



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

MARCH 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

REGULAR MEETING OF NORTH IDAHO MINERAL CLUB

MARCH 19, 2015 6-8 PM

PROGRAM—“ARIZONA TO THE YELLOWSTONE IN MINUTES”

SILENT AUCTION

Refreshments by Tammy, Hiram, Bob and Carla

(INCREASED AWARDS FOR THE SCHOLARSHIP DRAWING FROM 3 TO 6 items)

NEXT DRAWING SCHEDULED AT JUNE MEETING

NIMC Minutes for February 19,2015

Meeting called to order by President Dale Ruperd at 6:30 p.m. The pledge of allegiance was recited. The minutes for the previous meeting were approved as written in the Newsletter. The motion was made by Everett Headrick and seconded by Bob Riley. The treasurer's report was given by Carl Chapin. Motion to approved report as given was made by Karel Mrazek, seconded by Marilyn Kohler, approved. Federation and ALAA dues are paid for year. Dealer Chairman Beverly Bockman, said there are 5 dealers paid in full and she is having difficulty securing dealers this year. (Now more! BB)

NEW BUSINESS: Mike Austin talked about the new mine "meant to be mine" owned by John_? on Bethel Butte. Mike stated John is in the process of planning the process of access to the mine. He stated only Rock Club Members with valid Rock Club ID will be allowed to enter the mine. There will be by appointment only times available to Clubs. The mine will have specific guidelines that ALL must follow or the WHOLE club will not be allowed to return. The mine is guarded 24 hours a day with a locked gate at the entrance of the claim. The garnets will be \$25.00 per pound. Each member will be allowed to decide which garnets they would like to purchase after weigh in and the rest will be let for the mine. The claim owner is required by State and Federal law to report all minerals leaving the claim. [ANY CLAIM] Just like they do at the Forest Service site on Emerald Creek run by the Forest Service. Each member will sign a contract before they are allowed to access the claim. More information contact: Mike Austin at 208-772-3520. Mike Burton paid for the NIMC club to have a booth at the Gold Prospectors March 21-22. He needs volunteers to assist in the booth both days. Mike will take your names and time you are available to work. OLD BUSINESS: There was no old business. SCHOLARSHIP DRAWING: There are 6 items and tickets are 50 cents each. Treats for March: Bob and Carla Riley with Tammy and Hiram Madland. Thank you! Don't forget the silent auction. Respectfully submitted, Diane Rose, secretary

HELLS CANYON GEM AND MINERAL CLUB PRESENTS

A LIVE AUCTION ON SATURDAY MARCH 21, 2015

MEL WILKS AUCTIONEER

Starts at 1 PM at Sacagawea Hall, Lewis Clark State College Campus—FOLLOW THE SIGNS, PLENTY OF PARKING. 500 8TH Ave. Lewiston, Idaho.

No registration fees—coffee—a good time.

Sale items include equipment, local rough and slab rock, opals, garnets, jewelry, petrified wood, agate of all kinds, jade and much more. Be a part of the auction and bring things to our auction. CONTACT MEL WILKS FOR MORE INFORMATION.

CELL—208-791-7241, 208-301-3939 or e-mail snakeoil@frontier.com

Plea to members from your editor I could use some help with articles for this bulletin. Could any of you write about your experiences collecting or working with rocks and minerals??? Or anything about trips you might have taken, or topics that interest you that you would like to share??? Till then you will have to put up with things that catch my eye or whatever.....No complaints accepted!!

BUG IN A GILDED CAGE (ALL THAT GLITTERS IS SOMETIMES BACTERIAL)

Panning for gold in frigid Alaskan streams, prospectors mused about mysterious outcroppings of ore, the mother lodes from which they presumed the precious flecks and nuggets came. If John R. Watterson of the U.S. Geological Survey in Denver is right, the immediate origin of the prospectors' gold has as much to do with biology as with geology.

Until the electron microscope, many of the gold dust particles Watterson has examined resolve into a lacy mesh of micron-diameter balls and thinner struts. Often the structures are confined to the surface of the gold particles, but some particles are solid masses of them. Watterson has proposed that the structures are the 24-karat castings of bacteria belonging to the genus *Pedomicrobium*. "The fact that you can find these residual morphologies in the majority of particles I examined suggests that most of it is secondary gold that dissolved and reprecipitated on the cells," Patterson says. "That is quite contrary to the current model."

As far back as Aristotle, earth scientists have generally believed that placer gold is the result of mechanical weathering: wind and water chipping away at veins of ore. During this century, geologists have become more aware of how chemical, and sometimes biological, processes also can shape mineral deposits.

Watterson's discovery follows by about 10 years his serendipitous observation that gold solutions are lethal to many soil bacteria. These coats of gold, he explains, tend to condense around the bacterial spores, clogging the narrow pores in their cell walls through which nutrients enter.

Those observations spurred Watterson to look for similar accumulations of gold around cells in natural

(continued on page 3)

(from page 2) soils. When he looked at placer gold particles from Lillian Creek in Alaska, he was immediately struck by the abundance of *Pedomicrobium* cell castings. “It looked like a Ping-Pong ball truck had ruptured on the highway,” he recalls. “They were all over the place.” Many of the particles seemed to be solid masses of gilded cells. Some gold samples from China and South Africa showed similar bacterial shapes, which suggests that *Pedomicrobia* and related bacteria might have been involved in the formation of placer gold around the world. *Pedomicrobia* can survive the accumulation of gold better than most bacteria, Watterson thinks, because of their unusual reproductive habits. Most bacteria multiply by fission, splitting into separate cells. *Pedomicrobia*, however, often reproduce by budding. Because new cells bud off their parents, remaining attached by short stalks, the bacteria grow fast enough to escape the gilded cages closing around them. The reliance on budding also explains why these bacteria are forming visible gold particles; masses of *Pedomicrobia* cohere to one another rather than becoming isolated cells.

Stephen Mann, a biomineralization expert at the University of Bath, points out that many bacteria can become encased in mineral coatings under the right circumstances. Quite aside from their proclivity for gathering gold, *Pedomicrobium* bacteria accumulated iron and manganese oxides around themselves inside pipes in hydroelectric plants and similar environments rich in dissolved minerals. In general, however, these mineral deposits are the formless products of chance interactions between metal ions and various molecules leaving the cells. The golden casings around the *Pedomicrobium* are extraordinary, Mann remarks, because they are almost perfect in their purity.

The specificity with which the bacteria are gathering gold suggests that some molecule on their cell wall attracts gold complexes selectively. Asked what the bacteria might be doing with the gold, Watterson replies, “That’s still a mystery to me.”

Mann has speculated that the precipitating gold complexes may serve as acceptors of electrons from some biochemical process within the cells.

If there is a cell-wall protein that turns *Pedomicrobia* into gold bugs, Mann continues, it should be possible eventually to clone its gene and transfer it into other bacteria for industrial applications. Many mining companies are already using bacteria to help extract metals from low grade ores. Surely some 21st century prospector will harness these microscopic Midases as well.

Via the Agatizer 9/04, via Ore-Cutts, via West Seattle Petroglyphs 4/05

6th grade students —An Earth Science Test answers.

H₂O is water. Co₂ is cold water.

When you smell an odorless gas it is probably carbon monoxide.

Water is composed of 2 gins...oxygen and hydrogen. Oxygen is pure gin, hydrogen, water and gin.

The pistol of the flower is its only protection against insects. From Bugle 11/04

Accept that some days you're the pigeon, and some days you're the statue. *Always keep your words soft and sweet, just in case you have to eat them.* Always read stuff that makes you look good if you die in the middle of it.~~~~ Drive carefully. It's not only cars that can be recalled by their maker.~~~~ Worrying does not empty tomorrow of its troubles. It empties today of its strength.

The first field trip to Saddle Mountain this spring will be April 18 if you want to go with the Rock Rollers. Of course, you are not obliged to go with their group, but if you have not been there before it is good to do that. The group is meeting at 9 AM at the West bound Sprague Lake rest area. An additional place to meet will be the Shell station at the east end of Mattawa at 11:30 AM. Bring shovel, rock hammer, bucket, lunch and water. Hat and gloves are necessary, also, for comfort. Passenger car accessible.

There will be a **July trip to Clarkia with the Hells Canyon Club** to their claims to collect pine cone crystals and garnets. **I have printed a copy of the entire trip for those who wish to know more and want to dig "virgin ground"**. Camping and all rules are on the papers you may get at the front table at the meeting.. **Early registration is advised. Material at meeting!!**

"Geologic History of the Inland Northwest" By Peter Wyman

Class!

This class should be of interest to all of our members. The teacher is Mr. Andy Buddington. Andy has been a member of the Spokane Rock Rollers in the past and has given lectures at club meetings etc.

Once part of the coastal edge of the ancient continent, our region experienced numerous episodes of mountain building as a result of tectonic terrane collisions, and was inundated by massive lavas known as flood basalts and later the catastrophic outburst floods from glacial Lake Missoula during the Pleistocene ice age. Explore the fascinating geology of the Spokane region.

Here is the information you will need if you would like to go to this class.

**Location: Spokane Community College, 1810 N. Greene Street, Bldg. 27, Room 301,
Spokane, WA 99224**

When: Monday April 13th and Monday April 20, Plus there will be a field trip on Saturday, April 25th• You will need to supply your own transportation to the field trip site.

Class No.: M468 Time 6-9 PM

FOSSILNEWS

Dan Joling of the Associated Press reported in the LA Daily News that a grove of petrified tree stumps has been found on the northwest corner of Unga Island 570 miles southwest of Anchorage in Alaska. The trees are believed to be from the Miocene or Oligocene epochs (about 25 million years ago) and may be Sequoia, now native only to Northern California, or Metasequoia, found only in China.

Geologist Bruce Giffen with the National Park Service thinks the trees were toppled by a lahar - a flow of volcanic ash, mud and rock mixed with water from a nearby eruption. "Flow from the volcano came down and engulfed those trees and basically snapped them off", Giffen said. "There's very little in the way of leaves or needles." Like the pyroclastic flow at Mount St. Helens in Washington state, the forest was sheared off and many of the stumps were quickly buried by the strange landscape where the black slate is peppered with white, cream, red or orange fossil trees. On the beach is one stone log nearly 67 paces long. Often below the tide line, and covering nearly five miles of beach and hillside, the petrified stumps range from a couple of feet in diameter to over 8 feet across. Bill Dushkin, the president of Shumagin Corp. (the Alaska Native village corporation which owns the land under the fossil trees), first saw them while digging razor clams on the beaches as a boy. "It's like there was a great big Paul Bunyan - chopped them off all even." Dushkin hopes tourists could one day see his forest through glass-bottom boats. His fishing boat's radar has indicated 12-18 feet high "pillars" rising from the ocean floor. "I think there are underwater trees there," he said. From Golden Spike News—10/04 via Del-Air Bulletin 09/04

Mineral Club at Gold Show

The mineral club has paid for a booth at the Northwest Gold Prospectors Association Gold Show in March. We are looking for club member volunteers to help set up and man the booth at the show. Setup is on March 20 and the show is on March 21 and 22. We are attending the show because they were looking for vendors who sell jewelry and we have much jewelry from a member's collection that we can otherwise not dispose of. This should be a fun time, so all members are invited to volunteer. Contact [Michael Burton](#) if you are interested. 772-9347

Original Salt Mine

The miners employed at the Morton Salt Mine at Grand Saline, Texas find salt mining anything but a back-breaking, pick-and-shovel affair. One official says, "The difference between coal mining and salt mining is like black and white." When the mining started here in 1929 it was necessary to dig the salt out with a pick and shovel and carry it out by wheelbarrow. Now the mine is highly mechanized and compares favorably with above-ground construction work.

The Grand Saline Dome is an immense underground mountain of solid rock salt, deposited by an ancient sea and subsequently pushed up into a dome shape by pressure, probably volcanic. This dome, with a diameter of about a mile and a half at its narrow top, is estimated to contain enough salt to supply the world's needs for the next 20,000 years at present consumption rates, even if it were only mined to about one-fourth of its 16,000 feet depth. And there are another 400 or so domes around the country, though only about 18 mines are operating.

The dome was discovered by Indians, who used its surface water to collect salt. Since 1929, the miners have picked and blasted through some 18 million cubic feet of salt, leaving behind 14 miles of corridors and galleries at a 700 foot depth. (This was the figure for 1978.) The mining is done by a simple, room-and-pillar quarrying process, which requires little skill or training. The men work on a wall about 75 feet long and 25 feet high, carving a 10 foot deep notch along the bottom of the wall with a diesel undercutting machine. A power drill then honeycombs the wall with holes, also 10 feet deep, which are packed with explosives. One blast and the wall crumbles into a 1,200 ton heap of rock salt which the miners load on a conveyer belt with earth-moving equipment. Any crew worth its salt can complete this entire process in a day. Mined rock salt is used primarily in agriculture (animal feed) and in the chemical industry and winter ice-control on roads. Table salt, which amounts to only a pinch of salt of the world's salt production, is extracted by pumping water down and up through the dome and then evaporating the resulting brine.

Despite large fresh-air circulation systems, the miners complain of headaches and blame them on diesel fumes. Rashes are another problem. The men also complain that they really do get salt in their wounds, creating irritations. Still another problem is "brown bumper". The salt eats up equipment, by rusting, in about 5 years. Cars in the mine's parking lot are soon peppered with rust. So far, no one has come up with a solution to the rust problem. Salt miners earn substantially less than most coal miners, who face greater risks and are better organized. The more than a thousand salt miners in the U. S.

suffer few of the hardships associated with coal mining. They don't have to bend over in damp. 24 inch high seams—the lowest ceiling in the Grand Saline is 10 feet—and salt mines contain no explosive gases. No one has ever been killed in the mine though there have been fatal accidents in the above ground processing plant, and there is nothing to equal black lung..

At one time a few bags of salt would have been enough pay for the miners. Romans paid their soldiers in salt, which led to the word "salary" from the Latin "sal" for salt. But with modern mining methods, salt isn't valuable anymore. What is in a box of table salt is worth less than the cost of package and marketing. Excerpted from the Wall Street Journal via the Geological Drifter

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THE NORTHWEST FEDERATION OF MINERALOGICAL SOCIETIES

S.C.R.I.B.E.

AMERICAN LANDS ACCESS ASSOCIATION

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

MAR 14-15 - NW MONTANA ROCK CHUCKS— KALISPELL. MT.

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

MAR. 27-29—ROCK ROLLERS —SPOKANE, WA

MAR. 28-29 MT. Baker Gem Club—Bellingham, WA

MAR 28-29—SWEET HOME ROCK & MIN.-SWEET HOME, OR.

**APRIL 10-12 GOLDEN SPIKE GEM& MIN SOC. SHOW AND NFMS AN-
NUAL MEETING—OGDEN, UTAH**

APRIL 11-12 YAKIMA ROCK & MIN. YAKIMA, WA

APRIL 17-19 -WILLAMETTE AGATE SOC. RICKREALL, OR

APRIL 18-19 LAKESIDE GEM & MIN CLUB—KENNEWICK. WA.

APRIL 18-19 IDAHO FALLS GEM & MIN.—IDAHO FALLS, ID.