The Lake George Gem and Mineral Club -

Club News

February, 2018

Program for the month: Saturday February 10, 2018

"Cripple Creek High Grading: The Untold Stories", by Steven Veatch

Take a mind-boggling look at one of the most significant parts of the history of the Pikes Peak region—the Cripple Creek Gold Rush. This astonishing program provides a new perspective on the untold stories of high grading (stealing) valuable ore in the mining district. The story is told through stunning images of ore and striking historic photographs. For fans of local history, this is an essential program. Join Steven Veatch as he explores the additional details and perspectives on Cripple Creek he has amassed through lost photographs, forgotten diaries, and recently found records. You don't want to miss this.

We will also continue a **silent auction for some cool specimens** and other items donated by Club members. The specimens will be displayed at the back/side of the room with "bid sheets". Each item will have a minimum starting bid. You write your bid and initials in a blank space on the sheet and then watch to see if others outbid you. You can keep on bidding until the President says bidding is closed. So, bring some CASH and be prepared for the fun!

Please read: We will soon move the Club Library to the Pikes Peak Historical Society Museum in Florissant, where it will be more accessible than it is in its current location. In order to prepare for the move, we ask that members return all borrowed items asap (by the Feb. meeting, at least).

This newsletter includes a copy of the 2018 membership application. Remember that you must enroll for this year no later than March 31. **You can also do that and pay your dues online at lggmc.org**, thanks to the fine work of **Joey Korzekwa**.

We are looking for a place to set up our club's lapidary equipment, which is now in storage. If you know of a place that has water, electricity (including 220V), and heat, please contact one of the club officers.

✔ ✔ Here's a message from incoming President, **Robert Baker**:

Have you ever wondered about the logos on the last page of the newsletter? The Rocky Mountain Federation of Mineralogical Societies, of which the LGGMC is one of 78 member clubs, periodically sends out a newsletter with information about annual meetings and other matters. If you're interested in their activities, you can access the newsletter at their website, www.rmfms.org. Similarly, the American Federation of Mineralogical Societies, of which the RMFMS is one of seven regional federations, also publishes a regular newsletter. You can access information at www.afms.org. These are the organizations that tie all American rock and mineral clubs together and provide various services to the clubs.

Coming Events

✔ ✔ Several mineral, fossil, and geology clubs meet relatively nearby and encourage visitors. These include:

>**Cañon City Geology Club**, meets on the 2nd Monday of the month at 6PM in the United Methodist Church, Cañon City;

>**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;

>**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;

>**Pueblo Rockhounds**, meets on the 3rd Thursday of each month at 6:30PM in the Westminster Presbyterian Church, 10 University Circle, Pueblo.

✔ ✔ **Watch for the following upcoming events:**

January-February (3 weeks) Tucson gem and mineral shows; 45 venues/shows. Check the internet for particulars (e.g. https://spopress.com).

Feb. 23-25: Denver Gem & Mineral Guild Jewelry, Gem, and Mineral Show, Jeffco Fairgrounds, 15200 W. 6th Ave., Golden (corner W. 6th and Indiana)

March 8, 7:30 p.m. Friends of Mineralogy, Colorado Chapter, bimonthly meeting, at Lakewood Event Center,7864 W. Jewell Ave. "Mineral Species and Occurrences of the Swiss Alpine Clefts", by Brent Lockhart, of Houston, TX.

April 6-8: Ft. Collins Rockhounds Gem & Mineral Show, Larimer Co. Fairgrounds, 5280 Arena Circle, Loveland.

April 6: North Jeffco Gem & Mineral Club Silent Auction, Arvada Community Center, 6842 Wadsworh Blvd., Arvada.

April 13-15: Colorado Mineral and Fossil Spring Show, Crown Plaza Hotel/Convention Center, 15500 E. 40th, Denver.

May 10, 7:30 p.m., Friends of Mineralogy, Colorado Chapter, bimonthly meeting, at Lakewood Event Center,7864 W. Jewell Ave.: Speaker Markus Raschke on "Five Days on Xuebaoding Mountain, Sichuan Province, China: minerals and geology", by Markus Raschke.

June 1-3: Pikes Peak Gem & Mineral Show, Norris Penrose Event Center, 1045 Lower Gold Camp Rd., Colorado Springs.

June 15-17: Victor Gem and Mineral Show, downtown Victor, CO.

August 17-19: 19th Annual Lake George Gem & Mineral Club gem and mineral show. Details to come!

✔ ✔ Many thanks to **John Rakowski**, who has been dealing with the paperwork required by Park County to permit our show next summer. Each year, John makes sure the t's are crossed and the i's dotted so the show operates smoothly. Thanks, too, to **Becky Blair**, who currently has 18 dealers signed up for the show.

✔ ✔ Here's a note from field-trip coordinator **Billy Bell**, who is starting to set up trips for this coming summer:

First, I would like to thank everyone for all the support and emails. Keep up the good ideas! We have got a couple of trips to the Baculite Mesa lined up for early season. Also a trip to Phantom Canyon and/or the Shelf Road area. Garnets, Peridot, Gold, Meteorites, Pyrite, Topaz, and more are in the works. **Anyone who has access to a good area or claim, and would like to do a field trip, please contact me with the details**. Billy

✔ ✔ President **Bob Baker** sent the following note about Baculite Mesa:

BACULITE MESA

Billy Bell and Bob Baker contacted the owner, Harvey Smith, of Baculite Mesa. We arranged for several fossil collecting trips early in the season to an area that is rich in Cretaceous fossils:
baculites, coquinas, and clams. 75-76 million years ago, methane springs erupted from faults along what is now the Front Range. These springs promoted an extensive community of ammonites and clams. These mollusks formed conical features known as the Teepee Buttes. This area was part of the Western Interior Seaway, also known as the Pierre Seaway, and was probably 100' to 300' deep. Today, the Baculite Mesa and many of the teepee buttes are at an elevation of about 4700 feet, northeast of Pueblo. Harvey Smith's property seems to be covered in fossils, and the club will do well collecting baculite and clam fossils. Billy is firming up the dates with Mr. Smith and will post the dates in the near future.

Baculite fossil segment 3" long showing suture patterns.

References
Colorado Earth Science Blog by Steven Veatch
Paleocurrents.com by Steve Wagner
Wikipedia

✔ ✔ **Steve Veatch** sent this short article about an upcoming talk:

Western Museum of Mining & Industry
Speakers' Bureau Lecture

Cripple Creek High Grading: The Untold Stories

Take a mind-boggling look at one of the most significant parts of the history of the Pikes Peak region—the Cripple Creek Gold Rush. This astonishing lecture provides a new perspective on the untold stories of high grading (stealing) valuable ore in the mining district. The story is told through stunning images of ore and striking historic photographs. For fans of local history, this is an essential program. Join Steven Veatch and Ben Elick as they explore the additional details and perspectives on Cripple Creek they have amassed through lost photographs, forgotten diaries, and recently found records. You don't want to miss this.

Tuesday, March 13, 2018. Doors open at 6:00 pm, Lecture 7:00 pm - 8:00 pm $5 admission, WMMI museum members admitted free! Please RSVP by calling 719-488-0880 or emailing rsvp@wmmi. The lecture will be held in the museum's library at 225 North Gate Blvd., Colorado Springs, CO 80921 | Exit 156 and East from I-25

Steven Veatch is a geoscientist and former adjunct professor of Earth Science at Emporia State University in Kansas where he received an MS in Earth Science. He also has an MA from Webster University, St. Louis in management. Veatch has been involved in geoscience education initiatives for over 25 years. His family came to Cripple Creek in the 1890s from England and worked in the district's mines for over 40 years. Veatch has contributed chapters to 3 books: *Field Trips in the Southern Rocky Mountains*, *USA, Field Guide 5*, T*he Paleontology of the Upper Eocene Florissant Formation, Colorado*, and *The World's Greatest Gold Camp: An Introduction to the History of the Cripple Creek and Victor Mining District*.

Ben Elick is in middle school in the Douglas County School District in Colorado. He is a volunteer at the Western Museum of Mining and Industry and is working on conserving the historic photos at the Cripple Creek District Museum. Elick has

published nonfiction articles in newspapers and magazines, notably the international Earth science magazine *Deposits*. He recently presented a co-authored paper on Cripple Creek minerals at the New Mexico Technical Institute of Mining and Technology in Socorro and has an abstract under review by the Geological Society of America where he will be the presenting author at Iowa State University in April. Ben has been a member of The Pikes Peak Pebble Pubs since 2012.

Steve has also re-started the Pebble Pups Corner:

Pebble Pup and Earth Science Scholars Corner

By Steven Wade Veatch

More than 89 families were met by the Pebble Pups during the family geology day.

January was a busy month for the Pikes Peak Pebble Pups. This is the combined group of the Lake George Gem and Mineral Club Pebble Pups and the CSMS Pebble Pups. Although Pikes Peak Pebble Pups share the same resources and instructors, each group has its own meeting time and place. On January 6 the Pebble Pups helped host the Family Geology Day at the Western Museum of Mining and Industry. The Pebble Pups provided many engaging activities for the kids who attended this event. This is one of the events where the Pebble Pups meet new families and recruit new kids into the CSMS and Lake George Gem and Mineral Club Pebble Pup program.

A robotic triceratops is ridden by an attendee of the event.

Several of the teen Earth Science Scholars and their families attended our first field trip of 2018 on January 13th and went to the Morrison Museum of Natural History for a morning tour of the museum with a professional paleontologist. This was an interesting time, and slow-paced so that we could learn from the paleontologist many new things in paleontology.

After lunch we went to the Colorado School of Mines Geology Museum where we looked at the mineral and fossil displays. We especially enjoyed the amazing specimen of veatchite, a borate named for John A. Veatch (1808-1878) in 1938, with the borates down in the lower level. After spending time in the museum, we toured the Colorado School of Mines campus. The weather was awesome and the conversation exceptional.

Field trip leader, Steven Veatch, takes a break with two Earth-Science Scholars.

The Lake George Gem and Mineral Club Pebble Pups met January 17 where Pebble Pup leader Steven Veatch presented a program on metamorphic rocks and fluorescent minerals.
The CSMS Pebble Pups met January 18 where Pebble Pup leader Steven Veatch presented the same program and added a short lab period on using microscopes. The Family Geology Day brought in 5 new pebble pups for the CSMS meeting. The CSMS also gained an additional teenager who will join the Earth Science Scholars.

Steve is also planning a winter fossil/poetry walk at the Florissant Fossil Beds.

A WINTER FOSSIL POETRY WALK **Saturday, February 24**, **1:00 PM – 3 PM**. Learn to write a poem about a fossil, a petrified tree, or nature. Join volunteer interpreter Steven Veatch and Pebble Pup/Earth Science Scholar Ben Elick and discover your inner poet. The program will begin inside the visitor center with a brief discussion on poetry writing techniques.
Participants will then explore part of the Monument while hiking on easy nature trails (less than 1 mile). During the walk experience the Monument's spectacular paleontological marvels and collect "picturesque" words, explore language, and create an optional three-line haiku while enjoying the winter day. The afternoon is an exceptional opportunity to be immersed in a natural setting and unleash individual creativity in a fun and supportive environment. Regular entrance fees apply. For more information, call the **Florissant Fossil Beds at 719-748-3253**.

✔ ✔ Thanks to **Wayne Orlowski**, who sent in some interesting links:

**Some amazing pictures of Russian salt mines at the following link:

https://www.atlasobscura.com/places/psychedelic-salt-mines?utm_source=Atlas+Obscura+Daily+Newsletter&utm_campaign=bf56421222-EMAIL_CAMPAIGN_2018_01_26&utm_medium=email&utm_term=0_f36db9c480-bf56421222-63289333&ct=t()&mc_cid=bf56421222&mc_eid=4c09dd6067

**Here's a map showing where countries would have been located in Gondwanaland: This has been around for

http://www.openculture.com/2018/01/a-map-shows-where-todays-countries-would-be-located-on-pangea.html?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+OpenCulture+%28Open+Culture%29

**For those of you into decorating your house with a mineral theme, you can access an "agate crystal area rug" at this site:

https://www.octotreasure.com/products/fantasy-crystal-agate-geode-area-rug?gclid=EAIaIQobChMImZKnxfzd2AIVBYN-Ch3KWgt0EAQYAiABEgJItPD_BwE

**WOW
Mining Magnetite and black Dravite Tourmalines on mining leases in Yinnietharra, Western Australia.

https://www.facebook.com/geologylearn/videos/996427470521737/

✔ ✔ And here is the latest installment of “Bench Tips” by Brad Smith (www.BradSmithJewelry.com):

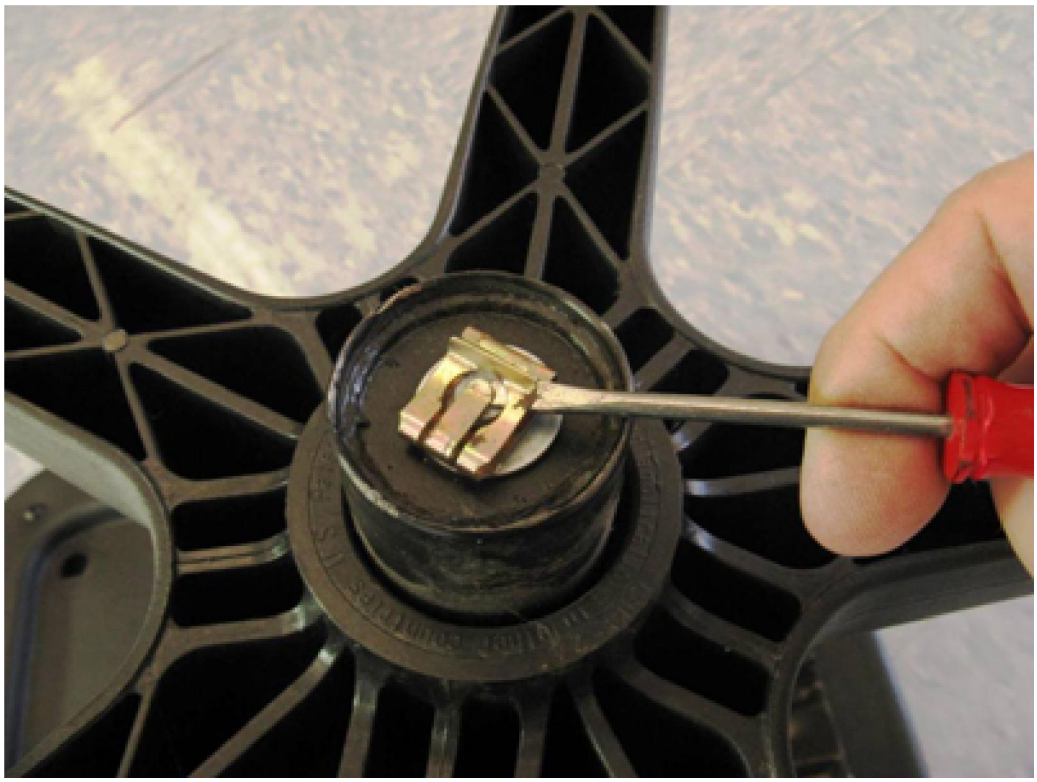
MOBILE FLEXSHAFT STAND

A handy mobile stand for your flexshaft can be made easily and quickly from the base of an old swivel office chair. You can find these chairs being thrown out at office buildings and schools. I just asked the custodian in my building to set one aside for me.

To separate the chair from the wheeled base, simply remove the spring clip from the center bottom. I use a small screwdriver or a pair of pliers.

To make the stand, you'll need two pieces of threaded galvanized steel pipe and a pipe fitting from a hardware store. The first length of pipe is ¾-inch diameter to fit the hole in most chair bases. The second piece is a length of less expensive ½-inch pipe.

The total length of the two pipes should be five feet. I used a two-foot length of 3/4 pipe and a three-foot length of 1/2 pipe. They are joined together by a pipe fitting called a 3/4 to 1/2 reducing coupler.



LOCAL METALS SOURCE

Local companies that use sheet metal typically have barrels of scrap copper, brass, and aluminum sheet that they save for recycling. The shop owner/manager will usually let you go through it to select the shapes and thicknesses you want. Prices vary but will generally be close to the wholesale per-pound scrap value. For me at this time, that's $3 per pound for copper. I've found it's much cheaper to buy metal this way than ordering

from a catalog. There are no shipping charges, and you'll be supporting a local small business in your community.

Remember to bring your work gloves if you try this. Also useful is a thickness gauge. When I asked if they had any 14 gauge, they didn't know. Turns out they measure the thickness of copper by its weight per square foot.

See all Brad's jewelry books at Amazon.com/author/bradfordsmith

Notes from the Editor

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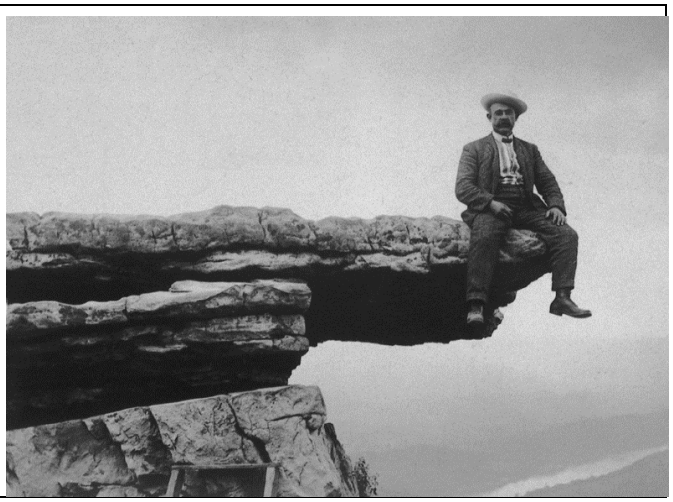

Here's a thought-provoking article that I first saw in the Pueblo Rockhounds "Chips from the Rockpile".

Humans Help Cook Up Mineral Bounty

Scientists have identified 208 new minerals that owe their existence wholly or in part to humans. Many in the list have been found down old mine tunnels or on slag heaps where water and even fire have had the opportunity to work up novel compounds. It is another example, the researchers argue, of our pervasive influence on the planet. New minerals and mineral-like compounds are now being formed faster than at any time in Earth's history, they say. Fiedlerite formed where seawater met an ancient Greek slag heap Mine product: Andersonite is a uranium-bearing mineral. "These 200 minerals are

Andersonite (RRUFF Database)

Concrete used in construction contains mineral-like materials (Shutterstock)

roughly 4% of the total known minerals, but they all occurred in the last couple of thousand years, most in the last couple of hundred years," explained Robert Hazen from the Carnegie Institution for Science in Washington DC. “These minerals formed either primarily or exclusively by a human mediated process.”

Minerals are specific combinations of chemical elements arranged into crystalline structures. Earth's rocks are built from different aggregations. The likes of feldspar, quartz, and mica will be known by most people. But bobcookite, calclacite, or elyite are obscure, to say the least. Their existence is due to humans creating a setting where chemical reactions can take place between materials that might otherwise not have come into contact.

In addition to mines, which seem to be a particularly productive environment, the new minerals have been found


Metameunerite forms in mines (left); nealite forms where seawater interacts with slag (right) (Mindat.org)

to occur inside smelters, old geothermal piping, on the surfaces of archaeological artifacts, even inside museum specimen drawers.

The 208 man-mediated minerals are listed by Prof Hazen and colleagues in a paper just published by the American Mineralogist. They have all been approved by the International Mineralogical Association. This organization operates some quite tight definitions on the sorts of compounds that can appear among the 5,200 entries in the official catalogue. And the group that does not make the grade is the huge number of mineral-like materials that have been manufactured by humans for a specific purpose. "Human synthesize thousands and thousands of materials - semi-conductors, and laser crystals, and magnets, and batteries, and building stone," said Prof Hazen. "These have mineral-like materials that will persist in the geological record for the next billion years." Currently, geologists label the time since the last ice age, 11,700 years ago, as the Holocene. But there is a push to introduce a new classification to reflect the immense, planet-wide changes driven by humans in recent decades - and for it to be called the Anthropocene Epoch.

It is further evidence, if more were needed, that Earth has now entered a new epoch. The list of new man-mediated minerals bolsters the case. Co-worker Marcus Origlieri from the University of Arizona commented: "In the sediment layers left behind from our age, future mineralogists will find plentiful building materials such as bricks, cinder blocks, and cement, metal alloys such as steel, titanium, and aluminum, along with many lethal radioactive byproducts of the nuclear age. They might also marvel at some beautiful manufactured gemstones, like cubic zirconia, moissanite, synthetic rubies, and many others." And Edward Grew from the University of Maine added: "These minerals and mineral-like compounds will be preserved in the geological record as a distinctive, globally distributed horizon of crystalline novelty – a persistent marker that marks our age as different from all that came before."

Colin Waters, from the British Geological Survey, is secretary to the Anthropocene Working Group, which is the body trying to draw up detailed criteria to define the proposed new epoch. He echoed the statements of Prof Hazen's team. The great changes occurring on Planet Earth were being reflected in the mineralogical record, just as they were in the chemistry of the atmosphere and the oceans, he said. Dr. Waters highlighted the ball-point pen as an example. "The ball at the end is made from tungsten carbide. Billions of them have been produced since the 1950s. The cements used to construct our cities contain mineral-like materials. Ball-point pens will leave a tungsten carbide marker in the geological record. Imagine how much of that material is knocking around the planet. "We're ingenious at creating new mineral-like materials for our own purpose, and it is actually these that will be the voluminous signature of our presence on the planet, rather than some fairly obscure mineral that develops in a mine as a result of our excavation and then later alteration." Prof Hazen's team is part of the Deep Carbon Observatory, an international network of nearly 1000 multi-disciplinary scientists committed to investigating the quantities, movements, forms, and origins of carbon in deep Earth.

Story Source: Written by Jonathan Amos, BBC Science Correspondent, 2 March 2017, from BBC News website, http://www.bbc.com/news/sciencenvironment-39133897. Modified from: Northern California Geological Society, March 2017

Monthly Mineral Quiz

The specimen shown below came from the Eureka Tunnel mine in El Paso County. On the left, it is shown in daylight; on the right, it has been exposed to SWUV (short-wave ultraviolet) radiation. The mineral is harder than glass and occurs as tiny “sparkly” crystals that are a pale purplish brown color. What is it? Answer in next month’s newsletter.

Lake George Gem & Mineral Club

Box 171, Lake George, Colorado 80827

www.LGGMClub.org

MEMBERSHIP APPLICATION

Date: _____/_____/20____

Name/s _____

Address _____City _____State _____ Zip _____

Telephone ( ) _____ - _____ E-mail _____

(Email is required to receive Newsletter and field trip info.)

Names/ages of minor members (if family membership): _____

_____

Dues for Jan. 1 through Dec. 31 each year are as follows:

____ Individual (18 and over) $15.00

____ Family (includes dependents under age 18) $25.00

Current year membership renewal and application occurs Jan. 1-March 31, after which membership is closed for the current year. Membership/email list will be purged April 1st for the current year.

MEMBERSHIP MUST BE CURRENT TO PARTICIPATE IN ANY FIELD TRIP OR CLUB CLAIM!

I agree to abide by Club constitution, by-laws, and rules regarding field trips and club claim visits.

Signed _____ *Date:* _____/_____/_____

*I am or have previously been a member of Lake George Gem & Mineral Club. Yes ___ No ___

***My interest areas** include (check all that apply): Minerals ____ Fossils_____ Lapidary _____

Micromounts ____ Colorado geology _____ Pebble Pups (ages 7-17) ____ Mining history _____

Crystallography _____ Other _____

***I am willing to** give a talk/presentation to [the Club] or [Pebble Pups] on _____

and/or lead a field trip to (list) _____

***I am willing to** participate/help in the following ways (can choose more than one): Club Officer _____

Newsletter Editor/Writer _____ Local Show/Show Committee _____ Nominating Committee _____

Winter Programs Committee _____ Field Trips ____ Art (Badges) ____ Membership Coordinator _____

Website assistance _____ Pebble Pups _____ Other (be specific): _____

Questions about the Club or Activities? Visit the website or contact a Club Officer. Updated 1/2018

Lake George Gem & Mineral Club
PO Bo 171
Lake George, CO 80827

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 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).

Our Officers for 2018 are:

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