



A monthly publication of the Clear Lake Gem & Mineral Society

VOLUME 45

October 2019

NUMBER 10



NEXT MEETING: October 21, 2019
TIME: 7:00 p.m.
LOCATION: Clear Lake Park Building
 5001 Nasa Parkway
 Seabrook, Texas

INSIDE THIS ISSUE

October Meeting	1	<p><u>OCTOBER MONTHLY MEETING</u> The MAVEN Mission to Mars: No Pictures, No Problem The Mars Atmosphere and Volatile Evolution (MAVEN) mission has been orbiting Mars for five years. Scientists are using MAVEN data to understand how the atmosphere, climate, the existence of liquid water, and the habitability of Mars has changed over time. This presentation will include an overview of the mission and its goals and a discussion of what scientists have learned from the mission. This will open for a general audience. Visitors are always welcomed. clgms.org</p>
Meeting Minutes,	2-3	
School Awards	3-4	
October Birthstones,	5-7	
Program listing	8-9	



MINUTES OF THE SEPT 16, 2019 CLGMS MEETING

A thank you to Juan Carlos Fernandez for last month's excellent presentation on Lidar. We had a very large turn out even with a lousy weather. Our presenter has been published in National Geographic including several short segments on LIDAR that he was involved in. Please contact for Dr. Fernandez for a couple publications. ncalm.cive.uh.edu/

MINUTES OF THE Board of Directors (BOD)

Rock hunts in Alpine: Teri Smith will be back in Texas by mid-October and she has dates that she is going to lead the rock hunts.

Teri will be available to lead fieldtrips on the following dates:

Friday, 10/25 through Sunday, 10/27

Friday, 11/1 through Sunday, 11/3

Friday, 11/15 through Sunday, 11/17

Friday, 11/29 through Sunday, 12/1

If the new ranch proves to be good, I'll probably add either Thursdays or Mondays to the schedule and go to each of the ranches on one day of the four-day weekend. Let me know by return email whether you'd like me to post a schedule that may change or wait til October to post the names of the ranches I'll be hunting at each day.

The prices for each ranch is the same as in previous years:

Ritchie Ranch: \$10 admission fee and \$1 per lb of cutting agate or good specimens.

South Larremore Ranch: \$50 per person per day.

East Needle Peak: \$40 per person per day.

And Rollin' Rock Club membership is required. I'll hold the memberships and not submit them until December, so they will apply for 2020 as well. Cost is \$10 for a single membership and \$16 for a dual membership for the year.

Hope to see you this Fall! If not, I'll be back in March and April for what may be my last set of rockhunts.

2. League City Library contacted John Caldyne requesting a gem mine for the children visiting the library - Date to be determine later.

3. The club will order more of the show's admission tickets (5K each of the Blue and Red).
4. The treasurer, Morgan Davies, will confirm the show dates and bookings for 2021 and 2022.
5. We will call a motion to vote for the change of the fiscal year that we brought up in September meeting.

Each of the following schools received a \$500 award from the Clear Lake Gem and Mineral Society:



K.E. Little Elementary School,



Louis G. Lobit Elementary School, and



Bay Colony Elementary School

The October birthstones include Tourmaline and Opal. The name "opal" originates from the Greek word *opallios*, which meant "to see a change in color." The name "tourmaline" comes from the Sinhalese words *tura mali*, which mean "stone of mixed colors."

Tourmaline



Opal



Tourmaline is desirable because of its sheer range of color options. Combined with a good hardness of 7 to 7.5 on the Mohs scale, tourmaline makes very wearable birthstone jewelry.

Origin of the name "tourmaline" comes from the Sinhalese words *tura mali*, meaning "stone of mixed colors." As its name implies, tourmaline stands apart from other gemstones with its broad spectrum of colors in every shade of the rainbow.

Tourmaline is not one mineral, but a fairly complex group of minerals with different chemical compositions and physical properties.



Steamboat Tourmaline, San Diego California, 11 inches tall.

<https://thejewelerblog.wordpress.com/2014/09/30/steamboat-tourmaline-is-one-of-the-worlds-greatest-examples-of-octobers-birthstone/>

Tourmaline contains certain trace elements that produce distinct colors, and many resulting varieties have their own names:

Type of Tourmaline	Color	Chemical that adds color to tourmaline origin
schorl (95 percent of all tourmaline)	dark shades from deep brown to bluish-black	<i>rich in</i> iron, Brazil, Sri Lanka, Nigeria, Mozambique, Madagascar, Afghanistan, Pakistan and the U.S.—primarily Maine and California.
Dravite	brown tourmaline brown to yellow.	rich in magnesium It's named for the Drave District of Carinthia (now Slovenia)
Elbaite	widest range of gem-quality tourmaline colors	lithium traces combined with other coloring elements.
Rubellite	red tourmaline or pink tourmaline but if the color becomes less vibrant under different light sources	manganese
Indicolite	blue tourmaline can appear purplish blue or bluish green	iron and titanium.
Verdelite	green tourmaline, called a chrome tourmaline.	chrome and vanadium,
Paraíba	vividly colored purplish or greenish blue variety	Copper, Paraíba, Brazil, Mozambique and Nigeria
Achroite	colorless tourmaline	rare.

Parti-colored tourmaline displays more than one color, due to chemical fluctuations during crystallization. A common color combination is green and pink. These are often cut in slices to reveal a red center surrounded by a green rim, earning the name “watermelon tourmaline.”

Ref: <https://www.americangemsociety.org/page/tourmalineoverview>

Opal’s characteristic “play-of-color” was explained in the 1960s, when scientists discovered that it’s composed of microscopic silica spheres that diffract light to display various colors of the rainbow. These flashy gemstones are called “precious opals;” those without play-of-color are “common opals.”

Dozens of opal varieties exist, but only a few (like Fire Opal and Boulder Opal) are universally recognized. Opals are often referred to by their background “body color”—black or white.

Opal’s classic country of origin is Australia. Seasonal rains soaked the parched Outback, carrying silica deposits underground into cracks between layers of rock. When the water evaporated, these deposits formed opal. Sometimes, silica seeped into spaces around wood, seashells and skeletons, resulting in opalized fossils.

Since opal was discovered in Australia around 1850, the country has produced 95 percent of the world’s supply. Opal is also mined in Mexico, Brazil, Honduras, Ethiopia, the Czech Republic and parts of the U.S., including Nevada and Idaho.

The water content of opal gems can range from three to 21 percent—usually between 6 and 10 in gem-quality material. This, combined with hardness of only 5.5 to 6 on the Mohs scale, makes opal a delicate gemstone that can crack or “craze” under extreme temperature, dehydration, or direct light.

Wearing opal jewelry is well worth the extra care, though. For centuries, people have associated this precious gemstone with good luck. Though some modern superstitions claim that opals can be bad luck to anyone not born in October, this birthstone remains a popular choice.

Ref: <https://www.americangemsociety.org/page/opaloverview>

Upcoming Program Listing - We are looking forward to programs.

2019 Program drafted listing is updated below with additional topics to make this an exciting year.

Date of Program	Topic	Presented by
October 21, 2019	Magnetic Mars	Andrew Shaner, Lunar and Planetary Institute, Universities Space Research Association, Houston, Texas;
November 18, 2019	Show and tell and show report from Sandy	Open
December 16, 2019	Christmas dinner	Open

UPCOMING SHOWS AND PROGRAMS

SCFMS and MEMBER CLUB GEM SHOWS			
Nov 8-10, Humble, TX, Houston G&MS, Humble Civic Center, https://hgms.org	Nov 23-24, Mesquite, TX, Dallas G&MS, Mesquite Rodeo Center Exhibition Hall, www.dallasgemandmineral.org		
STONEY STATEMENTS Clear Lake Gem and Mineral Society, Inc PO BOX 891533 Houston, Texas 77289			

Meeting 3rd Monday of the Month
 7:00 P.M.
 Clear Lake Park Building
 5001 NASA Parkway, Seabrook, Texas
 Member of



Next Annual Show
 February 20-21, 2020
 Pasadena Convention Center

American
 Federation of
 Mineral Societies

South Central
 Federation of Mineral
 Societies

CLGMS is on the Web:

<http://www.clgms.org>

2/20-21/2020

Clear Lake Gem and Mineral Society, Inc

MEMBER: American Federation of Mineralogical Societies and South Central Federation of Mineral Societies

PURPOSE: To promote education and popular interest in the various earth sciences; in particular in those hobbies dealing with the art of lapidaries and the earth sciences of minerals, fossils and their associated fields.

2019 OFFICERS:	President	David Tjiok	
	Vice President	John Caldyne	
	Secretary	Trina Willoughby	
	Treasurer	Morgan Davies	
	Program Director	Vince Barrows	
	Board of Directors:	Sandra Christiansen	Sara Tanner
		John Caldyne	Donna Nelson
Jim Edwards		Jim Hawkins	
2020 Annual Show	Sandra Christiansen		
Newsletter Editor	Vince Barrows		

Show Chairman	John Caldyne	
Constitution & Bylaws.....	Sara Tanner	Membership.....Mike Flannigan
Community Benefits.....	Charlie Timme	WWW System Admin.. ..Mike Flannigan
Historian.....	David Tjiok	Refreshments.....John Caldyne
Publicity.....	Cyndi McGowen	Education/Field Trips.....Annabel Brownfield
Facebook.....	Trina Willoughby	Hands On.....Theresa Lowdermilk

Membership Dues Jan. to Dec. 2019: Adult \$15:00, \$5.00 per additional adult at same address, Junior \$5.00, \$5.00 per member with adult at same address, Family Dues \$20.00 (4+) at same address. Send Dues to CLGMS, PO BOX 891533, Houston, TX, 77289