

Hatrockhound Gazette 2019

PO Box 1122, Hermiston, Oregon 97838



Meetings at 6:30 on the 2nd
Tuesday of each month
First Christian Church of
Hermiston:
775 West Highland
(go to back of church)

Officers:
President – Bill Shipp
V. Pres. – Mike Filarski
Secretary – Rita Watterson
Treasurer – Mel Lambert
Mbr at Large – Laura Tiffany

Club Contact: Mike Filarski stonemorlin1@netscape.net 541-571-2593
Newsletter/Website – Judi Allison, 1701 NW 11th St, Hermiston, OR 97838 541-720-4950
Jall23.wixsite.com/hatrockhounds



Hatrockhounds Gem and Mineral Society is Affiliated with:

The Northwest Federation of Mineralogical Societies
And The American Federation of Mineralogical Societies



AFMS Rockhounds “Code of Ethics”

- I will respect both private and public property and will do no collecting on privately owned land without permission from the owner.
- I will keep informed on all laws, regulations or rules governing collecting on public lands and will observe them.
- I will, to the best of my ability, ascertain the boundary lines of property on which I plan to collect.
- I will use no firearms or blasting material in collecting areas.
- I will cause no willful damage to property of any kind such as fences, signs, buildings, etc.
- I will leave all gates as found.
- I will build fires only in designated or safe places and will be certain they are completely extinguished before leaving the area.
- I will discard no burning material - matches, cigarettes, etc.
- I will fill all excavation holes which may be dangerous to livestock.
- I will not contaminate wells, creeks, or other water supplies.
- I will cause no willful damage to collecting material and will take home only what I can reasonably use.
- I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.
- I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.
- I will cooperate with field-trip leaders and those in designated authority in all collecting areas.
- I will report to my club or federation officers, Bureau of Land Management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.
- I will appreciate and protect our heritage of natural resources.
- I will observe the "Golden Rule", will use Good Outdoor Manners and will at all times conduct myself in a manner which will add to the stature and Public Image of Rockhounds everywhere.

Hatrockhound Gazette

February 2021 Issue

YES!!! MEETING, TUESDAY, FEBRUARY 9TH 6:30. WEAR A MASK. SIX FEET APART. BUT WE CAN MEET!!!! COME ONE COME ALL. YAY!!!

Hi all. As we step into 2021 we all are looking toward renewed ability to safely enjoy our fellowships. I expect we will have “bumps” in our roads, but we need to grab the spirit of positivity and hope. It appears that we will still be waiting for a time for normalcy. . I hope everyone has at least had an opportunity to enjoy our outdoors and get out and perhaps find some of earth’s treasures. I am looking forward to everyone being able to share our spoils and excursions with others. Hang in there! We will get there.

Oregon Thundereggs - *One Collector’s Unique View*



A hit with all ages, is Gary Knutson’s Oregon thunderegg display. Pictured are views of the display with various colors of LED light shining through. ALL PHOTOS GARY KNUTSON

By Antoinette Rahn

One look at the inside of a thunderegg, and it’s easy to understand the wild interest in these rocks with agate-filled nodules. Plus, it’s not every day you come across a rock or mineral that an ancient legend is based on. As the story goes, the name came from Native American tribes living in central Oregon, eons ago, who

spoke about uncommon stones actually thrown in battle by the “Thunder Spirits” who lived atop Mount Jefferson and Mount Hood in Oregon. Hence the name.

For Oregon rockhound Gary Knutson, a member of the Mt Hood Rock Club, it was an appreciation for thundereggs and Oregon pride that led him to create a fascinating display in the shape of Oregon, made from slices of thundereggs.

Beryl, Beryllium, Bertrandite Serve Technology Well

By

Known among lapidaries as “Tiffany stone,” these chalcedonic nodules of purple fluorite, common opal, quartz, manganese dioxide, and bertrandite led to the discovery of the Spor Mountain beryllium deposit. (Wikimedia Commons)

By Steve Voynick

By the late 1950s, exploration geologists in the western United States had spent a decade searching unsuccessfully for new sources of beryllium, an uncommon metal urgently needed for an increasing variety of uses.

Beryllium, a relatively soft, silvery-white metal with a very low density, ranks 51st in crustal abundance and is about as common as tin. Although widely distributed, it rarely occurs in concentrations rich enough to mine. Elemental beryllium is an excellent X-ray window and neutron reflector; although only one-third as dense as aluminum, it is stiffer than carbon steel.

Beryllium had no uses until the 1930s when major advancements in X-ray, nuclear, and alloying technologies began to create demand.

By the 1950s, the metal had become vital for a variety of high-tech applications. Historically, beryllium’s sole source was beryl [beryllium aluminum silicate, $\text{Be}_3\text{Al}_2\text{Si}_6\text{O}_{18}$], which was obtained only from a small number of granite pegmatites. But most of these were already mined out, and the United States was forced to import beryl. Then in 1959, a Nevada rockhound searching the remote expanses of western Utah collected some unusual, purple-and-white, chalcedonic nodules that he thought would make good cabbing material. Needing help with identification, he stopped by the offices of a mining exploration company. Although no one could visually identify the nodules, an on-site geologist decided to test them with a beryllometer, an early forerunner of today’s X-ray-fluorescence analyzers. To everyone’s surprise, the instrument detected beryllium



Known among lapidaries as “Tiffany stone,” these chalcedonic nodules of purple fluorite, common opal, quartz, manganese dioxide, and bertrandite led to the discovery of the Spor Mountain beryllium deposit. (Wikimedia Commons)

The rockhound had found these nodules in outcrops of altered tuff at Spor Mountain in Utah’s Juab County. Small amounts of beryl were known to occur in Spor Mountain rhyolite, but no form of beryllium had ever been found in tuff. Laboratory analysis of a nodule confirmed the presence of beryllium. Although, not as

beryl, but as tiny yellowish, orthorhombic crystals of bertrandite [basic beryllium silicate, $\text{Be}_4\text{Si}_2\text{O}_7(\text{OH})_2$].

Core drilling soon confirmed that there was indeed bertrandite-rich tuff at [Spor Mountain](#)—and lots of it. Groundwater had leached beryllium from nearby rhyolite formations and redeposited it within thick layers of porous tuff. It appeared as tiny, disseminated crystals of bertrandite. Although the tuff graded only about 1.0 percent bertrandite, it occurred as a three-mile-long, one-mile-wide deposit that was shallow enough for inexpensive, open-pit mining.

After mining began at Spor Mountain in 1968, the United States immediately went from a beryllium importer to an exporter. Today, after 52 years of mining, Spor Mountain remains the world’s largest known beryllium deposit and the metal’s sole domestic source. This site produces three-quarters of the 300 tons of elemental beryllium produced worldwide annually.

Small, beryl-rich pegmatites are still mined in China, Mozambique, and Brazil. Together, these nations account for about 20 percent of global beryllium production. Driven by record demand, a single pound of refined elemental beryllium currently costs about \$400. While beryllium remains vital for many X-ray and nuclear applications, its most significant uses are specialty alloys with copper, aluminum, and nickel, mainly for aerospace applications. Because of the remarkable lightness and stiffness of these alloys, aircraft and space-vehicle masts weighing just six pounds can support 95 pounds of instrumentation. And because metallic beryllium polishes even brighter than silver, it is an ideal material for space-telescope mirrors.

Beryllium is also used in automotive air-bag impact sensors, supermarket laser scanners, and computer hard drives. Racing bicycles that cost \$12,000 or more are built with aluminum-beryllium frames that weigh only 1.5 pounds. Lapidaries now refer to the purple-and-white chalcedonic nodules as “Tiffany stone.” The nodules led to the discovery of the Spor Mountain bertrandite deposit 62 years ago.

These nodules consist of purple fluorite, common opal, quartz, manganese dioxide, and small amounts of bertrandite. Although most are destroyed in mine crushers, small quantities occasionally become available at gem-and-mineral shows and rock shops.

ROCKIN’ NEWS

Mike, Mel and Judi met to discuss possibilities for a Rock Show. There had been a variety of suggestions of venues to try, and after weighing the different scenarios, we decided that the EOTEC is still the most viable and reasonable place to hold a show. We have plenty of room and can spread out without a problem. The tables come with the place and we have the kitchen available. Mike is going to try to get a reservation for the third or fourth weekend in May. (There are 5 weekends in May this year.) We also discussed the idea of asking EOTEC to hold a separate later date for us if we are still not allowed to hold the show in May. As soon as a date is firmed up we will let everyone know. We hope everyone will be excited about helping to put on a show, since it will be a signal of returning normalcy. . . and it’s fun.



The Rocky Mountain Federation has announced the date and place for it’s combination show with The American Federation of Mineralogical Societies.

It will be in Big Piney, Wyoming, June 17th through the 20th.

Some field trips are being planned to places such as the Blue Forest and to search for fish fossils. Big Piney,

We want to express our condolences the families of two of our lost members Nadine Van Mechlen who passed away last May, and Elmer Ringering who passed away on December 29th. Our thoughts and prayers go out to Marilyn and John in the loss of their dear ones. They will be missed.

