

Gem Mining at the Cryo Genie Pegmatite Mine, southern California; Report #3,

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This week there was no drilling or blasting, just exposing pockets and digging crystals. The week started off with a HOT Labor Day, at least 110° on the surface, but in the mine was a very pleasant 75°. Ken showed me a tourmaline crystal, 10 cm in length, he found over the weekend, the first significant find this year. It was still covered in mud but the pink still showed through. It had the tapered shape of the typical Cryo Genie tourmaline. The specimen came from a pocket on the right hand wall, east wall, which is still going. We had many visitors today, including Brendan Laurs, the Editor of *Gems & Gemology*. They all came out to see the progress of our labors. After mucking for a couple of hours in the morning, there was enough room for me to get up in the area of the pockets and work with a light jackhammer. We worked around all the small pockets until they lead me to one pocket. Now we have a big pocket showing in the face of the tunnel and another on the east side.

On Tuesday we worked around the pockets to expose them so they can be taken apart as gently as possible. By the end of the day the pocket in the face of the tunnel grew to almost 2 meters wide and more than a half a meter thick and stuck out of the wall a half a meter. The dark clay contrasted by the lighter colored wall rock made it look like a giant tongue sticking out of the wall.

On Wednesday morning Ken found that a portion of the tongue had fallen off and exposed some quartz faces and a giant microcline crystal with small bi-colored tourmaline, pink and green, lying on the surface. There were several large matrix pieces on the floor of the tunnel and he wrapped them up and put them into boxes. The tourmalines on the exposed microcline were only a few millimeters in diameter and as long as 3 cm long. We washed off the few specimens found that Ken had found and one had a 7 cm long by 7 mm wide bi-colored tourmaline lying next to a quartz crystal. Ken left for the office by mid morning, and about a half-hour later Dave went down to see the face. He rushed back up to the surface and asked me if I had seen the giant tourmaline in the face or had Ken said anything about it. I said no and went with him to see for myself. There, I saw a pink tourmaline with a blue cap about the size of a beer can exposed in the lower east corner of the pocket. It was in two pieces but one of the pieces was nearly 10 cm long and about 6 cm in diameter. It looked as good as anything from last year but I know everything looks better underground as you dig them out. After you see them on the surface, they look different and generally not as good. Probably the excitement of the discovery has something to do with it. This is the first big discovery this season.

I spent the rest of the day and all day Thursday using the small jackhammer digging around the pockets exposing as much as I could. It looked as if the two pockets would join up and become one giant pocket. The pocket in the face is still climbing into the ceiling and the bottom is remaining flat, which means it is still getting bigger. Our tunnel has changed directions since we started mining this season because we were following

the signs of the pockets. The pocket in the face and tunnel is trending N 37° E and we had to mine nearly 10 meters now. Not too far when you have it in hand, but farther than we thought and we were getting worried.

Dana came in early on Friday to prepare the cleaning area we use to sort, clean and start the repairing process. As large as this pocket seems to be, we will need a great deal of area to spread out all of the various pieces. Dave went with him while I worked for the day on our living area. This is our second year of operations and we still haven't put together a proper kitchen and eating area. By the end of the day 3 tarps 20 feet by 12 feet were up just in time for a rainstorm.

Saturday, Dana and I prepared to remove the tourmaline in the face. I worked back the loose rock that surrounds the pocket to give us more room to work. It didn't take much to remove the crystal and we found that the crystal was longer than we thought. It turned out to be doubly terminated with a 5 cm end of brilliant green-blue and the rest pink with a slight blue cap on the larger end and, of course, tapered. The total length is over 21 cm and there is one piece that looks like it goes with the crystal but it doesn't fit. If Dana can figure out how it fits in it will increase the length by another 3 cm. This crystal is far better than last year's crystals with great terminations and superb luster. The removal of the crystal was filmed by Kevin, Dana's friend, and witnessed by Brendan Laurs from the G&G magazine.

Next week I will dig around the pocket some more and begin the careful removal of the material. Dana plans to spend most of the week at the mine to see for himself what is coming out. Hopefully, next week I'll have some great news of new production.

Till my next installment, stay on the edge of your seats.

Jim



Figure 1. Early stages of excavation of the pocket that produced the large tourmaline in Week 3 (September 1-7, 2002). Ken Gochenour on the left, Jim Clanin on the right.



Figure 2. David Kalamas holding the one and only tourmaline crystal to come out of the big pocket. It is 22.5 centimeters in length and doubly terminated.