

**Place:**  
**Arden Community Hall**  
**636 Hall Rd**  
**Arden, WA**



**Club Meetings:**  
**Third Tuesday of the Month**  
**at 6:00PM**

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## **The Panorama Prospector**

May 2024

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### **PANORAMA GEM AND MINERAL CLUB**

#### **Minutes for the April 16, 2024 General Meeting**

Bob called the meeting to order at 6:10 pm

(Guinevere stole the show!)

Introduction of new members and visitors

There was no secretary report

Frank gave a report about the financial status of the club. The club is doing fine with adequate liquidity. Ask Frank if you have questions.

Frank talked about email scams at length. Emails using club members asking for financial assistance are being passed around. We think whoever is doing it is taking the information off the newsletter's last page.

Johnie noted that the NWFS annual meeting is May 10 at the Hermiston show

The Rockhound Retreat enrollment form is available

Scot Jackson donated a larger TV to the club

During sharing time Leigh shared a specimen from Arizona, Glynis an unknown purple specimen, Kris a slab and wire wrap that won 1<sup>st</sup> place at the Chewelah Arts Show, Johnie a smoky quartz and Vivian had several stones she was hoping to get identified.

Presentation was a show about the Grand Canyon

### **Johnie's Jabbers**

#### **By Johnie Pitman**

The scholarship applications have been picked up from all four schools and the Trustees have done their magic. By the time this news letter come out the Kettle Falls scholarship will have been presented to the winner. A BIG Thanks to Jim Peters for his time, energy, and gas to get this job done.!

#### **Executive Committee mtg 4/29/2024**

Frank presented a financial report and budget

There will be website changes to improve services

The secretary will act as the "single point of contact" for the club because of email scams

It was proposed to get a Membership Chairperson called. The work is getting to be too much for Frank along with his other duties

Lynne and Betty will update library list

Roger and Frank will work on computer issues

Lynne proposed getting an annual membership to Stonerose Fossils. Passed by vote

We need more polished rocks for the show, if you have rough we will get it polished

It was proposed we get a new speaker for the new TV so all can hear it better

Trips were discussed. See Lynne's article below

## Places to Go Adventuring and Rockhounding

By Lynne Calvert

- Calcite Road Cut in Evans, WA. Drive to the Evans Campground and park. Walk to Hwy 25 and go north. There is a road cut across the HWY less than a mile walk.
  - Wild Turkey Mine 3515 Waitts Lake Rd. Valley, WA. (serpentine) Check their website for dates the mine is open to the public and their fees. Go early to get a parking spot and place to work in the shade.
  - Stonerose Interpretive Center 15 N Clark Ave, Republic, WA. (Fossils)
  - Oregon Sunstone Public Collection Area near Plush, Oregon. (sunstones).
  - Huckleberry Garnet Mine near Clarkia, ID.
  - Old copper mine areas including Blue Bird Mine near Chewelah (azurite and malachite) Ask Roger Calvert or Bob Bristow for more details. Note 3.
  - Kalispel Peak near Chewelah. Note 3.
  - Ginkgo Petrified Wood site. Vantage. WA.
  - Saddle Mountain near Othello, WA. (petrified wood). Note 3.
  - Hansen Creek tributary off of the Snoqualmie River near Bandera, WA (crystals, amethysts). Note 3.
  - Copper King Mine on Eagle Mountain near Summit Lake. This is a remote area. Do your research before you go. Ask Bob Bristow for details. Notes 1, 2, 3.
  - Porter, WA. (Crab balls) You can get to Porter by driving west from Olympia to Elma and turning south on Hwy 12. Go past Porter to the large mudstone cliffs on the east side of the highway. There are many concretions along the cliff but most do not contain crabs. About 3/4 of the way along the cliffs is the area containing abundant crabs. At one time you could pick up a dozen or so out of the ditch after a heavy rain or you could climb up and pluck them out of the cliff.
  - Red Top Mountain, located just northeast of Cle Elem, is one of the best-known locations in Washington State for finding quartz nodules and geodes. Anyone willing to spend even an hour digging can find at least some blue quartz. Part of the allure is the fact that it is just up Hwy 97 from Ellensburg and the famous Ellensburg blue agates. However, the blue agates of Red Top are not Ellensburg blues. True Ellensburg blues have a characteristic peach cast found nowhere else. Call the First Creek Treasures Gem Shop on HWY 97 before you go. They may allow you to go hiking and digging above their shop.
  - Jim Creek near Jim Creek Mine. Ione, WA. Latitude: 48.8108 and Longitude: -117.5153 (galena, pyrite, marble). Notes 1, 2, 3.
  - Mount Teneriff (crystals) This deposit is on the backside of Mount Teneriff. Mount Teneriff is the higher mountain immediately behind Mount Si above North Bend, Washington. The backside of Mount Teneriff is a vertical cliff and a series of glacial cirques. However, our deposit is near the base of the mountain so there will be no need to climb to the top. Mineral collectors have dug an adit (a mine entrance) about 15-ft wide by 20-ft deep by about 8-ft high. Most of the material taken out was covered by beautiful quartz crystals but was thrown over the edge of the cliff. The reason was that most of the miners were looking for Japanese twins and considered the common quartz crystals junk to be disposed of.
  - McCoy Creek near North Bend, WA. One site is a patented claim owned by Bob Jackson. That claim is located on Spruce Ridge up the Middle Fork of the Snoqualmie River from North Bend. The other location is on McCoy Creek, northeast of Mount St. Helens. Note 1, and 2.
  - Ape Caves near Cougar, WA. Lava tubes. Visit Mount St. Helens.
  - Dismal Swamp near Featherville, Idaho. 43.7177765, -115.379500 (topaz, crystals, smokey quartz.) NFS Rd 290 or Deadman Creek. Turn west of Trinity Ride Road. 43.723.444, -115.3611610. Take bug repellent! Note 1.
  - Deer Creek and Finney Creek – tributaries to the Stillaguamish River near Mt. Higgins. (jade).  
**Notes 1, 2, and 3.**
- Note 1. Consult the book/article by Bob Bristow.  
Note 2. Remote area.  
Note 3. This site is difficult to find. Recommend going with someone who has been there.

***This month's presentation will show us how to find these places on our web page!***

## Tiger's Eye (A series)

<https://geologyscience.com/minerals/silicates-minerals/tigers-eye/>

### Composition and formation process

Composition: Tiger's Eye is primarily composed of quartz, which is a crystalline form of silicon dioxide (SiO<sub>2</sub>). However, what distinguishes Tiger's Eye from other varieties of quartz is the presence of parallel fibrous inclusions made of mineral fibers. These fibers are typically composed of crocidolite, which is a form of asbestos. Over time, the crocidolite fibers undergo a process of replacement by other minerals, such as quartz, iron oxides, and sometimes, additional minerals like rutile and goethite. This replacement process results in the distinctive appearance and chatoyancy of Tiger's Eye.

Formation Process: The formation of Tiger's Eye involves a series of geological processes. It typically begins with the presence of crocidolite, a blue mineral composed of fibrous structures. Over time, as the crocidolite weathers and undergoes alteration, it is gradually replaced by quartz through a process known as pseudomorphism. During pseudomorphism, the fibrous structure of the crocidolite acts as a template for the new minerals to form. As the crocidolite decomposes, the voids and spaces left behind become filled with quartz and other minerals, such as iron oxides. This replacement process preserves the fibrous structure of the original crocidolite, resulting in the parallel banding and chatoyant effect observed in Tiger's Eye.

The specific environmental conditions during the formation of Tiger's Eye are crucial for the development of its unique characteristics. Factors such as temperature, pressure, and the presence of certain chemical elements influence the composition and coloration of the stone. These conditions vary from location to location, resulting in variations in the appearance and color of Tiger's Eye found in different regions.

Overall, the formation of Tiger's Eye is a complex geological process involving the replacement of

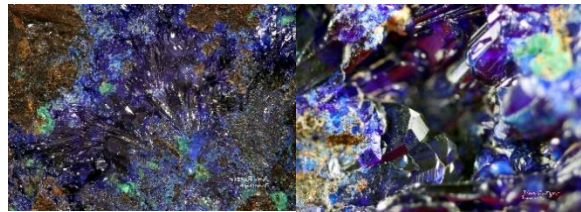
crocidolite by quartz and other minerals. The resulting combination of quartz and fibrous inclusions gives rise to the distinct chatoyant effect and beautiful patterns that make Tiger's Eye a highly valued gemstone.



### Identify the "Rock or Mineral"

By Jim Retzer

#### Last month's rock or mineral:



Micro Azurite Crystals Taken with a Macro Closeup Lens and a 4X Microscope Optic.

**Azurite** – A soft (3 ½ - 4 on the Mohs Hardness scale), deep-blue, copper carbonate hydroxide mineral with a chemical composition of Cu<sub>3</sub>(CO<sub>3</sub>)<sub>2</sub>(OH)<sub>2</sub>. Easily identified by its distinctive deep blue color. It has been known of and used as an ornamental and jewelry stone since ancient times.

Azurite is a secondary mineral that forms by the weathering of copper ore deposits. When water with a CO<sub>2</sub> content flows through copper bearing ores. The carbonic acid of these waters dissolves tiny amounts of copper from the ore. The dissolved copper is transported with the water until it reaches a new geochemical environment. This new environment

could be a location where water chemistry or temperature changes, or where evaporation occurs. In these locations Azurite forms. If conditions are right, the mineral azurite might form. If these conditions persist for a long time, a significant accumulation of azurite might develop.

Other than its rich blue color and softness, Azurite's other identifying features include a slight effervescence, producing a light blue liquid, when diluted hydrochloric acid is applied to it. It also produces a light blue streak on unglazed porcelain. Other identifying attributes include a specific gravity of 3.77, a vitreous luster.

It is in the Monoclinic crystal system and is found as tabular to prismatic crystals of a deep "azure blue" color with splendid vitreous faces. It is also found in other forms such as: Massive, crystalline radiating, fibrous, earthy, columnar, stalactites, as thin needles, and in ball-like aggregates. It also occurs in dense groups of tabular or prismatic crystals.

Azurite is an unstable mineral that when exposed to heat or high humidity will begin to weather to malachite. If exposed to heat or high humidity, specimen surfaces will begin to weather to malachite. This is caused by a chemical change where azurite loses some hydroxyl, but it retains its original crystal shape. This causes a dull, faded, or greenish appearance depending upon the severity of alteration.

### **This month's rock or mineral:**



## **Geological Attractions Off the Beaten Path**

**By Lynne Calvert**

Roger and I were about to leave for Texas to a relative's ranch. His ranch was located in the path-of-

totality of the eclipse of the sun. A storm had delayed our trip. Once it passed we headed towards Idaho. The storm was moving slow. We lingered in Washington by going to see Palouse Falls and other road-side attractions including an old bus and an old church. We lodged in Clarkston, WA. The next day we drove down the scenic Hwy 95 stopping at the Peely Loop campsite area to eat our sandwiches. We stayed at the Thunderbird motel in Mountain Home, ID. The next day we drove south and found a place to do some rock hounding. We found a few agates. There was a sign for the Bruneau Overlook. We had to go check it out. It was a long drive on a well-maintained dirt road. The overlook was an impressive deep gorge. There were restroom facilities also. One other person was there at this secluded attraction. On our way back we saw a small herd of antelope. We decided to take a side trip to the Shoofly Oolite Interpretive Area. We got lost a couple of times but finally found the site. The hike is easy but longer than necessary. The Oolite and rock formations were cool but somewhat of a disappointment for us. There were no other visitors. Returning to our car, we backtracked and got on HWY 51 to Elko, NV. What a fantastic drive. However, it may be a little challenging in a large RV. The storm had just gone through the day before and the snowy mountain tops added to the beauty. There are a few casinos in Elko that offer lodging and one, the Gold Dust West, had a good price for steak dinner. The next day we took I-80 to make up time since we did so many side trips. Tired of freeway driving, we turned onto HWY 36 to 73 and onto I-15 to HWY 6. We stopped at a hotel in Price, UT because Moab is very expensive. Sitting in the hot tub that evening, we met a man who was from the local area. He told us we should take an alternative route to see "The Wedge" and other interesting features.

We set out the next day and drove to Cleveland, UT. We saw a sign for The Wedge and just past it the pavement ended. There was a corner country store and we went inside to buy road snacks, partly because we weren't sure what was ahead. The proprietor, WynneAnn, was a character and happy to have



customers. She gave us a booklet with several points of interest in all directions. She also confirmed that we were going in the right direction to The Wedge. Off we went with a map and booklet in hand, but no ice cream. WynneAnn had invested in three ice cream machines and fancy bowls but she didn't have enough customers to keep them operational. Too bad, we were in the mood for an ice cream treat as the weather was warm.

Off we went down the dirt road. It is well maintained. We saw a few RVs, ATVs, and bicycles along the way in dispersed and paid campsites. We drove for miles and the road became a bit rough after we passed a rock quarry. Our vehicle is not 4-wheel drive and we had no problems. We arrived at a steep drop-off. We parked and walked to the edge of the cliffs. The Wedge is also known as the "Little Grand Canyon". There were no fences or barriers. A family rode up on their electric bikes and another couple arrived in a pickup truck who were going to go hiking. That was the extent of the crowd we saw at such an amazing place. After taking in the views, snapping pictures, using the facilities, we went our separate ways. The road follows the edge of the cliffs. Yikes. Then it turns away and seems to disappear. It had been awhile since anyone went that way. We weren't sure if we were on a road or an access route for service vehicles. Driving around rocks and potholes we finally saw that it does loop back to the main dirt road. We were happy because Google Maps got us lost when trying to find the Oolite area. I was thinking at the time, we should have just drove out the same way we came. However, it was an adventure and worth writing about.

Instead of driving all the way back to Cleveland, we took a right turn at an intersection in the middle of nowhere. We were in the Buckhorn Wash. What an amazing drive! A sign indicated petroglyphs were nearby. It was a moderate hike with one section that is rather steep. We walked along the trail to view multiple petroglyphs. Driving further we found the sign to the dinosaur track. The hike was easy and short. There is a ring of rocks around the footprint of the dinosaur. On our way down the trail we noticed

some opalized petrified wood. A car pulled up and their kids scrambled up the rocks instead of taking the trail. Showoffs! The road goes through several steep canyon walls on each side. The sandstone and rock formations are breathtaking. We found another sign for petroglyphs and pulled in. It is a short walk and they are impressive. This location had a couple of benches and restroom facilities. A large group of ATV riders rode up as we were leaving. The scenery was amazing as we drove on. The "swinging bridge" was a letdown in our opinions. The road continues on and the astounding scenery faded in the rearview mirror. We began seeing more grassland and shrubs. A herd of wild burros were hanging out in the shade of the trees. Finally, we saw I-70 and we drove parallel to it and finally the dirt road had a spur to get onto the freeway. This alternative route was well worth the drive and time. There were other hiking trails and features we did not have time to explore. We may go back someday in our motorhome. We did make it to Texas in time for the eclipse and I'd write more. However, I plan to cover the remainder of our trip at our next club meeting. See you then.



Bruneau Overlook Gorge, ID



Oolite Interpretive Site, ID



Dinosaur Track, UT



Pictoglyph, UT

## Membership Dues:

**\$20.00 per household per year is due to the club Treasurer Frank Stratton on the third Tuesday of November for regular members.** Dues can also be sent to: Panorama Gem and Mineral Club c/o Johnie Pitman, 701 B Williams Lake Rd, Colville, WA 991114.

**Webpage:** <http://panoramagem.com/>

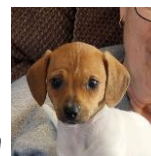
**Facebook Group:** [Panorama Gem & Mineral Club](#)

We, **The Panorama Gem and Mineral Club**, are a multi-faceted group of mineral-minded people. Our proud members include some real gems, a few fossils, and even some diamonds in the rough. A few have lost some of their marbles, but they know where to get more! A few need to polish their coordination because they are always tumbling! And some are miners who use the “silver pick” as their tool of choice! It should be crystal clear, that we all enjoy this unique conglomeration and above all else we strive to **HAVE FUN**. And we never throw stones (away).

## A Quick Note from The Editor (Glynis)

*Thank you to those who contributed to this issue. If you have a special story to share, contribute to OUR newsletter! Send ideas for articles, internet finds, jokes, pictures, adventure stories, science articles or your own articles to me.*

[gghull@comcast.net](mailto:gghull@comcast.net)



Guinevere says “Hi”!

## Refreshment Schedule for 2023

**Last names that begin with the letters posted bring refreshments for that month**

January – H, I, J

February – K, L, M

March – N, O, P

April – Q, R, S, T

**May – W, A, B, C**

June – D, E, F, G

July – H, I, J

August – Club Picnic

September – K, L, M

October – N, O, P

November – D, E, F, G

December – Christmas Party

## Panorama Gem and Mineral Club: Organizational Chart

### Officers

President:	Lynne Calvert		559-906-5923
Vice-President:	Bob Bristow		509-935-4375
Secretary:	Glynis Hull	<a href="mailto:gghull@comcast.net">gghull@comcast.net</a>	509-981-9714
Treasurer:	Frank Stratton		509-207-8503
Trustee 1:	Kevin Youngblood		509-680-0207
Trustee 2:	Jim Peters		509-992-6921
Trustee 3:	Cyndi Doppler		509-216-5473

### Committee Chairs

Program Coordinator:	Sheila Stratton		509-207-8506
Hospitality:	Betty Peters		509-992-6921
Historian:	Sheila Stratton		509-207-8506
Newsletter:	Glynis Hull	<a href="mailto:gghull@comcast.net">gghull@comcast.net</a>	509-981-9714
Show Chair	Johnie Pitman		509-684-8887