

# Mineralogical Society of Western Australia Inc November 2011 Newsletter

#### **Editorial**

Thanks to Paul our website (www.minsocwa.org.au) is now up and running. Extra information will gradually be added to the website. Also thanks to Paul the registration form for the Annual Seminar next year is now available on the website. Planning is now underway for a 10 day field trip after the seminar. A reminder, our meetings are now held on the third Wednesday of odd months, often with other activities on the intervening months. While we are having either meetings or activities most months, the newsletter will still only come out once every 2 months. Please can members submit articles for the newsletter, as the committee are currently busy planning for next year's seminar. Articles to be included in the next newsletter are due by Wednesday 11<sup>th</sup> January. Late articles may be held over to the following newsletter. Members may submit short adverts free of charge.

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November Meeting - Wednesday 16th November 2011

Topic: Minitalks on Rare Earth Minerals

Speaker

Topic

Allan Hart

Rare Earth Elements (the elements, not the minerals)

Ted East

A rare earth mineral containg Yttrium

Clive Daw

A rare earth mineral containing Lanthanum

Stewart Cole

A rare earth mineral containing Cerium

Vernon Stocklmayer A rare earth mineral containing Praseodymium

Visitors Welcome.

Light refreshments provided after the meeting.

### 2011/12 Future Meetings and other Activity Dates

Please note these dates are the third Wednesday of the month.

December – no meeting

Wednesday 18th January 2012 Speaker: To be Announced Topic: To be announced

January – BBQ – date to be announced

Wednesday 15<sup>th</sup> February 2012 (informal meeting) Rare Earth Mineral mini talks part 2

Wednesday 14th March 2012 Speaker(s): To be announced Topic "Tuscon Mineral Show 2012"

Wednesday 18th April 2012 (informal meeting) Rare Earth Mineral talks part 3

Wednesday 16<sup>th</sup> May 2012 Speaker(s): To be Announced Topic: To be Announced

June - no meeting

#### Report review Rare-earth elements in Australia by Sue Koepke



Our MinSoc May 2011 field trip participants should immediately recognise the distinctive mine workings on the cover of a recent bulletin by Geoscience Australia on REE deposits titled *The major rare-earth-element deposits of Australia: geological setting, exploration, and resources* - the 'bungle bungles' in the bottom corner of the open cut and the layout of the Mount Weld rare-earth-element deposit are unmistakable. This report by Dean M. Hoatson, Subhash Jaireth & Yanis Miezitis describes the distribution, geological characteristics, resources and potential of major deposits of rare-earth elements in Australia.

Left: cover of this publication from Geoscience Australia

The publication gives the reader an overview of rare-earth elements (REE), which do not occur as free metals in the Earth's crust. Some of the more common REE-bearing minerals are conveniently listed in a table that shows their chemical compositions and first discovery. More information on discovery and etymology follows (along with some pretty pictures), before the authors delve into major properties and applications for REE. Production and resources on a global scale and within Australia and the exploration history of REE in Australia conclude the first chapter, with four more to follow.

The next chapter delves into geochemistry of rare-earth elements, REE abundances on earth, REE concentrations in major rock types, REE abundances in major rock-forming and minor minerals, and REE in hydrothermal fluids in a reader-friendly format.

A summary of the geological settings and main features of the major REE deposits in Australia follows. Many of our members would have heard of or visited a couple of the WA localities listed, and even have specimens in their collection.

The principal features of REE mineral systems are covered in chapter 4. Criteria considered critical for the formation of each particular deposit type described in the previous chapter are assessed. Deposits are conceptually classified with a focus on mineral deposits as a mineralising process and/or event, with the aim of predicting potential new areas of REE mineralisation using process-based conceptual models.

The final chapter deals with exploration methods and strategies and features new innovative products by Geoscience Australia that could facilitate exploration.

Appendices include a useful glossary, alphabetical listing of chemical elements, compositions of the major REE deposits in the world, an alphabetical listing of REE deposits and prospects in Australia, and useful www links.

This comprehensive report is written in an easy to read format and highly recommended. *The major rare-earth-element deposits of Australia: geological setting, exploration, and resources* is available as a free download at

https://www.ga.gov.au/products/servlet/controller?event=GEOCAT\_DETAILS&catno=71820. The reviewer thanks Ralph Bottrill, Mineral Resources Tasmania, for bringing this publication to her attention.

## MINSOC HAS A GO by Geert Buters (photos by A. Hart, 2<sup>nd</sup> photo from S, Koepke)









On Wednesday November 9 MinSoc participated in the 19<sup>th</sup> annual "Have a Go Day" at Burswood Park organized by the Seniors Recreation Council of WA. The event is designed to promote health through activity for our aging population. It is conducted in a carnival atmosphere with most of the stalls devoted to food, fun, or afflictions. Judging by the other groups represented, there is a frightening array of diseases awaiting us as we grow older, but we can eat, drink and be distracted on our way to perdition. There were line dancers and Progressive Axemen, a bus preservation society, and a stall where you could paint your own gnome. In one area four geriatric belly dancers in green costumes and golden capes performed the dance of the seven veils. Thankfully the exposed midriffs were mildly obscured by nylon body stockings, but still the mind boggled.

Sharing a tent with Diabetes WA and a Peripheral Neuropathy Support Group, MinSoc had an attractive display of posters, rocks, brochures, a laptop showing photo's of recent field trips, and a microscope with half a dozen micromount specimens. The rocks proved particularly popular. One old lady told me she "loved rocks" as she petted each one in turn. Many others confessed to having cartons of rocks

"somewhere in the garage", with the more sanguine speculating about their possible value. Unfortunately potential MinSoc members were thin on the ground. One four year old, out with his Gran for the day, was spell-bound looking at the specimens through the microscope. He was keen but he did not have a driving license yet, and grandma drew the line at taxiing him to our meetings. "It's past his bed time, anyway" she concluded.

Thanks must go to Sue Koepke for organizing the display and to Ted East, Allan Hart and Geert Buters for helping to run it. Though we did not gain any new members, "Have a Go Day" was an interesting experience for all involved. There was some talk that attendance was down this year, but it could be that, if it is new members we are after, perhaps we were fishing in the wrong pond. At least MinSoc had a go.

#### Frank Radke Memorial Auction from MINSOCWA facebook page

Thanks to everyone who attended we had a great night with 38 lots put up for auction. Smiles all around as plenty of nice quality mineral specimens, facetted stones, lapidary items, gold scales, back copies of the Mineralogical Record, a set of Simpson's Mineralogy of Western Australia and micromounter bargains changed hands

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#### Joint Mineralogical Societies of Australasia 35th Annual Seminar

The next Joint Mineralogical Societies of Australasia 35th Annual Seminar will be held in Perth at the State Library (Alexander Building) from 9<sup>th</sup> to 10<sup>th</sup> June 2011. The theme will be "Rare Earth Minerals". Additional a micromounters' session will be held at Gemmological House in Claremont on the 8<sup>th</sup> June, and a mineral trading morning will be held at The Philatelic Council Rooms in Wellington Fair Perth. A 10 day field trip is being planned with an exit point at Kalgoorlie (possibly between days 3 and 5) for people who need to leave early. Members are encouraged to download the registration form from the website (www.minsocwa.org.au) and to register early.

More details in future Newsletters, and on the website.

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Committee Members		
Stewart Cole - President ph 0414 904 169	Ted East – Field Trip Officer	
Sue Koepke - Secretary/Treasurer ph 0417 990 688	Allan Hart - Newsletter Editor	
Mignonne Clark	Paul Winthrop - Librarian	
Susan Stocklmayer	Deborah Barnes	
Vernon Stocklmayer		
Society e-mail addresses		
All correspondence (excluding the newsletter): minsocwa@hotmail.com		
Mineralogical Society WA Newsletter: minsocwa.newsletter@hotmail.com		
Correspondence for seminar: REMseminar2012@gmail.com		
Website: www.minsocwa.org.au		