### Northern Mine Research Society

# Newsletter



Society established 1960

www.nmrs.org.uk

May 2016

www.nmrs.org.uk

#### **Presidents Jottings**

Our AGM, held last month, was another successful event. It is an ideal opportunity for our members to get together for a catch-up after the winter and it was pleasing to see some new faces. Norman Dray had kindly opened up Mealbank Hall for us and Bernard Bond placed the direction signs in place. As usual book sales were brisk and signed copies of David Joyce's book "Men of Lead, Miners of the Yorkshire Dales" were available. If you would like a copy please contact me. We also had some recently donated books which are library duplicates for sale. After the usual excellent buffet we had the formal part of the meeting, the reports of which will be available on our website in the members area. There were no further nominations for Committee positions so our Committee stays the same as for 2015. However Malcolm Street our Membership Secretary and Webmaster has said he will not stand for Membership Secretary at next year's AGM due to increasing commitments. Malcolm does a splendid job and will be missed in that role but we are pleased he will be able to continue as Webmaster. Obviously we need a replacement Membership Secretary as we rely a great deal on the income we receive from that strand of our Society. Please contact Malcolm or myself if you are interested in taking over and want to find out what is involved.

#### **Editor**

Rob Needham
Pike House, George Lane, Littledean, Glos.
GL14 3LL
tel: - 01594 823487

email:- rob.needham2@hotmail.co.uk

Would you please note that the deadline for inclusion with the August 2016 Newsletter is the 31st July 2016.

Submissions are welcome that would be of interest to members of the NMRS. These can be forwarded to me as text/disc by post or you can email or telephone. If you require anything returning please ask. Photographs, plans and drawings are acceptable as long as they can be reproduced in black and white.

Hopefully someone will come forward after reading this. After the meeting Bernard Bond led an interesting meet – details of this can be found elsewhere in this issue. I would also like to thank the unknown members who washed up and cleared away the table and chairs while I was busy talking!

I would like to welcome the following **new** members

Mr & Mrs Kenneth Richardson -Brierfield
Ms Nikita Sessler - Milwaukee
John Sykes - Littlehampton
Tim Troman -Hexham
Barrie Watson - Sheffield

We were sorry to hear of the death of Norman Thomson, more can be found elsewhere.

There are several **interesting meets** planned before our next Newsletter in August which Sallie has mentioned elsewhere. Please book with the meet leader and we look forward to reading reports in future Newsletters. I know I have already pencilled in a few. Another thing to consider while out and about this summer is our Autumn Meeting on Saturday 22nd October at Gisburn Festival Hall where we have **Member's Presentations.** These should be no

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longer than 15 minutes. Please let me know if you might be able to offer one

#### **Publication News**

The day after our AGM we had a stand for NMRS

at a Book Fair at Pendle Heritage Centre at Barrowford, Lancashire. It was an opportunity showto case our publication "The Coal Mines of East Lancashire" and use the advertising board Ron



Callender had kindly made for us. The Heritage Centre there have a specialist book shop, mainly of local interest and they stock our titles they feel they can sell. The Book Fair enabled us to display a wider variety of our publications. It was good to see a few of our members who visited.

Tennant's the well known auction house have expanded in the past few years and are now attracting other events to their premises, making it a destination in its own right. On the 13th & 14th of August they are hosting the **Leyburn Mineral & Fossil** 

#### **Recorders Report**

February saw the retirement of Robert White, the Archaeological Conservator for the Yorkshire Dales National Park Authority. Rob has done the job since 1985 and has worked closely with historians and archaeologists working in the Dales. For around 20 years now he has held regular meetings of representatives from University's, Public bodies and special interest groups which have given an opportunity to learn what other specialists are doing, and about current Park or English Heritage initiatives. Before 1985 the National Park's interest in its mining heritage was much less, or even negative, but since then Rob has had a good number of mining sites and areas surveyed and consolidated. Rob's assistant, Miles Johnson, is still in post and will continue the good work. We wish Robert well in his retirement.

April saw the launch of a thick new book called The Archaeology of Mining and Quarrying in England: A Research Framework. It is published by NAM-HO in association with Historic England, and is the

Fair in their Garden Rooms and we have organised a stand for our Society and our publications. The auction centre is on Harmby Rd., Leyburn, DL8 5SG and the event is open from 10am to 5pm (4pm Sunday) With free entry and plenty of free parking if you are in the area a visit would be worthwhile. There is always plenty to see as a variety of showcases display interesting items from future sales. I can also recommend the food in the café! Hopefully we will see some of you there.



Our next publication in our British Mining Series will be mailed out with the August newsletter

#### **Barbara Sutcliffe**

result of sustained hard work and cooperation by mining historians over five years (see also under **New Publications**). It gives the first comprehensive assessment of the current state of knowledge on England's extractive industries. The book is intended to give information to archaeologists that will assist in forming conservation and outreach strategies, and help to raise general awareness of the significance of the extractive industries as part of England's cultural resource.

Copies are being sent to all Historic Environment Records in England and Wales, as well as key archaeological bodies in England, Wales and Scotland. Copies have also been distributed to the minerals industry and each member of NAMHO. A limited number of copies remain available at £18 incl. postage, but a free PDF version of the publication is also available for download at http://namho.org/research.php

#### Mike Gill

#### **Library News**

I have been given many NMRS Newsletters by Peter Wilkinson, Peter Jackson and CAT. Mike Moore has donated a bound copy of monthly returns of men employed in Gwydyr mines and quarries in the C19 and early C20; these were collated by J S Bennett and M J T Lewis. Rob Needham has donated J A Buckley's "The Cornish Mining Industry" and "The Ball Clays of Devon and Dorset" by The Ball Clay Heritage Society – this seems to be the Library's only book on ball clay. NAMHO has given us our free copy of the research framework "The Archaeology of Mining and Quarrying in England: this 360 page report can be downloaded free from the NAMHO website. I bought a copy of Ian Forbes' "Images of Industry" for the library. Ian comments on a collection of early nineteenth century lead mining drawings and paintings. Thank you to all who generously donate to the library. If I have omitted to mention your donation, I apologise: please let me know and I will put things right.

#### Sallie Bassham (Honorary Librarian

#### **Meetings Reports**

#### Lord Carlisle's Railways, 2 April

Those attending the first meet of the year were a mixture of those knowledgeable about the coal mining in the Talkin area, and those who are very, very, very knowledgeable of the area. Although the meet was entitled "Lord Carlisle's Railways", the hero of the area's mines was James Thompson. He had worked for Lord Carlisle and then, in 1838, he took over the leases for coal and limestone in the area. He was a visionary and a polymath. He could see when it was worth investing in infra-structure and how different industries could work together. He mined. He built locomotives. He developed brickworks. He made - and sold - drain pipes, cast iron fireplaces and ornamental ironwork. He bought "Rocket" Stephenson's from Liverpool/Manchester railway, repaired her, adjusted her pistons and generally fettled her up for a useful life at Gairs Colliery. However, she not only carried coal and coal miners; she also carried ballot papers the four-and-a-half miles from Midgeholme to Hallbankgate in four minutes. James Thompson was not only an excellent engineer; he also had a mind for effective publicity stunts.

Our April walk started at Clesketts and we walked along the old railway line past quarry and limekilns to Forest Head, and then along gentle green roads to Gairs House and up to Gairs Colliery. After lengthy debates about the structures, we returned down the later railway used for Gairs coal. If there was no engine available at the end of a working shift, the miners would pile into a wagon and free-wheel home at up to 60 miles an hour –at least the ballot paper delivery was controlled by an engine!

The weather was 'gentle' for our walk - the rain stopped at about four o'clock, and started again about quarter past four; but the gradients were all gentle and the railway routes made for easy walking. This is the best time of year to see the area – before the vegetation grows too much. I was shown more pits and inclines than I could count.

The day exemplified NMRS meets at their best. There was lots of information from those who have explored the paper records, the mines and the mining landscapes for years, were willing to share their knowledge and able to tell the history in interesting ways: but there were also plenty of opportunities for discussion about what landscape and building features were, and how they were used.

Especial thanks to Clive Seal and to Ian Tyler for a fascinating day. Although I have visited the area several times, there are now many features that I saw and want to visit again and many things pointed out in the distance which are now on my "to-do" list. For me, this is another feature of the best meets – I want to go there again and see more.

#### Sallie Bassham

#### **Ingleton Quarry**



Photo:- Work until 2020 on east (left hand) wall of quarry

Hanson's Quarry, Hawes Road, Ingleton, was begun in 1955. Full planning permission for the continuation to the year 2020 of the extraction of the much needed product has been given by the Yorkshire Dales National Park Authority. With an even greater demand for road and railway repairs and new construction, expansion of the present quarry began in January 2016 starting on the east wall.



Photo:-View of tertiary crushing station, lorry load-out point and final screen house.

A much appreciated visit to the site took place after the AGM on 16<sup>th</sup> April. We were lead by a member of the staff to view the quarry, 130m deep workings, primary/tertiary crushing stations, and to the quarry's lorry load-out points. The visit improved



Photo ;- NMRS party with guide our understanding of the operation of the quarry, and many thanks were extended to staff and management.

#### **Bernard Bond**

### Queen Street Mill, Textile Museum, Harle Syke, Burnley, BB10 2HX



In March several of our members visited Queen Street Mill at various times, partly because it was due to close at the end of the month – a victim of LCC cuts. It has now had a stay of execution as have the other Lancashire Museums – but only for six months. It is the last surviving 19<sup>th</sup> century

steam powered weaving mill where amongst the many exhibits you can see the magnificent steam engine "Peace" the 500hp horizontal tandem compound engine built by William Roberts & Co, Nelson in 1894.



You can also see over 300 looms in the weaving shed, the weavers turning cotton into cloth, experience the sounds, sights and smells of a working mill and feel the heat of the Lancashire boilers. You might wonder why I have

written about this in our Newsletter but just imagine the amount of COAL needed to operate the mill in its time! The opening times of the museum can be found on the LCC website and there is an email <a href="mailto:queenstreetmill@lancashre.gov.uk">queenstreetmill@lancashre.gov.uk</a>. There is an online petition to save Queen Street Mill. It can be found at <a href="https://www.change.org/p/councillor-jennifer-mein-s">https://www.change.org/p/councillor-jennifer-mein-s</a> If you are interested please consider signing it. If in the area it is certainly worth a visit.

#### **Barbara Sutcliffe**

#### Meets for 2016

Thank you to everyone who has offered meets.

#### Saturday 21 May

Forterra Brick Works (formerly called Claughton Brick Works).

Leader Bernard Bond.

The brick works are at Claughton on the A683, midway between Kirby Lonsdale and Lancaster. Meet at 10.30am by the Factory Entrance. NGR SD 563 664. Maximum 15 people. Bookings to Bernard Bond on 015242 41857 (Answer Phone).

#### Saturday 11 June

Cliviger lead and lime.

Leader Graham Topping.

A surface walk looking at the lead mines on Cliviger Gorge, travelling via the old pack horse route and looking at the limestone hushings in Sheddon Clough off Long Causeway. Both of these features were researched by Titus Thornber\* in the mid 1970s.

Meet at 9.30am at the Ram Inn. Burnley Rd. Cliviger. Please bring lunch and good footwear.

Bookings to Graham Topping on 07973 905883 or email Glt2top@aol.com.

\*Titus Thornber wrote the book "King Charles' Mine" about Thieveley lead mine.

#### 17 to 20 June

NAMHO Conference, Dublin. Details on www.namhoconference.org.uk

#### Saturday 9 July

Gunnerside Gill, Swaledale.

Leader Richard Francis.

A surface walk up the gill to Blakethwaite, returning via Winterings.

Meet at 10.30am at NGR SD 95 98, outside the Kings Head Inn in Gunnerside village (limited parking just across the Little Bridge to the west, with alternative parking before Gunnerside Great Bridge across the Swale (5 spaces) or beyond the cattle grid, west of the village on the old road to Ivelet (5 spaces). Walkers will need to be properly equipped with boots and waterproofs, and bring something to eat and drink. Bookings to Richard Francis on 01748 850181 (answer phone) or <a href="mailto:rwfrancis1@yahoo.co.uk">rwfrancis1@yahoo.co.uk</a>.

#### **Saturday 6 August**

Rimington lead and barytes mines.

Leader Mick Cook.

Meet at 11am at NGR SD 813 454. There is roadside parking. A surface walk of about 3 hours to look at the lead and barytes mining remains at Skeleron.

Bookings to Mick Cook on 01282 427 428.

#### Saturday 10 September

Heritage Weekend. See media announcements for details of mining and other industrial archaeological sites to visit.

#### Saturday 17 September

Bales sites in Arkengarthdale.

Leader Richard Smith.

Meet at 11am at Foregill Gate Watersplash. A surface walk to look at Calver Hill bale sites. Bookings to Richard Smith on 07785 508 013 or

rsmith6@btinternet.com.)

#### Saturday 22 October

Autumn Meeting at Gisburn Festival Hall SD 82 48. Book sales from 11.30am. Buffet lunch (pre-booking essential) at 12 noon, followed by meeting and presentations.

Bookings and presentation details to Barbara Sutcliffe (01282 614 615 or

mansemins@btopenworld.com)

#### Norman Thomson

I first met Norman a long time ago, when as I teenager, I went up Roughton Gill in the Caldbeck Fells. Collecting was allowed in those days and Norman was busy with the late Bill Davidson or Penrith, digging in the dumps. A friendship was struck with both of them and many happy times were spent in their enthusiastic company. Later Norman used to visit the Harrogate Gem and Mineral Fair and he was a member of NMRS for many years. A couple of years ago, due to failing eyesight, he resigned only to rejoin shortly after as his daughter had said she would read parts of our newsletter to him.

Born in 1924 in Carlisle he developed an interest in geology at an early age, joining the Geologists Association in 1942 -the latter information was recently relayed to his daughter Anne. For many years he taught chemistry and geology at Carlisle College and became a member of the Royal Society of Chemistry. Much of his spare time was spent out on the Fells and in other localities and he was able to amass a large collection of mineral specimens, some material coming from obscure localities. With advancing years he put a great deal of thought into what would happen to his collection on his demise. Consequently a large part was donated to the Oxford University Museum of Natural History about six years ago. A smaller amount focusing on the minerals of northern England was donated to the Hancock museum in Newcastle upon Tyne. The dispersal of the remainder through the British Micromount Society and the Russell Society resulted in good sum of money being raised for charity. Norman had also published a number of mineralogical papers some in conjunction with his very good friend, Bill Davidson. His family have donated many of his books to our Society of which we are very appreciative.

During the war he was called up for the Royal Signals and joined the Special Communications Unit at Bletchley Park. Later he was transferred to the monitoring unit at Windy Ridge, on Whadden Chase Estate, another part of the Bletchley Park complex. He monitored traffic to spy networks and embassies before moving to High Barnett to monitor Russian transmissions and Embassies.

He did manage to find time for his other passions of gardening, both fruit and vegetables and growing alpine plants, the latter being carried on by his daughter.

His death on March 17<sup>th</sup> 2016 leaves a gap within our mining fraternity, not to mention his two children and their families, other friends and colleagues.

#### **Barbara Sutcliffe**

#### **Forthcoming Events**

NMRS members might be interested in two guided walks 'Lead Mines of Beldi Hill' on Sunday 31st July and 'Swinner Gill in the Steps of Ella Pontefract' on Sunday 28th August, both starting from Keld

Countryside & Heritage Centre. There's also an open day event 'A History of Lead Mining in Keld & Upper Swaledale' on Saturday 10th September in the Centre.

The only problem is the remote village location in Upper Swaledale. Road parking is limited but there's ample space (with parking fee) in Park Lodge Farmyard at the bottom of the village. Keld has a pub 'Keld Lodge' and public conveniences.

www.keld.org.uk > VISIT KELD > EVENTS

#### Lead Mines of Beldi Hill Guided Walk

Sunday, July 31, 2016 11:00 - 15:30

A guided walk with lead mining enthusiast Helen Guy and experienced volunteer David Pemberton. The history and practices of lead mining will be explored. As well as nine sites on public access land, special permission from Gunnerside Estates has been granted to access the exceptionally well preserved Low Level mine. Please bring a packed lunch.

Booking recommended. Contact Glenda: 01748 886845 or glenda calvert@hotmail.co.uk

Degree of Difficulty: Moderate

Cost: £5

### **Swinner Gill in the Footsteps of Ella Ponte- fract**

Sunday, August 28, 2016 11:00 - 15:30

Guided walk with experienced volunteer, David Pemberton. Walk in the footsteps of Ella Pontefract and Marie Hartley with extracts from their book Swaledale; to Crackpot Hall, home in the 1930s of Alice the wild child of the moors; Swinner Gill, see the lead mining ruins and paths trod by the lead miners in the 1800s and Hartlakes once the homes & small holdings of the miners, long since abandoned. Weather permitting, an option to visit Swinner Gill Kirk - waterfall & cave and site of non-conformist worship. Return via private bridge across the Swale (with thanks to the Gunnerside Estate).

Degree of difficulty: Moderate

Booking recommended. Contact Glenda: 01748

886845 or glenda calvert@hotmail.co.uk

Cost: £5

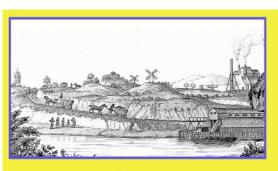
### A History of Lead Mining in Keld & Upper Swaledale

Saturday, September 10, 2016 14:00 - 16:00 A Heritage Open Day Event. The history of lead mining in the Keld area by Helen Guy. Hear about the feuds between the mining companies including the famous Beldi Hill trial and the typical living conditions of the miners and their families. Photographic displays & informative handouts to highlight the rich legacy the industry has left on the local landscape. Free entry, but a donation to the Keld Resource Centre and Keld Chapel would be appreciated.

#### **New Publications**

ing and Mechanical Engineers.

The World of William Brown: Steam Engines - Coal Mines - Railways, by Les Turnbull Published by the North of England Institute of Min-



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Foreword

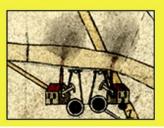
Chapter One: The Golden Triangle - Brown's Homeland Chapter Two: The Willliam Browns of Throckley Chapter Three: The Coal Trade from the River Tyne Chapter Four: The Work of the Colliery Viewer

Chapter Five: Throckley Colliery Chapter Six: William Brown's Railways Chapter Seven: William Brown's Steam Engines

Appendix I: The Steam Engines in the Northern Coalfield

Appendix II: William Brown.'s Family

The book will be 116 pages A4 in full colour with covers



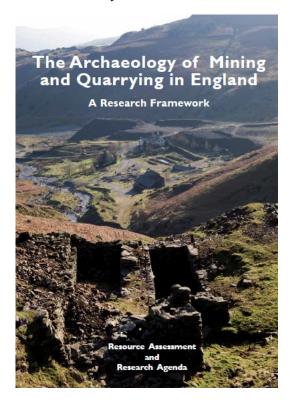
An invitation was received from Les Turnbull to the planned launch on May 5<sup>th</sup>. Too late for the launch, it is included as a new publication. The author says 'I have established that WB was born in 1717 and, in conjunction with others, I am generating steam to make something of the matter and resurrect a man who has largely been airbrushed from history'.

## The Archaeology of Mining and Quarrying in England: A Research Framework

Published by the National Association of Mining History Organisations (NAMHO), with support from Historic England.

Mining and quarrying in Britain dates back over 6000 years into the Mesolithic period, when selected materials, stone, flints, clay and pigments, were dug out of the ground for use as tools, as cultural symbols and, from at least the early Neolithic period onwards in England, for the production of ceramics. The impact of the products from mining and quarrying have defined phases in human development from the Neolithic and Bronze Ages to the Industrial Revolution of the late 18th and early 19th century, and the urban lifestyle of today.

The economic and cultural importance of the extractive industries in England was immense, with the early coal and metal mining industries making significant contributions to the process of industrialisation, which culminated in the rapid changes of the late 18th century.



At its peak, in the first years of the 20th century, the coal industry alone employed up to ten percent of the working population.

Physical evidence for mining and quarrying is to be found in every part of the country from the low-lands of the Southeast to the uplands of the North and West, in city centres and amongst their suburban sprawl, as well as on remote hillsides and cliff tops. Mining and quarrying continue to be active industries, sometimes destroying the evidence of earlier working and at other times exposing it for closer investigation. There is an ongoing need to recognise the value of the evidence and be aware of its potential.

This publication presents the results of an in-depth assessment of available historical and archaeologi-

cal resources for all minerals, from copper through to building stone, drawing primarily on expertise within the voluntary sector. It provides background information on the geology, applied technology and the historic impact on infrastructure such as transport and settlement.

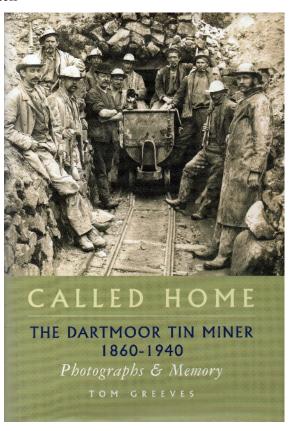
The potential for further study is identified and presented as a Research Agenda, to be used to develop priorities for future investigation. It also provides information that will assist in forming conservation and research strategies; highlighting the significance of the extractive industries as a cultural resource.

The publication may be accessed in PDF as a free download at <a href="http://namho.org/research.php">http://namho.org/research.php</a>

A limited number of hard copies are avalable for personal use at £18, incl. postage - please contact Dr Peter Claughton <a href="P.F.Claughton@exeter.ac.uk">P.F.Claughton@exeter.ac.uk</a> for details.

### Called Home – The Dartmoor Tin Miner 1860-1940, by Tom Greeves

Published by Twelveheads Press, May 2016. ISBN 978 0906294 871, 160pp, £16.00, hardback



This book is the product of two core elements – first, photographs taken between 1860 and 1940 of the last days of Dartmoor's high moorland tin industry and, secondly, recollection of those days from the people of Dartmoor themselves. Both components have been gathered by Tom Greeves since about 1970, involving countless conversations, correspondence and journeys, even to America.

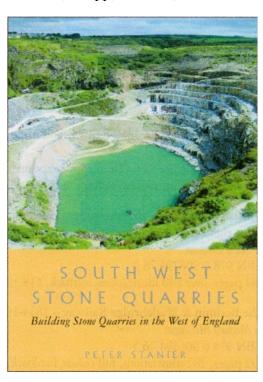
Three important mines are the focus of this book – Hexworthy, Vitifer and golden Dagger. Unique images of people and machinery bring to life the sites that have now been reclaimed by the moor, and the voices of those once involved in Dartmoor's pre-eminent industry are heard once again. The Author, Tom Greeves MA, PhD, is a cultural environmentalist who is a leading authority on the archaeology and history of Dartmoor. Since 1998 he has been chairman of the Dartmoor Society and he has been President of the Devonshire Association 2015-2016. His varied career has included being Sites & Monuments Officer for Devon and archaeologist for Dartmoor National Park.

The above is largely the contents of a flyer received from the publisher. This book is a much-expanded edition of the author's 'Tin Mines and Miners of Dartmoor', published by Devon Books in 1986. The editor looks forward to receiving a review.

#### **Recent Publication**

#### **South West Stone Quarries**

by Peter Stanier Published by Twelveheads Press, ISBN 978 0 906294 83 3, 216pp, softback, £18.00



The South West of England has provided quality building stone for many of Britain's finest buildings over many centuries, and continues to do so. Locally the stone contributes to the distinctive character of many of the region's prettiest villages. Where is the stone found and how is it quarried? Famous names are here, such as Bath, Delabole, Ham Hill, Portland and Purbeck, and top quality

stone, obtained in large blocks for buildings, mon-

uments or engineering work, is quarried as 'dimension stone' or 'freestone' from limestones, sandstones, granite and slate. This traditional industry has seen dramatic changes in methods of extraction, processing, transport and uses over the past 120 years. We follow in the footsteps of the Victorian geologist George Harris, visiting the same quarries he saw and described (with diversions on the way) comparing how they work today in a highly mechani8sed world. Whether looking at vernacular architecture or the capital's grandest buildings, these stone quarries, large and small, make a major contribution to the character of the landscape and environment around us.

#### Ron Callender's Cononish Diary resumed "A significant milestone," said the chief executive

After a long, drawn out battle to gain planning permission to mine for gold in Loch Lomond National Park, Scotgold Resources announces good news. At the end of April, the park authorities approved a plan to install a small pilot plant at the mine, along with a container and ancillary equipment to store the residues. With the "change-of-use-planning-consent", the mine owners have permission to process half of their stockpile of seven thousand tonnes of ore.

The hope is to recover 7.9 grammes of gold per tonne and if all the financial calculations are correct, the outcome should help the stability of the company. Eventually full-scale commercial mining will concentrate of producing gold with a "significant premium" and which can be made into jewellery for marketing with a strong cachet; that is, mined in the Scottish Highlands!

With dwindling funds, Scotgold Resources has already invested £140,000 in a small scale pilot plant, which being skid-mounted, is not a permanent fixture. The results from the trial will be important and should substantiate the claims that the Cononish mine can produce Scottish gold.

For this reason, the company intends to release further news of the so-called bulk processing trial (BPT) in the coming weeks. Simultaneously, the national park authority will be monitoring the hours of work, the duration of the trial and the impact it has on the environment. If all goes well, the creation of more than fifty jobs will be welcome news for the local village of Tyndrum.

### New app helps lead mining come to life in Yorkshire Dales

HISTORY buffs wanting to learn more about lead mining in the Yorkshire Dales National Park can now use technology to help them as they go out and about.

A new, free phone app has been launched by the Yorkshire Dales National Park Authority (YDNPA) that includes walking routes around sites of old mines and masses of information and photos about the industry and the impact it had on the landscape and communities within the National Park.

Karen Griffiths, the authority's interpretation officer, said: "For decades, lead mining played a massive part in the shaping of the landscape and the communities in the National Park.

"This free app, which has been mainly funded by Historic England, is an absolute must for anyone who wants to learn about the industry while they are actually walking around the sites. It's like having your own personal tour guide.

"Among other things, the app contains archive images, descriptions of the sites and OS location maps of key sites ranging from Grassington miners' cottages to the Old Gang peat store in Swaledale. There are also audio trails, walking routes, activities for children and useful visitor information such as places to eat, accommodation links, public toilets and car parks.

"Looking after these extensive industrial remains is not easy and we are grateful to Historic England for helping to fund so much of the conservation work carried out over the past 20 years. Recently this work has been managed through the Yorkshire Dales Industrial Monument Management Scheme, which began in 2012 and is due for completion in 2016."

Yvonne Luke, Heritage At Risk officer at Historic England, said: "The app is fun and easy to use with photos that help bring the sites to life so we think it will appeal to a wider audience than traditional history books. This is also our way of saying a big thank you to all the volunteers who have worked so hard conserving these fabulous landmarks in the Dales. We hope people enjoy the App and feel inspired to look after these special places for future generations too."

The lead mining app can be used on iOS and Android platforms and is available at <a href="mailto:itunes.apple.com/gb/app/yorkshire-dales-lead-mining/id1059448209?mt=8">itunes.apple.com/gb/app/yorkshire-dales-lead-mining/id1059448209?mt=8</a>

#### Craven Herald & Pioneer, 6 April 2016

I have just discovered there is an "app" on Yorkshire Dales National Park Lead mining. Quote from it, "The archive images of old lead mines in the area come from the collection of Northern Mine Research Society. Special thanks must go to the NMRS Recorder Mike Gill for selecting these for us"

#### **Barbara Sutcliffe**





#### Researchers discover death toll higher than thought in England's biggest mining disaster

Researchers have found that more people were killed in England's biggest ever mining disaster 150 years ago than was previously thought.

A team of volunteers has been delving deeper than ever before into the history of the 1866 Oaks Colliery Disaster at Hoyle Mill, Barnsley.

The catastrophe - which marks its 150th anniversary this year – remains the worst mining disaster in English history and its officially reported death toll has always been 361. But volunteers have now discovered the names of 384 victims.

This research project has been organised through the Dearne Valley Landscape Partnership (DVLP) which is supported by the Heritage Lottery Fund – thanks to National Lottery players.

The DVLP has now published its findings online and would like anyone with further information about the lives of the listed men and boys to come forward.

Dearne Valley Landscape Partnership community officer Stephen Miller said: "We are really pleased with the outcome of this research project. The volunteers have done sterling work in identifying those killed.

"Sadly, we knew that poor record keeping and the chaos in the aftermath of the disaster meant that the exact number of people killed at Oaks Colliery has never been properly revealed and it has long been known that the figure of 361 was only based on an estimate by the mine owners.

"Our aim from the outset was to try and find a more accurate figure and find out more about the individual stories of those that died."

DVLP put out a call for volunteers ten months ago and provided them with specialist training in studying historic records. They have now collectively spent more than 3,000 hours going through records online, at Barnsley Archives and other sources such as the Mining Institute in Newcastle.

Their rigorous research has produced a new list of 384 names, including 91 children, who died in the disaster – that's 23 more victims. Their research has also put names to unknown fatalities within the original estimated count.

Stephen said: "It seemed wrong that after 150 years the best list we had was produced by the Barnsley Chronicle in 1867, and that only named 337 of the 361 death toll.

"Our first aim was to identify and find out about the un-named victims. The overall number was never the most important thing for us, but it was very interesting to see our list of names go beyond the 361 figure that has been accepted for so long."

The new list produced by the volunteers has now been published at <a href="www.discoverdearne.org.uk">www.discoverdearne.org.uk</a>. It includes fascinating new details about the men and boys' lives, including how far they travelled from to work in the pit, coming from as far afield as Wales, London, Ireland and Northumberland.

Records of the day suggest 400 miners in total were working below ground on the day of the first explosion on December 12. A second explosion the day after killed 27 volunteer rescuers. Research into burial records has also suggested that 169 bodies were never recovered and remain in the old colliery workings beneath Hoyle Mill, Ardsley, Kendray, Monk Bretton and Stairfoot in Barnsley to this day.

Volunteer Noel Shaw said: "This research presented an unmissable opportunity to delve into the lives of those who perished and their families, whilst also working to produce a more accurate list of fatalities.

"I was surprised to see how many people travelled the length and breadth of the country to Barnsley for employment in the dangerous coal mines.

"I think I can speak for all the volunteers in saying that it has been a privilege and pleasure to contribute to this project."

Commemorations of the Oaks Colliery Disaster will culminate in an exhibition at the Experience Barnsley museum in December this year.

#### **DVLP Press release 25 April 2016**

#### **Nent Haggs Proposed Mine Water Treatment Scheme - Information sheet**

The Coal Authority, Environment Agency and North Pennines Area of Outstanding Natural Beauty Partnership are working together to clean up the pollution from abandoned mines. The Rivers Nent



Page 10

and South Tyne are being polluted by metals, so we have designed a scheme to improve the water quality from the Haggs Mine. The scheme will be made up of three ponds, containing a submerged compost mixture, and a small wetland. It will be located in Nentsberry to the west of Haggs Mine adit— see plan.

The scheme will clean up the pollution coming out of the Haggs mine, by removing the metals before they enter the Rivers Nent and South Tyne. The benefits of cleaning up these rivers has been estimated at £40 million over 40 years. Around £7 million of this is being allocated to the Nent Haggs proposed scheme based on its contribution to reducing metal pollution. The river life in the Nent is severely damaged by the high metal concentrations, and the Haggs scheme is the first step in cleaning up the river.

#### Why is the scheme needed?

The River Nent is the worst polluted river in the Northumbria region, and the 2nd worst in England, causing pollution as far downstream as the River South Tyne. To meet the Environmental Quality Standards the metals lead, zinc and cadmium need to be removed from the river.

A mine water treatment scheme is required to remove these metals from the Haggs Mine before it flows into the River Nent.

#### The proposed scheme

Some of the key design considerations that have influenced the layout of the proposed scheme are listed below:

#### Location

We have considered many sites in terms of their proximity to the mine entry and their size, suitability and topography, before selecting our preferred location.

#### Visual impact

In developing the layout of the proposed scheme, we have considered the visual impact. In particular, consideration has been given to the shape of the three ponds proposed on the site and the potential for landscaping.

#### Odour

As the scheme methodology to remove metals from the mine water is a natural process there is a risk that odours could occur. To address this we are incorporating a facility for odour reduction measures in the scheme. Our technical experts are carrying out work to assess the potential impact of odours and to design appropriate control measures. The planning application will be accompanied by technical reports that set out how we intend to control any odours from the treatment process.

#### **Flooding**

When designing the scheme we have considered the potential for flooding, not only from the river but also from the surrounding land and road. Alleviation measures have been incorporated into the design. A formal flood risk assessment is being prepared for submission with the planning application.

#### **Technology**

The proposed technology to be used as part of the emerging scheme is relatively new to the UK but has been proven internationally. A similar scheme at Force Crag, near Keswick is the first of its size in the UK and is currently outperforming expectations. A full planning application will be submitted to Cumbria County Council, accompanied by an Environmental Impact Assessment (EIA). The EIA will provide an assessment of impacts and opportunities resulting from the proposed development. Where appropriate it will also set out what measures need to be taken to address these.

#### **Further schemes**

Further schemes are being investigated and developed in other locations within the Nent catchment. More details will be made available as they are developed on our website <a href="https://www.gov.uk/coalauthority">www.gov.uk/coalauthority</a>

#### **Timeline**

These timescales are an indication of the dates we are working towards and are subject to change. Specific dates will be added when confirmed.

October 2015 – January 2016 Prepare indicative site layout

**28 January 2016 – 25 February 2016** Stakeholders and local residents opportunity to comment on indicative site layout (including the community event on 11 February at Nent Hall hotel)

**February 2016 – Summer 2016** Consider feedback received from stakeholders and local residents, including community presentation at the Alston Moor Parish Council Meeting 27 April 2016. Prepare planning application

**Summer 2016** Submit planning application to Cumbria County Council

Autumn 2016 Consultation period

Stakeholder and local residents opportunity to comment on the planning application

Winter 2016 Decision anticipated from Cumbria County Council on planning application

**Spring 2017** Subject to planning agreement, construction starts

#### **Key contacts**

Please contact one of our team members listed below should you have any questions prior to the information event -

Sam Rosillo, AECOM

T: 0161 237 6073 E: <u>sam.rosillo@aecom.com</u>

Cheryl Donohoe, the Coal Authority

T: 01623 637 205 E:

cheryldonohoe@coal.gov.uk

Sarah Tooze, North Pennines AONB Partnership

T: 01388 528801 E:

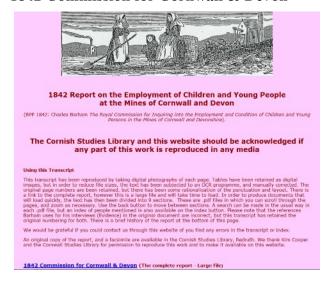
sarah@northpenninesaonb.org.uk

Heather Wollaston, The Environment Agency

T: 0191 203 4377 E:

heather.wollaston@environment-agency.gov.uk

#### 1842 Commission for Cornwall & Devon



Member **Lynne Mayers** reports completion of transcription of the 1842 Commission on Children at the Mines for Devon and Cornwall and it is available on the website <a href="www.balmaiden.co.uk">www.balmaiden.co.uk</a>, . (This has been done from scratch and is not copied Ian Winstanley's text version).

#### Jersey war tunnels

Very soon the Second World War will be something that happened in the last century. On a visit to Jersey in 2012 I was amazed by the amount of war relics still visible and that are now being preserved as part of the Channel Islands History. One such attraction is the German Underground Hospital.

#### History

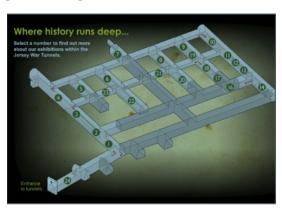
In October 1941 Berlin ordered that the Channel Islands be made into an "impregnable fortress". Work began immediately to create an underground fortress which would be large enough to accommodate an entire Army Division to protect them from air raids. One such excavation was the underground tunnels which latter became the Underground Hospital. Within it tunnels it was proposed that a bomb proof artillery barracks and ammunition store be incorporated but this phase was never completed. In the months leading up to D-day the tunnels were converted to a casualty receiving station for the German soldiers.



Photo:- The main entrance to the Underground Hospital

#### Construction

The tunnels and galleries stretch to over 1km (1100yds) in total. They were blasted out of the brittle shale with gun powder and hand tools. The larger tunnels are about 12ft wide and 12ft high and the smaller ones are about 10ft tall and 8ft wide. About 40,000 tons of shale was excavated in total and all of it was removed from the tunnels by tipping tubs mounted on rails, (see picture). The excavated tunnels were lined with 6,000 tons of concrete and formed into an arch shape by temporary wooden shuttering. The tunnels are a work of engineering genius. The whole complex was excavated on a slope so that, by an ingenious arrangement of pipes and culverts, it would drain naturally. This was essential as the storage of ammunition required a damp free environment be maintained.



This system still functions today keeping the tunnels dry despite their age.



The work force were in the main prisoners of war and were treated like slaves particularly the Russian ones.

#### **Health and Safety**

In total about 5000 forced labourers were used to construct the tunnels. They toiled for 12 hours a day in appalling conditions with the excavations being filled with choking dust and fumes from the use of cordite. They were undernourished and dressed in just rags so injuries were common place. Fatalities surprisingly were few in number with less than ten being recorded theses resulting from rock falls and gunpowder use. How accurate the records are will remain a secret to the annuals of history.



Use 1945 to date

Fortunately the anticipated invasion never took place and the Islands occupying forces surrendered peacefully on the 9th May 1945 the day after the rest of Europe. We will never know if the Hospital facility's could have coped with thousands of casualties. It may well have been dry and reasonably warm with 17deg being maintained but the absence of daylight may well have had an effect on morale.



Photo:- Doctors surgery

Since the 1960s the complex has been progressively and sensitively restored and is now the Jersey Occupation Museum. The operating theatres, doctors and nurses quarters, wards, offices, stores, and several unfinished tunnels bring to life and tell the story of this unique tunnelling Folly. This is the real thing, hewn from human misery.

This attraction is well worth a visit (2016)

#### **Graham Topping**

#### Letter to the editor

11-4-2016

I have just read the article on Coldberry Mine. My father worked there in the 2<sup>nd</sup> World War. He was the charge hand overseeing the prospect of finding any ore. He did find odd bits. He got the joiner to make a trapdoor off one level above another. He estimated about a ton collected.

Years after there was an old miner called Tom Allinson was in the mine to see if he could find anything. He badgered my father to tell where the ore was. Father said 'Stand me a pint and I'll tell you.' Tom never did. He was a tight man.

Hoping you enjoy this bit of news, excuse the spelling.

#### Maurice Tarn, Middleton-in-Teesdale

# The sealing of the Daw Mill Colliery shafts and drift Scope of the problem

How do you put out an underground fire in a deep coal mine? The Options are to remove one of the following, the heat source, the fuel source or the oxygen source. It's impossible in a coal mine to remove the fuel source, the heat is generated by the process of spontaneous combustion which is difficult to control, by far the easiest option is to remove the oxygen source. This can be done by by either sealing of the district underground or by the closure of the colliery and the sealing of the shafts. The latter was the option that was chosen at Daw Mill Colliery in March 2013.

Daw Mill Colliery worked the 5mt Warwickshire thick seam at a depth of 550mts at the two shafts with a drift being used to bring the coal out of the mine. The fire started by spontaneous combustion and was out of control and had caused severe damage to the mine underground. With the safe evacuation of all personnel from the mine the problem of removing all the redundant mining equipment from the mine. As well as sealing the shafts was compounded by the fact both would have to be accomplished from the surface only. This would first stop oxygen from reaching the fire as well as securing the site for future development.

The contract for the above works was granted to JMC (demolition) who engaged the services of ECS (Engineering Services) working on behalf of the Coal Authority. Under normal conditions the mine shafts would be decommissioned by first removing all the underground equipment in a controlled manner up the shafts. And then all the service equipment would be removed from the shafts starting at the bottom. The cleared shafts would then be filled with a combination of concrete, limestone and clay.

However in this case a different approach was required as it was not safe for personnel to reenter the mine to accomplish the decommissioning works in the conventional way.

#### Design criteria

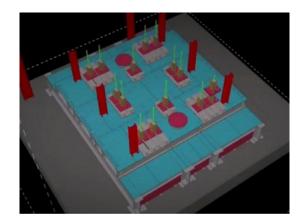
The twofold criteria set for the project was to first extinguish the fire and second isolating the mine waters from the local aquifers all to be achieved by working from the surface only. Off the two vertical shafts No1 was sunk first and used wire ropes with weights at the bottom to stabilise the mines access cages. No2 shaft used fixed rails instead of ropes which made for greater comfort and speed. The wire ropes in No1 shaft were connected directly to the underside of the headgear structure and the total weight of all fourteen ropes and weights was 200tons. If the filling material was simply tipped into the shaft with the ropes in place the increase in tension on the ropes would collapse the supporting headgear structure. Thus an approach where the ropes could be disconnected from the head gear but still held in place would have to be adopted. If the ropes were cut and allowed to fall to the bottom of the shaft they could create voids and prevent the shaft from being filled correctly.



Photo:- Shaft cover structural box with I beams mounted on top and rope clamps in position.

This project thus required the solution provider to understand the acute nature of mining procedures and working practises along with the constraints of difficult locations. Thus the design process employed by ECS encompassed all theses factors in delivering a bespoke design solution that was fit for purpose as well as being able to be installed despite all the identified complications.

The solution to the problem that would allow No1 shaft to be filled was to create a structure that would allow the ropes to be cut free from the headgear while holding the ropes in place while filling was in progress. The cover structure would consist of a structural steel box that would span the shaft top. With the rope supports being made from large I section Beams sat on top on the cover box. The cut ropes would be held in place by eight clamps on each rope on top of the I beams (see photographs).



Drawing: - Schematic of shaft cover box structure in position. Showing rope positions and round shaft filling portals.

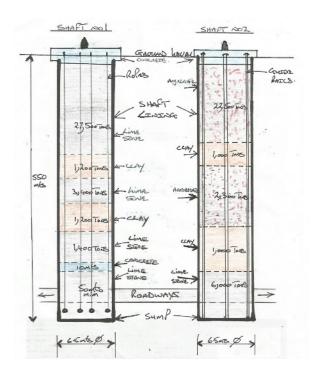
#### Safety factors

Each of the 14 wire ropes weighs 14tons including weights thus the structure need to be strong enough to support the 200tons weight with a built in safety factor of 51 which is common in the mining industry. It also had to have a design life of 25yrs just in case the project remained unfinished for some reason. The rope clamps eight in total on each rope are bolted in series onto the ropes and theses also have a design safety factor of 21.

In order to be able to cut the ropes from the headgear structure the tension in them needed to be released. This was achieved by placing one clamp in position and then jacking up the slack in the rope and placing another one below, this was repeated until all eight clamps were in place on each rope and the tension was thus released. A highly visible marker is also attached to each rope and the distance from the top clamp to the I beam is checked daily during shaft filling thus any rope slippage would be highlighted. The area around the shaft cover is classified as Zone 1, a potentially explosive atmosphere could arise from the build up of mine gases as well as the danger of Carbon Monoxide poisoning from the underground fire. Thus the area was constantly monitored and forced ventilation employed to protect the safety of the engineers at work.

#### Filling specification

Once the wire ropes in No1 shaft had been secured and the pit top area stabilised the process of filling the shafts could begin. The filling scheduall is highlighted in the following schematic drawing, the total quantity of infill material is around the 40,000 tons per shaft. There was a big emphasis placed on recycling the demolition material from the pit top area for filling No2 shaft and the drift. We're as in No1 shaft only clean material was used. The clay plugs should contain the contaminated mine waters within the mine workings thus protecting the local aquifers.



Drawing: - Filling schedule

#### Time scales

The underground fire which was responsible for the mine closure started in early Febuary 2013. The decision to close the colliery was taken in March 2013. The contractors were engaged in the summer of 2013. The steel box shaft capping was designed, fabricated and installed by late 2013. Shaft filling was completed in November 2014. The drift was the last to be sealed and the fire was declared extinguished by late 2015.



Photo:-Wire rope anchoring clamps in position each have a safety factor of 21

The site has now been sold to a development company and various uses are being proposed and planning applications sought.

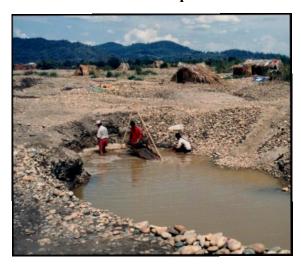
#### **Summary**

Daw Mill Colliery holds the record for the most productive pit in England, in 2008 it produced 3.5 million tons of coal. It had a relatively short life of about 35yrs. It had approximately 58 million tons of coal left in reserves. It's closure ended deep mining in Warwickshire. It's decommissioning process was both challenging and technologically ground break-

ing. The closure criteria of extinguishing the underground fire was successfull but the protecting of the local aquifers from contamination is still to be proved. The future of the site is more than likely going to be of an industrial nature with the rail branch line being retained.

#### **Graham Topping**

Burma & its gold Part 1: An exhibition in Lapland



**Fig 1** Prospectors working the gravels on the banks of the Irrawaddy River

Knowing I had a few transparencies of gold washing in Burma, the curator of Finland's Gold Museum, Inkeri Syrjanen, commissioned me to research, design and install an exhibition on the subject. Not knowing where to start, I scanned the telephone directories and soon I was speaking to a Burmese national who ran a travel agency in London. Mi Mi Tin Tun was exceedingly helpful, although two years later, I realised a Buddhist must avoid saying "No".



Fig 2
Using a trestle containing a sluice box, the prospector washes gravels through a basket

"When you are next in London, I will show you my family albums," she said, knowing that once a month, I attended a meeting nearby. Using her albums as visual aids, Mi Mi provided an informed summary of the importance of gold in Burma's culture and religion. Once again, she helped the project by loaning me the three albums, and as I scrutinised them on the train back to Chester, I knew I had the makings of a good exhibition



Fig 3 The three murals photographed on their arrival at the Gold Museum in Tankavaara, Finland

The curator of the Gold Museum mustered a generous budget and before Mi Mi's next trip, we asked her to purchase a list items and artefacts in Rangoon, which would enhance the display in Finland. A few weeks later a party of tourists found a tea-chest travelling back with them to London! Mi Mi had come up trumps and now my job was to forward the chest to the museum in Lapland.



Fig 4 Inkeri Syrjanen and the temporary display she arranged of the artefacts from Burma

By this time, I had a fair knowledge of the importance of gold in Burma and was working on three themes:

- \* The landscapes and the peoples
- \* The recovery of gold
- \* The use and application of gold.

Mi Mi's albums contributed much of the illustrative material and there was no shortage of images; in turn my colleagues in Finland provided translations for the brief texts. Laid out on the carpet of my lounge, the display looked good and in a spirit of goodwill, John Curtiss of Liverpool's Colour Copy Centre incorporated ALL the material into three huge murals, and seal them in a plastic sheet which would withstand Finland's winters. Post production, they rolled up very conveniently and Margaret and I decided to convey them by hand to the museum in Lapland.

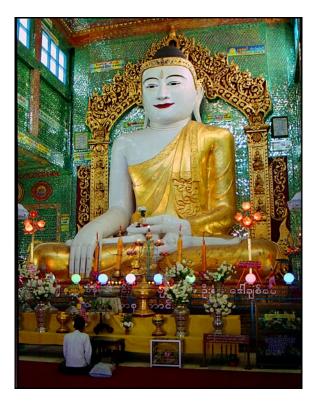


Fig 5 Gold lacquer enhances the massive Buddha in the ancient capital of Sagaing, and the strong sunlight creates an impressive sight

When we arrived, we found the curator had already made a temporary display of the items received via the tea chest and after taking time for a photograph on the museum steps, the staff soon amalgamated the murals and the three-dimensional items. The result was very striking and Inkeri Syrjanen then produced an attractive silver pendant, as a thank-you for Mi Mi Tin Tun in London.

Margaret and I agreed to present the gift personally and over afternoon tea with travel-agent Mi Mi, we received an offer to visit Burma; without hesitating, we accepted.

#### Part 2: The Golden Triangle



Fig 6 The author (in blue shirt) receives a briefing on how to rub his samples of gold leaf onto the Mahamuni Buddha in Mandalay

Mi Mi planned a first-class itinerary for us, making sure that she catered for all our wishes – to sail on the Irrawaddy river, to see the sun set on the Plain of Bagan, to attend floating markets and to visit 'the Jumping Cat Monastery'. Of course, we continued our study of the gold business. We visited the gold market in Rangoon, from a boat on the Irrawaddy we watched a solitary prospector washing river gravel, we had demonstrations of Thanaka and we toured the Shwedagon Pagoda, which is roofed with tiles of solid gold. When offered the chance to rub gold leaf onto the famous Mahamuni Buddha in Mandalay, I took it and enjoyed participating in the ancient ritual.



Fig 7 A trader in the gold market shows his stock, and confirmed that business was brisk

Our guide took us to caverns packed with golden statues of Buddha; we watched games played with a cane football. There were visits to earthquake-devastated temples on the Plain of Bagan and a shopping expedition for a Burmese ruby in a government run showroom.



Fig 8 Three billets of gold which the trader provided for a photograph

It was a bonus to be familiar with the narrative of Burma and its gold. At long distance, we had already researched the subject and produced a permanent exhibition which is on show above the Arctic Circle. However, it was good to meet the people, talk to monks and discover the significance of gold in the Buddhist religion and its importance in Burmese culture.



Fig 9 On Wednesdays, members of the Wednesday Association ensure the magnificent Shewdagon Pagoda in Rangoon is spotless. At dusk, the setting sun enhances the thick roof tiles made from solid gold.

Fig 10 (next column) A golden tile, bearing the auspicious Buddhapada (footprint of Buddha), proved to be an appropriate souvenir for Ron on his departure to the UK



**Note:** Part three of this memoir deals with the production of the delicate gold-leaf which is an important part of Burma's culture and will follow in the next issue of the Newsletter.



Fig 11 A pro pos to nothing golden, our guide Thi Thi encourages one of the cats at the Nga Phe Chaung Monestery on Lake Inlay to jump

#### Ron Callender

# Friends of Hemingfield Colliery, Open Day and Working Party Weekend 30th April 2016



#### Whether the weather be fine...

Beautiful bright sunshine smiled down on the Friends of Hemingfield Colliery as the crew arrived to open up our Victorian colliery site, and continue the work of unraveling a little more of its past with a spot of industrial archaeology.



Meanwhile, down the road in Elsecar, Barnsley CAM-RA and Elsecar Heritage Railway were holding a Beer Festival, which means even more steam engines pass-

ing by beneath the Friends as they set about their work. Fantastic!



ELR Steam engine Birkenhead on the first of many Footplate Experience and passenger trips on Saturday

Site Director Glen opened up, with volunteers Alan, Nigel and John raring to continue the work from the last working party. Friends Chair Steve, and regular volunteer Chris arrived shortly afterwards, and after taking time to sign in, and catch up on what everyone had been up to, work recommenced on site.



They were joined by a visitor, born and raised in Elsecar, who was given a tour of the site and was kindly providing the benefit of his own expertise to support the work of the Friends and the future conservation and restoration work on site.

#### Or whether the weather be not...



NMRS - Newsletter May 2016

Hail and hearty

This time, work continued on clearing out the concrete cable trenches which had been installed in the 1920s-30s when Hemingfield pumping station was electrified and power was supplied by the Yorkshire Electric Power Company Limited, and the original cables (now removed) were laid out from the switchgear building down to the winding house.

However, work came to a grinding halt with the first of several hailstone showers and dark skies taking over from the Spring sunshine.

#### We'll weather the weather

Retreating into the switchgear building for shelter and further discussion, the Friends looked out across the headgear, out over the valley to Hemingfield village. This view is now much clearer than it has been for many years – at least 20 or 30 years to be exact, and the headgear has once more resumed its eye-catching status, an industrial landmark.



#### (whatever the weather)

Refreshments partaken, and the cable trench cleared, the Friends and volunteers turned to the removal of the brick pathway which has now been fully recorded and measured. By removing the brick path, the whole excavation area can be brought down to the same yard surface, and so we can resolve some of the questions about the phases of use of the yard.

Bricks and barrows were the order of the day, with the bricks all being lifted, removed, sorted and stored – full bricks being stacked ready to be reused in future; named bricks, of which Hemingfield Colliery certainly has no shortage, are also stacked separately. Meanwhile brokens and halves are discarded on a rubble pile which will also help provide hardcore for making the site more accessible in the years ahead.



Having lifted the bricks, the extent of bracken root growth and the extent of tree roots was revealed. The Friend are certainly no strangers to this as we have had to contend with this unwanted vegetation at each step along with way of clearing the site.



All hands – the Friends and volunteers working together to shovel and barrow away the top layers of earth and roots under the brick path.



Slowly but surely the barrow-loads add up and the excavated trench is now evened out and taken down to the same pit yard level – something evident from the colour of the layers in the earth and also the firmness of the surface.



**All done!** The bricks and earth have been removed and the concrete steps now appear as islands proud of the yard surface. Tons of soil and bricks have been shifted by the group here.



#### Whether we like it or not

After all the work in digging and barrowing materials around site, the return of sunshine at the end of the day after the hail and downpours was more than a little welcome. A couple of the group seized the opportunity to go and explore the old mining features of the local area – the hidden and filled shafts which abound and which indicate he sheer scale of the coal mining and ironstone mining industry in the local area over the last 200 years and more.



Leeds to Liverpool Canal – Celebrating 200 years



Photo 1:- Approaching lock 47 on the Leeds to Liverpool canal after the section had been drained. With this section being straight there is no need to dredge it

The Leeds to Liverpool Canal is a living link with our past and hopefully to a bright future. It acts as a connector across the country and stretches over 127 miles, being the longest canal in Britain. Part of its success was due to the fact it was built as a broad canal and has 91 locks and 53 swing bridges along its length. The wide locks carry the canal high over the Pennines with a summit 487 feet and 6 inches above sea level. In the Pendle and Craven area there are four reservoirs which supply the canal with water. Also in this area are some of the regions finest examples of industrial structures, two tunnels at Foulridge and Burnley plus an impressive viaduct at the latter place.



Photo 2:-The sets at the side were not considered to be in too poor a condition to rebuild them

Along the route are mile markers originally used to calculate tolls for cargo being carried along the

canal. In this centenary year the Canal and River trust are hoping to reinstate and repair these with the help of donations from individuals and organisations. NMRS have made a small contribution towards these in view of the importance of the canal in its route through important limestone and coal mining areas.



Photo 3:- The welcome sign for visitors It was back in 1765 when the Leeds to Preston canal was proposed and eight years later the first section between Bingley and Skipton was opened. The original intentions were for limestone to be the main cargo along the planned route but in 1790 the first imports of raw cotton arrived from the West Indies to Liverpool, the same year as the third Leeds to Liverpool Canal Act changed the line of the canal. This resulted in coal being needed more and it became the most important cargo and continued until the 1970s. Finally in 1816 the completed Leeds to Liverpool Canal was opened and linked the textile towns of Blackburn, Burnley and Bradford to which cotton and wool were imported from the docks at Liverpool as well as passing through important coal mining areas.





Photos 4 and 5:- sandbags were used to prevent unwanted water returning into the lock held back by clay of which there is plenty in the area Recently repair work has taken place at Barrowford locks (Lock number 47) and the Canal and River

Trust held an Open Day there on January 31st. Despite the poor weather many took the opportunity to go down into a drained lock to see the repair work being carried out. Brand new oak and steel gate locks weighing 3.5metric tonnes each had been installed. Apparently these only last between 25 and 30 years and there are only two workshops in the country still making them.



Photo 5:- The mug left on the lower ledge of the new lock gate acts as an idea of the scale of them. The locks on the LLC are mostly built to a size of 62ft by 14ft (18.8mx4.3m) called a broad lock. This size turned out to play a key part in the long term success of this canal. The local cargo craft were known as "short boats" and were capable of carrying around 45 tons—about twice that of a standard narrow boat and very useful when transporting coal and limestone. Along with the broad locks the canal was able to compete successfully with the railways throughout the 19th century. In fact it was so successful that the reservoirs built to supply the canal were never adequate, with water shortages in dry summers.

#### **Barbara Sutcliffe**

### WOLF MINERALS: DRAKELANDS CONTINUES RAMP-UP PROGRESS

Plymouth, Apr 28

Specialty metals producer Wolf has begun blasting activities as it mined into harder and deeper material as it continues the ramp-up of the processing plant at its Drakelands tungsten mine in Devon, England. March qtr (Q3FY16) production of 17,067mtu tungsten concentrate from processing of 310,949t ore.



MD Russell Clark says a £25M standby subscription facility with Resource Capital Fund will ensure Wolf can continue to optimise operations at Drakelands in a low tungsten price environment.

#### **Wolf Minerals website**

## Sirius Minerals continues search for funds to build potash mine

By Jon Yeomans

The mining company that wants to build a giant fertiliser mine under the North Yorks Moors national park has reported losses of £7.5m as it continues its attempt to fund the project.

Sirius Minerals announced the loss as it published its accounts for the nine months to the end of December.

The firm has changed its annual reporting period so that its financial year ends in De3cember instead of March. In its last full financial year to March 31, 2015, Sirius lost £10m, meaning that losses have remained broadly the same.

The financial update contained no details on whether it had made any progress on raising the \$3.5bn (£2.4bn) it needs to construct the mine, which has a potential lifespan of 100 years and could turn out up to 20 million tonnes of polyhalite a year once in operation.

Polyhalite is a premium form of potash Sirius believes will be in great demand from food producers around the world as a fertiliser that can boost crop sizes and help feed a growing population.

In March, Sirius revealed it already had buyers lined up to take roughly one third of its projected output, though further commitments could se that rise to two thirds.

Russell Scrimshaw, chairman of Aim-listed Sirius, said: 'We were naturally6delighted to secure planning approvals for the key infrastructure needed to commence construction including approvals for the

mine ... These positive decisions subsequently passed through their judicial review windows unchallenged and are now fully implementable,' he said.

Mr Scrimshaw conceded that 'the market view for mining companies, , commodities and both potash and fertiliser companies generally has been poor during the period', but insisted this had not affected Sirius's progress.

Sirius raised £23.3m during the nine-month period to help finance the publication of its definitive feasibility study, released in March, and had cash on the books totalling £29.1m at the end of December. The group's net assets were £165.2m, compared with £146.6m at March 31, 2015. Sirius Minerals shares rose 5.8% to  $18\frac{1}{4}$ p.

#### Daily Telegraph 26 April 2016

#### Lea Bailey gold mine outflow of water



Over the weekend of 9/10<sup>th</sup> January there was a sudden outflow of water from the mine at Lea Bailey. At approximately 9pm on the Saturday local residents reported a loud noise heard from the direction of the mine, and on the Sunday morning debris and water were reported on the road below the mine. On visiting the mine later that morning it was found that the mine doors had burst open, some rolling stock stored just inside the mine had floated out, and much of the mine site was covered in silt from the mine.



Water was still flowing in abnormal quantities. Fortunately no one had been present at the mine when the doors had burst open. By the following Wednesday the flow from the mine had returned to

a more normal level. Damage to one mine door has been repaired and the mine site made safe. No railway equipment was lost or damaged by the outflow.



The mine manager, Jonathan Wright, decided that it was the ideal time to take action to rprevent any possibility of such a build up of water occurring again in the mine. Therefore, in March he arranged for the delivery to the site of six 6m long 2ft diameter twin walled pipes. His plan was to instal one length of pipe through each zone of weak rock where roof falls had occurred in the mine. So, under his control, one Sunday six volunteers from the Lea Bailey Light Railway (all with suitable equipment and underground insurance) took the pipes into the mine nd positioned them as directed by Jonathan. It had been intended to take each pipe into the mine on a wagon frame up to the end of the rails (approximately 250 yds in) but the wagon with pipe would not fit through steel arches that were in place at the first weak rock zone. So the wagon frame was discarded and just the wheels used.



Beyond the end of the rails the pipes had to be manhandled through waste rock and water, the waste rock from roof falls being spread out along the mine floor, By the point where the final pipes was installed the headroom was down to not much more than 2 feet.

With a grill (laser-cut from 10mm steel plate) installed in one of the mine doors and a 2ft diameter pipe through each zone of weak rock between the point in the mine where the water enters and the mine entrance, it is felt thateverything practical has been done to prevent such an outflow ocurring again.



Photo:- installing pipe at furthest zone of weak rock



Photo:- Success!



Photo:- Mine door with grill to allow excess water to escape

#### **Rob Needham**

#### An unusual mining artifact

A month ago, following up an advert for a compressed air loco, I was offered another loco on a 2 year loan for the railway at Lea Bailey. The loco I was offered was an Eimco 401, serial number 216 of 1968. It had been bought from a contractor in British Columbia and imported into the UK by Nick Kelly (an enthusiast for compressed air locos). Although I had spent much time over the last year trying to find information on Eimco and the rockershovels that they had made, I had not realised that they had made any locos. However, according to

Nick they had made 'several hundred' Type 401 locos, and they had been used in Mexico, USA, Canada and Japan.

A brief history lesson from Nick:- Most modern (= post WW2) compressed air locomotives are ultra high pressure machines being charged at up to 235 bar and as such are not really suitable for preserved situations. However in the USA the "Whistle Pig" low pressure (these locomotives are charged with "run of mine" compressed air at 100-110 psi) Air-Trammer loco was developed from the designs developed by Ed Fry in Cripple Creek from the 1920's. This led to the Universal Tramaire Special (Nick had sold one of these machines built by The Universal Dredge Manufacturing Denver, Colorado works no 379/1958 to a museum in Graz, Austria). The Universal design was apparently assembled from bought in components, and did not have such a good reputation as the Eimco, which was completely designed and manufactured by Eimco.





The offer of a 2 year loan of the loco was too good to miss. It will require the group at Lea Bailey to restore the loco to working order. But, as it apparently last ran in 2012 and when it arrived in the UK there was still pressure in the air receiver, that should not be too hard, particularly as the motor is an Eimco Type 200 five cylinder airmotor, as also fitted to the Eimco 12B rockershovel which runs at Lea Bailey. So three of us went down to Sussex in a hired van to collect the loco - but could not work out how to load it into the van, so returned empty-handed, but impressed by the look of the loco. On May 15th Plan B is for a member of the Lea Bailey group to go with his LandRover and trailer to collect the loco. Fortunately it only weighs 1½ tons. Then we have to re-gauge it as currently it is set to 18", but we're told that's a simple 2 hour task (and I've found a copy of the Eimco parts list and instruction book for the loco - isn't the internet wonderful! Hopefully, in a couple of months we'll have the loco running .....

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