

Lake George Gem & Mineral Club

Club News, May, 2023



The May meeting will be held at the Lake George Charter School at 9AM on May 13.

John Rakowski will present his popular “Rockhounding 101” class, preceding a field trip to the Club claim near Wigwam Creek. Here’s John’s description:

Rockhounding 101 by John Rakowski

This presentation will focus on collecting ideas and techniques in the Pikes Peak batholith for new members. You will see examples of the commonly seen minerals of the area and of pegmatite material. We’ll discuss what a pegmatite is and what pockets are, plus hints on how to find them. We will also discuss how to tell the difference between quartz, topaz, and fluorite – all three often look similar to many people. After the meeting, members who pre-registered will take a field trip to the Club claim.

John is a retired professional geologist with a career as a petroleum exploration and development geologist. After working for a major oil company and independent companies, he started his own company in 1984, providing consulting services in exploration, development, and acquisition of oil and gas properties. He has been an active mineral/fossil collector for more than 60 years, with experience in the Lake George area since the early 1960’s. In addition to being a long-term member and having served as an officer of the LGGMC for many years, John is also the President of the Pikes Peak Historical Society, which operates the museum in Florissant.

Field Collecting Notes John Rakowski 4/2023

These notes have been printed in a past newsletter but should be useful to assist new members and serve as a reminder for the older members. I encourage our more experienced members to bring extra tools, when possible, to help supplement tools available to our newer members on field trips.

General: Be sure you will be going to unclaimed public land or if not, that you have permission. If you’re on a Club Field Trip pay attention to descriptions of the areas where collecting is allowed and any safety information for that site that is provided. On a club trip by car, follow at a close but safe distance from the vehicle in front of you. Be sure before the trip that you have plenty of gas and that your vehicle is prepared for the trip. It’s safest and more fun to be prospecting or collecting with at least one other person. Make sure you tell someone where you are going and when you expect to be home. Use a map or GPS to keep track of where you’re going and where you found specimens. Keep good notes of where your specimens were found and place copies in boxes with the specimens. Stay away from mine openings unless you’re with specially trained and equipped people.

Safety and comfort: Make careful mental note of landmarks and surroundings so you can find your way back. Remember to bring the following: • Safety glasses (polycarbonate) or safety goggles to protect your eyes, • A comfortable back pack or 5-gallon size bucket to carry everything. • Sturdy and safe hiking or work boots for the occasion; prefer steel toes if there are lots of loose big rocks such as

Lake George Gem & Mineral Club

May, 2023

Mt. Antero • Sunscreen, insect spray, toilet paper (TP can be good wrapping for delicate specimens) • Plenty of water, and food if you'll be gone most of the day • Gloves -- quartz and other material can slice and dice your fingers quickly! • Light raincoat (BUT beware of lightning storms!) • Knee pads • Safety orange color vest during hunting season or in coyote hunting areas • Emergency blanket, Whistle, small first aid set with band aids and antibiotic ointment.

Initial digging and search tools: • Picks, small or medium. Estwing PaleoPick is a good general tool. • Shovels, small folding or large short handled • Brush or whisk broom, magnifier and folding saw. For the initial reconnaissance, just take the Safety/Comfort items, small pick, folding GI shovel, and brush. You can explore more area this way, and when you find a zone of interest, you can go back for more tools and packing materials. Pocket or specimen recovery: • Big pick and big shovel and big pry bar to clear the area around a pocket or zone of interest and to knock down and muck out dangerous overhangs. • Quarter-inch hardware cloth mesh screen for some areas like topaz sites • Small pick and small pry bars • 3 pound sledgehammer and cold chisels of various sizes (avoid mushroomed chisels) • Small shovel, trowel, hoe, brushes • Screwdrivers straight or bent, Bamboo skewer sticks and dental picks • Egg cartons, newspaper, toilet paper, boxes, bags, Soda pop flats to protect your finds

Additional considerations: • Marking your small tools with bright colored paint will make them easier to keep track of. • When you find your "goodies" dig around them (not right on the edge of the specimen) to make it easier to recover unbroken specimens. • Don't dig extended undercut areas – break and muck out overhangs (cover pocket with protective cloth or newspaper which will also alert you when you're digging out that you're at your pocket). • Wrap specimens carefully-they will chip or break if not wrapped and protected. • If you find a pocket, save all pieces, take them home, and clean everything since many times specimens can be repaired. After cleaning, work on your 3-D puzzle. Not everybody will have all the tools described above but they're part of a suggested list. The most important items are the Safety/Comfort items and the material for protecting your finds.

☺☺ We had a great turn-out for the April meeting, with at least 55 people present to hear **Bob Carnein** talk about the basics of mineral identification.

Please plan to attend the following Lake George Gem & Mineral Club meetings. Watch the newsletter for more information, and **think about volunteering to give a presentation**. Presentations listed are tentative:

- June: **Bob Carnein** will talk about the rocks and minerals of the Gold City claims, in preparation for 4 trips, starting after the meeting.
- July (tentative): **Chad McCarty** will report on the new dinosaur find near Cañon City. You can find more information at https://www.canoncitydailyrecord.com/2023/01/12/breaking-news-two-large-dinosaur-fossils-discovered-in-royal-gorge-region/?utm_content=latestheadlines&utm_campaign=SocialFlowFeed&utm_source=facebook&utm_medium=socialflow&fbclid=IwAR0Jmd85XXa2b4-MaSzp-QznN_p46f5BMbdrzrEEaK1ddp2CV2Ebvc0xMjk
- **Markus Raschke** will give a talk (not yet scheduled, but probably this fall) on his adventures tracking down a world-class scheelite-beryl-cassiterite deposit in the Tibetan Plateau of China.

☺☺ **ADDITIONAL COMING EVENTS OUTSIDE THE LGGM CLUB:** (Nearby gem, mineral, fossil, and geology events that you may enjoy.)

- **Cañon City Geology Club** meets on the 2nd Monday of the month at 6PM in the United Methodist Church, Cañon City
- **Columbine Gem & Mineral Society**, meets on the 2nd Thursday of each month, 6:30PM in the meeting room, Mt. Shavano Manor, 525 W. 16th (at J St.), Salida
- **Colorado Springs Mineralogical Society**, meets on the 3rd Thursday of each month at 7PM in the Mt. Carmel Veteran's Service Center, 530 Communication Circle, Colorado Springs;
- **Pueblo Rockhounds**, meets on the 3rd Thursday of each month at 6:30PM in the Westminster Presbyterian Church, 10 University Circle, Pueblo.

👇 Thanks to **Pete Modreski** for sending the following event announcements:

Sat. May 6, Colorado Mineral Society Silent Auction, at Wheat Ridge United Methodist Church, 7530 W. 38th Ave., 11 a.m. – 4 p.m.; see <http://www.coloradomineralsociety.org/> for details. All are welcome to attend, bid, and bring specimens to sell.

Thurs., May 11, 2:00-3:00 p.m., Denver Museum of Nature & Science, Earth Science Colloquium, **Does size matter? What brachiopods tell us about evolutionary rules**, by Judi Sclafini (UC Santa Cruz). *In the VIP Room; in-person only, all are invited, Museum admission not required; check in at the Security Post. *P.S., Just noticed, the DES Colloquium date in the attached schedule says Tuesday May 11, that day & date don't match; May 11 is probably correct, as given on this DMNS-DES web page for the 2023 colloquium schedule: <https://sites.google.com/view/dmnsdes2020colloquiumschedule/home> .*

Thurs. May 11, 7:30 p.m., **Friends of Mineralogy May meeting**, in person in Berthoud Hall 109 + by Zoom, topic TBA. See <https://friendsofmineralogycolorado.org/> for an update.

Thurs., May 18, 7:00 p.m. (social time, 6:30), Colorado Scientific Society May meeting, **North American Stress and Strain**, by Jens Lund Snee, US Geological Survey; and, **Pacific Northwest Neotectonics**, by Katherine Alexander, US Geological Survey. In-person + Zoom meeting

Fri., May 19, 2:00-3:00 p.m., Denver Museum of Nature & Science, Earth Science Colloquium, **Geology of Grand Mesa, Colorado**, by Rex Cole, Colorado Mesa Univ. *In the VIP Room; in-person only, all are invited, Museum admission not required; check in at the Security Post.*

Sat., May 20, 12 noon – 4 p.m., **Friends of Mineralogy Silent Auction**, Wheat Ridge United Methodist Church, 7530 W. 38th Ave. All are welcome to attend, bid, and/or bring specimens to sell (minimum 20% donation to FM). See <https://friendsofmineralogycolorado.org/> .

Mon., June 5, 2:00-3:00 p.m., Denver Museum of Nature & Science, Earth Science Colloquium, **The Dead Sea: Past, present and future**, by Ittai Gavrieli, Israeli Geological Survey. *In the VIP Room; in-person only, all are invited, Museum admission not required; check in at the Security Post.*

Fri.-Sat.-Sun., June 9-11, Pikes Peak Gem, Mineral, and Jewelry Show, sponsored by Colorado Springs Mineralogical Society, Norris Penrose Event Center, 1045 Lower Gold Camp Road, Colorado Springs. Fri. noon-7 p.m., Sat. 10-5, Sun. 10-4. Admission \$5 per day, \$8 for multiple days, 12 and under free.

👇 **Dave Alexander** sent this **important information** about field trips, which are now starting up for the summer. Please take a few minutes to read this!!!

Here are several housekeeping items that will keep field trips running smoothly.

As you likely already know, we utilize a home-grown software for event management which really makes managing the events run smoothly and saves a ton of volunteer administrative time. Please take a moment **right now** to make sure that you have both myself and our website email address in your safe-sender list, as both will be sending important field-trip information from time to time, including updates and last-minute cancellations that you don't want to miss. I know some folks have to manually add our email to their safe-sender lists proactively. Take a quick minute or two right now to verify that these two emails are allowed and not going to your junk mail, and keep an eye on your junk email:

• noreply@lqgmcfeldtrips.com

• dave@davealex.com

The most important club rule for our registration system is that, if you decide you are not going to be able to make a field trip, PLEASE remove yourself from the participant- or waitlist as soon as you know your schedule has changed. People's plans change, and the waitlist is typically quite active the week of the event. If you are waitlisted, you may end up able to participate as late as the evening prior to the event, so keep your hope alive until the trip!

A common issue we see is someone is waitlisted and decides in the days leading up to a trip they don't want to deal with last minute schedule change, so they are no longer interested in waiting; yet they leave themselves waitlisted and then get added to the trip at the last minute and don't show up. Another common no-show situation is when something occurs on the morning of the event (person is sick, can't make it for whatever reason, etc). We track no-shows because some trips have had 25% no-shows, and it's something that the club believes is simple to proactively avoid. **If we have problems with repeat no-shows the club can take disciplinary action.** Remember, there are likely folks in line waiting behind you who are excited and hoping for a last-minute opportunity to join the trip! In the case of same-day cancellations, you should give a courtesy call or text message to your trip leader (phone number is on the event) so they know you are not coming...they won't have access to the participant-list changes the day-of the event. If you are running late, best to contact the trip leader ASAP; many trip leaders leave EXACTLY on time and will not wait for late folks. Best bet is don't be late 😊 .

Please use the "Add to Calendar" feature of the field-trip event. This will ensure you get the trip into your personal calendar with the right date/time. We've noticed that people typo when adding events manually to their personal calendar (which typically ends up as a "no-show"). This automated website feature was created to help.

Please use the "Google Maps Navigate" feature that will be on all field trips. Check out the "Navigate" feature in the days prior to the field trip so you have a good idea of your route and, most importantly, when you will need to leave home. Especially on longer drives, make sure you add some buffer time so you are not late. Note that we have several people each year go to the wrong meeting place because they read it incorrectly on the website. This website feature was created to help!

Please understand your stamina and health condition, and read the field trip's difficulty rating. If you have any questions or if the field trip difficulty will be an issue for you, contact the Field Trip Leader and discuss your concern. We try to schedule Easy to Extreme trips each season for all types of adventurers. If you have feedback on our assessment of the difficulty after the trip, please provide that feedback.

Please read the Code of Ethics and Field Trip Rules at least once a season. These are found on our websites and are required reading prior to attending any field trip. **Go read them now** if you haven't yet done so in 2023! A significant percentage of the questions we get clearly demonstrate that folks haven't read these required documents. **The dog policy is documented there.**

Please re-read the field trip event in the week leading up to the trip. Many trips require that you print and sign a liability waiver for the mine. The field trip leader and the mine operator often will have extra blank copies at the meeting point or at the mine, but sometimes they run out; **it is your responsibility to bring all required signed documents and do any required reading prior to the trip**, as stated in the field-trip event. If there is a fee, often the mine is cash-only, **bring exact cash**. Some mines have minerals for sale on-site at very discounted rates, so maybe stash a little extra cash or blank check in the wallet just in case you are tempted.

On field trips, **please take pictures!** As a field trip leader, I tend to get busy helping folks and/or digging myself, and I forget to capture the fun that folks are having. It is VERY helpful to the field-trip leader and club in general if you take some pictures to share. Recommendations are taking pictures of yourself or groups of people "in action", and also take pictures of your finds. Then send these over to the field trip leader, myself, Bob Carnein (newsletter) or post to our Facebook Group page.

We would love for anyone to summarize their field-trip experience, including pictures, for our monthly newsletter. Please consider sharing your experience, contact Bob Carnein or myself for more information, or just go with your style (maybe it's a poem, a drawing, or ???) and send us your experience! Note that we can submit member-written articles for national competition, and many club members are awarded for their writings each year!

When on a field trip please make sure you **thank the volunteer leader.** Our amazing field-trip schedule is only available because of the many volunteers. Luckily, leading trips is pretty simple, so ask questions of your leader or myself and proactively considering offering a small amount of your time to the club!

I have several trips this season without leaders still. I need volunteers! Please contact me and I'll share what I have available and hopefully you can help out! If I don't get a leader for a trip, I will cancel it.

Thanks! Hope you have a wonderful field trip season!

Dave Alexander

↓ ↓ Mineral-show coordinator **Carol Kinate** reports that planning for our annual August show is moving along. Here's a reminder:

SAVE THE DATE – AUGUST 18-20, 2023 (LGGMC Annual Show)

"2023" SHOW POSTCARDS WILL BE AVAILABLE AT EVERY MEETING

☐ **Show Volunteer Sign-up sheets will be available starting in May. Come to the meeting and sign up!**

Carol Kinate, Show Chair

719-648-9015 (text/call)

↓ ↓ Speaking of shows, I had the pleasure of acting as a competition judge and speaker at the first SOCO Gem & Mineral Show, held in Florence on April 22d and 23. The show appears to have been a great success, with about 3000 visitors, despite snow on the night of April 21. This new show promises to become a major mineral and fossil event for the southern Colorado region.

↓ ↓ I just heard from Linda Jaeger that two LGGMC members placed in the top 5 in this year's Rocky Mountain Federation Bulletin Editor's competition. Watch this space to see who did what.

↓ ↓ **John Rakowski** sent this item about our annual scholarships:

The Lake George Gem & Mineral Club Provides \$2000 to Three Students

Luke Kettler of Woodland Park will be receiving a \$1000 Scholarship to assist his studies of Environmental Science and Geology, with a career goal as a High School Science teacher. Luke is planning to attend CSU. As there were no other applicants by the April 1 deadline, an additional \$1000 will help to support graduate-level work by two students at the Florissant Fossil Beds National Monument. The interns will study paleo-soils in the Monument and fossil mammals from the Monument.

The Lake George Gem & Mineral Club uses funds received from their annual Lake George Gem & Mineral Show to provide scholarships to local Park and Teller County students. Additional funds are used to support graduate-level students doing geological studies at the Florissant Fossil Beds National

Monument or students doing work for the Western Museum of Mining & Industry or Colorado School of Mines Geology Museum. Notices are sent to all the high schools in Park and Teller counties detailing how to apply for the scholarships. The deadline for applications is April 1. The LGGMC has a strong commitment to support local students in beginning a study program in college leading to a career in the Earth sciences.



Here are a few interesting links that you might enjoy:

- From **Wayne Orlowski** comes this link to an article about some very odd Australian fossils: https://www.nationalgeographic.com/travel/article/australia-outback-new-national-park-nilpena-ediacara?rid=D8407F1582FA941CBFB877BD7CDE4EA&cmpid=org=ngp::mc=crm-email::src=ngp::cmp=editorial::add=Daily_NL_Friday_Science_20230428
- Do you need a new license plate? Here's a link from **Paul Combs**:
The Colorado legislature has approved the creation of a new *PROTECT COLORADO'S FOSSILS* license plate. It features a *Stegosaurus*, the Colorado state fossil.
Club members can access more info at this address:
<https://kdvr.com/news/local/could-this-jurassic-themed-license-plate-end-up-on-your-car/>
- From RockSeeker.com, this article is about ammonites and ammolite:
https://rockseeker.com/ammonite-fossils/?ck_subscriber_id=1874913717&utm_source=convertkit&utm_medium=email&utm_campaign=From+Ammonites+to+Ammolites%3A+Who+knew+fossils+could+be+so+beautiful%21%3F%20-%2010563040
- Also from RockSeeker.com, this article is about a giant Spanish geode.:
https://rockseeker.com/inside-the-pulpi-geode/?ck_subscriber_id=1874913717&utm_source=convertkit&utm_medium=email&utm_campaign=Geode+with+human+sized+crystals%21+%28Plus+what%27s+inside+this+rock%3F%29%20-%2010525716
- ...and then, there's this article about a fluorescent favorite (hint: have you ever heard of yooperlites?):
https://rockseeker.com/yooperlites/?ck_subscriber_id=1874913717&utm_source=convertkit&utm_medium=email&utm_campaign=Re%3A+Rocks+that+glow%21+Yooperlites%21%20-%2010616507
- "Rock&Gem" sent this article about "How to learn gem cutting":
https://www.rockngem.com/how-to-learn-gem-cutting/?em=Y2Nhcm5laW5AZ21haWwuY29t&utm_campaign=RnG+Weekly+Apr+27_2023&f=9a05480d-3b45-48ce-9c85-46c1e1ab5236



Here's this month's "Bench Tips" from Brad Smith (sorry for all the empty space, but Brad uses a format that I haven't been able to decipher):

DRILLING SMALL ITEMS



Small pieces need to be held securely while drilling to prevent them from spinning if the drill catches. Having sliced my fingers occasionally in my younger days, I avoid band-aids now by using flat-jaw pliers or a ring clamp. Pliers also save you if the piece gets hot. Put a little tape over the plier jaws if needed to avoid scratches.

DRILLING A STONE

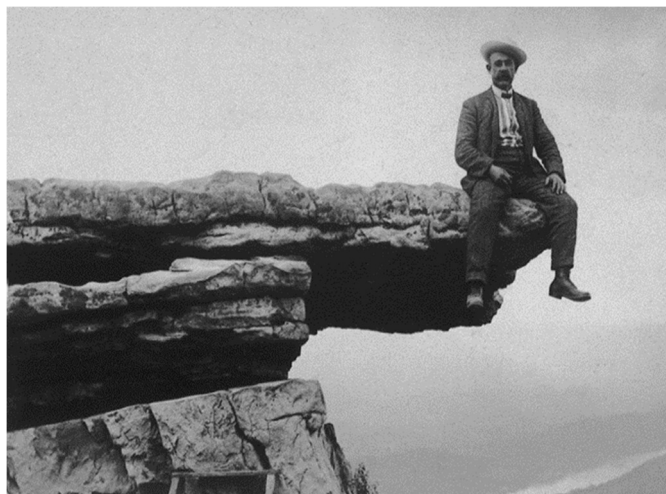


One of the things my students often ask to do is drill a hole through a piece of gemstone. The usual thought is to get a diamond drill, but I've been disappointed with them. I think the reason is that the tip of the drill is just pivoting in the hole and fails to cut well. When it looks like the drill isn't cutting, the tendency is to push with more force. The drill gets hot, and the diamond grit falls off.

A much better approach is to use a core drill. This is a small hollow tube with a coating of diamond grit at the business end. The diamonds easily carve out a circular arc without undue pressure or heat buildup.

Core drills are readily available from lapidary and jewelry supply companies. They come in sizes as small as 1mm and are very reasonable in price. For instance, a 2mm diameter drill is about \$6.

Chuck the core drill in a drill press, Dremel or Foredom and be sure to keep the drilling zone wet to cool the tool and to flush out debris. Also, if you're drilling a through hole, go very easy on the pressure as the drill is about to cut through. Otherwise, you will usually chip off some of the stone surface around the hole.



Notes from the Editor

Bob Carnein

Newsletter Editor
ccarnein@gmail.com

Our member **Pete Modreski** published this article, in a slightly different form, in last month's Littleton Gem & Mineral Club newsletter. He kindly gave permission to include it in our newsletter:

Zeolite Minerals, and Table Mountain Zeolites

By Pete Modreski, pmodreski@aol.com (updated April, 2023)

Zeolites are a group of over 100 different minerals, known for their variety of attractively formed, delicate crystals. All are aluminosilicates which also contain water and combinations of sodium, calcium, potassium, and other elements. The name means *boiling stones* because they readily release water and may fuse and bubble when heated in a flame. The crystal structure of zeolites contains large (on a molecular scale) channels which allow water, ions, and also gases and organic molecules to move in and out and be absorbed or released from the mineral. Both natural and synthetic zeolites are used as ion exchangers to purify water, and to absorb or purify gases.

Most zeolite minerals are white or pastel-colored, but their forms are very diverse (see Figures 1-3). Some of the best-known zeolites are **analcime** (white, trapezohedral [24-sided] crystals);



Figures 1-3 (left to right): analcime on thomsonite (John Betts-Fine Minerals); chabazite (John Betts-Fine Minerals); thomsonite on analcime (Dave Alexander).

chabazite (white to pink rhombohedral crystals); **stilbite** (white to pale pink or yellow, bladed crystals, sometimes in bow-tie shaped sheaves); **heulandite** (white to pink, often "coffin-shaped" crystals with a silky luster); and **natrolite**, **mesolite**, **mordenite**, **scolecite**, and **thomsonite**, all of which can form radiating clusters of white, needle-like to bladed crystals. A few minerals are not technically zeolites but are similar and often occur with them; for example,

apophyllite, which forms tetragonal (4 sided) pyramidal, colorless to green crystals, and **prehnite**, which forms green, botryoidal (grape like) crusts.

Zeolites usually occur in volcanic rocks, and the best known ones form within vesicles (gas bubbles) in basaltic lavas. The most spectacular worldwide occurrence of zeolites is in the huge volume of “flood basalt” lava flows of the Deccan Plateau (Poona) area of western India. Colorado has two notable occurrences of zeolite minerals: the lava flows of North and South Table Mountain in Golden, and the lavas near Treasure Falls, on the west side of Wolf Creek Pass, in the San Juan Mountains. Figures 4 and 5 show a geologic map and cross section of the occurrences at the Table Mountain locality.

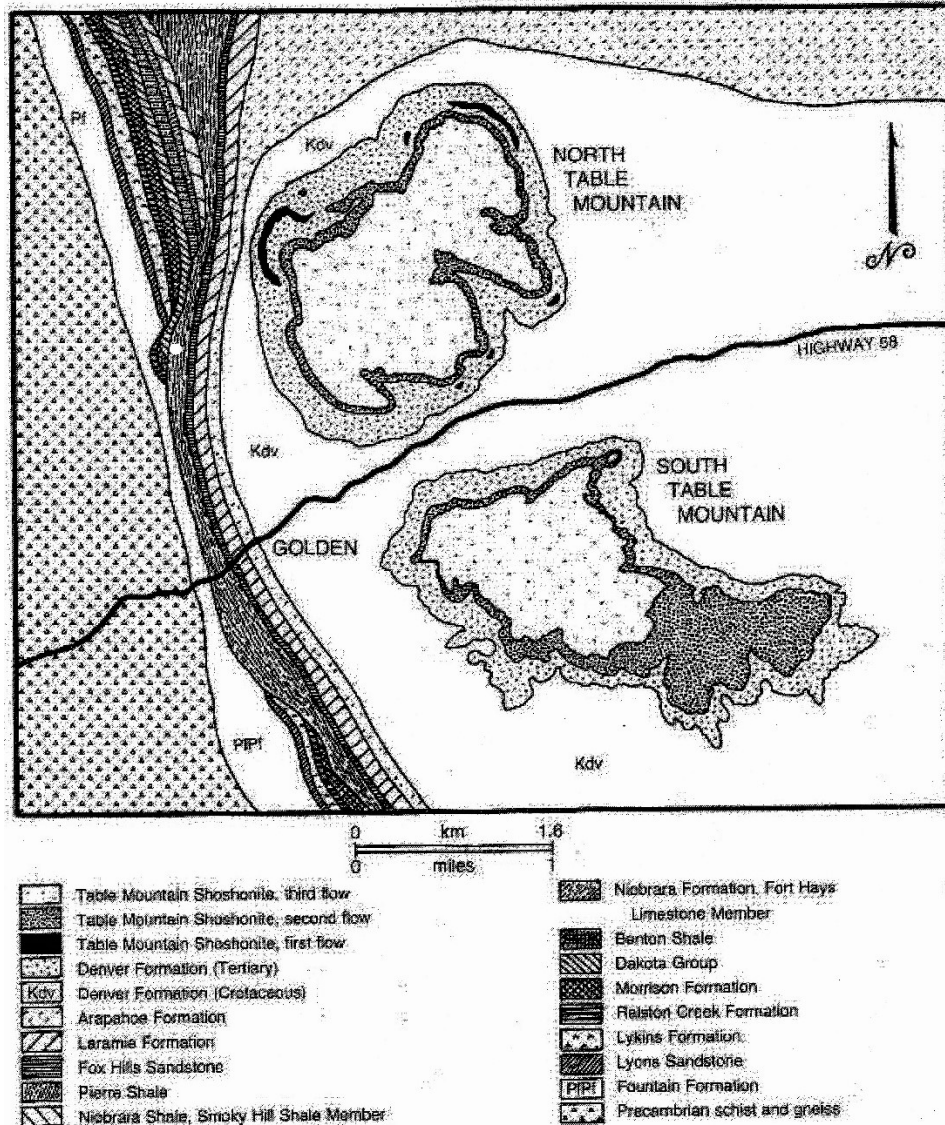


Figure 4. Areal geology of the Table Mountain locality (adapted from VanHorn, 1957 and 1972, Scott, 1972, and Smith, 1964).

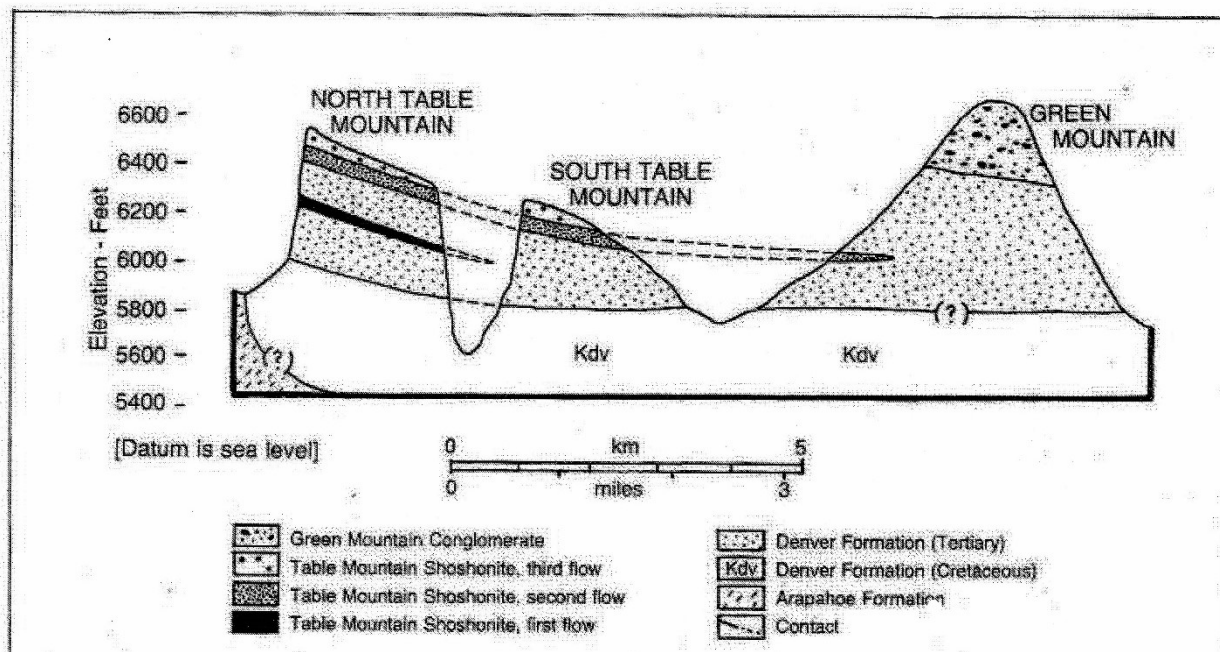


Figure 5. Geologic section of the Golden area. Section NNW to SSE-SE, through the approximate centers of North and South Table Mountains. Vertical exaggeration approximately 12:1 (based on Van Horn, 1957 and Scott, 1972).

The most common zeolites at the Table mountains are **analcime**, **chabazite**, and **thomsonite**, whereas **mordenite** is most abundant at Wolf Creek Pass. Some other worldwide areas famous for their zeolite minerals include Iceland, Nova Scotia, Paterson, NJ, and the Columbia Plateau of Washington and Oregon. The Table Mountain lava flows are, technically, *shoshonite*, which is slightly more alkali- and silica-rich than basalt and is classed as a potassium-rich basaltic andesite.

Some 27 different minerals are known from the Table Mountain lava flows, of which 15 are zeolite minerals. The zeolites are most abundant on North Table Mountain and are mostly found in the vesicular zone at the top of the lower (earlier) of the two main, mesa-capping lava flows. The only area on North Table Mountain designated by Jefferson County Open Space as open to rock and mineral collecting is the old paving-stone quarry located on the south side of the mountain. Individuals or groups of friends may collect there without special permission; if an organized group is planning a hiking or collecting trip, a General Use Permit (no charge) should be applied for (see <https://jeffco.us/1512/Permits-Reservations>).

Note: One zeolite mineral not listed among the more common ones but that is particularly abundant at the old paving-stone quarry is **cowlesite** (pronounced “coal-site; named for amateur mineralogist John Cowles). It forms compact, solid, light grayish-white radiating masses with a slightly silky luster, and it often completely fills small vesicles there.

For further reading, see these references:

Bartos, P.J., 2004, Table Mountain zeolites: the Colorado School of Mines perspective: *Rocks & Minerals*, v. 79, no. 4, p. 240-244.

Drewes, H., 2008, Table Mountain shoshonite porphyry lava flows and their vents, Golden, Colorado: U.S. Geological Survey Scientific Investigations Report 2006-5242, 28.

Eckel, E.B., et al., 1997, *Minerals of Colorado*: Golden, Colorado, Fulcrum Publishing.

Kile, D.E., 2004, Zeolites and associated minerals from the Table Mountains near Golden, Jefferson County, Colorado: *Rocks & Minerals*, vol. 79, no. 4, p. 218-238.

_____, and P. Modreski, 1988, Zeolites and related minerals from the Table Mountain lava flows near Golden, Colorado: *Mineralogical Record*, vol. 19, no. 3, p. 153-184.

Monthly Mineral Quiz

The Monthly Mineral for May (Carnein photos and collection)



Here's a very common rock-forming mineral that you're bound to find in the local granites and pegmatites. It often occurs as tiny, black to brown, platy crystals that are very soft and have a sort of "plastic-y" luster and perfect cleavage. You aren't likely to see well formed crystals locally, except in the Wall Mountain Tuff, but very large crystals (feet across) sometimes occur in central Colorado pegmatites. Crystals in the Wall Mountain are often pseudo-hexagonal (it's actually monoclinic). When I was young and things were simple, this mineral had one name (named for a French physicist and mineralogist). Now, it's

a whole series of minerals. Localities in Colorado are too numerous to count. What's this common mineral?



Last Month's Mineral: Meta-autunite, $\text{Ca}(\text{UO}_2)_2(\text{PO}_4)_2 \cdot 6\text{H}_2\text{O}$.

This secondary uranium mineral is fairly common but isn't usually obvious without magnification or the use of an ultraviolet lamp. It typically occurs as tiny lemon-yellow "flakes" that fluoresce bright yellow-green. The specimen to the left is exceptional and came from the Daybreak mine, near Spokane, WA. Unfortunately, as is typical of specimens from this locality, it's crumbling, and I have to keep it in a plastic box. Most people simply call this mineral "autunite", but it partially dehydrates, resulting in a composition change. As a result, the correct name

is "meta-autunite".



The Lake George Gem and Mineral Club is a group of people interested in rocks and minerals, fossils, geology and history of the Pikes Peak/South Park area, Indian artifacts, and the great outdoors. The Club's informational programs and field trips provide opportunities to learn about Earth science, rocks and minerals, lapidary work and jewelry making, and to share information and experiences with other members. Guests are welcome to attend, to see what we are about!

The Club is geared primarily to amateur collectors and artisans, with programs of interest both to beginners and serious amateurs. The Club normally meets on the second Saturday of each month at the Lake George Community Center, located on the north side of US Highway 24 on the east edge of town, sharing a building with the county highway shops. **In the winter, we meet at 10:00AM. From April through October, we meet at 9:00AM, to allow more time for our field trips.**

Our organization is incorporated under Colorado law as a nonprofit educational organization, and is a member of the Colorado, Rocky Mountain, and American Federations of Mineralogical Societies. We also sponsor an annual Gem and Mineral Show at Lake George, where collectors and others may purchase or sell rocks, minerals, fossils, gems, or jewelry. Annual membership dues (Jan. 1 through Dec. 31) are \$15.00 for an individual (18 and over), and \$25.00 for a family (parents plus dependents under age 18). New memberships and renewals are only accepted Jan 1 through March 31 each year.

Our Officers for 2023 are:

Richard Kawamoto, President
7584 Cedar Mountain Rd.
Divide, CO 80814
719-748-8152
rmkfishalot@gmail.com

John Rakowski, Vice President
PO Box 608
Florissant, CO 80816
719-748-3861
rakgeologist@yahoo.com

Lorrie Hutchinson, Secretary
10915 Grassland Rd.
Colorado Springs, CO 80925
719-330-2795
4lohutch@gmail.com

Cathy McLaughlin, Treasurer
11595 Owls Nest Rd.
Guffey, CO 80820
702-232-3352
cathy_mclaughlin@hotmail.com

C.R. (Bob) Carnein
Newsletter Editor
507 Donzi Trail
Florissant, CO 80816
719-687-2739
ccarnein@gmail.com