TRAIL NOTES AND ‘THINGS TO SEE’

GREETINGS VISITORS TO THE LMM

Welcome to the Lancashire Mining Museum at what was formerly Astley Green Colliery.

This is coal. Some of you, PARTICULARLY ANY CHILDREN PRESENT, won't have seen a lump of coal in your lifetime but people of my generation, or older, remember it well.

The formation of Coal

Coal is formed underground. Over millions of years, as organisms such as plants and algae died, they became compressed and deprived of oxygen by layers of mud and water that accumulated above them. The lower the organisms sank, the slower they decomposed, until they formed peat bogs such as nearby Chat Moss. But, under in-credible heat and pressure, some peat carbonised and become coal, a non-renewable fossil fuel.

The discovery of Coal

Coal was discovered in the UK as far back as Roman times when they found it just below the surface and quickly realised that they could burn this hard black rock to keep warm and cook. These were known as 'open cast' areas where coal could be dug directly from the ground but, once these stocks were used up, the Romans had to start mining horizontally into the hillsides and, once all those stocks were gone, they had to start digging down. The first recorded vertical shaft in Great Britain was in 1575 under the Firth of Forth in Scotland but this was followed by thousands of oth-er mine shafts all across England, Scotland and Wales.

Black Gold

Coal was known as ‘black gold’ or ‘black diamonds’ because it was so valuable as a fuel. Without it, Britain wouldn’t have led the world with the Industrial Revolution and the world would now be a very different place. Of course we know now that coal, along with the other fossil fuels of gas and oil, is responsible for the current climate crisis but, back in 1760, it was seen as the super fuel which would power the world. It could create steam to power engines in cotton mills, manufacture large quantities of iron and steel and move trains and ships at speed. It also kept people warm.

The Miner’s Cottage

Most people back then lived in small cottages or terraced houses with coal fires which they used to heat their homes, boil water for washing and cook meals on. This building was a lodge or Manager’s office which, with the help of a professional set designer funded by the producer of the programme, Peaky Blinders, we have trans-formed into a reproduction Miner’s Cottage. Before you leave, please have a look around and see how ordinary people used to live in this area around 100-150 years ago. You can have a look at their furniture and possessions and, if you can manage the steep stairs, even see where they slept. Behind it you will find our Tea Room where you can then enjoy a drink or even one of our splendid cream teas.

The Miners

The miners who lived in cottages like this were the main breadwinners but because they didn’t earn very much, in the early days, their families had to help too. In the early 1800s it wasn’t unusual for the whole family to work down the pit together. The men would dig out the coal and the women and older children would push or drag tubs of coal to the bottom of the shaft. Small children, as young as 5 years old, would work as ‘trappers’, opening and closing the wooden doors, or ‘traps’, which kept air flowing through the mines. Children could spend up to 12 hours under-ground, six days a week, so the only education they received was at Sunday School. Mining was dangerous work with little or no protection so lots of adults and children died or were seriously injured. In 1838, at Huskar Pit in Barnsley, 40 children be-came trapped in a mine and 26 of them died due to flooding. The youngest was 8 years old. Queen Victoria took a personal interest in the disaster and there was a Royal Commission into women and children working in coal mines. As a result, the 1842 Mines and Collieries Act was passed banning women and girls from working underground, and any boys under 10 years old. In 1860 the age limit for boys was raised to 12 and, in 1900, to 13. Although most miners were born and lived locally, mining always attracted men from other areas where jobs were in decline, e.g. agri-cultural areas during the Industrial Revolution. In later years, miners came from countries that had been affected by conflict, particularly Poland and Ukraine, and it wasn’t unusual to hear different languages underground and to see miners communi-cating via hand gestures.

Astley Green Colliery

Children weren’t employed at this colliery because the first shaft was only started in 1908 by the Pilkington Colliery Company. They owned collieries in the Irwell Val-ley where they traded as the Clifton & Kersley Coal Company. However, reserves were running low by the early 20th century and they turned their attention to the un-tapped reserves at Astley Green. The wives of two directors, Mrs C Pilkington and Mrs L Pilkington cut the first sods for No.1 Pit. I’ll tell you more about how the shaft was dug as we move around the site. The first coal was wound in 1910 and they carried on digging down to the bottom of the first shaft which they reached in 1912. The depth of the shaft is more or less half a mile, 890 yards or 800 metres, and as soon as they’d finished digging the first shaft they started on a second one about 100 yards or 100 meters behind it. The remaining headgear is from No.1 Pit which, in the early years, was only used for winding coal, whilst the No. 2 Pit shaft was used for transporting the men and machinery. But, as the No.1 Pit shaft went deeper, a ‘dicky pit’ extension had to be added to No.2 Pit shaft. This was a shaft extension with a winding engine below ground. But the cages only had a central steel wire rope without any corner guide ropes so their descent often made for a rocky ride! Astley Green Colliery closed on the 3rd April 1970 and what we see here today is nothing like it was when it was a working mine. There would have been two pit heads, two engine houses, three huge chimneys and 16 Lancashire boilers. All these stood behind the colliery’s gates. The current entrance gates were made to the design of the original gates in 1995. In front of them, on what is now the Village Green stood the pit baths, canteen and medical centre.

Pit Baths, Canteen and Medical Centre

The Coal Miners Act of 1911 ruled that coal owners must provide pit head baths if the workforce voted for them but, initially, many miners were sceptical and worried that the baths would be unhygienic and spread disease. One shilling out of every 20 paid for mining royalties went to the Miners' Welfare Fund for the creation of pit head baths. It wasn't until 1936 that Astley Green's pit baths, canteen and medical centre opened. Designed by architect, C. Kemp A.R.I.B.A., they cost over £24,000 and included modern shower bath cubicles and heated lockers for clean and pit clothes for 2000 workmen. Although the building was paid for by the Miners' Wel-fare Fund, the men had to pay 3d per week towards the running costs. To celebrate the opening, the Company gave all the men a bathing slip, towel and bar of soap. A hospital fund was also set up in 1918 to which the miners paid 1d per week. This was before the days of the NHS when everyone had to pay to see a doctor though local miners did have access to The Lancashire and North Staffordshire Miners' Convalescent Home on the North Shore at Blackpool from 1925. It provided 132 beds and care for miners recovering from sickness and injury. The Pit Baths, Can-teen and Medical Centre was demolished not long after the pit closed in 1970. More about that later.

Lamp Room

At the corner of the Machine Shop building opposite, you will see the sign for the Lamp Room where two of our volunteers preserve old mining lamps. It is only a small room but we are currently working on creating a larger exhibition space. If you knock on the door, the volunteer will let you in if there is room. The earliest miners used candles but these ignited pockets of 'firedamp' or methane gas which caused explosions underground so Sir Humphry Davy created the Davy safety lamp in 1816. A gauze protected the flame which burnt brighter in the presence of me-thane. This brass or tinned steel lamp was improved by William Clanny and the Clanny Mark 2 became the type on which all the later flame lamps were based. The first electric lamp was invented in 1859 and, by the 1920s, the electric cap-lamp be-gan to take over as the miners' main light source but flame-safety or protector lamps were still used to test for gas. The flame was provided by oil so the lamps had to be maintained by skilled men in the lamp room. Lamps were kept locked so if their lamp went out went out miners had to return to the bottom of the shaft to open and relight it. In the early years, at the start of each shift, every miner had to hand a numbered 'Pit Check', 'token' or 'tally' to the lamp room attendant in exchange for an identically numbered lamp. The 'tally' was a piece of metal made in different shapes including circular, square and rectangular and typically made of brass, zinc or aluminium, though aluminium ones were not allowed below ground for fear of caus-ing a spark. This system acted as a means of recording the number of men working under ground on any particular shift, essential work attendance information for the colliery management but, more importantly, an accurate record of the number of men underground in the event of an explosion or other type of pit disaster. At the end of his shift, the miner had to return his lamp to get his 'tally' back thus proving that he was back above ground and safe. In later years, the miner collected three 'tal-lies'. One was handed to the lamp room attendant in exchange for his lamp and a second to the banksman on entering the cage before descending the pit. He kept the third one himself as this would be a means of identification should he be rendered unconscious, or worse, in an accident or explosion, etc. The original Lamp Room stood where the car park is now and was a much larger building.

The Cage

The cage, from Bold Colliery in St Helens, was used to transport the men or tubs of coal up and down the mine shaft. Miners would be crammed into them like sardines in a tin. There would have been a guide rope on each corner of the cage to make its descent more even but the miners would depend on the Engine Winder to do his job properly and transport them safely to and from their work. In the early days of min-ing, the miners would have been transported via a large basket or metal tub!

The Machine Shop

This is one of only three surviving buildings left on the site. This was once the Man-ager's garage. The original machine or fitting shop stood between this building and the headgear, next to to the blacksmith's shop. The fitting shop is where the mainte-nance crew was based, except for the electricians, the electric shop situated at the rear of the lamproom. In February 1956, 30 year electrician George Brian Walker was repairing a mechanical coal cutting and conveying machine underground at Astley Green when he was accidentally

caught by the chain of the conveyor belt and fell. Fortunately for him, Pit Deputy John Alfred Hughes (Alf) dived and threw his arms around Walker, just as the machine began to draw him under. 'By bracing his feet against a pit prop, Hughes was able to keep a hold on Walker, while someone ran to stop the machine. In less than a minute, the cutter had torn off one of Walker's boots and dragged him with Hughes after, under the cutting machine up to his chest. But for Hughes' presence of mind and instant action, Walker would have been torn to pieces.' Hughes was awarded The Order of Industrial Heroism Medal, nicknamed the "Workers VC", which was created by the socialist Daily Herald newspaper in 1923 to recognise "Deeds of Valour" by ordinary workers 'who had saved their fel-low workers from danger of death'. The fine bronze medal with a red ribbon was accompanied by a decorated certificate. 440 awards were made until 1963 when the Daily Herald ceased publication and was replaced by The Sun. Hughes was the 321st to be awarded. He was presented with his award in June 1956 at Astley & Tyldesley Miners' Welfare Institute (Gin Pit Club). The Machine Shop is used by volunteers to make, repair and maintain items around the museum. Unfortunately, it is not open to the public for health and safety reasons.

The Archives

Above the Machine Shop were offices which now house our Archives which are a work in progress and not yet open to the public. When the original Lancashire Min-ing Museum in Buile Hill Park, Salford closed in 2000 Wigan Metro Borough took over the collection with a view to developing Astley Green Colliery as a new Lanca-shire Mining Museum. Most of it is still in storage but we are working on creating new exhibition areas to display it. Buile Hill Park opened in 1957. There was a mock mine or gallery in the cellar and the ground floor was partially converted into a "pit top". As the mining industry declined, thousands of mine plans and documents were rescued, and thousands of photos and numerous objects and drawings acquired, in-cluding the Wigan Mining College Collection and the former Wigan Library Mining Reference Collection. We also have a growing collection of other mining related books and documents.

War Memorial

The memorial commemorates the Great War (WW1). It was saved from the former Wesleyan Methodist Sunday School/Church Chapel off Lower Green Lane when it was transformed into Chapel Apartments. The original chapel opened in 1806 on a piece of land donated by Benjamin Kniveton, a tunneller on the Bridgewater Canal who lived at Whitehead Hall. The names on the memorial are not people who worked at the mine but the Lancashire Mining Museum seemed the most safe and suitable public location for it in Astley Green.

Group of Machines

As we walk around the site you will see lots of different pieces of equipment, most of which have been donated to us. Some of them are from other collieries but others are from a range of engineering companies that have closed down, including those connected to the Pilkington family who first started the mine. Volunteers have paint-ed them to try to preserve them from the elements. This large machine would have rotated with metal pieces for extracting the coal underground like a large chain saw. We also have some hydraulic roof supports or 'chocks' which would have been used underground to prevent roof collapses. They are angled so they were adjustable and several could be used on the coal face. This is quite a unique museum because it isn't all pristine and tidy with everything neatly labelled. It's full of important relics that we may not know the exact use of, or even where they've come from, but they all played a vital role in heavy industry in this country when Britain led the way in manufacturing. We're trying to save them for future generations so please embrace the fact that the museum is a work in progress. It's run by volunteers, most of whom have their own little projects that they're working on, and we're open to the public as well so volunteers also have to show the public around and do demonstrations.

New Exhibition Area

The Lamp Room around the corner will eventually move in here so that we can dis-play the equipment better and accommodate more visitors.

‘Silent Cargoes’ Art Work

The sculpture, which is currently stored in pieces, represents the types of cargo that would have been carried on the Bridgewater and Manchester Ship Canals in the past. The installation was designed by the artist James Wines, an American artist and ar-chitect associated with environmental design, and created with the assistance of John King of Liverpool. It was originally installed in Trafford Park but had to be re-moved due to the extension of the Metrolink tramline. All of the objects in the com-position have been painted grey and, where necessary, stiffened. Two processes were used to produce the finished objects. Some articles were hot dipped and galvanised in zinc. For others, a vacuum mould of the object was prepared which was then filled with microsilicate concrete. It ties in well with the Lancashire Mining Mu-seuem’s railway and canal and the Museum’s Committee will work with local artists and museum curators to decide on the best location for this great piece of Industrial art.

Standard Gauge Railway Track and Equipment

Standard gauge railway track is 4 ft 8.5 in or 1.4 meters. On the left you will see various bits of standard gauge track equipment that have been donated to us. The old steam crane was used on the London North Western Railway (LNWR), later British Rail, and was saved and moved around and it came here a few years ago on perma-nent loan. A similar one would have been used to load the coal at the the coal wharf on the Bridgewater Canal. When the pit was operational there would have been 16 lines of standard gauge railway track to convey the coal to the canal, and to the main railway lines. One rail link led south to Astley Junction, connecting to the Manches-ter to Liverpool Line and, in 1930, a new line was constructed to the Boothstown Basin where it joined the Bridgewater Collieries Network. At the canal, the coal was loaded into wooden boxes and transferred onto waiting barges which took their car-go to the power stations at Trafford Park and Stretford. There were also local coal deliveries by horse and cart and, later, by lorries. Coal straight from the pit or ‘run of the mine’ was originally brought up the shaft in tubs and loaded onto a tub track circuit to be transported to the next point in the process. Later, the tubs were emptied by a ‘tippler’ on to a wide conveyor belt which took the coal straight to the screen house or screens. Here, the coal was separated from the rock, earth and clay by mix-ing it with water and agitating with compressed air. Previously, this had been done manually on ‘picking belts’. Although women couldn’t work underground after 1842, many of them continued to work at collieries as ‘Pit Brow Lasses’. They washed, sorted and graded the coal but some men were unhappy with women work-ing at the surface. Their main concerns were bad manners and language, personal safety, neglect of their families and domestic duties and, of course, the trousers that many pit brow lasses wore. Despite this, they featured on many postcards! In 1886 there were 1623 women in Lancashire working on the pit brow and they, and others around the country, successfully campaigned against a bill to stop them working at the collieries. Astley Green was one of the last two pits in Lancashire to employ pit brow lasses, the other was Kermishaw Nook. But, in 1956, due to a two-year agree-ment between the National Union of Miners (NUM) and the National Coal Board (NCB) they were replaced by men who might otherwise end up redundant.

Narrow Gauge Railway Vehicles

Narrow gauge is 2 ft (610 mm) and would only have been used underground on this site. Beneath the tarpaulins are underground trains. We have the largest collection in the UK of underground locos but, at the moment, we don’t have the volunteers or the time to work on preserving and/or restoring them. Man riders were used under-ground to transport the men from the bottom of the shaft to the area that was cur-rently being worked. This could be several miles away. In the early days, miners had to walk to their workplace and didn’t start to earn money until they arrived. They also had to walk back at the end of a long day for no pay.

The Fred Dibnah Field

The field is named after local steeplejack, Fred Dibnah (1938-2004) from Bolton. Dibnah, who felled 90 industrial chimneys during his career, also had a keen interest in mechanical engineering so decided to dig a replica mine shaft in his back garden. He applied for, and was given planning permission, to build the wooden pit headgear but didn’t mention the 20 ft (6.1 m) brick-lined shaft that he and his mining friends had sunk beneath it! When the council found out they insisted that Dibnah apply for planning permission which was then refused. After he died his estate donated the headgear to the Lancashire Mining Museum. Dibnah had visited the site and climbed the pit head, and was also a steam enthusiast, so we think he’d be happy with his

pit head gear's new location. Around the base of Fred's headgear is the Shaft Circle, which was created with wildflowers by artist Mary Griffiths. The circle has the same circumference as the No. 1 shaft. The emergency cage winder and the big steel buck-et, which would have been used to transport men before cages, are donations from other collieries.

Trees

The colliery's land extended up to the canal but former miners would struggle to recognise the site today as so many trees have now grown on and around it. Some of the trees were planted by Manchester Metropolitan University as part of a research project to see which trees would flourish best on former industrial sites, and our volunteers and Green Crew have planted a further 500. They have also removed mulch and undergrowth from paths and planted flowers. It's amazing how nature will reclaim land if it's left to its own devices. The Natures Den Forest School meet in the small wood.

Narrow Gauge Railway Rails & Coal Tubs

We plan to extend our narrow gauge miniature railway so these are rails that we are recycling or have acquired from other sites. The tubs would have been used under-ground to collect and move the coal. In Victorian times, women and children would have pushed or pulled the tubs, fastened to their waists with chains or leather straps. When the law was changed to stop them working underground they were replaced by pit ponies but by the time Astley Green first started winding coal in 1912, the ponies were being phased out. The large tubs here would have been pulled by a steam en-gine and, in later years, a diesel engine.

The Nissen Hut

Nissen huts were prefabricated steel structures developed during WW1 by Major Pe-ter Norman Nissen of the 29th Company, Royal Engineers for military use. Made from a half-cylindrical skin of corrugated iron, they were relatively cheap and quick to assemble so were used for briefings, accommodation and storage on the front line or at military bases. This hut came from a site in Oldham where tank parts were as-sembled in WW2. It was probably used as a canteen. It has only recently been re-constructed and will become an exhibition centre to commemorate the vital contribu-tion that miners made in WW2. Mining was a 'reserved occupation' or 'essential service' which meant that miners were exempt from conscription but so many of them chose to sign up for the armed forces that men had to be conscripted to work in the coal mines. They were selected by a National Service registration number ballot and became known as the Bevin Boys after Ernest Bevin, Minister for Labour and a former Trade Union activist who established the scheme in 1943. The Bevin Boys included Eric Morecambe, Stanley Baxter, and Nat Lofthouse who worked at Mosley Common pit for four years.

Vehicle Storage Area

The building beyond is going to be a storage area for site maintenance vehicles. Many of our construction materials are donated but others we have to fund our-selves, and the volunteers do most of the construction work themselves.

Pit Bank

If you follow the footpath it will lead you up to the Top Bank, next to the head gear where you will find a pit cage is from Bickershaw Colliery near Leigh which was used by men to inspect the water pumps at that colliery. Next to it is the 'No After-noon Shift' art installation created by Carol Parkes, our resident artist and volunteer. This marks the 1939 mining disaster at Astley Green in which 5 men died and 4 oth-ers were injured, one seriously. They were fighting a fire deep underground on the 6th June when there was an explosion. When the miners arrived to work that after-noon they were greeted with a sign declaring 'No Afternoon Shift'. The men who died were: J.H.Hewitt, Manager of the Pit, G.Griffiths, Under-looker, J.Keegan, fireman, Eli Smith, collier, and William Warhurst, collier. Their bodies were not re-covered until the following day. There are 5 benches in honour of the 5 men. Fortu-nately, this was the only major incident at Astley Green but many other men were seriously injured or died during the years it was open. The Top Bank is worth a walk to enjoy some quiet contemplation, the wonderful views of the headgear and site, or perhaps a packed lunch.

Another Group of Machines

Here we have more examples of the hydraulic props or ‘chocks’ that would prop up the roof on the coal face. This was an old steam crane that was donated to us which would have worked on the standard gauge railways. Ideally, we need a big exhibi-tion hall where we can protect, maintain and display all of this equipment.

Underground Experience

Here we are recreating the underground experience. When it is finished, you will be able to walk through the tunnels as though you are travelling to the coal face. Un-derground, the coal was originally moved in tubs attached to wire ropes hauled by engines but these were later replaced by coal conveyor belts which you will be able to see examples of here. Other mining museums in the UK still have shafts that you can go down but those at Astley Green were backfilled and sealed on closure because of the danger of flooding and methane gas. It was a very wet pit because of its prox-imity to Chat Moss.

Machinery Store

The equipment here has also been donated to us but we know enough about it to have had plaques made about what each of them is and where it’s come from. They’ve all been used in heavy industry at some stage. We also have a forge in here so, for some events, a blacksmith will come in and demonstrate how it would have been used.

Mobile Emergency Winding Equipment

This used to be based in Boothstown at the Mines Rescue Station which built by Bradshawe, Hope and Gass of Bolton for the Lancashire and Cheshire Coal Owners. If there was an issue at any of the local collieries which meant that they couldn’t bring the men up from underground because the equipment had stopped working, they’d drive this over to wherever it was needed. They’d set it up and it would be able to take over the winding of the cages. The first local Rescue Station opened at Howe Bridge in 1908, becoming the second in the country and the first on the Lan-cashire Coalfield. Before then, coal owners relied on their pit managers and volun-teers to fight fires, rescue the injured and recover the dead. Rescue stations only be-came compulsory after the 1911 Coal Mines Act was passed but Atherton’s progres-sive and compassionate coal owners, Fletcher Burrows proposed Lovers Lane as the site for a Lancashire and Cheshire Coal Owners’ Rescue Station. The station was de-signed primarily for training rescue teams rather than undertaking actual rescue work but the garage housed two emergency rescue vans which contained vital equipment such as regenerators and oxygen cylinders. Teams from the Howe Bridge station at-tended the disasters at the Maypole Colliery in Abram in 1908 and the Pretoria Pit Disaster in 1910. The Pretoria Pit disaster was the 3rd worst mining disaster in Brit-ish history. On the 21st December 344 men and boys were killed following an ex-plosion. Volunteers run regular ‘Pretoria Walks’. The Howe Bridge station closed in 1934 when the new Boothstown Mines Rescue Station became the central rescue sta-tion for Lancashire. It had a permanent staff of a superintendent, two instructors and two teams of six rescuers who all lived on site. Each colliery had its own rescue team which would be trained at the rescue station. In the event of an incident, the rescue station would attend but call upon the colliery rescue team as back up. Booth-stown Mines Rescue Station closed in 1994 and has since been converted to residen-tial use.

Pit Pony

‘Pit Pony and Coal Wagon’ was created by Artist in Residence for Wigan Council, Marjam Wouda. It was commissioned by The Groundworks Trust to produce the sculpture with the pupils of Leigh CE Junior school in 1989 to commemorate the use of ponies underground. The fibreglass resin skin of the pony is encrusted with ob-jects such as rope, chains, and buckles which are representative of the coal mining industry and the black pigment is actually coal dust. The completed structure was in-stalled in Leigh’s Spinning Gate Shopping centre when it opened in 1991. It stayed there until 2001 when the council deciding to remove the sculpture and it eventually found a new home here. Pit ponies were first used down UK mines at Durham coal-field in 1750. By 1913 there were around 70,000 of them living and working under-ground, pulling the heavy tubs of coal and only seeing daylight once a year during the miners annual holiday. Although they were relatively well

looked after the aver-age working life of a mining pony was only three-and-a-half years, compared to 20-plus years on the surface. The British Coal Mines Act of 1911 led to much tougher laws to protect the ponies which had to be checked by a vet and at least four years old before going underground for the first time. By 1984 only 55 pit ponies were working in collieries, mostly in Northumberland. It is believed that the final pit po-ny to be employed in the UK was Robbie, who retired in 1999 from Pant y Gasseg Coal Mine in Pontypool, Wales.

Miner's Lamp / Out of the Darkness / Harry Potts memorial

The Miners' Memorial art work was commissioned by the Red Rose Steam Society Trustees in 2021 and represents an enlarged miner's safety lamp with an eternal flame burning for everyone who ever worked in the industry. For former miners, the lamp is a symbol of their former job and the bond that they all shared. Made of wood and plastic, it was conceived and constructed completely by the volunteers on the site. The base contains bricks from different collieries. If you look closely you may recognise some local ones. A time capsule was buried beneath the lamp contain-ing volunteers' mining memorabilia which will be opened in 2031. The light burns 24 hours a day. Next to it stands the 'Out of the Darkness' sculpture created in 2017 by our former resident blacksmith, Darren Block. Constructed in solid sheet metal, covered in coal dust, it consists of 5 red tinted Lancashire roses, one for each of the 5 miners killed in the Astley Green Colliery disaster of 1939. The memorial to Harry Potts commemorates that he was the Chairman of the Lancashire Mining Museum from 1987-1996.

Visitor's Centre

Before you leave, please nip in here to sign our visitors' book and leave us a com-ment about what you think about the museum. Although our volunteers won The Queen's Award for Voluntary Service in 2022 we are always keen to learn how we can improve the site. It will help us to prove how many visitors we have when we make applications for funding. Inside you will find a small shop selling postcards, prints and other mining related memorabilia and a donations box. If you can afford to contribute to our running costs it would be very gratefully received.

The Mine of Information

The Mine of Information, besides being a play on words, is an exhibition room where you will find labelled collections of smaller mining equipment and displays, along with video footage. This building is painted in National Coal Board (NCB) blue with NCB style yellow and black signs. When a Labour Government was elect-ed in 1945, the Coal Industry Nationalisation Act became law and on the 1st January 1947 the new National Coal Board took over all of the UK's coal mines. 'Vesting date' was celebrated locally at Tyldesley Miners Welfare with a concert and speech-es. Before then, collieries had been owned by individual coal owners and then larger companies such as Manchester Collieries Ltd which was formed in 1928 to unite all the collieries in the Manchester Coalfield area. The theory behind nationalisation was that there would be more investment in the collieries, and standardised working con-ditions, but the government expected greater output for the investment and it was soon clear that a lot of the mines were not financially viable. In 1952, Astley Green was something of a 'show pit' and Prince Philip, the Duke of Edinburgh, who had a personal interest in coal mining, visited for an underground tour. In 1967, Astley Green was producing 2,800 tons of saleable coal per day from 4 coal faces but in 1970 the colliery which had become known as 'The Last Refuge' because it had of-fered jobs to so many miners made redundant from its seven sister collieries, was de-clared financially unviable due to the wet and gassy conditions. It was becoming more difficult to achieve production targets and 50 cwt* per man-shift was the final straw so the last coal was wound on the 3rd April 1970. By then there were only 17 pits in the North West compared to 80 just after WW2. It was 1972 before the NCB Personnel left the site.
*CWT = one hundredweight, 20 hundredweights were one ton.

Toilets

The toilets are here if you need them. There is a disabled toilet here and in the Tea Room behind the Miner's Cottage.

The Headgear

The 98ft high lattice steel headgear from No. 1 shaft is the last remaining of the Lancashire coalfield and is listed as Grade II by Heritage England. Sadly, it has dete-riorated over time and is now on the At Risk register so we've got a duty to preserve it. We are desperately trying to raise the funds to do so before it's too late. The Pilk-ington Colliery Company started to sink the No. 1 shaft on the 7th May 1908. The main problem was that the water-bearing strata was so unstable that the shaft walls might collapse before the lining could be installed. So, after much investigation and consideration, it was decided to employ the German 'drop shaft' method. They were the the first in the UK to employ the technique so they attracted a visit from around 60 mining engineers, most of them members of the Manchester Geological and Min-ing Society. A 21 feet diameter iron cylinder or 'tubbing' with a cutting shoe at the bottom was forced into the ground and excavation began within it. A new section of tubbing was then attached and the process continued until more stable ground at a depth of 100 feet was reached. A large masonry thrust pillar (which can still be seen today) was constructed to resist the force of the hydraulic jacks pushing down the tubbing. Although the strata was more stable below 100 feet, it was very wet, so tubbing was used to reach 400 feet then the remainder of the shaft was lined in brick. The first coal was wound in 1910 as they started work on one seam then car-ried on until they reached the bottom in 1912. A temporary wooden headgear was used during sinking which was only half the height of the permanent steel structure. The riveted steel lattice construction was produced by Head Wrightson of Stockon on Tees and stands at over 24 metres tall. It was built to wind eight tons of coal eve-ry two minutes from a depth of 890 yards, which is the equivalent of walking from here, across the East Lancs Road, to Manchester Road in Astley. The two winding pulleys are 21 feet in diameter and the whole structure weighs 120 tons. The No. 2 shaft headgear, which stood behind it (you can still see its brick 'collar' or base) was delayed by WW1. It was made of rolled steel girders and was of lighter construction reflecting its principal duty to transport men and materials. A large steam driven fan from Walker Bros of Wigan was installed adjacent to No. 2 shaft. This caused fresh air to be drawn down the No. 1 shaft, directed around the workings then up into No. 2 shaft. In winter, a brazier was situated at No. 1 shaft intake to warm the air before it passed down to prevent the pipes from freezing. Chipping off ice in the shaft was not an uncommon task for the shaftmen! Each shaft had two cages suspended from steel wire ropes which passed over the head gear pulleys and down into the engine house where they wound round the drum of the winding engine. When operating at full speed, the cages could bring the coal up at 85 ft per second or 58 mph! Each cage had three decks, each of which accommodated 4 tubs. After nationalisation in 1947, both shafts wound coal but No. 1's tubs were replaced with 3 ton capacity mine cars, one on each deck. Meanwhile, No. 2 was equipped with skips which were filled at the Worsley 4 foot seam from a conveyor and discharged onto another con-veyor at the surface. This made operation of No. 2 pit much easier since the ventila-tion arrangements required the tubs to be passed through an air lock at the surface. The head gear features in the TV series, Peaky Blinders.

Winch

This was used for changing the winding rope and guide ropes in the shaft. It came from Agecroft Colliery in Pendlebury. It opened in the 1840s and its smallest pieces of coal were later used as fuel for nearby Agecroft Power Station. to which a belt conveyor was constructed. But it wasn't breaking even financially and closed in July 1990, marking the end of mining in the Manchester coalfields.

Narrow Gauge Railway

The volunteers have laid the tracks, which were formerly underground, to create a visitors attraction for adults as well as children. You can travel on the diesel train for a small charge. It takes you through the gates which are from the NCB North West Area Training Centre in Haydock. The initials BC stand for Boston Colliery which was sunk north of Penny Lane, Haydock in 1868 by Richard Evans and Co. It closed in 1952 due to a disastrous fire and became the Training Centre which closed in 1989.

The Engine House

If you can manage the steps, please do have a look in the Engine House which is listed as Grade II by Heritage England. Here you will find a display about the histo-ry of the site. You will also see the 3,300 hp twin tandem compound steam winding engine which served the No 1 shaft and is the largest surviving colliery winding en-gine of its type in Europe. It is the last remaining in the NW and one of only 4 left in the whole of Britain. It was

manufactured by Yates and Thom of Canal Iron-works, Blackburn and installed between 1910 and 1912. It has four cylinders in twin tandem compound arrangement which are connected to a huge bicylindo-conical drum. This was connected by steel wire ropes to the head gear pulleys which enabled the coal, men and supplies to be lowered and brought up the shafts. At full capacity, the engine could haul 9 tonnes of coal up the 890 yard shaft every 2 minutes. There were originally two engine houses, one for each shaft. The No. 2 engine was also built by Yates and Thom but it was only half the size of the no.1 engine with two cylinders in a cross compound arrangement. WW1 delayed its delivery until 1919. Astley Green Colliery was unusual in that it was a linear site so when the colliery closed in 1970, demolition began to the north of the site with the No. 2 head gear and engine house. Fortunately, Lancashire County Council, local museums and ar-chaeologists managed to stop the demolition at this point, saving the No.1 head gear, engine house and winding engine and its internal travelling crane. In 1983 the Red Rose Steam Society took a lease on the site and moved in. The winding engine had been exposed to the elements and was in a poor condition. However, they managed to secure some grants from Greater Manchester Council to try to restore it and, after 25 years of labour, the engine was once again in full working order. In 2013 it ran for the first time in decades powered by compressed air. The engine now runs on the last Sunday of every month. For a small fee, you can work the engines and power them up as a special treat for yourself or for friends and family.

Lancashire Boiler

The engines were powered by 16 Lancashire boilers, supplied by Yates and Thom which originally stood between the two engine houses under a canopy. The Lanca-shire boiler was invented in 1844 by William Fairbairn. It is an internally fired, nat-ural circulation boiler that is reliable and low maintenance but generates a lot of steam. Initially, all 16 ran off coal but 6 were later converted to run off methane from below ground. They were accompanied by three huge chimneys. One was for the exhausts of the coal boilers, the second was for the methane boilers and a third was added in the 1960s for a high-pressure Martin-Stoker-Fired Water-Tube boiler. During the lighter evening shift, they produced enough electricity to power the whole site and put some back into the National Grid. Electricity had been used at the colliery from the beginning. Compressed air was used extensively underground which was generated from steam driven compressors. The total capacity was 3000 kilowatts from steam turbine generators which used a combination of high pressure steam from the boilers and low-pressure exhaust steam from the winding engines. Sadly, all 16 of the original Lancashire boilers were removed during demolition but this one, from Astley Hospital, is of the same type. It is going to be restored with all its the dials and brasswork replaced. It weighs around 22 tonnes.

Pit Wheel

This is from Golborne Colliery which was started in 1878. In 1975 it was linked with Bickershaw and Parsonage collieries in Leigh as part of the new NCB ‘Super Pit’. and from 1977 coal winding stopped at Golborne. On March 18th 1979, a bro-ken ventilation fan led to a buildup of methane gas in the Plodder Seam. This was ignited after an electrical circuit test sent a fireball shooting through the 1,800ft deep tunnels. Three men were killed instantly. The other seven were rescued but died later in hospital from serious burns and lung injuries. Only 20-year-old apprentice Brian Rawsthorne survived the accident. An inquest returned a verdict of death by misad-venture. There is a memorial to the men at St Thomas Church in Golborne and some new streets in the village have been named after the men who died. After a year on the picket line in the 1983/84 Miners Strike, the Golborne miners returned to work only to see the pit close in 1989.