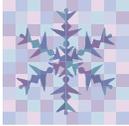


Cuyuna Rock, Gem and Mineral Society

# The Agate Explorer

December 2013



## Christmas Party

The Christmas Party will be held on Saturday, December 14th, starting at 11:30 a.m. in the upper level of the club house building. Potluck will begin at noon. Please bring a dish to share. Electricity is available. Plates, and silverware will be provided.

After sharing a meal a short business meeting will be held, followed by a white elephant gift exchange. If you'd like to participate in the exchange bring one or more wrapped white elephant gifts. A dice game will be played to distribute the gifts, then dice take-away begins! Gifts need not be rock related.

There will be a short meeting after the party for those that went on the South Dakota field trip to prepare for the January presentation.



## Club Information

### Meeting Place

Cuyuna Range Community Center

### Directions

2 blocks north of stop sign at Hwys. 6 & 210 intersection in Crosby. Meeting in basement on the 2nd Saturday of each month at 2 p.m. unless otherwise noted.

### Club Dues

**Note New Dues Rate Beginning**

**January 1, 2014.**

\$20/ family

\$9/sponsored juniors

Membership runs

from Jan. 1-Dec. 31st.



## We need you!

Sign up to be a host for a meeting. What does that involve?

- Bring treats for the meeting. (Recruit other members to bring treats if you'd like help.)
- Come to the club house by 1:00 to greet members as they arrive.
- Remind members to sign up for door prizes.

Qualifications? A smiling, friendly face! Grumps need not apply.

There will be a sign up sheet available at upcoming meetings.

*Are you a snowbird and a rockhound? Send me information about your out-of-state finds, including*



*digital pictures, and I'll include it in upcoming newsletters.*

*Thanks! Marcia  
theism@hotmail.com*

## Club Calendar

**December 14**—Christmas Party—gather at 11:30 in the upper level of the club house bldg., with potluck at 12, and white elephant gift exchange game to follow. SD trip mtg. to follow.

**January 11**— Board mtg., club business mtg. & club program on the South Dakota trip by its participants in September/October.

**February 8**—Dave Holmbeck will give a presentation on the Iowa Grotto

**March 8**— rocks from Morocco (tentative)

**April 12**— silent auction and show discussion (tentative)

**May 3 & 4**—Cuyuna Rock Club Show in Brainerd

**May 10**—Dr. Dave Kobilka, earth science (tentative)

*Information subject to change.*



**Club Shop Days are available upon request.**

Contact Harry Wagoner.

Email: [hpwagy@centurylink.net](mailto:hpwagy@centurylink.net)  
or call 218-927-9983.

### Club Purpose

*To foster an interest (& encourage young & old) to study earth science, enjoy the art of lapidary, hunting for rocks, and semi-precious stones. We also strive to use what we know and acquire to further educate everyone who has an interest in our hobby.*

*We are a not-for-profit organization.*

## December's Birthstones— Tanzanite, Zircon & Turquoise

The three birthstones associated with December are *Tanzanite*, *Zircon*, and *Turquoise*.



**Zircon** Derived from the Arabic words *zar* and *gun*, meaning *gold* and *color*, zircon is found in a wide range of colors such as: blue, yellow, orange, brown, green, colorless, and red (the most prized color). For many years colorless zircon was used to imitate diamonds. Folk wisdom grants zircon the power to relieve pain, whet the appetite, protect travelers from disease and injury, to ensure a warm welcome, and to prevent nightmares guaranteeing a deep, tranquil sleep. Major sources of zircon are the Chanthaburi area of Thailand, the Palin area of Cambodia, and the southern part of Vietnam.



**Tanzanite** Discovered in the late 1960s in Tanzania, and found exclusively in this tiny area of the world, *tanzanite* exhibits a rich violet-blue color for which the gemstone is treasured; often it is heat-treated to achieve this color. Colors range from blue to purple, and tanzanites that are medium dark in tone, vivid in saturation, and slightly violet blue command premium prices. As tanzanite can be less expensive than sapphire, it often was purchased as an alternative. However, it has increased in popularity and now is valued more for its own beauty and brilliance than as a sapphire substitute.



**Turquoise** The name *turquoise*, from the French expression *Pierre tourques* or *Turkish stone*, originated in the thirteenth century and describes one of the oldest known gemstones. Turquoise varies in color from greenish blue, through robin's egg-blue, to sky blue shades, and its transparency ranges from translucent to opaque. Turquoise is plentiful and is available in a wide range of sizes. It is most often used for beads, cabochons, carvings, and inlays. Although its popularity fluctuates in fashion, it is a perennial favorite in the American Southwest.

Information from  
[www.americangemsociety.com](http://www.americangemsociety.com)

### Website of the Month

<https://www.facebook.com/groups/487843154632856/>

or go to [www.facebook.com](http://www.facebook.com) and locate Lapidary Marketplace

A forum for lapidaries to sell and trade their ware. Also seems to be a good place to ask questions.



### Business Meeting Minutes Saturday Nov. 2, 2013

President Harry Wagoner opened the meeting and welcomed new members: Carol Whirley, and John and Kathy Krebs. There were 26 people present including three juniors: Travis, Ashley and Tosha.

Kevin Martini gave the treasurer's report. Harry told the members that the board had ordered a new Spin the Wheel.

Harry also talked about the importance of participation. Harry was thanked and received a round of appreciation for his contributions to the club over the years.

Elections were held. Ed Opatz was elected as our new president, Sharon Smith was elected to be the secretary, and the three board positions are being filled by Judi Dick, Ed Walton and Joan Guerra. Congratulations to our new board members.

There was discussion, and the members voted on whether to raise the dues, keep them the same or lower the dues, whether to charge for a printed newsletter and if the dues should be prorated.

The results are:

1. Raise the dues to \$20 per year.
2. No charge for printed newsletters.
3. There will be no prorating of dues with one exception—a window from the date of the show until the end of May,

where any NEW people can join for \$12 per year. This is a one time offer.

Marcia Opatz, our Newsletter Editor, will put an article in the newsletter outlining the costs to send a mailed newsletter and that if possible we ask members to receive newsletters electronically.

Joan Guerra, Tasha, and Ashley won door prizes.

Between elections and during breaks people were bidding on the silent auction items and visiting with each other.



New board member, Judi Dick.



New board members (left to right): Ed Walton, Sharon Smith, Joan Guerra, & Ed Opatz.

## Jewelry Making Tip

By Brad Smith

www.BradSmithJewelry.com



### Twisting Wire

Twisting wire can be done with an old hand drill but it goes much faster with a power tool. My preference is to use a screw gun, although a Dremel or Fore-dom should do well.

Just make a little hook out of coat hanger wire (or find a screw-in cup hook) and

chuck it up in your screw gun. Fasten the ends of the wires in a vice and slip the other ends on your hook. Keep a little tension on the wires as you twist.

Note that a power drill is too fast a tool for this unless you have one with variable speed.

Brad Smith, who lives in Los Angeles, California, is a long-time member of the



Culver City Rock Club. More bench tips by Brad Smith are at [facebook.com/Bench Tips/](https://www.facebook.com/BenchTips/) or see the book *Bench Tips for Jewelry Making* on Amazon.

### The Hairy Mosquito Trading Company

Presents the

### 2014 Cryogenic Knap-in

February 20-23

21287 Hwy 169 No., Milaca (Mile Marker 199)



*Come and see some of the best flint knappers in the country.*

- Knapping tools and supplies
- Lessons available
- Rock vendors
- Knapping demonstrations
- Arrowheads and knives
- Large indoor knapping area
- Vendors welcome
- Food vendor onsite

For questions contact Trader Dave 612-964-5902 or Jackpine Savage 651-334-7088

## Reunited

By Butch Goldenstein

I was four years old in 1948 and our family lived in a little town named Donnelly, MN close to the South Dakota border. By that time my uncle, Audie Geer (who lived near Cloquet, MN at that time) had been collecting Lake Superior agates for many years, but it was in that year of 1948 that he showed some of his recent finds to my mom and dad and me. It was my first introduction to agates. My mom was especially impressed with the beauty of the stones so my uncle gave her a pail full. Always artistic and industrious, my mom envisioned the pretty stones as decorations for an art project. So she decided to build a concrete bird bath and matching flagpole holder adorned with agates for our front yard. They were a beautiful pair. Neighbors and visitors constantly commented on how great the two objects looked.

However, just two years later in 1950 we moved 100 miles east to St. Cloud, MN. On moving day they pulled up the flag pole holder and loaded it, but the bird bath was too heavy and took too much room. There was no choice; it had to be left behind.

From 1950 to 1969 the little flagpole was moved two more times and wound up in the yard of my parent's retirement home in Hoffman, MN. Years later, my brother Dick moved it to his farm near Bigfork, MN, but in 2011 he decided to give the heirloom to me. I think he reasoned that I was "the agate guy of the family" for the past 60+ years so I should have it. I was thrilled.

In the meantime, the bird bath still stood in the front yard of our old house in Donnelly. It had survived over six decades of harsh Minnesota weather, but it was still separated from its companion, the flag pole. Dick tried numerous times to buy it from the owner, but no dice. Finally in

## #8 On The Most Deadly Rocks and Minerals List

### Hutchinsonite

Thallium is the dark twin of lead. This thick, greasy metal is similar in atomic mass but even more deadly. Thallium is a rare metal that appears in highly toxic compounds consisting of rather strange combinations of elements. The effects of thallium exposure are even more peculiar, & include hair loss, serious illness thru skin contact & in many cases, death.

Hutchinsonite is a hazardous but dramatic mixture of thallium, lead and arsenic. The three poisonous metals form a lethal mineral cocktail that should be handled only with great caution.



Your body is dominated by carbon, hydrogen, oxygen, and nitrogen. Every carbon & oxygen & nitrogen atom in your body formed in the nuclear furnaces at the heart of ancient stars that exploded as supernovas. You are made of star stuff.

2013 the old house was sold to a new owner and he agreed to sell the bird bath. Dick bought it and then surprised me by giving it to me as a gift. Now, thanks to the tenacity and generosity of my big brother our mother's art projects are side by side again for the first time in over 63 years!



**It's Just Dust -- Isn't It?**  
**Part II**  
**Control & Ventilation for Dusts**  
**& Particulates**

Peter R. Girardot, PhD  
 Chair, Safety Committee, SCFMS

The toxicity of fine dusts was covered in Part I of this series, which pointed out that most fine dusts not only can, but will cause lung disease. Grinding or cutting of gem and lapidary materials produces fine dusts of this kind. The conclusion is that we should control these dusts.

**Club Shops**

There are two methods of control for a small to medium sized club shop: 1) collecting dusts at each individual source 2) collecting dusts for each room ("fugitive capture"). In collecting at the source, each machine or each operation would have a dust collector at the point of operation. This is expensive.

Alternatively, "fugitive capture" control would require separate rooms for different operations. Each room would have a filter device completely connecting all the dusts and mists and returning the air to the room. Filter devices hang from the ceiling and can collect everything in a 1000 square foot area down to 0.1 micrometer in size.

**Home Shops**

In a home shop, there are two ways which work to ventilate workplaces, and normal home heating and air conditioning is not one of them.

The first is dilution ventilation. As implies by the name, it mixes contaminated air with large volumes of clean air to reduce the concentration of contaminants. Then the diluted mixture is exhausted from the workplace. Anyone who pays home heating and air conditioning bills can imagine the costs this would entail. In addition this works for vapors or gases, but does not remove dusts, mists, or highly toxic gases.

The second is local exhaust ventilation, which is collection at the source. This does remove dusts, mists, and highly toxic gases and also removes smaller amounts of air. It requires a hood, ductwork to carry the air, an air cleaner to filter or purify the air before it is released outside, and a fan to pull air through (fig.

1) For this to work correctly 1) the hood must be close to the source, 2) the air flow must be high enough to carry dusts and mists away, 3) contaminated air must move away from your face, not past it, 4) exhaust air must not be able to re-enter the workplace or the home, 5) there must be enough make-up air to keep the system operating properly. (This last is often a problem in home shops).

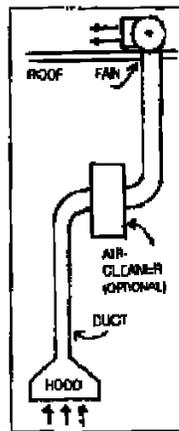


Fig.1

**Types of Hoods**



Fig.2

Some saws or grinders have built-in dust collectors (Fig. 2). These need only to be connected to ductwork and a cyclone before venting. Rockhounds should not work with dust-producing machines unless they are connected to dust collectors.

Movable exhaust systems, call "elephant trunks" (Fig. 3) have flexible ducts and can be equipped with pulley systems or flexible arms to move to any position.



Fig.3

Slot hoods

(Fig. 4) draw gases across a work surface, away from the worker. They are rather expensive, but can be used for any kind of bench work.

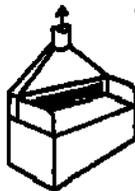
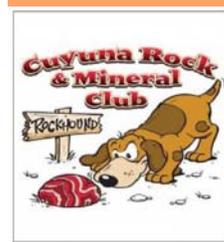


Fig.4

A good reference for planning ventilation is "Ventilation, a Practical Guide," GSA, 5 Beekman St., New York 10038, which includes calculations. Air flow devices can be used to measure air velocity, and you can always look to see if dusts and mists are moving. Incense smoke, soap bubbles or cheap perfume also help here. Beware too, of fans that are so noisy that you would rather not turn them on. Check periodically to see that the system is working properly. By moving the dusts, mists, and fumes away from you and safely collecting them before exhaust, health problems from grinding or cutting can be eliminated or minimized.

Part III will cover hazards from particular types of dusts.



**Nametag, anyone?**

Do you need a club nametag?  
 Contact  
 Kevin Martini

kjspumanti@yahoo.com  
 or 218-770-8917.

**Consider Going Paperless**

By Marcia Opatz

The costs to print a newsletter can be broken down by printing and postage. The printing is 5 cents per page; since most newsletters are 8 pages, the total would be 40 cents. The cost for postage is 46 cents, making the total 86 cents.

Since I have become editor I have compressed the newsletter before sending it electronically, so it should help people with a slow internet connection download the newsletter.

Also, members receive the newsletter more quickly if they receive it electronically, as opposed to waiting to receive the mailed copy.

Consider receiving your newsletter electronically and save the club approximately \$11 per year.

**State by State**

**Arizona**



**State Mineral**  
**Copper**

**State Gemstone**  
**Turquoise**

**December Birthdays**

- 10th Elaine Hawkins
- 12th Mark Erikstrip
- 13th Dave Holmbeck
- 23rd Sinthia Seeplett
- 25th Edward Walton



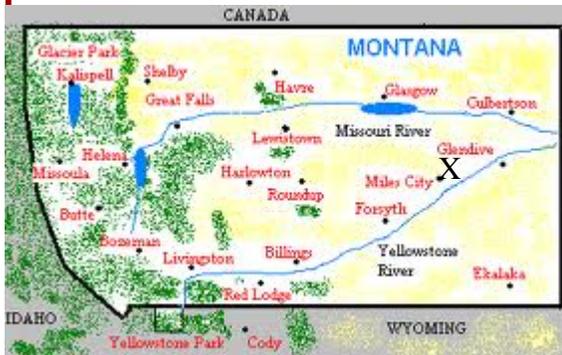
**No December Anniversaries**



happy anniversary

# Multi-Federation Field Trip – Make Plans to Attend NOW!

by Doug True, Field Trip Chair



The town of Terry, Montana may be small, but they are planning on rolling out the red carpet for us as they host the AFMS 2014 Multi-Federation field trip gathercomping. The dates are July 31 - August 4, 2014, so mark your calendars and get ready to register!

Terry is right in the middle of some of the best Montana rock hounding areas. We'll have numerous trips to the Gravel Bars on the Yellowstone

River; productive areas that I've been hunting on annually for 40+ years. Many are accessed only through private property, but permissions have been granted. We'll be hunting for Montana agates, Jasper, Petrified Wood, fossil coral, stromatolites, and numerous other "oddities".

We'll have numerous trips into Montana fossil country to the Pierre and Bear Paw formation areas, and we'll collect ammonites, baculites, scaphites, nautiloids and many other shells ( 70-95 million years old ) in the ancient sea bed areas. We are also working on trips to several areas where we can collect dinosaur fossils from the Hell Creek Formation. More information will be forthcoming as plans are solidified. In addition, we'll have an opportunity to take a guided tour through the Eastern Montana Badlands - a once in a lifetime opportunity.

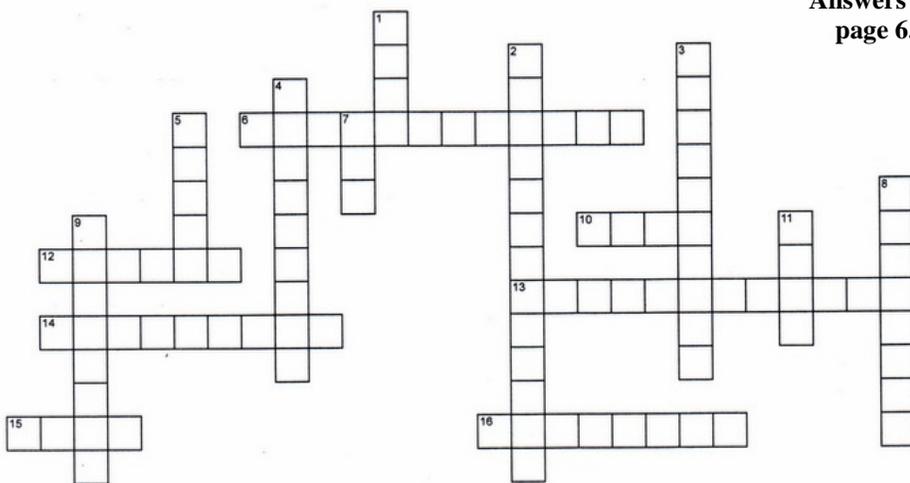
Start planning your collecting vacation now. Kids are welcome!!!! What could be better than four days in Eastern Montana with a chance of collecting wonderful material?

But wait, there's more....The town of Terry is allowing us to use their two block city park for dry camping and other activities. We'll have pot luck dinners, a barbecue and much, much more.

For more information contact Doug True, Fieldtrip Chair, (406) 670-0506 or email [dtruefossils12@yahoo.com](mailto:dtruefossils12@yahoo.com)

## Agates Galore!

Answers on page 6.



### ACROSS

- 6 largest great lake
- 10 inside a bicycle tire
- 12 narrow strips of different colors
- 13 geological formation in Arkansas
- 14 those who speak Portuguese
- 15 destructive burning
- 16 landlocked country in South Africa

### DOWN

- 1 found on north side of trees
- 2 structure built to protect
- 3 chalcedony in rounded, concretionary nodules
- 4 hard, red chalcedony
- 5 feathers on a bird
- 7 undeveloped potato bud
- 8 sky colored cord used to tie shoes
- 9 a town in western South Dakota
- 11 colored part of eye

## Rox Box

A place to advertise rock items to sell and to inquire about items to purchase.



### For Sale:

4" wide wet or dry vertical belt sander. 20" tall. \$65. Call Butch Goldenstein—(320) 252-3335.



### For Sale:

Lortone BA66 6 wheel Grinding/ Polishing Arbor with attached buffer. Includes lamp. Very clean machine. \$850 Contact Ed Opatz—(320) 250-1363 or [opatz1@att.net](mailto:opatz1@att.net)



**Wanted:** Specimen of Kimberlite (host rock from Crater of Diamonds, Arkansas) Buy or trade. Contact Harry Wagoner at 218-927-9983 or [hpwagy@centurylink.net](mailto:hpwagy@centurylink.net)



**For Sale:** 8" Lortone FS8-C trim saw with clamp. Diamond blade. 1/3 hp motor, clear safety hood, trimming vise & Lg removable coolant tank. Very clean. \$425 Contact Ed Opatz (320) 250-1363 or [opatz1@att.net](mailto:opatz1@att.net)



*The Cuyuna Rock, Gem and Society accepts no responsibility for any dissatisfaction that may occur by either party, seller or buyer. The Society does not profit in any way by sales transactions.*

Marcia Opatz, Editor  
Cuyuna Rock, Gem &  
Mineral Club  
P.O. Box 151  
Crosby, MN 56441

## FIRST CLASS MAIL



## The Agate Explorer

December, 2013

Official Publication of the Cuyuna Rock, Gem & Mineral Society  
Members of AFMS & MWF



It is estimated that every person in the United States will use more than three million pounds of rocks, minerals and metals during their lifetime.



*"I'm FINALLY going to win the biggest agate of the year contest!"*

Submitted by Ann Lembcke;  
Photo by Cale Anderson, Anoka, MN  
of Aaron Madsen

### Club Officers & Board of Directors

**President:** Harry Wagoner  
hpwagy@centurylink.net  
218-927-9983

**Vice-President:** Lisa Hughes  
lisamhug@yahoo.com  
218-821-2729

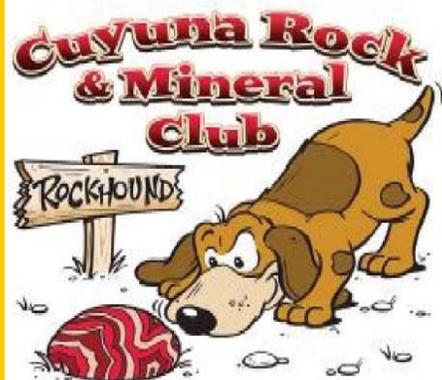
**Secretary—TBD**

**Treasurer:** Kevin Martini  
kjspumanti@yahoo.com  
612-916-0485

**Director:** Judi Dick

**Director:** Carol Johnson

**Newsletter Editor:** Marcia Opatz  
theisma@hotmail.com  
320-746-2897



### Answer to the crossword puzzle on page 5.

- |                  |                   |
|------------------|-------------------|
| 1. moss          | 9. Fairburn       |
| 2. fortification | 10. tube          |
| 3. thunderegg    | 11. iris          |
| 4. carnelian     | 12. banded        |
| 5. plume         | 13. Crowley Ridge |
| 6. Lake Superior | 14. Brazilian     |
| 7. eye           | 15. fire          |
| 8. blue lace     | 16. Botswana      |