At the request by a few members I included a list of members presenting programs and those responsible for refreshments for the next few months:

**Program Speakers**

*June 26* - Orion and Kim Jurkowski

*July 24* - Bill Stephens - tentative date

*August 28* - Auction

**Refreshments**

*June 26* - Orion and Kim Jurkowski

*July 24* - Ralph Gamba

*August 28* - Pot Luck
APRIL MINUTES
Submitted by Dave Lines

DATE: Meeting called to order on April 24, 2018 at 7:05 PM by President Sondra Fielder.

VISITORS/NEW MEMBERS: none

MEMBERSHIP: Joe, Membership Chairman. There were 22 members present at meeting. We now have 58 members who have paid dues for 2018.

NEWSLETTER: Tim Foard, Editor – absent due to grand jury duty. Reminder of new feature “Want Ads” of rocks and related items you want or have for sale. 25 word limit per ad per month.

MEETING MINUTES: Dave, Secretary --- Minutes for March meeting approved.

TREASURER: Dave, Treasurer Treasury in good shape. $205 paid to Tina for club’s subsidy of 41 T-shirts.

FIELD TRIPS: Dave, Field Trips Chairman

(1) March 31 --- Chestnut Ridge, Virginia for quartz crystals was RE-Scheduled from March 24th (which had been previously cancelled due to heavy snow. 14 people attended --- 10 from SMRMC and 4 from DMS (Delaware). Excellent specimens were collected – some on display tonight.

(2) April 21 --- Vulcan Manassas Quarry (for prehnite and zeolite minerals). 27 attendees – 17 from our club and 10 from Montgomery County, Northern Virginia Club and Richmond Club. Calcite, stilbite, prehnite, byssolite, stellerite, magnetite and pyrite were among those minerals found.

B. Upcoming trips----

(1) May 5 --- Primitive Technology Weekend at Willow Grove Nature Center (Baltimore County) , Cromwell Valley Park, 2002 Cromwell Rd., Parkville, MD 21234 --- Contact Kirk Dreier phone = (410) 887-2503; email = kdreier@baltimorecountymd.gov . Highlight events: 1:00 p.m. --- atlatls – history and demonstrations; 2:00 p.m. --- Ground Stone Tools and flint knapping; 7:00 p.m. --- presentation re “Artifacts --- Why are they found where they are found?”

(2) May 12 --- Gold Panning trip near Willis Mountain with the Central Virginia Gold Prospectors (CVGP) from 9 a.m. to 3 p.m.. Fee of $10 per family. Sign-up list passed around. Can also sign up by email to Dave as soon as possible.

(3) June field trips --- tentatively may go to Vulcan Manassas with Montgomery county club again; and maybe to US Silica Mine in Montpelier, VA for silver flash moonstone;

(4) Long range planning: Definite (put it on your calendar now) ---we will definitely do a club trip to Mount Ida, Arkansas on Oct 12-13, 2018 for the 31st Championship Quartz Crystal Dig”. We will rent a large house near Mt. Ida for 1 week. Dig Registration starts June 1st -- $75 per person. Sign-up sheet started --- 8 members already have signed up.

PROGRAMS: Carole, Programs Chairman --- Tonight’s program is “Virginia
Minerals” by Dave Lines; Upcoming programs: May = “Safety” by Sondra Fielder; June = “Historical Gemstones” by Orion and Kim Jurkowski. Snacks --- tonight by Harry and Tina; May snacks will be by Tim Foard; June by Orion and Kim Door prizes were given—provided by Dave.

WEBSITE: Bob, Webmaster – website is doing okay – no problems.

OLD BUSINESS:
Club T-shirts --- Tina delivered pre-ordered and sold Club T-shirts. She has 5 extra shirts left --- 2 @ size XL and 3 @ size M. She may order more if there is enough demand. Club gave a hearty round of applause as “thanks and well done” to Tina for taking the initiative to do this.

NEW BUSINESS: A. Dave asked for someone else to take over as Club Secretary. He is getting overwhelmed by too many things and needs to reduce his work load for next 2 years. Polly volunteered to take over as Club Secretary.

B. Rich brought a box of specimens from Michigan for show and tell tonight. They are from a lady at his work who is interested in rocks and minerals. Rich is trying to get her to join the club.

C. Bob D. asked if there was going to be a Rock Swap this year. Dave said that in January, he advised the club that he would not be able to plan a swap this year. Although no one else has currently taken the initiative to plan one, Dave was very willing to participate if one was held.

D. Bob D. suggested an easier way for people to join the club: basically they would open an account online with the MD-NCPPC and deposit the required amount of money to pay for Rock Club dues at the rate for an “out-of-county person”; then they could call Glenda and she could use the deposited amount to pay Rock Club dues. Bob agreed to put his idea into a precise paragraph and post it on the Club Website.

ADJOURNED: Business Meeting adjourned at 7:34 PM

Upcoming Shows and Events: 2018

June 2: Macungie, Pennsylvania Spring Mineralfest - 70th semi-annual Mineralfest Organized by: Pennsylvania Earth Sciences Association Macungie Memorial Park (Poplar Street) Indoor / outdoor (rain or shine)


ITEMS WANTED/FOR SALE

For Sale – Virginia unakite slabs (approx ¼ inch thick) – $0.50 per square inch (this is half off regular price). Call Dave (240) 427-7062.

Rocks, Minerals, and Fossils in the News

Hamilton College helping Hawaii through lava analysis
By The Dispatch Staff, newsroom@oneidadispatch.com

http://www.oneidadispatch.com/article/OD/20180514/NEWS/180519940

Lava samples delivered to Hamilton College for study. Photo Courtesy of Hamilton College

Clinton, N.Y. >> Samples of Hawaii’s destructive lava have been analyzed in the Hamilton Analytical Laboratory for the Hawaiian Volcano Observatory (HVO) scientists to better understand the on-going volcanic eruption. The chemical composition of lava can help scientists determine where the magma formed, how long it was stored underground prior to eruption, and how rapidly it rose to the surface. This information, when combined with geophysical and historical data, will help scientists interpret the progression of the current eruption, and help to model and predict future eruptions.

Four samples of lava from last week’s eruptions were received by HAL on May 10. The rocks were collected from fissure 6 on the night of May 5, making the less-than-week-old “baby rocks” some of the youngest rocks on Earth at present.

Flowing lava is usually collected by tossing a steel bucket on the end of a wire into the 2200-degree Fahrenheit molten lava, rapidly pulling it out, and dunking the bucket in a water-filled can to quench the lava to rock. The four samples were analyzed, and the chemical data for each sample was sent to HVO scientists on May 11.

The most significant earth materials analytical instrument in HAL is an x-ray fluorescence spectrometer housed within the geosciences department that enables Hamilton and other academic institutions to have access to exceptionally high-quality chemical data.

XRF is a measurement technique that uses x-rays, an energetic portion of the electromagnetic spectrum that includes microwaves and visible light, to determine the elemental makeup of materials ranging from rocks to minerals to soil – even maple syrup.
How Did Dinosaurs Hatch Their Eggs Without Crushing Them? Carefully, Researchers Say
By Aaron Mamiit Tech Times

http://www.techtimes.com/articles/227894/20180516/how-did-dinosaurs-hatch-their-eggs-without-crushing-them-carefully-researchers-say.htm

Researchers believe that they have figured out how dinosaurs hatched their eggs without crushing them, beyond the answer of "carefully." Scientists were able to understand the incubating behavior of oviraptorosaurs by studying 40 fossils of their nests.

Have you ever wondered how the massive dinosaurs were able to sit on and hatch their eggs without crushing them? The answer to that question starts with "carefully," researchers say, supported by a study that dives into deeper detail on dinosaur parenting when the ancient creatures still roamed the Earth.

How Do Dinosaurs Hatch Their Eggs? Understanding their parenting instincts have been one of the biggest dinosaur mysteries, particularly because of the lack of fossils that will provide information regarding the behavior. An international team of researchers from North America and Asia, however, have apparently figured things out.

For the first time, scientists have outlined the incubating behavior of oviraptorosaurus, which is a group of bipedal feathered dinosaurs under the classification of theropods. They believe that the largest of these dinosaurs arranged their eggs in a circular pattern, leaving a gap at the center of the nest. The gap is the place that bears the weight of the parent. This allows the dinosaur to provide body heat and protection to the eggs, without smashing them underneath its massive size.

The researchers came to those findings by studying 40 fossils of nests that were built by oviraptorosaurs, which had weights that ranged from a few pounds to around 4,000 pounds. The length of the nests, meanwhile, ranged from about a foot to 10 feet. "Oviraptorosaurs seem to have been very picky about how their eggs were arranged in the nest," said Darla Zelenitsky, a coauthor of the study and an assistant professor of paleontology from the University of Calgary. Very few theropods, however, built nests, which is why the brooding behavior shown by the oviraptorosaurs is important. The incubation behavior displayed by birds, with adults sitting inside their nest and possibly brooding, is proposed to have evolved from theropod dinosaurs.

However, no birds alive today do the same thing. Nearly all modern bird species sit right on top of their eggs, though it should be noted that even the largest birds are generally smaller compared to oviraptorosaurs.

Many Dinosaur Mysteries Remain While researchers have a better idea on dinosaur eggs hatching, there remain many
mysteries surrounding the ancient creatures. It is widely accepted that the dinosaurs were wiped out by a massive asteroid crash, but the specific details surrounding the world-changing event remain unclear. According to the latest theory, toxic flowers helped wipe out the dinosaur population, with the herbivores already declining due to eating the toxic plants and the carnivores shrinking in numbers when the asteroid hit.

Unfortunately, all that we have left of the dinosaurs are their fossils, such as the rare dinosaur skeleton that was put on display in the Rhinegeist Brewery in Cincinnati. These fossils are the only means for scientists to study dinosaurs, so it is probably not a good idea to throw them into lakes.

**Trip Report for Vulcan Quarry Manassas, VA**

by Dave Lines (Photos by Dave Lines, Carole Rauchaison, and Ralph Gamba)

We assembled in the Quarry Office parking lot at 7:15 a.m. for a Safety Brief by our host “K.T.”. There were a total of 27 people – 14 from our Southern Maryland Rock and Mineral Club [Ralph G., Cheryl, Tim F., Tim S., Rich, Al, Carole, Orion, Arion, Pam, Joyce, Polly, Sondra and Dave] and 13 from the Montgomery County club. K.T. emphasized that we must remain clear of all high walls and safety berms at all times and be out of the quarry no later than 11:45 a.m. If anyone need to leave early, we must notify our trip leader (Dave [So MD] or Steve [Mont Co.]). He would lead us in a vehicle caravan to the location of the most recent blast, then we were free to go into other areas of the quarry that were not blocked off. He reminded us to drive only on the left side of the road once we departed the office lot and to always yield right-of-way to large trucks and mining equipment. He would remain in the quarry to monitor our activities. Just before our departure into the quarry, we gathered for a group photo (with most of us wearing our safety gear) and lots of eager smiles and anticipation of finding some good specimens. Several of the attendees had never been in a commercial quarry and a few others had never been in this quarry --- so we kept a closer watch on these folks in order to keep them safe.

Vulcan Manassas Quarry is very large and deep with numerous benches. The bottom level contains a lake of several acres in size. The roads inside the quarry are very clean and
well maintained with no debris or big rocks on the surfaces. The descent to the fresh shot area took about 10 minutes.

Once at our initial destination, we parked and exited our vehicles and carefully began searching for specimens. The new blast had perfectly shattered and collapsed a large area of rock that was spread out and gently sloped to the area where we had parked. We quickly began locating small, but plentiful, crystals of calcite in thin seams and small vugs.

Some of the calcite crystals were in turn covered with other small crystals of a drab, light tan colored layer of what we collectively estimated to be stilbite.

After about an hour of collecting at this location, I lead a long caravan of vehicles down further in to quarry to the level marked “40 ft” with a sign. Some of us went all the way to the bottom, several of us began a search of the 40 ft level. We soon located an area which had produced stellerite and chabacite crystals on previous trips. We then began a laborious process of removing small rocks, gravel and dirt from the floor of the bench to find where to dig into the rock floor. We concentrated our efforts on an easily seen area of weathered yellow stellerite xls. Within 30 minutes or so, we were able to remove rock down to 6 to 10 inches deep and found several layers of pockets of stellerite crystals. Unfortunately, most of the crystals were detached from the matrix rock and were laying in the mud in the bottoms of the pockets. Nevertheless, we were able to recover some interesting specimens --- some of which cleaned up nicely at home. Some of the specimens contained both yellow stellerite and red chabacite crystals.

During the rest of the morning, we remained at the 40 ft level, however members of our group explored many areas of the quarry. We exited the quarry about 11:40 a.m., thanking K.T. for his hosting of our field trip. Later, through various emails, we compared our finds and as a group we found prehnite in massive seams to 2 inches thick, some massive magnetite, a few small vugs of micros of byssolite needles over prehnite, calcite, stilbite, stellerite and pyrite.
Overall, although the finds were relatively meager, we had an interesting and enjoyable morning at the Vulcan Manassas Quarry. We are very fortunate that Vulcan Materials allows us to collect here and we very much appreciate their generous hosting of our field trips.

Gold Panning at Tongue Quarter Creek
by Dave Lines (Photos by Dave Lines and Emily Sherkow)

It was a beautiful morning --- sunny and warm --- a perfect day to go gold panning in a stream. We all met at the designated rendezvous at 8:30 a.m. at the MacDonald’s restaurant in Dillwyn, Virginia. There were 11 of us (Rich, Tim S., Katie, Joe, Ralph, Mike, Asher, Emily, Noah, Isaac and Dave) from the Southern Maryland Rock and Mineral Club and we were welcomed by several members of the CVGP (Central Virginia Gold Prospectors). After brief introductions, we all caravanned south down U.S. Route 15 to the CVGP #1 claim located about 2 miles off the highway in a pine plantation.

After we all stopped our vehicles at a wide grassy place in the red dirt road, I gave all of our signed waivers and “Guest Fees” to our host David Shaw (CVGP Vice President). He then explained the general plan for the day --- we would break up into 3 groups and go to preselected sites along Tongue Creek Quarter Creek which ran through the center of this claim. They had several claims in the area, but this one was special because in it they only allowed non-mechanical means to get the gold --- no dredges were allowed --- only gold pans, sluice boxes and shovels. So this meant that many parts of the creek had NEVER been panned (at least in modern times) for gold. And the claim is right in the middle of the gold bearing belt that stretches from Maryland in the northeast to Georgia in the southwest. This stream has been productive for over 150 years. Their website at “CVGP.net” refers to previous finds there of nuggets ranging from an ounce up to 9 pounds! We split up and followed our guides and spread out for quite a ways along the creek so that we would have less mud in the water and have more room between gold panners.

After backtracking and driving about another mile or so, we arrived at the stream and
parked along the road. Tongue Quarter Creek is a picturesque stream about 10 to 15 feet wide with plenty of water flow over a rocky bottom through a valley which is amply shaded with hardwood trees. The group that I was with was accompanied by two experienced CVGP members --- Graham and Tim --- who quickly became our mentors as they taught us how to do the simple, yet very necessary, steps to successfully pan for gold -- how to set up a sluice box, how to pan efficiently and effectively, how to use a “snuffer bottle” to suck up and keep the gold we found, where to dig and what to look for. They were absolutely great teachers! In fact, Graham had scouted our location a week earlier and had had good luck finding both gold and even some garnet crystals. He was incredibly patient and generous with his time and energy. He literally shoveled all day for us --- bringing up decomposed mica schist and gravel from the bottom of a hole about 2 feet under water and placing it into a 5 gallon bucket. Then, in turn, the other CVGP member Tim put all this material through a classifier (which removes all rocks larger than 1/2 inch diameter) --- one trowel full at a time. It was unbelievable what these two hard working gentlemen did for us for 5 or 6 hours straight. And they stayed cheerful and eager for us to find gold the whole time. No kidding --- we were treated like royalty. We had great luck --- at least with our group. Altogether, I panned about 20 pans – not a large number considering that some people in contests can pan out a pan in less than a minute. Amazingly, I found some clearly visible gold in every pan except one. “Eureka” (which means “I found it!”)!!

Granted, some were very small pieces, but I was quite pleased. Additionally, the decomposed schist contained lots of dodecahedral almandine garnet crystals --- some as large as marbles and very pretty. I believe that every one of us found some gold. Tim S. spent his entire day feeding material to his homemade sluice box and it paid off handsomely when he cleaned up and he panned out a wonderful pan of gold. Dozens of pieces of gold in one pan -- it really was amazing. And Katie, Rich, Tim S. and I all found some nice garnets in addition to the gold. Near the end of our visit, several others in our club joined us by walking down the creek or driving to our location. Our two youngest members --- Noah and Isaac (as well as their Mom, Emily) --- particularly loved the garnets and did well in just a few minutes of looking.
I cannot say enough great things about the CVGP members that hosted us --- these guys were super --- they gave up their Saturday just to make sure that we were successful and that we had a fun field trip. For example, I witnessed Graham several times panning out a pan and then dumping the gold he found into one of our pans while we were gold panning. Very generous folks. It makes me think of the saying: “We met as strangers and left as friends”. We really did. It was an excellent trip. A field trip that gets one to think seriously about also joining the CVGP group.

Member’s Finds
A slab of pegmatite containing several minerals, including quartz, pyrite, feldspar, and some amphibole minerals. A large white feldspar crystal appears in the upper right corner, and below that a crystal of a dark green amphibole is clearly present near the right center area of the photo. Photo taken at the Vulcan Materials Quarry in Garrisonville, Virginia by Timothy Foard.

Collected any interesting specimens? Send a photo or two to the editor at bmorebugman@yahoo.com for inclusion in the next issue of Rock Talk.
Official Southern Maryland Rock and Mineral Club(*) Field Trip Notice

National Limestone Mt. Pleasant mills and Middleburg Quarries on Saturday
July 28, 2018 from 9:00 a.m. – noon and 1:00 p.m. to 4 p.m.

(* This trip may include other local EFMLS clubs if I need to get more people.)

Meeting Time --- *Meet at the Quarry Office parking lot* at Mt Pleasant Mills Quarry. 217 Quarry Rd., Mt. Pleasant Mills, PA 17853 at 8:45 a.m. (no later!!) for listening to owner’s Christian testimony (his personal requirement as the cost of admission), a Safety Briefing and signing waiver forms. We plan to break for lunch together at 12 noon, then drive 8 miles to Middleburg Quarry, 3499 Quarry Rd., Middleburg, PA 17842 as a group by 1:00 p.m..

Trip Leader --- Dave Lines

Location --- Our first 3 hours will be at National Limestone Quarry, 217 Quarry Rd., Mt. Pleasant Mills, PA 17853 (Approx. 200 miles and a 3-1/2 hour drive from La Plata according to MapQuest) and our second 3 hours will be at Middleburg Quarry, 3499 Quarry Rd., Middleburg, PA 17842.

Directions --- (recommend follow directions from MapQuest)

Special Requirements --- 1st, The road to the small wavellite area is on the back side of a ridge behind the first Quarry and is one way and narrow --- we may have to take turns digging. 2nd, The quarry owner collects rocks and would appreciate the gift of any labeled specimens. 3rd, kids (8 years old minimum and be a club member) are allowed, but must be closely supervised on a ratio of 1 parent per 1 kid (max) and remain next to their parent at all times.

Safety --- steel-toed boots, hardhat, safety glasses, long pants, heavy gloves and bright colored safety vest. Stay clear of all high walls.

Note to Experienced members --- please keep a watch on all of us and say something to those who may not recognize danger before they get into trouble.

What to Collect --- Mt. Pleasant Mills Quarry --- Strontianite, Calcite, Dolomite, sometimes Fluorite --- and Wavellite. Strontianite is best found by breaking open likely looking rocks. A LARGE sledge hammer is helpful. Strontianite is DELICATE. Bring toilet paper/old newspaper to wrap your specimens in. On the top of the ridge, above/behind the quarry, we can dig for Wavellite. Wavellite is found on chunks of limestone/sandstone, which is loose and covered with red dirt/mud. You may need to dig down through several feet of this material to find the “layer” that contains the best wavellite. A short shovel and a pry bar/digging bar help. A garden scratcher is good. Wavellite is best found by wetting promising looking specimens and brushing off the red clay/mud with a stiff scrub brush. Bring a bucket and fill it with water at the office/trailer. These specimens should be wrapped carefully, too. There are also fossils in the same pit with the Wavellite, Brachiopods and moonsnails seem to be most common. On occasion some rarer minerals have been found here as micros ---Variscite and Turquoise. Middleburg Quarry --- Lots of recent quarry activity in this quarry, so our best bet for finding calcite xls. Calcite and Fluorite are the most abundant. Also (fluorescent) flowstone (travertine stalagmites from ancient
limestone caverns) and several minerals. Sphalerite and galena (other sulfides) have also been found there as micros.

**Equipment/ clothing** --- Full safety gear for everyone at all times --- steel toed shoes/boots, safety glasses, hardhat, work gloves, long pants. Recommended tools --- rock hammer, 3 - 4 pound crack hammer, chisels, stiff scrub brush, garden scratcher, 5 gal. bucket, old newspaper for wrapping specimens, small pry bar. Optional -- large sledge hammer, long pry bar, extra buckets, loupe/magnifying glass. Your best tools are sharp eyes. Clothing depends on the weather --- long sleeves are recommended. Rain poncho nice to have. A bow saw is nice to have if the road to the wavellite site has a fallen tree across it. Ticks and bugs – it will be summer and you should apply bug spray as a preventative – I use Deet.

**Quarry Description / Hints** --- Both quarries are limestone quarries mined for material to be crushed for road construction and riprap. **Hint** ---Carefully search and *investigate anything that is different.*

**Vehicles** --- We will be allowed to drive our vehicles into both quarries.

**Misc.** --- Drinking water, sunscreen, bug spray, lunch/snacks, "Thank" the quarry owner. Bring a camera and take some pictures for our Newsletter.

**Sign-up List** --- Best if you sign up early as it will help my planning. Also sign up at the May, June or July club meetings or by email to dave.lines@earthlink.net

****If you sign up and later find that cannot make the trip, call Dave at 240-427-7062 and tell him.
The Chesapeake Gem & Mineral Society

Auction!!!

Date: Friday, June, 8th, 2018

Time: 7:30 pm (viewing at 7:00 pm)

Place: Location

Westchester Community Center

2414 Westchester Ave., Oella Md. 21043

Items that can be found are Gemstones, Cutting rough, Jewelry, Minerals, Fossils, Books, Magazines, and Lapidary equipment.

Refreshments are available.

Directions:

From the north:

Take I-695 to US 40 west (exit 15B). Turn left on N. Rolling Rd. Turn right at Old Fredrick Rd. (You will pass through 1 roundabout). Turn right on Oella Ave. Turn left on Westchester Ave. Westchester Community Center is on the right.

From the south:

Take I-695 to Fredrick Rd. (exit 13). Turn left on Fredrick Rd. Follow Fredrick Rd. approx. 2.7 miles. Turn right on Oella Ave. Turn left on Westchester Ave.

Westchester Community Center is on the right.
The Southern Maryland Rock and Mineral Club

Meetings take place on the 4th Tuesday of each month at 7:00pm

Clearwater Nature Center, 11000 Thrift Road, Clinton, MD.

For More information, call:

(301) 297-4575

We’re on the web: