



LAKE CITY ROCKHOUND NEWS  
NORTH IDAHO MINERAL CLUB, INC  
P.O.BOX 1643, HAYDEN, ID.

JANUARY 2015

MEETING AT LAKE CITY CENTER 1916 LAKEWOOD DRIVE 667-4628—IN LIBRARY  
6 PM TO 8 PM, THIRD THURSDAY OF MONTH—VISITORS AND GUESTS WELCOME

**JANUARY 15, 2015 6-8 PM**

**LOCATE YOUR FAVORITE ROCK, AND ONE YOU ARE NOT SURE OF, AND BRING BOTH TO THE MEETING. TELL WHY YOUR FAVORITE ROCK IS IT, AND LET US LOOK AT THE OTHERS WITH THE HOPE THAT WE CAN IDENTIFY THEM. EVERYONE!!! PLEASE PARTICIPATE.**

**SCHOLARSHIP DRAWING TICKETS AVAILABLE FOR THE MARCH DRAWING**

**BILL'S SILENT AUCTION!**

**REFRESHMENTS BY BEV—*VOLUNTEERS NEEDED PLEASE.***

**Northwest Newsletter from the NFMS is published each month on line at [www.amfed.org/nfms](http://www.amfed.org/nfms) where you may read it in full color. It will be e-mailed direct to you if you request it. Those who are not on line should be receiving the Northwest Newsletter by mail in newspaper format. If you are not getting this PLEASE let Bev know at this meeting. Check out our web site — Mike has a newly remodeled publication for the club. [www.northidahomineralclub.com](http://www.northidahomineralclub.com). Great job, Mike!**

NIMC MINUTES 11-20-2014 (NO MINUTES TAKEN AT CHRISTMAS MEETING)

Meeting called order at 6:10 PM. Following the flag salute the treasurer reported and bill paid. Show business followed. Contract for a fair-grounds submitted and contracts are on the way to vendors who will pay \$110 for each 8 foot front table this year—our first raise in many years. Adult admission is to be \$3.00, but discount coupons will be in the Cd'A Press. Advertising to be in the hands of Mike Burton. Radio seems to be less than useful,. Channel 13 (TV) has a calendar..James mentioned Sunlink in the Valley.

A PA system has been purchased by the club which will be an improvement over one we have been using. It has been suggested that we purchase 12 cords for electrical hookups at the show. Corey Brenner said that we need 14 gauge extension cords in 25 foot lengths. Suggested we check our Harbor Freight after the years end. Mike Burton said we need portable work lights (item#67227) at Harbor Freight. We already have three and need two more for the Pirate Treasurer Dig at the show, to replace the bulky electric fluorescent lights. The work lights are battery powered with LED lights.

The nominating committee recommended the officer roster remain as it has been for the new year, and since all those persons accepted the nomination went as predicted and hoped. (Listed on page 5 of this paper) (And a sincere thank you to you all!! Ed.BB)

Hugh Martin sale was Nov 22 in Bonners Ferry, and Art Randle announced a mineral sale. 208-659-3639

Meeting adjourned for the silent auction. Diane Rose, Secretary

(edited by BB)

### THE ANCIENT EYE



Trilobites are among the oldest of the metazoans (multicellular animals with differential tissues and organs.) They were incredibly complex, especially for being the earliest with a brain, nervous system, digestive tract, muscular system, and a compound eye. The puzzle of their complexity was emphasized by the lack of evolutionary predecessors. Trilobites were strictly marine animals that first occurred at the base of the Cambrian. It was thought they were among the first fossils since no undisputed form was known in the Precambrian. There are a wide variety of fossils of simple plants and animals among the late Precambrian rocks, but nothing as complex as the trilobite. When soft-bodied trilobites were discovered in the late Vendian (late Precambrian) period, it corroborated the trilobite tracks that had been discovered and it is probable that the trilobite's predecessors were often not fossilized because of their lack of hard parts.

Hard shells were primarily a Cambrian development. The evidence is that non-shelled trilobites lived in the Precambrian and developed hard shells of elegant and beautifully simple structures in the Cambrian. They

are the most abundant and dominant fossils from the Cambrian, after which growing competition caused them to develop increasingly specialized and bizarre forms with complex spines, antlers and other armor probably meant for defense.

The trilobite's inevitable decline was prolonged during the Carboniferous period, their antlers and spines disappearing, the specialization preventing them from adapting. Declining in numbers and in function, plain, small and defensive, the entire class of animals in the largest phylum on earth, the arthropods, became extinct by the end of the Permian. They had wandered the earth for 300 million years, and had developed 1,500 genera and over 10,000 species. They disappeared by the end of the Permian. (edited from Larry Solomon in Fossil News, via the Petrograph, via the Agatizer 7/06, via Rock Rollers 10/06, via Delvings 12/06)

### Tiger's Eye (derived from an article by Frank Craig that appeared in Rock Buster News 8/13)

This is a variety of quartz which owes its name to the banded yellow-gold, dark brown color which resembles a tiger's eye. —It occurs in veins, parallel to bedding, usually less than 6 cm thick. Historically the origin is considered to be an example of pseudomorphism—the replacement of one mineral by another which retains the form of the original. In this case, crocidolite is replaced by quartz. Crocidolite (asbestos)..... gives this material its chatoyance. The quartz retains the original fibrous structure. The resultant yellow to brown color is from iron oxide staining—unstained pieces or areas retain the original blue color and are called hawk's eye.



The replacement theory has recently been challenged and now researchers believe it is a crack/seam filling. Mineral rich fluids infiltrate a pre-existing crack in the rock and deposit the quartz. This shows a distinctive, fibrous growth pattern extending from the edge of each side toward the center, sealing the crack. Crocidolite fibers are still present but occur as inclusions within the quartz and are believed to grow from fragments originally present on the crack edges. The characteristic color is still caused by iron oxide stain and the fibrous texture produces the characteristic iridescent luster or chatoyance.

Regardless of which origin you favor, tiger's eye is always linked to crocidolite and therefore only occurs where deposits of crocidolite are found — South Africa, Western Australia, China, and South America. The uses of tiger's eye and hawk's eye are as gems, most commonly as cabochons. However, excellent carvings have been produced from this material;. Also, it plays a significant role in holistic procedures and astrology.

**GEM AND MINERAL WORD SEARCH** (ORIGINAL SOURCE NOT KNOWN BUT IT'S A GOOD ONE!)

(answers next month) There may be a nice prize!

• O L J G Z A X F L W A S D N O M A I D P  
 • L W A H A L I T E I C K G I T J A W S L  
 • F V S P A A T J R Z M L N A M A P O X J  
 • H B P C L B I M A L S O J O A V A L A A  
 • S U E Z J A H P R I C I N T A L P F R M  
 • H O R N C S O K U R M G N I E O Y R O B  
 • K O P S O T M E I G N B G E T I R A B F  
 • F Y R E M E U Z E A V E S D I E Z M T O  
 • S R U A T R N N O L O T E R C S A I Y A  
 • T U X Z F D I H G E I I R S L A T T N P  
 • I C W O O S M B A N O N G H A D R E C K  
 • H R R H G M U I D A N A V D C Z L B O L  
 • H E U D E M L A S R I Y V K U N R M O D  
 • S M P T L L A I W T E K I R T O R B E N  
 • O P E H I R U E A L S M A K N S C N A R  
 • P O R U I L E T O T M N O Z O M I S E Y  
 • S A I L L U E I O D I N E R D V O H I W  
 • O H K I U Y I R V U E L B I I R U K C R  
 • G H R T J K D Y M O O L T L R U F L U S  
 • P P F E L D S P A R D L O G I H Z U H T

Alabaster	Carbon	Halite	Mercury	Sulfur	Vanadium
Aluminum	Diamond	Iodine	Neon	Thulite	Wolframite
Barite	Emery	Jasper	Olivine	Tin	Zink (with a "k")
Borax	Feldspar	Kyanite	Pyrite	Topaz	Zircon
Bronze	Galena	Lava	Rutile	Uranium	
Calcite	Gold	Limonite	Schist		

### ***Field Trips for 2015—from Mike Shaw of the Rock Rollers.***

“Heads up on some of our longer trips. We are putting out the dates so people can make reservations or schedule vacation time well in advance. PLEASE CONTACT MIKE SHAW AT mikeshawmoose@yahoo.com or (509) 251-1574 FOR MORE INFORMATION ON ANY FIELD TRIP.

**#1 McDermitt, Nevada—June 20-24.** Lots of great material there and one you won't want to miss. Early reservation a must at the two motels in town as they have only about a dozen rooms each and this will be a popular trip. There is an RV park in town also, first come, first served. We will have unlimited dry camping out near the dig areas, without facilities or water.

**#2 Clarkia,, ID. July 10-13** Hosted by the Washington Mineral council and the Hells Canyon Gem Club who owns the claim. It is only a few hours from Spokane, but since people are coming from all over Washington for that one, they are allowing a days travel on each side of it. It will actually take place on the 12th and 13th (Sat. and Sun.), but you might want to be there on the evening of the 10th just for the pre-trip instruction. Collecting large garnet crystals and quartz crystals.

**#3 Red Top Mountain.** Sept. 12 and 13. Once again you will want to arrive the night before (Friday) so you can get an early start in the morning. Last year we tried camping on top of the mountain and it was great! There is a vault toilet on top, and the views of the mountains are great. It makes the time actually spent digging much more productive, as there is less travel time to the digsite. It is a mile hike in to the digsite, and once there requires a lot of digging, but the rewards are great. We always find some nice thundereggs and Ellensburg blue agate.

**#4 Little Naches River** Arrive on Friday Sept 25 and dig for thundereggs all day on Saturday and part of the day on Sunday and then head home. We'll be renting a group campground (Kaner Flat Campground) for the weekend. The total cost for the group for two nights will be \$129, split among the attendees. It is an absolutely gorgeous campsite right on the Little Naches River. There is a vault toilet and water available across the highway at Little Naches Campground. This is a very quiet, isolated campground with room for RVs and tents. There is a locked gate that only we will have the combination to.

There will be other trips scheduled —Emerald Creek for Star Garnets on June 13, and Saddle Mountain for petrified wood on a date to be determined during the spring. And we will be coordinating with the Panorama Club on their field trips.

### **ZEOLITES, THE SHARING MINERALS. (EXCERPTS FROM A LONGER ARTICLE)**

Zeolites are hydrated silicates of aluminum, calcium, sodium and potassium. They provide fine specimens for the collector. The word zeolite means “boil stone”, referring to the water expelled when zeolites are heated. The approximately 50 minerals of this group have unique physiochemical properties. When heated,, the water of hydration is lost gradually and continuously, rather than at a certain temperature. They also easily exchange their original alkali ions for other minerals. These two things make them very useful in the home and in industry.

Zeolites have alumino-silicate framework structures containing channels filled with water and exchangeable ions. The ratio of aluminum and silicon to oxygen is always one to two. The ion exchange at low temperature is the basis of the water softening process. When dehydrated, zeolites may absorb not just water, but vapors, gases and fluids. At 250 degrees C. water is lost and can be reabsorbed at room temperature. Therefore, zeolites are excellent desiccants. Synthetic zeolites are the compositions used extensively..... in water softening and purification. Natural zeolites could do the job if a low cost source was to be had Permutit is the synthetic used in water softening and the sugar industry.

Zeolites have a low specific gravity and are soft with a range of 3.5 to 5.5 Good crystals are common., usually colorless and translucent. They occur in cracks, vugs, and crevices in basic igneous rocks such as basalt, and are also found in granite and mica schist. (I read the much more technical article because I have always wondered just what kind of a thing a zeolite was. Now I have a better idea.)

Author Lloyd L. Brown. Via Breccia Dec. 0/6-Jan.07 (Santa Clara CA) and several sources over a 6 year period.



## GARNET—BIRTHSTONE FOR JANUARY

Signifies eternal friendship and trust and is the perfect gift for a friend. Garnet— derived from the word *granatum*, means seed, and is called so because of the gemstone’s resemblance to a pomegranate seed.

References to this gemstone date back to 3100 BC, when the Egyptians used garnets as inlay jewelry. Garnet is the name of a group of minerals that come in a rainbow of colors, from the deep red of the pyrope garnet to the brilliant green of tsavorites.

The most important sources for garnet are Africa, Sri Lanka and India.

(source-American Gem Society—)

## CRYSTALLOGRAPHY AND MINERAL CRYSTAL SYSTEMS

**Don’t turn the page yet!** I was researching this topic on Bob’s Rock Shop and found some fascinating material that I have downloaded for personal use. The topic came up in one of our meetings, which stimulated my need to know more.. Following is some of the final discussion—

“.now we must leave the ideal world of symmetrical crystal forms and enter the real world. The world where the growth mechanisms and environment of a crystal have as much to do with the expression of the crystal forms we see as the molecular arrangement of atoms composing the mineral we are interested in.

Almost all minerals are crystalline but only under special conditions do minerals form with well expressed crystal forms. The mineral may grow from a melt as in igneous rocks, from solids under elevated temperatures and pressure, or open crevices or pockets from hot, warm or cold mineral laden fluids.

So when you examine perfect crystals of any mineral, please realize that they are remarkable objects. Probably 99% of all minerals present in the earth’s crust display no external crystalline form. **A euhedral crystal is a flower of the mineral world! Treat crystals with care and respect because they probably survived millions of years before someone discovered them. One careless moment and they may be destroyed forever.....”**

Now I really regret the careless manner in which I treated some of my past discoveries—being too impatient to see “what is inside” of this geode or rock! BB

**Faith in the Postal Service**—Sparkling in its bullet proof glass case at the National Museum of Natural History is a “red” diamond. It is only one of five known red diamonds in the world. The round brilliant cut 5.8 carat diamond was a gift to the nation from the late Boston gem dealer, Sydney DeYoung. John S. White, museum curator, was shocked when the precious diamond arrived on his desk in a small cardboard box, shipped by registered mail , uninsured from DeYoung’s estate in Boston. The box arrived with a yellow invoice describing the contents simply as “one red diamond”, and a postage cost of \$11.58. The diamond is estimated to have a value of several million dollars. Via Golden Spike News12/01

Two men are waiting in line at the Pearly Gates when St. Peter asked what they did on earth. One had been a taxi driver in NYC and the other a minister for 40 years. The taxi driver was given a golden staff and the minister a wooden one to use in heaven. St Peters says-to the astonished minister”You preached and people slept. He drove and people prayed.”

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## 2015 ROCK AND GEM SHOWS IN WA., OR., ID., AND MT.

**FEB. 7-8 — WHIDBEY ISLAND GEM CLUB OAK HARBOR, WA.**

**FEB. 13-15 — OREGON AGATE & MINERAL—OMSI—PORTLAND, OR.**

**FEB.28-MAR.1 — IDAHO GEM CLUB—EXPO IDAHO, BOISE, ID**

**MAR. 6 –7 — PANORAMA GEM & MINERAL CLUB-COLVILLE, WA**

**MAR 7-8 — OWYHEE GEM AND MIN.—CALDWELL, ID**

**MAR 13-15 — TUALATIN VALLEY CLUB—HILLSBORO, OR**

**MAR.14-15—MAGIC VALLEY GEM CLUB—CO FAIRGROUNDS, FILER, ID**

**MAR. 21-22 — HELLGATE MINERAL SOC.—MISSOULA, MT**

**FOR DETAILS SEE NORTHWEST NEWSLETTER OR CHECK [WWW.AMFED.ORG/NFMS](http://WWW.AMFED.ORG/NFMS)**