

Lake George Gem & Mineral Club

Club News

September, 2020



CANCELLATIONS!

The coronavirus pandemic has resulted in statewide emergency regulations and public health advisories against group gatherings. Cancellations include all **LGGM Club meetings**, and **programs**, as well as **classes** such as Rockhounding 101, Mineral Identification, and Basic Wire Wrapping. We will let you know when these events can be rescheduled.

The 2020 **Lake George Gem & Mineral Show** has now been cancelled as well.

FIELD TRIPS

Event Name	Details	Event Date	Event Leader(s)
Wigwam Club Claim Reclamation & Dig	Quartzes, Fluorite, Amazonite	September 5 th 9:00 am	Steve Kahler
Book Cliffs Barite (with Mile Hi RAMS)	Clear Barite	October 3rd, 2020 09:00 am	Dave Alexander
Douglas Pass Green River Formation Fossils (with MileHi RAMS)	Fossils	October 4th, 2020 09:00 am	Dave Alexander
Book Cliff Barite (with Mile Hi RAMS)	Clear Barite	October 4th, 2020 09:00 am	Chris Rayburn (Mile Hi RAMS)

COMING EVENTS OUTSIDE THE LGGM CLUB:

Many events that are held in college facilities or local community facilities are still cancelled until further notice. However, other organizations have resumed in-person meetings or have begun having meetings or special events online.

Some of the programs listed below are through the Colorado Scientific Society. Whether these meetings will be virtual or in-person is dependent our nation's progress containing the COVID-19 epidemic. See <https://coloscisoc.org/> for details and updates.

Sep. 10, Colorado Scientific Society Past Presidents' Dinner: Rise of the Mammals: Exceptional Continental Record of Biotic Recovery after the Cretaceous–Paleogene Mass Extinction
Tyler Lyson and Ian Miller, will take place at the Mount Vernon Canyon Club.

Oct. 8, Colorado Scientific Society, Annual S.F. Emmons Lecture. “21st Century Field Geology on the New Frontier”. Dr. Michael E. Zolensky, Planetary Scientist, Astromaterials Research & Exploration Science, NASA Johnson Space Center, Houston, TX
“This talk will focus on the current missions to retrieve samples from two primitive asteroids and the largest moon of Mars.” Location to be determined.

Nov. 19, Colorado Scientific Society November Meeting. “The Rock that cried Silver Tears – The Early Jurassic Springdale Sandstone and its unusual precious metal mineralization at Silver Reef, UT, revisited”. Uwe Kackstaetter, Metro State University. Location to be determined.

The Denver Mining Club has resumed its regular Monday noontime meetings at the Golden Corral Buffet, Sheridan (S. Santa Fe Dr.). See their website for the upcoming monthly schedule once it is posted, <https://www.denverminingclub.org/>.

Cancelled Gem and Mineral Shows:

Wed-Sat., Sept 16-19 Denver Fine Mineral Show, Marriott Denver West

Fri.-Sun., Sept. 18-20, 53rd Annual Denver Gem and Mineral Show, at the Denver Mart Expo Hall

The following Gem and Mineral shows may still occur on schedule (subject to change at any time -- check websites for further info):

Fri – Sat, Sept 11-19 Jewelry, Gems and Minerals Expo, Clarion Inn Denver Central, 200 W. 48th Avenue, Denver www.jgmexpo.com/denver/

Fri – Tues., Sept 11-15 Colorado Mineral and Fossil Show, Crowne Plaza Denver Airport Convention Center, 15500 E 40th Ave, Denver <https://www.rmqmpromotions.com/>

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

- **Cañon City Geology Club**, cancelled until further notice. <https://www.canoncitygeologyclub.com/>
- **Columbine Gem & Mineral Society**, meetings TBD. <https://rockaholics.org/about/>
- **Colorado Springs Mineralogical Society** meetings cancelled until further notice
- **Pueblo Rockhounds**, meetings cancelled until further notice.

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Oct 8., Van Tuyt Lecture (Virtual), Colorado School of Mines, - Thursdays, 4-5 p.m. 241.
Contact <https://geology.mines.edu/events-calendar/lectures/> for more information.

Golden Beer Talks, 2nd Tuesday, 6-8 p.m.), **At Home Editions** of Golden Beer Talks! These At Home Editions will include short videos providing an informational talk along with some details about local beers. “Golden’s grassroots version of TED talks, Expand your mind with a beer in your hand”. See <http://goldenbeertalks.org/> for more information.

The following are cancelled until further notice: check the following links for information on lecture series when they resume:

Colorado Café Scientifique in Denver, monthly lectures on science topics see <https://coloradocafesci.org/>

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CU Geological Science Colloquium (Cancelled until further notice - Wednesdays, 4 p.m.)

see <http://www.colorado.edu/geologicalsciences/colloquium>

CSU Dept. of Geoscience Seminars (Cancelled until further notice - Fridays, 4 p.m.),

see <https://warnercnr.colostate.edu/geosciences/geosciences-seminar-series/>

Van Tuyl Lecture Series, Colorado School of Mines, (Cancelled until further notice - Thursdays, 4 p.m.): <https://geology.mines.edu/events-calendar/lectures/>

Denver Mining Club (Mondays, 11:30), see <http://www.denverminingclub.org/>.

Denver Museum of Nature and Science, Earth Science Colloquium series, (Cancelled until further notice - 3:00-4:00 p.m.), VIP Room unless noted, meeting dates and day of the week vary. Museum admission is not required; see <http://www.dmns.org/science/research/earth-sciences/>

Denver Region Exploration Geologists Society (DREGS); (Cancelled until further notice - usually 1st Monday, 7 p.m., Room 241 Bethoud Hall, CSM campus, Golden) <http://www.dregs.org/index.html>

Florissant Scientific Society (FSS); (Cancelled until further notice - meets monthly in various Front Range locations for a lecture or field trip; meeting locations vary, normally on Sundays at noon; all interested persons are welcome to attend the meetings and trips); see <http://www.fss-co.org/> for details and schedules.

Friends of Mineralogy, Colorado Chapter, (Cancelled until further notice -usually meets on the 2nd Thursday of odd-numbered months, 7:30 p.m., Berthoud Hall Room 108, CSM campus, Golden; see <https://friendsofmineralogycolorado.org/>.

Golden Beer Talks, 2nd Tuesday, 6-8 p.m.), at the Buffalo Rose, 1119 Washington Ave., Golden. Doors open at 6; Talk begins at 6:35; Intermission – 7-7:15; Q&A/clean up 7:15-8. “Golden’s grassroots version of TED talks, Expand your mind with a beer in your hand”. See <http://goldenbeertalks.org/> for more information.

Nerd Night Denver is a theater-style evening featuring usually 3 short (20-minute) TED-style talks on science or related topics; held more-or-less monthly at the Oriental Theater, 4335 W. 44th Ave., Denver; drinks are available; for ages 18+. Admission is \$6 online in advance, \$10 at the door. See <https://www.nerdnitedenver.com/>.

Rocky Mountain Map Society RMMS; Denver Public Library, Gates Room, 3rd Tuesday, 5:30 p.m.), <http://rmmmaps.org/> All meetings cancelled until further notice.

Western Interior Paleontological Society (WIPS); WIPS has virtual meetings (rather than their usual meetings in person on the 1st Monday of the month, 7 p.m., in Petroleum Hall, Green Center, 924 16th St., Colorado School of Mines campus, Golden) See <http://westernpaleo.org/> for more info.

LGGM Club News:

Bob Baker sent the following note about the Club trip to the **Gold City** mining claims on August 1. Eight club members joined claim owner Steve Gorman at the Gold City Claim for a full moon field trip to learn about and find fluorescent minerals. Bob Carnein displayed and explained the properties of several different minerals previously collected at the site and talked about the geologic process that formed those minerals. Two billion years ago, layered sediments and volcanic rocks (mainly tuffs and volcanic conglomerates) were deposited in central Colorado. The sediments included calcium and magnesium rich clayey limestones and dolostones. About 1.75 billion years ago, plate-tectonic activity heated and squeezed these sediments, forming metamorphic rocks, including marble and lime-silicate gneiss (a banded rock dominated by calcium and magnesium silicate minerals, including grossular garnet, wollastonite, diopside, and vesuvianite, all of which occur at Gold City). These are the host rocks that were later intruded by 1.4-billion-year-old Silver Plume Granite and into which mineral rich hydrothermal solutions introduced copper, tungsten, molybdenum, and some gold. In the early 1900’s copper and gold were mined by the Apex Copper Mining Co. In the 1940’s and 1950’s the need for tungsten as a steel alloy was paramount and the development of ultraviolet lights pushed the exploration of this geologic formation for scheelite, the principle mineral of tungsten. Scheelite, a tungsten ore mineral, and Powellite, a molybdenum mineral, were found at this site but not in quantities that made this economically feasible to mine. Scheelite fluoresces blue-white and powellite a butter yellow. Other fluorescent minerals found were: calcite – orange, hyalite opal – green, wollastonite – tan, and potassium feldspar – a dark red.

Member Reports on Private Rockhounding Activities. Even though the club has resumed rockhounding field trips, any information you may have about other rockhounding you may have done on public lands that allow rock collecting, or on private lands or mines which allow fee digs or rockhounding with permssion. Please tell us where you went, what you found, and provide contact

information for obtaining permission (if required). Your information and photos may be included in future newsletters.

Roger Rhodes. We all send our best wishes to Norma Alexander-Rhodes and her husband, Roger, who is fighting a serious illness.

James Meacham. Many of our LGGM Club members have attended field trips to the Canon City Geology Club's New Hope amethyst mining claim. The trips were often led by Jim Meacham. Jim had been in poor health recently, and we have just received news that Jim and his wife both passed away within a day of each other.

Pebble Pup News:

National Fossil Day. Each year the Pebble Pups participate in the National Fossil Day by creating original artwork.

The National Park Service and National Fossil Day partners are sponsoring an art contest to celebrate the 11th annual National Fossil Day. The 2020 National Fossil Day celebration is scheduled for Wednesday, October 14, 2020, during Earth Science Week. The theme for this year's art contest is: "Life of the Paleozoic Oceans!" For this theme we would like contest participants to depict aquatic organisms from the Paleozoic oceans, particularly those found in the United States of America. The Paleozoic era (541 to 250 million years ago) was the earliest of the three geologic eras with diverse life, and is subdivided into six geologic periods: the Cambrian, Ordovician, Silurian, Devonian, Carboniferous, and Permian. The 2020 National Fossil Day logo features a wide variety of sea creatures that formed and lived within a 270 million year old Permian reef from Glass Mountains and Guadalupe Mountains of Texas and New Mexico.

Please follow this link for more details and how to submit.

<https://www.nps.gov/subjects/fossilday/art-contest-2020.htm>

Also, please let me know if you are planning to participate. I will need your artwork scanned and emailed to me. We will publish it in the newsletter. Betty Merchant and I can help you with this. Just let us know. Thanks.

Steve Veatch

Links to Interesting Gem & Mineral Articles Online:

Bob Carnein has sent us a link to this paleontology story from Science News:

https://www.sciencenews.org/article/fossil-ichthyosaur-died-eating-long-creature?utm_source=Editors_Picks&utm_medium=email&utm_campaign=editorspicks082320

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The latest installment of "**Bench Tips**" by **Brad Smith:**

(www.BradSmithJewelry.com)

RAISING A CABOCHON

When a cabochon sits too low in a bezel, the bezel can hide a lot of the stone. The solution is to either sand down the bezel height or boost up the stone. But if you choose to raise it up, the question is "what is the best material to use?" I was taught to use fine sawdust but now think that might be a problem when used in rings. I reason that rings will frequently get wet, which would cause the sawdust to swell in size and push the stone against the bezel. Then when the sawdust dries out, the stone would be a little loose. In any case, I now prefer to insert a flat sheet to boost up my stones. It can be a scrap of

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metal or some plastic from product packaging or old credit cards. In either case, just cut a piece to loosely fit into the bezel and drop in the stone (with some dental floss) to check its height.

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TRANSPARENT CABS

When bezel setting a transparent cabochon in silver, I usually cut out the back of the bezel to allow background light to show off the colors and patterns in the stone. If this is not possible or appropriate, I worry that the silver bezel will tarnish under the stone and will ruin its brilliance. What to do?

My solution is one extra step before setting the stone. I place a piece of thin silver Mylar plastic under the stone to act as a mirror that will never tarnish. Mylar is readily available in craft and gift wrap stores, or in a pinch from a party balloon supplier. You may even want to experiment with using colored or patterned Mylar (i.e. diffraction pattern) under some stones.

Learn New Jewelry Tricks and Techniques in Brad's Jewelry-Making Books
[Amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith)

Best to all
- Brad

Notes from the Editors

Bob Carnein
Co-Editor
ccarnein@gmail.com
719-687-2739

Jerrolynn Kawamoto
Co-Editor
jerrolynn@wildblue.net
719-748-8152



Pieplant: A Taylor Park Mining Camp

By **Steven W. Veatch**

The story of the Pieplant mining camp, in Taylor Park, begins with the Ute people who hunted and roamed this land of dense forests, rushing streams, and imposing mountains. During the summer of 1860, a prospector by the name of Jim Taylor was rounding up stray horses when he rode into this remote region. The area soon became known as Jim Taylor's Park, then as Taylor Park. With the discovery of gold in 1867, placer mining began to appear (Parker, 1992).

Several creeks—Texas, Illinois, Pieplant, Trail, and Italian, flow from higher elevations on the Continental Divide into the Taylor Park basin, forming the Taylor River. The Bureau of Reclamation began construction of a dam in 1935 on the Taylor River. It took two years to complete the project. Taylor Park Reservoir (figure 1) provides excellent fishing and boating opportunities.



Figure 1. Taylor Park Reservoir is a 2000 surface acre reservoir located 29 miles northeast of Gunnison. Photo date 7/2020 by S. Veatch.

The directions to Pieplant are easy: from the north end of Taylor Park Reservoir, head north several miles on road 742. Watch for a forest road on the right-hand side. There is a sign pointing to the town/mill site. Turn right and follow this dirt road for about four miles to a clearing where several old log cabins mark the little settlement of Pieplant.

Miners built the town beside a wide meadow near Pieplant Creek, below the summit of Jenkins Mountain (13,432 feet). Both the town and creek were named for the clumps of rhubarb (pieplant) growing wild along the banks of the creek. Pieplant Creek flows southwest from Jenkins Mountain and ranges from less than one foot to seven feet across.

Prospectors worked gold placers along Pieplant Creek as early as the 1890s. These placers did not produce much gold. Miners later established the mining camp of Pieplant around the turn of the 20th century (Vandenbusche, 1980). Over forty men worked at the Pieplant mine, which was about a mile away from the settlement (Vandenbusche, 1980).

By 1903, Pieplant had 100 residents, a post office, and a stamp mill (Vandenbusche, 1980). Four-horse teams hauled ore in wagons down a steep road on Jenkins Mountain to the mill (Wolle, 1962). The mill, built by Wood's Mining and Milling Company of Kansas, handled 200 tons of ore each day from the Pieplant and other area mines (Pieplant, n.d., Eberhart, 1969). The mill was 280 feet long and 110 feet wide, and employed 50 men (Vandenbusche, 1980). Day (1906) mentions that gold bullion was shipped from Pieplant's "cyanide plant" in 1905.

A newspaper article from the *Turret Gold Belt* (1905) describes some of the excitement of the mining camp:

Just a year ago (1904) the Burton brothers of Virginia sold to John Lynch of this city [Turret] and J. W. Harrison, a capitalist of St. Louis, a group of four claims known as the Clinton group and which adjoins the property of the Woods Gold Mining company at Pieplant. The consideration of the sale was \$16,000, and the claims are practically undeveloped. That the judgement of the purchasers was good has now been proven, as their tunnel a few days ago cut a lead [vein] which is fourteen feet between walls and

from which highly satisfactory assays have been had. The average of the entire lead is good, and a portion of the vein carries gold and copper to the value of \$120 per ton, while picked samples run way up into the hundreds. As soon as the assay certificates were received Mr. Lynch started at once for the East, where a plan of development will be decided upon. . . .While this district is rich in minerals lack of transportation has held it back for a number of years.

According to the *Twin Lakes Miner* (1906), J.W. and M.H. Woods had driven a 1,700-foot tunnel that ran along a gold vein for 1,300 feet. The best gold values, according to the article, were ahead of the tunnel where the “ore shoot widened to 4 to 7 feet in width.”

The town began to decline after 1908 as the veins thinned out and transportation costs exceeded profits from mining (Pieplant Mill, nd). Soon after 1910, Pieplant was abandoned and cows grazed there. A few of the log cabins (figures 2 and 3), the collapsed ruins of the Pieplant mine, and part of the mill building (figure 4) remain today—reminders of the early mining operations that occurred there.



Figure 2. In 2006, the Forest Service and Passport in Time put a new roof on this Pieplant cabin in their preservation efforts. Photo date 7/2020 by S. Veatch.



Figure 3. A Pieplant miner’s cabin along a meadow. The long poles supported a porch roof. Photo date 7/2020 by S. Veatch.



Figure 4. View of Pieplant mill ruins. The Pieplant mine is located about one mile north of the mill on Jenkins Mountain. Photo date 7/2020 by S. Veatch.

Pieplant is located on the western flank of the Sawatch Mountains, below Jenkins Mountain. Grizzly Peak (13,281 feet) is to the east. Locally, Paleozoic sediments mask folded and faulted Precambrian rocks. The area experienced uplift, folding, and thrust faulting during the Laramide Orogeny. Sometime in the Miocene Epoch crustal movement began again, resulting in a series of faults.

During the Pleistocene Epoch, ice was the last major geologic agent to shape the area. Alpine glaciers moved down the mountains—carving preexisting fluvial erosional valleys into distinctive U-shapes or filling them with unsorted glacial till.

Gravity and alluvial processes concentrated native gold in local placer deposits (Parker, 1974). The gold, hosted in Quaternary alluvium, appears as wires, small flakes, and as sporadic small nuggets (Parker, 1992). Early miners in the area worked Pieplant Creek gold placers below 9,850 feet in elevation (Parker, 1992). Despite careful prospecting, the source of the placer gold has never been discovered.

However, other minerals besides gold and black sand (magnetite) are found in the area. Pan concentrates yield columbite-tantalite, the ore of tantalum (Parker, 1992). This black mineral is not magnetic and is the principal ore of tantalum (Ta), a rare metallic element discovered in 1802 by a Swedish chemist, A.G. Ekeberg. The hard, malleable blue-gray metal has several industrial uses.

Monazite, a slightly radioactive mineral, shows up as blackish to greenish grains in gold pans (Parker, 1992). Monazite is the primary ore of the rare earth metals cerium and lanthanum. These metals have multiple industrial uses. Because of monazite's high density (specific gravity is 4.6 to 5.7), monazite grains, along with the gold, collected into placer deposits. Other heavy minerals that appear in pan concentrates are zircon and garnets (Parker, 1992). The sources of the heavy minerals are local granites and pegmatites (Parker, 1992).

Today Pieplant is a quiet place where a few cabins and structures remain near the edge of an open meadow. Pieplant Creek, which flows nearby, is still a good place to search for flakes of gold, especially in ravines and outwash terraces, on slopes, and in gulches.

References and Further Reading:

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Pieplant Mill. Retrieved from <https://www.fs.usda.gov/detail/gmug/landmanagement/resourcemanagement/?cid=stelprdb5432060/> on July 12, 2020.

Turrett Gold Belt, 1905, Taylor Park Producers: *Turrett Gold Belt*, November 1, 1905, p.1, c. 3.

Twin Lakes Miner, 1906, Good News for Pieplant Gulch: *Twin Lakes Miner*, Aug. 11, 1906, p. 1, c. 3.

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Wolle, M.S., 1962, *Stampede to Timberline: The Ghost Towns and Mining Camps of Colorado*: Denver, Sage Books.

Monthly Mineral Quiz

Last Month's Mineral: Wavellite, $\text{Al}_2(\text{PO}_4)_2(\text{OH},\text{F})_3 \cdot 5\text{H}_2\text{O}$



Like variscite, wavellite is a phosphate mineral of secondary origin. Radiating crystals (like those on the specimen to the left) are typical. These may form 3-dimensional aggregates or may be thin coatings on fracture surfaces. Wavellite was named in 1805 for Dr. William Wavell, an English physician-naturalist who discovered that the mineral contains phosphate (Mindat.org, accessed August, 2020). The type locality is in Devon, England. Physical properties include a hardness of 3.5-4, SG of 2.36, and a greasy, pearly, or vitreous luster. Color is variable, but some shade of green is typical. The specimen shown is from Montgomery County, Arkansas.

This Month's Mineral

The mineral for September is very common and chemically very simple. It typically occurs as hexagonal crystals, and these are usually simple prisms, as shown in the two crystals below (Figures. 1 & 2). Triangular patterns on the basal faces are often visible and result from rhombohedral parting (not cleavage). This mineral makes a fine gemstone when it is translucent or transparent. However, it is much more common as grayish crystals like the one on the left, below. Eckel (1997) lists it from several Colorado localities. You may have collected it in Chaffee County like the piece in Figure #4 (Note the triangular fractures near the bottom of the piece in Figure 4.) What is it?



Fig. 1



Fig. 2



Fig. 3



Fig. 4

September's mineral; specimens in Figures 1, 2, and 3 are from India and Sri Lanka. The specimen in Figure 4 is from Chaffee County, Colorado. Carnein photos and collection.

Eckel, E.B., 1997, *Minerals of Colorado, Updated and Revised by R.R. Cobban, et al.*: Golden, Colorado, Fulcrum Publishing.



The Lake George Gem and Mineral Club is a group of people interested in rocks and minerals, fossils, geography 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 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 September, 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 2020 are:

Richard Kawamoto, President
7584 Cedar Mountain Rd.
Divide, CO 80814
719-748-8152
kawahome@wildblue.net

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 Co-Editor
507 Donzi Trail
Florissant, CO 80816
719-687-2739
ccarnein@gmail.com

Jerrolynn Kawamoto
Newsletter Co-Editor
7584 Cedar Mountain Rd.
Divide, CO 80814
719-748-8152
jerrolynn@wildblue.net