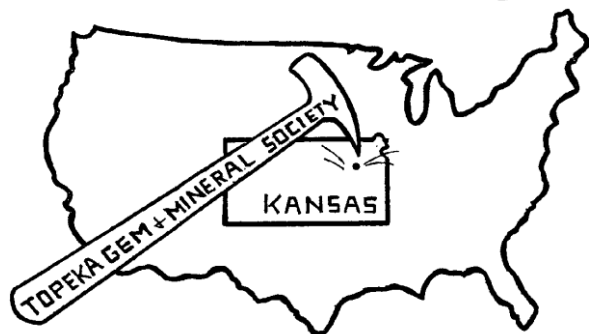


The Topeka Gem and Mineral Society, Inc.
 1934 SW 30th St. Topeka, KS 66611
 Rock2Plate@aol.com

THE GLACIAL DRIFTER



www.TopekaGMS.org or
 Facebook: Topeka Gem and Mineral Society Field Trips

The Topeka Gem & Mineral Society, Inc.
 Organized December 3, 1948

Member of Rocky Mountain Federation of
 Mineralogical Societies American Federation of
 Mineralogical Societies



The Glacial Drifter, Vol. 67, No. 4
 April 2024



The Purpose of The Topeka Gem & Mineral Society shall be exclusively educational and scientific: (1) to promote interest in geology and the lapidary arts; (2) to encourage the collection and display of rocks, gems, and minerals; (3) to encourage field trips and excursions of a geological, or lapidary nature; and (4) to encourage greater public interest and education in gems and minerals, cooperating with the established institutions in such matters.

Meetings: 4th Friday of each month, September to May, 7:15 pm, First Congregational Church, 1701 SW Collins Ave, Topeka, KS 66604. No meeting in December unless notified of a change. Picnic meetings are held, June, July and August.

Dues: Individual, \$15.00; Couple, \$20.00; Junior (under 18 years of age), \$5.00. Dues are collected in December for the following year. Send dues to: **Millie Mowry, Treasurer, 1934 SW 30th St, Topeka, KS 66611.**

www.TopekaGMS.org

2024 OFFICERS AND CHAIRS

President	Brad Davenport	379-8700	Cab of the Month	Donna & Russell Hedge	620-660-1651
1 st Vice Pres.	David Dillon	221-4315	Field Trip Coord.	Chuck Curtis	286-1790
2 nd Vice Pres.	Cinda Kunkler	286-1790	Publicity	Donna Hedge	620-660-1651
Secretary	Stacy Haug	1-857-3350	Welcome/Registration	Harold Merrifield	633-9745
Treasurer	Millie Mowry	267-2849	Property	Chuck Curtis	286-1790
Directors	Doria Skinner	231-9347	AFMS Scholarship	Cinda Kunkler	286-1790
	Jim Baer	785-256-2432	Editor/Exchange Editor	Millie Mowry	267-2849
	Shirley Schulz	n/a	Show Chairman	Millie Mowry	267-2849
Historian	Cinda Kunkler	286-1790	Show Dealer Chairman	Dave Dillon	221-4315
Federation Rep	Chuck Curtis	286-1790	Show Secretary	Cinda Kunkler	286-1790
Corporation Agent	Millie Mowry	267-2849	Jr. Rockhound Leader	Dennis Hippe	230-6729
Librarian	Amy Fluke	862-8876	Show Case Coordinator	Cinda Kunkler	286-1790
Web Master	Chad Skinner	640-6617			

Area Code for all numbers is (785).

EXCHANGE BULLETINS WELCOME

For exchange newsletters contact the club via mailing address listed above or email at rock2plate@aol.com.
Permission is granted to reprint articles only if proper credit is given to the author, Glacial Drifter and the date.

Fodder from the President. April/2024



Howdy all.

Things of all types are really starting to kick. Spring has sprung. Greens are finally taking over the browns. People are out hunting and fishing. Folks are pickin Morel mushrooms. Unfortunately I'm not one of them. All kinds of birds are passing through and the regulars are busy nesting and breeding. Hummingbirds and Orioles are back so if you feed them, now is the time to get your feeders up.

I suppose most of you have had to start mowing, Oh goody! Gardeners are really busy. Good for them. My mind wanders to the first of July and those first homegrown tomatoes.

The TGMS rockhounds fielded over two dozen members for a rather disappointing hunt last weekend outside of Wetmore KS. We were not taken to the area we were promised, a virgin field, but instead to a tired field that has been hunted for at least a couple of years. AG debris covered over half of the dirt and hunting was lackluster at best. The Taylor's did find four small Lakers. I don't know what everyone else may have collected. I was disappointed on several levels. But it was a free hunt on a pretty decent day.

Two weeks ago we had a spring cleaning out here at the shop. It looks really nice. There is a new blade on the large slabbing saw and thanks to Harold Merrifield we have a brand new 10" saw up and running. We have started on a project to replace the bases on the Diamond Pacific units with granite slabs. They will be really cool. There have been plenty of open machines available so come on out and make some pretties.

We have had pretty small numbers of kids showing up for our Juniors program. It saddens me that we have so much willing talent and so few kids. Do you know any youngsters we could get involved?

Publicity folks have finalized designs for billboards, posters, coupons and T-shirts. We will be taking orders on shirts earlier than we have. We want everyone to have their shirts to wear by the middle of July for the county fair. So get your orders ready. We will be asking for them real soon.

So enjoy this Spring cause it only comes once a year.

Brad

UP Coming General Meeting Program

This month the program will be presented by Jason Schulz on Copper Mining in Michigan. Just a reminder that the Wichita Gem & Mineral Show also falls on this weekend (April 26-28), Hope to see some of you there!

Do you have any copper specimens? Bring some with you so we can all familiarize ourselves with it's many forms. Please join us, visitors are always welcome!
Cinda Kunkler

BEST CHOICE



We are still in need of a lot of UPC labels
From Best Choice products. Bring them in to Cinda
So, we can get our rebate.

TTGMS Event Calendar

Apr. 2024			MAY 2024		
1	M		1	W	
2	T		2	T	Jr RHDS 6 p.m. at FC Church 1701 SW Collins
3	W		3	F	
4	T		4	S	
5	F		5	S	
6	S		6	M	
7	S		7	T	Brad's Shop Open 6-10 pm
8	M		8	W	
9	T		9	T	
10	W		10	F	Board Meeting Millie's 7 p.m.
11	T		11	S	
12	F		12	S	Mother's Day
13	S		13	M	
14	S		14	T	Brad's Shop Open 6-10 pm
15	M		15	W	
16	T		16	T	
17	W		17	F	
18	T		18	S	FIELD TRIP TBA
19	F		19	S	General Mtg. Gather 7:15 p.m. FC Church 1701 SW Collins
20	S		20	M	
21	S		21	T	Brad's Shop Open 6-10 pm
22	M	Earth Day	22	W	
23	T	Brad's Shop Open 6-10 pm	23	T	
24	W		24	F	General Mtg. Gather 7:15 p.m. FC Church 1701 SW Collins
25	T		25	S	
26	F	General Mtg. Gather 7:15 p.m. FC Church 1701 SW Collins WICHITA SHOW	26	S	
27	S	Wichita Show	27	M	Memorial Day
28	S	Wichita Show	28	T	Brad's Shop Open 6-10 pm
29	M		29	W	
30	T	Brad's Shop Open 6-10 pm	30	T	
			31	F	

As A Reminder!

If you are wanting to take a class in Silversmithing or wire wrapping you are to call either Jim Baer at 785-256-2432 or email him at jimbaer73@gmail.com, for wire wrapping contact Millie Mowry at 785-267-2849 or email rock2plate@aol.com the Monday before class to let them know you will be there.

JR ROCKHOUND Classes & Reminders

Here are reminders of the next months of classes: **First Congregational Church, 1701 SW Collins Ave., Topeka, KS.** Sign in starting at 6:00 pm and classes starting at 6:30 pm. 1st Thursday of each month.

<https://www.facebook.com/TopekaGMSJuniorRockhounds>

To register for the Junior Rockhounds or any of the classes, email:

Dennis Hippe at: go.purple@hotmail.com



Next Class: May 2, 2024 Fossils---Pat Gilliland

Reminder: If you want to earn the patches from the classes that you have attended you need to turn in your homework assignments.

Rocks for Juniors

Reminder to bring any extra rocks you might have that you would like to donate to the Junior Rockhound Club. We are trying to let the kids go on a "field trip" after class. Some of them really don't have much of a chance to add to their collection. We will have a table set up at the back of the room that they can come to and let them each pick out four rocks that you have graciously donated. This way they can add to their collection. Thank you so much for your contributions. This wouldn't be possible without you. Dennis Hippe

Dillons Community Reward Program

The Topeka Gem & Mineral Society has enrolled with the Community Rewards with Dillon's Store. You can enroll your shopper's card at: www.dillons.com/communityrewards once you sign up it will take about 7 to 10 days to be activated and our Club to start earning the rewards. At the bottom of your Kroger receipt you will notice "At your request, Kroger is donating to 'your organization name'".

1. You will have to re-register each year.

If you have any other questions email DCR@dillonstores.com

[1st quarter's rebate amounted to \\$50.64.](#)

[2nd quarter's rebate amounted to \\$57.98 Thank you 12 people](#)



The Library has moved.

In the TTGMS Library there are well over 100 books to choose from That cover a vast array of subjects of lapidary art and geology.

The library has currently moved to the church storage area, contact Cinda if interested in checking out a book.



The Topeka Gem & Mineral Society
General Meeting – March 22, 2024 at 7:30 p.m.

Call to Order: President Brad Davenport calls the meeting to order at 7:30 p.m. Harold Merrifield reports there are 36 members and 1 guest present.

Five door prizes are given out.

Approval of Minutes: Minutes from the February meeting were printed in the Drifter. If anyone sees anything that needs to be corrected, please get in touch with an officer.

Treasurer's Report: Millie Mowry reports the club account balance. She has paid the first half of the Stormont Vail Events Center for the show in the amount of \$5000. The second half is due in September. She thanks everyone who donated material and money for materials for constructing grab bags for the show. We sell about 300-400 grab bags at the show. The bags will be stuffed at the picnic in August. No bills are presented. Cinda notes a correction on the calendar printed in The Drifter - the General Meeting is not the 19th of April, it is on the 26th (fourth Friday).

Old Business: We are still looking for our next club president. Anyone who is interested in taking over the position, please contact Chuck. The State Director's position will also be open in October.

Communications: Brad visited with Kirby Marker yesterday and today. The field trip with Kirby is on the 13th of April. Brad sent out the RMFMS convention pack to members via email.

Show: Mille reports we have 6 dealers who have paid. She has one more dealer on the side if any of the other dealers back out. We have 1 new dealer. We will have a total of 20 dealers if they all come.

Publicity: Donna Hedge is the new Publicity Chairman. Donna reports they made some decisions on designs for the billboards & t shirts at the last publicity meeting. These will be sent out as quickly as possible so they will be available in the next few months for advertising. The next meeting is April 17th at Millie's house. Anyone who is interested is welcome to attend. If anyone has publicity related ideas, please send them to Donna or another committee member.

Field Trips: We have a field trip scheduled tomorrow at the sandpit south of Wamego at 10:00 a.m. Members are asked to please stay away from the water and the banks.

Junior Rockhounds: The next meeting is April 4th and will be "Earth Processes" taught by Brad. Twelve lessons are planned out for the year, but we only have 11 teachers. Dennis asks if anyone is interested in teaching the "Communications" class in November and Jason Schulz volunteers to do this. There is a new donation box at the sign-in table tonight which will be here at every meeting. Anyone who has any rocks they can donate to the program, please bring them to put in the box. Juniors will be able to pick rocks out of this box each month to add to their collections.

Webmaster: Chad is not here this evening. Brad notes that we will have a QR Code for the club website.

Shop: Brad reports that tools aren't being utilized as much as they can be. There have been a lot of tools sitting idle lately. There will be a shop day on the 6th of next month at 10:00 a.m. for cleaning, changing wheels, etc. There is no need to sign up, just show up.

Historian: Nothing new to report

Membership: We've had quite a few new members sign up recently.

Time-Sensitive: Field trip tomorrow.

New Business: None

Brad would like members to review our club's field trip protocols, regulations and rules. Chuck reads the Code of Ethics aloud, which is also available on the website. Everyone needs to have an understanding that if the club is given permission to go somewhere on private property for field trips, members are not allowed to return to these locations later or contact the property owners for personal use.

Adjournment: With no further business to discuss, Chuck moves to adjourn the meeting, Jason Schulz seconds. Motion carries and the meeting is adjourned at 8:04 p.m.

Submitted by: Stacy Haug, TTGMS Secretary

TTGMS Field Trip Report: April 13, 2024



I am letting you know that our May field trip will be the **18th** instead of our regularly scheduled field trip day which is on Memorial Day weekend. We are still in consultation with Andy Connolly of the Kansas Geological Survey so the location is not set in.... stone.

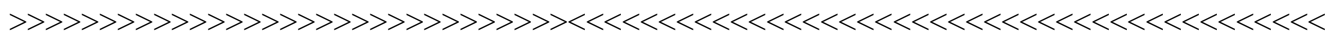
Chuck Curtis, Field Trip Coordinator

Cab of the Month Winners

We had a tie for the Cab of the Month for March: Harold Merrifield submitted a Picture Jasper, and Chris Anderson submitted a collage piece, in a pentagon form (all the pieces were from the same mine). Class Jewelry winner was a Howlite necklace by Chris Anderson. Member Jewelry winner was submitted by Donna Hedge - a sterling silver wire wrapped Agate. And finally, the Specimen winner out of nine entered was Larry Hardesty with his Kyanite specimen.



Orders for this year's Club T-Shirts are being taken now.
Let Millie know the quantity and size you want.
Rock2plate@aol.com or 785-267-2849 leave message.



The Minerals That Attack Your Concrete Driveway

By Dr Bill Cordua

(Seventh Place AFMS Advanced Adult Articles)

Those hard concrete driveways! How nice they are when first laid. Then they crack, crumble, spall and need replacing. This is not only true of your driveway, but also of our whole concrete infrastructure ranging from stadiums to dams to interstates, which costs the U.S. an estimated \$150 billion a year. What eats the concrete? It turns out that many of concrete's foes are minerals.

Concrete consists of cement paste (a complex mixture made mostly of calcium hydroxides and calcium aluminum silicates) and aggregate (sand and gravel). The process of making the cement begins with limestone and clay. These are mixed, heated, ground and treated with gypsum. Adding water to this starts a number of chemical reactions, forming calcium hydroxides (one of which is called portlandite) calcium aluminum silicates and calcium sulfates (such as ettringite). These reactions continue for days until the cement is finally set and hard. What minerals attack this formidable material?

Ice is an obvious villain. Ice is a perfectly good mineral – inorganic, naturally occurring and possessing a crystalline structure. When water freezes to ice, it expands by about 9%, exerting tremendous force on the sides of any cracks or pores into which it has seeped. As the cracks and pores enlarge, it is easier for more water to enter.

Salt is another enemy. As you spread salt on your driveway, or as salty residue drips off your car, the salt water soaks into the concrete. As the water evaporates, salt crystals grow, forcing apart cracks. Salt can have a more insidious effect, depending on what aggregate is in the concrete. If the aggregate contains poorly crystalline silica, in the form of opal or even chert, it reacts with sodium, converting the hard silica to a hydrated alkali gel. This decreases the strength of the concrete. Since the gel occupies more volume than the original chert or opal, it further cracks the concrete and helps more water to enter. By the way, Scott Wolter describes some deposits of the solidified gel material in voids in concrete that show agate-like banding. This may help us to better understand the formation of agates.

Sulfur, which occurs in soils, seawater, and acidic rain, is another enemy. Portlandite, formed during the hardening of the cement, reacts with the sulfur-bearing water to make gypsum and more ettringite. Gypsum is soft and water soluble, degrading the concrete. Both gypsum and ettringite cause an increase in volume, cracking the concrete. The more cracks, the more water and sulfate and salt can enter. This cycle limits concrete's lifetime. Millions of research dollars are going into making concrete more resistant to these attacks. The only way to avoid this completely is to build in where water, salt and ice don't occur. The nearest surface like that is on the moon.

Sources: Dr Bill Cordua, U. Wisconsin-River Falls References: Wenk, Hans-Rudolf and Andrei Bulakh 2004

Minerals: Their Constitution and Origin. Cambridge University Press, Wolter, Scott, 1996, The Lake Superior Agate, third Edition, Burgess International Group Publishers. : St Croix Rockhound's Leaverite News 1/05: Reprint from The Glacial Drifter April 2007.

Here are the correct answers to the Mineral Word if you did not get them.

Mineral Word Fun

Identify the mineral whose name **sounds** like the answer to the clue and is the correct length.

1 - A man in a leotard. (8 Letters)

HEMATITE

2 - One half of the tip of a snake's tongue. (10 Letters)

SERPENTINE

3 - A bubbly beverage without calories. (8 Letters)

SODALITE

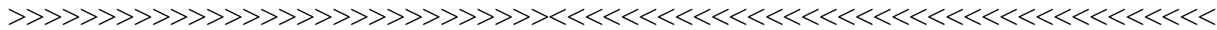
(Source: Stacy Walbridge (the Mtn Gem Oct 2018))

4 - A pack animal in the dark. (9 Letters)

WULFENITE

5 - A musical instrument mixture. (10 Letters)

HORNBLLENDE



Charoite

Charoite is the name of a purple to violet silicate mineral with a striking appearance. Its vibrant purple color grabs a person's attention. Then upon closer examination, the viewer discovers interesting banding swirls, scales, or radial and parallel habits.

Many rocks that contain abundant charoite will accept a beautiful polish. As a result, high-quality pieces of charoite can be cut into spectacular purple cabochons, or used as an ornamental stone to veneer a delightful jewelry box. A pearly luster or chatoyance often increases the beauty of this gem.

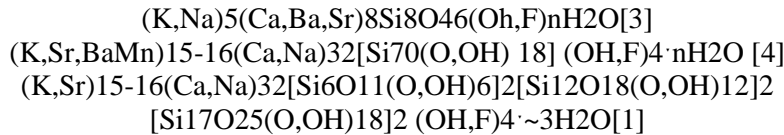
Charoite is a rare mineral, found in commercial quantities only in a few small and closely spaced deposits in the Sakha Republic of eastern Russia. It received its name from the Chara River, which drains that geographic area.

Geologic Occurrence

The charoite of the Sirenevy Kamen ("purple stone") deposit of eastern Siberia is thought to have formed when an alkali syenite intrusion encountered a dolomite containing a significant amount of terrigenous clastic sediment. The result was a complex geochemical environment of hydrothermal metasomatism.

Mineral-rich fluids permeated the dolomite and surrounding rocks, forming charoite and a variety of other rare minerals with complex chemical compositions. The charoite in these rocks is impure and intimately mixed with microscopic particles of other rare minerals.

Charoite's Chemical Composition: Charoite is a complex silicate mineral. Published chemical compositions are in disagreement. We checked numerous references, and each one presented a different composition. The compositions reported below are from the Glossary of Geology [3], the International Mineralogical Association [4], and Mindat.org [1]



Determining a composition for this mineral might be difficult for two reasons: 1) well-formed crystals and specimens of pure charoite have not been found; and, 2) charoite is always intimately associated with and intergrown with numerous other minerals.

Charoite is only known from rocks that are either charoite-rich or charoite-dominated. The name used for these rocks is "charoite". Most people in the gem and lapidary trades simply refer to them as "charoite" and may not suspect that they are a rock which contains a variety of rare minerals.

Charoite is a contact metamorphic rock that usually contains a variety of alkaline calcium silicate accessory minerals. These can include miscrite, benstonite, canasite, tinaksite, pectolite, and fedorite. These are often associated with textural varieties of charoite and include: massive (miscrite), parallel fibers (benstonite), and radially fibrous (canasite and tinaksite).

Uses of Charoite: Rocks containing abundant charoite with a pleasing color and interesting pattern are often cut into gems or used as an ornamental stone. Charoite cabochons, beads, tumbled stones and other items made of high-quality material can sell for high prices. Charoite is also used to make small sculptures and small utilitarian items that include vases, spheres, goblets, desk sets, small boxes and decorative tiles.

High-quality charoite rough and items made from charoite are not abundant in the marketplace because the material is rare, costly, not regularly mined, and much of what is produced is consumed in Russia.

