OCTOBER 2018

WHITTIER ROCKHOUNDER GEM & MINERAL SOCIETY

After-Show General Meeting:
Thursday, October 25 at 7:00 PM
at the Whittier Senior Center

Looking east toward Ludlow from a nearby fluorite location

Whittier Gem & Mineral Society
Elected Officers and Committee Chairmen

2018-19 Elected Officers

President: ..... Marcia Goetz .....(joenmar1@verizon.net) ..... (626) 914-5030
1st Vice President:... Joe Goetz .....(joenmar1@verizon.net) ..... (626) 914-5030
2nd Vice President: .. Kathy Valle.....(bunnie1962@yahoo.com)..... (626) 934-9764
Treasurer: ..... Jay Valle .....(res19pnb@verizon.net)..... (626) 934-9764
Secretary: ..... Sandie Fender ....
Federation Director: Tony Fender.....
Directors: ..... Kim Winn .....
..... Yvonne Morton .
..... Art Ragazzi .....

Appointed Chairmen

Budget/Finance: .....
Bulletin Editor: ..... Jay Valle.....(res19pnb@verizon.net)..... (626) 934-9764
Bylaws & Rules ..... Jerry Turner.....
Claim Secretary: ..... Art Ragazzi .....
Community ..... Kathleen Turner.....
Relations: .....
Displays: .....
Door Prizes: ..... Marvin & Judy Belcher
Field Trips:..... Joe Goetz.....(joenmar1@verizon.net) ..... (626) 914-5030
Librarian: .....
Rockgabbers: ..... Tony Fender .....
Show Chairman:..... Frank Winn.....(Rkhndfw@gmail.com) ..... (626) 912-0404
Social Secretary: ..... Kathy Valle .....(bunnie1962@yahoo.com).... (626) 934-9764

Regular Monthly Meetings: 7:00 PM 4th Thursday each month, 3rd Thursday in November & December. No regular meetings in July & August.
(See Map on pg. 15 or Write-up on pg. 4 for meeting place.)

Board of Directors: To be announced.

Rockgabbers: To be announced. See pages 4 & 5.

Field Trips: Monthly except July & August. See inside bulletin for details.

Annual Dues: Adults – $15.00; Married couple – $25.00, Junior – $5.00
1-time initiation fee - $5.00 per person

ROCKHOUNDER

THE PREZ SEZ:

Dear Gentle members,

Our show is here, just days away!! - and I hope you are ready for it. I want to remind members to bring nice items to donate for the raffle as that is our main fundraiser for the year.

At the September meeting there should be a sign up sheet for putting in a display case - shine up your pretties (rocks and jewelry) and lets impress the public with our talents.

We will need help with show set up and welcome all the help we can get. We will be setting up on Friday, October 19 starting at 3:00 PM and that's when we set up the raffle, display cases, demonstration, rock sales and kitchen. Take down will start at 5:00 PM on Sunday after closing.

We will have some new rock slabs this year that Joe has picked up from estate sales, so that is exciting. There will be new rough and buckets of cutting material available also.

See you at the show.

Marcia Goetz

"What time is it?"
"Donno. Pass me the trombone and I'll find out."
Blows horn loudly
Someone shouts, "Who the #?@& is playing the trombone at 2am?"

WGMS Webpage: http://wgmsca.com/

WGMS General Meeting
Thursday, September 27 at 7:00 PM
at the Whittier Senior Center

It's Showtime!!!

The after-Show General Meeting of The Whittier Gem and Mineral Society will be on October 25 at 7:00 PM. Our speaker is David Lacey, he is a member of PLS and has a marvelous program on opal. He uses models of opal structures and talks with an enthusiasm about the subject.

Come out and enjoy the program and snacks.

Display table for October

- Specimens, cabs, or jewelry from the club claim
- Opal
- Any orange stone

Sylvia

From Tony & Sandie...

Rockgabbers – Nov. 3rd at 1pm

We will be making the sterling silver medallion that was on display at the September and October meetings.

Materials list:

- Approximately 1 ft. of 20 gauge sterling silver
- Silver solder
- Torch

We will have silver for sale if you need some.

Tony and Sandie

Federation Report

Sandie and I attended the CFMS Convention at the Feather River Club Show. The meeting went well with the committees giving their reports. The CFMS show for 2019 will be at the Fairplex put on by Pasadena Lapidary Society in March. The 2020 show is being put on by the CFMS at the Lodi Fairgrounds the last weekend in June.

The Feather River club made a wonderful barbecue for the CFMS Luncheon/ Banquet. A big thank you to them.

Tony

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Show Kitchen

It would be appreciated if member brought in at least a 12 pack of soda and a dozen cookies, brownies, or other sweets.

Sandie

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Club Claim

Art and I have filed all of the appropriate papers for the claim with the BLM and State.

Tony

WGMS Show

SETUP: FRIDAY AT 3:00 pm

SHOW TIMES:
SATURDAY OCT 20, 2018 - 10 AM TO 5 PM
SUNDAY, OCT 21, 2018 - 10 AM TO 5 PM

WHITTIER COMMUNITY CENTER
7630 WASHINGTON AVENUE
WHITTIER, CA

Eureka Its Specific Gravity

Richard D. Armstrong, CM, GG, ASG, GP, AJP
CEO, Lonestar Gemological Laboratory, LLC

Specific gravity is a measurement of the density of a material. It can help in the identification of minerals and metals among other things.

The measurement of specific gravity goes back as far as the 3rd Century BC to Archimedes, the Greek philosopher. Hiero of Syracuse commissioned a goldsmith to make him a new gold crown. However, Hiero was suspicious that perhaps the goldsmith had mixed silver in with the gold so the crown was not solid gold. He suspected the goldsmith of cheating him. Hiero asked Aristotle to test the crown to see if it was pure gold. The Greeks knew about density, but the problem was in determining the volume of an irregular object. Archimedes spent some time trying to figure out how he was going to do that. One day in the bath, it came to him. An article placed in water will displace its volume of water. By knowing the volume of water displaced the weight of the crown, he could determine its density and compare that to the density of pure gold. As the story goes, Archimedes was so excited that he got out of his bath and ran naked down the streets of Syracuse shouting "Eureka! Eureka!", which is Greek for "I've got it".

We can use this principle of displacement to determine the specific gravity of minerals and gems. Specific gravity is an important property of minerals and is a result of a mineral's chemical makeup and packing of the atoms in its crystal structure. For most minerals, specific gravity is a rather constant value; however, impurities can affect it. The specific gravity of a mineral is its weight in relation to an equal volume of water. Pure water has a specific gravity of 1.0. Specific gravity of a mineral is its weight in air divided by its value of its weight in air minus its weight in water. It seems complicated, but it really is not. Once

you know the equation and the technique of weighing a gem or mineral specimen in water, it becomes an easy and quick way of identification.
Just a note, the specimen does need to be pure. One that has two or more minerals in it will not give reliable results.

The equation is:

Specific Gravity = Weight in Air / (Weight in Air – Weight in Water)

A mineral's weight in air is easily determined simply by weighing the specimen. Determining weight in water is more difficult and the process uses the principle of displacement. Displacement is what makes a ship float. The weight in water is determined using the hydrostatic method.

The photograph (*Figure 1*) shows a typical apparatus for determining specific gravity using the hydrostatic method. The specimen is weighed on the scale to determine its weight in air. The apparatus is placed on the scale, and the scale is zeroed out. The specimen is placed in the pan in the water cup making sure the water completely covers the specimen and the weight is read on the scale. The specific gravity is then calculated using the equation above.

Example: A specimen weighs 2 grams in air and weighs 1.5 grams in water.

SG = 2/ (2 – 1.5)
SG = 2/0.5 = 4

Based on this the specimen may be corundum which has a specific gravity of 4.

Via Rock-N-Rose, 2/18

Fieldtrips

The first fieldtrip of the hopefully cooler collecting season will happen on the first weekend of November 3rd. We'll be going to areas around the Whittier club claim and the Calico Mtns. Saturday we'll meet up in the hotel parking lot at 8:30 am Saturday morning. It is on the frontage road south of Ghost Town Road. When all who are interested are there we'll head on out. Where we go will be determined Saturday morning. It'll be a surprise for all of when we figure out where we will go.

Be sure to bring a lunch and have lots of water, electrolyte water or even Gatorade to drink. A broad brimmed hat, sun block, collecting materials (ie. something to put rock you find and a rock or geology pick or something similar). The hotel was the Oaktree Inn and now it is the Baymount.

After visiting some sites throughout the day we'll have "potluck" at Peggy Sue's where you can dine of delicacies of deep fried pickles and wash it down with a pineapple shake.

Sunday morning we'll meet up again at the hotel parking lot at 8:30 am. We'll go out to more collecting sites until 12 noon and those that are going home can beat it before the traffic gets too heavy. For those that remain it may turn into an exploratory trip or if some of those who are there on Sunday but not on Saturday we may just go back and revisit some of the locations that we went on the day before.

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The second fieldtrip will be to Afton Canyon over Thanksgiving Holiday. Watch for the signs to the campsite.

We will go to various collecting locations to collect at and on Thanksgiving we'll have a potluck, actually we'll have a potluck every evening.

More info on this trip will be in the November newsletter.

It should be a great time.....

Joe

Norm's Tektite Teasers: (Part one of three)
Indochinites: The Classics

Norm Lehrman. July 1, 2018

This is my 41st column for Meteorite Times, and I just realized that in my enthusiasm for tektite oddballs, esoterica, and rarities, I have never written about the most important group of all, *the classics*. If you had to choose just three Indochinese tektites to anchor your collection, they would be these: a patty, a dumbbell, and a teardrop.

It is important to understand that these are proximal splashforms (I like *splatforms*) that show clear evidence of ductile deformation and little or no evidence of thermal ablation. These "classic" forms do not directly apply to Philippinites or Australites, even though they were **sourced from the same event** in Indochina. (stand by for parts 2 and 3 in this series).

Immediately after impact, blobs of glass would have contracted into oscillating spheroids of high-temperature, low-viscosity melt entrained in the turbulent mushroom cloud. Those that fell close to the meteor/asteroid impact were flattened by interaction with the atmosphere. Those that lofted higher and further, cooled with minimal frictional compression at high altitudes, and are now found in the Philippines as spheroids. Smaller stones flew farther still, suffering the effects of thermal ablation. Only the Indochinites and Chinese tektites exhibit clear plastic deformation.

Oddly, although the spheroid was the ancestor of all morphologies, it is not at all common to find spherical tektites in China or the southeast Asian parts of the strewnfield. They mostly deformed into patties. Many of the patties exhibit thin centers and thicker rims, suggesting that they were spinning like Frisbees. Blobs that got lop-sided sometimes spun like propellers, forming dumbbells. As the story goes, dumbbells sometimes parted in the middle forming teardrops. In the proximal region, all three morphologies remained sufficiently plastic to deform ("splat") or flatten against the wind resistance of their fall through the waning plasma fireball. For the remainder of the article click on this link. Meteorite Times

Via Boulder Buster, 8/18

Greenstones, greenstones and green stones

Dr. Bill Cordua, University of Wisconsin-River Falls (Ret)

Geological terminology is difficult for beginners. It does not help when the same term is used for different things. During a recent club meeting, the term greenstone came up. Ely, Minnesota is the site of a famous formation called the Ely Greenstone. Greenstone is also a term used for something different - the official gemstone of Michigan. When a club member asked "Is jade a greenstone?" I knew we were in for trouble. Jade is indeed often a green stone. So are malachite and emerald. But these aren't greenstones. See what I mean by confusing?

Let's start with the Ely Greenstone. Call it greenstone 1. This greenstone term is used by geologist for rocks that have been metamorphosed so that green minerals such as chlorite, epidote, actinolite, prehnite and pumpellyite grow. Many of these rocks start out as basalt lava flows, but were deeply buried in a volcanic pile or suffered mountain building forces. Due to these metamorphic minerals, the rocks take on a distinct, but usually drab, green color. The metamorphic mineral grains themselves are often quite small. In the Ely, Minnesota area there are outcrops of lava flows which were extruded under water about 2.7 billion years ago. They are metamorphosed, and mapped as the “Ely greenstone”.

The greenstone gems of Michigan - which we'll call greenstone 2, are nodules of the mineral pumpellyite. Usually pumpellyite is in tiny fibers scattered through a rock. In the basaltic volcanic rocks of Michigan’s Keweenaw Peninsula, however, pumpellyite can form rather solid nodules of coarsely fibrous material filling in old volcanic gas bubbles (which geologist call amygdules). This dark green mineral has a Mohs hardness of 6, and takes on a good polish, showing interesting mottled patterns and chatoyancy. It weathers out of the volcanic rock and may be stream or wave

polished, showing up on nearby shores or stream beds. The variety name of this material is chlorastrolite, meaning “green star stone”. Since this is hard to spell, and not all that easy to pronounce, folks began to call this stuff simply greenstone. Or, for the purposes of this article, greenstone 2.

So, to recap, greenstone 1 is rock that may (or may not) have pumpellyite in it, and doesn't usually have much lapidary value. Greenstone 2 refers to a particular type of pumpellyite found in Michigan that does have lapidary value.

At the risk of confounding the issue still more, the volcanic rock in which the chlorastrolite - greenstone 2 - is found has been metamorphosed by being buried deep in a volcanic pile. In addition to pumpellyite, the green minerals chlorite, epidote and prehnite have formed. That means the rock is now greenstone 1. So we have greenstone (2) nodules in greenstone (1) rock. Let's just stick to pumpellyite or chlorastrolite for the mineral. O.K.?

As a closing story, I was on an old mine dump on the Keweenaw one Sunday afternoon. A group of obvious novices drove in and started walking around the dump in sandals. One guy brought over a sample for me to look at. “Look at this green stuff. Is this copper?” he asked. The rock was full of beautiful pumpellyite nodules. “No”, I said, eyes bugging out a bit, “they're greenstones!” “Oh” he said, and tossed the rock on the ground before I could explain that it was a good find. “Let's go,” he shouted and they all left. That specimen is now in my collection, labeled, clearly, “pumpellyite in metamorphosed basalt”.

Via Leaverite News, 2/04

A Walk Through The Valley of Fires

Mar80 News Nuggets

By Mark C. Blazek, Earth Science, Winter 1979-1980

Three miles northwest of Carrizozo, New Mexico, at an elevation of 5250 feet, is a 430-acre tract of land adjoining US-380 which was dedicated as the Valley of Fires State Park on; May 6, 1966. The park encompasses a large portion of the black, fissured lava of the Carrizozo Malpais, which has fascinated travelers for many years. Park facilities include campsites with shelters, tables, barbecue grills, playground equipment, restrooms and electrical hook-up for trailers. Motels and restaurants are available in Carrizozo, the county seat of Lincoln County, N.M.

The Carrizozo Malpais and Valley of Fires were born in violence. This blackened, misshapen phenomenon that stretches for 50 miles through the northern section of the Tularosa Valley east of Carrizozo and directly north of White Sands is the result of a fiery upheaval that has produced one of Nature's strangest caprices.

The Carrizozo Malpais is one of the youngest and best preserved lava fields in the United States. The field covers about 250 square miles. The term malpais (meaning "badlands") was used by Spanish explorers and travelers in the southwest to designate rough-surfaced lava flows that seriously obstructed travel. Even today 4-wheel drive vehicles are no match for this terrain.

One of the fascinating things about the lava is the evidence of its awful writhing movement as it crept relentlessly over the land. The great rips, blowholes and thin-roofed blisters create a tumbled mass of upheaval, needle sharp and tortuous. Shoe leather lasts no time at all when you try to explore this forbidden land.

Two principal basalt flows, originating from a volcanic vent at

Little Black Peak near the northern end of the Tularosa Valley, are responsible for the Carrizozo Malpais and Valley of Fires. The glowing molten lava oozed southwest for 44 miles blanketing everything in its path. In narrow segments of the valley the flows were constricted to ribbon one-half mile wide, whereas in wider parts of the valley they spread out to a width of over 5 miles. A thickness of 162 feet was measured at one point 2 miles south of U.S. Highway 380.

Believe-it-or-not, plant and animal life abounds in the Malpais. Windblown topsoil vegetates cholla, sotol and cedar. Even pinon and yucca find foot-holds here. But perhaps the most interesting phenomenon of the lava is the animal life. The mice are dark brown or black. The same species a few miles away in White Sands National Monument are light-gray and white. This is also true of bugs and lizards; in the Sands, nature has whitewashed them. But here in the malpais she has lacquered them dark brown and black. These tiny creatures are the only things that haven't been conquered by the lava. They have taken it over by adapting themselves to it.

The New Mexico State Parks and Recreation Commission has recently constructed a nature trail, complete with interpretive brochure, through the park. Also, a small pond has been created at the end of the nature trail to aid wildlife in the area.

Valley of Fires State Park offers visitors a chance to see something truly unique in the country. With the history of Lincoln County adding spice to the geologic and environmental impact of Valley of Fires, an area of outdoor recreation is created in the Southwest with diversity enough to please everyone.

For more info, see the University of Texas at El Paso website.

FGMS Chips, 4/14

Upcoming CFMS Gem Shows

Oct 6-7 **VISTA, CA.** Vista Gem & Mineral Society
Antique Gas & Steam Engine Museum
2040 North Santa Fe Avenue
Hours: 10 - 4 daily
Website: www.vistarocks.org

Oct 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

Oct 14 **FALLBROOK, CA.** Fallbrook Gem & Mineral Society
Fallbrook Gem & Mineral Museum, 123 West Alvarado St
Hours: 9 - 4
Website: www.fgms.org

Oct 20 **WEST HILLS, CA.** Woodland Hills Rock Chippers
First United Methodist Church, 22700 Sherman Way
Hours: 10 - 5
Website: www.rockchippers.org Show Page

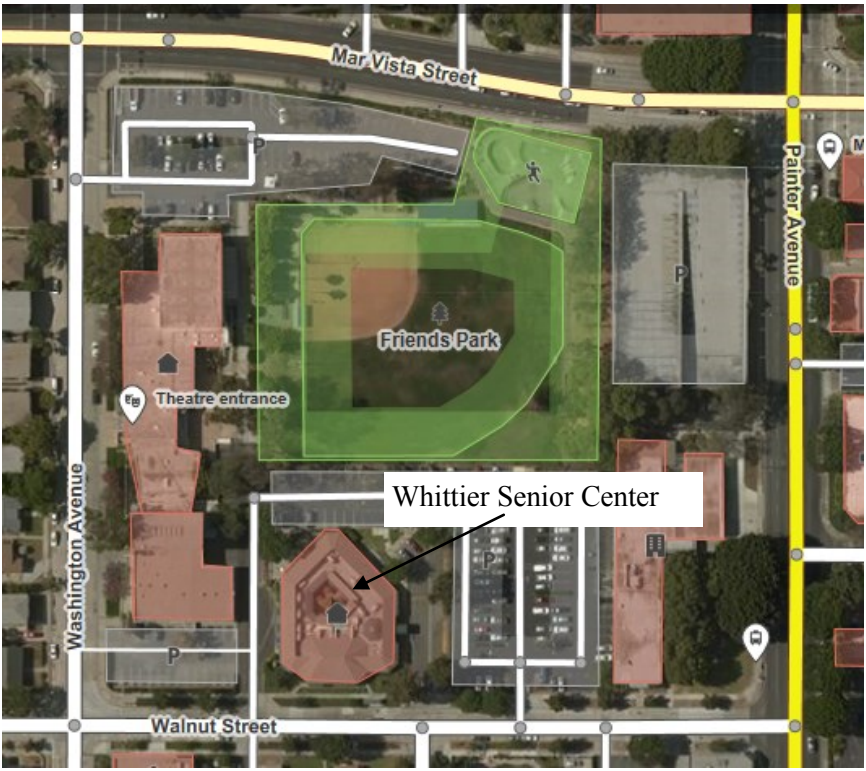
Oct 20-21 **WHITTIER, CA. Whittier Gem & Mineral Society**
Whittier Community Center
7630 Washington Avenue
Hours: 10 - 5 daily
Website: www.wgmsca.com

Oct 27-28 **LANCASTER, CA.** Palmdale Gem & Mineral Club
Palmdale Elks Lodge, 2705 E Avenue Q
Hours: 10 - 5 daily
Website: www.palmdalegemandmineral.com

Nov 3-4 **ANAHEIM, CA.** American Opal Society
Business Expo Center, 1960 S. Anaheim Way
Hours: Sat 10 - 6; Sun 10 - 5
Website: www.opalsociety.org Show Page

WGMS MEETING LOCATION!

Whittier Senior Center
13225 Walnut Street, Whittier



Affiliations

California Federation of Mineralogical Societies
American Federation of Mineralogical Societies
Special Congress Representing Involved Bulletin Editors

Whittier Gem and Mineral Society, Inc.
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Meeting Date: October 25, 2018 at 7:00 PM
Location: Whittier Senior Center
(See page 4 & 15 for information)