



# *Tulip City Gem & Mineral Club* **Conglomerate**

Monthly Newsletter of the TCG&MC, PO Box 2082, Holland, Michigan

**November 2020**

**Volume 53, Edition 11**

## From my Rockpile

I don't need to tell you that the holiday season is upon us. It's only been a week and I am already hating commercials on tv for what appears to be on every break and they are the same as the past two years. I remember when Black Friday was the Friday after. Not after turkey dinner and definitely not beginning soon after the Back-to-School sales ended. I think you can guess that I am not one that enjoys the commercialization of the holiday season. Watching families spending themselves into horrendous debt for materialistic possessions has grow, in my opinion, way out of control. Unfortunately with the growing concerns of the pandemic, the gift alternative of family gatherings is now being threatened. As you and your family evaluate the family gatherings, please stay safe and maintain the guidelines directed by our medical community.

Since I am working virtually, I have time to enjoy events and travel; as long as I can "connect". This year would have been ideal for me to return to NYC to watch the inflating of the balloons and attend the Macy parade. BUT, in case you haven't heard, it's been 'cancelled' to the public and only done for tv viewing. That means that a visit to the Franklin Mine in nearby northern New Jersey to view and collect fluorescent material needs to be put on hold as well.

I and my fellow board members look forward to you joining us for this month's virtual general meeting. Our program topic is SHOW & TELL. Please share with everyone your favorite "find" with a brief story on how you obtained it.

Can't wait to see everybody . . .

M.B. Larson

**Keep Current with the club: [www.tulipcity.org](http://www.tulipcity.org) or [www.facebook.com/tulipcityclub/](https://www.facebook.com/tulipcityclub/)**



## 2020 TCG&M Board

**President - Michael B. Larson**  
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**Vice President - Shari Luttkhuizen**  
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**Secretary - Brenda Olson**  
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**Treasurer - Kurt Brinks**  
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**Field Trip Coordinator - Jon Mull**  
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**Show Coord. - Sue Goedert**  
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**Social Coord. - Linda Plumert**  
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**Dir. at Large - Mary Johnson**  
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**Dir. at Large - Randy Wake**  
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**Past President - C.H. Falstad**  
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From the MWF Newsletter:

## Keep Kids Engaged With Your Club

Jim Brace-Thompson Chair, AFMS Juniors Program

With social distancing and stay-at-home orders, school closures, and mandates barring group gatherings in light of the COVID-19 pandemic, we in my own Ventura Gem & Mineral Society have had to cancel membership and board meetings, workshop days, educational outreach efforts, and our monthly Pebble Pup activities.

If you are like us, you are searching for ways to keep your society relevant and meaningful to club members and your broader community. To hold our group of Pebble Pups together, here are some things we in the Ventura society are trying. Lisa Batchelder Hetrick, our Pebble Pups Program Coordinator, is scouring the web and Facebook pages to seek activities kids can do at home. She's found one that incorporates food (as well as other fun things) at [www.teachjunkie.com/sciences/rocks-forkids-15-fun-activities](http://www.teachjunkie.com/sciences/rocks-forkids-15-fun-activities).

We're also encouraging families with Pebble Pups to try working through activities on their own that are part of the **AFMS Future Rockhounds of America Badge Program**.

For instance, one that is easily done at home is the "Rocking on the Computer" badge. This might also be a good opportunity to help a child organize his or her collection toward earning the "Collecting" badge.

The web address ([www.amfed.org/fra/fra\\_badge.htm](http://www.amfed.org/fra/fra_badge.htm)) takes you to a page with a link to the full Badge Manual.

Finally, just today I've kicked off a contest for our Pebble Pups that I hope to conduct weekly, a contest I've entitled "Name the Specimen – And It's Yours!" Once a week, we'll email a photo of a mineral, rock, or fossil to our Pebble Pups and Junior members and will give them one week to get back to me with a correct identification. The child who provides the most accurate and complete answer gets the specimen. If multiple kids send the same answer, their names will be put in a hat to select the winner.

The main goal is to keep our club kids engaged and excited so that they'll still be with us when once again we are all able to meet in person.

I hope these ideas spur further thinking within your club, and I welcome hearing about other creative ideas –and not just ideas geared toward kids. What ways are you exploring to stay meaningful and relevant to your adult members and within your broader community? I'd love to hear what's being tried.

Email your thoughts to me at [jbraceth@roadrunner.com](mailto:jbraceth@roadrunner.com). Despite the pandemic and social distancing, there are ways of engaging our kids at a distance while still having fun!

***There is a current opening for a Newsletter Editor. Responsibilities include the creation of a monthly newsletter, attendance of club meetings, and a point of communications for the club.***

***Anyone interested in the position or in assisting in the duties, please speak with Michael B. Larson or Shari Luttikhuizen.***

## Open Position



### 2021 Board Election

Tis the season where your leadership is up to you to decide. Every November it is the role of the membership to choose the men and women that will guide our organization through the upcoming year. At right is shown a proposed slate of candidates. Nominations are still open and can be submitted to C.H. Falstad if you are interested to serve on the Board.

Our by-laws requires our membership vote for the 2021 Board during the General Meeting in November. Since everything has moved to virtual, A ballot will be mailed in the next couple days. Please don't wait to return it !

<b>President</b>	<b>Mike Larson</b>
<b>Vice President</b>	<b>Shari Luttikhuizen</b>
<b>Treasure</b>	<b>Kurt Brinks</b>
<b>Secretary</b>	<b>Brenda Olson</b>
<b>Newsletter Editor</b>	<b>(open)</b>
<b>Membership</b>	<b>Christine Silich</b>
<b>Juniors</b>	<b>Linda Winkelmann (assisting Robin Kreun)</b>
<b>Field Trips</b>	<b>Jon Mull</b>
<b>Liaison</b>	<b>Rhonda Gehringer</b>
<b>Social Coordinator</b>	<b>Linda Plumert</b>
<b>Historian</b>	<b>Betty Hoekstra</b>
<b>Show Chair</b>	<b>Sue Goedert</b>
<b>Social media coordinator</b>	<b>Julia Sherwood</b>
<b>Member-at-large</b>	<b>Mary Johnson</b>
<b>Member-at-large</b>	<b>(open)</b>
<b>Past president</b>	<b>C.H. Falstad</b>



# Wednesday, 11/18/20

**TCG&MC General Meeting for November is going ONLINE**



To attend, just copy the web address below in your browser. If you would like some assistance, please contact either Board members Mike or Rhonda.

**When** **Wed Nov. 18, 2020 7:00pm – 8:30pm**

**Where** <https://us05web.zoom.us/j/86798285243?pwd=UEXjYnRPOG1UaGxycEQ4d3lZOEZRdz09>

**Tulip City Gem and Mineral Club Via Zoom**  
**October 28, 2020, 6:30 PM; minutes General meeting**

7:05 PM - Call to Order - Mike Larson, president

Present: about 19 adults.

During the pre-meeting discussion a member shared *William Holland School of Lapidary Arts* in Young Harris, Georgia has choices of one week courses in various lapidary arts for \$495 including housing and food.

### **Board Reports**

**President**-Mike Larson shared COVID is keeping everything shut down. We could use articles from members for the newsletter. A member noted the Ben E. Clement Mineral Museum in Marion, Kentucky is looking for volunteers to classify and box up some rocks.

**Juniors** - Linda Winkleman We had families come, including two new families, at Kollen Park and sifted Montana gravel looking for sapphires. Everyone found several sapphires. A total of nineteen attended and had a lot of fun.

**Vice President** - Shari Luttikhuizen encouraged members to keep in touch and give Mike articles. Share field trip ideas with a board member.

**Treasurer's Report** - Kurt Brinks gave a brief financial report. We should be fine. Not much coming in or going out

**Past President** - CH Falstad reported board members are mostly continuing in same positions. We still need a newsletter editor and a director at large. We will try to do the election next month.

**Field Trip Coordinator** - no field trips are scheduled.

Meeting ended with a presentation by Jon Mull

### **On the Calendar:**

11/18/20	TCG&MC General Meeting	Virtual / ZOOM
12/2/20	TCG&MC Board Meeting	Virtual / ZOOM
12/16/20	TCG&MC General Meeting	Virtual / ZOOM
1/13/21	TCG&MC Board Meeting	TBD

**Tulip City Gem and Mineral Club**  
**November 4, 2020, 7:00 PM Board Meeting Minutes**

**7:03 PM - Board Meeting**

Mike Larson, president, called the meeting to order.

Juniors Linda Winkleman Sharon Luttikhuisen made a motion, seconded by Sue Goedert, to allot \$150 to rent library for the juniors to have a meeting on November 21. The motion passed.

President Mike Larson led a discussion regarding the November General meeting. Options included an online DVD, a speaker or a virtual workshop.

Discussion followed on holding board position elections. CH shared the need to keep people connected, important to let people feel they have an opportunity to vote. Julia Sherwood suggested an email for the board slate with a yes or no vote. Julia noted that by attempting to contact all of our members we fulfill our bylaws. CH suggested with newsletter ask for nominations and give a date to send in ballot so we don't exclude any members that may not use email. There are 24 people who get a mailed copy of the newsletter, 20 have only a mailed copy with no email. Mary suggested a separate ballot sent to those without email. Mary suggested that CH be in charge of the election. Jon Mull moved, seconded by Betty that in the newsletter we will announce that the board slate will be emailed to them that they will need to respond to vote and those without email will receive USPS mail that will include a separate sheet with the election that they can mail to CH. They will be given a deadline of one week to respond. Motion passed.

Sue noted the MWF newsletter insurance to cover club membership is cut in half and will forward to Kurt so he could pay.

Field Trip - Jon Mull talked to Jody Miller who would like to host a field trip over spring break to North Carolina. The board noted that Jon did a great job with the virtual field trip.

Newsletter - Juniors need to submit an article regarding the library meeting and CH needs to submit an article regarding the board election to Mike Larson by this weekend for the newsletter.

Some board members received donations from Chet Smith's collection for the club to use.

Adjourn meeting: by 8 PM

Respectfully submitted, Brenda Olson



- 1) How do rocks wash their clothes?
- 2) What is a rock's favorite cereal?
- 3) Where do rocks sleep?

- 1) On the rock cycle
- 2) Cocoa Pebbles
- 3) Bedrock

## Gypsum and Anhydrite

<https://www.rockngem.com/gypsum-and-anhydrite/>



May 30, 2018

*Story and Photo by Steve Voynick*

Most collectors are familiar with the minerals gypsum and anhydrite. Both consist basically of calcium sulfate. The difference is that gypsum ( $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ ) is a hydrous mineral with two attached molecules of water. Anhydrite, as its name implies, is an anhydrous mineral with no attached water molecules ( $\text{CaSO}_4$ ).



**Gypsum, or hydrated calcium sulfate, is softer and less dense than anhydrite, or anhydrous calcium sulfate.**

Gypsum and anhydrite are textbook examples of how attached water molecules, called “water of hydration”, can affect such physical properties as crystal structure, density and hardness in minerals that have similar parental chemical compositions.

The asymmetrical configuration of water molecules, which consist of large, negatively charged oxygen ions covalently bonded to two small, positively charged hydrogen ions, explains their ability to attach to other molecules. Because the two hydrogen ions are grouped together, they retain a weak positive charge, while the opposite side of the water molecule, dominated by the large oxygen ion, retains a weak negative charge.

This atomic arrangement with its opposing charges enables water molecules to act as tiny dipole magnets that can attach themselves to other molecules through the attraction of hydrogen (polar) bonding. Hydrogen bonds form when the faintly positive poles of water molecules attract the negatively charged electrons of other atoms. The attached water molecules are electrically neutral and do not affect the electrical balance of the parent molecule.

In gypsum, the positive poles of water molecules are attracted to the slight negative charge of the oxygen ions in the sulfate radicals. Because hydrogen bonding is strongest at cold temperatures, gypsum becomes unstable when heat destroys its weak hydrogen bonds and drives off its water of hydration.

Whether calcium ions and sulfate ions will crystallize from aqueous solutions as gypsum or anhydrite depends primarily upon temperature, and to a lesser extent on pressure and chemistry. In low temperatures and the presence of available water, anhydrite can hydrate (or rehydrate) and convert to gypsum. Conversely, in higher temperatures and the absence of water, gypsum can dehydrate into anhydrite. Gypsum is by far the more abundant of these two minerals, because water and calcium-sulfate molecules have a stronger mutual attraction at ambient temperature and pressures.

While both gypsum and anhydrite are basically calcium sulfate, the presence or absence of water molecules makes a big difference in their physical properties. At Mohs 1.5-2.0, gypsum is much softer than anhydrite (Mohs 3.0-3.5). The reason is that gypsum's attached water molecules increase the distance between its calcium ions and sulfate ions, weakening the strength of its ionic bonding. Increased inter-ionic distance also decreases density, so gypsum's specific gravity is only 2.32, while that of anhydrite is substantially higher at 2.97.

Water of hydration also impacts crystal structure. Anhydrite crystallizes in the orthorhombic system, but gypsum crystallizes in the monoclinic system. And while anhydrite can hydrate into gypsum, gypsum can dehydrate into anhydrite. Therefore, these two minerals often form mutual pseudomorphs, with gypsum exhibiting the external orthorhombic shape of anhydrite and anhydrite exhibiting the external monoclinic shape of gypsum.

An interesting side-by-side example of these two forms of calcium sulfate is the blue angelite gem variety of massive anhydrite. It has a very fine grain, slight translucency, and a pleasing color caused by traces of divalent iron.

Angelite, which occurs as nodules in altered limestone, has been found only in Peru. When the anhydrite on the surface of angelite contacts groundwater, it hydrates and converts to gypsum, losing both its traces of iron and blue color. The result is a snow-white rind of soft gypsum surrounding a harder nodule of blue anhydrite.

**Did you Know?**

*Common names of gypsum include Selenite, Satin spar, and Alabaster. Selenite is a colorless and transparent variety that can show pearl-like luster, and may have a banded appearance. Satin spar gypsum has a fibrous appearance, and is often times a milky white or pink color. Alabaster is a fine grained massive material that is carved into ornaments.*

*Gypsum's color may range from white, gray, and shades of red, brown, or yellow.*

Advertising rates for club members are: \$5 for business card size, \$10 for  $\frac{1}{4}$  page, \$15 for  $\frac{1}{2}$  page, \$30 for full page. non-member rates are double. Make check payable To: TCG&M with ad copy to Editor.

**Tulip City Conglomerate**  
 c/o Tulip City Gem & Mineral Club  
 P.O. Box 2082  
 Holland, MI 49424



Our club is a non-profit organization sponsored by the Holland Recreation Department. It is a member of the Midwest Federation and the American Federation of Mineralogical Societies. The general purpose of this club is to develop interest in and increased knowledge of minerals, rocks, gems, fossils, and the lapidary arts. The objectives of this club shall be promoted whenever possible, through family participation.

Meetings are held monthly on the last Wednesday of the month at the Howard Miller Community Center, 14 S. Church Street, Zeeland, MI at 7pm, unless announced otherwise in the **TULIP CITY CONGLOMERATE**.

Junior Club welcomes young rockhounds and meets separately during the meeting. To become a member, complete the form at [www.tulipcity.org](http://www.tulipcity.org)

