Australia and New Zealand Micromineral News

Issue 4 – July 2012

Cover photo: Cerussite, Cordillera Mine, New South Wales, 2mm high crystal.
Photo and specimen: John Haupt.

Issue Number 4

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Editor:
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Introduction

We are closer to next Xmas than we are to last Xmas! Scary!

This issue of the Australia and New Zealand Micromineral News has information on the minerals from the Cordillera Mine in New South Wales, where in particular, both raspite and stolzite occur, news from around the Societies, The Palmer Show, and an article on mini tanks from Ted Fowler. Since the last issue, the Joint Australian Mineralogical Societies' Seminar in Perth, Western Australia has come and gone. The topic was Rare Earth Elements which was interesting, and one day was put aside for micromounters. The theme for the latter session was nickel minerals from Western Australia. Hopefully a report next issue.

Contributions – We Need Your Input!

Articles should be submitted to the editor in Word format, and any photos should be of a sufficient quality for publication. If you believe that you can provide a suitable article for the next issue, please advise the editor as soon as possible. Planning for the next issue begins as soon as the current one is published!

Contacts

If you want to find out what's happening in your region with micromounting or microminerals, get in touch with one of the following:

- New South Wales: George Laking – bglaking@tech2u.com.au
- New Zealand: Jocelyn Thornton – sodalite@paradise.net.nz
- Queensland: Russell Kanowski – kanowfam@icr.com.au
- South Australia: Peter Keller – gondwanaminerals@yahoo.com.au
- Tasmania: Ralph Bottrill – rbottrill@mrt.tas.gov.au
- Victoria: John Haupt – john.haupt@bigpond.com
- Western Australia: Susan Koepke – minsocwa@hotmail.com

Forward Diary

Please send details of upcoming events (up to six months ahead would be good) for inclusion in the next issue of the Australian and New Zealand Micromineral News.

The Queensland Mineral Society Micromineral Group

by Suzie Ericksson

We meet ten times each year sometimes at different people's homes and sometimes at the Clubrooms of the Mount Gravatt Lapidary Society. Late last year we began studies the crystal systems starting with the Orthorhombic system in November.

We held our January meeting at the Gold Coast Lapidary Clubrooms hoping to "spread the Micro fever" to the local members. That month we tackled the Cubic system which has to be one of the easier ones to understand. We also watched the DVD of the Ted Elliott collection on display in Georgetown. The DVD is worth a looksee as is the actual collection.

In February we met at Lismore at the home of one of our members where we undertook to understand the Tetragonal system under the guidance of Steve Dobos and his wooden models.

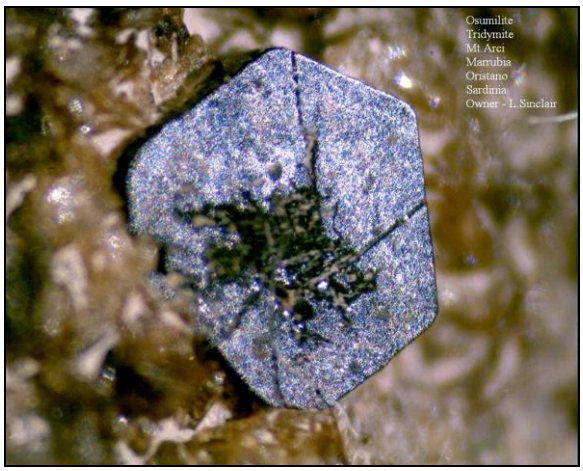
Meeting at homes always involves time wandering through the private collection of the hosts where we get to see the years of collecting and learn more about each other as we hear of the collecting trips that brought the collection together.

The March meeting was held at the Mount Gravatt rooms. As Minsoc Queensland had a stand at the Bundaberg Gemboree much discussion ensued. Then talk turned to the June Perth trip. We have 14 members attending the seminar, most are also involved in the Micro day. Eventually we moved onto the Hexagonal system. Steve showed a powerpoint presentation and explained the complexities to us all.

The April meeting was held at a member's home in Holland Park. It is always good to see Andy's collection. His specimens, especially his micros are exceptional. After an extensive wrap up of recent events like the Gemboree we were led into the world of the Trigonal system by Theo Klopproge. We are very lucky to have two very knowledgeable men in our group to help with our learning path.

If anyone is coming to South East Queensland and wants to visit our microgroup, we meet usually on the second Saturday of each Month with the exception of June and December. Just drop an email to ps.ericksson@hotmail.com and I will give the current details.

Photos by Suzie Ericksson



Above left: Zincite, Boma Montingnes, Sambre, Belgium

Above right: Osumilite, Mt Arci, Marrubia, Sardinia, L Sinclair specimen

February 2012 Meeting in Lismore

The Mineralogical Society of Victoria Micro-Mineral Group

by Jo Price

Our topic for the May meeting was: Minerals of South America, south of the Panama Canal Zone.

Brazil was well represented: there was an anatase over 1 cm long; reddish reticulated rutile crystals; a lovely chrysoberyl sixling from Espirito Santo; magnesite crystals; owyheeite crystals in a quartz geode; roscherite, dull green; spodumene, variety kunzite; as well as brazilianite, monazite, xenotime, titanite, eosphorite, and bertrandite. A surprise was a pink ferroan variscite.

Bolivian minerals included: pearly pale green metavauxite and vauxite, Llallagua; frankeite; miargyrite; euhedral danburite crystals; and native copper after aragonite.

From Peru there was a nice Japan law twin of quartz; also rhodochrosite; pyrargyrite; octahedral pyrite; and pyrargyrite with proustite.

Chilean minerals included lindgrenite, a rare copper molybdate; rodalquilarite, cyanotrichite; and atacamite.

Argentinian minerals were fewer, we noted rhodochrosite and a lustrous hematite after magnetite from there. A trapiche beryl, variety emerald, was tabled from Columbia.

We really enjoyed the day's topic as the variety, aesthetic appeal and quality of many of the specimens was impressive.

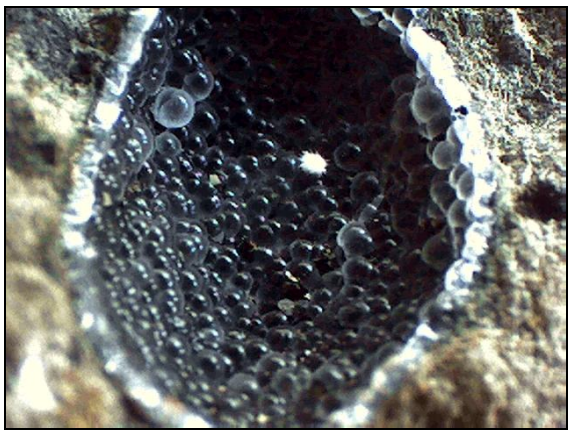
News from Tasmania

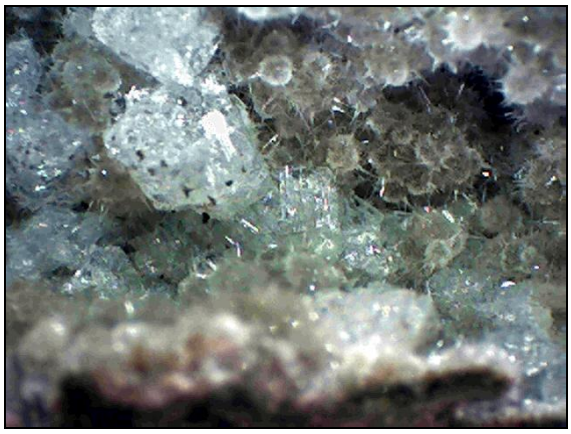
by Sam Caberica

April 2012 – Zeolites recently collected at Gad's Hill. This material was collected three months ago and it is different from material we got from that location on earlier visits.

First photo I call fish eggs – thomsonite. Cavity is 25-20mm long, field of view is 25mm, taken with x10 scope. Sample size was 45-50 mm. Second is calcite on Chabazite. Chabazite crystals are 12mm, calcite group 11-10 mm taken as previous photo and sample was 60mm. Number 3 and 4, thomsonite botryoid and needles and last ones are levyne and that is in 15mm hole. Levyne plates are 5mm and smaller. The area was uncovered due to a land slip and now the situation there is much more unstable I am sorry to say.

Best wishes and regards from Sam.






Letter to the Editor

by Jim Prentis

In the second edition of this newsletter, I read a paragraph where it was mentioned that Professor Pete Williams had said that by taking a closer look at many specimens for the smaller associated minerals, one could perhaps increase their mineral count. I would add to the discussion that a good light source is also helpful in this endeavour.

Although new to micromounting, I have had a microscope for many years, looking at details of a crystal face or peering in at an inclusion. But the step to micromounting came after I had purchased a simple ring light. Until then I had the little halogen light mounted on the scope. The first time I used the ring light I found all sorts of things I had missed before. I had just been unable to look deep down in the little vughs. Between that, and actively acquiring micros, I have doubled the number of specimens in my collection in the last year.

That has been with the LED ring light. My most recent purchase has been a fibre optic light source which gives me more and better light, giving truer colour.

Mini Tanks

by Ted Fowler

(Originally published in the International Micromounters Journal, 2002)

My ultrasonic cleaner has a tank measuring 13cms by 9cms and 6.5cms deep. The bulk of my specimen cleaning is of micromount material which has already been reduced to 3cm x 2cm or smaller. Replacing soiled cleaning fluid and cleaning the tank of residue removed from specimens is time consuming. The following was devised to simplify and hasten the cleaning and rinsing process. Two small Pyrex beakers, one containing cleaning fluid and the other holding distilled water for rinsing, are used instead of the standard tank.

A piece of clear acrylic sheet [Perspex] 3mm thick is obtained, larger enough to fit over the tank top, with a 1cm overhang on all sides [see diagrams below]. As my tank is rectangular, the square corners of the Perspex are sanded/rounded to match the profile of the cleaner tank. Some cleaners have a round or oval tank and these instructions may need adapting to fit such machines.

Pyrex beakers of 100ml capacity are readily available from a chemical supply company and only cost a couple of dollars each. They are 5cm in diameter and 7cm tall. After measuring my tank's internal dimensions, I was able to mark out two circles [diameter 5cm] on the perspex, using centres previously located 6cms apart. This will leave a 1cm "bridge" between the two openings, so the beaker rims do not touch when placed through the 5cm holes to be cut in the perspex.

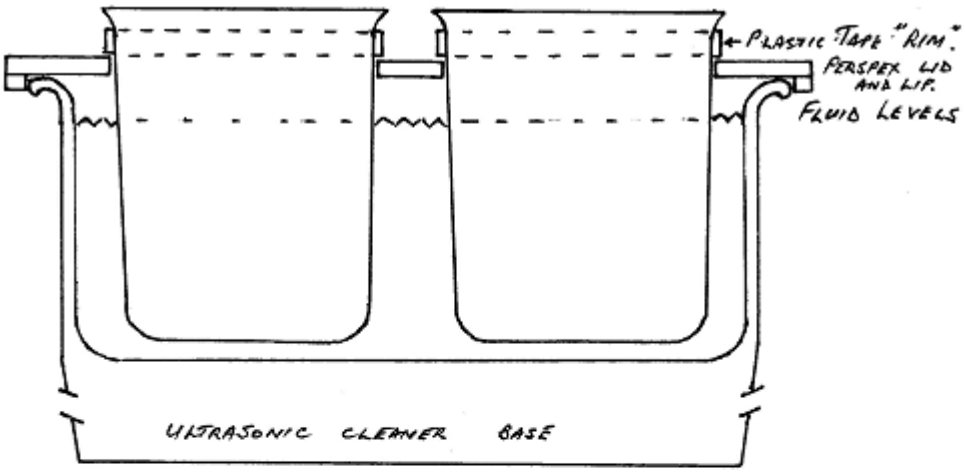
The circular openings can be cut quickly, if a drill press and hole saw of appropriate diameter is available. The alternative is to mark out the 2 circles with dividers, scoring the plastic, then use a sharp 6mm drill to carefully bore a series of overlapping holes just inside each circle. After removing the centre waste, enlarge the 5cm holes to final size with a half round medium cut file, then finish/smooth with fine sandpaper. The object is to have a neat sliding fit on the beaker walls through the holes.

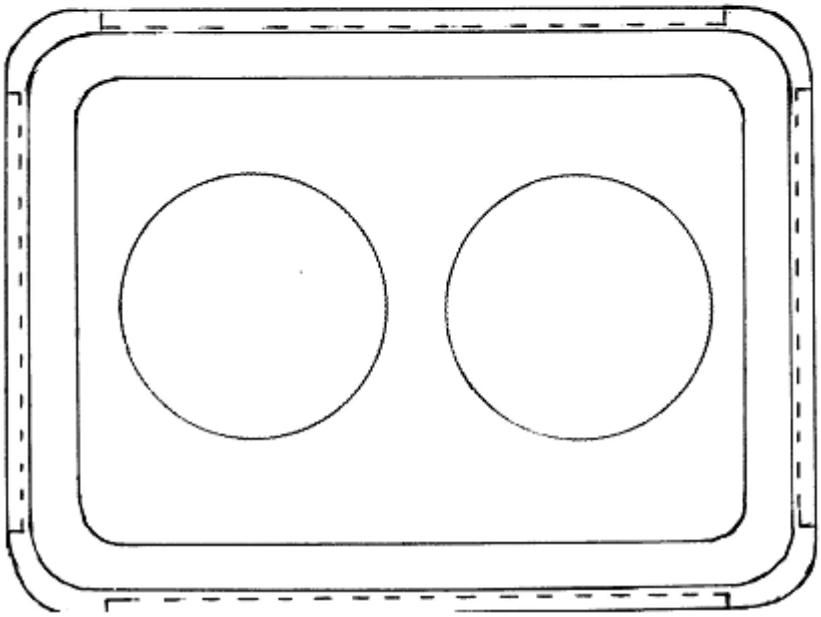
The flared beaker rims and spout stop the beakers from falling through the perspex, but some adjustment here is necessary to ensure the bottom of each beaker does not touch or rest on the bottom of the ultrasonic cleaner tank, as this will damage the transducer [refer to the manufacturer instructions supplied with your machine]. I adjusted beaker height simply by carefully wrapping several layers of plastic electrical tape evenly around the top

of each beaker, to form a shoulder to rest on the Perspex [see diagram].

To ensure the perspex "tank-lid" does not move around, small strips of 3mm square acrylic or perspex are glued underneath the edges of the lid to form a lip holding it snug on top of the tank. In operation, I use about 80mls of cleaning fluid in one beaker and a similar amount of distilled water for rinsing in the other. Adjust main tank fluid level to match beaker level to ensure ultrasonic effect is fully transferred. As the beaker wash solution becomes soiled, lift out the beaker, empty and remove any residual grit, refill and lower beaker back into position. Quick and simple. If a larger specimen needs cleaning, lift up perspex "lid" with beakers in position and put aside, then use regular tank as normal, after adjusting main tank fluid level, if required.

For ease of handling small specimens, I made small wire baskets 25mm x 25mm x10mm which can be gripped by self closing tweezers with wooden handles. Basket containing one [or more] specimens is then lowered into each beaker in turn, for clean and rinse. My first wire baskets were made from window insect screen mesh, but more robust ones were then made from the brass wire mesh of an old tea-leaf strainer.





Cordillera Mine, Teuna, New South Wales

by Peter Hall

The Cordillera Mine (worked by the Cordillera Hill Silver Mining Company) is situated approx 50 km south of Bathurst and 10 km southeast of Tuena.

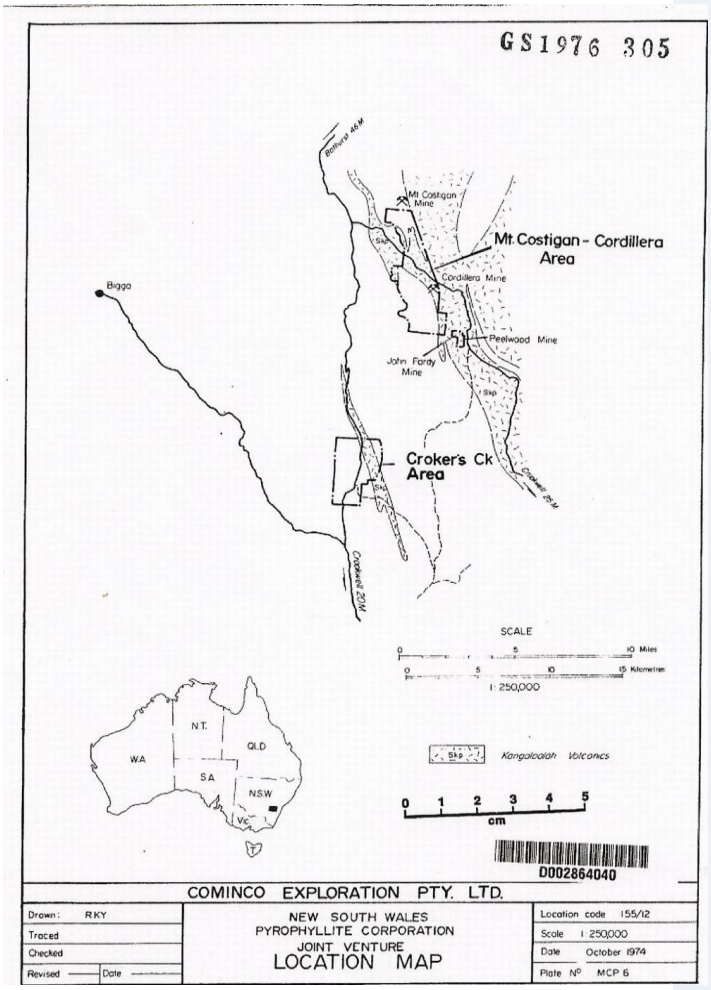
The name Cordillera is Spanish for knotted mountain chain.

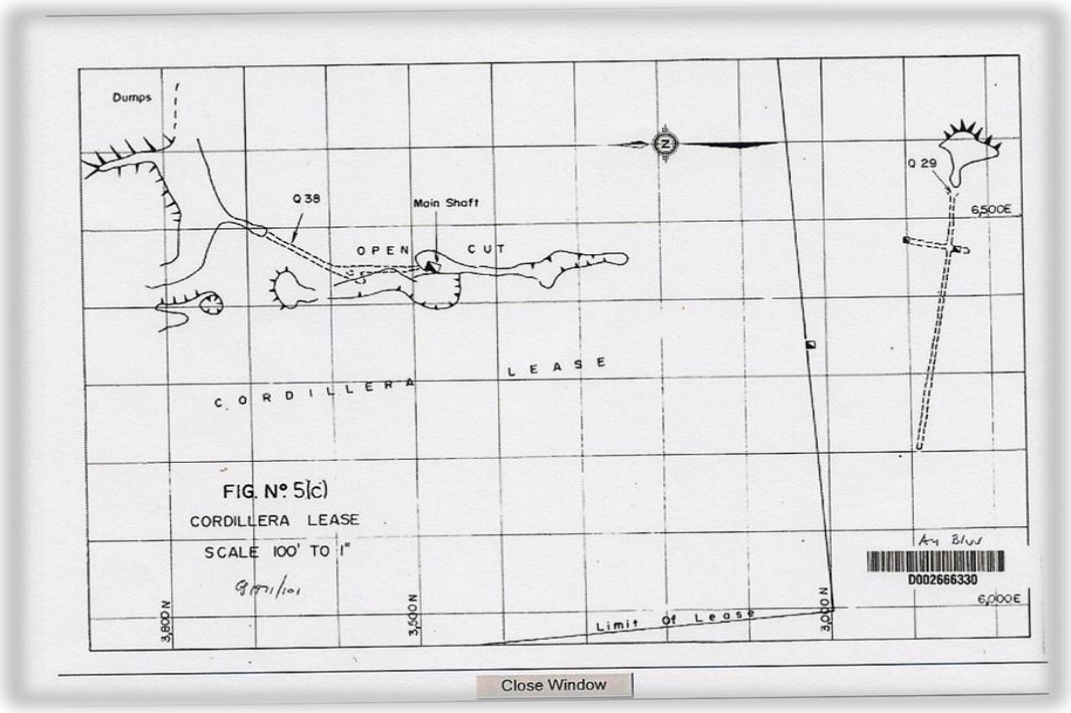
This copper, lead and silver deposit was first discovered in the early 1880s by Phillip Hyde.

Geology:

This deposit has a general north – south strike and dips almost vertically. The host rocks are volcanogenic shale, slate and greywacke which are Lower Silurian in age.

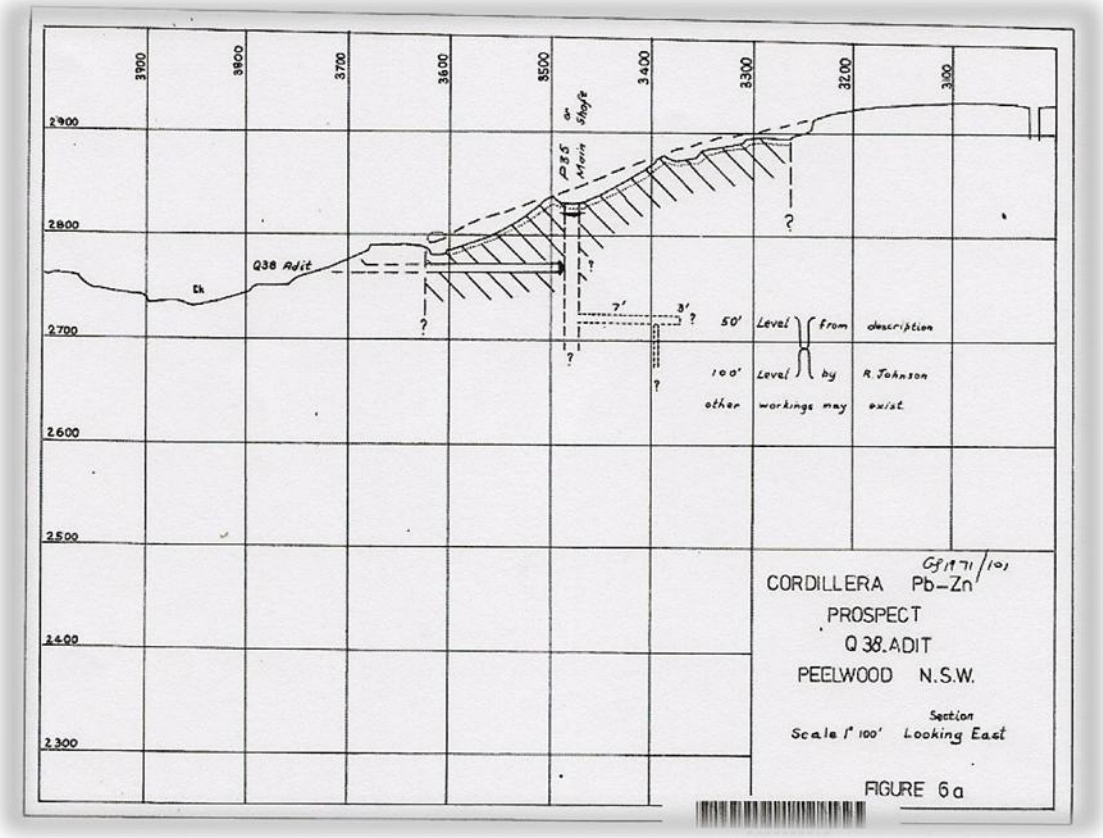
The lode was originally worked from open-cuts on the surface over a length of 500 ft. and later by an adit driven parallel to the lode from the side of the hill and a shaft sunk to 180ft.





Australia and New Zealand Micromineral News Issue Number 4 July 2012

The deposit was first mined in 1888 during the silver boom. Probably the lead and copper ores were recovered from the top of the supergene zone. The sulphide zone started at the 180ft level. The grade of the silver in the gossan was 9 oz per ton. In this year they treated 9,000 tons of ore yielding 82,800 oz silver, 404 oz gold, 227 tons lead, 220 tons copper and 1,500 tons of ore ready for process all valued at £46,718 (today's value is $8,523,330.00).



The mine was closed early the following year due to silver industry collapse and due to the ore being raised being too difficult and expensive to treat (probably the sulphide zone).

Machinery bought for £8,000 was sold off for £500 three years later. In following years the slag and some dump material had been sorted and sent away for treatment. The mine was dewatered and retimbered in 1907 but was never reworked due to metallurgical problems in treating the remaining sulphide ore. Allowing continuation of the orebody at depth gives a possible 150,000 tons of lead/zinc/copper ore probably not of very high grade.

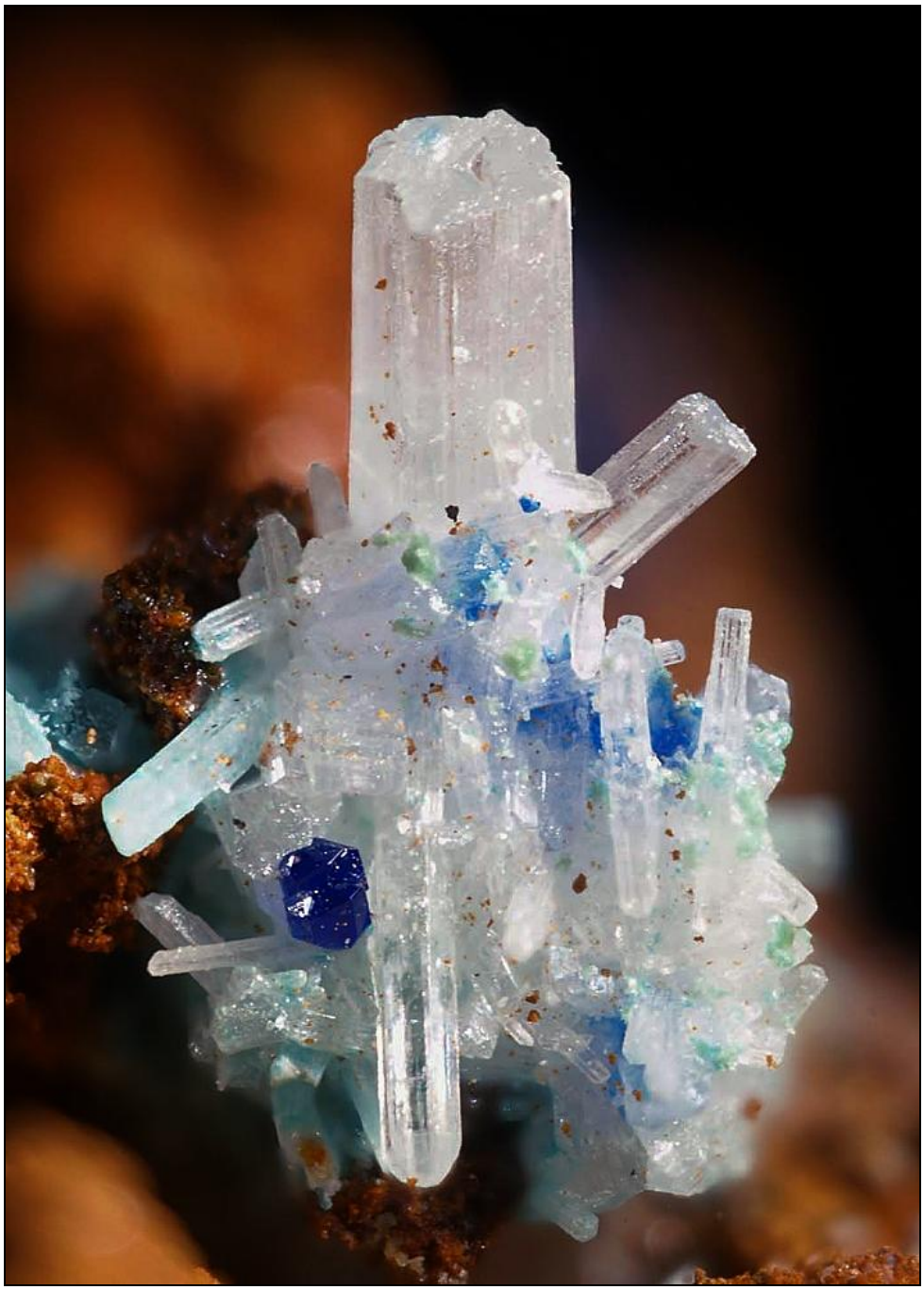
Mineralogy:

At the deposit it appears that there were two separate lodes, a copper-lead lode and a tungsten lode. The tungsten lode fell within the aureole of supergene copper and lead bearing solutions which reacted with the scheelite and formed copper and lead tungstates. No reactions between the primary minerals (sulphides) have been found. The sulphides recorded were zinc, lead, iron, copper and arsenic based.

Among the first minerals reported from Cordillera in 1888 were scheelite and stolzite. In 1889 cuproscheelite was reported.

Minerals Recorded:

Anglesite	Covellite	Marcasite	Raspite
Arsenopyrite	Cuprotungstite	Mimetite	Scheelite
Azurite	Galena	Osarizawaite	Sphalerite
Bournonite	Gold	Pyrite	Stolzite
Cerussite	Jamesonite	Pyrrhotite	
Chalcocite	Malachite	Quartz	



Cerussite, photo width 4mm, John Haupt specimen and photo

Raspite:

Raspite has only been found in one small residual dump of oxidised ore close to the former lode. Finer crystals of raspite occur prominently on kernels of relict scheelite and the more coarse crystals in cavities with cellular limonite-quartz gossan. There are two main forms present at Cordillera, both are strongly striated parallel to their elongation. Coarser crystals are usually pale yellow-brown while finer crystals are pinkish brown – colourless.

Stolzite:

First encountered here in 1888 but no descriptions were recorded, one can only assume it was reasonably common to be noted. Stolzite was found in more recent times by local collectors, typically as pyramidal crystals, from sharp single crystals to multiple twined "pagoda" style aggregates.

Most crystals found were less than 1mm but some were up to 6mm long. Most crystals are very lustrous and colour varies from colourless to yellow. Two generations of crystal formation is also present.

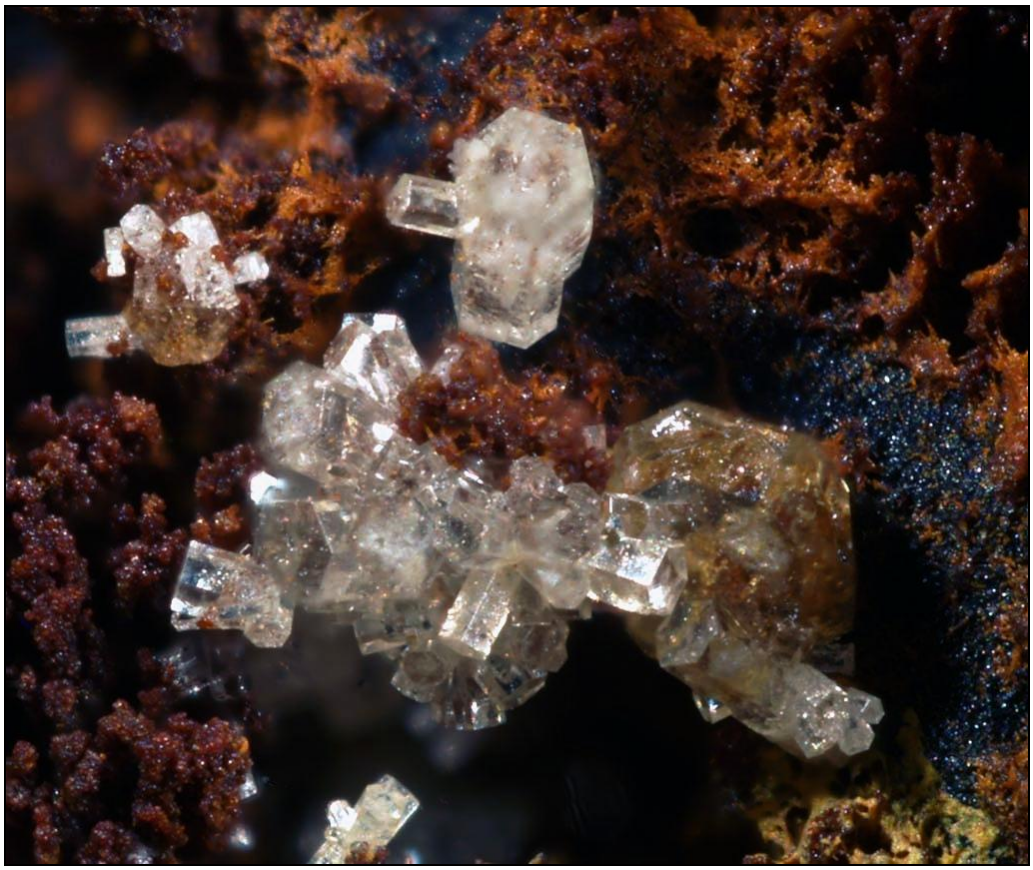
Cuprotungstite:

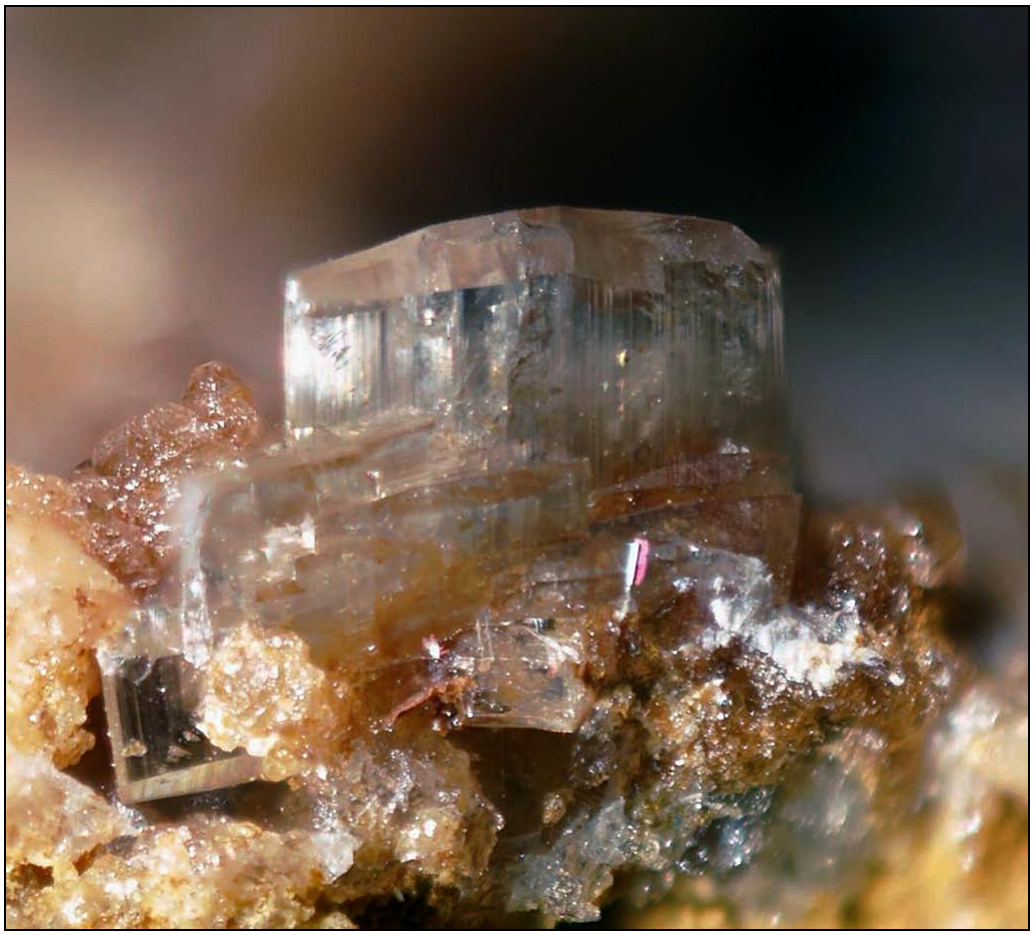
Is quite common and occurs as dark green botryoidal crusts and masses possibly as alteration of scheelite. Found with raspite and stolzite.

Azurite, 3mm crystal, John Haupt specimen and photo

Above: Cuprotungstite, photo width 3mm, John Haupt specimen and photo

Below: Mimetite, photo width 2mm, John Haupt specimen and photo





Above: Raspite, John Haupt specimen and photo

Below: Scheelite, photo width 4mm, John Haupt specimen and photo

Above: Stolzite, John Haupt specimen and photo

2012 Palmer, South Australia

Text, photos and specimens – Steve Sorrell

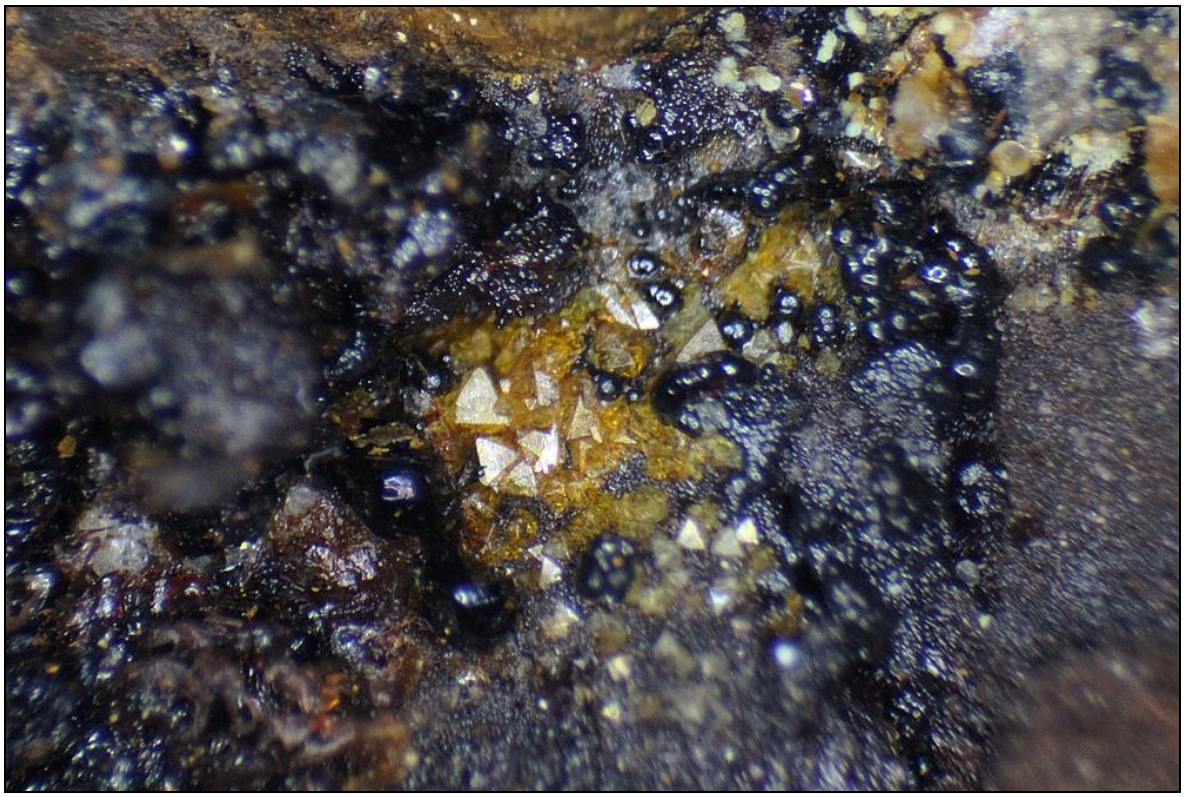
Each year, the Palmer Rockarama (now known as Palmer Crystal and Craft Fair) is held in early May in Palmer, South Australia. It is something that I had heard was a worthwhile trip, but this year is the first opportunity that I have had. Now living in Ballarat means that I am just that little bit closer.

Di and I decided to head over for the weekend, staying overnight in nearby Mannum. We arrived around 2pm on the Saturday, giving enough time to have a look around and catch up with some old and new friends. It was good to see some familiar Tasmanian faces too.

Quite a few stalls have micro minerals for sale and you can end up with a sore back from looking. Always good to see some local minerals too. We will go back next year.

Anticlockwise from left:

- Alan Pring (left) and Dehne McLaughlin
- Barry Schubert
- Vince Peisley
- Stalls in the open
- Calcite on aragonite, Iron Princess Mine, South Australia, photo width 5mm
- Hedyphane, Puttapa, South Australia, photo width 5mm



Above: Ralstonite, goethite, Tom's Phosphate Quarry, Kapunda, South Australia, photo width 5mm

Classifieds

Want to advertise something related to micromounting or microminerals? You can do so here. Willing to trade or sell, want lists, etc. Simply email the editor: steve@crocoite.com to get your listing in the next issue. Please keep ads as short as possible.

Mineral Paradise – Richard Bell

Periodic listings of mainly British micro and thumbnail-sized mineral specimens made available for sale or swap. To view, go to http://www.mineral-paradise.net

Sauktown Sales – Jim Daly

Periodic listings of micro mineral specimens for sale. Jim also sells micromounting supplies. To view, go to http://www.sauktown.com

DarkArtsMinerals – Steve Sorrell

Minerals for sale by auction, many micro-material specimens regularly listed. To view, go to http: http://www.darkartsminerals.com.

Stefano Del Magro sdelmagro@cheapnet.it

I am a mineral collector of Lucca (Italy) and I am to the search of Australian collectors who they can be interested to the exchanges with coming minerals from all the world. From part I am trying mineral rare Australians in format Micromount and Thumbnail. I would want to know and I am in a position to being able to help me in such sense supplying to me addresses and email. I wait your reply. Thanks.