The Sierra Pelonagram

September 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 Minutes
09/04/2018
Start Time: 7:15pm
End Time: 7:59pm

Attendees: Ron Rackliffe President, Bill Webber Vice President, Shana Ruiz Secretary, Julie Tinoco Field Trip Planner, and Bruce Velie sat in for Evelyn Velie the Federation Director.

Agenda:

We have voted in 4 new members to the club. New members are: Irina Swauger, Donna Svetich, David Burkhead, and Cindy Gold. Welcome to the Club. No other new applications have been turned in at this time.

Our club financials remain the same as the last Board Meeting. No new finance issues.

We talk about our plans for the fundraiser we will be doing on October 27th at the Gilchrist Pumpkin Patch. More information will be to follow at a later date.

Other business: The Club will be purchasing new bingo equipment. We are still in search of what will work for our club and its need. Our club workshop has changed it's date to Oct. 6th.

We have our club meeting Sept. 18th @ 7:30pm. I hope everyone has had a great Summer Break and look forward to seeing all the members there. We will be having Bingo, Ice Cream Social (which the Club will be providing everything.) No need to bring anything but, yourself and your sweet tooth. Also, we will be having show and tell. It is a great chance to bring what you have collected over the Summer and show off your treasures.

The following weekend Sept. 22nd will be our club fieldtrip to the club's claim and for a bbq. An appetite is sure to be built up after rockhounding.

November will be our last field trip of the year and we will be gold panning. No field trip in Dec. Holiday Party will be on Dec. 8th it starts at 11am. Please keep in mind who you would like to nominate/vote for your new Board Members. As you all know Ron Rackliffe will not be able to be our President in the upcoming New Year.

Sincerely, your Club Secretary,
Shana Ruiz

Birthdays
Have a wonderful day, fall babies!

September
JP Castilla
Logan Gunter
Owen Gunter
Alexandria Smith
Margaret Stamboulian
Julie Tinoco

October
Omid Aeen
Josh Derenski
Alexander Hamilton
Katherine Webber

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
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:
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Ron R.

New Members

Welcome to the Sierra Pelona Rock Club! You will be introduced to the membership and given your badges and packets at the September 18 meeting.

David Burkhead
Cindy Gold
Donna Svetich
Irina Swauger

Happy Fall Y'all!

What is Rhyolite?

Rhyolite is an extrusive igneous rock with a very high silica content. It is usually pink or gray in color with grains so small that they are difficult to observe without a hand lens. Rhyolite is made up of quartz, plagioclase, and sanidine, with minor amounts of hornblende and biotite. Trapped gases often produce vugs in the rock. These often contain crystals, opal, or glassy material.

Many rhyolites form from granitic magma that has partially cooled in the subsurface. When these magmas erupt, a rock with two grain sizes can form. The large crystals that formed beneath the surface are called phenocrysts, and the small crystals formed at the surface are called groundmass.

Rhyolite usually forms in continental or continent-margin volcanic eruptions where granitic magma reaches the surface. Rhyolite is rarely produced at oceanic eruptions.

Eruptions of Granitic Magma

Eruptions of granitic magma can produce rhyolite, pumice, obsidian, or tuff. These rocks have similar compositions but different cooling conditions. Explosive eruptions produce tuff or pumice. Effusive eruptions produce rhyolite or obsidian if the lava cools rapidly. These different rock types can all be found in the products of a single eruption.

Eruptions of granitic magma are rare. Since 1900 only three are known to have occurred. These were at St. Andrew Strait Volcano in Papua New Guinea, Novarupta Volcano in Alaska, and Chaiten Volcano in Chile.

Granitic magmas are rich in silica and often contain up to several percent gas by weight. (Think about that - several percent gas by weight is a LOT of gas!) As these magmas cool, the silica starts to connect into complex molecules. This gives the magma a high viscosity and causes it to move very sluggishly.

The high gas content and high viscosity of these magmas are perfect for producing an explosive eruption. The viscosity can be so high that the gas can only escape by blasting the magma from the vent.

Granitic magmas have produced some of the most explosive volcanic eruptions in Earth's history. Examples include Yellowstone in Wyoming, Long Valley in California, and Valles in New Mexico. The sites of their eruption are often marked by large calderas.

Lava Domes

Sluggish rhyolitic lava can slowly exude from a volcano and pile up around the vent. This can produce a mound-shaped structure known as a "lava dome." Some lava domes have grown to a height of several hundred meters.

Lava domes can be dangerous. As additional magma extrudes, the brittle dome can become highly fractured and unstable. The ground can also change slope as the volcano inflates and contracts. This activity can trigger a dome collapse. A dome collapse can lower the pressure on the extruding magma. This sudden lowering of pressure can result in an explosion. It can also result in a debris avalanche of material falling from the tall collapsing dome. Many pyroclastic flows and volcanic debris avalanches have been triggered by a lava dome collapse.

Lava Dome: Photo of a lava dome in the caldera of Mount St. Helens. Activity at St. Helens slowly extrudes thick lavas that gradually build domes in the caldera. This dome is composed of dacite, a rock that is intermediate in composition between rhyolite and andesite. Photo by the United States Geological Survey.

Rhyolite and Gemstones

Many gem deposits are hosted in rhyolite. These occur for a logical reason. The thick granitic lava that forms rhyolite often cools quickly while pockets of gas are still trapped inside of the lava. As the lava quickly cools, the trapped gas is unable to escape and forms cavities known as "vugs." Later, when the lava flow has cooled and hydrothermal gases or ground water move through, material can precipitate in the vugs. This is how some of the world's best deposits of red beryl, topaz, agate, jasper, and opal are formed. Gem hunters have learned this and are always on the lookout for vuggy rhyolite.

Uses of Rhyolite

Rhyolite is a rock that is rarely used in construction or manufacturing. It is often vuggy or highly fractured. Its composition is variable. When better materials are not locally available, rhyolite is sometimes used to produce crushed stone. People have also used rhyolite to manufacture stone tools, particularly scrapers, blades, and projectile points. It was probably not their material of choice, but a material used out of necessity.

Swirl Rhyolite or Wonderstone: This is a natural rough slab showing some amazing natural patterns ready for polishing. Mined in Mexico.

Rhyolite Arrowheads: Rhyolite was often used to make stone tools and weapons when more suitable materials were not available. It has been fashioned into scrapers, hoes, axe heads, spear points, and arrowheads.

Fire Opal is sometimes found filling cavities in rhyolite. This specimen of rhyolite has multiple vugs filled with gemmy transparent orange fire opal. This material can be cut into beautiful cabochons and is sometimes faceted when it is transparent or even translucent. Famous deposits of this type of fire-opal-in-rhyolite are found in Mexico. This photo is used here through a Creative Commons license. It was produced by Didier Descouens.