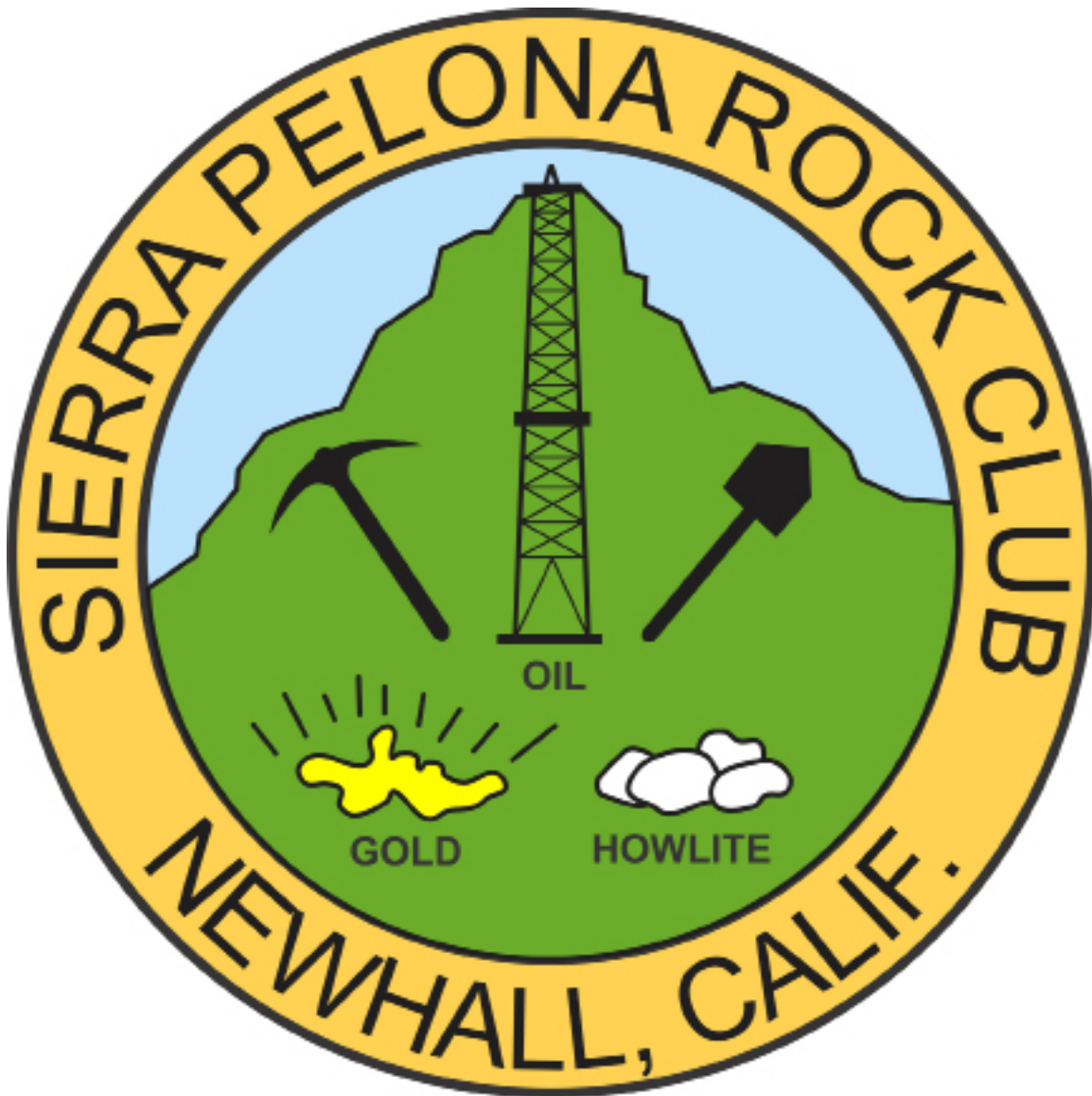


The Sierra Pelona



April 2018

EARTH DAY APRIL 22, 2018

... Member of the California Federation of Mineralogical Society Inc. ...

The Sierra Pelona Rock Club is a non-profit organization founded in 1959 with the objective to sponsor activities and promote interest and education in: mineralogy, lapidary, geology, paleontology and related subjects.

SPRC Board Meeting

April 2018

The board was called to order on April 3, 2018 at 7:09 PM.

Members and guests need to sign waivers for field trips AND WORKSHOPS.

The board voted to accept new members: Gerardo and Joaquin Guzman, and Adam and Alex Hamilton and Silvia Hamilton. WELCOME!

The October 20th field trip will be to collect Bentonite in Coalinga, CA. There is a fee.

On September 22nd we will go to our travertine claim and have a cookout.

May 12th is the Placerita Canyon Open House. We will have a booth with specimens for sale and games. We need all members to volunteer for a shift. 9AM - 12 Noon or 12 Noon to closing (around 3 PM). It is really fun and our main fundraiser of the year.

The board approved 2 nights, meals, and mileage for Evelyn Velie to attend the CFMS Conference.

Meeting adjourned at 8:03 PM.



Earth Day, April 22, 2018

Welcome New Members

Gerardo Guzman
Joaquin Guzman
Silvia Hamilton
Adam Hamilton
Alex Hamilton

Birthdays

April

Lynn Alexander
Gerardo Guzman
Joaquin Guzman
Sarita Hyde
Greg Mazourek
Tristan Marsala
Yolanda Resnick
Michael Shane
Ron Strathmann
Steve Thomas
Michael Wertz

May

Kory Lindner

Mike Serino



Officers:

President – Ron Rackliffe

Vice-President – Bill Webber

Secretary: Shana Brunes-Ruiz

Treasurer – Kay Denson

Federation Director (CFMS/AFMS) --Evelyn Velie

Chairpersons:

Claim--Mike Serino

Donation Rock Table--Ron and Akiko Strathmann

Equipment--Bill Webber

Field Trips – Julie Tinoco

Historian -Open

Hospitality – Evelyn Velie

Membership – Heidi Webber

On-Line Presence (website)-- Larry Holt

Pelonagram Publisher, Editor – Heidi Webber

Programs –Tina White

Publicity –Bruce Velie

Sunshine--Brigitte Mazourek

The Sierra Pelona Rock Club, is a member of the California and American Federation of Mineralogical Societies, Inc. (CFMS/AFMS). The general club meetings (Open to the public) are at 7:30 PM, on the 3rd Tuesday of each month at:

**The Clubhouse of the Greenbrier
Mobile Estates EAST
21301 Soledad Canyon Rd
Canyon Country, CA 91351**

Contact the Club or the Sierra Pelonagram Editor at:

Sierra Pelona Rock Club

P.O. Box 221256

Newhall, Ca. 91322

Or e-mail: hwebber@pacbell.net

Visit the SPRC website www.sierrapelona.com



Hi Everybody,

We will have the print out of the schedule for this year and what we are collecting at our next meeting.

Those of us that were able to go to the Stoddard wells tailgate show and field trip had a good time, we had just a touch of rain, did not slow us down in the least. We collected all the material that we could carry and enjoyed the show.

We had another successful workshop at the Webber's and plenty of good food. Thanks again to Heidi and Bill for all their hard work and generous sharing of their home and talents. Yummy!

Looking forward to Shark tooth hill this month. "oh the shark bites, with its big teeth, and it keeps them pearly white"

Thanks, Ron R

Club Meeting 3/20/2018

Meeting Started: 7:37pm

Meeting Ended: 8:20pm

President Ron Rackliffe opened up the meeting with Pledge of Allegiance. Followed by passing out the New Member packets. Congratulations! We had 5 new prospects visiting. Then went over the Board Meeting Agenda.

Tina White gave an amazing presentation of our next field trip coming up on April 21st, 2018. We will be going to Shark Tooth Hill at The Ernst Quarries outside of Bakersfield, CA. We will be collecting Marine fossil deposits. This is a pay site of \$40 for Adult admission and \$30 for Children admission. If there are more than 6 people going, each person will get \$10 off their admissions. The count at the meeting was 12 people wanting to go. Attached is the reservation confirmation and details.

Things to bring with you trowel, short garden rake, dusk masks or bandana, sieve, gloves, hat, sunscreen, bucket, cushion to sit on, food, and water. The time we will leave from Mammoth Lane is still to be determined.

We talked about the Rock Workshops taking place this year. The first one of the year is March 31st Saturday, at Bill and Heidi's house from 10am to 3pm. Heidi will be hosting lunch. Lunch will be a \$5 donation per person.

We concluded our meeting, followed with the silent auction table and raffle.

Thank you for everyone who brought snacks and drinks. The homemade treats were absolutely delicious!

Your Club Secretary,
Shana Ruiz

Thank You for Your Reservation!

OUR PRICING AND DIGGING OPTIONS HAVE CHANGED.

Please review the attached information, complete one waiver per person, and present them upon arrival.

You are confirmed for SATURDAY APR 21, 2018 - attached is our information packet.

Check-in is between 7:30 and 7:45am at our staging point.

Our sign is on the north side of the road, it has "The Ernst Quarries" on it. If you pass "Camp Okihi", you have gone too far. Please call for directions if needed.

A vehicle is required, no hikers or walking from the staging area is permitted. For safety reasons, a vehicle must stay with the participants (no drop offs).

Unfortunately, we CANNOT accept debit or credit card payments at this time.

Cash and checks are the ONLY methods of payment, and need to be presented prior to digging.

All persons entering the site must pay the general admission fee of \$40, and sign the attached waiver.

--WE LEAVE THE STAGING AREA PROMPTLY AT 8AM!--

If you cannot make the start time, please call or text (661) 319-7080 prior to 7:45am and we can attempt to accommodate you, but there are no guarantees.

We will caravan to the property and arrive by 8:15am. After a short tour, you are free to begin digging.

Children under 16 MUST be accompanied by an adult. Children under 8 must remain with an adult at all times (No Exceptions).

No dogs are allowed, this is for their safety. Many of the manageable hazards to humans are unmanageable and deadly to dogs.

If you have any questions please call or text: (661) 319-7080 or contact info@sharktoothhillproperty.com

Best Regards,
The Ernst Quarries - Sharktooth Hill, CA

Pegmatite



Pegmatitic granite, Rock Creek Canyon, eastern Sierra Nevada, California. Note pink potassium feldspars and cumulate-filled chamber

A pegmatite is a holocrystalline, intrusive igneous rock composed of interlocking phaneritic crystals usually larger than 2.5 cm in size (1 in); such rocks are referred to as pegmatitic.

The word pegmatite derives from Homeric Greek, πήγνυμι (pegnymí), which means “to bind together”, in reference to the intertwined crystals of quartz and feldspar in the texture known as graphic granite.

Most pegmatites are composed of quartz, feldspar and mica, having a similar silicic composition as granite. Rarer intermediate composition and mafic pegmatites containing amphibole, Ca-plagioclase feldspar, pyroxene, feldspathoids and other unusual minerals are known, found in recrystallised zones and apophyses associated with large layered intrusions.

Crystal size is the most striking feature of pegmatites, with crystals usually over 5 cm in size. Individual crystals over 10 metres (33 ft) long have been found, and many of the world's largest crystals were found within pegmatites. These include spodumene, microcline, beryl, and tourmaline.

Similarly, crystal texture and form within pegmatitic rock may be taken to extreme size and perfection. Feldspar within a pegmatite may display exaggerated and perfect twinning, exsolution lamellae, and when affected by hydrous crystallization, macroscale graphic texture is known, with feldspar and quartz intergrown. Perthite feldspar within a pegmatite often shows gigantic perthitic texture visible to the naked eye.

General Description

The single feature that is diagnostic to all pegmatites is their large size crystal components. Pegmatite bodies are usually of minor size compared to typical intrusive rock bodies. Pegmatite body size is on the order of magnitude of one to a few hundred meters. Compared to typical igneous rocks they are rather inhomogeneous and may show zones with different mineral assemblages. Crystal size and mineral assemblages are usually oriented parallel to the wall rock or even concentric for pegmatite lenses.

Petrology

Crystal growth rates in pegmatite must be very slow to allow gigantic crystals to grow within the confines and pressures of the Earth's crust. Thus, the possible growth mechanisms in a wide variety of known pegmatites may likely involve a combination of the following processes;

- Low rates of nucleation of crystals coupled with high diffusivity to force growth of a few large crystals instead of many smaller crystals
- High vapor and water pressure, to assist in the enhancement of conditions of diffusivity
- High concentrations of fluxing elements such as boron and lithium which lower the temperature of solidification within the magma or vapor
- Low thermal gradients coupled with a high wall rock temperature, explaining the preponderance for pegmatite to occur only within greenschist metamorphic terranes

Despite this hypothesis on likely chemical, thermal and compositional conditions required to promote pegmatite growth there are three main theories behind pegmatite formation:

Metamorphic: Pegmatite fluids are created by removal of volatiles from metamorphic rocks, particularly felsic gneiss, to liberate the right constituents and water, at the right temperature.

Magmatic: Pegmatites tend to occur in the aureoles of granites in most cases, and are usually granitic in character, often closely matching the compositions of nearby granites. Pegmatites thus represent exsolved granitic material which crystallizes in the country rocks.

Metasomatic: Pegmatite, in a few cases, could be explained by the action of hot alteration fluids upon a rock mass, with bulk chemical and textural change.

Metasomatism is currently not well favored as a mechanism for pegmatite formation and it is likely that metamorphism and magmatism are both contributors toward the conditions necessary for pegmatite genesis.

Mineralogy

The mineralogy of a pegmatite is in most cases dominated by some form of feldspar, often with mica and usually with quartz, being altogether "granitic" in character. Beyond that, pegmatite may include most minerals associated with granite and granite-associated hydrothermal systems, granite-associated mineralization styles, for example greisens, and somewhat with skarn associated mineralization.

It is however impossible to quantify the mineralogy of pegmatite in simple terms because of their varied mineralogy and difficulty in estimating the modal abundance of mineral





species which are of only a trace amount. This is because of the difficulty in counting and sampling mineral grains in a rock which may have crystals from centimeters to meters across.

Garnet, commonly almandine or spessartine, is a common mineral within pegmatites intruding mafic and carbonate-bearing sequences.

Tantalum and niobium minerals (columbite, tantalite, niobite) are found in association with spodumene, lepidolite, tourmaline, cassiterite in the massive Greenbushes Pegmatite in the Yilgarn Craton of Western Australia, considered a typical metamorphic pegmatite unassociated with granite.

Syenite pegmatites are quartz-depleted and contain large feldspathoid crystals instead.

Geochemistry

Pegmatite is difficult to sample representatively due to the large size of the constituent mineral crystals. Often, bulk samples of some 50–60 kg of rock must be crushed to obtain a meaningful and repeatable result. Hence, pegmatite is often characterized by sampling the individual minerals which comprise the pegmatite, and comparisons are made according to mineral chemistry.

Geochemically, pegmatites typically have major element compositions approximating "granite", however, when found in association with granitic plutons it is likely that a pegmatite dike will have a different trace element composition with greater enrichment in large-ion lithophile (incompatible) elements, boron, beryllium, aluminium, potassium and lithium, uranium, thorium, cesium, et cetera.

Occasionally, enrichment in the unusual trace elements will result in crystallisation of equally unusual and rare minerals such as beryl, tourmaline, columbite, tantalite, zinnwaldite and so forth. In most cases, there is no particular genetic significance to the presence of rare mineralogy within a pegmatite, however it is possible to see some causative and genetic links between, say, tourmaline-bearing granite dikes and tourmaline-bearing pegmatites within the area of influence of a composite granite intrusion (Mount Isa Inlier, Queensland, Australia).

Economic Importance

Pegmatites are important because they often contain rare earth minerals and gemstones, such as aquamarine, tourmaline, topaz, fluorite, apatite and corundum, often along with tin and tungsten minerals, among others.

Pegmatites are the primary source of lithium either as spodumene, lithiophyllite or usually from lepidolite. The primary source for caesium is pollucite, a mineral from a zoned pegmatite. The majority of the world's beryllium is sourced from non-gem quality beryl within pegmatite. Tantalum, niobium, rare-earth elements are sourced from a few pegmatites worldwide, notably the Greenbushes Pegmatite. Bismuth, molybdenum and tin have been won from pegmatite, but this is not yet an important source of these metals.

Nomenclature

Pegmatites can be classified according to the elements or mineral of interest, for instance "lithian pegmatite" to describe a Li-bearing or Li-mineral bearing pegmatite, or "boron pegmatite" for those containing tourmaline.

There is often no meaningful way to distinguish pegmatites according to chemistry due to the difficulty of obtaining a representative sample, but often groups of pegmatites can be distinguished on contact textures, orientation, accessory minerals and timing. These may be named formally or informally as a class of intrusive rock or within a larger igneous association.

While difficult to be certain of derivation of pegmatite in the strictest sense, often pegmatites are referred to as "metamorphic", "granitic" or "metasomatic", based on the interpretations of the investigating geologist. Rocks with similar texture to pegmatites are called pegmatitic.

Occurrence

Worldwide, notable pegmatite occurrences are within the major cratons, and within greenschist-facies metamorphic belts. However, pegmatite localities are only well recorded when economic mineralization is found.

Within the metamorphic belts, pegmatite tends to concentrate around granitic bodies within zones of low mean strain and within zones of extension, for example within the strain shadow of a large rigid granite body. Similarly, pegmatite is often found within the contact zone of granite, transitional with some greisens, as a late-stage magmatic-hydrothermal effect of syn-metamorphic granitic magmatism. Some skarns associated with granites also tend to host pegmatites.

Aplite and porphyry dikes and veins may intrude pegmatites and wall rocks adjacent to intrusions, creating a confused sequence of felsic intrusive apophyses (thin branches or offshoots of igneous bodies) within the aureole of some granites.

Reference: Wikipedia



Pegmatite (pink), Isle of Skye, Scotland.