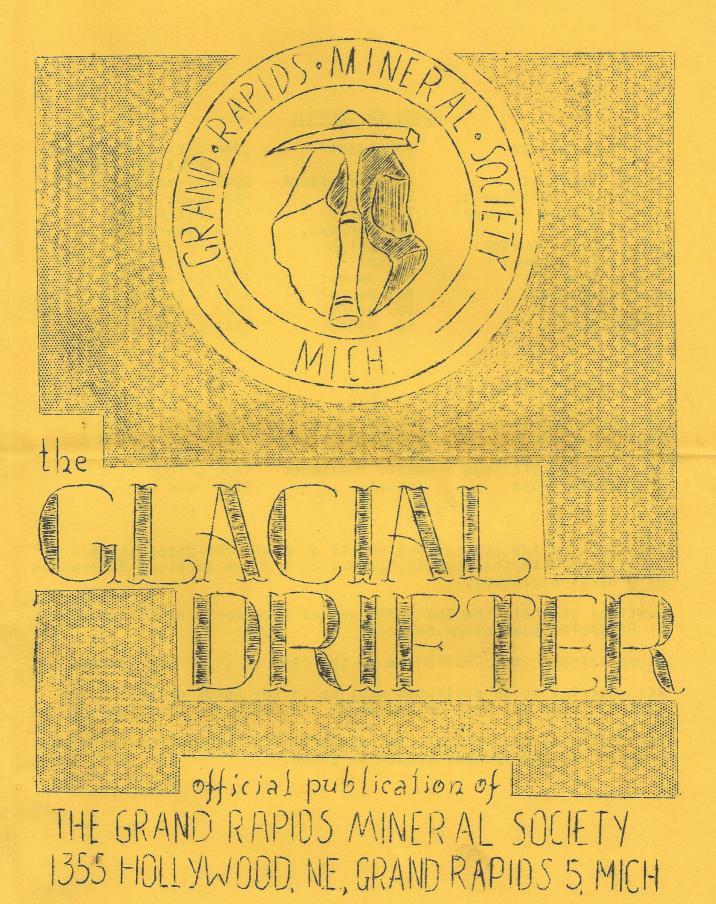
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The Grand Rapids Mineral Society is a Non-Profit Corporation affiliated with the Midwest Federation and the American Federation of Mineral Societies.

Meetings are held the 2nd Wednesday of each month at 8:00 p.m. at Riverside Elementary School.

Advertising in the DRIFTER is at the rate of \$3.00 per issue.

All material to be published must be in the hands of the editor no later than the 25th of the month preceeding publication.

Permission to reprint material appearing in the DRIFTER is hereby granted provided proper credit is given.

MARCH MEETING

The regular meeting of the Grand Rapids MIneral Society will be held on Wednesday, March 8th, at 8:00 pm at Riverside Elementary School. We will be privileged to enjoy a dual program. New Member, August Post, an amatuer photographer who gets professional results will take us on a field trip to Utah when he presents his slide show UTAH WILDS. Mr. & Mrs. Post took several trips into the wilds of Utah and obtained some excellent pictures of such out-of-the-way places as Cathedral Valley, Circle Cliffs, Valley of the Göthics (discovered just seven years ago) and Rainbow Bridge. The other treat in store for us is to be presented by W. B. Matheson who has made transparencies of fossils and agates which he projects on the screen. YOU will not want to miss this meeting. The door prize will be a sulphur specimen.



Miss Virginia Franzen, treasurer and Mrs. Phyllis Hanna, Membership Chairman will be on hand to take your money for your 1961 dues. No delinquent member will be sent the DRIFTER after this issue.

MARCH 4th FIELD TRIP TO CRANBROOK

On March 4th we will meet in the parking lot at Cranbrook Museum, Bloomfield Hills at 10:00 a.m. to spend two hours viewing a most outstanding collection of rocks and minerals. If you need a ride, or if you have room for a passenger or two, please contact Bob Rozema so this can be arranged.

As the Museum closes promptly at 12:00 noon it is a good idea to be on time, as two hours is not too long to spend looking at the exhibits. Anyone who wants to visit the exhibits in the afternoon may do so during the regular museum hours of 2:00 to 5:00. Admission is 50 % for adults and 25 % for children.

WITH OUR JUNIORS

After a lively campaign the Juniors elected Mike Petersen as their president; Steve Tchozeski as vice-president; Sue Dezwaan as secretary; Marty Smith as marshall with Steve Smith and Dan Lautenbach as his deputies. This group has an enrollment of 75 and has as their sponsor Les Pearl. He is getting help from Max Hunting, Jack Kirkwood, Mrs. Nellie Mead, Mrs. Gates, and several other of our members. They meet every Saturday morning at the Museum.

CALENDAR OF EVENTS

- Every Saturday 10:00 to 12:00 a.m. Junior Group meeting at the G. R. Public Museum Leslie Pearl, Group sponsor
- March 4 Saturday Field trip to Cranbrook Museum, Bloomfield Hills. Meet there at 10:00 a.m.
- March 7 TUESDAY Be sure to watch WKZO-TV at 1:00 p.m. Our own Gerry Morris will be appearing on Feminine Fancies
- March 8 Wednesday Regular monthly meeting of the Society at Riverside Elementary School, at 8:00 p.m. Mr. August Post and Mr. W. B. Matheson, speakers.
- March 11 Saturday Lapidary Group meeting at 2:30 p.m. at the home of Joe Hanna, 2319 Riverside Dr. N. E.
- March 13 Monday Board of Control meeting at 8:00 p.m. at the home of Gerald Morris, 1315 Griggs S. E.
- March 16 Paleontology Group meeting at 8:00 p.m. at the home of Mr & Mrs Ernest Gates, 2520 Plainfield N. E., Les Pearl, Group Leader. Please park in the lot across Beechwood, back of Boyd's Grocery.
- March 22 Mineral & Geology Group (Beginners) at 8:00 p.m. at home of Dr. Richard Rose, 3244 Springbrook, N. W., Comstock Park. First meeting for this group. A follow-up of the class held at the Museum.
- March 23 Mineral & Geology Group meeting at 8:00 p.m. at the home of Mr & Mrs Willis Atwell, 152 Fuller S. E. Robert Rozema, Group Leader
- March ?? Crystallography Class Dr. Stonehouse, teacher.
 G.R. Junion College. At time of going to press the exact date had not been set. This will be announced at the Regular Meeting, or contact Les Pearl.
- April 16-30 Grand Rapids Mineral Society Gem & Mineral Show at the Grand Rapids Public Museum. Have YOU turned in your application for space. DO IT TODAY.
- May 20 Field trip to Rogers City. Leo Hoogerhyde has made the arrangements. More about this at the Regular meeting and in the next DRIFTER.
- June 3-4 Saturday and Sunday Kalamazoo Rockfest Second Annual Rock & M neral Show with dealer booths and special features, at Kalamazoo County Center Building, Lake Street, Kalamazoo.
- June 29-30 Midwest Federation Gem & Mineral Frir and 21st Annual July 1-2 Convention at Saginaw. Are YOU getting your exhibit ready? See article by Harry H. Sprague, General Chairman of this convention, elsewhere in the DRIFTER.

MOLECULES AND MINERALS

Last month's program, presented by Dr. Stonehouse was a wonderful example of how a good teacher can present what can be a very complicated subject in an extremely simple manner. Most of us had little trouble visualizing the structure of an atom as he compared it to an onion. The mass or weight of the atom, its protons and neutrons, were a heavy ball in the center and the attractive forces that held the onion's layers (electron rings) were simply described.

Why do minerals have crystals that follow an exact pattern each time regardless of where you find it on our earth? Why can the cleavage of some minerals be used as a means of identification? Again, Dr. Stonehouse showed how these atoms or ions fit together like various sized balls into definite patterns. Using silicon dioxide (quartz) as an example, he showed how these patterns or balls (the sinica molecule) fit together and no matter how large the crystal grew the last crystal face would always end forming the same angles with its adjacent faces. Irregardless of size or distortion the angles are always the same and can aid in identification of the mineral.

Cleavage? Simple - some layers or molecules hold on tight while others have a weaker bond so the mineral cleaves along the plane of the weak bond. Again, always the same as determined by its internal molecular structure.

What does this mean to you and me as rock hobbyists? It means that with a little study - learning the six crystal systems and what a few of the typical minerals crystal patterns look like - we can gain a lot more enjoyment from our hobby.

Can you tell whether a hand specimen of granite contains mica or hornblend? The appearance of the crystal should tell you. Is it hornblend, tourmaline, or augite? Dr. Stonehouse could identify it for you but wouldn't you get much more satisfaction from doing it yourself? Thanks again, Dr. Stonehouse.

A tigereye pendant, donated by Don Casey, was won by Pat Hubbell and the quartz crystal group was won by Ronald Roys.

WELCOME NEW MEMBERS

We are happy to welcome the following new members:

Mr & Mrs August Post

5647 - 84th Street

Caledonia, Mich

TW 1-8765

Mr. Richard Van Beek

1227 W. Leonard Street

Grand Rapids 4, Mich

RI 2-6360

Mrs. Lura K. Brown

4628 Walton Ave S. W.

Grand Rapids 8, Mich LE 4-3959 Grand Rapids 5, Mich EM 1-1837

Mr & Mrs Leo Spayde Rev. R. W. Albert
1026 Rosalie Ave N. W. 950 Pinecrest S. E.
Grand Rapids 4, Mich GL 3-0831 Grand Rapids 6, Mich GL 2-7282

Please note change of address: Mr. & Mrs. Don Casey

834 LanDera Court

New Haven, Indiana

OUR PRESIDENT"S CORNER

This is being written Saturday, February 18th, while looking out the window at green grass and blamy breezes. It is more of a June day than one belonging to February and without a doubt will be bundled up against the cold once again before spring really arrives. This weather fairly makes one's palms itch for the feel of a "rock hammer" again, and all of this is just a way of leading up to your Club's plans for spring and summer field trips.

We are still planning to have a trip through the Grand Rapids Gypsum mines sometime in March or April. I talked with the new mine superintentant last Thursday and all does not look black. He promised to do some checking for us and with some luck you may find a date for this trip in the "Calendar of Events".

April may bring a local field trip or two in the gravel pits but we will have to see what the weather does before setting any dates for these. Leo Hoogerhyde has cleared MAY 20th with the U. S. Steel Company for another trip through the Rogers City Limestone Quarries. Paul Chase, our Field Trip Chairman, is contacting quarries at Grand Ledge, Sylvania, Maybee, Pugh, and others within driving distance. Unfortunately, there are no quarries in our immediate vicinity and if you plan on doing any rockhunting other than in our local gravel pits you will have to do a little travelling. I am sure that you will find each of these trips rewarding.

Before we leave the field trips, I should tell you that we are looking into the possibility of taking a group through the salt mines in Ontario. We may not be able to complete arrangements for this one but at least you should know that your Field Trip Committee is working on it.

And of course, there is the field trip to Cranbrook scheduled for March 4th.

Just a reminder again of our Annual Show at the Museum. If you plan for a display please contact Jerry Morris or Willis Atwell. To have a good show takes advance preparation so don't wait until the last minute.

The special study groups in the various phases of our hobby are making fine progress. Anyone interested in attending these meetings are invited, the time and place of meetings are listed in the "Calendar of Events". Now that the classes held by Miss Dockeray have terminated we will continue meetings with those interested in rock identification and geology in the homes of our club members. The first of these meetings for this group will be held at my home on Wednesday, March 22nd, at 8:00 p.m. At that time we can see what our interests are and plan ahead from there. We will start a beginning study of igneous rock, their formation and identification, at the first meetings. We can then go through the rocktypes, geological formations, affect of wind and water, or any other phase of geology that the majority wishes.

Richard Rose, President

GERALD MORRIS TO APPEAR ON TV

On Tuesday, March 7th at 1:00 p.m., our own Gerald (Gerry) Morris will appear on WKZO-TV, Channel 3, Feminine Fancies program with his Petoskey stones. Be sure to watch this program.

JUNIORS ADD NEW MEMBERS

Membership in the Junior Group was increased by the following and we welcome them to our Society:

Kathy Greenway Carol Sue Karas 1321 Calvin, S. E. 1109 Parmelee N. W.

Grand Rapids 6, Mich Grand Rapids 4, Mich GL3-3256

GL 2-7315

George Pattok

Jim Rittenhouse

10 National SW 725 W. Fulton Grand Rapids 4, GL 6-6870 Grand Rapids 4, Mich GL 4-6145

APRIL SHOW AT MUSEUM

Gerry Morris and Willis Atwell, co-chairmen for the Second Annual Gem & Mineral Exhibition, still have space available for those who have material to exhibit. This is YOUR show and we would like one or more pieces from each and every member. If you can't fill a case, try for a shelf. Or, if a conventional shelf is too big for what you want to exhibit, we have some shelves just big enough to hold one of your best pieces. But do show something. We want a really representative showing from the whole membership. See Gerry or Willis at the March meeting, or better still, call one of these men TODAY and let him know what you are showing and how much space your material will fill.

MAY 20th FIELD TRIP

Be sure to keep the date of MAY 20 open for the field trip to the big linestone quarry at Rogers City. Operated by U. S. Steel, this is the world's largest limestone quarry, here the material is removed from the Rogers City formation and is shipped to the great steel mills for use as a flux in steel manufacture. It is a privilege for the club to have U. S. Steel take us on a guided tour of the workings where you will see how a big time quarrying operation is conducted. You will also be taken to a good fossil bearing area where you can collect to your heart s desire. There are some very nice mucrospirifers found here as well as other brachiopods and bryozoans. In the nearby exposures of the Antrim Shale in the vicinity of Alpena you can find marcasite nodules as large as six hundred pounds in weight, let's see one of you bring one of these home if you can! Grand Rapids Mineral Society member Leo Hoogerhyde did the contact work and is taking reservations for this trip.

CLARK STANDARD SIZES OF ROCKS

1 mm or less 1 mm to 1/8 inch 1/8 inch to 2½ inches 2호 inches to 10호 inch over 10½ inches

Particle fragment pebble cobble boulder

FROM QUARRY to QUERY

In salty seas of long ago

- Back in Devonian time A trillion trilobites once crawled

In water, silt, and slime,

They lived and multiplied, and when

They grew too tired to creep

They tucked their tails beneath their chins

And simply went to sleep.

And as they slept the whole scene changed;
Their kind is seen no more,
Except as fossil forms are found
Along some ancient shore.
Those ancient shores were covered o'er,
- A sedimentary heap
Dreaming, while ages tiptoed past
And left them there as leep.

Now creatures made of steel have come
And rumpled up their beds,
Which so disturbed the trilobites
That many lost their heads.
The brachiopods were all dismayed
To find their cover gone
After three hundred million years
of having had it on.

Quite often other creatures come,

- The tall two legged kind
And search in those disheveled beds

To see what they can find.

They wield their hammers and their picks

With hefty, hopeful thrust;

They split the multi-layered shale,

They even cull the dust.

The trilobites and brachiopods

Had waited for this day

For Homo Sapiens to come

And carry them away.

Man gives the fossils quite a jolt

By turning tables round:

Himself the one carried away

When fossils first are found.

But where he goes the fossils go,
And you will always find
He has them in his pockets
Or else they're on his mind.
And when man's time has come to leave
The haunts of this old earth,
His dust and fossils will remain
- But what will they be worth?

Gladys S. Young Wabash Valley Gem and Mineral Society

MINERAL COLLECTING - Part 4

HARDNESS and STREAK

In field identification of minerals, the collector must learn to use a few simple tools to evaluate the particular qualities of a specimen that make it recognizable. One of the most available of these tools is the hardness scale, which is based on a comparison of the mineral to be identified with a known mineral of known hardness. The most common scale of mineral hardness is "Mohs Scale", which follows:

MOHS SCALE OF HARDNESS

1 -	talc	2.	-	gypsum	uqqq 3	_	fluorite
4 -	calcite			apatite	6	-	feldspar
7 -	quartz	8 -	-	topaz	9		corundum
		10 -	-	diamond			

The mineral collector should assemble a hardness set for use at home and to be taken into the field with him if he so chooses. However, the collector usually has on his person certain objects which are sufficient to measure the hardness of minerals for field identification. First - your fingernail, which has a hardness of between 2 and 3. A copper penny from your pocket is about 4 in hardness; and your pocketknife, if of good quality steel, is about 6.

If you buy a hardness set from a dealer it will cost you between \$1.00 and \$4.00, depending on the dealer, the size of the hardness minerals, and whether or not the set includes a magnet and a diamond. Diamond is completely unnecessary since any mineral that is not scratched by corundum is automatically 10 on Mohs scale. Should you decide to assemble your own hardness set, remember to choose mineral specimens with sifficient purity to provide uniform and typical hardness throughout.

"Mohs Scale" has several weaknesses, but it is what we have to work with, so we'll have to make the best of it. The comparative hardnesses are not proportional to the whole range of comparison nor are they relative to each other. However, when used in conjunction with other measurements of property the hardness tests become an invaluable aid to identification.

"Streak" is another property of minerals that helps us to give the proper name to a mineral specimen. This is the property a mineral has cf leaving a line of color on the surface of an unglazed porcelain surface across which the mineral has been rubbed. Streak plates may be obtained from a dealer, or they may be obtained by getting a bit of broken teapot or ceramic tile, or in fact, any porcelain object that has not been glazed on one surface.

Robert R. Rozema

GRAND OPENING	MARCH 18th	GRAND OPENING					
	SAGINAW GEMS & MINERALS E 1811 DURAND SAGINAW,	MICHIGAN					
Phone: PI 2-414	6 vesto as nostrados as l	Doris L. Sprague Merlin T. Heritier					
Mineral specimens, gem rough, lapidary supplies - Gemlap Equipment							
MARCH 18th		MARCH 18th					

(ROCKHOUND) EARTH SCIENCE VOCABULARY

Feeling that some of the newer club member may not be too familiar with terms used in our hobby, I am going to list some of them for you. If you feel this to be of value I will continue in future issues of the DRIFTER. The definitions will, in some cases, be those of the writer, and should you disagree with any of them, please let me know and we may get some good talk as a result.

- Rockhound Descriptive term for one who participates in any branch of the earth sciences as a hobby. This word has been very popular but is rapidly falling into disfavor as not properly descriptive of the scope and value of the interest.
- Rock Hobbyist A much more meaningful and descriptive term that is supplanting "rockhound", at least in many written communications.
- Stone A non-technical word, incorrectly used to describe earth material. Exception is when the word is used by a quarryman or mason in referring to building stone and by a lapidary or jeweler in referring to gemstone.
- Rock Earth material composed of minerals and formed by the cooling of magmas or by the consolidation of sediments, or by the metamorphis of previously formed rocks.
- Mineral Rock forming material caused by the combination of chemical elements in a familiar and recognizable pattern of atoms and occurring in nature. Almost universally occurring as crystals in the purest state.

 PROPERTIES OF THE MINERALS
- Crystal form First observed property, if present. The habit a x1. x1s. mineral has of assuming the form of a geometric solid because of the regular pattern of it s atomic structure.
- Hardness The property of resisting impact and abrasion by other materials, measured by comparison with a ten digit method known as "Mohs Scale".
- Specific Gravity The property of difference of weight to volume as compared with water, expressed as a numerical proportion.
- Fracture The way in which a mineral breaks when struck.
- Cleavage The property of separating along definite planes of relationship to xl axes or faces, expressed as xl names.
- Luster The visual appearance of a mineral as expressed in terms of familiar comparison as: glassy, greasy, metallic, waxy, etc.

CLUB DISPLAYS DE COMPANY DE COMPA

HARRY H. SPRAGUE, General Chairman

1961 Midwest Federation Gems and
Minerals Fair & 21st Convention

With the ever increasing popularity of our hobby, and the mounting demand by the general public, to see on display the various handicrafts of their neighbors, the time has come, I believe, for the members of the many Earth Science Societies to give some thought to the problem that confronts them. How best can we, as a unit, put our best of material and talents to work so that our individual Societies will stand out before the public's eye?

The modern concept of a Club Display has changed greatly in the past few years. Today, most organizations have gotten away from the old fashioned display of tossing a group of their finest mineral specimens into a purchased, lighted display case, add the labels, and a card with their name on it, and that sit. Bot not today!!

The trend throughout the United States has turned to more thought and extensive planning of intricate lay-outs. Why this change? I believe that it lies in the advancement of our hobby. The membership has increased, and with this growth has come the growth of ideas, plus one other very important factor. The students of our grade schools and our high schools have stolen the march on all of us. If you don't believe this, visit the nearest Science Fair. Look at and admire the wonderful displays these young people have put together, you will go home thinking of just how inadequate a case of minerals from a group of over 100 adults can be.

Two of the societies in the State of Michigan that have pioneered this type of display are the Ishpeming Rocks and Minerals Society with their working mine display which is one of the finest unit displays in the Midwest. The Michigan Lapidary Society of Detroit has from year to year put on an outstanding display of motorized styrofoam, with the finest of faceted, cabochons, carvings, and spheres; a truly fine effort by a very fine progressive society.

The ceiling of what lengths a group can go to is governed only by the limits of their collective imagination. Make it a club program in the near future to have an open discussion on Our Club Display. you will be quite pleased with the results that will come out of it. But don't stop there. Carry on. Complete that display and proudly enter it in the regional Rockramas, and your big show, THE MIDWEST FEDERATION GEMS & MINERALS FAIR.

VOCABULARY (continued)

Effervescence - the property of bubbling in the presence of various acids.

Fusibility - The property of flowing or losing it's original form in the presence of heat, sometimes reforming as a bead or a threadlike shape.

Color - The property of transmitting different hues of light to the eye.

Striation - Parallel lines crossing a xl. face in a recognizable pattern typical to particular minerals.

Twin or - XIs. formed with faces or axes common to one another.
Twinning

Fluorscence - The property of radiating certain hues of color in the presence of "black light", "ulta- violet light rays" or more correctly light rays of roughly 2500 to 4000 angstrom units of wave length.

Phosphorscence - The property of continuing the above mentioned radiation after the source of the ultra-violet radiation has been removed.

Minerals have other properties but I have listed only the most common and useful properties for identification of the material which most of you will be collecting. These are a few of the simple everyday words of our hobby, learn them and use them.

We'll have more for you in the department next month.

Robert R. Rozema

ROCKEY KENNEL CLUB PUPPY NAME: Rhett Anders
Breed: "P.P.P." - Prospective Pebble Pup
Sex: Male - Weight: 7 lb, 13 oz. Length 20 3/4"
Color: Eyes - blue Hair - dark
Distinguishing feature: Hungry
Owners: ROTS Rockhound Kennel
Parents of Puppy: Father: Ronnie, Mother: Barb
Breed: Rockhounds

rozema s Phone EM 1-6880

c Choice Labradorite - opal
k sunstone - chrysoprase p agates - faceting rough

i Gizmo Tumblers - Poly Arbors
e Frantom Lapidary Equipment

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A LETTER TO ALL CLUB PRESIDENTS

Next summer's Midwest Convention is going to be billed as the Midwest Gem & Mineral Fair. With emphasis on the Gems and Minerals. The convention host society has plenty of attractions to make a trip to Saginaw worthwhile. There will be five buildings surrounding a small park that will be your headquarters for four days. We will have dealers, displays, specialshows, and of course plenty of outstanding speakers.

But I will get back to the point, all Rockhounds love to see mineral displays and they expect to see them at a convention. As I said, this convention wants to have the emphasis on gems and minerals, and we would like to call on you, the Club President, to help us. As the leader of your group, you are well acquainted with their strong points. Most of you know which of your members have materials that should be shown. Some of these mineral specimens have never been shown out of your own area, there are artistic creations of silver and gems, and there are fine works of art in the lapidary field that many people would like to see.

Part of the convention should be the opportunity to show the wonderful creations of man and nature. This year presents a wonderful chance to fulfil that opportunity. These five buildings that will be at your disposal have space and good lighting. The Saginaw County Fair Association will give us free use of over 200 feet of showcases. Most of these cases have built-in lighting. Lighting, of course, has a lot to do with a successful display.

The Midwest Convention wants to have displays of all kinds at this year's show. We need you, the club leaders, to help us, phone, or send a word message by words of mouth about those in your society you believe should participate, we will do everything in our power to accommodate these people and their materials. If your Rockhounds are interested in trophies and awards, we have 'em. There will be more than ever this year in the competitive exhibits. In the non-competitive section, we hope that honor and prestige will suffice those whose greatest pleasure is showing.

Please let me hear from you in your usual prompt manner.

Don Sommerfield*** 1423 N. Carolina Saginaw, Michigan

***President Tri-County Rock and Mineral Society.

GRAND RAPIDS MINERAL SOCIETY MEMBERS PLEASE NOTE!!!!

We need your cooperation for displays for the Midwest Federation Gems and Minerals Fair. Please contact me.

Richard Rose, President

THE GRAND RAPIDS AINERAL SOCIETY 1355 HOLLYWOOD NE GRAND RAPIDS 5, MICHIGAN RETURN POSTAGE GUARANTEED



to smoot . Majors an Electra to the Mr. Kreigh Tomaszewski 333 Richard Terrace S.E. Grand Rapids 6, Mich.

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