



# Mineralogical Society of Western Australia Inc

## January 2013 Newsletter

### Editorial

Many thanks to those members supplying articles for this newsletter.

The policy that members may submit short adverts free of charge will remain.

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### Recent Activities

#### General Meeting on Wednesday 21<sup>st</sup> November 2012

Following the General Meeting, Murray Thompson and Peter Downes entertained us with a talk entitled “Minerals of the DeGrussa copper-gold mine, Western Australia”.

The DeGrussa deposits are located a few kilometres to the east of the Great Northern Highway at a point about 140 km north-northeast of Meekatharra. Deposits in this area are located within the Bryah Basin, part of the 2000 to 1800 Ma Capricorn Orogen that separates the Archean Yilgarn and Pilbara Cratons.

Base metal and gold mineralization is hosted by the Paleoproterozoic Narracoota Volcanics comprising basalts, basaltic hyaloclastites, sediments, dolerite, gabbro with minor local mineralised quartz carbonate breccias, jasper bands and banded iron-formation.

The volcanic-hosted massive sulphide (VHMS) deposit at DeGrussa, located in the north eastern part of the Doolgunna mining lease M52/1046, was discovered by Sandfire Resources NL in 2009.

The primary massive sulphide ores are present as lenses of pyrite, chalcopyrite and pyrrhotite with minor magnetite, sphalerite, galena and arsenopyrite in a gangue of siderite, ankerite, stilpnomelane, minnesotaite, quartz and calcite.

There is about 80 metres of weathering over the primary sulphide mineralisation; the profile essentially comprises an upper, residual, gold-oxide zone overlying an oxide-copper zone with a secondary supergene chalcocite blanket situated beneath the oxide-copper zone and immediately above fresh primary sulphides.

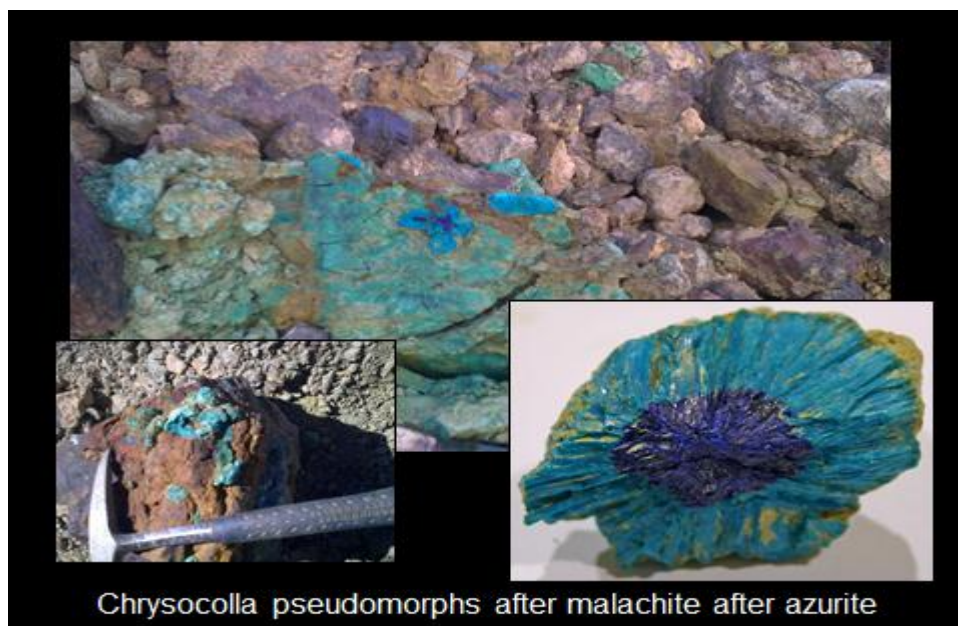
The supergene, near-surface enrichment zone contains native copper in fine aborescent films (prills) along fractures, together with an auriferous siliceous cap. The underlying oxide and carbonate copper zone contains major chrysocolla, malachite, azurite, cuprite and minor tenorite, cuprous neotercite together with other exotic copper oxide species. The blanket of supergene chalcocite is associated with tenorite, cuprite and complex tellurides.

Murray showed numerous photographs of the DeGrussa Mine and of examples of the complex mineral alteration, very reminiscent of the famous Tsumeb Mine in Namibia. Examples included azurite pseudomorphed by malachite that was itself pseudomorphed by later chrysocolla (Photograph 1) and octahedral cuprite replacing native copper. Other specimens of interest include gem quality, light green aragonite, botryoidal chrysocolla (Photograph 2) and malachite with mottramite.

SEM images, shown by Peter Downes, displayed the different crystal habits shown by the secondary minerals. Of particular interest were the rosettes of the yellow hydrated-yttrium phosphate, churchite; it was speculated that the phosphorus was derived from apatite.

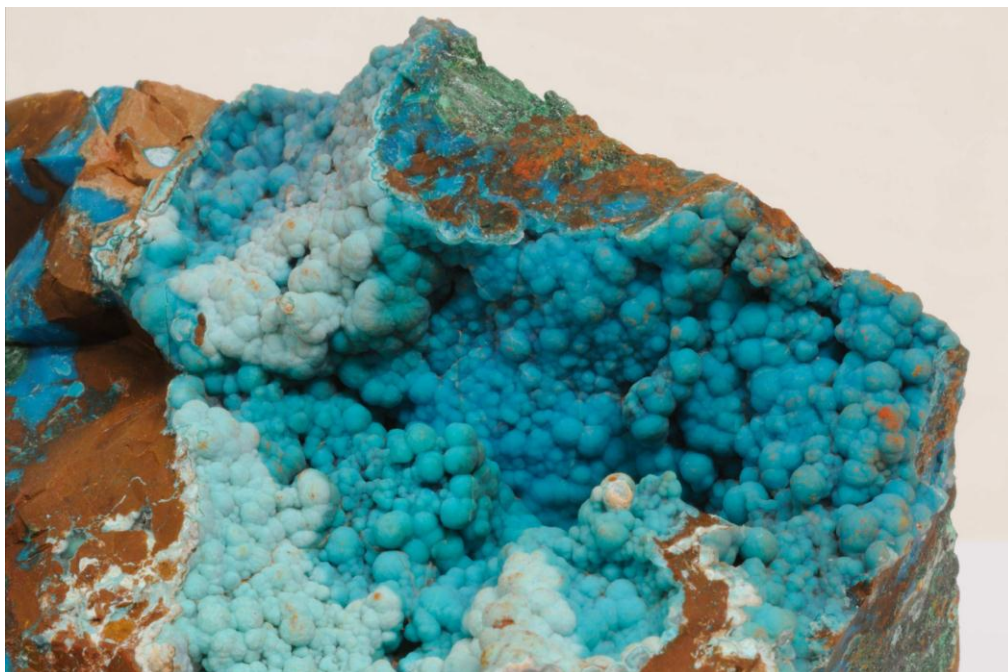
It was also of interest to be informed that Sandfire Resources NL are aware of the importance of these interesting and sometimes unique mineral specimens to collectors and scientists and have agreed to collect and market them through select mineral shops throughout Australia (see advertisement below).

**Photograph 1**



*Courtesy of Murray Thompson*

**Photograph 2.**  
Botryoidal chrysocolla



*Courtesy of Murray Thompson*

The Rock Shop would like to advise members that we are distributors of the Native Copper from the DeGrussa Copper Mine. We are offering a discount of 25% exclusively to MinSocWA members on this material.

**The Rock Shop**

49 London Court, Perth 6000  
Ph: 08 93257052  
Email: rockshop@optusnet.com.au

**The 4<sup>th</sup> Annual Frank Radke Memorial Mineral Auction on Wednesday 5<sup>th</sup> December, 2012.**

The following report on the 4<sup>th</sup> Annual Frank Radke Memorial Mineral Auction was submitted by Geert Buters.

On December the 5th MinSocWA held its Fourth Annual Frank Radke Memorial Auction. Originally scheduled for October, auction night was delayed to give the new Committee a bit more time. At its first meeting Peter Macintosh and J.Lynne Sunderland were appointed as “auction gnomes” in charge of the planning. And plan they did. Not only was the date moved, the starting time was brought forward, the catering budget increased, entry fees bumped up, and sellers were asked to pre-register their lots, or risk having them sold off in yet another change to the format – a silent auction. The plans were ambitious and the risks considerable. When initial registrations dribbled in slowly, it was time to get nervous.

No one need have worried - the night was a tremendous success. The Fourth Annual was the best ever. We broke records for attendance, turnover, and profitability. The room was packed with a crowd of 42 people, who all enjoyed the extended catering and were eager to bid, relishing the banter of our two auctioneers, Clive Daw and Peter Macintosh. Illustrated with previously submitted slides, all together about forty lots went under the hammer, while another twenty odd were sold in the silent auction. Some



of the highlights were a 20 carat diamond, which unfortunately did not quite reach its reserve; the first specimens released from the DeGrussa mine; and reputedly the only specimen of putnasite ever to have been traded anywhere in the world (Allan Hart is now its proud owner). During the break the crowd was entertained by the auctioneers' gopher turned quiz master Tom Bateman, who tantalised his audience with brain-teasers such as: "What do you call a bloke who thinks his wife will believe his fibs?" Courtesy J.Lynne Sunderland and Crystal Universe there were generous vouchers available for those who knew the correct answer, which in this case was "sillimanite".

In spite of the increased door fee, entrance and commissions only just covered the costs of putting on the event, which goes to show what good value the night was for those attending. That the auction was so profitable was almost entirely due to the generous donations of lots made by several companies and individuals. In total about a thousand dollars was raised for the MinSocWA treasury.

A word of thanks should go to Sandfire Resources and Crystal Universe for their generous support, and to all those donors and helpers, who won't be named here, but without whose efforts the auction would not have been the success it was. Finally, thank you Peter Macintosh. Peter did most of the planning, and was the driving force behind the changes in format, so he fully deserves the embarrassment of a personal mention. Thanks mate.



Before the auction. The crowd gathers.

Photograph by Allan Hart



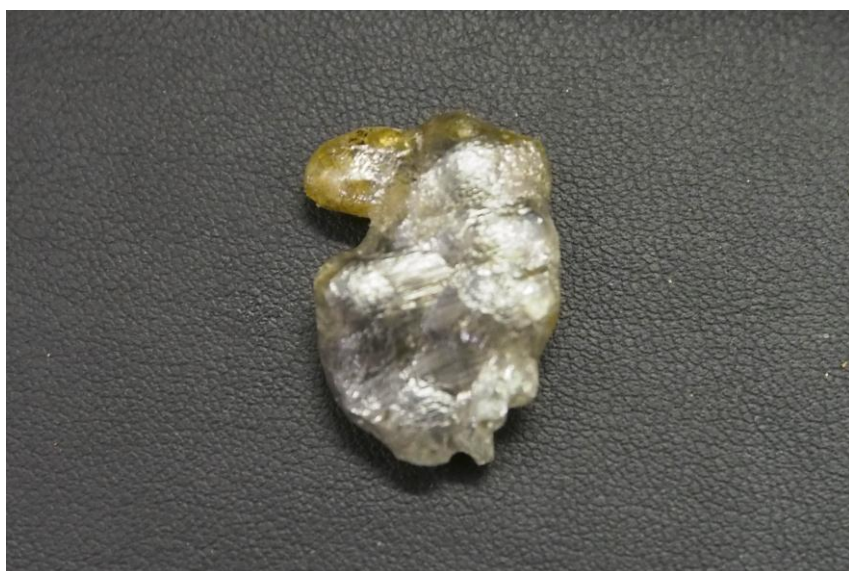
A record attendance with all eager to bid.

Photograph by Sue Koepke



Our Auctioneer, Clive Daw and assistant, Tom Bateman in action.

Photograph by Allan Hart



A 20.59 carat diamond in the shape of a kookaburra was one of the items under the hammer.

Photograph by Allan Hart

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### **January Meeting**

There will be a General Meeting on **Wednesday 16<sup>th</sup> January, 2013** at the WA Lapidary Club rooms located at 31, Gladstone Road, Rivervale (corner of Newey St)

**Starting time:** 7:30 pm

**Speaker:** Ken Ireland

**Topic:** "Talc, its mineralogy and wonderful diverse applications". Included in this talk will be a short video of Three Springs Talc (in WA) and an entertaining video on Tulikivi Talc (in Finland).

Visitors Welcome

A light supper will be served after the meeting.

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## **2013 Future Meetings and other Activity Dates**

Please note that, unless otherwise specified, meetings are on the third Wednesday of the month and at the WA Lapidary Club rooms located at 31, Gladstone Road, Rivervale (corner of Newey St).

**11<sup>th</sup> January, 2013.** Crystal Universe, Subiaco, is hosting a "Welcome to 2013" party for all MinSocWA members. The function will commence at 2.00pm, but folks can roll up anytime during the afternoon. The address is 205 Hay Street Subiaco and the location shown below.



**20<sup>th</sup> February, 2013.** An activity night entitled “An Introduction to Map Reading and Navigation Skills” organized by Tom Bateman. This one hour “taster” will be from 7.30pm to 8.30pm (see below).

**24<sup>th</sup> February, 2013.** A four hour workshop session on “Map Reading and Navigational Skills” organized by Tom Bateman. This will commence at 12 noon with a BBQ and finish at 5pm (see below).

**20<sup>th</sup> March, 2013.** General Meeting followed by a talk on “Ni and Pt minerals” delivered by Belinda Godel (CSIRO).

**15<sup>th</sup> May, 2013.** General Meeting followed by a talk on “Alexandrite and other rare beryllium minerals” delivered by Susan Stockmayer, Gemmologist.

**29<sup>th</sup> March to 2<sup>nd</sup> April, 2013.** Gemboree. Murray Bridge, SA.

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### **Proposed Short Course on Geological Map Reading and Basic Interpreting.**

Tom Bateman, the MinSocWA Field Trip Leader is calling for ‘Expressions of Interest’ from MinSocWA Members for a Short Course on Geological Map Reading and Basic Interpreting. Details are:

Contents: Starting from basics of using a compass and topological map reading / navigation to using a geological map to ‘fossick’ more effectively.

First is a free evening ‘Taster session’ to introduce subject and establish background knowledge of interested parties. This will be held on Wednesday evening; February 20<sup>th</sup> from 7.30 till 8.30pm - an introduction to learning how to use maps effectively.

What maps can do for you and how to improve your prospecting for minerals.

Cost –FREE! NOTE: Members, friends and family are cordially invited to attend to see if they may benefit and enjoy the Workshop Session of activities on the following Sunday February 24<sup>th</sup>.

The Workshop Session is a half-day session of four hours held at Lapidary Club on Sunday, February 24<sup>th</sup> from 1pm (BBQ from noon).

Materials provided includes many useful examples of Western Australian maps, and full colour geological maps and exercises to help you learn to use maps and find more mineral specimens!

Practical exercises include using compasses and explore how GPS and digital maps can be used to navigate, find locations, and return home.

Expressions of Interest by members and friends and family (Yes, they are also invited) to Secretary by email or on the Expression of Interest Form which can be found on the website.

Follow-on Enrolment Nominations require a \$40 per person contribution to partly cover the costs of the learning materials that will be used in the Workshop. Class and activities are strictly limited to 12 people ONLY and on a “first in - first served” basis for both Expression of Interest and Enrolment Nomination (\$40 cost)

\*If you cannot attend but really want to participate in future Workshops, please indicate if you would prefer other dates or days and how flexible that availability may be.

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## **Society Notices**

### **Volunteer required**

We need a member as ‘second in charge’ of electronic equipment (laptop and projection equipment) at meetings, in case person in charge/custodian of equipment is unable to attend meeting. Please contact Stewart Cole if interested.

### **Committee Meeting**

The next committee meeting will be held at 15 Colin Grove West Perth on 24<sup>th</sup> January at 10am.

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## **Joint Mineralogical Societies of Australasia 36th Annual Seminar**

The next Joint Mineralogical Societies of Australasia 36th Annual Seminar will be held in Sydney on Saturday 8<sup>th</sup> June to Monday 10<sup>th</sup> June 2013. Details, as supplied by the Secretary, George Laking, are shown below.

### **The MINERALOGICAL SOCIETY OF N.S.W. Inc**

As you are aware the 2013 36th Australasian Mineralogical Societies Joint Seminar is being hosted by this Society over the Queen’s Birthday long weekend, Saturday 8th to Monday 10th of June 2013, next.

The theme is to be: -‘**The Wonderful World of Minerals**’

The Seminar will be held in the Eastwood – Ryde Leagues Club in Ryedale Road, Eastwood, which we have decided upon since it is a fairly central location in Sydney but well away from the CBD area with adequate parking nearby and well served by public transport. All Seminar activities other than field trips or Australian Museum and private collection visits will be held in the Club which has substantial

convention and catering facilities. Activities will include the Seminar dinner on Saturday evening 8th of June and mineral and micromount displays and sales probably on the Sunday afternoon and Monday the 10<sup>th</sup> of June. Interstate visitors and attendees from outside Sydney will be advised about suitable accommodation in the Eastwood area which has a number of hotels. It is hoped that there will be field trips to one or more locations held in conjunction with the Seminar but details have not yet been finalized.

Our Committee has been deliberating for some months already about Seminar arrangements and we have already spoken to or lined up a number of speakers including several from interstate. However this e-mail is to invite all the other Australasian societies to suggest or nominate any other speakers who would be able to deliver a lecture. (If we get too many we may have to start saying 'thank-you, - maybe the following year').

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### **Field Trips 2013**

Further to the comments in the previous newsletter and as a result of the questionnaire circulated at the November General Meeting, the Social officer/Field Trip Leader has submitted the following comments for perusal and response to him.

The previous circular has given me sufficient limited feedback that suggests:

1. Most interest was expressed from people having a field trip duration limit of a weekend due to work and/or family reasons.
2. As many do not have suitable camping gear or 4WD to carry it and have indicated they would like choice of accommodation

Therefore I would like to flag the following fieldtrip destinations below. Numbers 1-3; 5 and possibly 7 – NOTE: One or two trips only

Some destinations like Yalgoo area have both caravan park and hotel accommodation for those that like their comforts provided commercially

I will check out availability of pastoral station accommodation and campsites as well

I propose to provide participants with detailed main road travel directions to specific meeting “ASSEMBLY” point(s) nearby to the field-trip campsite and travel out to various fossicking areas daily; though that need not prevent a ‘bush camp’ closer to specific fossicking sites by those who prefer a cheaper and enjoyable experience with their own camp gear. As a result, it is likely that the field trip participants and parties will be separated from time to time at some stages.

However, all individuals will travel at their own risk and responsibility to and from main assembly points. Hence the need to have improved map reading skills!

This provision of designated Field Trip meeting assembly point(s) near to fossicking sites provides flexibility:

1. That there *need not* be a highway “convoy” and possible frustrating delays for earlier arrivals
2. People who are delayed can still attend by ‘catching up’ with the main party and FTL.
3. Others like myself who are retired or enjoy a longer period in the field will be able to travel to the site a day or so beforehand.

### **Where Could We Go To?**

My suggestion is we put up a list of field trip destinations and 2013 dates below and include an opportunity for other suggested trip locations. Then depending on responses; the Committee will let the members and audience vote via Expressions of Interest (EOI) with their personal interests



**FIELDTRIP SUGGESTIONS for 2013. Two or three trips to be chosen; but indicate your preferences below:**

<b>Suggestion</b>	<b>Destination</b>	<b>Duration</b>	<b>Distance</b>	<b>Score OUT OF FIVE Five is high</b>
1.	Yalgoo and Melville area (pegmatite's) via Field Find / Warriedar / Rothsay	Weekend; possibly longer for some	1200 km	
2.	Golden Grove mine dumps if we can get permission	Weekend	1200km	
3	Payne's Find via Ninghan Station and Mount Gibson off Gt. Northern Highway about 5 hours from Perth	Weekend	1000km	
4	Boddington Gold Mine and Dumps About three hours on Albany Highway south west of Perth	Day trip	400km	
5	Mount Mulgine ( tungsten) and Gullewa Gold (copper etc.) , Barnong Station in Lower Murchison (south west of Yalgoo)	Weekend	1200km	
6	Southern Cross area inc. Marvel Loch (gold) fossick old dumps	Weekend	1000km	
7	Coolgardie area including Londonderry (pegmatite's) and Nepean (nickel Mins)	Weekend or bit longer	1400km	
8.	Mount Dale about 90 minutes from Perth for a day trip	Day trip – look for euxenite	120 km	
9.	Donnybrook gold and sandstone	Weekend trip overnight stay Fern gold specimens	400km	
10.	Yinnethara and Mount Phillips in Upper Gascoyne Shire about 300 km east of Carnarvon	Ten days to make travel worthwhile. Lots of metamorphic minerals.	5000km	
11.	Avon River; Toodyay area Alluvial heavy minerals search in river bed	Day trip possibly overnight	250km	
12.	Mukinbudin Pegmatite Topaz etc	Day trip, overnight at Caravan Park		
13.	Tektites and metal detection	Day trip, overnight at caravan park		
14.	WHERE ELSE Would you like to go? Your suggestions			

## When Could We Go?

We have identified a few 2013 dates to aim for (Dates suggested are inclusive) with the opportunity for some attendees with more flexible timetables (retired☺) to stay on or start earlier to avoid city rush hours.

1. Labour Day long weekend Saturday March 2<sup>nd</sup> to Monday March 4<sup>th</sup> Labour Day - probably too hot in east and north for most people? - Maybe Mount Dale?
2. Easter Friday March 29<sup>th</sup> to Monday April 1<sup>st</sup> – need to see what Lap Club are up to?
3. Anzac Weekend Thursday 25<sup>th</sup> April till Sunday 28<sup>th</sup> or Monday 29<sup>th</sup> – requires taking the Friday off work – Yalgoo cooler and roads dry
4. Saturday June 1<sup>st</sup> to Monday 3<sup>rd</sup> June ( WA Day) – could be Yalgoo area if not too wet on unsealed and station roads
5. Queen's Birthday weekend: Saturday September 28<sup>th</sup> to Monday Sept 30<sup>th</sup> - could include the start or end of Yinnethara and Mount Phillips field trip?
6. ????

Need to avoid 2013 dates where people have family gatherings such as:

1. Australia Day Saturday January 26<sup>th</sup> - too hot anyway
2. Valentine's Day Thursday February 14<sup>th</sup> - Donnybrook?
3. Mother's Day Sunday May 12<sup>th</sup>
4. Father's Day Sunday Sept 1<sup>st</sup>
5. NSW Mineralogical 2013 weekend Sydney in June 6-9<sup>th</sup>
6. Your partners birthday, anniversary etc. ☺

**\*Conditions apply to any parties wishing permission to leave the main MinSocWA party and explore other locations and then re-join the MinSocWA group later.**

MinSocWA encourages the personal initiative in exploring areas carefully; finding new mineral locations and different earth materials that may not appeal so much to other Members.

MinSocWA recognises we have many experienced and responsible adult members who may seek the flexibility to remain at a site where for example; they are keen to dig further into a crevice for crystals or to fossick around longer than the rest of the MinSocWA party wishes – especially as these activities usually take longer, require more equipment and effort than others possess.

However; MinSocWA rules require obtaining formal landowner and tenement permissions and ensuring compliance with conditions for entry and fossicking on pastoral leases (Stations). These negotiated conditions of entry may include restricted entry via private station tracks to avoid interfering with mustering or other station work activities; plus quarantine entry to prevent the spreading of noxious weeds and seeds.

*Therefore private parties leaving the main MinSocWA group are required to comply with these agreements and must declare their activities to the MinSocWA Trip Leaders.*

The advantages of a MinSocWA organised fieldtrip is that you will enjoy:

1. Travelling with like-minded enthusiasts and benefit from their knowledge, company and support
2. Have access permissions to visit tenements and pastoral and private sites obtained on your behalf – a very time consuming process
3. Maps and information will be researched for you – you will have access to expensive and difficult to obtain data and maps
4. Meeting interesting people in the great outdoors; and enjoy a social and scientific experience
5. Being guided to “difficult to find” sites of interest – saving *you* wasted fuel time and frustration
6. Some back-up support with navigation, communications; repair and first aid support

7. Tag-a-long tours make it easy to be successfully engaged in the mineral fossicking and geo-touring experience

As there is a lot of work required to organise site visit clearances for tenements and land owners, to get maps and refine information – I would appreciate offers of help.

Feedback to *Tom Bateman*

**Email:** [tom@enigma.id.au](mailto:tom@enigma.id.au)

**Mobile:** 0417 908 188

### **Western Australia Lapidary and Rockhunting Club Inc.**

By arrangement, members of the Mineralogical Society are able to go on field trips organized by the Western Australia Lapidary and Rockhunting Club Inc. If you are interested in attending these field trips please put your name on the notice board at the Lapidary and Rockhunting Club for the relevant field trip.

Please register with MinSocWA Field Trip organizers prior to attending any of the following events, but only if you are a current (financial) MinSocWA member to confirm event details.

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### **Committee Members**

Committee Members	
Stewart Cole - President ph 0414 904 169	Tom Bateman – Social Officer/Field Trips Leader
Sue Koepke - Secretary ph 0417 990 688	
Ken Ireland - Treasurer	Peter Macintosh
Geert Buters - Vice President	
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Newsletter Editor (not on committee) – Vernon Stocklmayer	