PNWFM NEWSLETTER

Inside this issue:

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Spring Collecting??

Photo taken April 10th of Mt. Teneriffe, Washington

The groundhog has overslept and winter maintains it's grip on the Pacific Northwest. Cabin fever seriously effects the mineral collector who hasn't made the pilgrimage to Tucson or found some other method to salve his mineral needs. Many lucky collectors did make their appearance in Arizona this year as seen in the pictures inside. The Pacific Northwest Chapter was well represented at the FM National Board meeting with six members in attendance.

For those who weren't able to go south there are events on the upcoming calendar which should provide relief from the weather outside. The Rice Museum is hosting a retirement party honoring Rudy Tschernich who is leaving the museum's curator post. Details inside. Please take this opportunity to thank Rudy for his many years of service to the mineral community.

The PNWFM Spring business meeting will again be held in conjunction with the Seattle Mineral Market in May. This event provides a great opportunity to get together, buy, sell and trade minerals, and catch up on the latest mineral news. This is the best spring mineral show in the NW so don't miss it.

For those who can't field collect locally yet, Bob Meyer has provided a wonderful narrative of three members collecting trip to Utah/Nevada last Fall. Not the same as eating the dust yourself but the next best thing. Hope it tides you over.

PRESIDENT'S MESSAGE - Bob Meyer

It is spring in the PNW, when days become longer, temperatures become warmer, and we can see ahead to better days. I hope that you have a very nice spring season, one that involves some aspect of mineralogy or mineral collecting.

One event that you might wish to include in your spring agenda is the Seattle Mineral Market #4, which will be held on May 21 at the Lake City Community Center. Information about the "Mineral Market" (not, hmm, the "Mineral Mart") can be found elsewhere in this newsletter. Following our success from last year, PNWFM will have a general meeting at 4:00 p.m. at the Seattle Mineral Market. Please attend both events while you are about it. Better yet, if you have a few specimens you would like to part with, the Mineral Market is a perfect opportunity to sell them or trade them for a minimal table charge in an informal setting.

In this issue, you will see part two of field trip report from the semi-official trip made last September to Utah and Nevada. Because of the article's length, and the fact that it contains a number of micro mineral photographs, there will be no Micro Mineral Collector column in this issue. The Micro Mineral Collector column will be back for our next newsletter. It is my hope that this report will serve as an inspiration this spring to begin preparations for the field-collecting season. As I mentioned in part one of the report, spring and fall are the best times to visit some of these localities.

Planning is well under way for the symposium this October 14-16. My sincere thanks to the members of the Symposium committee, all of whom have been active in discussions early on, with special thanks to Al Liebetrau, our dealer and publicity liaison, and to Allan Young, our speaker chair. Both Al and Allan have completed a large percentage of their preparations for the symposium, and both have been very active in discussions relating to symposium issues.

You might have noticed an improvement in the most recent National Friends of Mineralogy organization's newsletter. Please remember that your membership in PNWFM also carries with it membership in the national FM organization. One of the primary ways that an organization such as ours establishes a connection to its members is though communication. In our case, and this should be true of the national organization as well, the primary means of communication has been our newsletters. My thought, beginning with the December 2009 PNWFM newsletter, and harkening back to the earlier days of PNWFM, was that any publication of a group whose interest centers around minerals should have something in it about minerals. Thus, our newsletters should be much more than a schedule of events and minutes from the last meeting. John Lindell, our newsletter editor, took that initial concept and has turned our newsletters into something that we look forward to receiving. Now, he will perform similar magic for the national organization. John Lindell has graciously agreed to be the editor of the National FM newsletter. Many thanks to John for his help on both fronts!

As always, one of the best parts of this job is the opportunity to communicate with members. I encourage you to stay in touch via e-mail or telephone, and let me know what you are thinking about PNWFM.

Best regards,
Bob Meyer, President, PNWFM

PNWFM TAKES TUCSON '11


Photo by Bob Meyer


Photo by Bob Meyer


Photo by Gail Spann


Photo by Kristin Lindell


Photo by Kristin Lindell


Photo by Gail Spann


Photo by Gail Spann


Photo by Gail Spann


Photo by Gail Spann


Photo by Gail Spann


Photo by Gail Spann


Photo by Gail Spann

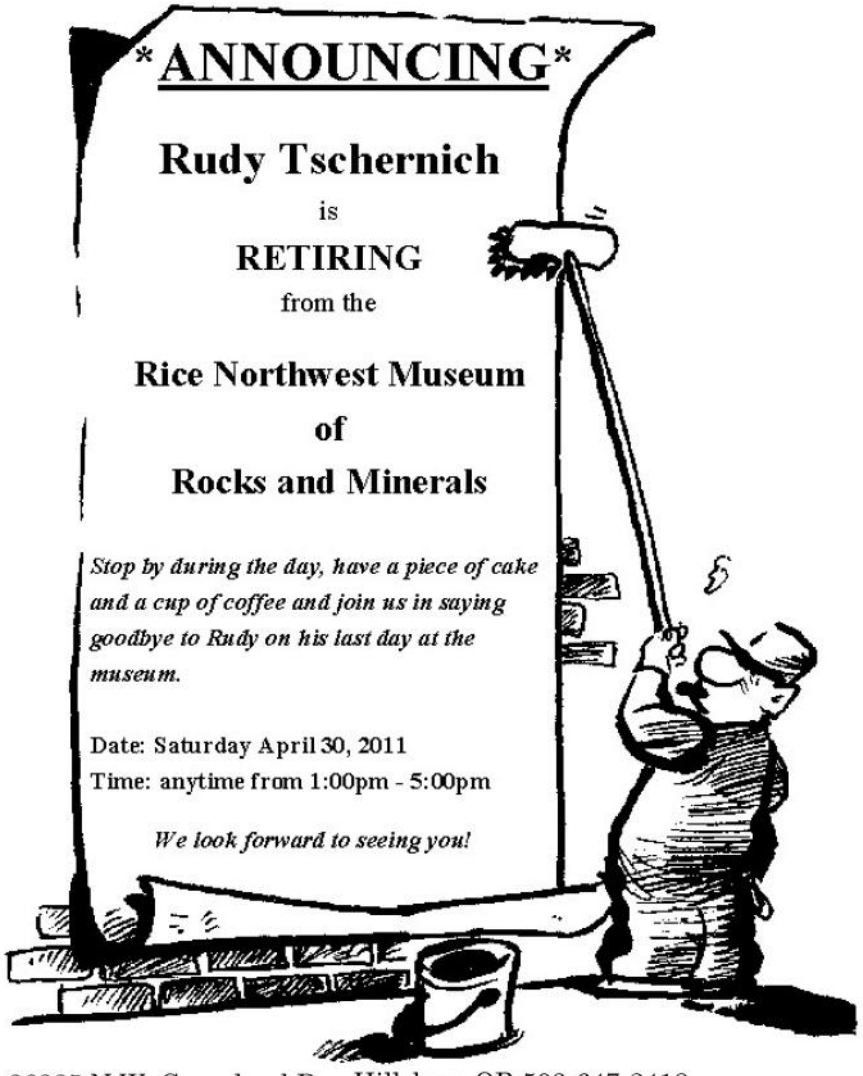
Rudy Tschernich, a PNWFM member from its beginning, Noble Witt Award recipient, prolific author of many articles and the definitive work on zeolites, *Zeolites of the World,* honored with a mineral named after him, tschernichite, and generous supporter of the Rice Museum serving as it's curator through its formative years and almost single handedly bringing to fruition it's Northwest Minerals building,

Is retiring from his position at the museum.

His influence will certainly be missed in the Northwest mineral community, but no one has contributed more to the advancement of minerals in the NW than Rudy and he certainly deserves all of our thanks.

Please join us in thanking Rudy in person on April 30th at the Rice Museum.

Is that the beginning of a smile?



ATTEND THE SPRING PACIFIC NORTHWEST FRIENDS OF MINERALOGY BUSINESS MEETING HELD IN CONJUNCTION WITH:

Seattle Mineral Market # 4

* Free Admission, Free Parking *

Saturday, May 21, 2011 - 10 AM until 6 PM

Dealer Load in 10 PM on the 20th, 7 AM on the 21st

More than 80 tables of Dealer Inventory

Lake City Community Center 12531 28th Ave NE

Contact: Bart Cannon 206 522 9233 bart@cannonmicroprobe.com
Website: <www.cannonmicroprobe.com/test.htm>

MINERAL SPECIMENS, MINERAL and MINING BOOKS,
MINERAL ART, STUDENT POSTERS, MICROSCOPES, FOSSILS

* Educational Displays * Free Minerals for Kids * Free Mineral Identification

NOTE: This page can be printed as a single page for distribution

Dealer List as of April 5

John Lindell
Bart Cannon
Galaxy Gems Brazil
John Cornish ?
Cascade Scepters
Peter Boyd
Bob Jackson /
John Sobolewski
Pacific Rim Minerals
Gary Buhr
Tom Bennett (Chef)
Turkish Gems
Jeff Schwartz
Rose Rock and Gem
Rob Woodside
Dorothy Cannon /
Cassie Magill
Wes Gannaway
Bob Meyer

Earthlight
Sal Noeldner
Pacific Rim Minerals
Ed Godsey
Ray Hill
Tom Payne
Geology Adventures
Gem Nest
Lidstrom's
Nature's Creations
Earth Craft
World Flair
Alex Carrington
Third Eye Assemblies
Karen Hansen
Mineral Art
Al & Sue Liebetrau
Marcus Origlieri

Quartz (amethyst); 22 cm tall. Boulder Batholith, Silver Bow County, Montana, USA.
Ex. Geore F. Kunz collection; Ex. Ernest Weidhaas collection.
Mark Mauthner photo; courtesy Heritage Auctions (ha.com)

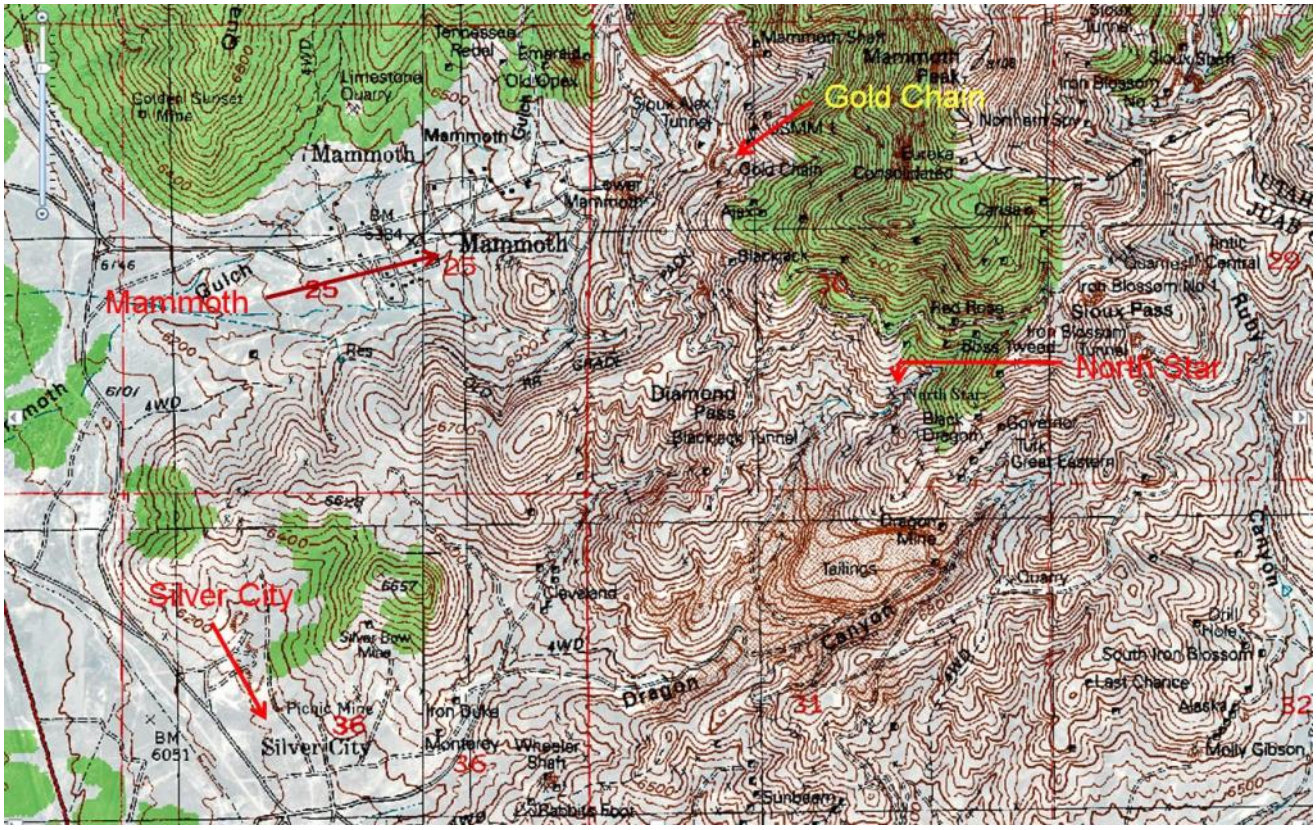
Utah & Nevada 2010, A Field Trip··Part Two

Northwest Mining Contingent Waits for Back Pay—Members of PNWFM standing on the front steps of the main office of the Eagle and Blue Bell Mine, just up the hill from Eureka, Utah. The pay window is just inside the door on the right, but on our visit, it seemed "sparsely" manned.

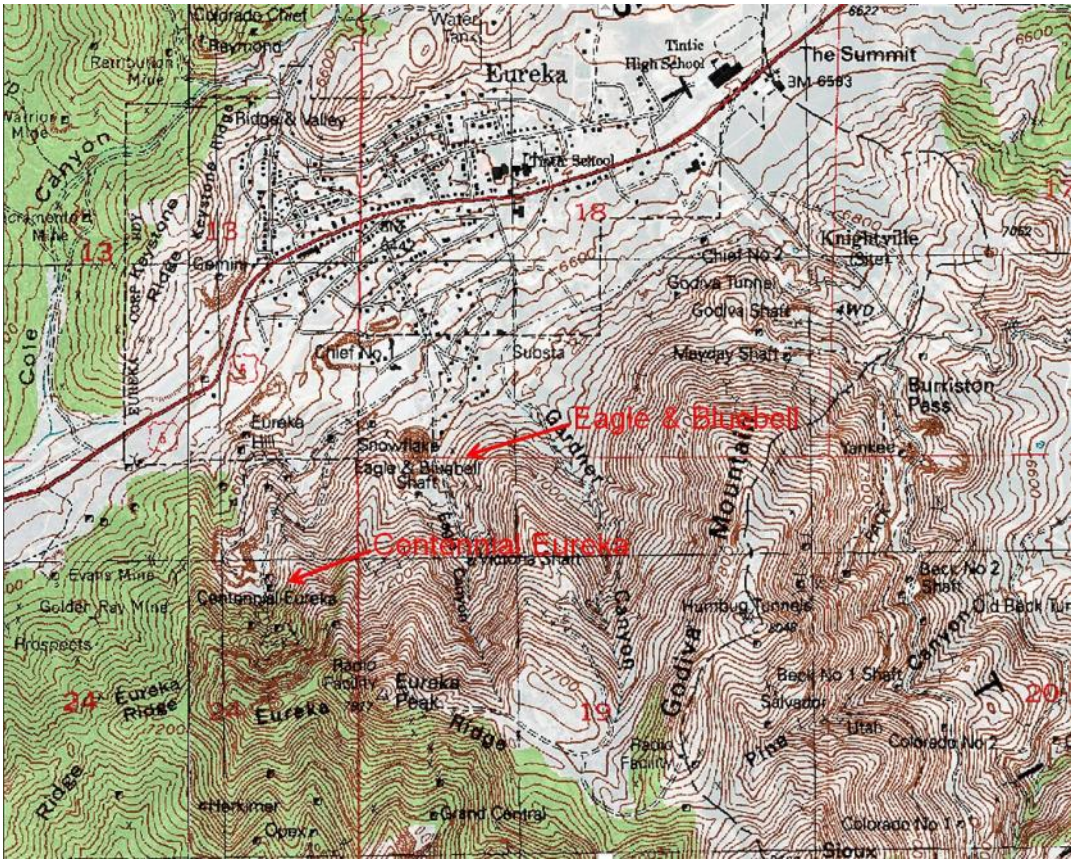
With the exception of the long and scenic drive across Nevada and our quick stopover for one afternoon/evening at the Silver Coin Mine, which was the "Nevada" part of the trip, we spent the second half of our trip exploring the mines of the Tintic District. Each day after collecting we drove back the 50 or so miles to our base camp in Delta.

The Tintic District is well known to mineral collectors. The area has a long and rich mining history, and it hosts hundreds of mines of various sizes, ranging from small prospects to extensive complexes. The discovery of ore in the Tintic District dates to the late 1800s (Morris, 1979), and mining has continued with some interruptions up until the present, so the historical age of potential collecting sites can vary widely from old prospect pits to modern working mines. The Tintic District produced amazing riches during its history. The cumulative value of its production is over $8 billion, adjusted to 2011 dollars (Gloyn, 1997). If categorized by the specific metal, the percentage of the total value mined (1979 figures) came out to roughly 40 percent of the value in lead, 27 percent in zinc, 25 percent in silver, 7 percent in gold, and roughly 2 percent in copper (Morris, 1979).

There are and have been a number of settlements in the Tintic District, but the three most significant for our discussion are Mammoth, Silver City, and Eureka. Of these, Mammoth, while it is populated, is now very sparsely so. It is virtually a ghost town, although it once had a population of some 2500-3000 inhabitants (Wikipedia, 2011a). Silver City *is* a ghost town, and no structure more complex than a foundation still stands. That leaves Eureka, which is still an active community possessing of schools, various businesses, and some 766 inhabitants (Wikipedia, 2011b). The town of Eureka deserves some discussion, if only from the context of our impressions of the town as outside visitors.



Selected Sites near Mammoth, Utah in the Tintic Mining District (USGS, 2011a)



Mines near Eureka, Utah in the Tintic Mining District (USGS, 2011b)

Eureka is both like and unlike many mining towns of the west. Like most, it is now but a shadow of its former glory, but unlike Mammoth and Silver City, it lingers on in a somewhat painful fashion. However, while many historic mining towns in the West seem to thrive on their past glories, maintaining a quaint appeal to visitors, Eureka seems uneasy in that role. Its historical business district consists of a line of ramshackle abandoned buildings along one stretch of US Highway 6, the main road through town. Instead of quaint, this stretch cries out as discarded, and the buildings are at times dangerous looking. Being that the district is in the center of town, it obtrudes like a large stone wall—a barrier in the middle of things. The rest of the town is modestly residential, and only occasionally are there traces of homage apparent to Eureka's status as a historical mining town.

In addition to being somewhat uneasy about its past, Eureka is being torn apart, literally, in the present. In 2000, the EPA found dangerous levels of arsenic and lead in the soil of the town (EPA, 2011). This is not surprising given the number of smelters that historically operated in the area. Eureka is now a superfund site, and the magnitude of the reclamation efforts underway was amazing to us at the time of our visit. Most of the soil in the town was excavated to a depth of 18 inches. Later, thick layers of limestone rocks were applied to a depth of several feet at times, burying people's yards and virtually any area that might have some soil present. The scope of the operation, the numbers of workers on the project, and the great number and types of heavy earthmoving equipment being employed was astounding to us. It seemed to us that the scope of the efforts in reaction to the EPA findings was hugely exaggerated in light of the size of the town and the degree of danger present.

Despite this seeming uneasiness with the past and the obvious turmoil of the present, the people we met from the area were all quite pleasant. As will be discussed later on, one of the highlights of this trip was the chance to talk to and meet various people, most of whom hail from Eureka or Mammoth.

Collecting in the Tintic District

There are ample collecting opportunities in the Tintic District, but its chief attraction to collectors must certainly be its wide diversity of mineral species. Mindat lists 159 species from m the Tintic District among which are 8 type species, and it lists 147 species and 3 type species from the East Tintic District (2011a, and 2011b). The 11 total type species is significant. In comparison, the entire state of Idaho has the same number, 11 type species (Mindat, 2011c).

While there are large macro-crystalline mineral specimens to be found in the Tintic District, the purpose of our trip was to find microcrystalline mineral species, particularly those of rare species for which the district is known. Indeed, micro mineral collectors have long considered the Tintic District as something of a destination.

To those of you who have not done much micro mineral collecting, I will briefly explain the process. The first step is to find promising rocks in the field. This involves all of the travel, climbing, searching, rock breaking, hard work, and downright luck that any other sort of mineral collecting involves. One looks for vuggy material, examines it with a loupe, and if promising the next step is not necessarily to break it up further. Often, the next step is to simply wrap it up and take it home. It is much better to break the material up in a controlled environment and spare the fragile micro-crystals from the damage that might occur in the field.

When one gets home with the material, the task of processing the material begins. Ultimately, if all goes per plan, the collector will end up with a number of specimens, trimmed down to the desired size, labeled, and identified.

So, now for the admission: it takes a lot of time to process the material brought back from the field. Some are quicker at this than others are. For example, John Dagenais, who is the absolute king at processing his material. In contrast, I am about the slowest, and so very little of the material I collected has been processed. We could wait until the material is processed for a real report, but somehow it already being 2011, it seems that a report on a 2010 collecting trip is already a tad late. Therefore, we will have photographs of minerals that I collected on past trips to the Tintic District as our examples.

Day One, September 20, 2010:

We woke at the break of dawn in Delta, eager to be off collecting, and three of us, John Dagenais, Wes Gannaway, and I made our first trek off to collect. Holding the fort in Delta was Maxine Dagenais, who promised us a nice dinner upon our return from the field.

We began our first day in the Tintic District in a most important way. We visited the owner of a number of the mines in the area and obtained permission to collect. This was a vital step, as all of the localities we collected from are on private property, and this permission was the key to our getting into the Evening Star Mine, discussed later on, but significant because it had seen substantially less prior collecting activity.

The North End of Mammoth, Utah as viewed from the Gold Chain Mine.

Receiving permission to collect, we quickly made our way to the nearby Gold Chain Mine. Impatient to begin collecting, I jumped out of the truck, grabbed a hammer from the back, and proceeded to break the first likely rock I saw. It split nicely along a seam, and behold—the seam was lined with very nice small Azurite crystals, sparkling bravely in the sunlight. What a nice first impression of the Gold Chain!

The mine occupies a large area, and is dominated by huge light-colored tailing piles that follow a large draw up into the hills above Mammoth. The lower dumps are open and are not overgrown, and a road traversing the most prominent pile curves up and to the right to the end of a box canyon between still more steep tailing piles. At this point, the draw becomes brushy and continues further up the hill. More steep piles continue to line the walls of the canyon. The number of tailing piles to prospect over this wide area is at first staggering, and it would take days to cover the area even perfunctorily.

The Gold Chain Mine has an impressive number of species. Most desirable of all are the rare minerals, particularly the very rare tellurates. Although the Gold Chain is not the type locale of any species, it is vested with a number of desirable minerals, including eurekadumpite, mcalpinite, and utahite, each of which was first discovered in the Tintic District (Mindat, 2011d). In addition, there is still some work being done on the list of minerals found at the Gold Chain, and the list of rare species from there will expand in the future.

We collected at the Gold Chain for a number of hours, each of us keeping a few containers of promising material. As was mentioned above, most of the material is microcrystalline at the Gold Chain mine. However, we were able to collect fine specimens of species such as tyrolite, mixite, conichalcite, malachite, and azurite that are visible to the naked eye.

In addition to gaining his permission, meeting the mine owner was a real pleasure, and the incident was not without its elements of humor. He is a colorful older man who lives up above Mammoth and has been involved with mining for many years. As he was talking, he gave us the expected caution to be safe, but he elaborated on that theme by mentioning repeatedly "funerals are a drag." Upon each repetition of this litany, he would pointedly look at each of us. After about the fourth such repetition, a small amount of discomfort built up, as in "what does he know that I don't?" After all, we were only going to collect the mine dumps, not jump down an open shaft. Of course, he was correct. Even without going underground, mines are dangerous. Dangers in the Tintic District would certainly include falling, rockslides, exposure, or even snake bites.

A View of the Road Traversing the Most Prominent Pile at the Lower End of the Gold Chain Mine.

Further up the Draw at the Gold Chain Mine— the dumps become more brushy—Rattlesnake Country!

My general impression of the locality, which is necessarily preliminary since I have not examined the material under the scope, is favorable. Nicely crystallized material was available if one scoured the hillsides, but it was not abundant. My impression is that this locality has seen a substantial amount of attention from collectors over the years. Nevertheless, I am confident that I brought back nice material from the Gold Chain.

We left the Gold Chain at about 2:30 p.m. and made our way over to the town of Eureka, spending some time exploring around town before arriving for a late lunch at The Summit, a small local restaurant. This eatery is quite modest inside, but there is nothing modest about their gargantuan and extremely tasty hamburgers. The place became a daily standby during our Tintic adventures.

After lunch, we continued our exploration of Eureka, venturing through the active portion of the reclamation work to ascertain the status of the road leading to the Centennial Eureka Mine, and to check on the status of the gate. We then made our way to the site of the Eagle and Blue Bell mine, which is located about three hundred feet in elevation above Eureka on the hillside south of town. This mine marks the southern extent of the reclamation efforts, and any area that had "soil" is covered in layers of limestone rocks. Despite this, or possibly to the credit of those performing the reclamation, the structures and mine buildings were retained, and they are some of the best and most well-preserved historical mine structures that I have seen in the Western United States.

Man-Lifts Suspended Over the Shaft at the Eagle and Blue Bell Mine—note the hand woven belts above the lifts.

Historical Assay Ovens in the Lab Building of the Eagle and Blue Bell Mine.

The Headframe and Hoist Building at the Eagle and Blue Bell Mine

Huge Pillow Block that holds the Hoist Assembly at the Eagle and Blue Bell Mine.

The existing mine structures at the Eagle and Blue Bell Mine include a well-preserved head-frame, complete with man-lifts and a hoist in the large accompanying building. A chain-link fence surrounds the shaft, but otherwise the buildings are open for exploration. One interesting feature of the hoist and man-lifts are that lowering was done by means of hand woven belts, rather than the more typical woven wire ropes or cables. In addition, there are a number of other buildings on the site, including a dramatic main office, and an assay lab that still houses two large assay ovens.

A large and recent lunch notwithstanding, we had the promise of a fine dinner waiting when we returned to Delta, so at that point we ventured back. Along the way, Wes and I ruminated about our collecting success thus far, and that we had already run out of boxes to store our collecting bounty in. We decided to stop at a grocery in Delta, to stock up on ice and to see if we could beg a few cardboard boxes. We picked out a few more items, and Wes and I grabbed a couple of six packs of beer. Wes then said he would go look into the availability of some boxes. It was only as I got to the checkstand with the prim checker that I remembered Wes' selection of beer, Polygamy Porter. While it is never a good thing to presume something about another, in a small Utah town like Delta you are not far off in assuming that someone might be Mormon, and, well, Polygamy Porter is kind of disrespectful to that faith. Sorry about that. I was wondering if the checker's tight lips were hereditary or because she had to scan that stuff!

Surviving our trip to the grocery, we made it back to our base camp. Temperatures were ideal, mid 80s, with not a cloud in the sky. We sat for a while on the grass under a shade tree and were treated to a nice spaghetti dinner, with salad and an excellent bottle of wine I had brought along in case it was required. Not bad for roughing it while out collecting!

Day Two: September 21, 2010

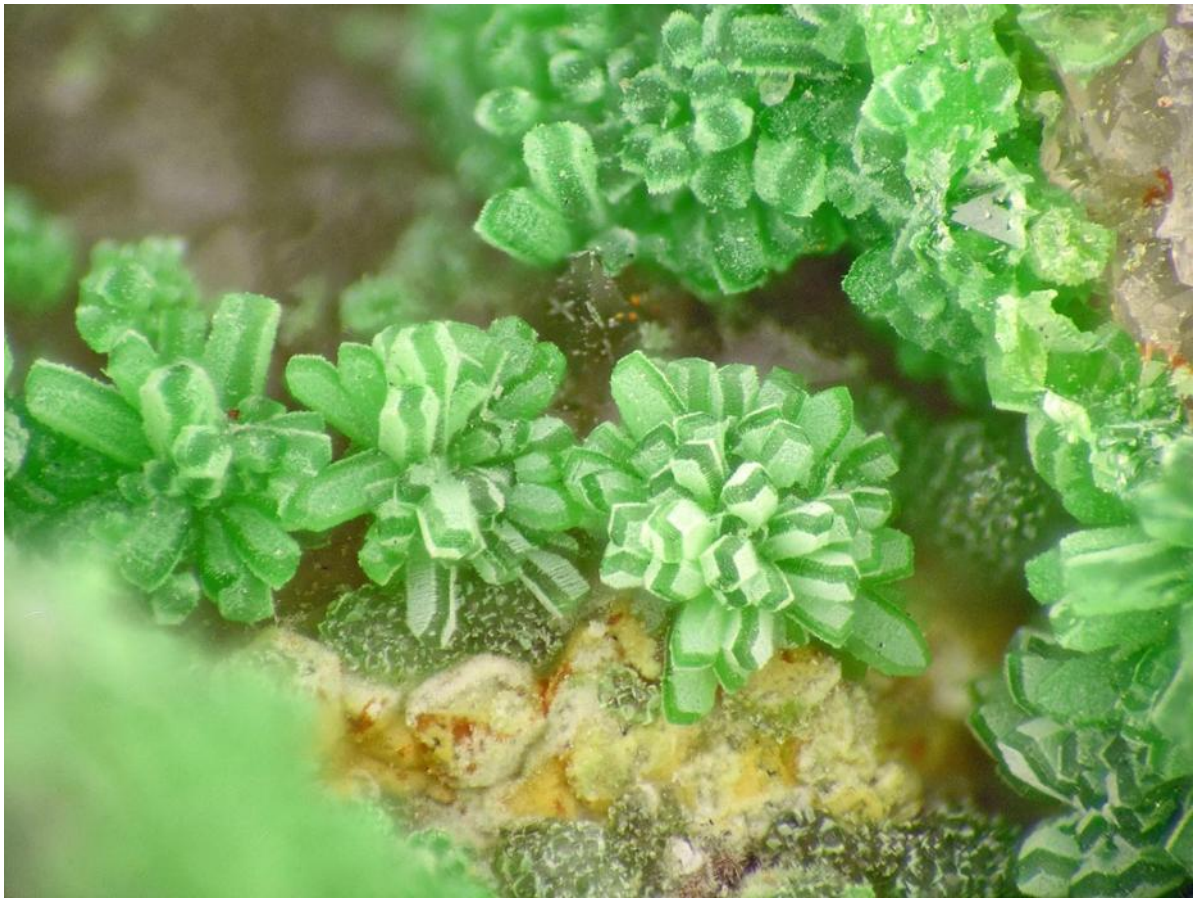
We woke before dawn and began our preparations for the day. As with all of the other days, we had a full breakfast with pancakes, bacon, and eggs. It turns out that Wes is something of a breakfast hound when he can be, which apparently is just when he is out in the field. Wes, John, and I left again for the Tintic district in mid-morning, again leaving Maxine to explore the shops of Delta.

Our first stop was at the famous Centennial Eureka Mine. Again, we had obtained permission to collect there the day before. The Centennial Eureka is the most famous locality among collectors in the Tintic District, and no trip to that district would seem complete without at least some time there. Mindat lists 86 species as occurring at the Centennial Eureka, and it is the type locale of six species, all of which contain tellurium (2011e).

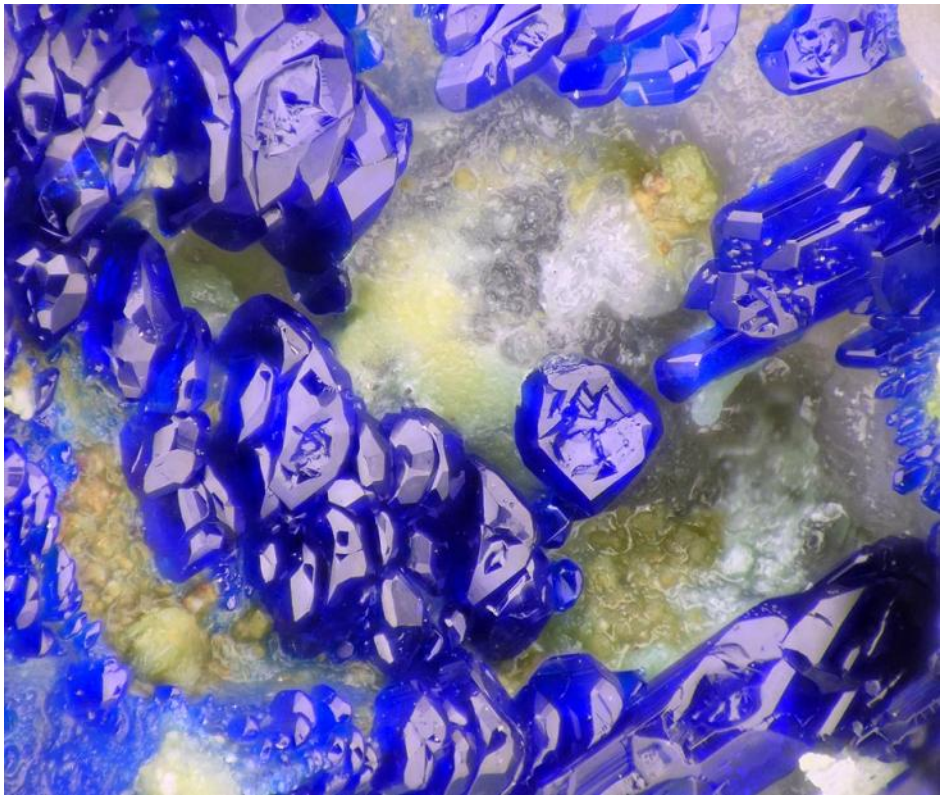
John Dagenais pointing to something below on the Dumps of the Centennial Eureka Mine—*photograph by Wes Gannaway*

The Centennial Eureka Mine has seen collector attention for at least 20 years. I saw my first specimens from there in the collection of Bob Boggs on one of my visits to him and Elsie years ago. Bob first collected there in June 1993. Prior to Bob's visit, the North Lily Mining company had removed the majority of the dump for heap leaching. I first visited the Centennial Eureka Mine in 1995, and at that time, I was highly impressed by the abundance of excellent quality material available on the dump. In the intervening years, though, acceleration in the pace of collecting at the Centennial Eureka has taken place. In addition, the lower portion of the dump is in the wind path of the town of Eureka, and so the story is that the dumps were "reclaimed and planted over." While this story is true to some extent, the upper portions of the dump were not reclaimed, but because of collector activity, good material is now not particularly abundant.

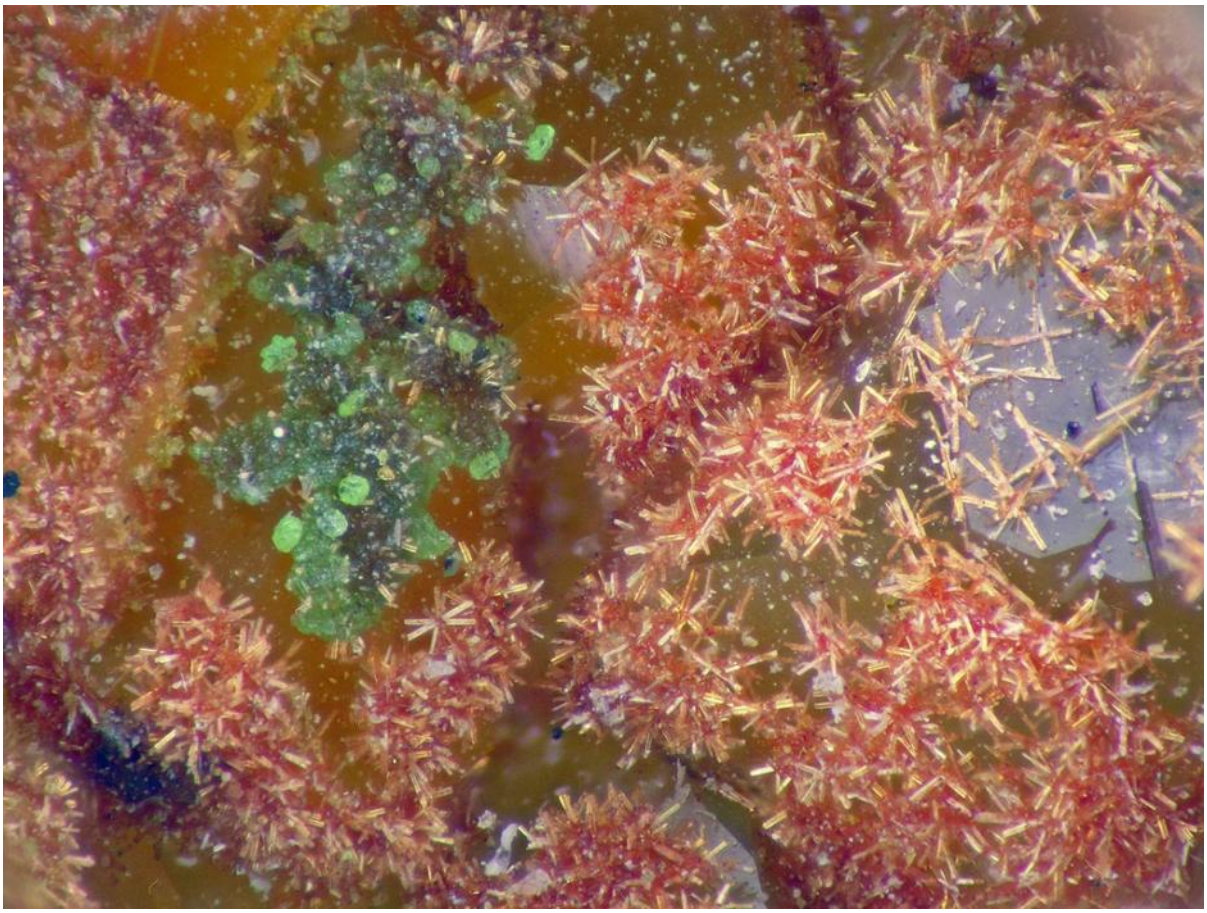
With its diversity of mineral species, there are many rock types to look for at the Centennial Eureka Mine. One type, though, is interesting enough to mention here, mainly because the same rock type is seen elsewhere at collecting areas in the Tintic, and it is reasonable to assume that the complement of mineral species might mirror somewhat that of the Centennial Eureka. Additionally, the rock itself is somewhat striking in appearance. It is an altered and often silicified limestone, highly infiltrated by barite blades that form boxworks and hollows that commonly host secondary minerals. Often, one might also see coarse anhedral crystals of enargite in the rock, sometimes altering to various copper minerals. This material is quite distinctive, and hosts a nice assortment of colorful and well-crystallized species. However, this is not the type of rock that hosts the tellurium minerals.



Adamite (cuprian, color-zoned)—Centennial Eureka Mine—FOV 2.3 mm



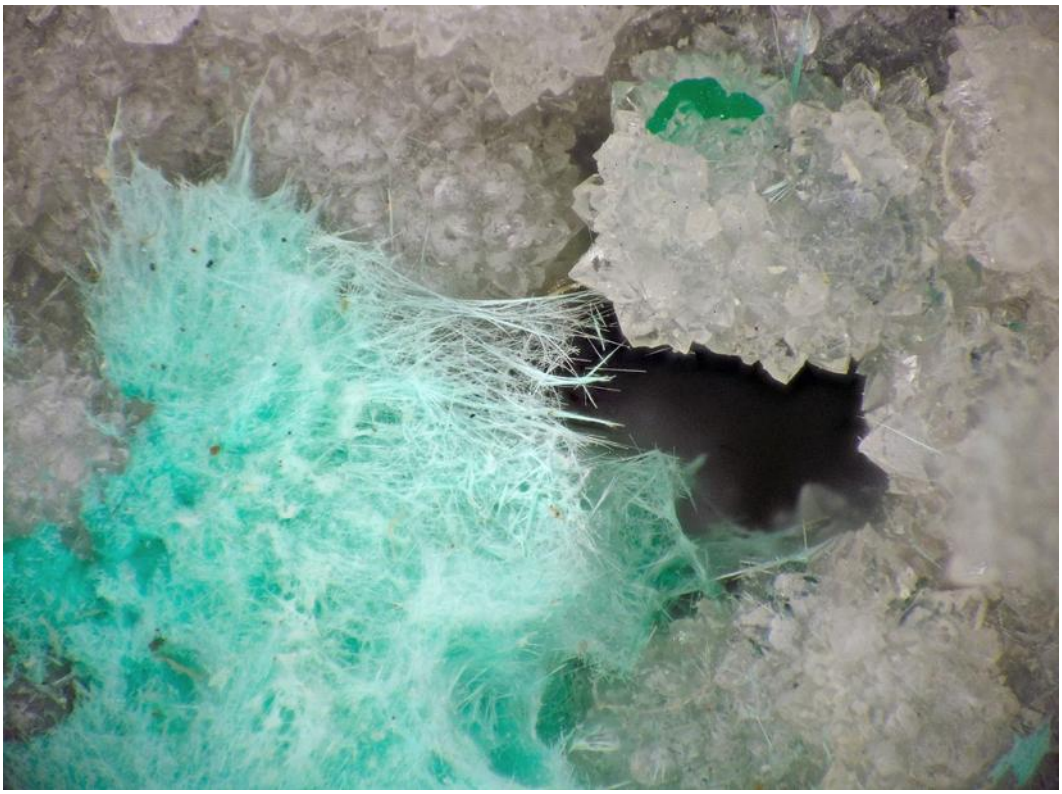
Azurite—Centennial Eureka Mine—FOV 2.3 mm



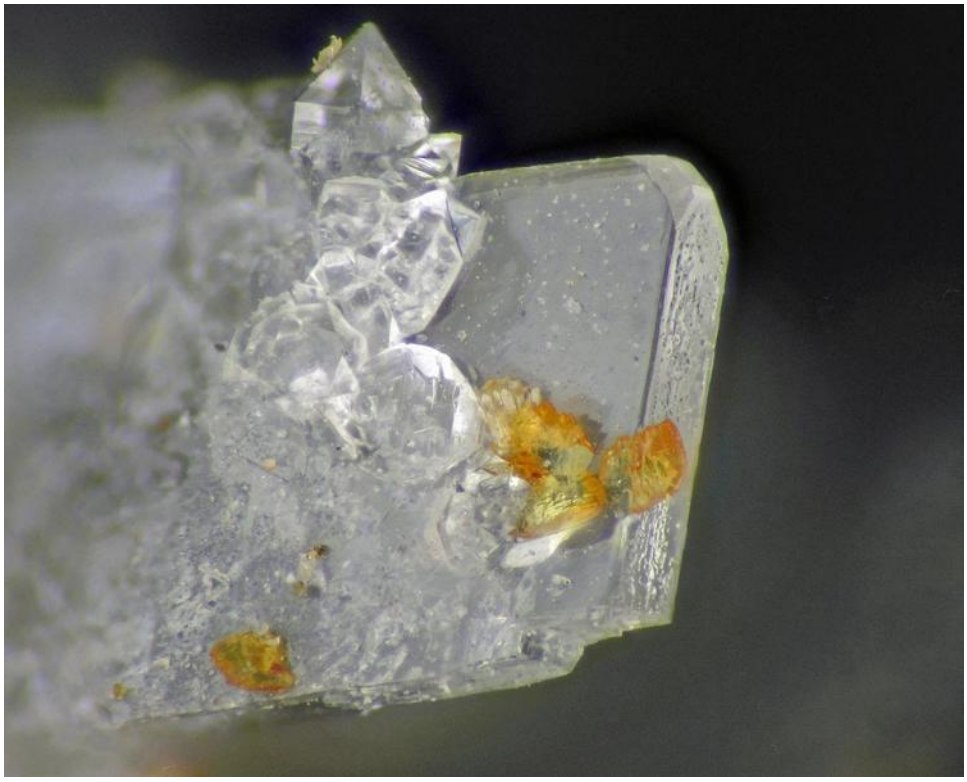
Carminite (red) with Conichalcite (green)—Centennial Eureka Mine—FOV 1.4 m

Malachite (primary crystals)—Centennial Eureka Mine—FOV 2.5 mm

Olivenite crystal on a pseudomorph after Enargite—Centennial Eureka Mine—FOV 1.3



Strashimirite on Quartz—Centennial Eureka Mine—FOV 4.2 mm



Tsumcorite on Barite with Quartz—Centennial Eureka—FOV 1.4 mm

Unknown Orange-Brown plates on Malachite—Centennial Eureka Mine—
1.2 mm. EDS and WDS analysis revealed Pb, Fe, K, & As with a trace of S and Ti, zoned with some low Pb areas. This composition matches no known mineral species. The crystals appear to be tabular on {0001},

To reach the small and rough dirt road that leads up to the Centennial Eureka, we had to drive up out of Eureka, passing directly though the most active portion of the reclamation work. We arrived at the mine in late morning, immediately spotting the first real clouds on the trip thus far. Although the clouds did not appear threatening, the convection patterns at elevations like this of over 6000 feet can quickly turn innocuous white cumulous clouds into mean-looking cumulonimbus clouds that carry the threat of lightning. We parked on the top of the dump and made our way down about 300 feet in elevation to an area to begin collecting. A steep benched dump on one side and a more gradual slope on the other characterize this area. In any case, it is highly exposed and lacking in shelter or much in the way of vegetation.

Shortly after our arrival, the wind picked up, and at the same time, the clouds quickly became darker and more threatening. After about two hours the wind had reached a velocity where collecting had become very difficult. I recall grabbing a piece of newspaper to wrap a specimen and having the newspaper tear itself to pieces from the force of the wind. Finally, the clouds became black and we heard a bit of thunder, at which time discretion became the better part of valor, and we hurried back up the hill to the much more sheltered area at the top of the dump.

We made our way back somewhat dejectedly to Eureka, trying to decide what to do. Suddenly, The Summit loomed in front of us and we found ourselves facing huge hamburgers one more time. The weather had improved during lunch, so we headed out with renewed hope into the hills. We took one of the back roads south out of Eureka, venturing into dramatic countryside that featured canyons and numerous old mine sites and prospects. All of the mines that we saw were posted no trespassing, but one large complex, the Tintic Standard Mine 2 was quite prominent and right beside the road. We stopped for a while, walking about without venturing onto the property. This mine's dumps have a very light coloration, and little or no vegetation grew on them, suggesting an abundance of rotting pyrite and a very low pH. I collected a piece of red jasper with zones of pyrite, and saw quite a bit of similar material. In one spot, a mud puddle had dried, and the remaining crust appeared to be sulfur.

A Nasty Turn in the Weather—time to pack it up at the Centennial Eureka Mine—*photograph by Wes Gannaway*

Safe at the Truck—the top of the dump and ruined headframe of the Centennial Eureka Mine. Under the shelter of surrounding hills, the top is less exposed than the main pile—*photograph by Wes Gannaway.*

Continuing on, we came to the Trixie/Burgin Mine complex. While these mines were not working at the time of our visit, they are quite modern and could be operational very quickly. We had heard while at lunch that the offices of the Burgin were open, so we decided to stop in and see who was there. We were hoping to gain permission to collect on the dumps of the Trixie Mine, where some nice tellurates such as Teineite have been found. The mine manager and his security crew present in the office. They were hospitable to us and we talked for some time, but we were not granted permission to collect because of efforts that were underway at that time to prepare the Trixie to reopen. In any case, we had an interesting and pleasant discussion about mining in the Tintic District.

Again continuing, we made our way southwest to Silver Pass, and we spotted a small prospect on a hill to our right, Ruby Shaft. This was not posted, so we made our way over to the prospect. There was a lot of rock there, but it was not good rock, so we chalked that one up to experience and continued again.

We came out on the opposite side of the district from Eureka, into the ghost town of Silver City. At this point, it was about 4:00 in the afternoon in Utah, but we were not yet ready to quit collecting. We decided to try to get to the North Star Mine. This is somewhat difficult for two reasons. First, you would require permission from the owner. We had obtained that the day before, so we were half way there. Second, we would need to cross through the currently operating Dragon Mine, which is under different ownership.

We drove up to the Dragon main offices and told them we would be up at the North Star, discovering that the gates would close at 5:00 p.m. This allowed us about one hour of collecting.

To our delight, the tailing piles at the North Star seemed particularly pristine, and appeared to have been turned over recently with a cat or bulldozer. The rock is similar to that at the Centennial Eureka, but quite rich in Mixite. After a few minutes, one of the managers of the Dragon rode up on an ATV, apparently not sure we were legit. The folks from the NW charmed him, and after a pleasant talk, he made his way back to the office. It is good to keep in mind that we mineral collectors are engaged in a constructive activity, that we are respectful of mine properties, and are a group that likes mines and mining. This must be refreshing to members of the mining industry. Again on our own, we collected feverously, and made our way out in time, thankful for the opportunity.

The Pros from Dover have Arrived—Wes Gannaway and John Dagenais on the dumps of the North Star Mine

Dropping down from the Dragon Mine, we found ourselves again in Silver City, where we spotted a man walking around with a white five-gallon bucket. It seemed immediately obvious, given the place and his activity, that we had to talk to this guy. Indeed, we were correct. It turned out that he was a well known Utah collector and mineral claim owner, and was out collecting glass shards. We had a good discussion about minerals, traded contact information and made our way back again to Delta. Upon reaching town, we stopped at a dollar store to purchase more containers for our rocks. Every container we had was full!

Day Three: September 22, 2010

Our third day was essentially a day off from collecting. We visited a collector in Salt Lake City, leaving early in the morning and arriving back late in the evening. Our only tribute to the mines of the Tintic District was a stop again at the Eagle and Blue Bell Mine site so that Maxine could see the mine buildings. One thing that we did notice on that stop was a fine mist that was flowing up out of the shaft. The mist had a strongly acidic odor. It was like putting your nose over a bottle of acid. That does not speak well of the probable air quality down in the depths at the Eagle and Blue Bell Mine.

Acidic Mists Streaming from the Shaft of the Eagle and Blue Bell Mine—*photograph by Wes Gannaway*

Day Four: September 23, 2010

Our last day in the Tintic District, we also needed to get back early in the afternoon so that we could begin our preparations to head home.

We rose even earlier in the morning, a couple of hours before dawn. After the preliminaries, we again made our way to the Tintic District. We decided to try the North Star again. We stopped at the Dragon Mine office, made our greetings, and we spent the several hours at the North Star. Excellent material was abundant, but was less so by the time we were through. Specimens of Mixite seemed particularly plentiful, but a number of other species were visible in the field.

At one point, I hiked up the valley above the North Star. Several other mines are in the area, such as the Red Rose, the Boss Tweed, and the Black Dragon. Dotting the landscape are numerous tailing piles. In a gully below the Black Dragon, I spotted a nice large specimen of blue botryoidal smithsonite reminiscent of Kelly Mine material.

We left the North Star about mid afternoon, and once again made our way to The Summit. The owner, sensing we were regulars warmed up to us, and we admitted as we left that we hailed from about 1000 miles away and that it might be some time before “we regulars” were back.

The Way Back: September 24, 2010

There is not much to say about our way back other than that we stopped "on the way" at the Silver Coin Mine near Valmy, Nevada. Although we did do this, one thing I learned about the Silver Coin is that it and the phrase "on the way back from Utah" should not be used in the same sentence. It is not on the way back in terms of any sort of direct route. At least this was my impression after many hours of driving when we pulled into the Silver Coin about 5:00 p.m. on September 24.

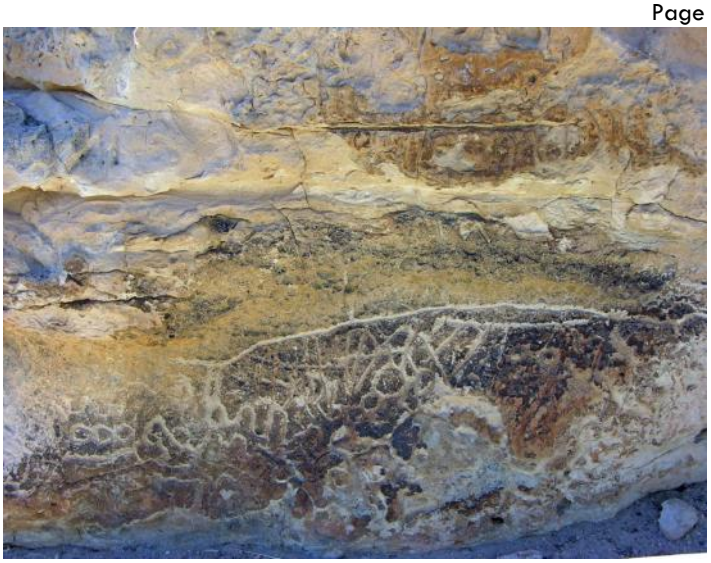
Wes and I had said our goodbyes at about 9:00 a.m. to John and Maxine as they would take a different and lengthier route home. We then began our trek across central Utah and into Nevada. In truth, at least some of my impression that the way back was much further than the way there was due to the fact that Gold Hill, our original destination, *is* a lot closer to the NW than Delta, Utah. In any case, the drive across seemed interminable, although we did pass near Great Basin National Park, had lunch in the historic and "quaint" Nevada mining town of Austin, and we stopped for a time to view petroglyphs at the Hickison Petroglyph Recreation Area.

We spent perhaps three hours collecting at the Silver Coin, which felt incredibly rushed. Unlike all of the other localities that we visited, the majority of the collecting that we did at the Silver Coin was underground. Our first stop was down an incline into the arsenate drift. We then ventured into the main adit and collected in the phosphate stope. Material was abundant, and we left this, our last collecting spot with every container and box filled, our packs bulging, and even some loose rocks. Whew!

This actually did not mark the end of our long drive. It was only slightly over one half finished. We made our way west from the Silver Coin Mine, turning north in Winnemucca, and finally up to about the mid-point of Oregon—Burns.

On To Home: September 25, 2010

Therefore, as it began in Maple Valley, so did it end. We left Burns in the morning, taking a nine-hour scenic route through Bend, The Dalles, Maryhill, Yakima, Snoqualmie Pass, and home. We arrived in Maple Valley in late afternoon, seeing our first rain in over a week just down from Snoqualmie Pass.



A Zoomorphic Petroglyph at the Hickison Petroglyph Recreation Area.

The Decline to the Arsenate Drift at the Silver Coin Mine—what is missing in this photograph is scale and slope. The decline tunnel is about 3 ½ to 4 feet tall, slopes at a moderately steep angle, and the floor is loose rubble-
photograph by Wes Gannaway

Timbering in the Arsenate Drift of the Silver Coin Mine

Panoramic View of the Tailing Piles at the North Star Mine

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Vivianite; xl 13 cm long (specimen 17.5 x 12 x 8 cm; 7 x 4.5 x 3").
Blackbird Mine, Lemhi County, Idaho, USA. ex Geary Murdoch collection.
The specimen is repaired but still one of the largest crystals known from this locality. Part of the June 2011 auction (2nd session).
Mark Mauthner photo; courtesy Heritage Auctions (ha.com)