NORTHERN MINE RESEARCH SOCIETY

Newsletter September 1977

IMPORTANT

BRITISH MINING No.6 "THE MINES OF MERIONETH"

In view of the good response to the questionnaire in the last newsletter, the committee has decided to proceed with the printing of Mr Foster-Smith's next volume on the non ferrous mines of Wales. Those members who kindly replied will, unless they countermand their willingness to purchase a copy, be sent the next volume upon publication together with an invoice for £0.90p as indicated previously. Members who did not reply will NOT receive a copy unless they order one from Mr R.Guthrie, Publication After Sales, 186 Station Road, Billingham, Co.Cleveland, TS23 2RT. To save members' postage costs, it is suggested that you enclose your remittance with your order. A receipted invoice will then be dispatched with the publication.

In fairness to the generosity of the author, your support in purchasing a copy will enable us to continue with this series and so complete the publication of all seven volumes more rapidly than would otherwise be the case.

Subscriptions 1978

At the General Meeting at Skipton on 4/9/77 it was agreed that the annual subscriptions should be raised. Although reluctant for such a step to be taken it should be borne in mind that we have held subs at their present rates for the past three years. When it is realised that over the same period the cost of our publications has risen in price from 70p per copy to approx £1.35p per copy (not to mention increases in postage and other incidentals) you will see that we have done well to keep subs down for as long as we have.

Therefore the following rates will take effect as from January 1978:-

Full		£4.00°
Associate	• • • • • •	£3,50
Junior and Student	*****	£3,50
Overseas		£4.50
Family		£0.75

REMINDERS

Annual Dinner - 8th October '77 at Foster Beck Watermill, Foster Beck, Pateley Bridge. Time - assemble at 8pm.

Only £3.50 each for 4 course meal and pleasant company. If you've lost your booking form from May's newsletter send a letter with details of number in party and full money to Ken Walls, 33 Gledhow Avenue, Leeds LS8 1LD before 23rd September, 1977. Don't delay, its less than a fortnight away.

Photo Competition for Black and White prints only (any size) with a maximum of 3 photos per member with an entry fee of 5p per photo to be paid on entry in useable postage stamps.

Entries should be sent to Lynda Finch, 10 Exeter Crescent, Killinghall,

Harrogate before 1st October, 1977, and if photos are to be returned by post please include a stamped addressed envelops. All entries will be displayed at the Talk-in and it goes without saying that the subject should vaguely concern mining and be all the members own work. Please don't put any names/addresses on the photos themselves.

Presidents Talk-in and Pie and Pea Supper - 12th November, 1977 from 2.30pm onwards in Scout Hut, behind Devonshire Hotel, Newmarket Street, Skipton.

The Talk-in consists of slide shows, lectures, displays of members work and anything also you may think would be of interest. This is a light hearted affair with its more serious moments, so can along and enjoy yourselves. If you can give a talk, of have senething to display don't be "backward in coming forward". A booking form is enclosed on the back page. Price 60p each. Overnight dessing available.

FOOK REVIEW

TWO CENTURIES OF INDUSTRIAL WHIMARE, The Lawson (Quaker) lead Company 1692-1905. ARTHUR RAISTRICK. Moorland Poblishing oc. 160pp., 15 plates., 6 line drawings., Hard back £3.95.

The reprint of this work, first published in 1938, includes an additional chapter on technical developments made in smelting, silver extraction, drainage, dressing and ventilation made mainly by Robert and Joseph Stagg.

The enlightened attitude of the Company towards the Social conditions of its work people, in fact all persons encompassed by its leases, would still

appear radical to some today.

This book is a necessary addition to the shelves of any serious student of Northern Mining history. However it does highlight the lack of a comprehensive work on the history of the Northern Pennine Mining Field - Mines.

Also Out: -

The Steam Engines of Thomas Newsconta, Rolt & Allen. Moorland. £6.00 Yesterday's Golcondas. R.H. Bird. Moorland £3.95 The British Coal Mining Industry, A.K. Griffin. Moorland. £6.00 M.C.Gill.

Society Publications. The following are still available and can be obtained from the address below:-

Vol 2 No 3 at £0.70. Post free.

Vol 2 No 4 at £1.00

Occ. Pub No 7 Non Ferrous Mines of Flintshire at £1.00. Post free

British Mining No 2 at £1,40 Post free

British Mining No 3 at £1.35

British Mining No 4 at £1.35

R.G.Guthrie, 186 Station Road, Billingham TS23 2RT.

rollowing the Meet report covering Sunday's activities in the last newsletter I have now received the Meet report for the Saturday (regular readers will no doubt already have noticed the logic in these newsletters) :-

By Friday night quite a few members had turned up at the campsite at Braithwaite. We had a good night at the Royal Oak where Adrian our booklender had quite a few beers, but did not get round to bursting into song (shame).

On Saturday morning more members arrived, our number now being about 30. By about llam a persistant form of rain was lashing down in the valley and as

we made our way up Coledale it looked very gloomy at Force Crag.

At the mine we split into two parties and Mr Gunn, the mine manager, took us round the No.O level and the No.1 level explaining the mine and mining methods. In the No.1 we saw a diamond drill in position taking core samples but without much success. It seems that the drill is breaking up the ore, thought to be lead. However it was found to be there due to the fact that water collected in a tin contained particles of lead.

Some members got browned off by the weather after dimner and went back down

to Braithwaite to find tents much the worse for the weather.

In the afternoon about 14 members continued examining the old High Force Crag workings, entering the No.3 level 150ft above the old mill. This level is the most interesting of all the workings. After a short walk about 100yds an incline begins. This incline was driven in 1947 by Iaporte Chemicals Ltd. to expose the ore shoots beneath High Force workings. It is 600yds long, at the top of which are the old workings. Some of the old stopes here are about 80ft high and up to 12ft wide. At the end of the stoped area a shaft rises 80ft to the surface with a ladder way to the top. This is the entrance to High Force Crag. Many of the stopes from this area outcrop on the surface. We examined some old front loading ore wagons and left for the outside world, needless to say it was pouring down still. The vertical extent we had covered was 600ft.

As we walked over Force Crag we had a good view of the extent of the spoil

heaps and the old mill. The mine is due to process ore by December 1977.

Upon reaching the campsite I found wet sleeping gear so had to abandon the meet amongst threats of a dire nature from John Mc Neil who continued the meet into Sunday.

Many thanks go to Mr. Gunn for enabling us to visit the mine.

Re-Vegetation of Mine Spoil.

J. Landless.

In certain ares it is very desirable to re-vegetate the spoil heaps of disused lead mines for two reasons; Firstly where the heaps are in an area of outstanding natural beauty, and secondly to prevent lead and zinc pollution. An average spoil heap will contain in the region of 80,000ppm of Lead and 60,000ppm of zinc, these levels being well above the acceptable safety limit.

Pollution is transmitted in two ways, via the wind and water. Whilst 'Washout' is probably the most important of the two, and this can be very extensive as at the Parc Mine in Wales, where in 1964 the lowland pasture was covered with about 2ft of spoil after torrential rian. But for the most part the process is very gradual and can cause lead poisoning of farm stock and may also be the cause of stomach cancer and multiple sclerosis in humans.

There are several problems to be considered for re-vegetation of spoil heaps, such as the topography, particle size, PH (acidity) and mineral content. Methods of re-vegetation need to be cheap so that local authorities can undertake the

work where possible.

Topography of the heap will depend entirely on the manner in which the size was managed and can vary considerably. Particle size will depend largely on when the mines were operated and the type of ore crusher used, but in general the older the spoil the larger the particles. The PH will vary with the type of the country-rock, Mid Wales and the lake District for instance will have a PH of about 3.0 this being a non-limestone area, whereas the Pennines, Shropshire and North Wales will be in the region of 7.0 to 7.5 as these are limestone areas. At a PH of 3.0 and below little or nothing will grow and even with a higher PH one has to choose the type of vegetation very carefully.

The toxic quantity of lead and Zinc is also a very limiting factor.

Of course people have attempted to re-vegetate spoil on many occasions, as at Glenridding Mine in the lake District in 1953 when the spoil was spread with sewage sludge and sown with gress seed. This grass progressed well for several years but when the roots penetrated to the spoil it started to die back, with the added problem that sheep were allowed to graze here causing enormous erosion problems.

Both Nant Mine in the Conway Valley and the Nenthead Mine were treated with turves these being laid on the spoil. At Nant, erosion has taken place because the turves were put singly onto the spoil in the hope that natural colonisation would ensue, whereas at Nenthead, the turves were placed in a hollow rectangular pattern in the hope of colonising the adhacent bare patches, - with very limited success.

There are several tolerant (tolerant to the toxic and PH aspect of the waste) grasses available and the Natural Environmental Research Council gave Rosalind Smith a grant to carry out controlled experiments to determine the best sowing season, fertizer, and vegetation to use in an attempt to overcome these problems.

A set of controlled experiments were set up in the greenhouse, (and later in the field on a number of sites) growing both tolerant and commercial seed on a fertilized top soil.

The same type of tolerant seed was used over a range of sites after initial experiments showed that the tolerant seed was very much better than the commercial variety. The fertilizer used was 15. 15. 15 NPK at 7cwt/acre (but a higher Phosphate fertilizer is preferable) with the seed sown in springtime at 10lbs/acre with good results.

This article is based on an article by Rosalind A.H.Smith entitled 'Re-Vegetation of lead and Zinc Spoil Heaps' pages 19 to 21 of 'Sylva 53', the magazine for the Ecological Society of the University of Edinburgh.

Friday was spent travelling down to Wales stopping to investigate Plynlimmon Mine 'en route'. Here a fine waterwheel pit and inclined plane are still visible and the large tips suggest fairly extensive underground workings. A trip was then made to the tops of Pen Pumlumon Fawr and Pen Pumlumon Arwystli in the blazing sunshine, only to find a land rover arriving at the trig. point by the easy routs. After a quick hydraulic lunch a visit was made to Castle Mine on the way to the campsite at Caegynon Mine in Cwm Rheidol. Sue and Harry had already arrived and were basking in the sun. After a cup of tea, the Fish Ladder down the river was visited, and the surface features (the little that remains) of Rheidol United Mine were inspected.

After tea John and Harry set off for the local hostelry to meet a man from the North Cardiganshire Mining Club who was to be our guide for the weekend. After much time and much beer they returned having failed to meet the man.

More members arrived in the middle of the night and a few more early next morning. The party then set off for Ystrad Einion Mine calling at Tal-y-bont to find our guide (a vain idea) on the way. The main adit of the mine was explored and photographs of the 16' diameter underground water wheel and pumping shaft were taken. Two smaller levels in the forest were then explored and both contained stopes with timber of doubtful age and character. Harry managed to get himself stuck in the entrance to the second level but insisted that it was his battery that was wedged. (Personally, I think his stomach had something to do with it). The timbering in this level was in such a decaying condition that not even Harry's dog would venture into it, so a hasty retreat was made.

On the way back to the campsite the surface workings of Esgair Hir and Esgair Fraith (the Welsh Potosi Mines) were visited. Many fine shafts all worked from a large waterwheel in the valley bottom by a series of flat rods are still to be

On return to the campsite many more members had arrived. After tea some members went for a walk further up the valley to look at Cwm Rheidol Mine whilst others adjourned to the Tynllidiart Arms.

Later that evening it started to rain and it rained and it rained and it blew..... The next morning only four tents were still in use and one of these was in a rather damp state. The Harrogate, Crosshills, Skipton contingent decided they had had enough and so packed up and went home, whilst others decamped and adjourned to the Caegynon Mine stables. Shortly after half the party had left the sun came out and we set off for Cwmystwyth Mine, leaving female volunteers!!! to look after the washing lines full of sog.

Cwmystwyth must be one of the most impressive mining sites in Wales and the whole valley is a scene of desolation with large hushes extending from the skylone. Six members disappeared into Level Fawr which is the most extensive of the Cwmystwyth workings. Whilst in the level the infamous Cwmystwyth bell was repaired since it had ceased working. Most of the timbering seems to be in fairly good condition. In the afternoon the party went for a walk round the hushes and surface workings.

Since Sunday is dry in Dyfed we had to stop in for the evening and got a fire going in the hut. Unfortunately the smoke didn't want to come out of the chimney. (It came out of the doors, windows, brickwork, in fact anywhere but the

chimney.)

Monday dawned and no-one really had any idea what they wanted to do. After much deliberation it was decided to look at Bwlch Mine and so we set off to find Level Newydd, which is situated in a forest. After crawling around for about half an hour on hands and knees, it was decided that it was a little silly so the venture was abandoned and we set off for Caenant Mine. The entrance to this level, however, was barred by a yawning abyss about 50' wide with no obvious way across. We had the idea of looking at Cwmerfin Mine, but nothing remains, so we set off for Cwmsymlog Mine where the surface workings were investigated by which time it was tea time.

After tea a small party explored the upper level of Cwm Rheidol Mine (Alderson's Level) which is a straight drive for about \frac{1}{2} mile to a blockage. Whilst this was going on a Jubilee street party, for the children, had alreddy

started at Caegynon Mine Huto

At various times most members had a 'quick' look in Caegyman Mine. 'Quick' because of the smell percolating from out of a shaft. A further source of 'pong' was discovered in a plastic sack, which on dispatch to the depths to join its big cousin assailed the senses even more. It is advised not to visit this mine unless having a strong stomach.

The following day after a look round the Cwm Rheidol Hydro-Electric Power Station and Trout Hatchery several members disappeared to North Wales for the rest of the week, leaving the remaining few to look at the Llywernog Mining Museum before setting off home mid-afternoon. On the way back North specimens were collected from the surface dumps of Henfwlch, Eagle Brook and Carndwrbach Mines whence the remaining three members went their respective ways.

Transactions of the Institute of Mining Engineers

One of our Members has 11 volumes of the above, dated 1906-1909 and 4 of 1913. They are mostly of coal mining including some very good drawings of machinery. He would be willing to let any member borrow any of these books. Anyone interested please contact: - J. Landless, 169 Causewayside, Edinburgh EH9 1PH.

EXHIBITION & LECTURE

<u>Lead Mining in the Yorkshire Dales.</u>
27th August - 1st November 1977 an exhibition is being held on the above subject. Friday 14th October. 1977 at 7-30pm alecture is being given by Dr.A.Raistrick on 'Lead Mining in Early Prints'. Both at St.Oswald's Exhibition Centre, Castle Bolton, Leyburn, Wensleydale.

Quote from Mining World, 27.8.1881: "The Fortescue Tin Company held a meeting, which, like Mr Sam Weller's knowledge of London, was 'Peculiar' . . . " (mine in St. Stephen in Brannel, near St. Austell).

BOOK REVIEW No 2.

"THE OLD METAL MINES OF MID WALES" Pt 4. West Montgomeryshire.
64pp., 25 photographs., with additional maps, plans and sections.
D.E.BICK. The Pound House, Newent, Glos. GL18 1PS. £1.35.

This, the fourth part of Mr Bick's detailed survey of the non ferrous mines of Mid Wales, follows its predisessors in respect to well researched and most informative reading. The area covered by this volume includes the famous Van and Dylife Mines, the latter forming the subject of an individual publication by the same author which appeared in 1975. Over 40 mines are described, although in a number af cases little remains at surface due to the 'attentions' of the Forestry Commission. The use of the ubiquitous water wheel and its attendant long runs of flat rods or wire ropes is well exemplified, with examples of the system which are little known, such as at Llanerchyraur near the Pennant valley.

The book includes an appendix entitled "Steam in the mountains" which is devoted to the little known aspect of transportation of ore and materials by traction engines. A second appendix is headed "an 18th century Mineral Collection", being an abridged list of specimens from Welsh sources contained in the collection of John Woodward, now housed in the Sedgwick Museum, Cambridge. A list of items still to be seen at surface and a glossary of mining terms occupy the last two pages. Each volume is a handy size for accompanyment on 'mining trips' and, perhaps the most important feature of any such work is the addition of individual O.S. Grid References pertaining to every location described. Yhe only unfortunate aspect of the whole series is the rather steriotyped front cover which, although of differing colour for each volume, could be misleading to the casual purchaser. However, despite this trifling observation, the fifth and final part will be eagerly awaited (to appear in 1978) and when complete, the whole will serve as one of the finest currently available guides to the area both for the mining historian and the industrial archaeologist.

R.H.Bird.

Meets Leaders

The Secretary has still got weekends available to accommodate anyone willing to lead a Meet in 1978. Anyone volunteering to lead a Meet please let Lynda know places and dates when you would be available. Her address is Mrs.L.Finch, 10 Exeter Crescent, Killinghall, Harrogate.

For Sale

We still have available car stickers and metal lapel badges. These can be obtained from Lynda Finch (address as above)

Prices:-

Car stickers - 40p collected, 50p posted
Badges - 35p collected, 45p posted.

About a dozen members assembled at Hulme End on the Saturday and, the weather being fine but overcast, the party initially proceeded to view the surface remains and features on Ecton Hill.

The Apes Tor Adit and Shaft were inspected, the latter having been capped some time previously. Apes Tor was the original Deep Ecton sough but was later used as an aqueduct level into the mine to feed a 'flop-jack' engine and latterly a 30' x 6' waterwheel. The party continued to the layby outside the Hurt's (Slag) Level (visited by various members for an unspecified purpose!) which was a short trial driven with the intention of intersecting the Hamnook Vein. After viewing the portal of the Clayton and Deep Ecton adits - the latter having now collapsed entirely - a walk up to and around the northern side of the hill via the Fishpond leat (used to convey water to the dressing floors and a waterwheel at the slag mill) brought us to East Ecton Mine which comprised a shallow and deep adit and a large pumping shaft. Little of interest remains here however. Passing the Fishpond, the layout of Chadwick Mine was explained and the sough was looked for but was found to have completely run in. Continuing the walk, chiefly amongst evil looking cattle, brought the party to Waterbank Mine where the engine shaft, dumps and climbing shaft were inspected. Here we were joined by an errant member who had taken a different route to have an urgent 'sit-down' on the hill top! Waterbank Sough was entered but found to be blocked at the first airshaft. An R.S.P.C.A. medal is expected by the leader who (doggedly?) rescued "Freckles" Guthrie from a deep tank outside the level portal.

Subsequently, the way led back over the hill top - skirting the errant member's route of course - to the Clayton Chimney Shaft, Stonequarry Mine and other scattered workings. The Boulton and Watt 1783 engine house and shaft were visited, as were the ruins outside the bricked up portal of the Dutchman Mine further down the hillside. Return was made to the cars alongside the old dressing floors.

After lunch a brief visit to the Dale Head Mine (and its 'wellie-depth'(?) water) preceded a tour of the underground workings of Clayton Mine with its interesting steam engine chamber. A scaking climb up old stopes brought the intrepid explorers into the Chadwick section.

Sunday dawned fine and the party (swelled by another member) braved the Salt's Level into the Deep Ecton Mine. This level runs into the main engine shaft but a climbing way leads off down beside the Deep Ecton pipe workings. This climbing way has fixed ladders in it which have been refurbished by the mineral owner Mr G.Cox through whose kindness we were permitted underground. The underground engine room was found most interesting and it was here that the "flop-jack" engine and waterwheel were located with their separate pumping shaft. Remains of the 1823 gritstone dam at the inner end of the Apes Tor level could be seen although this was almost completely destroyed by some gelegnite orientated vandals in the '60s who blew it out in the hopes of entering the level. Deep mud prevents this however. On return to daylight, the party bid farewell to Mr.Cox - but not before R.G.G. had ensnared him into membership - and a somewhat reduced party gained their cars and proceeded around the back of Ecton to the Bag Mine/Goodhope Mine/Dutchman Mine complex.

The 30' shaft was laddered and after a slide down a steeply inclined section, the Bag Mine workings were explored. Two winzes filled with deep green megatiated these being a feature of the Ecton workings and a further shaft from the into the Goodhope Mine from whence a steep incline gives good views of the large stopes in the mine. After a peep up to the day in codhope engine shaft, the intropid explorers had a quick look at the fleoded leading towards the Dutchman Mine and retraced their steps to surface. In the surrounding towards as well as the numerous smaller workings to the N.W. collectively known as "Bonsall's Trails". Samuel Bonsall was captain of the Ecton mines for 33 years — he died in 1870 — and was the instigator of many of these trial shafts sunk in search of new deposits.

Thereafter, some members were espied stripped of shirts (but mercifully not trousers) scaking up the sun on vehicle roofs. The meeting broke up about

5.00pm.

As a postscript, it should be mentioned that but for the co-operation and kindness of Mr Cox and his good lady in supplying keys (and a ladder) for the steel doors of Clayton and Deep Ecton Mines, the weekend would have passed without exploring the most extensive and historic copper mines of this interesting hill, noted as being the first metal mines in Britain to employ gunpowder for blasting.

Overheard at Nenthead

"...and did you see that broken stick of gellie in that vug where I was chisleing those samples from"!

A true incident though fortunately not any of our members. The vug in

question being in Brownley Hill, so be warned.

Whilst on the subject of "bang" it has been reported that some "nasty stuff" has recently been dumped in Smallcleugh, although the exact location is not known.

If any member knows of, or finds, any dangerous materials and lets me know, its whereabouts can be published in the newsletters.

Again on the Perils of Carbide Lamps the following cutting from the Telegraph and Argus has been received:-

"....was investigating a petrol leak with a carbide potholing lamp when the naked flame ignited the petrol and the whole front end of the car was quickly ablaze. Bingley firemen were soon on the scene and dealt with the fire in about 30 minutes. Damage to the vehicle is estimated at £500. No-one was hurt."

Help Wanted.

We have had a request for a copy of the 'Teign Valley Lead Mines'. If anyone has a copy they don't want please contact:A.E.Mc.R.Pearce, 5 Colmer Read, Yeovil, Somerset who will be grateful to buy it off you.

If anybody has two copies, I'll buy one as well !!! H.H.

Four members arrived at the arranged camping place on the Friday night. A group of members had an unofficial camp near Catterick, one of these being the meet leader, who was destined to arrive 5 hours late on the saturday. The said day dawned with strong winds and fair skies. Come 10.30am and approx. 15 members waited for the meet leader and prepared themselves for the 1 mile walk to the mines. By llam an unofficial leader was appointed and the party made a start.

The walk to the mines went past the extensive ruins of the Old Gang Smelt Mills. It was decided that Hard Level would be worth a visit if passable. This level extends just over a mile and connects with most of the main veins in the system. 14 masochistic members assembled at the portal and proceeded in. The first 100 yards went without undue trouble, but after a short crawl under fallen timbers the first obstacle was encountered: namely icy water over three foot deep, which after abandoning various articles of value, eg. money, unprotected cameras etc., was passed through with only a few gasps and whimperings. The party then proceeded full speed ahead down the level, which was in good condition generally. After about \frac{1}{2} a mile the level crosses the Old Rake vein, there being a branch east and west, the main level carrying on northwards. The northern extension was found to be blocked after a distance by a large run in. The westward branch was then followed, beneath various examples of stone arching, to the next obstacle. This being the coming together on roof and floor except for a gap of about 18" containing 6" of water and timber. At this stage the members who were not bred part fish had second thoughts, whilst six decided to press on to try and reach the bottom of Brandy Bottle Incline, a distance of another & mile.

The remaining members retreated to the junction and then some continued down the easterly tunnel which was also found to be blocked by a fallen stope. After waiting awhile to see if the others returned, the icy water was negotiated in reverse and $\frac{1}{2}$ an hour was spent warming and drying in the sun. It was then decided to proceed to Brandy Bottle and meet the others coming up, but the two parties met on the road half way there. Those that had not been to the Incline then carried on and descended it, where at the bottom they saw the scene portrayed in Arthur Raistrick's book on the mines of the area, of part submerged ore trucks, although the water was just a bit murky after the passage of the previous party.

On arriving back at the campsite we were honoured by the appearance of the meet leader who stayed long enough to cadge a mug of tea and biscuits and then promptly departed for whence he came. By this time another $\frac{1}{2}$ dozen members had joined the meet.

On the Sunday the attendant hordes again made their way up towards the Old Gang area, some doing a repeat on Saturday's journey; the rest splitting up into small parties proceeded to disappear in to any and every hole available, though to not finding anything of significance, or else going home 'poorly' whilst others visited most of the tips and surface remains in the area. Everyone appeared to have had a good day/weekend, even the two members who didn't arrive until after 4pm when the majority had left and the rain had started.

Over the two days at least 31 individual members joined this very well attended meet.

On Saturday 13 members walked to Prys Level and the nearby dressing floor on a windy, warm, wettish day. The whole of the level, buildings and other remains were surveyed and recorded for publication at a later date. This achieved the object of the Meet.

On Sunday 2 other members were escorted in similar weather, but all the work

had been completed on the previous day.

Coniston Meet 13/14 th August

J.T.Crompton

The meet at Coniston was fortunate to have good weather. We all met in the village car park at 10.30am 15 members being present. The walk up Church Beck to copper mines valley was very pleasnat some lucky people risking life and car and

driving all the way.

We spent some time looking round the Coniston Copper works last in operation around the turn of the century. Our first stop was Paddy End works. After a short rest we plodded on up Levers Water Beck to Simons Nick. We had dinner by Levers Water after which we looked at all the shafts and laddered one but not enough ladder. From here we walked acress the top of Kennel Crag to the top workings of Red Dell works. This works had an incline roadway worked by water-wheel. The balance bob for this incline is in a cavern at the top of the incline. It appears it worked back to front through a series of pulleys. At the back of the cavern is a very deep shaft tested by rocks. There is a possibility that it was also used as a pumping shaft.

We spent some time looking at the old waterwheel pits, superbly constructed along with all the old water courses round the fells. Another interesting feature is the old winding wheel still intact at the head of the old engine shaft. The drop from here to water being 250ft. Our journey was now an easy one downhill to the deep level. Some of us went in to look at the old shaft 205 fathoms deep. Here a new level was driven in 1954 to explore the old workings. However it was found that all the stopes at Gobbler Hole had collapsed so the attempt was

abandoned.

This brought our first day to a close. However the evening had to be dealt with - the local hostelry was an excellent place, all pop being drawn from wooden containers by a pump. The usual effects being evident.

On Sunday we again met in the car park at 11.00am and all members cars made

the death defying journey up to the Youth Hostel.

We entered the level at Paddy End by the beck to wade through thigh deep water (ice cold) for about 100yds. Quite a few of the stopes have collapsed here however it is possible to walk a good distance into the mine. At our furthest distance we all came to a fantastic sight — the whole side of the shaft is covered by a malacite wash of a beautiful emerald green.

We all burst into activity at this point and laddered a shaft. The participant who went down must have had a very heavy breakfast - this became evident as the ladder ran out and we lowered him to the bottom of the shaft 170'deep. It turned out that it went nowhere so a disappointed body was hauled out again. As we rolled up the ladder, cold and wet and disappointed we agreed to have one more

attempt to ladder another shaft in another level. In this one we again ran out of ladder, so we came out into the warm muggy air. However we had a great weekend, many thanks to all who turned up.

Society Maypole. R.G.Guthrie.

On 24th August the scaling pole was used effectively in Middlehope Mine (Weardale) to inspect one rise of 30' to a level in very poor condition. After fixing a belayed electron ladder, the pole was re-errected up a 20' blind rise stepped 8' from the 30' rise. IT WAS A DIRTY WET JOB without any mineral for the leasees, one of whom, Tony Greaves, climbed the first rise to see for himself.

Possible indications of Mineralisation in the Denbighshire area of N.Wales. W.G.Jones

Report No 70/8 gives detail of the Regional Geochemical Reconnaisance made in the Denbighshire area by the Institute of Geological Science. This survey substantially records in a series of maps, the concentrations found in stream sediments, of the more important metals of lead, copper and zinc and the indications where recordable for nickel, chromium, molybdenum, cobalt, manganese, tin and titanium.

At that time it seemed of interest to pick out a number of the "high spots" of maximum concentration, thereafter working out the approximate Grid References applicable. Some little mathematical expertise was necessary in reconciling the map scales used and as for the rest that had to be done with a pair of "dividers"! Some of the results so crudely obtained are however worthy of comment.

The highest concentration recorded for IEAD "came out" at 294.372. This was in the area of Mynydd Bodrochwyn, covered in it's highest reaches by five farms, but near enough to the old mines in the neighbourhood of Llanfair to give some credence to the results recorded by the Survey. Manganese and also (and more understandably) zinc are also given high marks in this area.

Not quite so easily accepted however was the 280(7).377(5) which was worked out for the mixed concentration which included copper, zinc, nickel and chromium. This was very intriguing as the position indicated appeared to be somewhere between "Glan Conway Corner" and Llandudno Junction. As a sop to his enquiring mind the writer took the view that the readings had been derived from the river/stream Afon Ganol which has small tributaries which drained higher ground to the North.

Nickel was noted eight times and a similar number of markings were credited to Cobalt, one of which at 285.365 "worked out" above Llwynlydan (between Carreg-y-dwr and Ty Newydd).

There appeared to be a particularly high concentration of Molybdenum at 277.363, no doubt "followed up" by some eager prospector long ago. Chromium took the eye at 293.370. Manganese and zinc were each thrice commended and Copper (by itself) appeared to deserve special investigation in the area 360.318.

It seems hardly necessary to strees that these "readings" are liable to an

unknown "margin of error". At best they are the result of the only methods that appeared to present themselves at the time. They are however offered as a (somewhat crude) effort to "apply" the valuable and accurate information provided by the Institutes Report. Had not "anno domini" caught up with the writer, it is not impossible that a far more detailed appraisal would have been attempted. Those "high spots" might have been more exactly calculated and plotted and a ground survey conducted at the appropriate points. Had the "source" been revealed - at least posterity might have been grateful!

Note

Articles and items are always needed for the Newsletter.

Apologies for any not yet included. These will be used at a later date.

All correspondence etc relating to the Newsletter to be sent to:
H. Houghton, 29 Parkside Road, Meanwood, Leeds LS6 4LY. Tel 758505.

13.

Booking Form for PRESIDENTS TALK-IN & PIE & PEA SUPPER 12th November, 1977 at 2.30pm at Scout Hut, Skipton.
NAME
Number in party
Do you wish to give a talk/slide show Yes/no (delete as applicable) (If 'Yes' please give a brief resume on the back of this form).
Cash/Cheque/PO Number for £ enclosed. (All chaques and PO to be made payable to N.M.R.S.)
This form to be completed and returned with full remitance before 29th October, 1977 to J.H.McNeil, Ythan Bank', 12 Woodville Road,

Brierfield, Welson, Lancs. BB9 5RW.