#### FIELD TRIP TO THE WEST OF SCOTLAND September 2007.

The motive for this trip arose from the fact that SMLS had in the not too distant past visited Skye to the north and Dumfries and Galloway to the south, but had not visited the area in between . at least not for many years. Another driver was the attraction of the mines at Strontian, which have seen renewed collecting activity recently, as described in an article in UKJMM No.26 by David Green and Dave McMallum. Identifying other nearby collecting locations was proving difficult until Peter Hay came up with some field trip notes given to him by Alan Dyer outlining an itinerary for zeolite collecting on Mull back in 2000. The prospect that sapphires could also be found on Mull was the clincher that finally decided we would visit these two very adjacent areas without having to travel vast distances to other sites.



As with our recent trip to Ireland we realised that we needed to engage a fellow collector to advise us of the mineralogical potential, ownership and access to the sites and also the most convenient local accommodation. For Strontian, Allan Mortimer was able to put us in touch with the above mentioned Dave McMallum who it turned out was planning to be in the area at the same time as us. This was highly fortuitous as Dave was able to answer all three of the issues raised above. Moreover he introduced our party to Dan McDonald, owner of the Strontian Mines site, and for two days accompanied us both on the surface and underground in our collecting endeavours. With respect to Mull, Dave was unable to come with us and it was decided to rely on Alan Dyerc notes and site coordinates, some Mindat sites and our own exploration noses. The field trip was thus arranged that we would spend the first two days at the Strontian Mines followed by travel and two and a half days on Mull.

The final field party was made up of Alan and Elvire Mortimer (Strontian only), Peter Hay, Nick Hawes, Richard Bell, Trevor Devon, John Burgess, Jolyon Ralph, Peter Nancarrow, Jonathan Abbs and Mark Oddy. Travel to Strontian was left up to individuals, with a planned rendezvous at the Strontian Hotel on the evening of Sunday 2<sup>nd</sup> September. The weather on Sunday was fine and after the short Corran Ferry crossing and the pleasant drive to Strontian village we checked into our accommodation . Peter and Nick staying at Ruby MacNaughton**ç** B/B in Strontian and the rest of the party staying with Soraya Conway at Heatherbank B/B at Upper Scotstown on the road to the mines. After some welcome drinks at the hotel we took some local advice and moved on to the Ben View Hotel some 2 miles west of Strontian for an excellent evening meal.

## Monday 3<sup>rd</sup> September.

The weather was excellent, the views were outstanding and those of us staying at Heatherbank assembled in Sorayacs dining room looking forward to a Full Scottish What followed may well turn out to be one of lifeos abiding memories. On Breakfast entering the Witches Brew dining room we firstly encountered a full size standing effigy of Merlin wearing a conical hat and holding up a large illuminated crystal ball, (photo 1 shows the group with Merlin). From the ceiling hung a half size witch riding a broomstick. Round the room were bottles of potions and oils, e.g. Euphoria Blend Massage Oil, Nag Champa and Legal Assistance?! incense and charcoal burners, healing crystals and books . all for sale. In short, Soraya is a ±white witchgrunning a parallel business of ±esoteric interestsg She used to be the Resident Astrologer, Numerologist and Agony Aunt to the Scottish Sunday Post, but she now offers Reiki, Crystal Therapy and Reflexology therapies on the premises. She has written 6 books on spells, runes and tarot and is currently writing 2 more-- The Witches Almanac and The Witches Cook Book. The Full Scottish Breakfast was excellent, including 2 kippers, but the more fascinating dish for vegetarians was Witches Brew Pancakes (photo 2) which came with a light dusting of icing sugar on the top outlining various symbols including a witch on a broomstick, a cat, half moon and a star. Outside in the garden were various small sculptures of animals such as a mouse on a toadstool, some snails and a frog. Richard Bell later sent a photograph of these with the comment that this is what happens to SMLS members when they dong pay their bills!

And now to the minerals. Dave McCallum met us in the Heatherbank carpark and after introductions led a convoy of cars up to the main guarry/mine entrance and car park. He then spent some time outlining both the history and geography of the Strontian lead mines complex and went on to explain which parts of the site we were free to collect over and what minerals we should be looking for. We started on the dumps and quarry area remaining from the 1980cs barite mining phase when barite was in demand for the oil industry. This area is now being worked by the owner, Dan McDonald, as a guarry for road aggregate. We also searched in the old Clashgorn opencut and later, higher up the site, round the old settling pits. During the course of a beautiful sunny and warm day (the only one of the whole week). we managed to find harmotome, sphalerite, galena, cockscomb barite, pyrite and scalenohedral calcite crystals some of which were capped and overgrown with tabular crystals. Richard Bell, while idly standing around and chatting, suddenly looked down, picked up a piece of calcite and showed off a fine pink ancylite-(Ce) crystal sitting on it. This is an apparent rare occurrence of this mineral on these barite dumps. Needless to say none of the rest of the party had any such luck despite endless searching. During the afternoon we had a very pleasant surprise visit from Shirley and Crawford Adrian (photo 3) who had driven over from their home at North Connell. After presenting Dan Mcdonald with a bottle of Scotlandos finest and thanking him for the chance to collect on his feu, we returned to our lodgings and once more repaired to the Ben View Hotel for another excellent meal, this time in Dave McCallumos convivial company.

# Tuesday 4<sup>th</sup> September.

We woke to a wet and dreich day and after hearty breakfasts, we made our way back up to the mines area where we planned to go underground in the Whitesmith section of the Strontian vein. Dave lead us up the track past the workshop complex heading west towards the opencut. We passed a number of north-south magnetic basalt dykes before climbing down into the opencut and eventually descending deeper into a covered stope section, which was at least now out of the rain. Dave showed us where to find brewsterite, green and brown strontianite and at the far end of the stope the microminerals kainosite-(Y) and ancylite-(Ce), both of which are associated with brown chamosite crusts. Later examination of calcite rich material under the microscope at home revealed a number of clear pale pink ancylite crystals together with white radiating aggregates of acicular kainosite crystals. We were also successful in collecting good sprays of both green and brown strontianite and the colourless blocky crystals of brewsterite, a member of the zeolite family. After several hours underground, during which time Dave had rescued several frogs which accidently fall into the opencut/stope, we emerged into continuing rain and walked back down to the main dumps area. We resumed collecting here without much success although Jolyon did manage to find some clear tabular barite crystals. The midges finally helped us decide to call it a day and we drove back down the hill, past Dangs lone pig in the field by Bellsgrove Lodge, and cleaned up with a welcome shower in our B/Bs. For a change of dinner venue we drove 9 miles west from Strontian to the Salen Hotel on the shores of Loch Sunart, where we had an excellent meal- highly recommended.

# Wednesday 5<sup>th</sup> September.

We checked out of our B/Bs, and said our farewells to Dave McCallum and also to Alan and Elvire and Richard Bell who were not coming to Mull. Dave McCallum was staying on at Strontian to continue excavating the floor of the Whitesmith stope with the assistance of Richard Bell and David Green.

Mark Oddy.

#### Peter Nancarrow now takes up the story:

The convoy set off to Lochaline for the ferry to Mull, and after a journey of about 20 miles along a narrow road in poor conditions we were very fortunate to arrive just in time for the ferry. The ramp lifted behind us as soon as we were aboard, and we were underway within a few minutes. Arriving on Mull, although we knew there were spectacular mountains nearby, all we could see were slopes leading up into the cloud.

Our first stop was to examine a series of road cuttings on the A848 about 3km SE of Tobermory. The minerals of interest here occur as crusts of crystals lining cavities in basalt, or as masses which have completely filled former cavities, which were gas bubbles in the basalt when it was erupted. (These cavities in lava are termed ±vesiclesqif they are empty, but when they contain secondary minerals such as zeolites, calcite, chlorite etc. they are termed ±mygdalesq. hence the term ±mygdaloidal lava).

We parked at a small car park a few hundred metres beyond the cuttings, and the first eager zeolite hunters set off and disappeared into the mist. The cuttings are quite extensive, so there was plenty of exposure of amygdaloidal basalt to examine. No finds of rare minerals or spectacular specimens have been reported so far, but everyone was able to find examples of analcime, mesolite and calcite, and also of fine compact fibrous material, which is probably natrolite (tbc), lining or filling many of the smaller cavities. Some crystals of golden coloured natrolite were also found.

Most of the analcime crystals are less than 5mm diameter, and some of the smaller ones are limpid, but commonly they are milky white, and almost all of the larger crystals are white. Some pieces (mostly broken fragments of white crystals) were found which show that much larger crystals up to 25mm do occur here. Mesolite commonly occurs as sprays of fine, very delicate, limpid needles protruding into the cavities, overgrowing the linings of more compact white fibrous material (mesolite and/or natrolite?), and also as very loose aggregates of randomly-oriented crystals with almost no attachment to the surrounding material, so that it is very difficult to retain samples of these, as they nearly always fall out and disaggregate as soon as the cavity is broken open. Calcite is common as cavity-filling masses, but some euhedral rhomb crystals (mostly less than 10mm diameter) were also found. Most of the calcite is white, but some slightly less turbid zones do occur in a few crystals. Less abundant types of material found in the vesicles, mostly occurring as late growth crystals overgrowing the crusts of analcime lining the cavities, included some clusters of square-section prismatic crystals of natrolite up to about 10x2mm, and pearly plates of a soft pinkish mineral, probably stilbite (tbc). Some pieces with minor amounts of prehnite were found, and laumontite also occurs here, but only as decayed powdery masses.









Our second stop was under heavy grey skies and in drizzle going on rain, at a supposed roadside <u>s</u>quarryq about 3km west of Tobermory along the road to Glengorm Castle. This turned out to be not much more than a few metres of exposure next to a cattle grid, consisting of very weathered basalt containing some small masses of rather crumbly stilbite. After everyone had had their fill of such excitement, acting upon <u>s</u>eliable informationq we moved on to try and find another locality further along the same road. We eventually found ourselves at the end of the road in the grounds of Glengorm Castle, having not seen anything resembling a promising mineral collecting spot! Retracing our route, we stopped to examine a roadside crag which offered only a few small scraps of nondescript white lumps in small amygdales. We decided to call it a day and head back to Tobermory to clean up and dry out in our guesthouse/hotels . once a misunderstanding as to which guesthouse we were actually booked into was resolved!- followed by a much needed very enjoyable dinner at an Indian restaurant.

Peter Nancarrow.

## Thursday 6<sup>th</sup> September.

We woke up to discover two large cruise ships in the harbour, disgorging passengers no doubt intent on raiding the tourist shops along the colourful waterfront of Tobermory/Balamory (photo 4). The programme for the day was to visit a number of sites on the shores of Loch na Kael. We first stopped at a location on the north shore near Kellan Mill. Richard Bell had listed prehnite, copper, cuprite, malachite, chrysocolla and pumpellyite as minerals we should find there. Collecting on the foreshore in dry overcast weather was fairly easy and most of the party found combinations of the above minerals. Pumpellyite was later identified under the microscope as were royal blue tufts of connellite.

After this successful start we drove round to the other side of the loch to a beach location below Scarisdale Wood. There was a rather modern looking flexible floating pier running out into the loch from the beach. The mineral objectives here were micros of fluorite, zircon, epidote and others which Richard Bell had promised we would find in miarolitic cavities in the granite boulders on the beach. The granite boulders came not from any beach outcrop, but rather had been transported down the northern slopes of Ben More from in-situ granites which had crystallised out from the magma intruded in the Mull Central Volcano. Heavy hammers went to work on these boulders and on certain lumps small 10-20mm cavities were cracked open which under a hand lens revealed mostly yellow/green elongated epidote crystals and unidentified enestsqof a dark blue/green acicular mineral, possibly a member of either the pyroxene or amphibole groups.

Moving on from this site, and after Trevor left us to return to Sussex for the Bulgarian talk, we drove west to an Alan Dyer site at Dhiseig, again on the shores of the loch where a stream running off Ben More had formed a very small delta. We were back on lavas here which exhibited rare and very small nondescript zeolite filled cavities, but we did manage to find a few native copper prills with minor cuprite. If we had ventured further west along the beach below Creag Brimishgan it transpires that we might have found pumpellyite and laumontite, but we were unaware of this possibility at the time. We now retraced our steps and basically headed back towards Tobermory, via the much longer scenic west coast route along the B8073, where we had two more sites to visit. Driving back round Loch na Kael we passed the island of Ulva and admired the view out to the flat-topped Treshnish Isles. The first site was a tiny roadside guarry at Ensay where the weathered top of a lava flow is exposed in a 30ft crumbling cliff. There were poor zeolites exposed here, nothing special, and only Jonathan found mesolite worth keeping. Photo 5 illustrates Peter Hay directing the youngsters collecting here. Driving on past the pretty white sands in Calgary Bay (forerunner of Calgary in Alberta), we next stopped at Fracadil where we examined the spoil from foundations for a new house, with no luck, and then some small barren outcrops in a midge infested valley. The midges drove us away so we returned via Dervaig to Tobermory where



the majority of the party slummed it with fish and chips on the waterfront and some high drama games of pool in the Tobermory Hotel bar.

### Friday 7<sup>th</sup> September.

This was going to be sapphire day . or so we hoped! - possibly the most ±ooked forward toqday of the week. We paid our bills and set off along the now familiar road through Salen and Gruline and along the southern shore of Loch na Kael where we stopped to retrieve a lost hammer and then searched anew below the cliffs of Creag Brimishgan for laumontite. We had no luck so we continued past Gribun and drove over the watershed in heavy mist down to the north shore of Loch Scridain. Our objective was the beach below the Scottish National Trust car park at Burg just past the Tiroran estate. A track from this car park leads down to the famous

fossil tree on the tip of the Ardmeanach peninsula. We however aimed for the beach through a field of wet head-high bracken before we came to a very steep wooded cliff descending straight on to the beach. Two of our party decided sensibly to opt out of this dodgy scramble and retired back to the car park. Meanwhile the rest made it onto the beach and began the search for sapphires. The beach was made up of slimy black coated boulders and some isolated basalt outcrops. After much futile hammering we soon realised we had not done enough homework and did not have a clue as to what the supposed sapphire matrix should look like. We spent about an hour wasting our time before giving up and scrambling back up the cliff and rejoining our colleagues in the car park. Nursing our frustration we drove round to the southern shore of the loch to the known sapphire location at Port na Clodheig. Here again there was no obvious sapphire matrix and our party scattered along the beach mostly eastwards towards Pennycross . a Mindat site. Three of the party, Nick, Jolyon and Peter Nancarrow had totally disappeared and after a lengthy search they were spotted in the far distance along the beach waving their arms and gesticulating . success! In time honoured fashion they were just about to give up when their last hammer blow revealed tiny blue sapphires poking through a surface coating of lichen on a light grey coloured matrix. The rest of the party eventually caught up and bags were filled after a number of chisels were blunted in the exuberance to collect material (photo 6).

With a mixture of relief and huge pleasure we left the site and returned to our cars. It was getting late so we headed back to the pub/hotel/restaurant at Pennyghael which offered a mouth watering menu. Unfortunately they were fully booked . this far out in the country? - and we had no choice but to head back to Tobermory. Luckily on passing through Salen we spotted the Mediterranea Restaurant . they had a free table, and we ate a hugely enjoyable Italian meal . on Mull no less!

Thus ended, on a high note, our foray into West Scotland, with many vowing to return in the not too distant future.

Later examination of the sapphire material under the microscope, revealed a number of additional minerals. The sapphires themselves exhibit a pale blue colour, mostly flattish or laminar, but there are some more blocky crystals (photo 7, but you will have to look hard to

see the sapphires). The flattened crystals often show a bevelled triangular face on material that has been split open. Most of the sapphires are cracked and have numerous intrusions and opaque patches, i.e they are not gemmy. However where laminar crystals have been cracked across it is possible to see striking darkish blue colours deep in the vitreous irregular fractures. Black octahedral spinels (first spotted by Jolyon in the field) are fairly common and there are also dark orange gemmy rods . probably rutile, black shiny rods . probably pseudobrookite and many patches of a cloudy pink material . mullite? There are also abundant cavities containing zeolites, mainly recognised as analcimes.

Mark Oddy.

(Photos by Mark Oddy 1 & 5; Jolyon Ralph 2,3,4 & 7 and Nick Hawes 6 - thanks to John Hall for enhancing and formatting the photos).