

Place: **Union Hall**
Meyers Street
Next to Campus Life
In Kettle Falls



Time: 7:00 PM
Third Tuesday
Each Month
(Jan.-Nov.)

Newsletter January 2005

The Panorama Gem and Mineral Club

Minutes by Luci Bristow

January 18, 2004

There were 7 of us at the 6:00 PM Show Planning Meeting. We discussed several topics such as advertising, a theme for the show, Rex's wheel of fortune, prizes and grab bags, dealers, silent auction, etc.

At the regular meeting, Johnie reported that our Rex had a mild stroke, but that at this point he is doing well. Joe Barreca stated that the newsletter was in fine shape for the next few months, mainly due to the advertising sold.

Johnie requested that the display items for the Colville Library be ready by the February 15 meeting. Luci has volunteered to do tags for the display. Please have the names of your display items ready for her at the next meeting. We voted on several theme names for our Show. "Nature's Creations" was chosen.

Steve White gave an informative and interesting presentation on Spessartine Garnet. We all enjoyed it. The garnets are certainly beautiful!

Sign-up for a display case at the Spokane Show at the February meeting.

Diane will give a talk on field trip "safety" at the February 15th meeting.

A budget for our Show was discussed. Steve White moved and Bob Adams seconded that we allocate up to \$1,200.00 for the show. The motion passed unanimously. Johnie mentioned that we should keep all of our receipts for reimbursement purposes.

Johnie asked that we all be at the next Show meeting for further planning. We need your input to make this happen. **The meeting will be at 6:00 PM at the Union Hall in Kettle Falls.** Joyce and Luci are the cookie bakers for the February meeting.

See you then!

The Go-To Guy: A Visit with Rex Barrans

by Joseph Barreca

On my first rock hounding trip with the Panorama Gem and Mineral Club, Rex Barrans led us up to the dig. After we got there, people kept bringing their finds over to Rex to identify metals, minerals and crystals. It was soon clear who the go-to guy was on that trip, and as it turns out on just about any trip in Stevens County.

I visited Rex and Mable Barrans at their home in Chewelah recently and got to see their private collection. It reinforced my impression that we live in an area rich with earthly treasures.



Rex got the rock picking bug early on. He helped his uncle prospecting at age 14. After he came back from the war in 1946. He got a job at the Allen Magnesite Quarry up Browns' Quarry Rd, south of Chewelah. He started out drilling and blasting. It didn't take him long to move up to company electrician. The main shovel for the quarry ran on electricity and Rex was an electrician in the Service. It

also didn't take him long to find Mabel (or maybe she found him.) Her uncle worked at Allen Quarry.

Besides magnesite, Allen Quarry had pyrite crystals and probably several other interesting ores. Even after all these years Rex still has the enthusiasm of a youngster for new minerals no matter what their size or dollar value. His microscope is just as important as his line of tumblers and he can pick up almost any rock of the hundreds in his collection and tell you what it is and where it came from.

Early on he found the book "Mineral Resources of Stevens County" by the Washington Geological Survey, 1920. More recently Bob Bristow borrowed a copy from Walter Goodman and made a copy for Rex. It had 65 minerals of economic significance listed and Rex has pretty much found every one.

We were moving fast, so I am not going to detail everything in Rex's collection. But I do want to mention a few and include a crude map of where they are so we can find some of these ourselves.

The name that keeps coming up for the best overall variety is the Jim McGraff Mine. Rex has a piece of brown ophiolite with what looks to be cubic inclusions in green and other colors that is unlike any I've ever seen. The mine also had asbestos. It is privately owned and not available for "landscape rocks". But rock pickers can get in with a trusted chaperone such as Rex.

Rex found some crystals of Black Tourmaline in the granites up on Calispell Mt. The granites themselves are reportedly beautiful, but probably not easily turned into counter tops. Nearby at the Railway Dike or Merikay Mine the government supported the production of uranium fuel rods during the WWII that used beryllium. It is also used in copper conducting springs for electrical relays.

Pyrite is common in many ore tailings, the Allen Quarry, the Deer Trail and the Copper Queen to name a few. Massive pyrite from the Big Iron Mine can be tumbled and polished. Arsenopyrite can be found at the Cleveland Mine, our first scheduled

expedition this coming year. It is the principle ore of arsenic, so we will have to be careful.

The Crystal Prospect up off the Springdale – Hunters Road was once a great place for smoky quartz. It costs \$12 per day now to dig there and is fairly played out. Smokey quartz will clear when exposed to heat. But it will turn dark again when exposed to radioactivity. Some smoky quartz lies in veins under the whiter kind near the Deer Trail Monitor Mine. (See the October 2004 newsletter.)

Rhyolite can be found in one of Ernie Smith's Quarries near Chewelah. It takes a polish and looks almost like picture jasper.

Rex found flowstones, evidently from an ancient hot spring flow, up near the Gladstone Mine, east of Deep Lake.

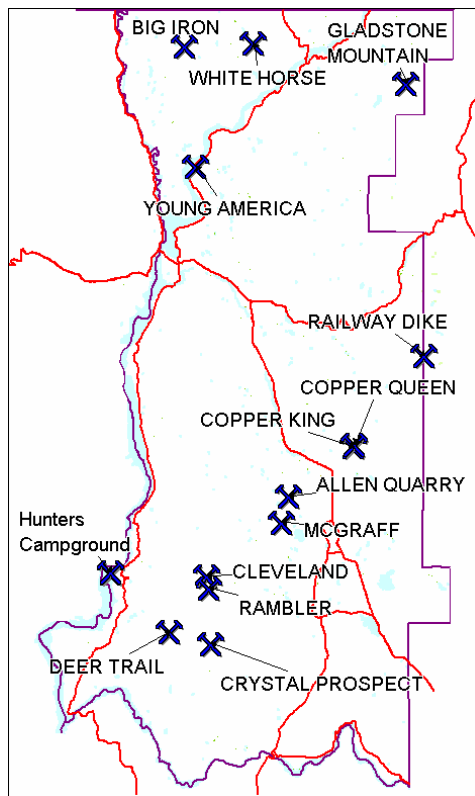
Argyrite, a silver mineral was found in the Young America mine near Evans.

There is malachite around the Copper King, Edna and Keystone mines northeast of Chewelah and gold-colored chalcopyrite at the Copper Queen nearby. Rex has some native copper from the Rambler Mine East of Hunters.

Psilomelane is a black manganese oxide that can be found near the Hunters Campground in an area where you can also see the tracks of the glaciers etched into the rock.

I didn't catch the locations of the hollow mudstones, fossils, fluorites, muscovite, feldspar, beryl, barite and many more minerals Rex has from Stevens County. He has many more from Ferry County and neighboring states. There are a lot of

treasures in the ground of Stevens County, but none more valuable to our club than the go-to guy, Rex Barrans.



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A Real Gold Mine Part 2 – Discovering Rich Pockets

By Bob Bristow

At \$60 per sample, I couldn't afford many commercial assays. My next step then was to learn to do my own. I decided to do small torch assays pioneered by Charles Butler of Bodfish, California. In this assay, you hollow out a common barbecue briquette and fill the cavity with a mixture of ore and flux. Upon heating the mixture, the lead in the flux melts and absorbs the gold and silver in the ore. You place the lead in a bone ash cupel and oxidize the lead, which is then absorbed by the cupel. The result is a small bead of precious metal that you can measure with an optical comparator. I eventually did over 500 of these assays. Figure 1 shows a gold bead from a sample of ore.

After learning how to do my own fire assays, I excitedly searched for the spot in the shear zone where the Seattle laboratory had said there was significant gold. I searched and searched but could only find areas where the best



Figure 1.
An Assay Gold Bead

assays gave a few hundredths of an ounce per ton. After a year of digging and assaying, I concluded that the Seattle lab had given me a bad assay.

(They later gave me a terrible assay and these are the people who provide the data to the EPA!) I was very disappointed but knew somewhere on this mountain I would find the gold. I dropped this claim and concentrated on the red vein further up Mineral Butte. The vein at the upper location was one I had also discovered the first day of serious prospecting. It only averaged 0.04-ounce per ton gold and about 1/2-ounce per ton silver, but I hoped to find rich paystreaks. The vein was interesting. It was filled with quartz chunks that had the look of having been squeezed into the vein after the quartz had hardened. I wanted to see what was in the unweathered part of the vein,

which meant blasting a hole in it. My next step was to study enough to get a blaster's license.

Getting a permit to buy and use Class A explosives was an adventure in itself. I had used considerable explosives in the past, when all you had to do was go into almost any hardware store and buy a case of dynamite, some "safety fuse" and a box of primers. After 1987, you needed a license to buy and transport explosives and another one to use them. Since I had grown up with explosives and was considered an explosives expert at Boeing, I thought it would be easy to get a license. Not so. I discovered that for the test you needed a table to calculate some of the answers. Since it was a closed-book test, I flunked but came back 30 days later and easily passed it. It seems that the state desired to make sure you wanted the permit bad enough to take the test twice!

Figure 2 shows my brother John drilling



Figure 2. Drilling a Hole for Dynamiting

holes for blasting open an adit into the red vein. When I fired the round, there was only a poof of dust. I thought that most of the dynamite

didn't explode. I soon found that the dynamite did explode, but didn't breach. I chipped out the center hole and found that there was a large cavity inside. I put about 10 sticks into the cavity and fired them. This time a nice adit entrance formed. A few feet inside, there was a large spherical cavity in the vein. When I climbed in, the quartz balls were not hard. They reminded me of cottage cheese. This was very strange and something I had never heard of. The next morning, I decided to get a bucket of the strange quartz and crawled into the cavity. Much to my surprise, the quartz was now as hard as, well, quartz. Hollows in the knobby balls held very small quartz crystals. I

wish I had put some of the soft quartz into a bucket of water to keep it in that strange condition. The vein was large and there were rich streaks of silver, but the gold content was too low for profitable mining.

I had filed the claim based on the quartz vein. However, I noticed that a roadcut passed through red-stained granite rock with many small cavities. I wondered if the cavities could be spaces once holding sulfides. When I blew a hole in unweathered rock (Figure 3), it was loaded with pyrite and chalcopyrite. After a close examination, I found that the deposit holding the disseminated sulfides was about 250 by 400 feet. This caused me to drop the original vein and go after chalcopyrite. The chalcopyrite also held considerable gold. Some commercial assays of the ore ran as high as 2.08 ounces per ton, but the average gold content of the chalcopyrite was 0.6 ounce per ton. Figure 4 shows a rock filled with chalcopyrite and gold. I had now found my rich paystreaks!



Figure 3. Blowing a Test Hole in Disseminated Chalcopyrite

It was now time to mine! I wrote up a plan of operation for the Forest Service, selected a week to take vacation, and rented a pneumatic rock drill, compressor, and Bobcat loader. The Forest Service had problems with my plan of operations. It seemed that there was State land down the hill from the mine site. They wanted a bond to cover setting up a cable system to haul any rocks back up onto Federal land if my mining

should roll any that far. Now, my deposit was above a logging road constructed by the Forest Service. When they built it, several thousand tons of rock was blasted out and down onto state land. I asked why they hadn't hauled all their rocks back up. The ranger said, "Ah, ah. Oh, we must have gotten a permit from the State. That's it. I'm sure we got a permit!" So I had to get a bond. I found that this was the first of dozens of roadblocks put in front of me.

The day approached to begin mining. The Plan of Operations was verbally approved but not signed and the bond had not been issued. The Forest Service mining contact continually told me that the District Ranger was too busy to go over it but it would be signed by the day I had requested to start mining. Friday morning came the day before I was to start. I called the mining contact



again and he promised he would get the Plan signed and would call me so I could pick it up Saturday morning. The day passed and no call. That evening, I looked up the District Ranger's home phone number and called. At first he didn't know what I was talking about. Finally, he said that the Plan had never been put on his desk and said he would check and call me back. A few minutes later the phone rang. It was the mining contact. He told me he had finally been able to get the District Ranger's signature and it would be waiting for me at the Ranger Station in the morning. One problem was solved but still no bond. The bond company had a similar story in that the person handling it couldn't get the proper signature.

My brother and his wife were going to camp and help me stockpile ore that week and accompanied me to the bond office Friday morning. The receptionist said they were doing inventory and no bonds would be issued until the following Tuesday. I could come back then and get the bond. I explained that I had to have it then and that the bond company had promised it. She said, "Sorry, there's nothing I can do. We're closed." My brother is a minister but he has a beard and on that day he had old clothes and was carrying a hunting knife. He looked quite tough. I didn't look any better. We simply sat down in the chairs in front of the receptionist and waited. After a few minutes, she began to fidget. After half an hour, she went into the back office to talk to someone. She came out and sat down again and tried to do some paper work. We just sat there. And sat there. Another hour went by. After a couple more trips to the back office the receptionist came out and, without a word, handed me the signed bond.

It was getting late in the morning and we wanted to get everything set up to start working the next morning. The nearest rental shop was in Bothell, about 50 miles from the mine. We picked up the compressor and hauled it up to Skykomish where we got the signed Plan from the Forest Service. Then back to the North Fork road and up to the mine. Everything went fine until I tried to make the last switchback on the Salmon Creek logging road. The switchback was steep and covered with two-inch diameter round rocks. My two-wheel drive pickup didn't have the traction and stalled. We started sliding back with all four wheels locked and it looked like the heavy compressor would pull us over the edge of the cliff and down the mountain. We stopped just short of the drop-off but there was no way to turn around. We filled the back of the pickup with rocks and we were able to go back and forth enough to back the compressor down the hill. With the rocks for traction, I was able to make the switchback and on to the mine.

The next load was the Bobcat. My little half-ton pickup could barely pull the loader on the level. I knew it would never make it up the hill to the mine. We unloaded the Bobcat at the bottom

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of the mountain. My brother John drove the loader while I followed in the pickup with his wife Christy. The little Bobcat scooted right along and John was making good time until he came to a water bar that he didn't see. (A water bar is an angled ditch across the road to guide water off the road rather than letting it run down the ruts.) The Bobcat had a heavy block of concrete on its rear to counter the weight in a fully loaded bucket. John didn't have any load in the bucket. When he hit the water bar, his wife and I both sucked in our breath. The Bobcat bounced high into the air and when it came down, the wheels took off and the top stayed put. Over it went onto its back. I could instantly see us spending the next day getting it back up. I didn't have to worry. It was as though there were springs in that concrete block. The Bobcat jumped right back onto its wheels and went on as though nothing had happened. I could hear Christy let out her breath. Then, she said, "Did you see what I think I saw?" I said I had seen it, too. After John stopped and filled the bucket with rocks, everything went smooth. (For a while!)

Next Time - Robbers!



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Irv's will release a new DVD **The Ancient Art of Gem Cutting** during the 1st week of March.

List price is \$59.95. The club can get a 30% discount on orders over 5 copies. Call Dave or Elizabeth at 509 924 5464 for the latest information



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Our club has a new member, Chuck Prentice, who is the current president of the **All Rockhounds Pow Wow Club of America**. The Pow Wow club holds several annual events including campouts at Mattawa, WA 4/16/05, June 29th to July 3rd at the Jefferson County Fairgrounds in Madras Oregon and a campout at CleElum in September. Dues are \$10 per family. Call Chuck at 684-7979.