



THE MINERALOGICAL SOCIETY OF NEW SOUTH WALES INC

Website: www.minsocnsw.org.au

Please address all correspondence to :-
The Secretary, 58 Amazon Road, Seven Hills, NSW 2147

NEWSLETTER APRIL 2023

The April Meeting will be held in the clubrooms of the Parramatta and Holroyd Lapidary Club at 73 Fullagar Road, Wentworthville, at 7.30 pm on the 14th of April, the second Friday, after Easter.

There will be a lecture to be given by Graham Ogle on :-

‘The Punta de Su Seinargiu Mine in Sardinia; - Kingsgate’s Cousin’.

There will also be a talk to be given by David Colchester on

‘A Review of Mineral Identification Techniques’.

FORTHCOMING MEETINGS and PROGRAMS

May 5th : Member’s Annual Mineral Auction.

The Society Annual Mineral Auction will be held at the May Meeting. Members are invited to select sales specimens up to about one dozen per member. A list of these should be sent to Haley Bambridge on e-mail : - haleybau81@tpg.com.au in good time up to a week before the meeting so that a master list with lot numbers can be compiled and distributed. Vendors would be notified which numbers their specimens had been allotted and would then write the numbers on the individual specimen labels.

In addition a number of trays of minerals may be sold by silent auction. Members may bring in a tray to leave for display on a table accompanied by a bid form which will be provided. Specimens, trays or boxes should be labelled clearly. There would be no need to notify the Society in advance about trays being brought in for sale as they will not be listed.

June 2nd: There will be a lecture by Luis Martins on :- **‘Pegmatites: What are they and why do we like them?’**

July 7th: The program is not finalised but will include a sale for the **Kids with Cancer Foundation.**

August 4th: Society A.G.M. and Memorial Lecture.

The SOCIETY COMMITTEE

PRESIDENT:

Dieter Mylius

Mobile: 0412 516 193

E-mail:

dieterm@internode.on.net

VICE-PRESIDENT:

John Chapman

Tel: (02) 9808 3481

E-mail:

chapmanjr@optusnet.com.au

SECRETARY:	George Laking	Tel: (02) 9636 7145
	E-mail:	<i>bglaking@tech2u.com.au</i>
TREASURER:	Graham Ogle	Mobile: 0400 683 574
	E-mail:	<i>quartzandsirius@hotmail.com</i>
COMMITTEE MEMBERS:	Haley Bambridge	Mobile: 0413 100 344
	Peter Beddow	Tel: (02) 8810 8446
	David Colchester	Tel: (02) 9449 3862
	Geoff Parsons	Tel: (02) 9548 3289
	Mark Walters	Mobile: 0421 012 647

The MARCH MEETING

The Meeting was opened by the President, Dieter Mylius, who welcomed members to the second meeting of the year, also welcoming a number of people who were attending by virtual mode and particularly two people not seen at a meeting before or not for some time, new members Samantha Dunn and returned ex-member Martin Crane.

The President drew attention to a few significant shows occurring over the next month or two. Over the immediate following weekend there was the **Back from Tucson Show** being held in the Masonic Hall in Turramuura, the **Illawarra** and the **Canberra Rock Swaps** later this month and the **Hawkesbury Expo** at Windsor in April. Over Easter the 2023 **Gemboree** was being held in Dayboro, a small town some fifteen klm north-west of Brisbane.

In regard to the Expo the Society had been invited to provide an information table at the Show and also a display of mineral specimens. If any members were able to give up some of their time over the weekend of the 22nd and 23rd of April they were asked to inform the Secretary. Three members at the meeting indicated their willingness to help.

Mark Walters was asked to report on current **Field Trip** arrangements. A few members had attended the trip to the Bathurst - Lithgow area over the 3rd and 4th of February and he had next scheduled a trip to the **McAlpine copper mine near Tumut** for the 31st of March/1st of April. Any members interested in attending any trips were advised to discuss this with Mark and anyone interest in organising a fieldtrip were recommended to contact him so that he could assist them with SWMS and WHS compliance for their trip.

The main lecture of the evening was given by Ross Pogson "**The New Minerals Gallery at the Australian Museum**". The lecture was very detailed and accompanied by a large number of images. A summary will be provided in a later Newsletter.

The first speaker of the evening was David Colchester who was to deliver a short talk. The following notes and images have been provided by the speaker.

Use of Abrasion Ph in the Field Identification of Minerals

David Colchester

Introduction

About 50 years ago I assembled a field kit to test for the presence of various elements in minerals. When searching the literature for recipes and methods to use in such tests I came across an article titled:-

"Simple Field Test For Distinguishing Minerals By Abrasion pH"

By Rollin E. Stevens and Maxwell K. Carron

American Mineralogist vol. 33(1-2) p31-49

For a copy of this paper just type in 'Google Abrasion pH'.

Abrasion pH Method

When a mineral grain is crushed and ground in a drop of water the pH of the water changes. This phenomenon was first reported in 1867. In 1948 Stevens and Carron tested this phenomenon and named it abrasion pH. They published a list of the abrasion pH of 288 minerals.

Abrasion pH – equipment needed

The test is simple, requiring only a few pieces of apparatus. Mortar and pestle, Bottle of distilled water, pH papers, and Stevens & Carron's list of minerals.

Equipment



Distilled water
Sample
Pestle & mortar
Hammer & anvil (optional)
pH papers
Ground sample

Universal pH indicator paper

Universal pH paper is probably stained by a solution whose composition conforms to Yamada's recipe which cycles through the colours of the rainbow: red pH 1-2, orange pH 4-5, yellow pH 6, green pH 7, blue pH 8-9, purple pH 10, violet pH 12-14.

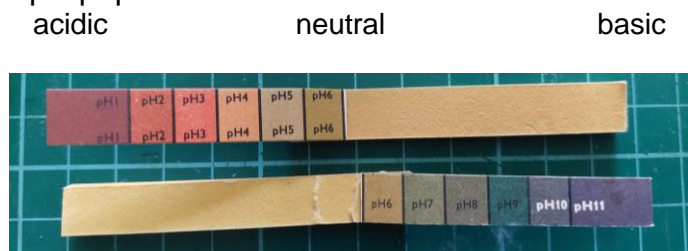
Thymol blue 0.025 g
Methyl red 0.060 g
Bromothymol blue 0.300g
Phenolphthalein 0.500g
Dissolved in 1000 ml. of ethanol
The default colour is yellow orange, pH 6



Some useful applications

Useful for distinguishing minerals with similar appearance. I have found the test to readily distinguish between : - Calcite (pH 8) and dolomite (pH 9,10)
Sodalite (pH 10) and dumortierite (pH 6)
Talc (pH 9) and pyrophyllite (pH 6).

Colours of universal pH paper



Conclusions

This field test has received little (or no) attention since Stevens and Carron wrote their paper in 1948. The lack of attention is probably because universal pH test paper and pH testing equipment were not readily available. I personally found it an interesting and rewarding experience to visit this neglected field test and with pH testing equipment readily available these days the procedure could be quite useful.

‘Collecting in Nevada, USA’

Terry & Lynne’s digging trip to Nevada USA

Terry Hogarth and Lynne Webb travelled to America for a six-week period in June, 2016, during which they packed in a great deal of mineral viewing, fossicking and sight-seeing through parts of the western United States. Their trip started in Reno, Nevada, where they had three days digging at Petersen Mountain. The site is World-renowned for being the location of large amounts of sceptre quartz.

The following images and notes have been provided by Terry and Lynne



Showcases of Sceptre Quartzes at an earlier Tucson Show

After Petersen Mountain the visitors made their way through generally fairly mountainous areas of northern California and western parts of Nevada to end in Portland, Oregon. Along the way they visited a considerable number of tourist-significant sites. These included Lake Tahoe, the Ancient Bristlecone Pine Forest, Convict Lake, the Lassen Volcanic National Park, Glass Mountain, the Lava Beds National Monument in California, Garnet Hill, the Robinson Copper Mine, Warm Springs in Nevada, and Crater Lake in Oregon.



Hallelujah Junction



On the way to the mine on the so-called
“Greasy Hill Road”

Hallelujah Junction is just a small gas station on the intersection of US Hwy 395 and CAL Hwy 70. It is 61 kms by road northwest of Reno.

The name is also used for the sceptre quartz location on nearby Petersen Mountain.



The fossicking area in sight



Fossicking party assembled for Safety Induction

'There are 2 leases. We were on the northern lease, the Foster Hallman Claim or Crystal Tips 2 or Royal Sceptre Mine. The elevation was 7054 ft or 2,150 m. Because of the location there is only a small mining season of approximately 3 months due to winter snow'.



Then to work. Notice the excavator on the site, "Our new best friend" – ? Every fossicking trip should have one?



Lynne opening a pocket



Some of the Finds

'Pockets can be 2 metres long, most are smaller. They can contain 100's of crystals and are nearly all collapsed. Specimens have improved as excavation levels deepen. Pockets are found between brecciated granodiorite blocks at the intersections of quartz veins. There are at least 4 separate episodes of hydrothermal deposition accounting for the various textures and colours of the quartz. The periods of hydrothermal deposition were long resulting in the fantastic combinations of multigenerational sceptres'.



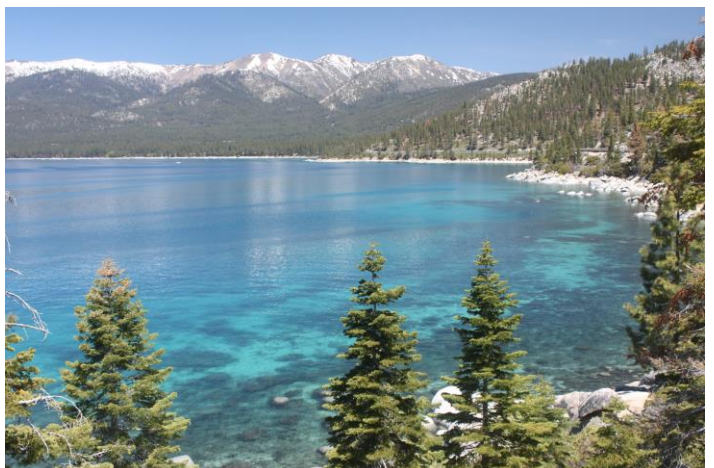
More Finds



The Collectors and some of their finds



Group shot after a hard day's work



Then to travels further afield - Lake Tahoe



Travelling through the mountains in Lassen Volcanic National Park. Even though it was the start of summer, higher altitudes meant there was still a lot of snow present



Warning about possible wild animals on the road. No Kangaroos or Wombats to worry about in this part of the World, ...only Bears !



Bushwalk with a difference.



Convict Lake, Mono County, California.



Robinson Copper Mine, Nevada



Glass Mountain, California – virtually a whole mountain of obsidian and pumice.



Garnet Hill, near Ely, Nevada – a public fossicking area



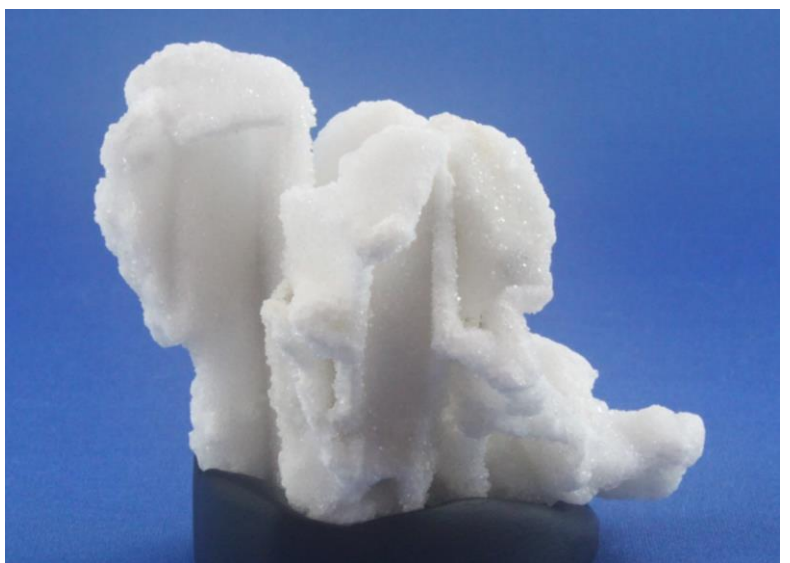
Almandine in Rhyolite, Garnet Hill, Nevada



Crater Lake, Oregon



Quartz Epimorph after Barite, Warm Springs, Tybo District, Nevada



Quartz Epimorphs after Barite, Warm Springs, Tybo District, Nevada

Towards the end of their trip Terry and Lynne visited the Miner's Lunchbox, Inc., a mineral dealing company in Reno, Nevada. The company is owned by Scott Werschky and a number of specimens from his collection were viewed and photographed by the visitors.



1.25kg Spinel Twin Gold Specimen in
Lynne's hand from Tibooburra, NSW.
Scott Werschky Collection.



Gold on Quartz 15 x 8cms, Belshazzar Mine,
Boise County, Idaho. Scott Werschky, Miner's
Lunchbox Specimen

Library Corner

Magazine Additions to Library

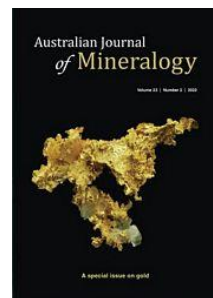
"Australian Journal of Mineralogy" Vol 23 No 2 2022 "A special Issue on Gold"

Rocks & Minerals

Vol 97, No 4, Keyes Mine, New Hampshire; Pyrite Suns from Illinois; Keweemaw Mineral Finds

Vol 97, No 5, Colo Beryllium Minerals; Gaudefroyite South Africa; Maine Mineral Retreat

Vol 97, No 6, Malachite after Azurite; Glendonites; DeWitts Corner, Canada



Members are encouraged to have a personal subscription to the "Australian Journal of Mineralogy".

Back-copies of the AJM can be obtained from: <https://www.ajmin.org.au/back-issues>

If interested in taking a loan of any of the above magazines, contact Edward Zbik by email at

edward.zbik@bigpond.com

First-in-first-to-get-loan

NEW LIBRARY BOOK ADDITION

Donated by Ross Pogson on Behalf of the Australian Museum.

"Mineral Icons of the Australian Museum"

Mineralogical News

Copies of the Society's Newsletters since 1975 have been donated to the library and are now being scanned to become available in the Society's Web page.



We wish to thank Bruce Barnes, (member since 1975), and Terry Hogarth for their contributions.

FIELD TRIP

Bathurst / Lithgow district 3rd and 4th of February 2023

The weather was fine and sunny for the Lithgow area field trip. Five members attended the trip to seek out Molybdenite, Garnets, Scheelite and Powellite. Minsoc members attending the field trip were Mark Walters, Dioni Cendon, Greg Andrews, Brian Holden, and Denis O'Brien. Old mine sites are common across the area but Minsoc focussed on just one site this time.

The field trip was spread out over two days to collect from several spots around the locality. The weekend was very successful with members finding good specimens of the target minerals.



An old open cut (Photo Denis O'Brien)



The car park on the hill side (Photo Brian Holden)



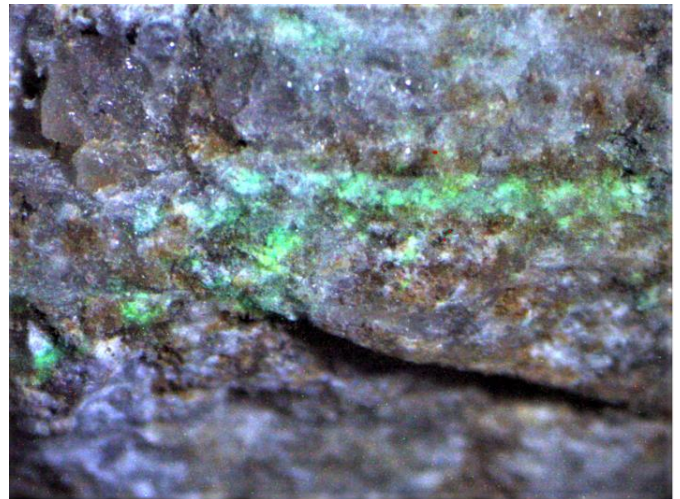
Brian collecting from a rockpile (Photo Mark Walters)



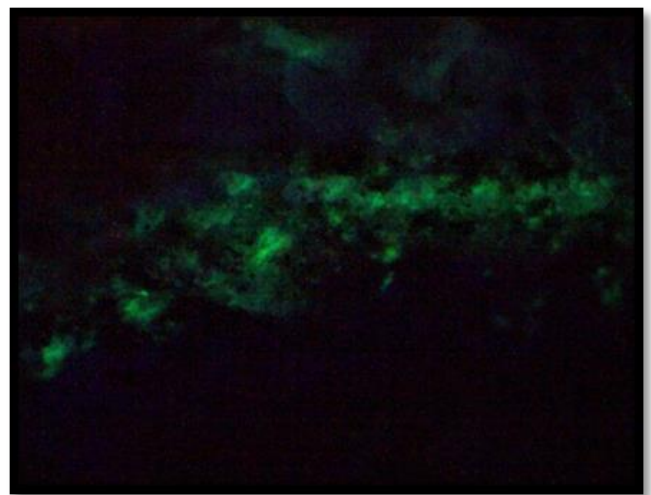
Denis collecting from the rock wall
(Photo Mark Walters)



Dioni collecting from a rockpile
(Photo Mark Walters.)



Does anyone have an idea of what this green
fluorescent mineral could be?

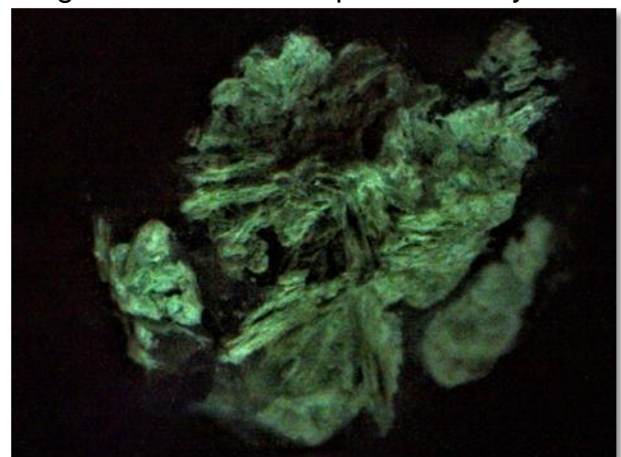


Unidentified fluorescent green mineral FOV 10mm

Left - natural light

Right - SW UV light

Above – photo overlay



Powellite (?) in natural light and SW UV light – FOV 10mm (Photo Denis O'Brien)

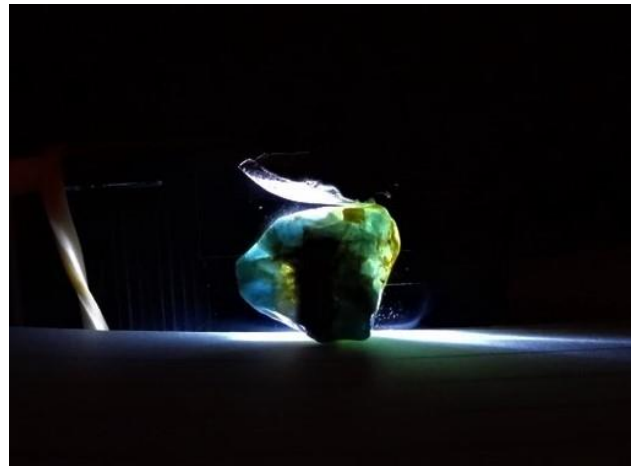
Some photos of an alluvial zircon and corundum from the Oberon district

Article contributed by Dennis O'Brien.

Zircon weight 14.15 cts - dimension 18mm – colour dark red



Corundum weight 10.35 cts – dimension 15mm – colours blue and green



Zircon radiation reading

A small paper tray containing approximately 100 small zircons from the Oberon area was tested with a Geiger counter. A reading of 0.23 micro sieverts / hour was obtained.

Back ground radiation is 0.15 micro sieverts / hour. 0.23 micro sieverts / hour is a similar reading to that obtained from uranium glass.

FORTHCOMING EVENTS

GEMBOREE 2023

The 59th Gemboree, the National Gem & Mineral Show, will be held over Easter – from the 7th to the 10th of April in the showgrounds at Dayboro, a country town about 45kms NW of Brisbane.

For more information: www.gemboree2023.com.au.

The NATIONAL GEM & CRYSTAL EXPO 2023

The National Gem & Crystal Expo is being held over the weekend of the 22nd & 23rd of April in the Hawkesbury Indoor Stadium on Greenhills Way, off Stewart Street, South Windsor.
