

Bulletin of the Mineralogical Society of Southern California

Volume 91 Number 8 - August, 2018

The 959th meeting of the Mineralogical Society of Southern California

With Knowledge Comes Appreciation

August, 12th, 2018 -- 12.00 Noon to 4:30 P.M.

MSSC Annual Picnic

Bruce and Kathy Carter's House

In this Issue:

TITLE	Page
MSSC ANNUAL PICNIC /SILENT AUCTION	2
From the Editor: Linda Elsnau	3
From the President: the letter "H": By George Rossman	4
Minutes of the July 13, 2018 Meeting	5
List of Upcoming MSSC Events	6
We Have Been Invited By Rudy Lopez	7
Save the Date for our Annual Banquet	
MSSC Fieldtrip to Blue Bell Mine: By Marek Chorazewicz	7
A Random Quote from Mineral Literature	
August Featured Mineral: Copper	10
Ride Share Listing	11
Calendar of Events	12
2018 Officers	13
About MSSC	13

Remember: If you change your email or street address, you must let the MSSC Editor and Membership Chair know or we cannot guarantee receipt of future Bulletins

About the Picnic:

MSSC ANNUAL PICNIC /SILENT AUCTION

Sunday, August 12th, from 12 noon to 4:30pm is MSSC's annual picnic. We have invited two clubs to join us this year, PLS (Pasadena Lapidary Society) and Fallbrook.

THE LOCATION:

Home of Bruce and Kathy Carter, 146 Highland Place, Monrovia, CA

Bruce and Kathy's home is just north of Foothill Blvd and west of Mayflower Ave in Monrovia. Street parking is available. They have a beautiful back yard with shade structures and an outdoor kitchen. If it is too hot, then we can easily move into the air-conditioned house.



Driving Directions from the 210 Freeway: Exit the 210 at Huntington Drive and go east to Mayflower Ave. Turn North to Foothill Blvd. Then go west one block to Highland Place. North to # 146. If you get lost, Bruce's phone number is 626-357-4532.

FOOD



Smoked Brisket



Smoked Pork Shoulders

Rudy will cook the Pull Pork and Brisket. Slow smoke the Pork Shoulder and Brisket up to 14 hours so they are really tender. We are going to need more items to make a great meal. We need rolls for sandwiches for the Pull Pork and Brisket. Please bring your own special potluck offering to share: a salad (homemade or from the deli), chili, chips and dip, salsa or guacamole, a veggie tray, grapes, fruit salad, a jar of pickles or a can of olives; cookies, pie or other dessert item, or anything edible. Let's see what delicacies turn up this year! Leslie's Hawaiian Ice will make another appearance we hope. Let's all pitch in and make sure we have enough for everyone to enjoy. MSSC will supply plates, cups, napkins, knives, forks and spoons and will also supply water and ice. It is suggested you bring any serving utensils your contribution requires. Be sure to mark them and your serving dish with your name or initials so you're sure to get them back.

All food items you bring should **feed at least 8 people or more**. Please let me know what items you intend to bring so we can coordinate with other members and guests, so we don't have too much of one item.

<u>Please RSVP by Tuesday, August 7, 2018.</u> It's really important that everyone planning to attend (MSSC Members and Guests) bring food items and RSVP. Please send your RSVP and what you will bring to: <u>programs@mineralsocal.org.</u> or call Rudy Lopez 626-351-6283.

If you call, there is an answering machine so please CLEARLY IDENTIFY YOURSELF and HOW MANY ARE IN YOUR PARTY & WHAT FOOD ITEMS YOU ARE BRINGING.

SILENT AUCTION

MSSC MEMBERS BRING ITEMS FOR SILENT AUCTION

We are going to have a silent auction and I am encouraging everyone to bring items for the silent auction. I have been cleaning my storage boxes and have found some really great slabs. I found agate, moss agate, tiger eye, fossils, palm root, obsidian (black, mahogany, rainbow and silver streak) and I will have at least 50 or 60 slabs alone. I will bring some obsidian pieces that weight anywhere from 10Ibs to 30lbs. I will also bring agate rocks weighing about 25lbs, lepidolite, tiger eye and other rocks. I have a small 7" rock saw and a jewelry buffer I will put up for auction and I am still looking through my finished cabs. SO, let's all pitch in and bring items for the silent auction. Please understand anything that does not sell the day of the picnic will go back home with the original owner. There will be tables for your auction items and bid sheets. Please look at the pictures I have attached of just a few items I will bring for the silent auction. Items will be priced to sell, but not given away.

Those of you who are so inclined may bring items for the silent auction. Please bring items that are related to our hobby – minerals, fossils, lapidary, gems/jewelry, geo-science books, and mining memorabilia. MSSC members please bring items to sell.

Check out the pictures below of some items going up for auction at the picnic.



There will be a selection of about 40 finished cabs in various sizes.

Remember to RSVP and let us know what you will bring. Cheryl Lopez will acknowledge and reply to all e-mails and phone calls. We need a good attendance count, so Rudy can make sure we have enough meat for everyone.

From the Editor:

This month's Bulletin just suddenly got longer! I was all set to finalize and publish when I got a late contribution, an excellent article on the last MSSC Field Trip from Marek Chorazewicz. Since the trip was last May, I decided to put it in now rather than hold it until next month. Enjoy! Linda Elsnau

FROM THE PRESIDENT Interesting Minerals, A to Z. Installment 8, the letter "H": by George Rossman

Hibonite

Hibonite, CaAl₁₂O₁₉, was named after Paul Hibon, a prospector who found the mineral in Madagascar in 1953 (Figure 1). The formal description was published by H. Curien *et al.* in 1956 in Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences 242, p. 2845, in an article entitled *La Hibonite, Nouvelle Espece Minerale*. It contains iron replacing the calcium, so it is black, often cracked, and rather ugly and often without nice crystal faces. Hibonite remained a rather uninteresting mineral until K. Keil and H.L. Fuchs published a paper in 1971in Earth and Planetary Science Letters under the title: *Hibonite* [Ca₂(Al,Ti)₂₄O₃₈] From Leoville and Allende Chondritic Meteorites. Hibonite was dropping to earth in meteorites! Things got more interesting in 1980 when Papanastassiou and Wasserburg [from Caltech!] discovered that there was an



Figure 1. Black hibonite from Madagascar. Photo credit G. Rossman

excess of the low-abundance isotope magnesium-26 in the hibonite from the Murchison meteorite. It appeared that the only way the excess magnesium-26 could have formed was from the decay of a short-lived radioactive isotope of aluminum that only existed for a short time right at the birth of our solar system.

In other words, hibonite in these meteorites is considered to be a pre-solar mineral. That means before the earth existed, grains of hibonite were condensing out of the cosmic gasses that became our solar system. Other minerals that existed at that time are diamond (C), graphite (C), corundum (Al₂O₃), forsterite (Mg₂SiO₄), rutile (TiO₂), moissanite (SiC), osbornite (TiN), and more exotic nanophases such as titanium-, zirconium-, and molybdenum-carbides (khamrabaevite TiC, unnamed ZrC, and unnamed MoC). These phases come to us from outer space, compliments of meteorites.

A particular interesting variety of hibonite from a meteorite is the blue hibonite found a few meteorites In these meteorites, some titanium replaces the aluminum in the hibonite. Things get interesting when two different oxidation states of titanium occur simultaneously in the crystals. Then we get intervalence charge transfer when electrons move between adjacent atoms with different oxidation states. In particular, Ti^{3+} - Ti^{4+} interactions are found in such meteoritic minerals. Because of this interaction, they are an attractive blue color (Figures 2,3).

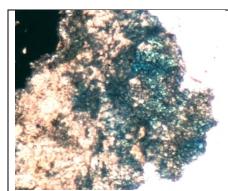


Figure 2. Blue hibonite containing mixed oxidation states of titanium from the Murchison meteorite. Photo credit: G Meeker.

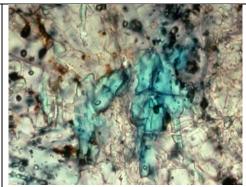


Figure 3. Blue hibonite in the Vigarano meteorite. Photo Credit: Caltech meteorite photo collection.

This is another mineral you will not find in California unless you find a meteorite that contains some. Meteorites containing hibonite have been found in many places including Antarctica, Argentina, Australia, and Azerbaijan. Occurrences in terrestrial rocks are in Israel, Kenya, Myanmar, and Tanzania as well as Madagascar.

The Madagascar material is not as colorful as the meteoritic hibonite. As was said above, it is black. That is because it has a fair amount of iron replacing the aluminum. But, here again, we find iron in two different

oxidation states causing intervalence charge transfer between the iron (and also between iron and titanium). All this intervalence charge transfer absorbs so much light that the Madagascar hibonite is black. Madagascar hibonite also takes up an appreciable amount of rare-earth elements, further adding to the absorption of light.

There is a mineral, hibonite-(Fe), (Fe,Mg)Al₁₂O₁₉, found in the Allende meteorite that is the iron dominant endmember of the hibonite – hibonite-(Fe) series. It was first described in 2010 by Caltech scientist Chi Ma.

More recently, two orangey-brown gem-quality crystals of hibonite were found in Myanmar. At least, they were stated to be from Myanmar. This is a rare find, indeed. Their descriptions with additional photographs were reported in Gems & Gemology (2010). You can download this article at the GIA website. https://www.gia.edu/doc/SU10.pdf. In fact, the entire collection of Gems & Gemology is available online at the GIA website.



Figure 4. Gemmy hibonite from Mogok, Myanmar. Photo credit: DonGuennie G-Empire The World Of Gems, from Wikipedia Commons.



Figure 5. Colorless hopeite (also known as hibbenite) from Broken Hill, Zambia. Photo credit: Mark Garcia

There is one more thing to consider. Don't get hibonite mixed up with hibbenite, Zn₃(PO₄)₂·4H₂O, named after a former president of Princeton University. Hibbenite (Fig. 5) has been used as a synonym of the mineral species which has the official name, hopeite. Even better; don't use hibbenite at all.

MINUTES of the July 13, 2018 Meeting

California (MSSC) was called to order at 7:30 p.m. by President George Rossman. Dr. Rossman noted that there are now 5,357 mineral species recognized by the International Mineralogical Association. A couple of the new ones are Bodieite and Orthoserpierite. Bodieite is a bismuth tellurate sulphate. The description of the mineral was led by Dr. Tony Kampf and included Dr Bob Housley, Marek Chorazewicz and Dr. Rossman. [Note: Joe Marty was also involved in this identification.] It comes from Mono County in California. These esteemed collectors are members of MSSC, Mineralogical Society of Southern California. Orthoserpierite, also a sulphate, was identified by Dr Bob Housley and Dr Rossman. It was identified from nearby Crestmore, CA, a locality prolific with many minerals previously studied.

Regular Business

Minutes: Dr. Rossman asked for approval of the Membership meeting minutes as written and published in the July 2018 *Bulletin* (for June 8th Membership and June 17th Board Minutes). Dr. Rossman asked for additions/corrections to the Minutes. There were none. He asked for approval of the two meetings' minutes by voice vote, and both were approved unanimously.

Announcements: MSSC's Annual Picnic and Silent Auction will take place on Sunday, August 12th at the Carter residence. [Note: See full information in the *Bulletin*.].

Field Trip Report: Marek Chorazewicz gave a short presentation report on the last field trip to the Blue Bell Mine. Marek also announced that there are plans for another trip, this time to the beach! Stay tuned for more information about the upcoming field trip to the south side of Palos Verdes on the hunt for barite.

Guests/visitors: Tim Dirks, his wife and daughter joined us at this meeting. Tim is a member of the Pasadena Lapidary Society (PLS).

Show and Tell: Marek Chorazewicz brought samples from the Blue Bell field trip and had enough as giveaways.

Program

The meeting was turned over to Program Chair Rudy Lopez, who introduced Chuck Houser. Mr. Houser spoke on "Why Study Faults and Earthquakes?" Chuck is a geologist and project manager with SCS Engineers located in San Diego, California. He earned his Bachelor's degree in 1986 and his Master's in 1997, both from San Diego State University. His undergrad thesis focused on structural controls and mineralogical indicators for the formation of pockets in the Elizabeth R mine in Pala while his Master's thesis was on the tectonic geomorphology and Quaternary history of the Old Woman Springs fault in the western Mojave Desert of San Bernardino County. Chuck is an avid mineral collector and his collection includes an assortment of calcites from around the world.

Mr. Houser's presentation focused on a few notable earthquakes, namely: the Superstition Hills quake of Nov 1987 (a magnitude 6.6), the Landers quake of 1992 (magnitude 7.3) and the Sierra-El Mayor quake Easter Sunday, April 4, 2010 (magnitude 7.2). Chuck outlined the process used to locate, evaluate and characterize faults. He presented several slides showing the arrival, in San Diego, CA, of the tsunami which resulted from the 8.8 magnitude earthquake of February 2010 that occurred in Chile, South America.

Of course, everyone wants to know when the "big one" will occur on our San Andreas Fault and what will happen. But, that's another story... Thanks to Chuck Houser for a great presentation.

Door Prize: There was no drawing at this meeting.

<u>Adjourn:</u> The meeting adjourned shortly after Mr. Houser's presentation.

Respectfully submitted by Rudy Lopez, Program Chair. Refreshments and interesting conversations followed the meeting. Thanks to Laura Davis for bringing and setting up the refreshments and to Rudy Lopez for home baked goodies.

Reminders:

Submissions for the *Bulletin* are due to Editor Linda Elsnau by the 22nd of the month.

Our next meeting will be SUNDAY, AUGUST 12, 2018. And is our Annual Picnic and Silent Auction (don't forget your donations!)

List of Upcoming MSSC Events: Mark your Calender!

Event	Date	Comments / Scheduled Program (if known)	
Meeting Dates:	August 12, 2018	MSSC Picnic	
	September 14, 2018	Eric Scerri: What is This Thing Called Science (An Introduction to the Philosophy of Science).	
	October 12, 2018	Aaron Celestian: "Halophiles in Minerals"	
	November, 9, 2018	Renee Newman: "21st Century Jade: Why It's Prized, and How It's Tested and Valued?"	
Board Meeting	September 16, 2018	Board Meeting at Bruce Carter's house	
Annual Banquet	January 12, 2019	Annual Banquet	

Note: Dates and programs shown above are subject to change. Check your bulletins to confirm final information each month.

MSSC HAS BEEN INVITED To participate in the

Prehistoric OC event at Clark Regional Park

Saturday October 13, 2018 from 10am-3pm at Clark Regional Park in Buena Park

Good Morning,

I am contacting you because you have participated in the Prehistoric OC event at Clark Regional Park in past years. I am taking over planning of the event, as Jeannine Pedersen has moved on to another position.

I am writing to ask if you would like to participate in the event again this year. It will take place on Saturday October 13, 2018 from 10am-3pm at Clark Regional Park in Buena Park. Like years past, we will provide the table/chairs/canopy if you sign up to participate. Our standard allotment is 1 table, 1 canopy, and 2 chairs. If you require additional equipment beyond that, please let me know and I can make arrangements.

We would love to see your organization out at the event again this year. Please feel free to contact me with any questions or concerns. I look forward to hearing back from you!

Thank you,

Heather Glasgow Historic Resource Assistant | Historical Operations Group OC Parks

Please contact Rudy if you are interested in helping out at this event.

by: Rudy Lopez

SAVE THE DATE MSSC 2019 ANNUAL BANQUET

January 12, 2019.

Oak Tree Room: 1150 W Colorado Blvd. Arcadia CA. 91007

COCO'S has been sold as of last May. The new owners have no immediate plans on changing anything at this location. I Spoke with Cindy, the person in charge of Banquets on Saturday, July 14, 2018. She said the new owners had made a comment about how nice it would be to have a sport bar. But that was it, it has gone no further. Cindy will call me if there are any further developments that come up before our Banquet.

MSSC Fieldtrip to Blue Bell Mine, May 19, 2018: By Marek Chorazewicz, Simi Valley, Southern California

Another beautiful Saturday morning, May 19, 2018. The meeting place was set at Zzyzx Rd exit off Interstate 15, just before the freeway heads down towards Baker at the bottom of the Soda Lake. I spent the previous night in Barstow, it's only 60 miles east. Otherwise, it's a long 160 miles trip all the way from Pasadena. The group met at 9AM at the meeting place and promptly headed north towards the beautiful Soda Mountains several miles away.

The road gets shaky and rocky around half way, with road conditions comparable to the Camp Rock Rd near Ord Mtn. SUVs with high clearance have no problem negotiating it, but there was a Chrysler rental van making it almost all the way up at the Pacific Micromount Conference fieldtrip a few years ago. The road is passable enough for determined rockhounds for now, but who knows for how long if it keeps deteriorating. On the way we stopped at the adit B turnoff to look at the mine hill and point out the main locations.

We kept going north on the dirt road around the mountain, up the hill, and then we've arrived at the adit A1 entrance area. It is a great parking spot for the cars that can make the last rocky part.

The Blue Bell mine (also known as Blue Bell claims, and historically as Atkinson mine and Hard Luck mine) has been mined since 1885 mainly for lead and silver, with minor copper, zinc and gold. In the 1950s first mineral specimens of linarite, caledonite and leadhillite started showing up, but the site gained the wide recognition with John Crowley's article in Mineralogical Record in 1977. The mineral occurrences were further investigated by the San Bernardino County Museum volunteers led by Robert Reynolds. The intensive research led to publication of 5 previously unknown minerals by MSSC members: Anthony Kampf, George Rossman, and Robert Housley: plumbophyllite in 1997, reynoldsite and fluorphosphohedyphane in 2011, bluebellite and mojaveite in 2013. The total of 87 minerals has been found at Blue Bell mine so far, including such micromineral rarities as plumbotsumite, murdochite, tsumebite, kuksite, dugganite, quetzalcoatlite and pingguite (see more info on Mindat: https://www.mindat.org/loc-144880.html). On Mindat you might also see some confusion about the naming of the sites unfortunately. Some contributors use location names as 2A, 2C and 2D, however, there is no need to use the initial number 2, which simply means Blue Bell mine in San Bernardino Co Museum publications. Mohawk mine is referenced number 1 there. So, here we will simply refer to Blue Bell locations as A thru F.

Our first mineral stop was the adit A1. I've shared some tsumebite specimens found there in December 2017 with the participants. The entrance has been cleaned up by some earlier visitors and it was easier to climb thru the hole. It was still a belly slide, but with more room above our buttocks than a few years ago. Inside the adit there is some light coming from the hole is the ceiling, so it's not totally dark. There are blue copper secondary veins higher up the walls, with beautiful baby blue chrysocolla. There is also some yellow pyromorphite and white sparkly cerussite. Nice pieces can be collected from the rubble on the bottom of the adit, no need to hammer the veins. The samples collected there also contained small bluish green dioptase crystals, dark yellow sparkly mimetite, clear hemimorphite and lustrous olive vauquelinite crystals. After looking at one of my specimens under the microscope I've also found a few small green tsumebite crystals.

From A1 we've climbed up to the A2 site, also called "glory hole". This site was responsible for many great mineral specimens that called the attention of the mineral community to the Blue Bell mine. We've found several rocks with dark blue linarite needles on the way up thru the dump, then many more inside the opening. Some of the linarite was associated with green and blue chrysocolla, some with dark green brochantite, and the best ones with beautiful light blue crystals of caledonite. The rock on the back wall provided some small but great lustrous crystals of orange mimetite, yellow wulfenite and brown desclozeite.

When leaving for adit C we noticed the quickly raising air temperature, so Cheryl stayed behind and collected very picturesque manganese oxide dendrites instead. At the adit C site we've found a small orange vein on white opal covering highly siliceous grey-brown rock. The small orange and red specks turned out to be mimetite needles associated with yellow plates of wulfenite. A couple of specimens contained clear blocky fluorite and hexagonal clear plumbotsumite crystals.

We then tried to keep going to sites over the big dike, which looks like a spine of the dragon and is very steep. However, the sun was relentless, and the temperature already reached well over 90°F, so we collectively decided to head back and stay away from the heat. That was a wrap, everybody left with a lot of colorful material in their buckets. One the way back we saw a large group of 4x4 enthusiasts chilling with beer in the canyon below the mine.

As a post-trip I've visited the adit B area taking a short but very bumpy detour off the main road. I've negotiated the entrance fees with the inhabitants of the adit, a rat and a bat, and continued inside. That adit is long and branching, not everybody would enjoy the visit. There was one area with ceiling covered almost completely with a blue mineral, which proved to be chalcanthite, mixed with gypsum and chalcopyrite. Some of the dark, almost black matrix specimens from the adit contained three interesting minerals. First, the dark green crystals were confirmed as atacamite, suggesting salt water interaction with copper ore in the mine, frequently post-mining. The atacamite was associated with lustrous dark blue balls of boleite, a very rare Cu-Ag-Pb halide mineral best from Mexico known as small dark blue cubes. Lastly, very dark violet-black bunches of platelets

were identified as covellite. The atacamite and the covellite occurrence is reported from Blue Bell mine here for the first time.

All Photos provided by MSSC Members on the trip.



A Random Quote from Mineral Literature:

The beauty of large single crystals is arresting. The flatness of their faces, the sharpness of their angles, the purity of their colors will give you deep satisfaction.

But along with the sense of delight, you will surely have a sense of wonder. In this book, we ask you to indulge that sense also, and we suggest how you might go about it. You will find that it takes patience, care, thoughtfulness, and some feeling for the route you are traveling, together with some open-mindedness about where and when you will arrive. Adding these things successfully to your curiosity, you become a scientist.

It is a pity that most people think a scientist is a specialized person in a special situation, like a lawyer or a diplomat. To practice law, you must be admitted to the bar. To practice diplomacy, you must be admitted to the Department of State. To be a scientist, you need only curiosity, patience, thoughtfulness and time.

From: <u>Crystals and Crystal Growing</u> Third Printing, 1985 by Alan Holden and Phylis Morrison: Preface, Page 11 ¶ 1-3.

Copper **Featured Mineral:**

Formula: Cu

Crystal System: Isometric

Name: From Greek "kyprios", of Cyprus, the location of ancient copper mines; Latin "cuprum"

All Photographs © irocks



Copper: Cu, Calcite: CaCO₃ Ogonja Mine, Ogonja, Seeis, Windhoek District, Khomas Region, Namibia



Copper: Cu White Pine Mine, White Pine, Ontonagon Co., Michigan, USA 4.6 cm x 3.8 cm x 1.5 cm



Copper: Cu Pseudomorph after Aragonite Corocoro, Pacajes Province, La Paz Department, Bolivia 2.2 cm x 2.0 cm x 1.8 cm



Copper: Cu, Calcite: CaCO₃ Keweenaw Co., Michigan, USA 6.7 cm x 3.2 cm x 2.8 cm



Copper: Cu Keweenaw Peninsula, Michigan, USA 6.0 cm x 3.9 cm x 3.0 cm



Copper: Cu, Gypsum: CaSO₄·2H₂O Mission Mine, Mission complex, San Xavier, Pima District, Sierrita Mts, Pima Co., Arizona, USA 11.8 cm x 11.4 cm x 3.5 cm



r: Cu Mufuli ra Mine, Mufulira, Mufulira District, Copperbelt Province, Zambia 2.8 cm x 1.8 cm x 0.9 cm

Coppe





Copper: Cu Block 14 opencut, Broken Hill, Broken Hill district, Yancowinna Co., New South Wales, Australia

cm

6.5 cm

Ride Share Listing

Can You Provide A Ride? Would You Like Company On The Drive To Meetings?

We have heard from several of our members that they would like to ride-share with someone to the meetings. We will list the names, general location and either a phone number or an email address of anyone who would like to connect for a ride-share. If you would like to catch a ride or would like company for the trip, let me know at msscbulletin@earthlink.net and I'll put the information in this section of the bulletin. After that, any final arrangements made are up to you. Also, If you make a connection that works for you, let me know so that I can remove your information from the bulletin. The Editor

Looking for	Who	Where	Contact at
A ride	Richard Stamberg	North Orange County, near Cal State Fullerton	See emailed bulletin



MSSC Advertisement Policy:				
Mineral-related ads are allowable in the MSSC bulletin. Below is the price per month				
	Business Card	\$5.00		
	1/3 page	\$10.00		
	1/2 page	\$20.00		
	Full Page	\$35.00		

In addition, any advertiser who purchases 12 months of space in advance will receive a discount of 12 months for the price of 10 months. The copy for the ads should be mailed to the editor at bulletin@mineralsocal.org and the payment should be sent to the MSSC Treasurer 1855 Idlewood Road, Glendale, CA 91202

With Knowledge Comes Appreciation!

Calendar of Events:

Only Southern California shows are listed here. Other CFMS Club shows can be found at: http://www.cfmsinc.org/

AUGUST, 2018

August 3 - 5: NIPOMO, CA

Orcutt Mineral Society Nipomo High School 525 Thompson Avenue Hours: Fri-Sat 10 - 5, Sun 10 -4

Website: www.omsinc.org

August 18 - 19: TEHACHAPI, CA

Tehachapi Valley Gem & Mineral Society

Tehachapi Senior Citizen Center

500 East "F" Street

Hours: 9 - 4 daily (tentative) Website: www.tvgms.org

SEPTEMBER

The 79th CFMS Convention

will be held alongside the

Feather River Lapidary & Mineral Society's

Rock, Gem & Jewelry Show September 15 - 16, 2018

More about the CFMS Convention & the FRLMS

Show

Advance CFMS Dinner & FRLMS Show

Registration

Accommodations Camping Local

Attractions Map

September 15 - 16: CHICO, CA

Feather River Lapidary & Mineral Society

Silver Dollar Fairgrounds

2357 Fair Street

Hours: Sat 9:30 - 5; Sun 9:30 - 4 Website: www.featherriverrocks.org

SHOW FLIER

OCTOBER

October 6: BORON, CA

Mojave Mineralogical Society **Boron Community Center**

26998 John Street

Hours: 9 - 4 daily

Web Site: Facebook page

October 6 - 7: VISTA, CA

Vista Gem & Mineral Society

Antique Gas & Steam Engine Museum

2040 North Santa Fe Avenue

Hours: 10 - 4 daily

Contact: Kelly Hickman, (760) 622-6501 Email: kellvahickman@hotmail.com

Website: www.vistarocks.org

October 13 - 14: TRONA, CA

Searles Lake Gem & Mineral Society

Gem Show Building

13337 Main Street (corner of Main & Trona Rd)

Hours: Sat 7:30 - 5; Sun 7:30 - 4

Website:

www1.iwvisp.com/tronagemclub **Show Page**

October 14: FALLBROOK, CA

Fallbrook Gem & Mineral Society Fallbrook Gem & Mineral Museum

123 West Alvarado Street

Hours: 9 - 4

Website: www.fgms.org

October 20: WEST HILLS, CA

Woodland Hills Rock Chippers First United Methodist Church

22700 Sherman Way

Hours: 10 - 5

Website: www.rockchippers.org

Show Page

October 20 - 21: WHITTIER, CA

Whittier Gem & Mineral Society Whittier Community Center 7630 Washington Avenue

Hours: 10 - 5 daily

Website: www.wgmsca.com

SPECIAL NOTE?

The **next fieldtrip** will be on Aug 25th, 10AM, Palos Verdes barite, great for hot summer, family friendly. Bring your kids, grandkids, hammers, safety glasses, gloves kind of adventure. Contact Rudy Lopez (*programs@mineralsocal.org* if you are interested.

2018 MSSC Officers:

OFFICERS			
President	George Rossman	president@mineralsocal.org	
Vice President	Renee Kraus	vicepresident@mineralsocal.org	
Secretary	Angie Guzman	secretary@mineralsocal.org	
Treasurer	Jim Kusely	treasurer@mineralsocal.org	
CFMS Director	Jo Anna Ritchey		
Past President	Ann Meister		
DIRECTORS			
20162018	Bruce Carter		
20162018	Bob Housley		
20162018	Leslie Ogg		
2018-2019	Pat Caplette		
2018-2019	Pat Stevens		
COMMITTEE CHAIRS			
Bulletin Editor	Linda Elsnau	bulletin@mineralsocal.org	
Hospitality	Laura Davis		
Membership	Cheryl Lopez	membership@mineralsocal.org	
Micro Mount Conf. Chairman	Al Wilkins		
Program and Education	Rudy Lopez	programs@mineralsocal.org	
Publicity	Linda Elsnau	bulletin@mineralsocal.org	
Webmaster	Leslie Ogg	webmaster@mineralsocal.org	

About the Mineralogical Society of Southern California

Organized in 1931, the Mineralogical Society of Southern California, Inc. is the oldest mineralogical society in the western United States. The MSSC is a member of the California Federation of Mineralogical Societies, and is dedicated to the dissemination of general knowledge of the mineralogical and related earth sciences through the study of mineral specimens. The MSSC is a scientific non-profit organization that actively supports the geology department at Pasadena City College, Pasadena, California. Support is also given to the Los Angeles and San Bernardino County Museums of Natural History. The Bulletin of the Mineralogical Society of Southern California is the official publication of the Mineralogical Society of Southern California, Inc.

The MSSC meetings are usually held the second Friday of each month, January, February and August excepted, at 7:30 p.m. in Building E, Room 220, Pasadena City College, 1570 E Colorado Boulevard, Pasadena, California. The annual Installation Banquet is held in January, and the annual Picnic and Swap Meeting is held in August Due to PCC holidays, meetings may vary. Check the Society website for details.

The Society also sponsors the annual Pacific Micro mount Symposium held at the San Bernardino County Natural History Museum during the last weekend of January.

Annual Membership dues for the MSSC are \$20.00 for an individual membership, \$30.00 for a family membership. Bulletins are delivered by email, there is an additional annual \$20.00 fee if you prefer paper bulletins mailed to your address. The Society's contact information:

Mineralogical Society of Southern California 1855 Idlewood Rd.,

Glendale, CA 91202-1053

E-mail: treasurer@mineralsocal.org

Website: www.mineralsocal.org The Mineralogical Society of California, Inc.

Permission to reproduce and distribute original material published herein, in whole or in part, for non-commercial purposes, is hereby granted provided the sense or meaning of the material is not changed, the editor is notified, and the author's notice of copyright is retained. All other articles used in our bulletins are with the specific permission of the author. Permission to use these documents must be obtained from the author for each use

DISCLAIMER: The Mineralogical Society of Southern California, Inc. is not responsible, cannot be held responsible or liable for any person's injuries, damages or loss of property at or traveling to or from any general meeting, board meeting, open house, field trip, annual show or any other MSSC event.

To:



With Knowledge Comes Appreciation

