

A newsletter for Gem and Mineral enthusiast in and around the Raleigh, North Carolina area.

President's Report - Tar Heel Gem & Mineral Club, Inc.

I hope everyone is having a wonderful Summer. I know I am.

Wow, what great Ice Cream and fixings. They were wonderful. Thank you to all who brought in some goodies.

We had a lot of people stop by and check out the club this past month.

Continued on page 3



Special Interest Articles:

- President's Report
- July Door Prize
- September Birthstones
- 2014 THGMC Show Date (See Upcoming Shows)

Individual Highlights:

President's Report	1
July Door Prize	1
September Treasurer's Report	2
August's Business Meeting Minutes	3
Upcoming Field Trips:	4
September Birthstones	5
Upcoming Shows:	7
Vug Sites:	7

July Door Prize

By Mike Franklin

Tetrahedrite

Tetrahedrite is a copper-iron-antimony-sulfur mineral with formula: $(\text{Cu}, \text{Fe})_{12} \text{Sb}_4 \text{S}_{13}$. It is most frequently the antimony endmember of the continuous solid solution series of arsenic bearing tennantite (4 As atoms substitute for the 4 Sb atoms). Pure endmembers of the series are seldom if ever seen in nature. Of the two, the antimony rich phase is more common. Other elements also substitute in the structure, most notably iron and zinc along with less common silver, mercury, bismuth, and lead. The equilateral-triangle four-faced crystals are steel grey to black and appear

metallic with Mohs hardness of 3.5 to 4 and specific gravity of 4.6 to 5.2.

The door prize specimen from Peru was formed on pink calcite that transitions to pure white calcite (flower-like) crystals. The tetrahedrite

crystals have formed on the surface of the calcite crystals. Since tetrahedrons may contain arsenic which is quite toxic, the specimen should be displayed in such a manner to prevent anyone from removing a tetrahedron and ingesting it.

Continued on page 4

Close-up of Tetrahedrite Metallic Crystals



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We're on the Web!
See us at:
www.tarheelclub.org

Program & Refreshments

<u>REFRESHMENT SCHEDULE:</u>	
Coordinators: Mike Troutman; Emily Carabello	
September	Walt Milowic
October	Hummels
November	
<u>PROGRAM SCHEDULE:</u>	
September	Wildacres Presentation – Cyndy / Nancy
October	Grab Bags
November	Elections

Please Contact Mike Troutman at 919.676.3161 to volunteer. Remember, the club will reimburse you for up to \$75 (bring your receipts to the treasurer).

2013 August Treasurer's Report

July Ending /	
Aug. Beginning Balance	\$6,742.44

Deposits (+)	
No deposits	

Sub total	\$0.00

Checks	
Meeting Food	\$73.09
Newsletter	138.08
Postmaster	138.00
Wildacres / Cyndy Hummel	485.00
Wildacres / Nancy Holland	485.00

Sub Total	\$1,319.17

Aug. Ending /	
Sep. Beginning Balance	\$5,423.27

September B-Day Members

- Jim Bilau
- Eileen Breckstein
- Mike Franklin
- Mary Harbison
- George Harris
- Pat Jackson
- Randy Jones
- Gary McCutchen
- Julie Niederkorn
- Karen Santala
- Linda Searcy
- Ken Troutman



Membership applications may be mailed to:

Tar Heel Gem & Mineral Club, Inc.
Attention: Treasurer
10609 Chelsea Drive
Raleigh, NC 27603

Tar Heel Gem and Mineral Club, Inc. – July Meeting Minutes

Tuesday, August 20, 2013

Attendees = 20

Opening of Club Meeting:

He introduced a few people visiting our club for the first time, Pam, Crystal and Christin. He then introduced the new member Rick Curlin who was accompanied by 2 of his daughters Beth and Sarah.

New Business:

Jack then brought up a few possible ways to relocate our Geode booth at the show, less noise, to be discussed at a later meeting. One way would be to move the booth to the outside entrance. Another would be to move the cutting tent outside the garage door and leaving the geodes inside the door. He also mentioned about getting a new and easier type of tent, made with steel supports, for the geode booth.

He also mentioned going to the Spruce Pine Show and asked if anyone else had. He announced the he had spoken with Terry Ledford, at his booth which he had on display a lot of his super pricy items, and was informed that Terry would be opening the mine near Washington, Georgia, which he believes is the Jackson Crossroads area mine, sometime in September. Jack suggested that we might discuss a field trip there in October, cooler weather. He asked us, since it's a long trip that we think about possibly going by bus or van.

Jack then asked all new attendees to give me their email addresses.

Julie N. displayed a few nice calendars of minerals and stones she had picked up.

President's Report

Continued from page 1

We had a new member, Rick Curlin; join and he brought 2 of his daughters to see us for themselves. Everyone had a wonderful time.

I went to the show at Spruce Pine, at the beginning of the month and met Terry Ledford. He told me that he was going to open Jacksons Crossroads for a dig this fall and I was able to obtain his caretaker's number to see if we can put together a field trip in Oct. or Nov. I also think that we should figure out about how we should plan on getting and or staying there. Also, should we make an

Old Business:

Dr. Mike brought in his raffle pick of last month and proceeded to let us know that there might be arsenic in it. It was then passed around for us to look at and of course most of us touched it.

Refreshments:

A big thank you to Angelina (a new club member) for volunteering to get our refreshments for the July club meeting! Our August meeting is the Ice Cream Social.

Refreshments	
Month	Volunteer
17-Sep	Walt Milowic
15-Oct	Hummels
19-Nov	

Door Prize:

The door prize was won by Mary Obenchain who chose a beautiful piece of Polychrome Jasper specimen. As a reminder, if you happen to win the door prize, please compose a short article for publication in our newsletter on what you won.

Meeting Close:

Jack then ended the business end of the meeting in favor of eating the ice cream and goodies.

At about 8:55 PM he asked to close the meeting and it was seconded.

Respectfully Submitted
Tom Todaro and printed by Jack Fried

outing of it or a hardship? Please think about this before we meet in September.

Again, please keep bringing in those specimens for donation. The grab bag is getting close.

I hope you continue to have a wonderful Summer and hope to see you at the next meeting on September 17, 2013.

Respectfully Yours,
Jack Fried,
President, Tar Heel Gem and Mineral Club, Inc.



Tetrahedrite triangular pyramids on calcium carbonate (calcite) from Peru

Upcoming Field Trip

By Shirley Green

Everyone,

On Sat., Oct. 5, 2013 we are having a field trip to a new place where no club has gone before in Randolph County., NC. It is a fee dig and will cost each person \$15. to dig with a limit of one five gallon bucket full. (Don't worry you can fit a lot of these rocks in a five gallon bucket.) Please arrive no later than 9:30 am at 1438 Foxfire Rd., Asheboro, NC. When you arrive you will see a log cabin. You will need boots, bug spray, a trowel, a shovel, water to drink, snacks, perhaps other digging tools. We will be looking for angled plated quartz, which as far as I know, there is not another "collectible deposit" in NC.

Since we have not had any field trips lately I really hope a lot of people will come. I do need to know how many people are coming. Please send me an e mail to: richard60green@yahoo.com

The dig is from 9:30 to 2:30 and we have been told that we can have a weiner roast over an open fire after the dig if we wish. Since I will be supplying the food a head count is important so please RSVP.

This dig is at The Baldwin Place Farm. You can look it up on their website at thebaldwinplace.com if you wish.

Hope to see you there!!

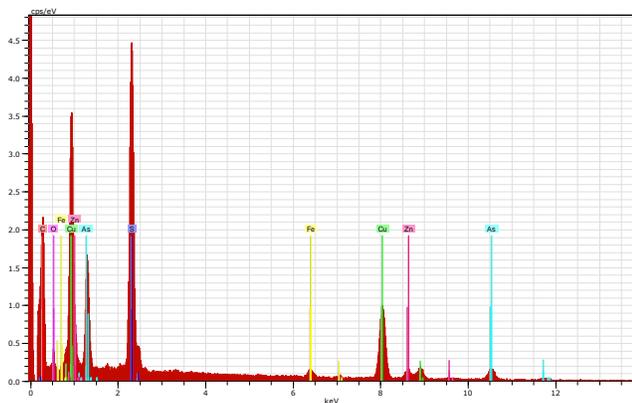
Shirley Green,

Field Trip Chairperson, Tar Heel Gem and Mineral Club, Inc.

July Door Prize

By Dr. Mike Franklin

Tetrahedrite crystals usually occur in low to moderate temperature hydrothermal veins/vents. It is a minor ore of copper and associated metals. It was first described in 1845 for occurrences in Freiberg, Saxony, Germany.



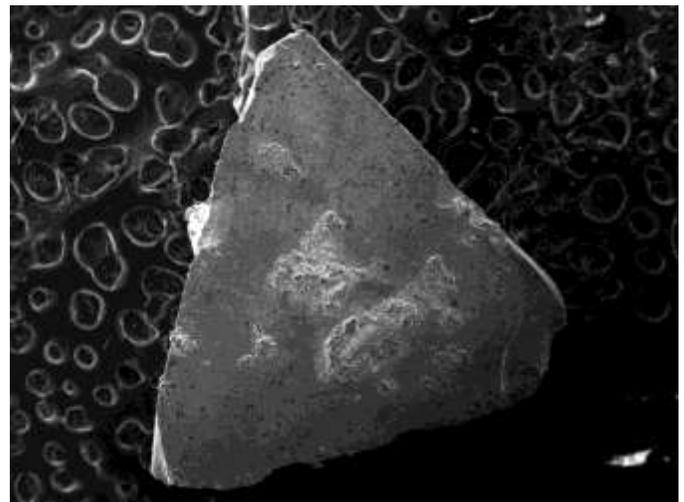
Tetrahedrite (lower left tip)

Energy Dispersive X-ray/Scanning Electron Microscope spectrum copper 37%, sulfur 26%, arsenic 16%, zinc 5%, iron 2% with some carbon & oxygen,

but no antimony at 3.6 keV L alpha 1



Duke University ESEM/EDX Instrument XL-30



Flat area analyzed

September Birthstones

Sapphire



Sapphire, the September birthstone, has been popular since the Middle Ages and, according to folklore, will protect your loved ones from envy and harm. Medieval clergy wore sapphires to symbolize heaven, while commoners thought the gem attracted heavenly blessings. Blue sapphires range from very light to very dark greenish or violetish blue,

as well as various shades of pure blue. The most prized colors are a medium to medium dark blue or slightly violetish blue. Sapphire is a variety of the gem species corundum and occurs in all colors of the rainbow. Pink, purple, green, orange, or yellow corundum are known by their color (pink sapphire, green sapphire). Ruby is the red variety of corundum.

See more at: <http://www.americangemsociety.org/September-birthstone>

Sapphire



The September birthstone, Sapphire is chemically and structurally the same as Ruby - both are varieties of the mineral corundum. Sapphires are well known among the general public as being blue, but can be nearly any color except shades of red or pink (since those are called rubies). Sapphire is also the Zodiac stone for the constellation of Taurus

the Bull. It is associated with the values of truth, sincerity, commitment, and loyalty.

The blue color is by far the most popular color for sapphire but orange-pink, golden, white, and even black have generated much interest in the gem trade. Tennis bracelets are available that contain a complete rainbow of sapphire gemstones.

Oriented rutile crystal inclusions cause a six-pointed-star light effect (called asterism) to form the popular Star Sapphire.

Sapphires are well known from such places as Sri Lanka and India, and excellent specimens are also found in Tanzania and the Kola Peninsula of Russia. In addition, sapphires are found in many places throughout the world, including North Carolina, Brazil, and China.

Sapphires are extremely durable (only diamond and moissanite are harder). Artificial sapphire crystals are used as the crystal face in genuine Rolex watches, and they are extremely scratch resistant.

See more at: http://www.galleries.com/September_Birthstone

Variety Of:	Corundum , Al ₂ O ₃ .
Uses:	Gemstone
Birthstone:	September
Color:	various colors, except for red.
Index Of Refraction:	1.76 - 1.78
Birefringence:	0.009
Hardness:	9
Cleavage:	none, although there is a rhombic parting
Crystal System:	trigonal
Pleochroic:	strongly

Sapphire is the non-red variety of corundum, the second hardest natural mineral known to mankind. The red variety of corundum is Ruby - all other colors are called sapphire, even pink.

Sapphires are well known among the general public as being blue, but can be nearly any color, even colorless. White (or colorless but massive) sapphire would more properly be called corundum. The blue color is by far the most popular color for sapphire but orange-pink, golden, white, and even black have generated much interest in the gem trade. Oriented rutile crystal inclusions cause a six-pointed-star light effect (called asterism) to form the popular Star Sapphire.

Many of the finest watches have crystal faces made of colorless artificial sapphire - these are extremely durable and scratch resistant.

One interesting bit of trivia - sapphire is aluminum oxide, and aluminum is a highly reactive metal. Any freshly exposed surface of aluminum is quickly oxidized to corundum (sapphire), so it can be said that your lawn chair (or screen door, or any other aluminum object) is coated with sapphire.

See more at: <http://www.galleries.com/Sapphire>

Sapphire



Sapphire opens you up to the Higher octaves and brings you spiritual light. It produces the desire for prayer, has great healing energy, aids your power of concentration and assists greatly in meditation. Sapphire stimulates your psychic abilities, expands

cosmic awareness and your connection to your Higher Self. The stone releases unwanted thoughts and brings joy and peace of mind by opening your mind to beauty and intuition. It's an amazing stone of prosperity, sustaining the gifts of life and alleviating frustration. The various colours of Sapphire have additional properties as well: - Blue Sapphire assists in the healing of your entire body. It stimulates your Throat Chakra and assists in communication, attentiveness, inspiration and psychic awareness. - Green Sapphire works with your Heart Chakra and is excellent for fidelity, loyalty, physical sight and remembering dreams. - Black Sapphire protects both your physical body and your energy, grounding

you while eliminating anxiety and doubt. - Purple Sapphire allows you to focus and advance spiritually. Use it in meditation to awaken the Crown Chakra. - White Sapphire is also stimulating to your Crown Chakra, and also heightens your focus and attention. It frees you from greed and bestows justice and truth. - Yellow Sapphire is a wealth and prosperity stone, clearing the way and providing endurance and fulfillment. It allows for a view of the bigger picture in business. - Red Sapphire is called Ruby. - Parti Sapphire is a multi-coloured Sapphire found in Australia. Each colour adds to the stone the properties listed above, plus the stone activates and stimulates all of your chakras. It allows you to live totally in the moment.

Chakras: Throat

Astrological sign: Libra

Sapphire: Star



All of the properties of Sapphire and its respective colouring, plus: Star Sapphire allows you to better understand human nature, including your own human nature, and the intentions behind actions. It bestows a cheery outlook and encourages friendliness in dealings with others. It can also facilitate interactions with advanced beings from other realms! A

stone of solid wisdom and good luck which helps you to understand and recognise the Divine order of the Universe – and its perfection working within your own life.

Chakras: Throat

Astrological sign: Libra

See more at: <http://www.thatcrystalsite.com/guide/properties-glossary.php?init=s>



Door Prize: Polychrome Jasper



Quartz found on member's property

UPCOMING SHOWS

November 22-24, 2013: Columbia, SC - 46th Annual Gem, Mineral, & Jewelry Show 2013. Jamil Temple (206 Jamil Road, Exit 106A off I-26), Columbia, SC 29210. Jewelry, beads, loose stones, fossils, minerals, gold, silver, & tools for sale. Geodes sold & cut. Club member's rock collections on exhibit & lapidary demonstrations. Show hours: Friday: 10 am - 7pm, Saturday: 10 am - 6 pm; Sunday: 12 pm - 5 p.m.; Admission: Adults \$5 - under 16 admitted free with adult. All military & their dependants are free. www.cgams.org; Sue Shrader (803) 736-9317; ashrader@mindspring.com;

March 28-30, 2014: Raleigh, NC - 38th Annual Capital Area Gem & Mineral Show. Tar Heel Gem and Mineral Club, Inc. Kerr Scott Building, NC State Fairgrounds, Raleigh, NC. Hours: Fri 3-8; Sat 10-6; Sun 10-5. Admission: Free and Free Parking. Contact: Cyndy Hummel; 919-779-6220; mchummel@mindspring.com; www.tarheelclub.org;

NEW THGMC Show Information just above!!!

Vugsites The following are some links to Web-Sites that may interest some of our members:

<http://www.amfed.org> / <http://www.amfed.org/sfms> These are the official sites for the organizing body that the Tar Heel Gem & Mineral Club is founded under. I would strongly urge all members to check them out on a regular basis.

http://www.amfed.org/sfms/lodestar_newsletter.html The SFMS Lodestar Newsletter

<http://www.carolinageologicalsociety.org/CGS/Home.html> This site provides numerous downloadable field-trip guide books, maps, and charts of the Carolinas. It will prove to keep any avid rock hound busy for years. Great Site!

http://www.ncminerals.com/ncmineralswebsite_files/page0011.htm And while we are on the subject, try this link. Its titled: Links of Interest to Rock hounds in NC. It will take you to a list of links for North Carolina gems and minerals.

<http://www.rocksforkids.com/> Just like the name says, a nice place to steer the younger members.

Information & photographs of over 6300 specimens from the Glenn & Martha Vargas Gem & Mineral Collection.

<http://www.rockhoundlounge.com> Scott Laborde, a club member maintains his own web site that might be of interest to people collecting in and around Wake County.

http://www.msnbc.msn.com/id/29726500/ns/technology_and_science-science This site highlights a half dozen of the most recent significant fossil finds.

<http://appmodo.com/13971/mole-quest-for-the-terracore-gem-app-review-for-the-iphone-and-ipod-touch/> If you have an iphone or an ipod touch, this rock-hounding may be the game for you.

http://diamonddanpublications.net/index_files/page0009.html Diamond Dan's Mini Miner's Monthly

I would like to encourage all members of the THG&MC that maintain their own presence on the internet to send me a link to their site to be published in future Vugsites so that other club members may learn and enjoy the craft, the art, the interests that many of us have in common.

