

FROM THE E-NEWSLETTER EDITOR

Welcome to 2017 and a brand new year. We are now less than fourteen weeks until the largest event of its type for the year – the GEMBOREE 2017, the 53rd National Gem & Mineral Show, which will be held from Friday 14th to Monday 17th April, at Tony Luchetti Showground in Lithgow, New South Wales. It is staged by the Gem & Lapidary Council of N.S.W. Inc. under the auspices of the Australian Federation of Lapidary & Allied Crafts Association Inc.



Already there are some very pleasing emails and phone calls from people around Australia indicating that they will be travelling to Lithgow in April.

The GEMBOREE 2017 booklet (left) contains all the competition information and time is about to run out for you to enter the competitive sections.

JUST A REMINDER – some of the judging for GEMBOREE 2017 will take place on the 18th and 19th February, so there are certain entries which MUST be received by the judges by February 11th. Entries should be sent by Express Mail, not Registered Mail, that way parcels can be tracked. Late entries will be returned to sender.

For any GEMBOREE 2017 Competition enquiries contact Annette on 02 4341 5277 or Barbara on 02 4393 6168 or Mobile 0417 676 435.

The GEMBOREE 2017 Committee are liaising with the various gem and lapidary clubs from around New South Wales who have offered to assist in the organisation and co-ordination of this Lithgow and New South Wales event. I must thank all those assisting with the colossal affair which will see lapardrists, mineral and fossil collectors, gemologists, carvers, dealers and tailgaters, equipment suppliers and the general public descend on Lithgow over the four days over the Easter long weekend.



The photo (above) was taken a decade or so ago, early on a July morning. It shows a magnificent day with the fog settled on Lake Wallace and with the power stations in the background. Remember to bring your camera when you visit Lithgow as there is plenty for you to record.



Should you need off-site accommodation details or other local information you can contact the talented staff at the Lithgow Visitor Information Centre, 1137 Great Western Hwy, Lithgow. NSW 2790 or telephone 1300760276 or email <u>tourism@lithgow.com</u> or <u>www.tourism.lithgow.com</u>

The countdown is now on! It will be great to meet

people in person and I hope you all make the effort in a few weeks time to visit Lithgow in the Central Tablelands of New South Wales.

Alan McRae, FAIHA – GEMBOREE 2017 e-newsletter Editor and Publicity Officer



CALCITE CRYSTALS

This gypsum (calcium sulphate) specimen was found near Rylstone in New South Wales. Gypsum is represented in many collections but generally they are in an impressive crystal form. Being one of the more common minerals in sedimentary environments, it is easy to obtain specimens but a perfect specimen is another matter as it is quite soft with a hardness of just 2. This means one could even scratch it with your fingernail.

The Egyptians, Romans and Greek and later the Byzantine Empire used one form of gypsum known as alabaster to carve their great number of statues, ornaments and decorative containers out of. The whiter the alabaster the better and rulers despatched slaves to go and mine it and bring it back. Carvers and tradesmen found the relatively soft mineral undemanding to carve thus leading to its wide use. When the English gentry located gypsum crystals in the 1200 and 1300s they called them 'spear stones' due to their shape and also believing they fell from the sky.

The Greeks basically named it, calling it 'gypsos', meaning plaster or chalk. It can be found in vast beds which are generally formed from precipitation out of highly saline waters. Most formations of gypsum were formed many millions of years ago after the evaporation of inland oceans. It is interesting to note several years ago that NASA found gypsum in Mars rock which suggests that there must have been water on that planet at some time in the past. Today gypsum is mined in numerous parts of the world.

Normally it is found in colours of white, grey as well as colourless but depending what other minerals or impurities are around there are some superb specimens coloured yellow and reds to browns. Some specimens can even be found to fluoresce. Crystals come in a number of shapes and are found to be quite transparent to translucent with some growing to enormous sizes, such as those in Mexico. Some crystals can be found with air bubbles and water trapped inside.

One man who lived in the Mudgee - Rylstone area and had an association with gypsum was William Chandos Wall who, during his life, also decided to turn his hand to politics and become an Australian politician. He certainly had an interesting life being a mineral surveyor, geologist, prospector, a quarry and mine operator and a mining agent at one time or another. He was a tinkerer and loved to invent things such as a gold sluice, knife cleaner and washing machine, for which he applied for patents.

William was elected to the New South Wales Legislative Assembly as the Member for Mudgee in mid-1886. Over the years he also mined for all sorts of minerals such as gold, antimony, dolomite, tin, limestone, tungsten, gypsum as well as coal and kerosene shale, the latter in the Megalong Valley. He was born in 1845 and had grown up on goldfields since he was three and had leant a good deal about mining from his Irish parents. Just before World War One William Wall was quarrying for gypsum (Calcium sulphate), dolomite (Calcium-Magnesium carbonate) and limestone (Calcium carbonate) near Mudgee on Dolomite Road at Mount Knowles. These minerals would be despatched by steam train around 1911 to either the iron works at Lithgow or to Sydney.

Today gypsum can be found everywhere and are in the form of building sheets which are used in construction, especially for internal walls of our houses.

THE LITHGOW FIRE BRIGADE

The first 'fire brigades' in New South Wales date from the mid 1800s. Modelled on the brigades in the United Kingdom people paid insurance companies to provide the fire fighters. These insurance company brigades only attended fires at buildings that had their company's badge affixed to the premises. It was not till 1884 that the New South Wales Parliament regulated firefighting.

Fires were a problem in any town or city and a large problem in Lithgow was chimney fires that could burn down a house if not effectively extinguished, so a town brigade was sorely needed. Letters and at least two petitions were despatched in an attempt to form a Volunteer Fire Brigade from 1896. After several meetings a brigade was formed early in 1898.

A letter was received from the Office of the Railway Commissioners, Sydney, 30th March. 1898. "Sir,— With reference to my letter to you of the 23rd instant, relative to the application forwarded by the Lithgow Volunteer Fire Brigade, for lease of a portion of railway land as a site for a fire station opposite Bank Street, Lithgow, I am directed to inform you that the matter has had consideration, and the Commissioners have approved of the brigade being leased a small portion of railway land in the position desired, subject to the payment of a nominal annual rental on the understanding that any buildings which may be erected by the brigade must be removed at any time on three months' notice, if the land, the subject of this lease, should be required in connection with railway purposes. It will, therefore, not be advisable for the brigade — who have been written to and informed of the terms under which they can have the land - to erect other than a wooden building. Signed H. McLachlan, Secretary, per The Hon. J. Cook."

Initially the group of volunteers functioned from an iron shed in Mort Street with a hand drawn pump cart. Their railway land application was successful and their first 'fire station' was where Alexandra Park is today in Railway Parade.

On 15th May, 1900 the Lithgow Mercury reported that "a new bell has been purchased by the Lithgow Fire Brigade for the use of the local station. The cost was £15 and the bell was put in position last week. It weighs nearly two cwt and it is expected the clanger will be heard about three miles off. The members of the brigade intend that it shall be heard on the night of the 24th. The brigade has also been offered a secondhand (horse-drawn) fire engine for £75 cash or £100 on terms. We are told that an engine is needed and will materially increase the usefulness of the brigade, especially when dealing with an outbreak of fire away from the water mains. The question of finance is the only obstacle in the way. It is proposed to borrow the money on the security of the premises and plant, after those have been insured. The trustees have been approached and are willing to sanction the loan if there is no legal objection. If the money can be secured, an inspection of the engine will be arranged prior to purchase. The cost of a new engine would be very much in excess of the figure named."

In 1900 a letter was received from the Chief Secretary's Office, Sydney, dated 21st June. "Sir, I am directed by the Chief Secretary to acknowledge the receipt of your letter of the 13th instant, applying for a special grant in aid of the Lithgow Fire Brigade and to inform you that the matter will be dealt with when the estimates are under consideration. Signed Chrichett Walker, Principal Under-Secretary, per Joseph Cook, Esq., M.P."

The Lithgow Fire Brigade were keen to raise money for a horse-drawn 'fire engine'. Thus in early August 1900 the members of the Lithgow Fire Brigade were busy arranging for a grand social, next Wednesday evening, in the Oddfellows Hall. Every requisite for an enjoyable night will be provided and as the proceeds will be devoted to the purchase of a new fire engine the public support may be reasonably expected. It was commencing at 5p.m. and tickets could be obtained for Gents - 2s 6d with Ladies - 1s 6d. Good Music and refreshments would be in abundance with dancing up to 2 a.m. Mr. J. W. Hamilton, Secretary, and Mr. H. Payne, Treasurer, were in charge of arrangements.



A manual fire engine, had been purchased in Sydney for use by the Lithgow Fire Brigade. The cost was £75. The engine formerly belonged to the old No. 1 Station, Sydney, but though in use for some years it is, we are informed, in a good state of repair. It is expected here next Wednesday, and weather and other circumstances permitting, would be "christened" on the following Saturday which it was.

In those early days ladders were either used singularly or put on the building by the firemen whilst other ladders were on wheels with a supporting structure and were called "fire escapes". There was every convenience for the carrying of firemen, hoses, suction pipes and tools though sometimes all the man would not fit so they followed on pushbikes or horseback.



In naming the fire engine just purchased by the local Lithgow Brigade, on Saturday, Mr. Cook (left) expressed the hope that the brigade will receive a fair measure of local sympathy support. "There and is nothing unreasonable in the claim for both and we trust

that the support will be at least equal to the sympathy. A fire brigade is needed here and the cost of properly equipping and maintaining it should be defrayed in part by owners of property. Men who cheerfully give voluntary service deserve some recognition and this paper has never been slow in advocating the claims of local institutions which are of real public benefit. Each member of our fire brigade has to earn his living in some calling, many of them are, we believe, engaged in hard manual labour. To render themselves efficient as fire fighters they must attend practice regularly, and whenever a fire occurs, day or night, winter or summer, they are expected to turn out for arduous and

dangerous work. This kind of volunteer effort is deserving of such sympathy represented by cash contributions and we hope that any appeal by the brigade will meet a liberal response. The people everywhere are too ready to forget the labour and



sacrifice which the voluntary efforts of bodies such as the fire brigade involve, and it is well that they should be reminded of their obligations from time to time. Had proper notice been given, we feel sure that Saturday's little ceremony would have been witnessed by a much larger crowd. But as it happened many who sympathise with the work knew nothing of the arrangements made and no general invitation was issued to the public. This inadvertence, however, will not affect the power of the new engine, and whenever the need arises we hope it will he found capable of doing good work. Meanwhile, if it devolves on the residents to support the brigade, it is also the duty of the members to merit that support by making themselves as efficient as possible. Efficiency can only be obtained at the cost of regular practice. Constant practice will show the public that the brigade moans business and will inspire confidence in its ability to cope with any outbreak of fire. We would like to see a system of capitation allowance for efficiency, as some compensation for the trouble and loss of time involved in training. Also there should be a reasonable scale of remuneration for the work which members have to do when called on to suppress a fire. At the present time the position of country fire brigades in this colony is far from being satisfactory. They have neither the monetary support, opportunities for training, nor the legal status of their city brethren. Such assistance as they receive from insurance companies is very small and intermittent and the average country brigade has, in order to maintain its existence, to promote entertainments or beg cap in hand from the local public. This is a very unsatisfactory position for bodies which render such valuable service and on whose continued efficiency the safeguarding of large property interests. Legislation with the object of putting country brigades on a hotter footing has been often promised. Only last week the Premier, in reply to a question, stated that "a fire brigade bill has been prepared and will be introduced shortly." Let us hope that Parliament will be able to shake off "that tired feeling"

to which so many legislators appear to have lately succumbed and pass a measure giving our country brigades a stability and opportunities which have hitherto been monopolised by those in the city."

The Lithgow volunteers (left – outside their station around 1910 and ready to go in a procession – photo 'Lithgow City Council - Library') quickly settled down into the new order of things, and thanks to the energy of the members, were soon able to turn out with great promptness.

On Monday 20th December, 1909, a fire broke out at daylight in the fancy goods, stationery and news agency shop of Mr. H.E. Middleton, in the main street. Despite the efforts of the brigade and others, the stock was destroyed and the building damaged. Mr. Middleton stated that the stock and fittings were insured with the Australian Mutual Fire Insurance Company for about £800. He estimated the damage by fire at about £800 or £900. The building, which was owned by Dr. Asher, was insured with the Sun Company. In 1912 the Cook Street site was purchased from the Bracey family for £660 and the fire station was number 363.

QUARTZ ON FLUORITE FROM MOROCCAN MINE

With the interest increasing in collecting rocks, mineral and fossils there are some superb mineral specimens finding their way into the market place these days at gem and mineral shows. Mineralogists usually find the various crystalline forms of great interest and it comes in a great range of colours, as well as being found bi-coloured. Thus fluorite can be an ornamental stone.

One such specimen is the quartz on fluorite (on page 5) from the El Hammam Mine, Djebel Meknes, in Morocco which has given up some beautiful specimens which are composed of calcium fluoride. The fluorite mine is located some 40 kilometres southwest of Meknes where the mine was named after the mountain where it is situated - Djebel el Hammam.

This mineral's name has stemmed from the Latin word "fluere" which means "to flow", with fluorite being a popular mineral with both the Romans and Greeks. For the Romans fluorite related to the Goddess of Women, Bona Dea, who was responsible for fertility and children. The Romans were so involved with their gods and goddesses they often put allegorical figures or personifications onto their coinage. The Goddess of Women is generally portrayed sitting on a throne alone accompanied by a cornucopia signifying great abundance. Intertwined somewhere would be a snake which embodies healing.

The Greeks, like the Romans, used fluorite for ornamental carvings which were worn on special occasions, along with special drinking cups, even though the fluorite was a bit soft as fluorite has a hardness of four on Mohs Hardness Scale. Both civilisations used fluorite as a talisman to maintain their health, children and to bring wealth. In the 1500s fluorite was used as a flux in metal making. Ironically excellent quality fluorite was sought after to use in manufacturing high grade optical lenses for equipment such as microscopes, telescopes and cameras.



Fluorite is known for its colour variety and can be found in a multiplicity of hues – from greens, purples, blues, yellows, reds, pinks, browns, white and black, as well as colourless. Often collectors will put specimens of pieces of fluorite under an ultraviolet light to allow it to fluoresce. Generally it seems the colour blue is the most predominant colour to show up in the fluorescence, whilst other specimens will give purples, reds and varieties of green. The different colourations are due to distinctive impurities.

The El Hammam vein, which is about four kilometres long, isn't the only fluorite mine in Morocco as other veins are also worked to yield differing colours such as yellow, pale green and purple.

Fluorite can be found in various locations around the world such as Canada, Africa, Switzerland, Greece, Britain, United States of America, Germany, Mexico and where else but China. Fluorite is often found associated with metallic ores such as silver, lead, zinc and galena. As collectors would know fluorite can crystallise in massive forms as well as statuesque isometric cubes, clusters and nodules. The mineral has a transparent to translucent look with a vitreous lustre and make great display items.

JAMES WALKER - LITHGOW PIONEER

Lithgow had several early pioneers establish themselves in the district and influence the future of the city and surrounds. One such man was James Walker who was the son of a flourishing Perth merchant. Perth was famous for its famous Tay Bridge (see the Perth halfpenny copper token top next column) after which he would later name his favourite house at Wallerawang. Born in 1785 in Scotland James went on to join the Royal Marines, becoming an artillery officer. During the Napoleonic Wars James served in the Baltic and Iberian Peninsula campaigns. The year after he retired from the Marines on half pay, paid by the Navy.

James Walker decided to follow his younger brother, William Walker, out to New South

Wales. William had already made something of himself as an entrepreneur taking advantage



of the early buying and selling of food and other supplies and the expanding whaling industry. Later, by 1830, he and a partner owned six whaling ships.

James Walker sailed in company with Andrew Brown and his nephew Thomas. The British Colonial Office was at that time encouraging former military officers and veterans to accept land grants and convict labour if they settled in New South Wales. The two men set sail from Gravesend on the brig 'Brutus' departing on 8th April, 1823, under Capt. James Smith, with merchandise and other passengers for the Colony of New South Wales. Gravesend is a port town located in north-west Kent on the southern bank of the River Thames in England, and a common port of departure for sailing ships. The brig arrived in Sydney Harbour on 25th September, 1823.

On arrival just over the Blue Mountains James took up his grant of land, calling it 'Wallerawang.' The name was a Wiradjuri Aboriginal one meaning "a place of wood and water". In 1824 James Walker received his 2,000 acre grant. Not long after he set up an out-station in the Wolgan Valley.



James came prepared, arriving in Sydney Harbour with 18 pure-bred Merino sheep, Scottish wooden ploughs and other farming implements valued at £200, seed and other crates of much needed requirements. He had been advised that he would need an overseer, so arrived with an Andrew Brown, a fellow Scotsman. With Andrew Brown as manager and an application in to have some convicts assigned to him. James Walker 6

afterwards purchased some 1800 cross-bred sheep in the colony for $\pounds 1500$ to start a breeding programme with the sheep he had brought with him. He also sought and acquired 312 cattle to breed, along with 15 horses.



Crude huts were first made then work commenced on a sandstone residence as well as establishing the land grant. By 1826 the men had more suitable lodgings with Walker able to have a small church constructed by 1829. Some three years later James Walker sailed home to Scotland to marry Robina Ramsay Walker, who was his cousin. Afterwards the couple retuned to make their home at 'Wallerawang'. In a letter home Robina noted in a letter that they lived on the voyage on oatmeal, bread, ship's biscuits, pickled pork, salted beef, potatoes, Scottish barley, flour, butter, suet, cheese, currents, vinegar, marmalade, lemon juice (was mixed with sugar to prevent scurvy), sugar, tea and cocoa. Port wine was on board for distribution by the ship's surgeon, "as needed".

Walker had varying numbers of assigned convicts over the years which were often noted as around 40 in official returns. On 19th September, 1831, the Principal Superintendent of Convict's Office in Sydney listed a number of prisoners who had absconded from their employment. "Some could be at large with stolen Certificates and Tickets of Leave and thus all Constables and others were hereby required and commanded to use their utmost Exertions in apprehending and lodging of them in safe custody". The Principal Superintendent of Convicts, Mr. F.A. Hely, J.P., added that "any Person harbouring or employing any of the said Absentees will be prosecuted as the Law directs". Two convicts were listed amongst the number - "Patrick McManus, No. 31-265. Edward, 36, Farmer's Man, Roscommon, 5 feet 5, grey eyes, light brown hair, ruddy much freckled completion - from Mr. James Walker, Wallerawang" and "Thomas Livings, No. 29-1494, 'America, 21, In door Servant, Bristol, 5 feet 7, blue eyes, brown hair, ruddy pock-pitted completion - from Capt. Brown of Bathurst."

Hospitality was often given to travellers such as the first Presbyterian clergyman and party who were accompanied by the 'mailman', a mounted policeman, who carried the whole of the weekly mail in a small piece of leather strapped on the front of his saddle. The postage from Sydney to Bathurst was then one shilling per letter. Mrs. Agnes Busby later wrote - "At Wallerawang we were the guests of Mr. Andrew Brown, who, in the morning provided us with fresh horses for the last stage of our journey. The road from Wallerawang was not too clearly defined; several new tracks and deviations were in process of making, and our stockman in charge seemed somewhat mixed in the matter of roads."



All travellers carried a firearm of some sort when travelling or were out of their home. Often more than one pistol would be carried on their person.

Like many of the early settlers in the districts west of the Blue Mountains James was on the lookout for land to squat on. When Irish-born Governor Major-General Sir Richard Bourke, who served for just over six years as governor of New South Wales and appointed by King William IV, introduced in his last year in 1837 an annual licencing system for squatters. He was attempting to control the boundaries of the new lands over the Blue Mountains. Each separate landholding or station were required to pay £10 each year. Many settlers pulled various swifties such as stating others owned certain land or they listed several stations on just one document, and James Walker was no exception.

On 9th June, 1837, James Walker (he gave his address as Wallerawang, Bathurst), wrote a letter concerning the lack of sufficient convicts, of which an extract was published in The Sydney Gazette and New South Wales Advertiser – "You may judge of the straits we are in, when I tell you that, after pressing all the blacks and their gins that I could possibly muster into the service, to follow the sheep, I was still obliged to leave one flock with 1,380 sheep in it; another 1,186; three flocks have above 1,000 and several 700, 800, and 900."



In mid-September 1839 three notorious bushrangers were captured by the Mounted Police near the Vale of Clwyd. They were Alexander Lambert, who had escaped some time ago from

Goat Island, together with Brennan, who escaped about four months previously from the Vale of Clwyd

lock-up, where he was under commitment for horsestealing and attempted murder, and a runaway from Mr. James Walker of Wallerawang. They were lodged the Hartley lockup, by Sergeant Moore, in commanding the Mounted Police at Mount Victoria, who, in conjunction with Sergeant Sneyd of the Bowen's Hollow Police, took them a few miles beyond Wallerawang, the residence of Mr. James Walker. They had for the previous four months committing great depredations on the settlers about Mudgee, committing robberies and terrorising the whole neighbourhood. It was noted that - "Too much praise cannot be given to Mr. James Walker who offered his services to the Police, and greatly assisted them on account of his knowledge of that part of the country) in tracking the villains. He was present and assisted in the taking of them"

In 1844 James Walker controlled some 5,184,000 acres, 3,000 cattle, 13,000 sheep and some 30 stations.



James Walker's wife enjoyed the local birdlife such as the kookaburras, magpies, blue wrens, emus, swans, parakeets, finches and the like.

James Walker died of a stroke on 24th September, 1856, at his home, aged 71, and was buried on his Wallerawang property. It is worth noting that Thomas Brown of Eskbank, also a Scotsman and industrialist in Lithgow, was interned in the same burial ground when he died in 1889. He was not part of the Walker family.

The Walker's well known two-storeyed Wallerawang homestead and graveyard was later flooded by the damming of the Cox River for a cooling pond as part of the Wallerawang Power Station project, in the name of progress.

A LITHGOW CLERGYMAN'S APPEAL

With the declaration of World War One against Germany in August 1914, Australia, as a dominion of the British Empire, was automatically also at war. One man from Lithgow as a minister here when he enlisted in September 1914. Unfortunately, and just on one year later, he was killed. Plans were put in place to hold a memorial service in Lithgow in late August 1915.



Speaking at a memorial service in Lithgow to the late Corporal Rev. Pittendrigh, (above) Rev. J. Bathgate said that he would pray to God that the Australian leaders could realise that the Hun is at our door, backed up by the Austrian and the Turk, possibly the Bulgarian, and by Enemy Alcohol and King Pleasure. What are we going to do against these allied powers of hell? Let us get out and fight unless we are cowards. Every true-born Britisher of youthful age should be like a bloodhound on the track of a murderer, and every man of maturer years should be like a blood hound straining at the leash. "In God's name," he appealed, "let us get to Gallipoli, where our brothers laid down their lives for us."

LEAD (Pb), ONE OF OLDEST METALS

Lead ore has been found in many countries around the world and is often associated with the minerals sphalerite, calcite and fluorite. It is one of the oldest metals known to humans having been worked from at least 5000 BC. Lead ore mined these days invariably has silver and zinc in it and more often than not some copper, all adding to the value of the ore. This sulphide mineral crystallises in the cubic crystal system repeatedly showing octahedral forms. The malleability of lead and its ease of smelting saw its use rise in the 1700s and throughout the Victorian era where it was used to make pipes, seal rooves, line sinks and other building uses. These days its main use is for automobile batteries and in communications.



Australia's first lead mine was at Glen Osmond in South Australia in 1841 with more major discoveries later at Broken Hill Charles when Rasp discovered rocks he contained suspected lead in 1883. Later in 1923 the Mt Isa deposits were located.

These days mining companies have had to dig into the ground to find lead orebodies in places such as the Admiral Bay deposit over in Western Australia. Lead is also mined in north Queensland at the Cannington deposit though it was found just under the surface. These days the Hellyer Lead Mine has allowed Tasmania to receive income from mining lead again. In the late 1800s tin ore had been mined at Zeehan. Unlike the early days when mining was very labour intensive our lead-zinc mines today are highly mechanised.

NEWNES OIL SHALE MINE



Newnes Oil Shale Mine and Works, situated at the end of Wolgan Valley amongst the steep-sided sandstone escarpments, was established five years after Federation. The purpose was for the mining of Torbanite and processing low grade oil-shale (above).



Above – a section of the railway line into the Commonwealth Oil Corporation Works at Newnes.

Torbanite is a dark-brown to black oil shale containing a large amount of carbonaceous matter. It was named after the kerosene shale found at Torbane Hill near Bathgate in Linlithgowshire, Scotland, in the late 1850s.

The Newnes Oil Shale Works was built by the Commonwealth Oil Corporation Ltd and commenced construction in 1906 however it took another five years to complete, the retorts being initiated in 1911. The works were operated until the depression hit in 1932, though sometimes not to its capacity. It irreversibly closed up in 1937 with much of the works being transferred to Glen Davis which was located on the other side of the mountain, north of Newnes.

'Newnes' was the name selected for the township next to the works after the chairman of the Commonwealth Oil Corporation, Sir George Newnes. Whilst the project was designed with expansion in mind, it never happened.



Above – cricket match being played in Newnes in 1909.

Some of the jobs that had to be filled at Newnes included Gangers, Track Traffic Controllers. Locomotive Drivers, Locomotive Fireman, Train Guards, Fettlers, General Labourers, Retort Foreman, Retort Hand, Retort Labourers, Still Foreman, Still Hand, Still Cleaner, Electricians, Electrical Mechanic, Power House Attendant, Firemen, Trimmers, Foreman Engineer, Foreman Carpenter, Sawyer, Carpenter, Fitter and Turner, Bricklayers, Bricklayer's Laborer, Engineer's Smith, Striker, Fitters, Pipe Fitters, Fitters, Boiler Maker, Contract Miners for the Coal Mine, Oxywelders, Motor Lorry driver, Motor Lorry boy, Storeman, Clerks, Juniors, Trimmer. Shiftman. Shiftman brusher. Wheelers. Blacksmith. Machineman, Steam Engine Driver, Reserve Steam Engine Driver, R.S. Deputy, First Aid man, Reserve Boy and Boys. The works employed around 50 miners and there were two men who hired horses to the works. The Office Staff at Newnes -included jobs like Salaries, E.S. Chairman of Committee as well as the Works Manager and Mine Manager.

When one sees the list above one would expect a large number of residents and workers at Newnes though not all workers decided to move to the township. Newness boasted around 100 residents when the site was first being constructed from 1906. With initial laying out, leveling and foundation work the population, many in corrugated iron, crude slab timber and log houses, with some even in tents, grew to some 800. Numbers were down to 220 in 1911, less than 100 during the first year of the Great War and in the mid 1920s the town population had increased to 200.

Colin Christopher McRae and Douglas and Ada MacRae worked at Newnes for a time in the 1920s at one of our nation's significant shale oil making structures. The complex allowed for mining the shale, treating the ore, distillation of the various products as well as processing the bi-products and shipping them off.

The facility beside the Wolgan River incorporated a coal mine, coke ovens, No. 1 and No. 2 shale adits, retorts, wax sweating plant, water reservoir, shale gantry, ash heap, powerhouse with a 200 foot brick chimney, wax refinery, candle making factory, lube oil stills, fine oil boilers, naphtha refinery, 2 other tall brick chimneys, stock tanks, paraffin sheds, blue oil washers, settling house, washer tanks, clay quarry, brickworks, dirty water pond separator, skipway tracks, railway line, workshops and mine and works offices.

The Commonwealth Oil Corporation Ltd had two test adits dug out as well as No. 1 and No. 2 mine, both on the south side of the Walgan River. As it happened the shale from No. 1 mine proved to be of mainly low quality and was ultimately abandoned.



Above – photo of Newnes showing the 'bluff' which gives an idea of the depth of the valley and rugged country.

Fortunately No 2 mine yielded a much high grade of oil shale. These mines were established east of the shale oil works. In turn the Commonwealth Oil Corporation turned out several products other than the crude oil and included benzene for cars, kerosene, naphtha, paraffin from which candles were made onsite as well as oils for lubrication. As petroleum coke was need onsite it was manufactured in the complex using some 90 beehive ovens. They also found a market in Lithgow for their coke where it was loaded into rail wagons and taken to Hoskins' Steelworks and the Cobar Smelters.



Above – Church with Rectors's tent beside.

Oil-shale rock was heated up until it broke up producing an oily vapour. The process was carried out in a specifically designed oil-shale retorts developed in Scotland. Later the shale oil underwent various washing processes the aim being to eliminate impurities before being distilled. The retorts were not charged until 1911 after several years of construction and then modifications.



Above - the later Rectory at Newnes 1910.

The brick makers were kept busy in the company's brickworks which had been built close to the refinery as an enormous quantity of bricks were required for the works. Specialised fire bricks that had to survive continually high temperatures for long periods were sourced elsewhere. Workers children were sent to school at the Newnes schoolhouse which had been constructed in 1910 and went on to be used until World War Two even though the plant had closed up.



Above - Railway line put in to the Commonwealth Oil Corporation Ltd Works at Newnes. The line was laid by contractor Henry Deane in less than a year and a half and was quite a difficult job as he tackled the 30 miles of track that included steep grades and constricted curves. Work began in 1906 and the company put up a railway platform during 1907.



Above – the corrugated iron Commonwealth Restaurant at Newnes.

On 19th June, 1915, the Lithgow Mercury reported, "We understand that some new capital has been put into the Commonwealth Oil Corporation, as the result of which operations will re-commence in about three weeks at Newnes, in the Wolgan Valley. This was the scene of former activity, but in recent years the place has been deserted as a result of the company's discontinuance of work. New retorts have been constructed, and these will be fired in three weeks. It is expected that three weeks later operations will be in full swing, and that Newnes will recover its position as a hive of industry. Mining continued at Newnes until 1931 when the emphasis with the oil-shale industry saw Glen Davis at Capertee move to the fore. On hearing the news about Glen Davis the majority who still resided at Newnes decided to leave. This saw any useable gear at the Newnes plant transferred to Glen Davis, allowing it to be 'recycled'.

The Glen Davis shale-oil plant, subsidised by the Commonwealth Government, got underway in 1937 primarily due to the fuel needs for World War Two. Its name was associated with the Davis Gelatine Company who initially used the extracted oil for the company.

On 12th January, 1951, it was reported that "a clash of opinion on the use of the Glen Davis township as a result of the projected closure of oil shale operations has occurred between two Government departments. Originally it was suggested that the section of the township now used by the miners and their families would be made available to the immigration Department as a migrants' centre. The addition of a Department of Supply official to the committee of officials investigating the township is believed to result from a proposal that a Commonwealth munition works for the filling of ammunition should be established at Glen Davis, which is close to Lithgow, where the chief Commonwealth small arms factory is established."

LITHGOW'S BREWERIES & AERATED CORDIAL FACTORIES

Lithgow has an interesting history of quenching the thirst of local citizens. Probably the most interesting is the Zig Zag Brewery which owed its name to a section of railway line that allowed the railway to reach Lithgow the method being the idea of John Whitton, the Engineer-in-Chief of the New South Wales Government Railway. Thus Lithgow can boast a number of businesses who manufactured aerated cordials as well as several breweries making beer.



The idea of having a local Lithgow brewery was the brainchild of Mr. Richard J. Inch. Being a mining town beer commanded a place in local society. Inch's Lithgow Brewery or Eskbank Brewery was located at the lower end of Brewery Road on the side of Farmers Creek.

The brewery boasted two fermenting baths of six

hundred gallons each with the mash tub holding six quarters of malt. Mr. Inch had a copper boiler for wort (wort is the infusion of malt in hot water before it is fermented into beer) which could hold sixteen barrels. There was also an iron boiler for the liquor which held fourteen barrels. The malt house was a good size with a seven quarter cistern. A steam boiler was used to force the pump, the Tangye 3 hp engine situated in the tower, was used also for driving the washing machines and conveyed the hops and malt to the upper storeys

By 1882 it was turning out around 56 hogsheads of beer a week during summer, which was reduced to around half the peak production amount during the colder months. Barley was often imported from New Zealand or Tasmania and would cost around 5/6 per bushel, landed in Lithgow. The brewery supplied the local Lithgow trade as well as distributing beer supplies to Bathurst, Wallerawang, Vale of Clwyd, Rarana, Mudgee and other hoteliers along the railway line.

The brewery operated two spring delivery vans and one wagon, all horse drawn, and eight horses were housed in the stables. At least 300 - 500 empty beer casks were kept on hand, built and maintained by a cooper on site. The Lithgow Workmen's Club, which came about in 1887, ended up as Inch's greatest customer, often receiving deliveries 6 days a week.

In 1886 there were 77 breweries in the New South Wales colony which employed 987 hands. In the same year the Government in their wisdom decided to impose an excise tax on beer made in the Colony which saw the amount made locally cut by at least 10%, however there was still over 13,178,912 gallons produced in New South Wales. Up to ten men worked in the brewery at this time.

Not long afterwards Mr. Inch decided to sell his brewery to two Lithgow shopkeepers, Mr. Bennett and Mr. Gibbs, the men forming a company controlled by Thomas Bennett. Mr. Inch was leaving the district.

At some time the brewery underwent a name change becoming the Burton Brewing Company. Later Mr. Inch and his brother came back to Lithgow sometime between 1902 and 1904 to commence another brewery. With the Thomas Mort's refrigeration and meat works complex not in use the two men transformed the old works into a brewery they called the Blue Mountains Brewery, though it didn't last long.

In 1884 the Zig Zag Brewery was established by Henry P. Corbett, the licensee and owner of Lithgow's Imperial Hotel. The brewery consisted mainly of brick buildings though the builders used sandstone for the bottling house. The tall brewery tower was often used for signwriting. He chose the land for the brewery as the site boasted a continuous spring of extraordinarily pure water, essential for brewing beer. Some four years later Alfred Goodacre was taken in as a partner, the business being known as Corbett & Goodacre. The brewery produced both beer and stout, the latter a dark beer, the latter was named Wombat Stout (below). Corbett & Goodacre's brewery (bottles below) featured in a number of stories on Lithgow in Sydney newspapers. By 1893 the Corbett and Goodacre's Zig Zag Brewery had taken over as the principle supplier to the Lithgow Workmen's Club.





Mr. Henry Corbett married a Mrs. Jones, and it was her son John Alexander Stammers Jones who had previously received his beer making and management skills at the Waverley Brewery in Sydney. Thus Corbett's stepson ended up taking over the Zig Zag Brewery business in 1896. Around 1900 Jones added on to the buildings, expanding the brewery and purchasing some new machinery thus making it one of the most successful breweries in the region. The brewery operated for ten hours a day, six days a week.

Beer was supplied in 5 and 9 gallon wooden kegs or in 26oz amber coloured bottles (above) that were hand capped. The bottles were heavily embossed with their logo, a wombat, featuring prominently on the side. Unfortunately few bottles remain.



J.A.S. Jones entered his beers, porter and stout in local Agricultural Shows including Lithgow and Bathurst, often winning prizes that he would mention in his advertising (above).



Mr. Jones had his brewery sign written with his name 'Jones' prominently at the top (above). He also had a stone residence, complete with swimming pool, constructed in front of the brewery. The brewing process took 7 days before it could be bottled.



The Imperial Hotel, opposite the Eskbank Station, by 1915 was being operated by Mr. Bloom (above) and it was during this time that Sydney beer made an appearance in Lithgow. John Jones married Nina Harris, and they continued operating the brewing until they left Lithgow, after selling the brewery in 1928. The business then known as The Lithgow Brewery Ltd. By 1935 it became Terry's Brewery under Wingate Terry and later it was taken over by Tooths before being closed for beer making in 1951.

Mr. Thomas Young was operating his Lithgow Steam Aerated Water and Cordial Factory in William Street, off Main Street, in Lithgow by at least June 1898. They had received direct from Britain a new and first class soda-water machine but with silver, and in other respects superior to any other in the western districts. Mr. Young had the greatest confidence therefore in asserting that in the manufacture of aerated waters he is now in a position to compete with any manufacturer.



His brews of both ginger beer and hop beer, the latter 'clear and piquant, just the beer for summer' made his business a popular one. At the time he was having the problem that all aerated cordial manufacturers faced – people stealing and breaking his bottles. He warned that, "Any person known to wilfully destroy Young & Co's aerated water bottles will be prosecuted as the law directs, without respect to persons."

Young & Co also suppled their drinks for functions as happened in 1898 - with Mr. R.J. Inch of the Eskbank Brewery supplying the beer, Mr. E. Summons and Thos. Young & Co., the cordials, H.E.S. Bracey the bread and cheese for the counter lunch and the spirits came from Stanley and Littlewood of Sydney.



Thomas Young later removed his business to Main Street, calling it the Pioneer Aerated Water and Cordial Factory as this c. 1908 postcard by Kerry testifies. Photo - 'Lithgow City Council-Library'.



Thomas manufactured lemonade, sarsaparilla ginger ale, ginger punch, lemon, raspberry, orange bitters, pine apple, lime, tonic water, soda water and other fruit flavoured drinks along with vinegar. Like all family run soft-drink manufacturers Thomas would have had his eye on the heavens as often the weather determined their sales. Almost half of his sales took place in the sixteen weeks over the summer period. If there was a long hot and dry season sales would soar.

The Zig zag brewery location later was utilised for Dale's Brewed Beverages and Soft Drinks, continuing till the 1970s. The site later was used to prepare bottled water and is known as Lithgow Valley Springs.



A Bathurst cordial manufacturer also entered the Lithgow market. A soda syphon of N. & F. Ashelford – Bathurst & Lithgow (left) was produced at the Ashelford's Cordial Works located in Morrisett Street in Bathurst, though these bottles were all but discontinued by the time the business moved into the new factory in Peel Street.

This once well-known company was operated by Norman and Frank Ashelford with Ashelford's flavoured cordials considered a popular treat for many children from the 1930s until the 1960s. The two men had acquired the business from a Mr. Lunt. Aerated cordials were sometimes referred to as

'lolly water'

Ashelfords fixed the tap mechanism onto the top of their bottle by means of a groove round the neck of the bottle into which was fitted a metal split ring. Onto this split ring the top was attached by employees of Ashelfords who used for a time an older English made Haywood Tyler and Company patent syphon holder to refill their syphon bottles. All of Ashelford's soda syphons were of clear glass though there were a number of coloured glass types used by other companies.

Ashelford's soda water syphons were popular in both Bathurst and Lithgow hospitals, in their sick wards. Both hospitals purchased syphons and families would bring them to patients as gifts. The company was placing small advertisements in local newspapers with one appearing in February 1940 with the headline "Always ask for Ashelford's Aerated Waters off the ice."

By the 1940s the business was supplying their soda syphons and cordials in large quantities into Lithgow, the fact appearing in print on their syphon and cordial bottles. They spent £10,000 on installing new faster and modern plant and equipment. Part of this new plant consisted of a £600 bottle washer.

At some stage Ashelfords joined the Australian Council



of Soft Drink Manufacturers and later the Soft Drink Association. They also subscribed to various trade journals such as Australasian Soft-Drink Journal.

Initially Ashelfords employed a staff of four and had one truck to make deliveries to corner stores, local home deliveries and over time to Lithgow, Sofala, Rockley and Blayney. The Ashelford men were most particular with their flavours and ingredients with the company preferring the use of Jamaican ginger for their ginger beer recipe.

By the mid 1930s Ashelfords were producing 20 different flavours and surprisingly one of their popular soft drinks was made on grapefruit. Then as the Second World War continued the business was effected by essence and other shortages.

Lithgow have had other cordial manufacturers over the twentieth century.

EXPERTS AT FAULT – NOT WOLFRAM AT ALL AT LITHGOW

On 5th April, 1909, the Lithgow Mercury carried a small article from their own Correspondent stating: - "I am sorry to report that the metal supposed to be wolfram, discovered on Mr. Hotham's land, has proved not to be wolfram. It resembled it so closely that it deceived many of the experts, and the mine who had several assays done and they could not tell the difference. One expert who visited the field was so much mistaken that he offered to make arrangements to purchase the show. The asbestos looks very promising, and improves us it goes down. It is being

tested in Sydney at present, but as the show promises to be very good the owners are not anxious to part with it."

"The find was at Porter's Retreat and in the previous February the Mercury reported that: - "Much excitement has been caused locally by the discovery of asbestos and wolfram on Mr. Hotham's property at Little River. There are two finds about a mile apart. The wolfram lode has been opened to a depth of three or four feet, and is solid and defined. The asbestos shows plainly on the top and in very large quantities. Mr. Fletcher, manager, and Mr. Gow, assayer, of the Wyalong mines visited the finds and stated they had never soon more promising shows. Men are pegging out claims, and all the land on either side is being rapidly taken up."

DID YOU KNOW!

the Mount Victoria Inn was built by convicts in 1839 for William Cummings and became a half-way stop for exhausted travellers on their way to Lithgow and Bathurst. It was later renamed 'Rosedale' and today it is part of the Hartley Valley Holiday Farm.

in the middle of July 1918 it was reported that: - "A message from Lithgow states that a well-known resident, Mr. John Lewis, claims to have invented an aeroplane which will rise straight into the air, instead of having to race along the ground before elevation can be secured. Mr. Lewis is now in Melbourne and has already submitted his model to the Commonwealth aviation experts, but it is not known whether he has 'interested' the experts or not. If the machine does all that the inventor claims for it, a gigantic stride forward in the conquest of the air will be made.

that in the Middle Ages fossilised ammonites were carried as charms to ward off and be a protection against serpents. They were also treasured as a cure for baldness and infertility.

that quartz is the most common mineral that is found on earth as well as being one of the hardest crystals.

the 1892 Annual Show in connection with the Lithgow A. H. and P. Society, was held at Lithgow on Thursday and Friday, 19th and 20th May. There were several exhibitors from Bathurst at the show, including Messrs. J.B. Grahame, P.M. (who pulled out a prize for best pair of buggy horses), L.C. West (who scored well in the pigeon line) and P.O. White, who gained first, second and highly commended in the White Leghorn class of the poultry section. Mr. F. Oatley also won first prize in the Spaniel class in the dog section. Lithgow residents did well in the many categories making the show a great success.

Greenockite, a rare mineral formed mostly of the element cadmium, was named in honour of Earl Charles Murray Cathcart, also known as Lord Greenock, a British army general. He subsequently became the Governor General of the Province of Canada. Lord Greenock announced the discovery of Greenockite as a new mineral from the excavation at Bishopton tunnel, near Port Glasgow in Scotland.

Governor Macquarie named the fertile valley the Vale of Clwyd, near Lithgow, after a valley in Wales.

that in 1916 the Lithgow State Coal Mine was the first government owned coalmine in New South Wales and would later become the largest coal supplier in the state of New South Wales. However, it was forced to close after the 1964 floods as the coal mine was considered to be unsafe to mine.

that uncut gems are often fairly ordinary looking. It's only when they are cut and polished that they obtain the brilliance and lustre that makes them so valued.

that in Pre-Columbian times, the natives in North America mined opal, turquoise, copper, silver, coal, obsidian, jet, and other igneous rocks, asbestos, salt, and sodium sulphate, as well as other minerals.

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