



THE TULIP CITY CONGLOMERATE



Bulletin of the Tulip City Gem & Mineral Club, PO Box 2082, Holland, MI 49422

Website: www.Tulipcity.org

Jan 2018

Volume 51, Edition 1

**February 10, 2018
1p - 4p**

Basement Field Trip
Thomaszewski Residence
(See page three)

**Feb 14, 2018
Board Meeting**
7pm HMCC

Please note the Howard Miller – Zeeland Public Library’s weather closing schedule in the event of inclement weather. The TCGMC will follow the library’s closing policy and schedule in the event of potentially severe weather. Contact the library at 616-772-0874.

**WELCOME
NEW MEMBERS!**

**There was not enough room in
this edition to list you, but there
will be next month!**

This Edition

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**General Meeting
7 pm January 31, 2018**

THE GREAT WESTERN FOSSIL EXPEDITION

The summer of 2017 was a great adventure for Marcus and Kurt Brinks. Their trip covered 4000 miles, 3 major fossil deposits: Hell Creek for dinosaurs, Green River for fish and White River for turtles and oreodont (a sheep/goat ancestor). Six states were covered and it was a wonderful father-son bonding time. The presentation of their travels will include photos from the trip, numerous fossils to inspect hands-on and stories of fun-filled adventures. Who knows whether you might want to cover some of the same ground in the future. Our advice from several current Tulip City members can be yours, too.

Marcus & Kurt joined the Club back in 2010 and his six years spent as a Junior Member, led Marcus to his accepted application for a Joe Moran Scholarship in 2016, as a graduating High School Senior. His declared college major is Geology at Hope College.



Edmontosaurus rib, Glendive, MT, Hell Creek formation

ROCK / MINERAL CONTEST - CALCITE

Our monthly rock color contest has changes for 2018 and will now be a Rock or Mineral Contest. For January, every attending member is invited to bring their favorite specimen of Calcite. The specimen should be placed anonymously on the designated table with a card (provided) telling its origin if known. During the Refreshment Break, everyone will have a chance to vote with a penny (provided). The winner will receive a modest prize.

Club Calendar

Feb 28 (Wed) – General Meeting, 7p, HMCC

Mar 9-11 – Kansas City, MO

Mar 10-11 – Macomb, IL

Mar 14 (Wed) Board Meeting, 7p, HMCC

Mar 24 – Basement Field Trip – King's

Mar 28 (Wed) – General Meeting, 7p, HMCC

April 7-8 – Lincoln, NE Annual Show

Apr 11 (Wed) Board Meeting, 7p, HMCC

April 14-15 – Canton, IL Annual Show

Apr 25 (Wed) – General Meeting, 7p, HMCC

May 16 (Wed) Board Meeting, 7p, HMCC

May 19-20 – North Omsted, OH Annual Show

May 30 (Wed) – General Meeting, 7p, HMCC

Jun 13 (Wed) Board Meeting, 7p, HMCC

Jun 27 (Wed) – General Meeting, 7p, HMCC

July Board/Picnic (Sat) Date TBD

Aug 15 (Wed) Board Meeting, 7p, HMCC

Aug 25 (Sat) Tailgate, Sam's Club

Aug 29 (Wed) – General Meeting, 7p, HMCC

Sep 14-16 – 2018 Show (tentative)

Oct 10 (Wed) Board Meeting, 7p, HMCC

Oct 24 (Wed) – General Meeting, 7p, HMCC

Nov 14 (Wed) Board Meeting, 7p, HMCC

Nov 28 (Wed) – General Meeting, 7p, HMCC

Dec 5 (Wed) Board Meeting, 7p, HMCC

Dec 19 (Wed) – General Meeting, 7p, HMCC

HMCC = Howard Miller Community Center, 14 S Church St. Zeeland, MI
Bold listings are regular Club events. *Italic listings* are non-Club events.

Major source of material is from: <http://www.amfed.org/mwf/Calendar/>

Check out the Facebook Group:

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

2018 Officers and Board of Directors

President	C.H. Falstad	cfalstad@ameritech.net
Vice President	Julia Sherwood	bobandjulia@accn.org
Vice President	Peter Riemersma	riemersp@cvsu.edu
Secretary	Dan DeGroot	degrootd@sbcglobal.net
Treasurer	Patti DeGroot	degrootd@sbcglobal.net
Fld Trip Coord.	Bob Sinke	bobsinke@comcast.net
Historian	Betty Hoekstra	kbhoek@att.net
Jr. Club Coord.	Rick Smith	Hollandrsmith@gmail.com
Jr. Club Coord.	Linda Winkelmann	lindawinkelmann@att.net
Liaison	Deb Smith	dbsmith.2025@gmail.com
Membership	Christine Silich	CSDS77@icloud.com
Newsletter Ed.	Rudy Silich	tulipcitygemnews@charter.net
Show Coord	Sue Goedert	sonbeams2000@yahoo.com
Social Coord.	Linda Plumert	rlplumert@gmail.com
Dir. at Large	Dan Nevins	dmnevins@mtu.edu
Dir. at Large	Amy Dickinson	adickins@oaisd.org
Past President	-Bob Sherwood	bobandjulia@accn.org

For 2018, there are fifteen (15) positions, which have one vote each. There are currently (17) persons on the Board (four persons share two positions).

Last Minute Reminder!

January 27, 2018, 1-4 pm at Bob and Julia Sherwood's, 966 Lake Street, South Haven, 269-227-3202. Take I-196/US 31 to Exit 26 (Pullman Road). Drive 1 mile west to Blue Star Hwy. stop sign. Turn north to the first street on the left, Lake Street, go nearly to the lake. If there is deep snow, you may park in any adjacent plowed driveway.

Renewal Time!

Club Dues were due on December 31. Please use the form on Page Six.

If you signed up during the Show in September, you are paid through 2018.

If you want to select a change in your Newsletter delivery, please use the form.

If you have questions, please speak to Christine Silich.

Tailgate Coordinator

Please congratulate Dan Nevins as the new Tailgate Coordinator for 2018. Everyone's cooperation will be appreciated.

Be Creative. Get Published

You mostly humble Newsletter Editor is always happy to receive articles of a rockhounding, lapidary, or geological nature. Email me today!

The month after January is typically something called "February". Why not send me a Valentine-related rockidary/lapimineral submission? Would it be gneiss if it were nice? Most chertainly!

Jasper is red
 Sodalite is blue
 Your Editor is waiting
 For something from YOU!

See how easy this is?
 Of quartz, you can do better!

Monthly Raffle – No, Silent Auction - YES

This month instead of our Monthly Raffle, there will be a SILENT AUCTION of the material we received from the Spring River Gem & Mineral Club in Cherokee Village, Arkansas. We collected donated specimens from members in Nov, sent them off and in return we received 25 specimens back from them. They were labeled and now are priced for your bids. Bidding may begin at the start of the meeting and continue at the Break. Bids will close shortly before the Program.

The Board is now looking for another club out of our region to have an exchange with, preferably one that has collecting material available to them locally that is generally unavailable to us. Hopefully they will be pleased to receive some Michigan rocks

Agates

The Larry Graves Agates committee recently had a reassessment meeting and made decisions about the remaining agates. Beginning in January, there will be a second round of purchase possibility. There will be bags priced at \$5.00 and \$10.00, and you may choose which size to buy. Again, each Tulip City Member on the active 2018 roster may make a single purchase.

All other “remainders” will be available later in the year, perhaps August or October.

Arkansas Field Trip Update

Bob Sherwood

By the end of our December meeting, 35 members (16 vehicles) had signed up for the trip — more than I expected and frankly, as field trip leader, a large number to manage and coordinate meeting times, activities, etc. Participants may be scattered to different motels as well as to the Corp of Engineers campground. **Therefore the trip roster is frozen.** Cancellations will not be replaced. Those of you who have signed up, please let me know ASAP if you have to cancel.

After you have made reservations, please add where you are staying to sign-up sheet at the next meeting or email me bobandjulia@accn.org

There will be a meeting of all participants immediately following the February meeting program.

Winter Field Trips!

Two winter field trips remain. They will occur in spite of any bad weather that happens. Some of the sites have limited parking but not enough to hopefully hinder your experience. Enjoy the experience and the day.

- February10, 2018 - Kreigh and Monica Thomaszewski will open their home for your enjoyment. It is located at 653 Burton SE Grand Rapids, MI. and they will be open from 1-4pm. Phone # 616-243-5851 Please use their front door.
- March24, 2018 - Roger and Arlene King will also be opening their home collection for you viewing enjoyment. They live at 2211 N.Whistlevale Dr. SW Byron Center MI. again they will be open from1-4 Phone# 616-878-5163.

President's Message – Spring River Gem And Mineral Club Specimens

C.H. Falstad, TCGMC President

Below is a list of specimens received from the Spring River Gem and Mineral Club. They will be available at the special silent auction at the January General Meeting, and have starting prices from about \$.50 to \$10. Some are rare specimens from closed mines, so this may be your chance to add some different and unusual material to your collection. Hope to see everyone there. Bid early and often to make sure you have the top final bid!

Kentucky geode
Druzy quartz Missouri
Druzy quartz Arkansas
Selenite star Lingnne AR
Selenite hourglass OK salt flats
Staurolite North Carolina (2 pc)
Satin spar gypsum
Rustellum – Corkscrew oyster fossil
Pecos diamonds, Roswell, NM
Amethyst, N. Carolina
Pink dolomite, chalcopyrite sprinkles, Black Rock Mine, Lawrence Co. AR
Pink dolomite, Black Rock Mine, Lawrence Co. AR
Ammonite 11", Texas
Quartz Crystal
Dugway Geodes, Utah (4 pc)
Sulfur, Texas
Quartz, Ron Coleman Mine, Jessie Gille, AR
Druzy quartz, Missouri
Common opal, (5pcs)
Petrified dinosaur bone
Limb cast fossil, Idaho
Mahogany obsidium
Apache Tears (13 pcs)
Actinolite (2 pcs)
Jasper/agate, Deming

April Banquet Raffle Opens January 31

It's official! And it's amazing!

The raffle prize for our April Banquet drawing is an unparalleled quartz crystal plate, which Jean Prys acquired and has been generously donated by her family. At approximately 13" x 9" x 4.5", and with its rich and artistic points, it is truly a masterpiece of nature.

What makes this year's raffle even more amazing? All proceeds will go to the Norman and Helen Gibson Geology Field Study Scholarship. These scholarships provide funding to enable GVSU undergraduate students to execute research projects, expanding the body of knowledge in geology.

Tickets will be available at the January, February, March and April club meetings, with the drawing held at the April meeting. Tickets are 1 for \$5, 5 for \$20 (1 extra ticket) or 13 for \$50 (3 extra)

**Tulip City Gem and Mineral Club
December 06, 2017 Board Meeting
Howard Miller Community Center**

7:00 PM – Call to Order

Approval of Agenda: Motion by Rudy Silich, second by Bob Sinke, Motion Passed.

Approval of Minutes of the November 15, 2017 Board Meeting, as corrected, Motion made by Bob Sherwood, Second by Dan Nevins, motion passed.

Approval of Minutes of the November 29, 2017 General Membership Meeting, as corrected, Motion made by Linda Plumert, seconded by Julia Sherwood, motion passed.

November Treasurers report – Patti DeGroot gave the Financial Report. She asked that all receipts be turned in before the next General Club Meeting so we can close out the books for the 2017 year.

Board reports:

President – C.H. Falstad:

C.H. thanked everyone for sending in their edits to monthly notes before the meeting. This is a joint meeting of the new and old board members. Deb Smith and Amy Dickinson are with us tonight. C.H. reminded us that the Budget committee will meet on January 10th at the Herrick District Library in Holland at 7 pm.

Immediate Past President – Bob Sherwood : Bob received a lead about an Estate sale in Grass Lake Michigan and will forward the info to anyone interested. Bob also mentioned that he is planning a trip to Arkansas for the club to collect Quartz in the Mt. Ida area. Bob passed out information sheets with hotels and mines to collect at.

Vice President – Julia Sherwood: Julia is planning the meeting for December 20th with four presentations by club members.

Editor – Rudy Silich, Please have your articles in by Friday night at 8pm, December 8th.

Field Trip Coordinator – Bob Sinke: Bob has three basement field trips planned for the winter months. Sherwoods on January 27th, Kreigh Tomaszewski's on February 10th, Roger King's on March 24th. Then a bus trip to Wayne State University edison and custer and possibly to the Cranbrook Institute of Science on the way back.

Bob made a Motion to approve the use of \$295 from a Special Fund for paying for a bus trip to Detroit. Julia Sherwood seconded, Motion passed. Bob will be vacationing in Arizona and looking for a large agate for next years Show Door Prize.

Historian – Liz Hoekstra: Liz talked to Becky Simon, the daughter of Jean Prys about the Quartz plate that they donated.

Junior Leaders – Rick Smith: The Junior Members will have a presentation on Fluorescent minerals at the next General Meeting in December. Yttrium Fluorite take home specimens donated by C.H. Falstad.

Liaison – Jackie Helder – Not present.

Membership Coordinator – Chris Silich – Not present.

Show Chair – Sue Goedert passed out a four page summary of the 2017 Show results. We had a great show and income was on par with previous years.

Social Coordinator – Linda Plumert : Nothing new.

Directors-at-Large – Teresa DeMol :Not present. Dan Nevins: nothing new.

Recurring Business:

Amy Dickinson has agreed to take over the Monthly Raffle responsibilities.

(Meeting minutes conclude on Page 6)

**Tulip City Gem & Mineral Club
General Meeting Minutes
December 20, 2017, 7 p.m.
Howard Miller Community Center**

Call to Order @ 7:05 PM

Attendance: Adults: 69 Juniors: 18

Welcome: There were a several new Members & Visitors attending.

Tickets were drawn for Door Prizes.

President's Remarks: C.H. Falstad explained the rock swap with the club in Arkansas. The Spring River Gem & Mineral Club sent us a big box of rocks in exchange for the box that we sent them last month. These will be set up for a silent auction at the January General meeting.

Vice Pres. -Julia Sherwood reminded us of the upcoming Budget Committee meeting on January 10th at 7 PM at the Herrick District Library

Past President – Bob Sherwood announced that we are planning a Field Trip to Mt. Ida, Arkansas in early April to collect at the two remaining quartz crystal mines still open for business. There is a signup sheet on the table. There are possible side trips at Crater of Diamonds State Park in Murfreesboro, Arkansas and a stop in Keokuk, Iowa for geodes.

Treasurer – Patti DeGroot gave the Financial Report.

Show Chair - Sue Goedert: next year's TCGMC Mineral Show, "Agates are Superior". Sue asked for help with the next years show and the show budget committee.

Field Trips – Bob Sinke has three basement field trips planned. He is also planning a possible bus trip for mid May to Wayne State University new Geology Museum featuring Thomas Edison's collection that was given to Henry Ford. There may be a stop at the Cranbrook Institute of Science.

Hospitality – Linda Plumert: Linda requested treats for all General Meetings. She will put out a Sign-up sheet on the back table.

INSTALLATION OF OFFICERS: conducted by Past President Bob Sherwood;

President: C.H. Falstad; Vice President: Julia Sherwood/Peter Riemersma; Treasurer: Patti DeGroot; Secretary: Dan DeGroot; Show chair: Sue Goedert; Field Trips: Bob Sinke; Social Coordinator: Linda Plumert; Junior Club Coordinators: Rick Smith/Linda Winkelmann; Historian: Betty Hoekstra; Liaison: Deb Smith; Membership Coordinator: Chris Silich; Newsletter Editor: Rudy Silich; Directors at Large: Dan Nevins and Amy Dickinson.

Adjournment of the Business meeting. 7:21 PM

Break for Refreshments:

(Meeting minutes conclude on Page 6)

Board Meeting Minutes (*continued from Page 5*)

C.H. has been in contact with a Rock Club in Arkansas that has a program of trading rocks with other clubs around the country. We sent them a 36# box of locally collected rocks and they sent us an assortment of rocks from their area.

Rick Smith spoke about the Rock-Prize activity (a TCGMC version of "Art Prize") for our Junior members. We are initiating this program for the December meeting. Rick knows of at least one Junior doing a project. He will try to contact many of the Juniors by Email to remind them.

New Business:

We have been asked to participate in HerrickFest again this year. Julia Sherwood made a Motion that we show at HerrickFest this year, Liz Hoekstra seconded, Motion passed.

We had a discussion about next year's Tailgate Show at Sam's Club in Holland. We would like to make it better and larger but need to find a way to offset advertising costs. The club sales income could stay in the tailgate function instead of putting it into the club show income. That income would offset the cost of advertizing for the tailgate. We could possibly ask for donations. C.H. said he would like it to become "The Quartzite of the Midwest". We should promote this function to advance the hobby and future of our club.

We could run free ads on FaceBook to promote our club activities. We need to finalize the event date. We need to avoid other club shows and activities. We can advertize in "Rock and Gem Magazine" for free. We need to look at signage and where to place them for best advantage.

We could set up the Fluorescent tent in the Tailgate and for HerrickFest as a special attraction.

We also can get into the Summer Reading Program in all the local libraries. Julia Sherwood has done presentations in local libraries.

Items from visiting members: Ken Hoekstra had nothing to add.

Meeting adjourned at 8:25 PM.

Please note the Howard Miller – Zeeland Public Library's weather closing schedule in the event of inclement weather. The TCGMC will follow the library's closing policy and schedule in the event of potentially severe weather. Contact the library at 616-772-0874.

The next Board meeting will be January 17, 2018.

The following General club meeting will be January 31, 2018.

Meeting notes submitted by :
Dan DeGroot, Secretary

General Meeting Minutes (*continued from Page 5*)

Raffle Drawings

Rock Prize awards were presented by our Juniors leader Rick Smith. There were nine participants in two separate age group categories. The two winners were allowed first pick of the prizes. All of the Juniors who entered were introduced and presented a trophy. All trophies were donated by Liz and Ken Hoekstra. They were all very nice polished Thunder eggs and pairs of Thunder eggs mounted on finished inscribed wooden bases.

Program for this evening: Four people from the club will share some of their Field Trip experiences:

1. Rudy Silich reported on a recent trip to Indiana for Geodes.
2. Peter Riemersma Spoke about a trip out west to collect Fossils and petrified wood.
3. Dan Nevins gave a talk on his adventures to the copper mines and tailings in the Keweenaw Peninsula.
4. Mike Larson gave a presentation on fluorescent minerals.

Meeting Notes Submitted by:
Dan DeGroot, Secretary

- Budget Committee Meeting: January 10, 7 PM,
- Next Board Meeting: January 17, 2018, 7 PM,
- Next General Meeting: January 31, 7 PM, HMCC,
- Basement Field Trip at Sherwoods: January 27.

TULIP CITY GEM AND MINERAL CLUB RENEWAL FORM

DUES DEADLINE: - December 31, 2016

Mail to: **Christine Silich**
416 West Mae Rose Ave
Holland, MI 49424**Make check payable to TCG&M Club**Check membership type: Individual - \$15 - Family - \$20
Newsletter delivery: via email - Free! - Postal - \$5

Name _____

Address _____

City _____ State ____ Zip _____

Phone _____ Email _____

*Note: Members who signed up at the 2017 September Show are paid through 2018.***The Westover Oregon Trip**
June 2017

June 4th was the beginning of our long delayed field trip to Oregon. After three days of hard driving we found a few pieces of Dendritic Agate in Western Wyoming. Another day of driving brought us to Vale, Oregon. After a good nights rest at the Bates Motel we started collecting near Juntura, OR. The Oasis Motel is one of our favorite places as there is no TV or gasoline available in town.

Staying in Hines, OR. is about the closest to the Obsidian (Glass Butte) location. The road to Mahogany Obsidian Mountain took 45 minutes each way to travel 5 miles, round trip. I did collect some nice rough but the forty degree climb does slow you down. We also found some Orange colored Agate east of Glass Butte.

The week before the Prineville Show, the local vendors set up in a city park in Hines, OR. for what they called Obsidian Days. Most of these vendors are also at the Prineville Show. Here we set up connections with two very interesting dealers to check out their home collection.

The first dealer had cases of cabs available. Since Anne was going to be busy for the next two hours, I ventured out to his rough rock piles. I picked up 50 pounds of rough I thought was going for 50¢ a pound. I picked up pieces of Hampton Butte, Polka-Dot, Jade, Picture Jasper, Thunder Eggs, Agate, and other petrified woods. After Anne finished in the house he told me the bucket was free.

The second dealer just enjoyed the rock hounding hobby. He would drive across the state to clear up an old pile of rocks just for the fun of it. His yard was covered with piles of all kinds of material. I picked up Picture Jasper, Agate, Petrified wood, Polka-Dot, Graveyard Point.

Agate, and the newest Jasper that still doesn't have a name on it. He is working with Gene Mueller of the Gem Shop to get this new Jasper on the internet. If anyone is interested in buying direct - call me.

We stayed at the Executive Inn in downtown Prineville, OR. The price for a weeks stay is \$300.00.

The Prineville Show lasted from Thur - Sunday. They hold 20+ dealers in the building plus several rows of tents outside. One of the first dealers I found had just slabbed an old collection of Morrisonite. He had them separated by Green and Blue shades. To help my badly abused Visa Card I'm selling some slabs - call if interested.

Many items that are cheap in Oregon are worth more where not available (like the state of Michigan). I picked up several pieces of Hampton Butte, Polka Dot and Agate Rough.

We each purchased a piece of Obsidian w/fire. (*continued on next page*)

I still haven't come back down to earth when I found a dealer with Biggs & Deschutes rough. After purchasing most of his pieces I asked - Do you any more at home? He told me he had some more and that he would bring in the next day. When he arrived and started pricing each piece I had other buyers breathing down my neck. By the time I finished my Visa Card was starting to smoke.

Taking a break the next day we drove up to the Richardson Ranch. This is a playground for big kids. For those rock hounds who haven't been there yet, put it on you bucket list.

I found Petrified Wood from Stinkwater and Hampton Butte. Colorful Agates and Jaspers from all over. Several Thunder-eggs and Agates from the different beds located on the ranch. Too many items to list - you need to make the trip yourself.

Before returning to the show for the last time and our new found rock hound friends, we decided to check out the local rock shop. The rumor was (Quant Rock Shop) was selling out. The rumor was true, most all the rough rock outside in piles was from 10¢ - 50¢ a pound. The next day I arrived at 7am with buckets in hand. Cherry picking petrified wood at 10¢ a pound is a dream come true. After 7-8 buckets the car was starting to lean to the left. It was time to ship more large flat rate boxes. Before I was about to leave I decided to check out the rocks in a pile across the street. The owner was also a family member of the Quant.

I soon found a large piece of Hampton Butte. After some discussion with the owner we found that putting the small log on the right side of the car corrected the lean I was experiencing. The log weighed 168 lbs.

As with all trips the day of returning home has arrived. We were headed back through Juntura, OR. Our luck with finding Petrified Wood in Central Oregon continued. The picture of Anne with this display piece weights in at 115 lbs. We believe the wood is oak. Our agreement was if you find it you carry it to the car. (That didn't last long.) I found several pieces that were to large to dig out besides we could not carry anymore. What a day!

The story of bringing back more of the Westover Rhyolite near Vale, OR. is a sad one. We looked for three days but were unable to locate the right road. The remaining stone we have is no longer for sale.

Our last collecting site would be at the Blue Forest in Wyoming. We arrived in Rock Springs, WY to stay at the Days Inn again. Each day I would collect and pack in large flat rate boxes. Although the plan was to look for Fairburns in Nebraska we were rocked out.

After 5800 hundred miles, 49 flat rate boxes to the post office, and hundred of pounds of Petrified Wood, Morrisonite slabs & Deschutes Jasper in the car we declared the trip a success!



Anne with petrified oak – 115 lb!.

Junior Rock Club Page

QUARTZ MINERAL - Intro to Silicates

Quartz is composed of just two elements, Silicon and Oxygen. Its chemical nickname is " SiO_2 " because two oxygen are bonded to each silicon. You can see the Quartz crystalline structure in large, clear and pointy specimens. Each Junior will receive such a crystal on Jan 31st. Those specimens also have a milky/cloudy end, where the crystal grew away from its matrix (foundation rock). The pointy end shows a *macro-crystal* (visible) and the jagged end shows the *micro-crystalline* (too small to see individual crystals). The entire specimen is still Quartz (SiO_2).

Quartz is special as it is #7 on Mohs Hardness Scale. It can mark softer minerals, thus assisting in identifying stones or parts of rocks found on field trips. Lots of people think of quartz as a lucky stone and fun to keep in their pocket!

Juniors will also receive a Drusy Quartz to illustrate quartz micro-crystals that developed as a mineral crust on another rock. The word "druse" means crystal-coated surface, and the matrix rock may/may not be quartz.

Quartz is the simplest silicate. It can occur almost anywhere - via any of the Rock Cycle processes: igneous, sedimentary or metamorphic. Plus when additional chemical elements bond with silicon and oxygen, the resulting minerals change properties (color, structure, etc) and are given special names. According to mineralogy4kids.org: "The silicate mineral class... makes up over 90% of the Earth's crust... Each assemblage of silicate minerals tells us something of the environment in which it was formed..." Lots of good stories!

Look forward to learning about "Quartz" in January with a sneak peek at its colorful cousins Amethyst, Citrine, Smoky Quartz... as well as the extended silicate family in future presentations. HAPPY COLLECTING.

Rick Smith and Linda Winkelmann
Junior Coordinators



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.

To become a member, complete the form at www.tulipcity.org

The deadline for submissions is 5p the Thursday after the Board Meeting.

Advertising rates for club members are: \$5 for business card size, \$10 for ¼ page, \$15 for ½ page, \$30 for full page. non-member rates are double. Make check payable To: TCG&M with ad copy to Editor.

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.



Tulip City Conglomerate
Rudy Sillich, Editor
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