AND FINALLY ……

Firstly, apologies for the late appearance of this Newsletter (originally due out in February). This has been caused by our regular Editor, Mike Dannatt, having to deal with some family problems. Mike asked me to pick up the current issue and get something out, just before I was due to embark on a two week trip to Scotland, causing a further delay.

I hope that the product which you now have in your hands will make for interesting and varied reading, and that Mike will be at the helm once again for the June edition. Please let me have any contributions and ideas for articles or features for the next issue as soon as possible (see below).

Depending on Mike’s circumstances, I will either forward on the material for him to compile, or assemble the next issue myself as appropriate.

Roy Starkey

SUBSCRIPTIONS—IMPORTANT!
A significant number of subscriptions (approx. 50% of the membership) are still outstanding. Subscriptions are now £10 single and £12 family. If you have not yet paid your subscription, please send a cheque to David Binns immediately — 3 The Dene, Hastings, East Sussex. TN35 4PD. If you are in any doubt, please give David a quick call on 01424 752752.

Thank you for your cooperation.

An “X” in the box indicates that your subscription is still outstanding

Thank you to everyone who has contributed material.

Please send all contributions for the next Newsletter - preferably in electronic format by e-mail, to roy.starkey@gmail.com

(WORD, RTF, WORKS, OpenOffice.org, MS Publisher or plain text) with photos attached as separate jpeg files.

The next BMS Newsletter should be issued in June / July 2013. All contributions gratefully received - so please get writing! Deadline for contributions for that issue is 11th June 2013.

The views and opinions expressed in this Newsletter are those of its correspondents, and are not necessarily agreed with, or shared by the Editor, the British Micromount Society or its Members. The accuracy of submissions is the responsibility of the authors and will not necessarily be checked by the Editor for validity.

Queen Victoria in the Royal Pavilion at the Braemar Gathering, Braemar Castle – from The Illustrated London News, 15 September 1894 (see article on The Farquharson Mineral Collection—page 11)

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Fred Pough Micromount Collection
Offered for sale by Christopher J. Stefano

Many members will be familiar with the name of Frederick H. Pough, indeed possibly most of us may have purchased a copy of his classic Field Guide to Rocks and Minerals, which is still in print today, as our introduction to the hobby and science of mineralogy. Towards the end of last year his micromount collection was offered for sale (see http://www.stefanominerals.com/thoughtconduit/news?id=719 ). Whilst the prices charged may seem extortionate to UK-based micromounters, there was much of interest here. You can download a spreadsheet listing all of the specimens, each with its locality, who mounted it, any notes made by the seller, and an estimated retail value for that specimen, which range from $5 to well over $100.

The narrative on the web page reads “The collection consists of 597 micromounts, many mounted by great names in the early history of the hobby such as Lazard Cahn and Neal Yedlin, as well as by Pough himself. As you can see in the photos below, the bulk of the collection is mounted in old cardboard micro boxes. A number of the boxes are water damaged due to a flood that occurred in Fred’s home at one point, but the specimens are all in good condition save two or three. The Pough collection was kept intact as a part of the Robert Rothenberg micromount collection, and is now offered to you intact. This is a great opportunity to acquire a piece of micromounting history.”

The collection has now been sold, but the web page remains available as an item of historical interest.
P21/c,a = 11.793(2), b = 9.1138(14), c = 6.8265(10) Å, β = 103.859(9)°, V = 712.3(3) Å³, Z = 4, a : b : c = 1.2940:1.07490. The seven strongest lines in the X-ray powder diffraction pattern [d (Å), l, (hkl)] are as follows: 11.29, 100, (100); 2.922, 17, (130); 3.143, 15, (202); 3.744, 11, (300); 2.655, 9, (230); 1.598, 8, (152); 2.252, 7, (222). Chemical analysis by electron microprobe gave As₂O₃, 36.27, Al₂O₃, 1.26, Al₂O₃, 0.37, ZnO, 49.72, MnO, 0.32, FeO, 0.71, K₂O, 0.25, H₂O calc 19.89, sum 108.79 wt.%; the very high oxygen sum is due to the fact that the calculated H₂O content is determined from crystal-structure analysis, but H₂O is lost under vacuum in the electron microprobe.

The crystal structure of ianbrucite was solved by direct methods and refined to an R₁ index of 8.6%. The As is tetrahedrally coordinated by four O anions with a mean As – O distance of 1.687 Å. Zigzag [Zn₆O₅] chains extend in the c direction and are linked in the b direction by sharing corners with (AsO₄) tetrahedra to form slabs with a composition [Zn₅(OH)(H₂O)(AsO₃)]. The space between these slabs is filled with disordered (H₂O) groups and minor lone-pair stereoactive As²⁻. The ideal formula derived from chemical analysis and crystal-structure solution and refinement is [Zn₃(4H₂O)3Zn₆O₅(AsO₃)]₂.


Abstract:
Rumseyite, ideally [Pb₂OF]Cl, is a new mineral species which is associated with calcite, cerussite, diaboleite, hydrocerussite and undifferentiated Mn oxides, in a small cavity in 'hydrocerussite' from a manganese pod at Merehead quarry, Somerset, England. Rumseyite is tetragonal, 4/mmm, a = 4.065(1), c = 12.631(7) Å, V = 208.7(1) Å³, Z = 2. The mineral is translucent pale orange-brown with a white streak and vitreous lustre. It is brittle with perfect {100} cleavage; D(calc) = 7.11 g cm⁻³ (for the ideal formula, [Pb₂OF]Cl). The mean refractive index in air is 5.89 nm. 2.15. The six strongest reflections in the X-ray powder-diffraction pattern [d(max) in Å, (hkl)] are as follows: 2.923(100)013, 2.875(68)110, 3.848(41)011, 6.306(17)002, 1.680(14)123, 2.110(12)006. The crystal structure of rumseyite is based on alternating [OFPb]₃ and Cl layers. Rumseyite is related to other layered Pb oxyhalides. Fluorine and oxygen are statistically disordered over one crystallographic site. Rumseyite is named in honour of Michael Scott (Mike) Rumsey (1980- ), Curator and Collections Manager at the NHM (London), who discovered the mineral. The mineral and name have been approved by the IMA Commission on New Mineral Names and Classification (IMA 2011-091). The holotype specimen is in the collections of the Natural History Museum, London (specimen number BM1970,110).

OBITUARY
MICHAEL (Mike) PEEL BAYLEY 1936-2012
Roy Starkey

I first met Mike back in the late 1970s when I was helping to run the South Staffs Mineral and Gemstone Society in Wolverhampton. Mike with his wife Sue had recently moved south from Otley in Yorkshire to take up a post training computer maintenance engineers with Sperry Vickers in Birmingham, and was keen to get involved with the local "mineral scene". Mike's mineralogical interest went back many years and he was a contemporary of Tony Ellis and various other northern collectors during the 1960s, and had been able to visit many places and mines which had long-since closed and of which I could only dream as a relative youngster and newcomer to the hobby.

We became firm friends and collecting partners, and together with Neil Hubbard made many trips to various parts of the country over the following 20 years or so. Like many people with an interest in minerals, Mike's enthusiasm extended across a broad range of natural history topics including plants, cacti, butterflies, insects, and to photography, lapidary and stamps too. A life-long gardening enthusiast, Mike tended a number of greenhouses in his home in Edgbaston, and there was much of botanical interest in the wider garden, year-round. As is the case with many of his post-war generation, Mike had developed excellent practical skills and was confident in tackling almost any DIY or mechanical project. I well-remember spending the day of the Royal Wedding (Prince Charles and Lady Diana Spencer) on 29th July 1981 divided between scrambling around on scaffolding nailing battens and slates onto Mike's roof, and then popping down periodically to what was happening on the TV.

We used to travel together to Russell Society winter meetings in Leicester and Loughborough, with me calling in to pick up Mike en-route, heading across central Birmingham to pick up the motorway. Mike was an exhibitor at the memorable "Treasures of the Earth" event held in Loughborough in October 1994 with a display on "Minerals of the Greenhow area, Yorkshire".

For a number of years we made a joint annual pilgrimage to Cornwall at Easter to join the Northern Mine Research Society for a week of mine exploration, sight-seeing and general outdoor or underground fun and games with stalwarts such as the late Harry Houghton and John McNeil. We managed to squeeze in quite a lot of mineralogical exploration and collecting into these weeks, fitted around the more structured mining history activities.

On one famous occasion we were staying at a campsite near Tavistock (run by a Mr Rice as I recall), a gentleman not well-suited to acting in a tourist host capacity, and one afternoon Mr Rice came round to our van and remonstrated with Sue about her
having hung out some washing to dry (lowering the tone of the establishment!). We
never returned to his campsite.

As a result of his professional life Mike had early computer skills and was able to work
with databases and had access to printers, photocopying and self-adhesive label
production via work which was a boon when we decided to produce the first British
Directory of Micromounters in 1981. Mike’s help and support at the inception of the
BMS played a large part in its subsequent success.

Mike was co-author of an article about Hendre Quarry which was published in the
British Micromount Society 10th anniversary edition of the UK Journal of Mines and
Minerals in 1991, and was a regular contributor to the BMS Newsletter.

As a result of a chance conversation with the proprietors of Skye Silver, Mike and Sue
acted as summer “care-takers” for a number of years at their shop near Colbost in the
NW of Skye, with Mike taking the opportunity to get out and explore for zeolites
during quieter periods and “off-days”.

Mike, Neil and I made a number of joint trips to Scotland and one of these, in
the summer of 1994 is recorded in some detail in BMS Newsletter No.40 (Feb.1995)
On this occasion, amongst many other memorable days out, we made our first visit to
the coastal locality of Sgurr nam Boc (by boat), an experience which none of us will
ever forget.

In late 1987 Mike and Sue decided to move from Birmingham to Astcote in

Mike (centre) watching Doug Morgan (in white coat) at the BMS West Midlands

BRITISH MICROMOUNT SYMPOSIUM
20-22 SEPTEMBER 2013

Just a reminder that this year’s BMS Symposium will take place at the Stoneycroft
Hotel, Leicester starting from 2pm on Friday 20 September. The usual information
pack and booking forms should be mailed out during June so please keep an eye out
for these.

RECENT PAPERS IN THE MINERALOGICAL MAGAZINE OF
POTENTIAL INTEREST TO MEMBERS
Roy Starkey

Minerals, Nomenclature and Classification (CNMNC) - New minerals and
nomenclature modifications approved in 2012 and 2013. Mineralogical Magazine,
Volume 77, Number 1, February 2013 , pp. 1-12.

Christy, A.G.; Atencio, D. Clarification of status of species in the pyrochlore

Abstract: After careful consideration of the semantics of status categories for mineral
species names, minor corrections and disambiguations are presented for a recent
report on the nomenclature of the pyrochlore supergroup. The names betafite,
elsmoreite, microlite, pyrochlore and roméite are allocated as group names within the
pyrochlore supergroup. The status of the names bindheimite, bismutostibiconite,
jaxiane, monimolite, partzite, stetefeldite and stibiconite is changed from ‘discredited’
to ‘questionable’ pending further research.

Cooper, M.A.; Abdu, Y.A.; Ball, N.A.; Hawthorne, F.C.; Back, M.E.; Tait, K.T.; Schlüter,
J.; Malcherek, T.; Pohl, D.; Gebhard, G. (2012) Ianbruceite, ideally \[\text{Zn}_2\text{(OH)}(\text{H}_2\text{O})\text{(AsO}_4\text{)}\text{(H}_2\text{O})_2\text{], a new arsenate mineral from the Tsumeb mine, Otkikoto (Oshikoto)
region, Namibia: description and crystal structure. Mineralogical Magazine,
Volume 76, Number 5, October 2012 , pp. 1119-1131.

Abstract: Ianbruceite, ideally \[\text{Zn}_2\text{(OH)}(\text{H}_2\text{O})(\text{AsO}_4\text{)})(\text{H}_2\text{O})_2\text{, is a new supergene
mineral from the Tsumeb mine, Otkikoto (Oshikoto) region, Namibia. It occurs as thin
platy crystals up to 80 \(\mu\text{m}\) long and a few \(\mu\text{m}\) thick, which form flattened aggregates up
to 0.10 mm across, and ellipsoidal aggregates up to 0.5 mm across. It is associated with
coarse white leiteite, dark blue köttigite, minor legrandite and adamite. Ianbruceite is
sky blue to very pale blue with a white streak and a vitreous lustre; it does not
fluoresce under ultraviolet light. It has perfect cleavage parallel to (100), is flexible, and
deforms plastically. The Mohs hardness is 1 and the calculated density is 3.197 g/cm³.
The refractive indices are \(\alpha = 1.601, \beta = 1.660, \gamma = 1.662, \) all \(\pm 0.002; 2V_{\text{obs}} = 18(2)^\circ,\)
\(2V_{\text{calc}} = 20^\circ,\) and the dispersion is \(r < v, \) weak. Ianbruceite is monoclinic, space group
The GB3D geological model for Great Britain is available for free as a digital download (either as a 3D PDF, as a Google Earth layer or as part of a free BGS map viewer) from http://www.bgs.ac.uk/research/ukgeology/nationalgeologicalmodel/gb3d.html.

HISTORICAL MAPS OF THE GEOLOGICAL SURVEY OF GREAT BRITAIN AND IRELAND NOW ONLINE

Scans of all BGS one-inch hand-coloured maps issued between 1835 and 1905 have now been released on OpenGeoscience for viewing. They include the very first maps compiled by the founder of the Survey, Sir Henry De la Beche, and cover all maps issued before colour printing was introduced. They are accompanied by the colourful horizontal sections that criss-cross the whole country and the interesting ‘Index to colours’ which show how the stratigraphy has developed over time.

For the period covered by this site, (1835–1905) the British Geological Survey was known by its former name, the Geological Survey of Great Britain and Ireland, and its remit covered the whole of the British Isles. This conveniently coincides with the period when the entire mapping output at the basic scale of 1: 63,360 or one inch to one mile was produced as engraved sheets that were then hand-coloured, prior to the widespread introduction of colour printing c.1900. On this site will be found all the maps and sections that were produced in hand-coloured form.

See http://www.bgs.ac.uk/data/historicalmaps/home.html

Northants, but we still managed to meet up for occasional trips to Shropshire, Wales and further afield. We kept a tradition of going somewhere for a mineral trip on New Year’s Day (to start the year off right!) – something that I still try to do most years.

Mike became thoroughly immersed in village life, organising events, producing a newsletter, and serving on the Parish Council, as well as being a leading member of the Gardening Club. He was also involved in organising the Entomological Livestock Group Spring Fair at Pattishall Village Hall for several years, and where he and Sue were the driving force in providing snacks and refreshments for visitors.

Mike was taken ill in mid-October and sadly died on 25th November. His funeral was held at Milton Malsor Crematorium on 4th December at which there was standing room only, with a strong congregation of well-wishers from his many friends in different walks of life. The Society was represented by Neil Hubbard and Roy & Mary Starkey. Our condolences go to his wife Sue and daughter Louise.

CHRISTMAS CHEER FOR BMS MEMBER(S) !

You may have already seen this, but to use a Monty Python phrase “Imagine my surprise….“ when I spotted this image as the Mindat Photo of the Day for Christmas Day 2012—well done to Beryl Taylor and Steve Rust !

Siderite, sphalerite, millerite. Locality Wyndham Colliery, Wyndham, Bridgend (Mid Glamorgan, Glamorgan), Wales. Star-like twinned crystals of white siderite to about 0.5mm, with dark red-brown sphalerite, and thread-like crystals of millerite, and colourless quartz. Beryl Taylor specimen. Steve Rust photo. ©Steve Rust, reproduced with permission.
ALTERNATIVE GLOSSARY OF MINERAL SPECIES 2012

This light-hearted “alternative glossary” was published in the Newsletter of “The Mineralogical Society of Victoria Inc.”, Australia, and we gratefully acknowledge the source. We do not have space here to include the full listing (and some of them are really “local humour” and would not necessarily make sense to BMS members), but you will get the general idea from the extract below. Thanks to Chris Jewson for sending it in.

**Adamite**, Zn$_2$(AsO$_4$)(OH)$_2$, often associated with **Appelite** and **Eveite** in a serpentinite matrix

**Aleksite**, PbBi$_2$Te$_2$S$_5$, less attractive specimens known as **Smartaleksite**

**Allophone**, Al$_2$Si$_3$O$_7$·H$_2$O, closely linked to **Cellophone** but not **Cellophone**

**Appetite**, **Carlsbergite** (previously known as **Carrollite** 4H)

**Attikaita**, Ca$_3$Cu$_2$Al$_3$(AsO$_4$)$_4$(OH)$_4$·2H$_2$O, commonly in forgotten storage boxes, locality unknown, also **Garagite**

**Bakerite**, Ca$_2$B$_2$S$_3$(AsO$_4$)$_4$(OH)$_4$, often commonly with **Butcherite** and **Candlestickmakerite** **Nurseryrhymite** group

**Banalite**, so commonplace it is not often collected

**Braggite**, (Pt,Pd,Ni)S, see **Boastite** and **Exaggerite**

**Cafetite**, Ca[Ti$_2$O$_3$]·H$_2$O, previously known as **Teaomite**

**Cameronite**, AgCu$_2$Te$_{10}$, pseudomorph of **Blairite** **Politicianite** group

**Caravansite**, common misspelling of the blue silicate, **Cavansite**, Ca(VO)Si$_4$O$_{10}$·4H$_2$O (see also **Campingsite**, **Picnicsite** and **Gravesite**)

**Carrollite**, CuCo$_2$S$_4$, often associated with **Alicite**, **Wonderlandite** and **Mirrorite** (previously known as **Lookinglassite**)

**Carlsbergite**, CrN, less full-bodied member of **Drafite** group.

**Cookite**, LiAl$_4$(Si,Al)O$_{10}$(OH))$_2$, better specimens called **Chefite**, also **Masterchefite**, popular but degraded form

**Costibite**, CoSbS, highly prized and priced by most dealers, not to be confused with **Priceite** Ca$_2$B$_2$O$_7$·7H$_2$O

**Dadsonite**, Pb$_2$Sb$_2$S$_6$Cl, polytypes **Mumdaughterite** and **Uncleousinite**, contrast **Cousinite**, Mg(UO$_2$)$_2$(MoO$_4$)$_2$(OH)$_2$·5H$_2$O

**Effenblindite**, coarse grained and loudmouthed relation of **Effenbergite**, BaCuSi$_2$O$_{10}$

**Envyite**, any superior specimen

**Erudite**, scholarly misspelling of **Erdite**, NaFeS$_4$·2H$_2$O

**Escalatite**, characterised by an ascending series, not to be confused with **Eskolaithe**, Cr$_2$O$_3$

**Hagendasite**, complete series from chocolate to strawberry, unlike **Hagendorfite**, NaCaMnFe$_2$(PO$_4$)$_3$

**Matildite**, AgBi$_2$S$_5$, often associated with **Waltzite**

**Miserite**, K(CaCe)$_6$Si$_4$O$_{22}$(OH,F)$_2$, dimorph **Spendthriftite**

**Neighborite**, NaMgF$_3$, closely associated with **Homeite**

GOING UNDERGROUND – 3D GEOLOGY MAP GOES NATIONAL

The geological map of Great Britain has been extended into the third dimension with the release of GB3D by the British Geological Survey (BGS). This model of the geology beneath our feet is made up of a network of cross-sections through the earth’s crust of Great Britain. This new way of visualising national-scale geology will benefit all seeking to understand its relationship to landscape and resources (such as water, oil, minerals, coal and gas), and for educators and the public.

The current national-scale geological map of Great Britain represents the rocks found at the surface in two-dimensions. Only a small amount of information is presented at this scale for the geology in the third dimension i.e. that underground. Most geological maps have a single cross-section, which represent a slice through the earth’s crust, which shows the relationship of the different rock layers in the ground underneath the area of the geological map.

The new GB3D geological model has taken newly created digital cross-sections of the geology across Great Britain and joined them up in a ‘fence diagram’. The individual cross-sections were created using the geological modelling software, GSI3D which uses information on the geology at depth from boreholes and geophysical surveying. Professor John Ludden, Executive Director of the BGS, said: “This new 3D model of Great Britain clearly shows the sub-surface structure of the most important aquifers. Improving the understanding of the 3D geometry of these aquifers will help to safeguard these nationally important water resources. It will also provide a foundation for those seeking to develop new resources such as shale gas and to explore the potential for geothermal heat sources.”

National three-dimensional geological model of Great Britain, GB3D
British Geological Survey © NERC
KENNECOTT LANDSLIDE IMPACTS GLOBAL COPPER INDUSTRY AND UTAH ECONOMY

As this Newsletter was going to press the repercussions of a major landslide at the massive Kennecott Bingham Canyon Open Pit were beginning to be felt. The landslide which occurred on Wednesday, April 10, 2013, saw an enormous wall of dirt rumble down the northeast section of the Bingham Canyon Mine. No workers were injured, but roads, buildings and vehicles inside the pit were damaged. The University of Utah seismograph station recorded the slide as a 2.4 magnitude earthquake.

The worldwide copper industry now has a watchful eye on immediate and future operations at the mine. The landslide could also impact other copper mines expected to come online this year around the globe.

MINERALS OF THE RED HILL GRANITES, ISLE OF SKYE

Members may be interested to know that BMS Member Steve Rust has recently posted an article on Mindat on the interesting minerals to be found in cavities within the granites of the Red Hills, Isle of Skye. See

The account includes an overview of the geology, some nice locality photos and a comprehensive suite of excellent photomicrographs of the various minerals such as zircon, allanite, apophyllite, anatase, chabazite, epidote and so on (all of which are extremely small but make superb micro material). A list of references is provided for further reading.

Rectorite, (Na,Ca)Al₄(Si,Al)₈O₂₀(OH)₄·2H₂O  Churchite group
Samsonite, Ag₉MnSb₂S₁₄  Luggagite group
Schumacherite, Bi₃O(OH)(VO₄)₂  Formulaoneite group
Sillybilliite, archaic term for Pyrite, FeS₂, see also fool’s gold
Sweetite, Zn(OH)₂, often associated with Toothite
Tenorite, CuO, compare Baritonite & Bassite  Voicite group
Zippeite, K(UO₂)₂(SO₄)(OH)₁·H₂O, see also Zippeitedoodahite
Zutalorsite, type locality Ste-Marie-aux-Mines Show

Thoughts From Inside a Black Box
David Roe

Regrettably my crusade to raise the standard of British micromounting from its present lamentable outbreak of cyaneus viscidus tumulus (or Blu Tack to the plebians amongst us) to the higher aspirations of our founding fathers has been blighted by my inability to get round to it. I suspect many of us experience the same with getting round to setting aside an evening for micromounting – or many other worthy causes.

But let us start with gin. I was recently sold (for the princely sum of £1) a piece of South Crofty cassiterite from the Roskear D lode. On closer inspection I realized it had been hot gun glued upside down to its presentation box. I pondered on the various removal options (meths, turps, isopropyl alcohol and brute force). Then I remembered that I had sworn off gin for life (see the redacted description of the SMLS Group visit to the Faeroes) and still had several bottles left in limbo. Soaking the specimen in gin seemed a good idea and to my surprise it peeled apart within minutes with all the glue coming off the specimen. My wife seemed OK the next morning as well.

Swiftly moving on to house work - cleaning up the desk and carpet after an evening’s rock crushing. I have purchased several hand cleaners in the past and all have been a disappointment – usually within months of the warranty expiry date. At last I have found one that works well and is robust enough to survive a diet of rock chippings and multiple recharges. The Electrolux Rapido is a cordless rechargeable hand cleaner that weighs in at less than 2 kg and costs around £50. Gold stars to date.

Which is more than can be said for a forecourt bargain that I have recently purchased. The Unipart Brookstone 12V mini air compressor looked just the job to generate a compressed air jet for removing brown haematite fragments from Bamfylde pseudo malachite and similar tasks. Regrettably it may be ideal for “inflating tyres, sporting and camping equipment” but it has to be thumbs down to this gadget as it generates more noise than would be experienced directly under a Heathrow Jumbo jet takeoff. Has anyone else found a way of generating a steady stream of air?
And that reminds me – the motorways seemed to be populated by lorries and vans proclaiming that they provide “solutions” – I wait patiently for “Braithwaites – providing global micromounting solutions” and then I could present them with another of my conundrums. How can I remove specimen boxes from a drawer when they are so tightly packed that I can’t get my fingers behind them to prise them out? Has anyone come across tweezers that will open up to 30mm but then grip when closed on a box? I had hoped that they might be available from a supplier of surgical/medical equipment but to date I can’t track them down anywhere.

I was deeply disappointed at the symposium when I was not awarded the BMS Innovation Cup for most exciting new micromounting technique 2012. I felt my anatase floating in quartz from Cwmorthin in an aluminium foil lined box took micromounting to new levels by providing a reflective back light to illuminate the interior of the crystal but obviously those in positions of power did not agree. I will continue to champion this technique as it can be quite impressive – for example with single crystals of quartz where a little bit of light inside the crystal is required for seeing gas /liquid inclusions (check out Nant Helen quartz) or rutile hairs (check out Dinas Quarry quartz).

Which leads me unwittingly to yet again thank Bob King for his inspiration over the years. Quartz has always been a sniffy second best to me – common, glassy and down market. The Aldi product compared to the organic delicatessen fayre provided by anatase (for example). I found it difficult to understand why Bob decided to focus on quartz when he started on his second collection. Now I understand. At the Bob King Auction I bought a few of Bob’s quartz – and 18 months later I can’t get enough quartz crystals. A feast of brilliant light reflections, crystal forms, gas, liquid and mineral inclusions, cemented fractures – a veritable cornucopia of delights. Sadly I find few share my enthusiasm as they rush off with their newest obscure copper secondary or whatever – but I shall persevere secure in the knowledge that one day my quartz micromount collection will be spoken of in hushed tones – only rivaled by the reverence shown to my black manganese mineral collection.

And finally just a couple of notes from our astronomical department (currently suffering extreme withdrawal symptoms as clear skies appear to be an endangered species in Britain).

Are meteorites suitable for inclusion in mineral collections? Well certainly they can join my collection if they contain a titanium oxide – and the Allende meteorite which landed in 1969 has been recently found to contain a new titanium mineral “Panguite” – which at 4.3 billion years old is possibly one of the oldest minerals in the solar system.

Some months ago NASA SPITZER space telescope identified crystals of olivine in a dust cloud around an embryonic Star over 1000 light years away. My head can get around nuclear reactions eventually producing oxygen, silicon, magnesium and the rest}

Topics covered to date have included minerals from Morocco, Tsumeb, the Kalahari Manganese Field, Chalcocite from Tsumeb, Fluorite and the Tucson Show, The Australian National “Gemboree”, Cuprite from Tsumeb, and DeGrussa: a new mineral locality in Western Australia. If you would like to get on the mailing list for the next “Mal’s Minerals”, just drop an email to Malcolm - mal.southwood@bigpond.com

As I was putting this Newsletter together, on 25 April, Malcolm emailed to say that he had just returned that evening from Tasmania, “…… and a wonderful visit to see the now famous “Red River Pocket” in situ at the Adelaide Mine. I don’t think I’ve ever seen anything quite like this in spite of having visited other mines at Dundas. Very hard to get a decent photo, but the attached gives you a rough idea. Unfortunately the depth of field is completely lost – the back of the pocket is about seven or eight metres away from me, and the colours are just amazing.”
50 YEARS AND STILL GOING STRONG
Roy Starkey

The Canadian Micro Mineral Association will be holding its 50th Annual Symposium from 3-5 May 2013 at Brock University, St. Catharines, Ontario. Speakers include Dr. John A. Jaszczak and Dr. Steve Chamberlain. Contact: Bill Lechner bill.lechner@rogers.com for further details. Website: http://www.canadianmicrominerals.ca

It is great to see sister organisations continuing to thrive and celebrating multi-decade anniversaries—well done to the CMMA! Why not send them a congratulatory message?

50 YEARS OF THE MUNICH SHOW
Roy Starkey

Another event celebrating its Golden Anniversary this year is the Munich Mineral Show—25-27 October 2013. Full details are available from https://munichshow.com/en/

I am hoping to make my first visit to the Show this year, and I know that a considerable number of folks from the Sussex Club, Norfolk Club and various other groups are also planning to attend—see you there!

MAL’S MINERALS
Roy Starkey

BMS Member Malcolm Southwood will be known to many readers. Now residing in Australia, Malcolm has recently started to produce a regular monthly blog / newsletter with the title “Mal’s Minerals”. Issue number 1 carried the following introduction :-

“Having recently retired – or, at least – partly retired, I have a little more time to spend with my minerals. I have a few projects in the offing, some of which may never come to much, but all of which are interesting to research. I always jot notes about what I’m reading and thinking, and I thought it might be fun to tidy some of them up and share them with other mineral folk. For the most part, the notes will be unashamedly based on what I’m doing with my own collection. Starting out full of good intentions, I’m thinking that this might be something I produce on a monthly basis. Realistically, though, there will be some slippage, and I make no commitment as to content, volume, or timing.”

Well, so far Malcolm has been doing really well and there are now four issues “in print”. Each issue is profusely illustrated with nice colour images, and a concise bibliography is provided for each topic to encourage further reading.

of the elements but for these to actually start combining in stellar atmospheres is rather too much for me – somehow intuitively I can’t believe that rocks can exist in stars. Obviously they do and I am currently thinking about taking up stellar spectroscopy – apparently a diffractor can be made for less than £100 - and after all we can’t spend all our spare time peering down a microscope can we?

IN DEFENCE OF VILE, STICKY, BLACK HYDROCARBONS.
Trevor Bridges

Roy knew his remarks, in Newsletter 86, about using solvents to remove hydrocarbons from pretty micro-crystalline sphalerite would have me crawling out of the woodwork, albeit somewhat later than I intended due to moving house.

People collect things for many reasons, but few have any possibility of seriously affecting the lives of people in the future. Geological collections are an exception to this. We depend on rocks and minerals for our way of life, but the waste of yesterday can be an important future resource. Think of all the fluorite dumped as waste by the old lead miners and how important fluorite is today. Much more recently, the rare earth metallic elements, such as cerium and neodymium, were curiosities a few decades ago. Now our touch screen technology and our most powerful magnets depend on them. We cannot know what will be important in the future, but a well catalogued mineral collection is a record of the past and often includes material from long lost sites. However, in addition to good locality labels, to be of value it is important that the material is not excessively ‘cleaned’ and, if it is, that the cleaning is recorded.

If I decide to keep a specimen I give it no more than a water wash with a very little detergent. If I am not going to keep it as it is. I ask ‘would I keep it if some nasty stuff were removed?’ If ‘yes’ I remove it, but say on the label what I have done. In the case of micro-minerals and sometimes with hand specimens, I am likely to keep an uncleaned reference piece. It is most important to keep a record of what has been done to it. In the future, a researcher might find traces of some naphthenate compound on Roy’s gemmy sphalerite and wonder if it is a natural mineral, particularly if he can also find traces of the original hydrocarbon. It is probable that there are IMA accepted minerals, which are just the result of cleaning procedures, which is highly regrettable.

I rarely use anything beyond dilute acids or possibly, in the case of iron stains, sodium dithionite, which leave completely water soluble remains, unlikely to result in permanent contamination after a thorough rinse.
Hemerdon Ball Mine Update
Grizzled Bare

The opening of the first tungsten mine in Britain this century proceeds, but slowly. Your correspondent was lucky enough to be invited on a Plymouth Mines & Mineral Club visit to the mine site on 20th October 2012 hosted by Wolf Minerals. Our guides for the day were Richard Scrivener and John Cowley acting in their roles of consultants to Wolf Minerals. My first impression was that little has changed on the ground – although the old access road into the site from the South is more pot holed than at any time in the last 40 years I have been going there. What a City banker might think on being shown a potential investment opportunity after a bouncy ride from the entrance can only be guessed – but perhaps it gives them the impression of arriving at the exotic last frontier.

Around 40 of us were taken around the whole site and were given a good “warts and all” review of the current situation with a strong emphasis on achieving the target for the 2014 opening. Standing on the public footpath that leads onto Crownhill Down one can imagine the bowl that will be sculpted out by the open cast mining operation – in theory the work should not be visible from the seaward side. It is expected that the very visible scar at Drakeland Corner should be relatively small compared to the existing China Clay pits at the nearby Lee Mill, Headon and Cholwichtown China Clay pits – all of which nestle up against the south eastern border of Dartmoor Park only a couple of miles away.

The immediate operational problem for the mine is to obtain the purchase agreement from around a dozen homeowners who currently inhabit this charming oak wooded valley. Some of these look like “very desirable country residences” but our guides seemed confident that all would agree to the offered compensation payments.

We then went to the top of Crownhill Down and looked west down into Tory Brook valley with the Plym valley in the distance. It is planned that the waste rock will be deposited on the eastern side of the valley and apparently there is planning consent for this. This does seem likely to produce a long term scarring of the hillside even if it is landscaped and planted but again Wolf appeared confident that this was no problem.

The Second World War tungsten treatment plant shows no sign of change – apart from the increasingly aggressive passage of time – while the old Amex office has almost disappeared into the shrubbery – so little sign of activity there. Much press coverage was generated by the building of a new link road to the mine in the last 12 months and I have to confess I had previously spent several frustrating hours searching for it without success – largely because I was looking in the wrong place. It does not follow the old main entrance which goes up past the Miner’s Arms, through Hemerdon village and then up the valley. Instead it approaches the mine from the east side of Sparkwell village.

achieved with a significant increase in Indicated resources. The results have substantiated the grades in previously classified Inferred category blocks with an increase in tonnage of 15.9% and 16.5% in contained ozs in the blocks concerned.’


However, the latest media coverage suggests that financial difficulties may throw a spanner in the works for the company:-

**DOUBT ON SCOTGOLD ABILITY TO FINANCE DEVELOPMENT AT ARGYLL GOLD MINE**
From http://forargyll.com/2013/04/doubt-on-scotgold-ability-to-finance-development-at -argyll-gold-mine/ Posted on April 1, 2013

Scotgold Resources, the Australian mining company, has, since the start of 2012, been doing infill drilling in various locations in north Argyll to establish the estimated resources of the Cononish Gold Mine. This information is necessary to secure investors for the development of the mine, with extraction previously planned to commence in early 2014 and with the prospective creation of 52 jobs. The drill results indicate that Cononish, near Tyndrum in north Argyll, contains 169,200 ounces of gold and 631,300 ounces of silver. If the mine can be developed, these resources suggest a realisable value of £190 million, with gold currently running at £1,060 per ounce and silver at £20 per ounce.

Scotgold has said that it estimates it can recover the estimated £22 million development costs in the first 18 months of operation. The snag is the level of existing company debt and a report expressing its auditor’s concerns. Australian accountants HLB Mann Judd talk of ‘material uncertainty that may cast significant doubt on its ability to continue as a going concern’. This situation itself raises uncertainty as to whether Scotgold ‘will realise its assets and extinguish its liabilities in the the normal course of business’.

The immediate issue is maturing debt, with the company due to repay by the end of 2013 a £1.26 million loan to RMB Resources, part of the South African bank, FirstRand. This was lent to fund pre-development costs at Cononish. The repayment due also sits against Scotgold incurring losses of £1.68 million in the six months to the end of 2012 – over twice the losses it made in the same period in 2011 – just over £723,000.

Scotgold’s response to this situation is to express confidence that it will be able to raise the development costs through further borrowing and a new share issue. In December 2012 it raised just under £500,000 from a share issue and says that it could repeat such an exercise and/or sell assets.
Unesco’s call was "a difficult one to fathom". He said: "The heritage they’re protecting is former mining landscape. What we build here will be the heritage of the future."

In a statement, a government spokesperson told the BBC that it had informed Unesco back in 2008 of the intention to resume mining at South Crofty but admitted it had not told Unesco about the formal planning application, saying it was not obliged to provide a "running commentary on every stage in the planning process".

If the row is not resolved, Unesco could remove the heritage status. However, a heritage de-listing has only happened twice before, in Oman and Germany.

Celeste’s latest press release reports an updated NI 43-101 estimation with an inferred resource of 2.47 million tonnes grading 0.46% tin, 0.54% copper and 0.23% zinc (0.68% tin equivalent); an exploration target of between 6.7 and 13.5 million tonnes with grades ranging between 1.4% and 1.8% tin in an area east of the Great Crosscourse within the South Crofty Mine; and an exploration target of between 1.25 and 2.5 million tonnes with grades ranging between 1.25% and 1.6% tin in the Dolcoath deep and Roskear areas of the South Crofty project.

You can read more here http://www.westernunitedmines.com/assets/documents/News_coverage/Resource_Update_05.09.12.pdf

So, as we are all aware, trying to bring a new mine on-stream in the increasingly regulated UK world of environmental and planning concerns seems to get ever more difficult, complicated and expensive.

**SCOTGOLD – CONONISH UPDATE**
Roy Starkey

In the far north, Scotgold continues efforts to bring its Cononish prospect into operation.

The update results from the in-fill drilling program carried out by Scotgold during 2009 – 2012, aimed at converting Inferred Resources to Indicated Resources in that part of the resource that will be mined in the early years of the mine life, thereby enhancing the debt capacity of the project.

Measured and Indicated Resources have increased to 82,600 ozs Au from 55,000ozs Au - an increase of 27,600 ozs Au (50%) - all in the Indicated category from the corresponding Inferred Resource Blocks.

The total resource including Measured, Indicated and Inferred categories now stands at 169,200ozs Au and 631,300ozs Ag in 460,000t (see below for breakdown) – a slight increase from 163,000 ozs Au and 596,000 ozs Ag in 437,000t estimated in 2009. CEO Chris Sangster commented ‘The aim of the infill drilling program has been

Finally we were treated to an erudite description of the geology and geomorphism – it’s always good to have a much loved collecting site explained as it lies beneath ones feet. Since October the local press has been well provided by stories about progress – the company has “launched a recruitment drive for three senior managers” and has secured agreement for seven water permits. Headlines such as “£50m of new funds boost mining hopes” (December 2012) continue to dangle the alluring prospect of project fruition. 2013 will see whether this will become a reality.

**THE FARQUAHARSON OF INVERCAULD MINERAL COLLECTION**
Roy Starkey

Invercauld House has been the seat of the Chiefs of Clan Farquharson since the 14th century, and hidden away in an underground corridor was a small “museum” of minerals and rocks. Prior to the present renovation works the geological collection was moved to Braemar Castle for safe-keeping. I am presently researching the minerals of the Cairngorms for a forthcoming book, and contacted Simon Blackett at Invercauld Estate to enquire whether anything remained of the historic collection at Invercauld House. As a consequence of this enquiry I was able to make a visit in May 2012 and examine the material which was in a poor state of curation and storage on the top floor of the castle.

The Collection in May 2012 – some 500 jumbled specimens, mostly with no labels, and around 50% of which was poor quality pieces of smoky quartz.

Arrangements were made for me to return to Braemar in October to work on the collection and over the course of a week my wife and I cleaned, labelled and catalogued the several hundred mineral specimens, and organised this into a “proper”
The Cairngorms are the most extensive area of high mountain terrain in Britain range. The area has given its name to gem quality smoky quartz, but has also produced spectacular specimens of beryl and topaz. In Victorian times, hunting for crystals was both a popular pastime and a "cottage industry", but nowadays the area is a National Park and few fine specimens have come to light in recent years.

The famous traveller and writer Thomas Pennant, wrote in 1769 “Of the mountains in this province I shall name but two or three: the Carngorm in Strathspey is remarkable for its height, and for the stones found upon it; I have seen these stones of blue, green, yellow, and amber colours; some so large as to make big snuff-boxes or small cups; some of a hexagonal or pentagonal figure, and tapering to a point at each end. These are now well known to the curious, and to jewellers.”

A suite of smoky quartz “Cairngorm” crystals - the largest is 55 x 35 x 25 mm

A visit to the Farquharsons of Invercauld is described by Stoddart in his Remarks on Local Scenery and Manners in Scotland during the years 1799 and 1800, published in 1801. “Our leisure was partly occupied with the examination of a well-selected cabinet of natural curiosities, the most remarkable of which was a large crystal of the Cairn Gorum kind, nearly two feet long, and found within Mr. Farquharson's domain on Ben-y-Bourd. These beautiful minerals are produced, in some abundance, on all the surrounding mountains, each of which is remarkable for a different gem. The brown kind and the topaz are the most common, amethysts are said to be confined to Loch-na-Gar, and emeralds, the most precious of all, to Ben-y-Bourd.”

Minco plans to explore for stratiform, replacement-style zinc and lead deposits in the unexplored, more massive limestone formations of the basal Carboniferous stratigraphy. The basal carbonate formations, principally the Melmerby Scar Limestone, which lie approximately 350-400 m below the Great Limestone, are the thickest and most massive within the local carbonate stratigraphy. These deeper horizons have never been explored, although they are known to be mineralised where they outcrop at the edge of the orefield.

Minco believes that the lower formations could prove to be the principal mineralised horizons, hosting stronger and more extensive zinc-lead mineralisation than any worked previously in the overlying Great Limestone approximately 400 m above. Specific exploration targets have already been identified by Minco and initial exploration drilling will be focussed at three principal sites. Minco has mobilised Irish Drilling Limited to complete approximately 4,000 m of core drilling which has now started. The average depth of each hole will be approximately 500 m.

Commenting on the new exploration initiative in the North Pennines, Terence McKillen, Minco Chief Executive, stated, “We have been developing the geological theory behind this new exploration effort for several years in what appears, in our opinion, to be one of the best unexplored areas in Europe for the discovery of major, new zinc-lead deposits”.

SOUTH CROFTY UPDATE
Roy Starkey

Meanwhile, in the south-west, things are not going so smoothly for Western United Mines at South Crofty in Cornwall. In November 2012, UNESCO (the United Nations' Educational, Scientific and Cultural Organization) called for a halt to mining operations, claiming that it was not properly consulted before planning consent was granted for the work in the area covered by the Cornwall and West Devon Mining World Heritage Site. (See http://www.bbc.co.uk/news/uk-england-20202659 )

Unesco granted the area heritage status in July 2006, saying the "substantial remains are a testimony to the contribution Cornwall and West Devon made to the Industrial Revolution in the rest of Britain and to the fundamental influence the area had on the mining world at large".

For the past six years the price of tin has been rising and Crofty's current Canadian owner, the Celeste Copper Corporation (CCC), wants to resume mining. The company says it plans to extract tin and other metals, including zinc and copper, with the hope of creating at least 220 jobs.

Cornwall Council granted planning permission in late 2011 and more than £15m has been invested in the project so far. CCC's chief executive, Alan Shoesmith, said
the basis we believe there is going to be a shortage of zinc concentrate in the European market, particularly if we come on stream in 2014 and 2015, we are comfortable.”
So, “watch this space” appears to be the message – we shall see.

**MINCO NORTH PENNINES PROJECT**
Roy Starkey

Further north, there is exciting news about a possible resurgence of interest in the Northern Pennine Orefield. On 2 November 2012 Minco announced that it has commenced a major new exploration initiative in the North Pennine Orefield located in the northern English counties of Cumbria, Northumberland and Durham. The initial US$1 million exploration programme, will include 4,000 m of diamond drilling which is now underway.

The North Pennine Orefield is the largest area of carbonate-hosted lead-zinc mineralisation within the United Kingdom and covers an area of approximately 40 km x 35 km, located south of the Tyne valley, east of the Vale of Eden and north of Stainmore Forest.

The Pennines area was extensively mined in the past, with the main mining effort starting in the mid-seventeenth century and, in terms of zinc-lead production, continuing without interruption until the end of the nineteenth century, and at a reduced scale up until 1938. For most of this period, lead was the only metal of economic interest and the English Pennines was recognised as one of the primary lead producing areas in the world.

Other mineral production including zinc, fluorite and barite commenced at the end of the nineteenth century where zinc production was primarily located in the Nenthead-Coalcleugh area and treatment of mine dumps at Nenthead continued during the war years 1942 and 1943, when 19,941 tonnes of zinc concentrate and 1,385 tonnes of lead concentrate were produced. In addition there has been significant fluorite, barite, witherite and iron mining in the area with the last mine being closed in 1999.

The British Geological Survey has estimated the total mineral production in the Pennines from 1666 to 1938 at 6 million tonnes dressed lead ore and 1 million tonnes dressed zinc ore.

The bulk of the historical mining was from the massively bedded Great Limestone formation. Minco believes that there is significant untested potential for zinc lead mineralisation at the base of the Carboniferous succession, approximately 300-400 m below previous, adit-accessed workings, and that such new deposits could be significantly larger than any previously discovered.

A suite of pale blue water-worn pebbles of topaz

The large Cairngorm crystal survives, and has for many years been on display at Braemar Castle, and it seems entirely likely that the “cabinet of curiosities” expanded over time, and developed into the “Museum” located in an underground passageway of the house.

The collection includes a wide variety of material, much of it local in origin, principally smoky quartz, but with some interesting water-worn pebbles of topaz, together with various minerals which originated probably from Derbyshire and Staffordshire as well as a selection of polished rocks and ornaments.

Over the winter period, work was undertaken to develop a display of around 70 specimens from the collection, complete with bespoke interpretative panels, and in February we journeyed to Braemar to install LED lighting in the cabinet, assemble the display, and get everything in place for a public opening at Easter.

A formal launch event in mid-April attracted some good press coverage and has already resulted in members of the public visiting the castle specifically as a result of the display publicity.
The finished display with interpretative panels in place

Faceted stones cut by BMS member and master-faceter Doug Morgan FGA, from material in the collection (left topaz 11.5 x 6.5mm 4.76cts; centre quartz 15.3mm dia 13.5cts; right topaz 18.3 x 13.8mm 18.5cts)

If you are in the Braemar area during the summer do please call in and take a look. You can find details of the castle opening days and times here http://www.braemarcastle.co.uk/

You can access the original report here http://anglesemining.co.uk/news/?p=342
Additional comment for potential investors is available here http://www.proactiveinvestors.co.uk/companies/news/51561/anglesey-mining-looks-to-engine-to-drive-parys-mountain-51561.html
quotes Bill Hooley, Anglesey’s chief executive as follows; “We already had a JORC resource on White Rock. This has been reconfirmed, with a bit more work done that gives a potentially larger size but at a slightly lower grade,” he told Proactive Investors.

He added that the plans for Parys have not changed, but significantly the new resource estimate “reinforced what we intend to do”. The Parys Mountain deposit is divided into a number of zones.

White Rock is one of these and likely to be the first developed, but the resource statement also included the Engine zone for the first time. “We now want to follow on from White Rock into the Engine zone and run them both at the same time,” he said. “Once we have got the Engine zone operation up and running, we can then look at the other zones the new resource quantified.”

These include Deep Engine, Garth Daniel and the Northern zone. Hooley said the Parys Mountain development would be started by decline access into White Rock. “We would be able to start that very quickly and use the cash flow to keep pushing the decline downwards to get to the Engine zone and start mining there. “By then, we can increase the capacity of the processing plant, which likely will start at 500 tonnes per day [tpd] and rise to 1,000tpd in 2-3 years.

“That will give us a full blown operation running at the White Rock and Engine zones. “White Rock is a zinc rich but lower copper deposit, while the Engine Zone has much more copper and has more value per tonne than White Rock. “So the sooner we can get to Engine Zone the better we will be.” Planning permissions were in place in the 1990s, when the idea of a mine at Parys was first floated, and approvals are still intact, and Hooley says “fundamentally all permits are in place”. “The only thing that is stopping us moving forward is financing. We are conducting a scoping study at the moment, which we expect to receive in the next few weeks.” “We have to be a little bit clever. Times are not easy, but the project is fairly unique, in a good geographic position and with no political risk.” Hooley adds the company has about £1 million in the bank, which will be enough for 2013. “That will keep us going, but won’t fund the project itself.”

Hooley thinks there might be some help from the zinc market for a project finance deal. “Base metal prices on which Parys is dependent are holding up very well and on
ANGLESEY MINING PARYS MOUNTAIN UPDATE
Roy Starkey

A new JORC (Joint Ore Reserves Committee) compliant resource estimate for Parys Mountain was published back in September 2012. This is the first property-wide JORC Code compliant resource estimate, and the company stated that it sees ample scope for significant additions to the resources reported and that plans for additional development and drilling were under consideration.

This new estimate follows a previous report by Micon in 2007 that dealt only with the White Rock deposit. The current estimate includes all the known contiguous deposits on site and is reported on a JORC Code-compliant basis. With the exception of the 2007 White Rock estimate, the previous resource was historical (estimated in 1990) and was not JORC Code-compliant. In now reporting all estimates on a JORC Code-compliant basis the project has been brought up to date and put in a position to be properly recognised for future funding.

Anglesey is particularly pleased with the work on the Garth Daniel Zone and the Northern Zone. The Garth Daniel Zone had been partially identified in 1990 but benefitted from a further drilling programme in 2005 and 2006. The current estimate draws all this information together. The Northern Zone was previously poorly identified and without any significant continuity. Micon has now shown such continuity to exist and has defined a major resource for two discreet overlapping structures. There are several other areas on Parys Mountain that have had exploration and drilling carried out on them that have not been included in the latest estimates. These include the area between the Deep Engine Zone and Garth Daniel, and the area around the Pearl Engine House that was drilled earlier this year. These and other targets will be subject to additional exploration in the future, and it is hoped that additional data will enable further continuity to be demonstrated with subsequent additions to the resource base.

At the appropriate time it is planned to carry out additional development and drilling to bring some or all of the Infered Mineral Resource in to the Indicated Mineral Resource category. This will be dependent on funding and, in some cases, underground access to these areas.

Bill Hooley Chief Executive said “We are very encouraged by the indications at the lower cut-off levels that both the White Rock and the Northern zones could develop into large albeit lower grade deposits that may be amenable to bulk mining. We still intend to look to the upper levels of White Rock and the Engine zones for initial development but we now have a clear target for a more substantive operation at Parys Mountain than previously contemplated.”

LARGE PIPE AMYGDALES NEAR THE WATERFALL IN MOonen BAY, NORTH SKYE
A limited study based on a visit in 2008
Frank Sharp

[Editor’s note : BMS Member Frank Sharp has compiled a report about this occurrence, which runs to 20 pages, with a large number of photographs. He has asked that this be made known to BMS members. Any member interested in obtaining a copy of the report or discussing the occurrence, is invited to contact Frank directly - (email: micromin@tiscali.co.uk ). The file(s) are too large to email (total is about 40MB) and interested parties should therefore arrange to obtain the report either by sending a blank CD / DVD / USB stick and return postage to Frank, or alternatively via downloading from a temporary Dropbox folder (contact Roy Starkey for details of how to access this).]

Please note that this report is based largely upon remote observation and telephotography and contains observations and conjecture which are the responsibility of the author alone. The report has not been subject to peer review.]

Abstract: In 1995 mineral collectors first visited Moonen Bay, North Skye, and found a 6 metre high rock containing about seven large pipes up to 70 cm. diameter lined with many large crystals. Few crystals remain now but the formation appears to be unique in the British Isles and worth attention. The rock projects at least 15 metres from beneath a scree which is the remains of a cliff fall and lies at beach level just north of the waterfall in the centre of Moonen Bay. The rock seems to be part of a single lava flow, traces of which can be seen also to the north and further to the south. The report provides a description of the occurrence, together with photographs of the exposures and minerals contained therein.

The locality viewed from the cliff top
This was our second meeting in 2012. At our first meeting in March we agreed that members of the group would bring a number of their favourite micros to the next meeting. This would allow us to share some of our special micros with other members of the group. It would also free-up John Hall who was due to give a talk at our November SMLS general meeting on MICROMOUNTS.

The only problem we encountered was that we had far too many specimens to look at, so we quickly decided to hold back half of the micros for our next meeting in March 2013.

Participants brought in a wide variety of micros, which included:

- Some one-off individual mineral specimens;
- Minerals collected on SMLS field trips in the UK and overseas;
- Zeolites with interesting shapes and twins. Very interesting but not easy to analyse even with explanatory notes;
- Micros which had been winners of the Micromineral class in the SMLS annual Competition;

Hard rock fragments from the Hannebacher Ley quarry in the Eifel, the type locality for hannebachite, (some of us had visited this site on a field trip to the Eifel earlier in the year). This mineral is shaped like a church steeple, a little like alstonite. It is a water soluble sulphite. We were invited to try and find some of this mineral in the fragments.

A very successful and interesting evening which produced even more discussion than usual between participants.

**BMS SUSSEX BRANCH MEETING: Friday 15th March 2013**

John Pearce

This was a second meeting when we viewed members’ favourite microminerals and there were plenty to choose from:

**Mark Oddy** brought a wide selection from different parts of the UK and Ireland including: Blue sapphire crystals from the Isle of Mull; intense red realgar from Gortdrum, Eire; rare yellow/white balls of arsenogoyazite and some arborescent copper covered in red cuprite crystals from the Relistian Mine, Cornwall; also some fascinating black spikes of acanthite (silver sulphide) growing out of the silver from Travassack Quarry on the Lizard. These spikes had grown since Mark had collected the “silver specimen”!

**Ivan Tingley’s** micros included: Intense yellow crystals of the radioactive mineral bolttwoodite from Goanikontes, Namibia, also fluffy blue balls of shattuckite from Mesopotamia, Namibia.

**John Burgess** brought several boxes of broken rock fragments from the SMLS/Norfolk Mineral Society’s fieldtrip to the Eifel, Germany in 2012. The material looks like basaltic road stone even under a microscope, but when you increase the magnification, beautiful crystals appear in the tiny vugs. Identifying these minerals is another matter!

**Pam Pearce** presented a selection of micros from the Meadowfoot Smelter in Wanlockhead, Southern Scotland including: translucent hexagonal crystals of leadhillite, deep blue linarite and the rare purple crystals of elyite.

**John Pearce** had a wide range of material collected in the UK and overseas over the last 30 years or so; They included:

- Ruby sphalerite from Les Malines and stibnite needles from Freycenet, France;
- Botallackite and gold from Eire; distinctive iron-stained zeolites from Lanzarote;
- Carminite, campyllite and alstonite from the North of England; leyne and thomsonite from the Isle of Skye; millerite growing out of a galena crystal from the South Wales Coalfield;
- Wulfenite and pyromorphite from Bwlch Glas, Wales;
- Chalcotrichite, ferrostrunzite, apatite and cerussite from Cornwall; turquoise, cyrilovite, dufrenite, cacoxenite and wavellite from the China Clay pits near St. Austell.

**John Hall** brought along the first four boxes in a series he is preparing to introduce micromounts to beginners. The specimens had been carefully chosen for their colour, crystal shapes, aesthetic appeal and with the micromineral being the obvious focus in each case. These included: annabergite, botallackite, cacoxenite, cassiterite, cyanotrichite and hemimorphite.

The theme for our next meeting on Friday October 18th 2013 will be **zinc minerals**.