# The Fluorescent Mineral Society

## UV Waves

SUPPLEMENT TO VOLUME 51, NUMBER 3

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## SILVER FOXES OF FLUORESCENCE


By Conrad North, #1904, conrad@uvminerals.org


Photo Credits: Brian Walko (BW), Conrad North (CN), Steve Woje (SW)

**Me answering phone:** "Hey Brian…"

*Hey Conrad, have you had your shots?*

**Me:** What?

*Your shots, your immunization…*

**Me:** Yes, why?

*You'll need it*

**Me:** Yes, we all need it

*No, for the trip*

**Me:** What trip?

*The trip the Silver Foxes are going on*

**Me:** Silver Foxes?

*Of Fluorescents.*

**Me:** So where are these Silver Foxes of Fluorescents going?

*Blanchard…*

Thus began the initial planning for the 2021 saga of the newly fabricated "Silver Foxes of Fluorescence" (SFoF).

Now, if you've been involved in collecting rocks that reside in the "Dark Side of Light"© for any amount of time, Blanchard will probably ring a bell… maybe not a bell as loud as the mention of Franklin/Sterling Hill, or Mont Saint-Hilaire but at least a bell equal in volume to the one the good-looking red head always rings in the Christmas pageant.

*The Silver Foxes of Fluorescents… (L to R) Tom (swatting away a bug), Conrad, Brian, Steve, Bruce in front of the miner's shack at the Nitt Mine. (BW-BB)*

The Brian referenced above is Brian Walko, FMS Rocky Mountain Chapter Lead and former FMS Board member. As a former Earth Sciences' instructor, he transitioned into the IT world and finished his working days doing large scale software development and implementation. On a somewhat unique twist, he is a "purist" in that his fluorescent display consists only of specimens that he has collected himself. He is also the force behind the aforementioned SFoF trip. Other members of this SFoF trip included Tom Henderson, retired environmental geologist with degrees in Geology and Geochemistry; Bruce Bannon, retired from the business development arm of the aerospace and military industry and a current Director for the FMS; Steve Woje, retired corporate instructor and system designer for the communication industry; and me. As the elder of the clan, I was the designated curmudgeon and resident expert on the adult beverages conjured up in Lynchburg, TN.

All in all, a great mix of experience, expertise, and backgrounds. And did I mention, all retired, and basking in our Golden Years with the young pup of the group coming in at 64 years of age.

The trip that Brian was putting together consisted of five days of "exploring" some of the more notable historic mines in the Socorro/Magdalena, NM area. The tentative schedule included the aforementioned Blanchard Mine, the Desert Rose, the Nitt, the Graphic and the Kelly, and whatever other mine we could squeeze into our schedule that week. We were all to assemble on Sunday in the thriving metropolis of Socorro, NM and find our temporary quarters for the week in one of the 5-star facilities located in town. With all the stars in alignment, we gathered that evening in anticipation of Monday's quest to Blanchard.

**MONDAY**
**THE BLANCHARD MINE, BINGHAM, NM**

The day started with a relatively short drive (40 miles) from Socorro to Bingham. The town, for lack of a better definition, consists of a rock shop, the Blanchard Rock Shop, which was our initial destination to check in with the "Gatekeeper" and log our entry into the mine workings. We had originally planned to gain access into the mine itself, but the owner was in his 80's and went along on each visit so he was forced to close internal access to the mine when the pandemic came along. This limited us to exploring the acres of diggings and tailings, that while not having specimens as spectacular as those inside the mine, they were still pretty impressive. And, although probably not correct terminology, I will call our visit as being in two parts, one to the "lower mine" and a second stop to the "upper mine". The mine has changed hands many times, had numerous starts and stops, and as you research its history, you find it has a number of names for its various parts.

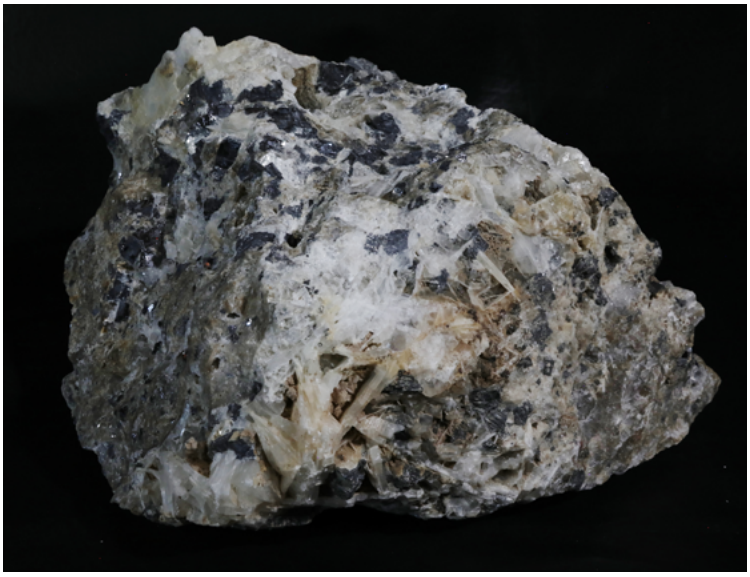
*Steve "goes dark" at the Blanchard lower mine (BW)*

After getting all the access ducks in a row, we left Bingham for the bouncy ride up the mountain to the mine at 6,398 feet above sea level ("asl") some 913 feet above the canyon floor. Luckily, four of the five foxes were from Colorado and lived at elevations close to, or above, that elevation. The fifth was acclimated, so we didn't have to worry about altitude sickness sneaking up on us.

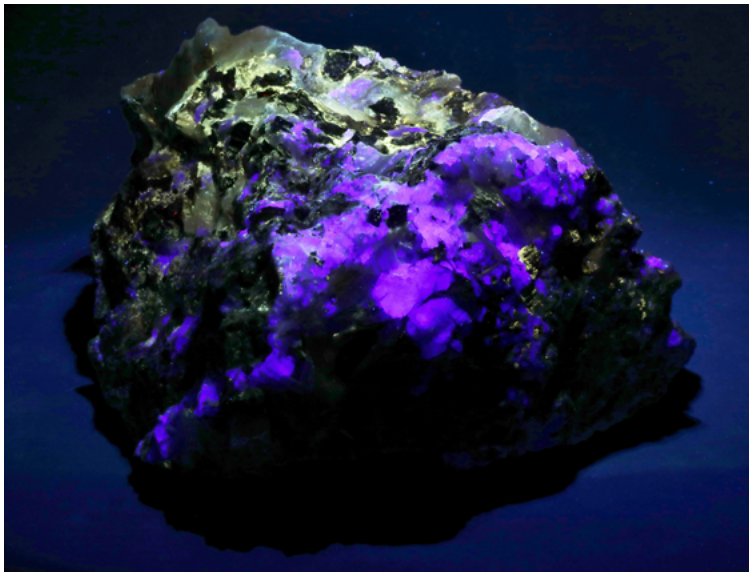
After a four-wheel drive climb up the hill on some very open sided roads, we reached the "lower mine". It was interesting to observe that most of the time in Colorado, if you happen to goof and do an oopsy off the side of a mountain road, you don't go too far before a tree stops you. On this mountain, there were no trees, so if you let your tire slip over the edge you were pretty much assured a 913-foot free-fall down to the bottom, complete with a few rolls and loops.

As we rounded the last corner, the workings of the mine brought us to a halt and prompted us all to bail and get the equipment and safety gear out and start exploring. The mine is known for its LW blue fluorescing fluorite, yellow fluorescing cerussite, and red fluorescing barite along with non-fluorescing galena and quartz Steve was first to start chiseling away at a good prospect and moved under his tarp for a better look. He was quickly followed by the rest of us as we scrambled about oohing and awing at all the potential specimens that were strewn about. The phrase, "kids in a candy store," came to mind.

*Approach to the Blanchard Mine red arrow lower mine – yellow arrow upper mine (BW)*



*Blanchard fluorite-cerussite-galena - WL – (CN)*



*Blanchard fluorite-cerussite-galena - LW – (CN)*

*Small historic stamp mill at Blanchard lower with ore bin still full (BW)*

*View from Blanchard lower mine toward the Trinity atomic test site - dark hills center (BW)*

The small alcove where we had parked soon reverberated with the sounds of hammers and chisels bouncing off the canyon walls. I fully expected a rousing rendition of “Heigh Ho, Heigh Ho” to spring up like a scene from “Snow White and the Seven Dwarfs”. As my focus shifted, I wandered up an adjoining road to see what other treasure I could find. A hundred or so yards up the road I ran across a very large ore bin, still filled with previously crushed ore, and a small adjacent ore crusher with its hopper still filled with ore that never got processed.

As noted, the Blanchard has gone through numerous ownerships and transitions during its history. Probably the first recorded mining of the area was for galena (lead) in 1916 to assist America’s effort in the manufacture of bullets for World War I. The Western Mineral Products Company built a mill on the valley floor (remnants of which you drive by on the way to the mine) where pulverized ore was transported to the mill by a gravity-fed tramway -

*Tom breaking rock at the Blanchard (BW)*

one empty car was pulled up the hill by a full car moving down the hill; the full car was emptied and the process repeated. After the war, the mine became embroiled in overdue mortgages and ownership claims and sat idle until 1936 when William and Francis Blanchard created an assemblage of the surrounding mining claims. They leased their claims to other mining companies until their deaths in 1951, when Francis's wife carried on the venture with the Minopco Mining Company, finally taking control in 1981 and building a $2 million processing mill for galena, barite, and fluorite. The plant used a dry milling process, but closed within thirty days when its inner workings became clogged with the dry-fines. It never reopened.

The claims on the mine expired and in 1987 Ray DeMark stepped in and perfected his claims to the Blanchard holdings. Since then, he has opened the claims to collectors and researchers.

By noon, we had filled a number of buckets, bins, and backpacks with all manner of fluorite, galena, and barite combinations. It was time to move to the next area, so, up the hill we went.

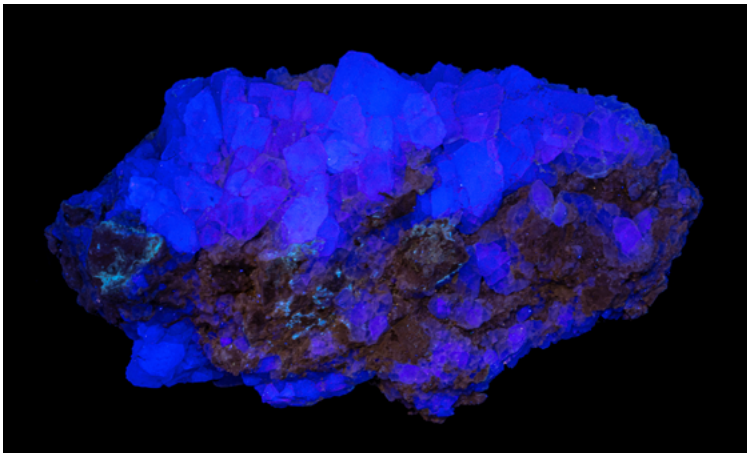
The "upper mine" was even more enticing than what we had found below. This is where the Sunshine Mining Company opened a number of adits (now sealed) and did a large amount of development to the internal mine. We all scrambled about the large open pits and tailings, pausing occasionally to explore interesting areas in detail.

By early afternoon there were enough tired arms from digging and hammering to go around and available vehicle space was beginning to be a possible concern…so we headed back down the hill, checked out at the rock shop, and waited for dark in the hotel parking lot to separate the wheat from the chaff…so if you're ever in a hotel in Socorro, take your LW UV flashlight out by the bushes at the edges of the parking lot…you'll be surprised at what you find.

*Steve's first big Blanchard fluorite find (BW)*

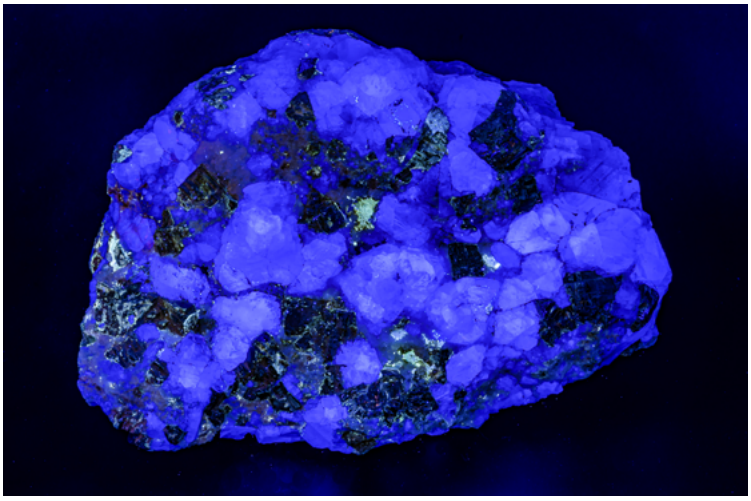

*Close up of typical Blanchard fluorescent fluorite (BW)*

*Blanchard fluorite – WL – (BW)*

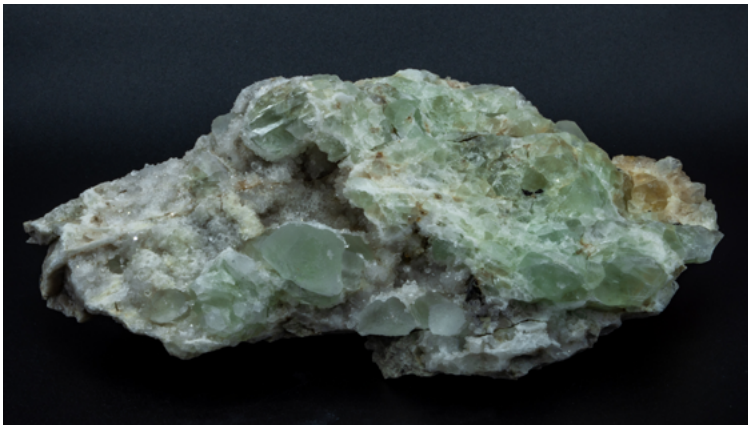


*Blanchard fluorite – LW – (BW)*

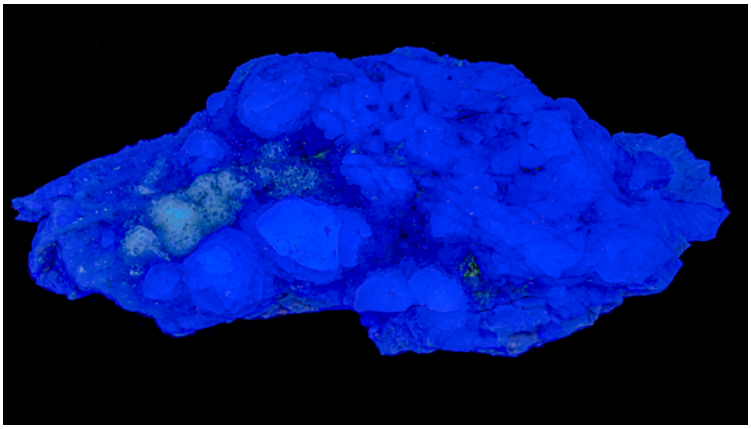
*Blanchard fluorite - galena – WL – (BW)*



*Blanchard fluorite - galena – LW – (BW)*



*Blanchard fluorite - quartz – WL – (BW)*



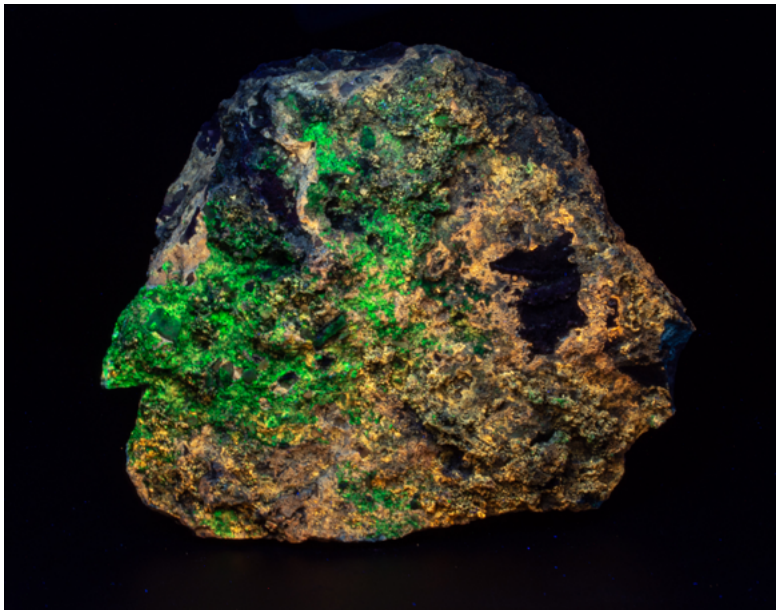
*Blanchard fluorite - quartz – LW – (BW)*

*Conrad following Brian's charge up the last hill to the Upper Blanchard (SW)*

*Tom (l) and Steve (r) look for areas to explore while Brian digs (CN)*

*The crew breaking rocks at the Blanchard upper – Tom (l) – Bruce "The Sledge" (c) – Steve (r) (CN)*

*Blanchard caliche + opal – WL- (BW)*

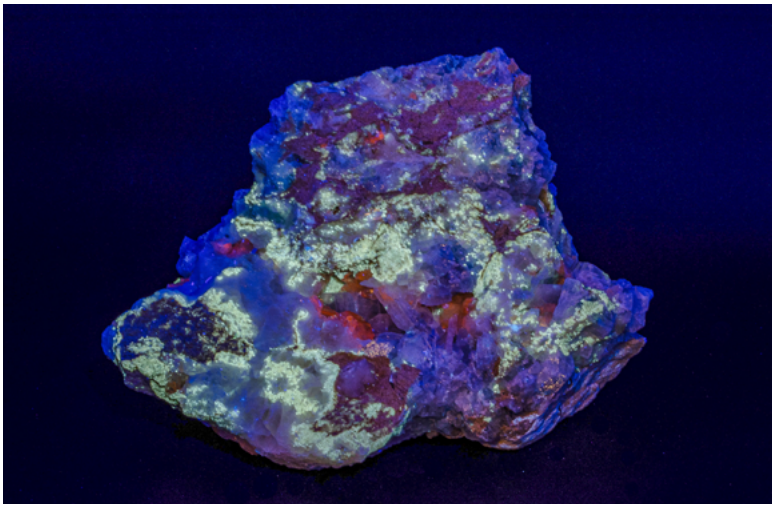


*Blanchard caliche + opal – SW & LW - (BW)*

*Blanchard caliche -WL – (BW)*

*Blanchard caliche -LW – (BW)*

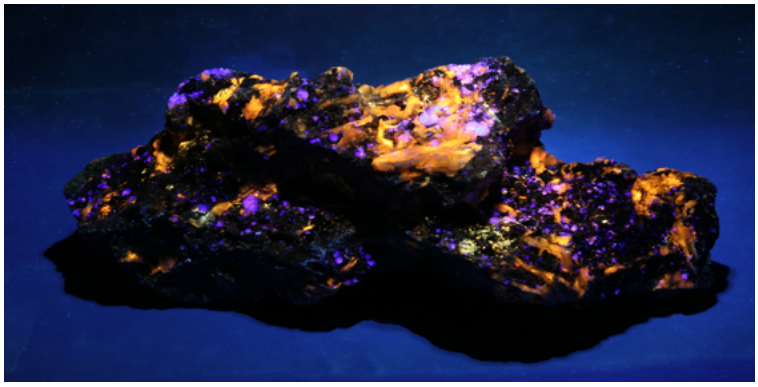
*Classic Blanchard fluorite – WL – (BW)*



*Classic Blanchard fluorite – LW – (BW)*

**TUESDAY**
**THE DESERT ROSE MINE, BINGHAM, NM**

*Desert Rose fluorite-barite-cerussite – WL – (CN)*



*Desert Rose fluorite-barite-cerussite – WL – (CN)*

On the second day of our explorations at the Desert Rose, we were going after the same targets as we had at the Blanchard…fluorescing fluorite, barite, cerussite, and an added offering of bright orange fluorescing caliche. An interesting specimen is when all four or five are present. Some of the guys were also looking for non-fluorescing linarite (royal blue in color) that sometimes hung out by itself or in the fluorite/barite matrix.

*Steve shows off a specimen of linarite (royal blue) found at the Desert Rose which is found in only small amounts as a secondary mineral in oxidized lead-copper deposits. (BW)*

*Conrad trying to prove his theory that the best fluorescents are at the edge of a cliff at the Desert Rose (BW)*

The Desert Rose is down the road from the Blanchard (make a left rather than a right) and the mining area at 5,604 feet asl felt like home altitude wise. The desert here was truly desert and we had been cautioned about the not so friendly reptiles in the area.

At the Desert Rose, the collected samples were smaller and took some time to examine under LW UV. Most of us were on the ground turning over rocks and cracking them open to see what was hidden inside.

*Steve climbing up to explore another test pit at the Desert Rose (BW)*

It was here that we found that Bruce had an affinity for swinging a sledge. It seems that when he was young, he was paid $.25 an hour to crack big rocks into small rocks to be processed at the Sterling Mine in New Jersey…and the draw of the big hammer had not left him. So, Bruce became “Sledge” for the rest of the trip and was called on repeatedly to liberate small rocks. Along the same line, Tom’s background and experience made him the “go to” guy with any geology questions, and his explorations were constantly being interrupted with, “Hey Tom, whadaya think this is?”…so “Doc” became the Wikipedia of the Rock.

When we had stopped to pay our $20 per person Desert Rose user fee to Allison at the Blanchard Rock Shop, she said there was a family from Texas that had been to the mine a day earlier and she asked if they could join us since they wanted to learn about rocks…Hey Tom…

*Bruce "The Sledge" Bannon turning big rocks into little rocks at the Blanchard while looking for previously unexposed fluorite inside. (BW)*

The day's findings were not as stunning as those at the Blanchard, but were more exquisite and eye catching. And we had quite a bit more uphill walking than the day before. so, as the heat of the late afternoon took over, we determined that a frosty mug in Socorro was calling our name and we headed back down the mountain to answer the call.

*Looking back down the hill at the vehicles after hiking up to the Desert Rose Mine (BW)*

**WEDNESDAY**
**THE NITT, GRAPHIC, AND KELLY MINE, MAGDALENA, NM**

We started our day at Bill's Gem and Mineral Shop in Magdalena, NM, and when the town sign says, "Trails End", believe it. We met Grace to get the gate access key, information map, and pay our $20 to get on site. The Graphic mine has less fluorescents but a trove of other minerals. Trouble is, only Tom knew what they looked like. So, it was to be a day of digging and wondering, and bugging Tom. On our way up the mountain to the Graphic we passed the Nitt Mine, an old lead, zinc, and copper mine at 6,749 feet asl. The mine tailings had been picked clean of the pyrite crystals that were associated with the galena and zinc. I did find one the size of a pencil erasure and felt thrilled to find that.

*An amazing assemblage of abandoned equipment at the Nitt Mine (CN)*

The tailings around the whole mine are in a state of dissolution. The sulfates created from the sulfides, pyrites, and marcasite are interacting with the oxygen rich surface water creating an odoriferous environment as they melt away. Imagine Grand Prismatic Spring in the Midway Geyser basin in Yellowstone and you're there. And while the mine offered no collection opportunities, the remaining equipment used to run the mine was impressive. It was the most complete mine that I've run across among dozens of these old, abandoned workings. You almost felt as if you could fire up the old 1920's era LeRoi 4-cylinder flathead hoist motor, spark plugs still intact, and take a ride down the shaft to the diggings.

*Steve explores the old hoist engines at the Nitt Mine (CN)*

We only spent enough time at the Nitt to wander about the relics of the years gone by and wonder how difficult it had to be to just walk away from your years of hard labor, expenses, and equipment when it finally became painfully clear that the mine would no longer be able to pay the bills.

Then it was on to the Graphic….

The Graphic at 7,586 feet asl was first staked in 1866 by J.S. "Old Hutch" Hutchason, which he worked until selling in 1878 for the then rather large sum of $30,000 ($700,000 in today's coinage). The mine, as with most mines of this era, changed hands a number of times, experienced numerous closures and reopening's. It was sold to Sherwin-Williams Paint Company (dba Ozark Smelting and Mining) in 1904 for $150,000 ($3.5 million today). The mine closed in 1929 and reopened in 1937 on a limited basis to service America's raw material needs. It currently is owned by ASARCO (American Smelting and Refining) and interestingly, it is reported that the mine is the only one in the area whose underground workings remain open and whose ores are not depleted.

Primary mineralizations from the mine were copper, zinc, silver, and lead. More than three dozen specimens of other minerals were discovered during its production years including, allophane, cerussite, cuprite, calcite, pyrite, smithsonite, azurite, malachite, rosasite, barite, limonite, and thirty or so other less common minerals. We were looking for those that fluoresced and found them to be practically non-existent with only a small offering of low emission barites and cerussites. I accidently came across a baseball-size piece of calcite after I had slipped and slid down the scree of mountain sized mine tailings, ending up with the specimen next to my hand. It gave off a bright yellow orange color under my LW flashlight in the dark bag and I found later, a bright red under SW UV. I spent the better part of an hour looking for its relatives believing that they had to be proximate to the original. Steve even came over and assisted in the search. Those relatives remained on site or they never existed…

With the Graphic adding few fluorescents to the buckets, we decided to visit the Kelly Mine a couple of miles away. More just to see the mine since we knew its primary mineral (smithsonite) had long been picked bare from the tailings and the current owners of the mine did not allow additional diggings. The aforementioned J.S. Hutchason was also involved in the mining operations of the Kelly, and, as being the Father of the town of Kelly. The original mine was named after a gentleman named "Kelley" but a clerical error incorrectly recorded the name as "Kelly", by which it continues to be known.

Silver was discovered in 1866 at the Kelly mine (7,415 feet asl). It was one of the foremost mines in New Mexico during the 19th century shipping thousands of tons of lead and zinc to feed Eastern industrialization. The mine's headframe was very unusual in that it was made of steel rather than the typical timber. It was assembled on site in kit form from the Carnegie Steel works out of Passaic, NJ. Its designer was A. Gustave Eiffel…yes, that Eiffel. The main mine shaft was more than a thousand feet deep and accessed the maze of more than thirty miles of tunnels.

*Head Frame and hoist rope at the Nitt Mine (SW)*

*Brian and Tom exploring the entrance of an adit at the Graphic Mine (CN)*

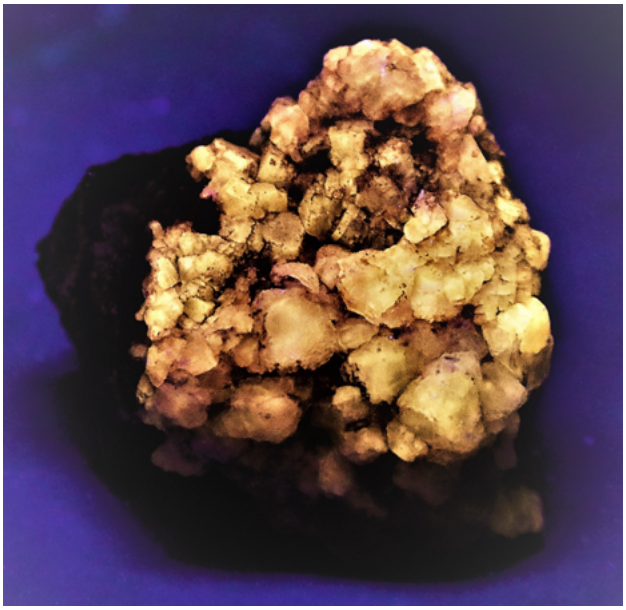
The town of "Kelly" grew up around the mine and by 1884 there were banks, churches, saloons, several mercantile stores, probably a couple of houses of ill repute, and almost 3,000 residents. It blossomed until the price of metal ores dropped after World War II and the main ore body became exhausted. By that time, residents from Socorro and Magdalena had begun disassembling a number of the abandoned buildings and using the material for firewood. In 1947 the homes of the remaining residents were painstakingly moved down the road to Magdalena. In 1950 the Kelly mining company began disassembling all of the mining equipment on site for sale or removal.

When we arrived at the outskirts of the mine, you could see the top of the headframe and part of a tower from the old refinery over the trees. I'm sure it appeared farther away than what it actually was, but after three days of scrambling up and down hills and tailings, my knee was barking loudly from an old war wound (slipped on an ice cube on the dance floor at the Cam Ranh Bay NCO club) so I declined to venture on the short hike to the mine. Steve, Bruce, and Brian headed off into the trees while Tom and I guarded the vehicles. As we had expected, the site contained tons of "leaverite" and nothing more. Ironically, as I was picking up some trash left by former visitors, a rock caught my eye. The blue-green bubbly piece turned out to be a piece of smithsonite, presumably from the mine. Score one for the old guy…sadly, no fluorescence.

*The group exploring the tailings at the Graphic Mine*
*Bruce "The Sledge" (l) – Brian (c) – Conrad (r) (SW)*


*The town of Kelly today is not what it was during its boom days (BW)*

*Calcite from the Graphic Mine – WL – (CN)*



*Calcite from the Graphic Mine – LW – (CN)*

*Calcite from the Graphic Mine – SW – (CN)*

## THURSDAY
## TAKING IN THE SITES AND THE CHUPADERA MINE

After a couple of evenings sorting through the numerous buckets, bins, and boxes of fluorescents, we decided that it was time to expand our horizons rather than concentrate on getting more rocks. That is, at least until night fall, when Brian had arranged a night trip to the Blanchard Mine. Bruce was on his way back to Arizona, so Tom, Brian, Steve, and I took the short drive to the Charles & Jessie Headen Geology Museum in Socorro.

*The "Eiffel" steel head frame at the Kelly Mine (New Mexico Historical photo)*

If you ever get a chance to visit the museum, do it. For a small facility is has an excellent collection of local and international specimens. And they even have a representative fluorescent room. They also have a few cases of specimens that are for sale. A quick UV scan of some of this material discovered a very nice sample of Italian aragonite that fluoresced a bright pink under LW UV. I subsequently found out that it also fluoresced a bright white under SW UV and phosphoresced green under both wave lengths. We decided the Foxes' next trip would be to Italy.

## THE CHUPADERA MINE

***Author's note:*** *Chupadera trip section compiled from Tom Henderson and Brian Walko's original drafts.*

After our tour of the museum, Tom, Brian, and Steve decided to make a quick run out to the Chupadera Mine to do some collecting since it was a short distance from town. The Chupadera Mine (aka, Minas de Chupadera) is located 12 miles northeast of Socorro in the high desert. Being our first trip there we followed our GPS to

*The only parts left of the Kelly Mine – the head frame – ore bin – and smelter (BW)*

*View of the tailings from the Kelly where they mined for Smithsonite (CN)*


*Steve (l), Conrad (c), and Tom (r) take some time off from digging to go to the Museum (BW)*

the mine. Driving down the first access road we were halted by what appeared to be a recently constructed gate that blocked the access road that ran through an adjacent property. We tried another access road through the parcel but found that was gated off also. This did not discourage the modern-day Conquistadors. Brian relied on his internal GPS to find a way in through the backdoor without crossing the restricted parcel. Little did everybody know; we were traveling though the land known to the 17th century Spanish explorers as the "La Jornada del Muerto" or "The journey of the dead man". As fitting with the name, the area was sparse of vegetation and heat and dust added to the atmosphere.

Eventually we found the Chupadera. The Chupadera was mined for copper ore, primarily malachite and azurite, in the late 1950s and early 1960s, but it was not profitable and closed. The mineralization occurs within a strata-bound copper deposit in PHOTOS sandstone. Today it is used by NM Tech students and mineral clubs to learn about copper mineralization and to collect specimens.

We found lots of malachite and azurite located within the mineralized sandstone layers. Scattered amongst the copper ore was calcite, which occurred within layers distinct from the copper mineralization. We collected calcite to check for fluorescence under both LW and SW. Nothing special.

Steve brought several pieces back to his hotel. While the rest of us took a siesta, Steve checked the calcite in total darkness with a more powerful 30W SW lamp and wow, deep rose red fluorescence. Before dinner we stopped by his room and saw the prize. We decided that the pieces warranted a second calcite specific trip back to the Chupadera the next day.

As I noted, I didn't make the trip to Chupadera. I had more interest in visiting National Radio Astronomy Observatory's Very Large Array (VLA) forty-five minutes east of Socorro. The VLA is made up of twenty-eight (27 operational and one backup for maintenance) 25-meter radio telescopes laid out in a Y-shaped. Each telescope weighs 209 tones.


*What we were looking for but found they had already been put in a museum (BW)*

The two arms of the "Y" have 8 telescopes and the long portion contains eleven. Each of the massive telescopes is mounted on double parallel railroad tracks, so the radius and density of the array can be transformed to adjust the balance between its angular resolutions, allowing it to be configured into the equivalent of a 22-mile-wide antennae. The VLA has been used to make key observations of

*Brian (front) and Steve touring the Headen Geology Museum (CN)*

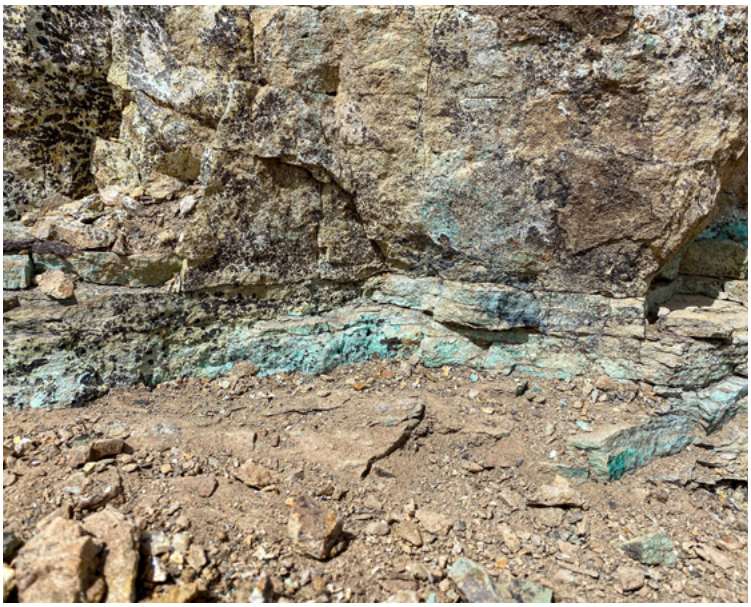
black holes and protoplanetary disks around young stars, discovered magnetic filaments and traced complex gas motions at the Milky Way's center, and provided new knowledge about the physical mechanisms that produce radio emission.

*Tom looking over the malachite tailings at the Chupadera Mine (BW)*

I was looking forward to walking among these giants and learning about them. I had just started the walking tour, surprised at the lack of other tourists, when the PA system blurted out some message about being on site. I couldn't fully understand the message as the sound got swirled around in the ever present 30 m.p.h. wind. Shortly after the noise of the message faded, I noticed two security vehicles with flashing red lights approaching from either side of me. As the first pulled up with the window down and the second hovered behind me in an offensive position, a rather stern looking female security policeman yelled at me, "Did you not hear the announcement?"

"What?", I replied.

She didn't smile.



*Vein of copper mineralization at Chupadera (BW)*

Unfortunately, I had failed to check the VLA web site before I left that indicated the facility was closed due to Covid. The security person then informed me that I needed to do an about face, walk back to my car, (told her it was a Jeep… still no smile) and depart the premises. For a couple of seconds, I felt a Clark Griswold moment building after finding Wally World closed and pondered putting up a fuss but decided it wasn't worth getting a tour of any holding facility they had on site. The security vehicles shadowed me on my way back to the Jeep and moved toward me again as I paused to read a placard at an exhibit on the walking tour. As I entered my vehicle, I pondered how long I could sit there before they swooped in again. But, knowing they would fail to see the humor in that also, I

*Photo of part of the radio antennae array at the National Radio Astronomy Observatory's Very Large Array (VLA) just before I was unceremoniously asked to leave. (CN)*

departed the premises, but as I left, I did stop a number of times on the access road to take pictures, knowing I could outrun them if they made pursuit since I had about a mile head start and I only had to make it beyond the facility perimeter a few hundred yards down the road where they had no authority, and I knew their vehicles couldn't outrun mine…well, I was pretty sure.

I was a mile or so past the entrance when the phone rang and Brian indicated that he and Steve were coming over to the VLA to meet me. Told him not to bother.

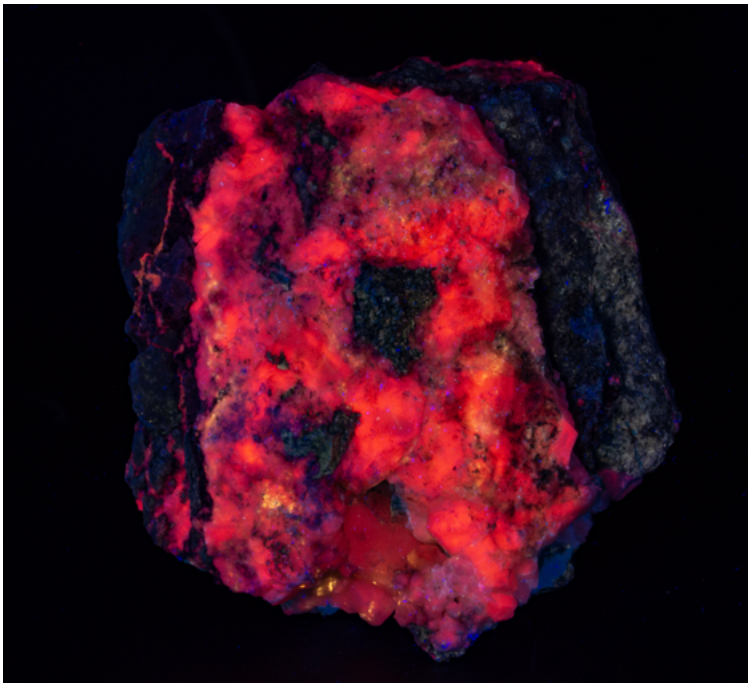
**THURSDAY NIGHT**
***BACK TO THE BLANCHARD***

(Author's note: Blanchard night trip section compiled from Tom Henderson and Brian Walko's original drafts.)

The rest of the day was sorting and prepping for the evening's journey back to the Blanchard mine, this time with the assist of darkness. We felt fortunate to be invited back to the Blanchard Mine for nighttime collecting. The only requirement was that we had to be on the mountain before dark, and of course to collect safely. As we wandered up the 4WD trail to upper mine, we were treated a spectacular New Mexico sunset.

Brian and Steve scouted the area when we collected at the upper mine a few days before so we knew exactly where to start. We unloaded our tools, LW Convoy flashlights, and buckets and proceeded into a trench cut

*Chupadera calcite – WL – (BW)*



*Chupadera calcite – SW – (BW)*

next to an adit dump. As we approached the dump, there was a great deal of excitement and even some shouts of amazement as our LW Convoys illuminated the trench rock that was overflowing with purple fluorescence from the fluorite and orange fluorescence from the caliche, as well as yellow from the cerussite. As the mass of purples, oranges, and yellows engulfed us Brian brought a smile to everyone's lips when he exclaimed, "This is like hunting for Easter eggs."

Steve shined his Convoy S8 on limestone cliffs above and they glowed brilliant orange from the caliche. Collecting was easy. Non-fluorescent rocks were ignored or just rotated to see what was on the backside.

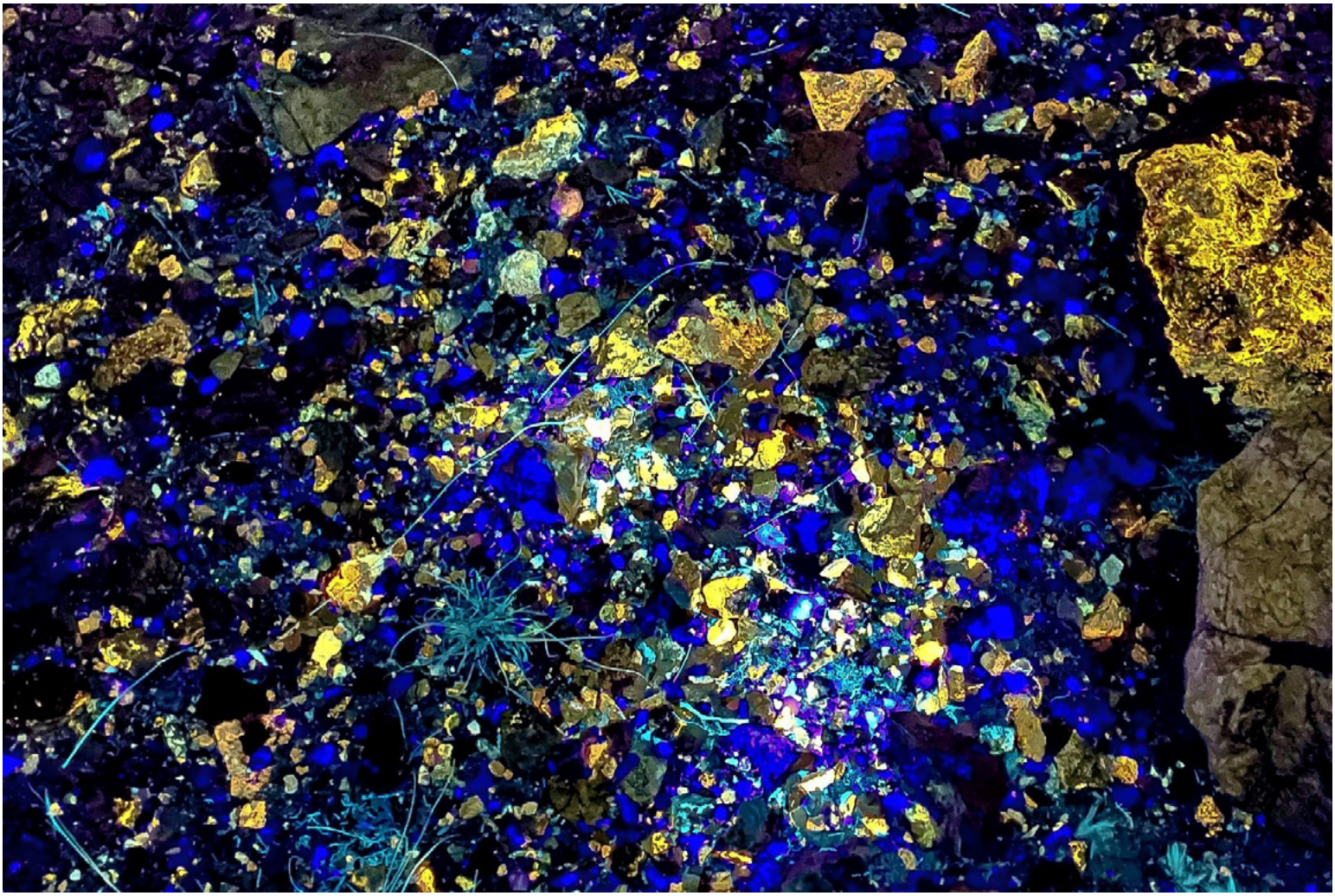
While Tom searched for specimens with a combination of purple fluorite and yellow caliche, Brian kept is eyes peeled for sleeping rattlesnakes tucked under the rock overhangs. The buckets filled up fast with fluorescent specimens. At the truck we sorted, field dressed and wrapped the fragile specimens.

Once we finished at the upper mine, we proceeded down the mountain to the lower mine area where we first collected on the earlier trip. The ground was covered with weathered fluorite and caliche and when you pointed your convoy down, the entire ground became ablaze with a never-ending carpet of bright fluorescing fluorite, cerussite, and caliche. It was like walking around the Franklin/Sterling Hill dumps but instead of reds and greens jumping out at you, you were treated to a visual spectacle of a combination of purples, oranges, and yellows. As the night grew late, when the specimen buckets overflowed and everyone had reached sensory overload, we reluctantly started the trip down the mountain.

**FRIDAY**
***BACK TO THE CHUPADERA***

After discovering that the calcite Steve picked up at Chupadera on Thursday was actually pretty good under a full-strength SW UV, we decided to make another run back to the mine to gather more of the material. On the second trip, Steve and Tom scouted for calcite and Brian used his hard rock mining skills to cleave off plates and veins of calcite from the matrix. Buckets were filled and it was decided that it was time to go. Tom was due back in Colorado and departed for home from the mine while Steve and Brian headed back to Socorro to the museum and later met up with me at the local steak house for that long-awaited adult beverage and a promise of an excellent meal.

*Sunset at the night dig at Blanchard (BW)*



*Nighttime at the Blanchard under LW UV the ground sparkled purple, yellow, and orange (BW)*

**SATURDAY EPILOGUE**

If the success of a fluorescent expedition can be measured by the volume and quality of specimens tucked away in all parts of your vehicle, I would say we hit an 8 or 9 on this trip. Add in the comradery of the people involved and it was one for the books. There wasn't a massive amount of specimen variety but the football-sized purple fluorescing fluorites (some with cerussite, barite, galena, and caliche) made up for the lack of variety. Steve and Brian headed back to their mountain chalets that morning and would probably beat me home by a day or so, since I have a nasty habit of seeing a dirt road and saying, "Wonder where that goes?" Then finding out…

*Brian's truck was getting full after the third day (BW)*

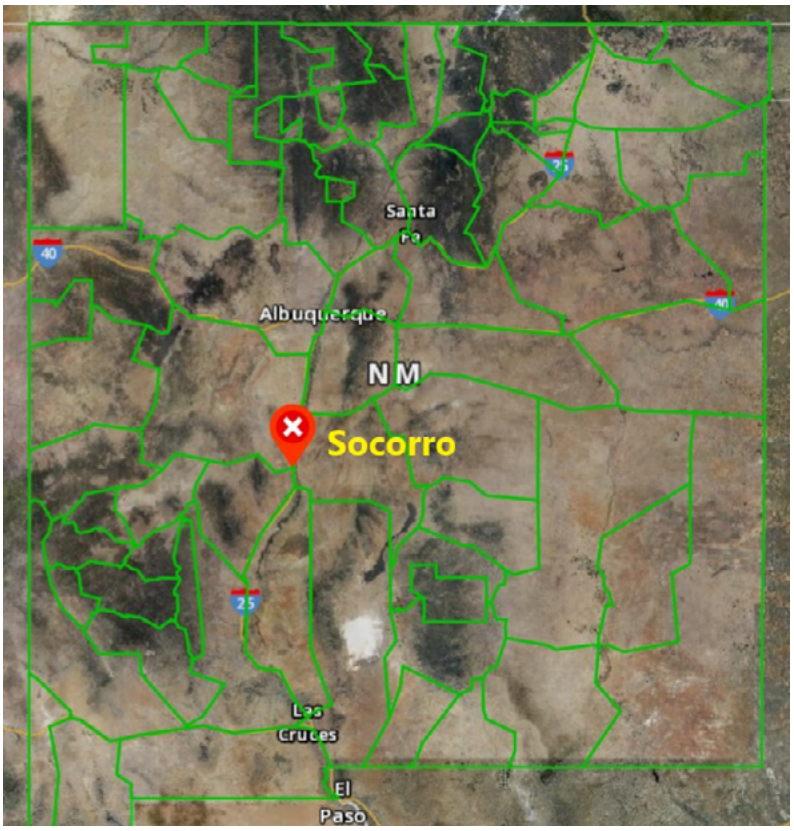

*Some of the finds that Steve brought home (BW)*

# PLANNING THE SOCORRO, NM FLUORESCENT MINERAL TRIP

By Brian Walko #2064, FMS Rocky Mountain Chapter Lead, brian@uvminerals.org

Are you interested in collecting fluorescent minerals in an unexplored area? Here are the logistics behind our Socorro, NM trip. You can use this information as a guide to help plan your own fluorescent mineral collecting trip.

It all started with an idea. Back in April of 2020 I was planning to attend the 75th anniversary of the first atomic bomb detonation at the Trinity Site southeast of Socorro, NM. For me, it was a nine-hour drive. To enhance the trip, I started researching mineral collecting areas, especially those known for fluorescent minerals. Unfortunately, COVID-19 shut down the Trinity Site and I cancelled the trip. This allowed me the opportunity to thoroughly research the area for a 2021 trip.




Many mineral collecting sites are overly popular. If you want good specimens, you need to find places not typically visited by the public. I started a Google search for New Mexico fluorescent minerals. The first article that appeared was "Ultraviolet Fluorescence of Minerals--Examples from New Mexico", by Dr. Pete Modreski (FMS #157) of the USGS, published in New Mexico Geology, May 1987. Dr. Modreski gave credit to his sources, which provided me with additional articles to look up. Most of the references were associated with the New Mexico School of Mines, now New Mexico Institute of Mining and Technology (NM Tech). NM Tech's library and the New Mexico Bureau of Mines & Mineral Resources had more articles of value to research for the trip.

Other helpful resources are field trip guides from local/regional Rock and Mineral Clubs. I networked my way into acquiring copies of these guides. If a field trip was in the Socorro area and mentioned fluorescence, I placed the site on my short list. This gave me a dozen potential sites within a 50-mile radius of Socorro to investigate further.

Mindat.org provided more details of the various collecting sites I was interested in. Now I had to determine if a site was on private property or under a Bureau of Land Management (BLM) mineral claim. The private property was easy to determine. I use a mapping tool available called onXmaps. My yearly subscription provides land ownership maps for all of the United States. I was able to determine that one of the collection sites was on private property. The others were mineral claims on BLM land.

Identifying the owner of a BLM mineral claim is a bit more challenging. I used the BLM's Mineral & Land Records System (MLRS), formerly known as LR2000. This system requires basic knowledge of the Public Land Survey System (PLSS). I located the claims and their owner(s). However, knowing the claim owner(s) is only the starting point. Now the networking begins. You need to get permission to access their property or claim. I have had a lot of experience doing this type of networking in my local mining districts with much success.

I located phone numbers of the owners. A phone call is far better than email or texting for the initial contact. Leading off with, "Hi, I'm Brian Walko, from the Fluorescent Mineral Society's Rocky Mountain Chapter". Being a member of the FMS set the stage that the owner was dealing with ethical, serious collectors rather than amateurs. After chatting, I was granted initial permission to collect on their properties/claims during the 3rd full week in April. Exact dates and time would be worked out later.

Since this was a scouting trip for a future FMS – Rocky Mountain Chapter trip, I contacted FMS members whom I personally knew and would represent the FMS in a professional manner. I wanted a group that would be able to get along together for a five-day adventure pretty much in the middle of nowhere. With the team selected, the dates locked in, and lodging secured, we headed to Socorro.

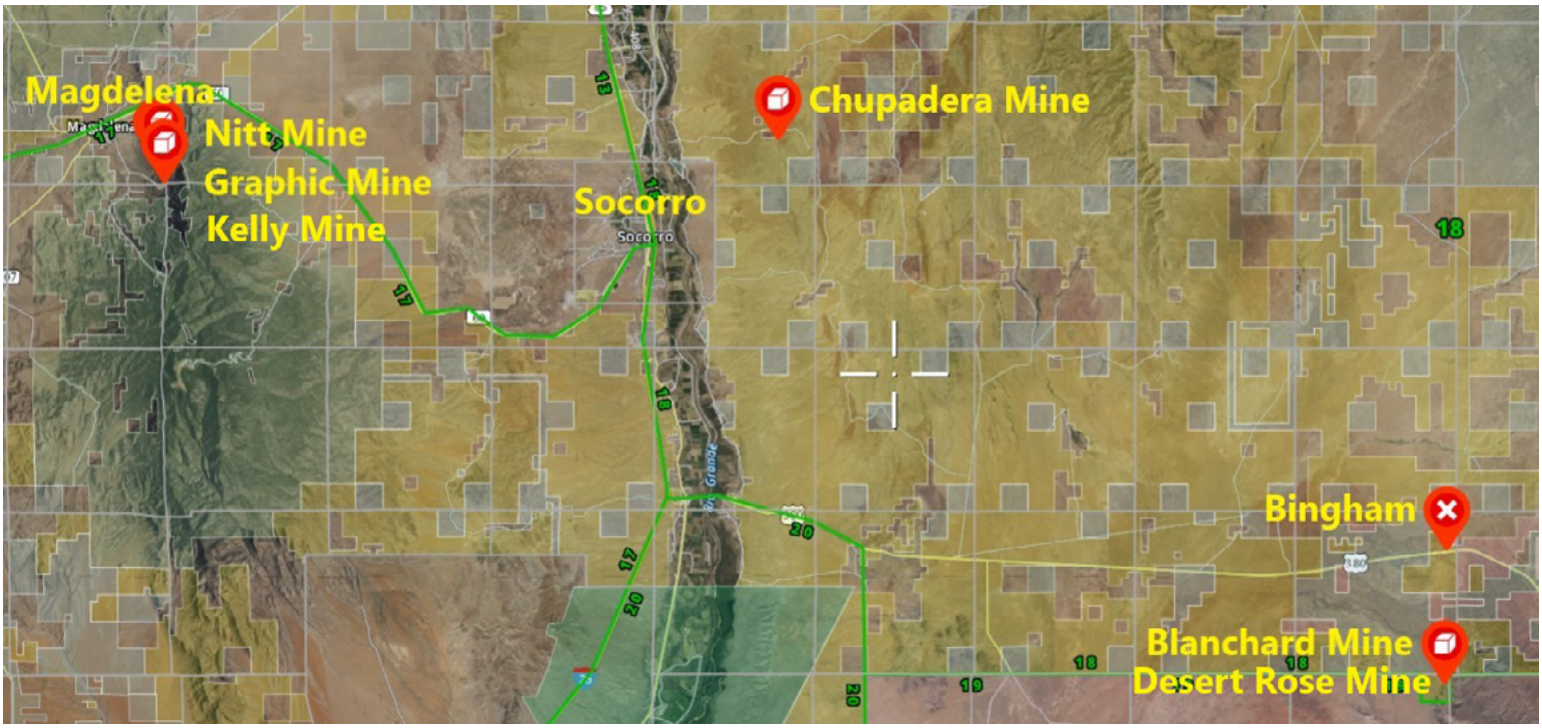
The owner of the Blanchard Mine was very helpful. We could not go underground due to COVID-19. However, he recommended several areas on his claim to prospect. The owner had only two requests; leave his rattlesnakes alone, and call him when we left his mine. Fortunately, we saw no rattlesnakes. But I was unable to call until we returned to Socorro some forty miles later. I thanked him and passed the cell phone to Tom Henderson, our trip mineralogist, to talk to the owner about our finds.

We took a trip to the Desert Rose mine, which is owned by Allison at the Blanchard Rock Shop. Her shop's slogan is: "3 miles from the middle of nowhere", and she is correct. Besides paying our access fee, we purchased some specimens to help her business, which was affected by the COVID-19 shutdown. I also brought my Geiger Counter to checked radiation levels since the Rock Shop was only 15 miles from the Trinity blast site. The background radiation level was lower than at my house. Upon our return, Allison inspected our finds. They were not as high grade as we expected. After a little more socializing, she invited us back to the neighboring Blanchard Mine for a nighttime hunt.

The trip to the Nitt and Graphic mines required paying a fee at Bill's Gem & Mineral Shop in Magdalena, NM. The owner, Grace, was very hospitable. She showed us flats of minerals representing what we might find. It certainly helps to see "real" specimens from the mine dump rather than museum quality specimens. Upon our return, we purchased some of her specimens too.

The Chupadera mine was the most challenging to find. I had the GPS coordinates. The navigation software took us down a road that had been recently gated off. We tried another route that also was gated. So, I relied on my gut and looped around a couple of miles from the opposite direction and came in on dirt bicycle trail, parking directly in front of the mine.

*The trip is logged in my GPS and onXmaps application.The FMS Rocky Mountain Chapter is set for a trip in the Spring of 2022.*




*Socorro Area Collecting Sites*

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