COLLECTING in AUSTRALIA

Australia - Oz for short - is a big country. 6th largest in the world by area (USA is 5th), but only 53rd by population. Oz is nowhere near the edge of the tectonic plate we sit on, so we have no active volcanoes, very little earthquake activity and no orogenic mountains like the Rockies. As a result we are old, worn down flat, with our highest mountain only 7000'. Oz is the oldest, driest, flattest, most sparsely populated continent on earth, about 75% arid or semi-arid. The good 25% is around the coast and is rich and varied. (See over for map)

We have huge mineral resources, but sadly (for me) they are mostly minerals that supress fluorescence, like iron and nickel. Our minerals are the major reason why our economy is so buoyant, giving us arguably the highest or second highest standard of living in the world.

I am aware of only a handful of fluorescence enthusiasts in Oz. I have never come across anyone else out there looking for rocks that glow. That means there's no one to ask where the glowing rocks are - I just have to go looking for them where I think they might be. So far, most of my efforts have been in the remote Northern Flinders Ranges area of Outback South Australia (2000 km from where I live), so that's where most of my successes (and failures) have been. Each trip there lasts between 6 and 10 weeks.

My campsite near Puttapa

Sometimes things just have to happen. After less than 1/2" of rain the day before, this happened. The shovel handle broke. Nothing to winch on. Too sloppy for the high-lift jack. The satellite phone worked! Police and State Rescue came out to the GPS reference (and got bogged on the way). That's Oz ...

Bogged in the middle of nowhere

By far my best collecting place so far has been the Puttapa Zinc Deposit, the only known economic deposit of zinc silicate (willemite) in Oz, but numerous other places have yielded interesting and sometimes rare specimens. Surprisingly the famous Broken Hill area has not shown much fluorescence despite many station (ranch) owners allowing me to go onto their land. (Cattle stations in Oz range up to 6,000,000 acres!)

We look at two places in South Australia near the Northern Flinders Ranges: The Puttapa Zinc Deposit, and the abandoned Reaphook Hill Scholzite Mine.

The PUTTAPA ZINC DEPOSIT

Located on Beltana Station (500,000 acres), Puttapa has been mined on and off for a long time, but on a large scale only since the 1970s. Mining ceased in 2007 when the deposit was exhausted and all the ore has now been crushed and exported. My finds there have all been in the "windrows" bulldozed up to act like fences to mark out the various areas. A new deposit with an estimated 74,000 tons of recoverable zinc was found on nearby North Moolooloo Station in 2010, and it is hoped to start mining it by 2014 or 2015. I certainly hope so!

The 550' deep pit at Puttapa (access no longer permitted due to instability)

Minerals said to have been found at the Puttapa Deposit which fluoresce (according to the Henkel Glossary) :

Adamite	Dolomite	Hydrozincite	Rhodochrosite
Aragonite	Doloresite	Kaolinite	Smithsonite
Austinite	Gypsum	Larsenite	Sphalerite
Barite	Halite	Mimetite	Tilasite
Calcite	Hedyphane	Hyalite Opal	Vanadinite
Carnotite	Hemimorphite	Pyromorphite	Willemite
Cerussite	Hyalite	Quartz	Zincite

Due to the large number of colours that Puttapa rocks display under SW and MW, I am only confident in identifying calcite and some willemite.

All the pieces shown on the next page (and on the cover) are from Puttapa, and are representative of some of the best pieces I have found there. They are not all shown at the same magnification.

Working a windrow

Unfortunately, we'll have to wait until the new mine starts (if it does) to get more pieces as nice as these.

PUTTAPA GALLERY

All Short Wave except where indicated.
All show bright long-lasting phosphorescence, some in multiple colours.