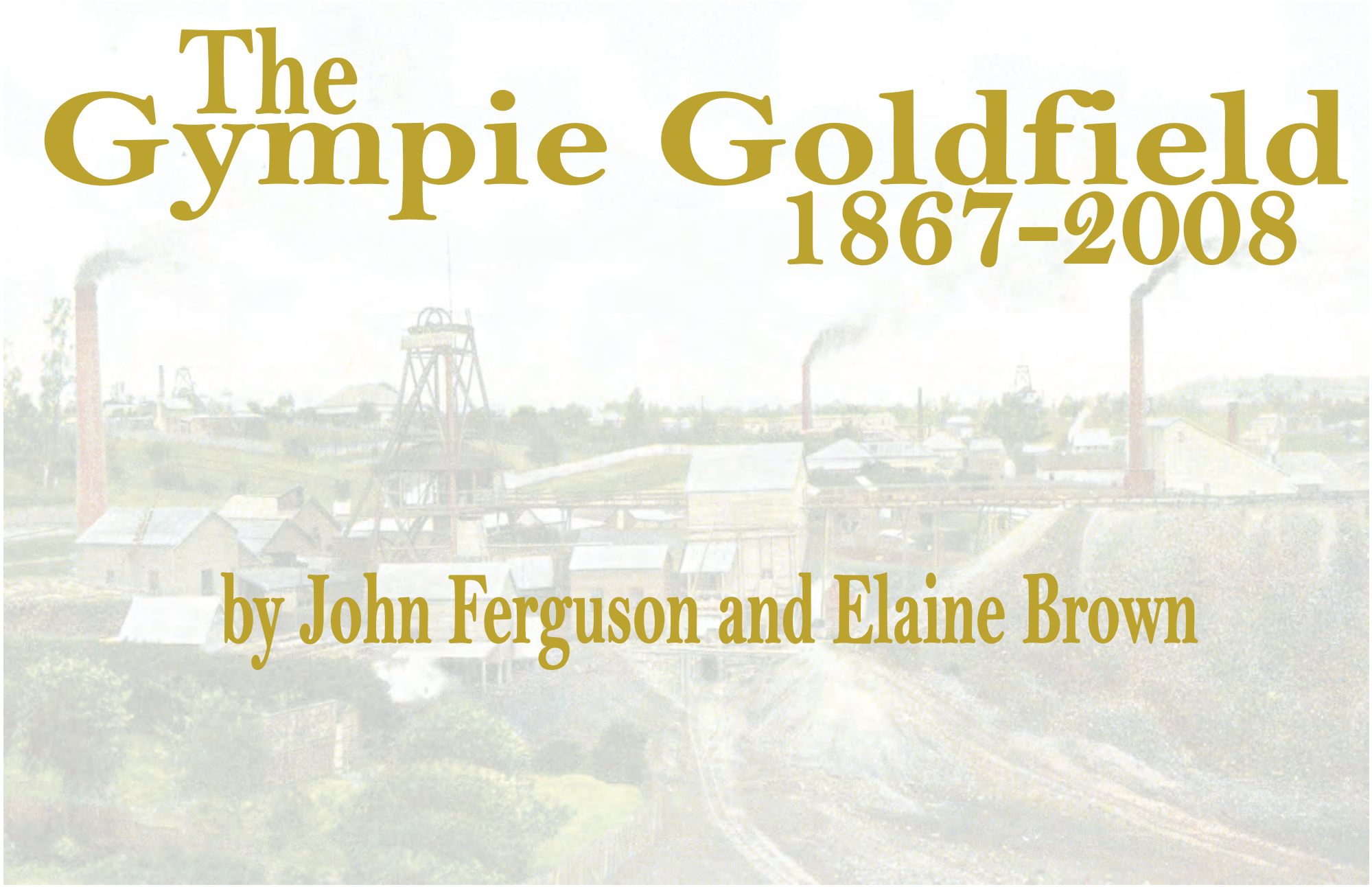
# The Gympie Goldfield 1867-2008



by John Ferguson and Elaine Brown

# About the Authors

## John Ferguson

John's father Norman and grandfather Ben Ferguson were both born in Gympie and great-grandfather, Thomas John Ferguson, had a store in Mary Street trading as Ferguson Bros. After more than twenty years in Latin America with the International Centre for Tropical Agriculture (CIAT), John and wife-soulmate Loretta sought change as empty-nesters at Mooloo near Gympie. Between 1996 and 2003 they enjoyed flower farming and local community life. Searching for his family roots led John into exploring the history of the Gympie goldfield.

## Elaine Brown

Educated at the Maryborough Girls' High School and the University of Queensland, Elaine became a high school teacher. After retirement, she returned to study, completing a PhD in History in 2005. She is now in her fifteenth year as Local History Officer at the Gympie Regional Library, a satisfying job that involves working with a team of enthusiastic volunteers. Elaine and her husband Geoff live on a farm at Wolvi, near Gympie. They have two adult sons and five grandchildren.

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**Front cover.** Coloured Post Card, 1909, looking south along Brisbane Road at Monkland, showing Gympie's three most productive goldmines. Foreground: South Glanmire & Monkland headworks and tramway. Right: 2 South Great Eastern battery shed and chimneys. Centre background: Scottish battery shed and headframe. Source: Elaine Brown.

**Back cover.** Above: Miners underground in 2 South Great Eastern mine, c.1898.
Below: Cake of retorted gold, South Glanmire & Monkland mine c.1905.
Source: (Keith Waser Collection) Gympie Regional Libraries.

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# Mayor's Foreword

It is my very great pleasure to provide this foreword to this commemorative publication.

It is fitting that this book has been sponsored by the Queensland Government as part of the Q150 celebrations given the enormous role the Gympie Region has played in the development of Queensland. The state was saved from financial crisis by the goldrush which followed James Nash's discovery in 1867. The early days of the goldfield were characterized by miners using picks and shovels to search for gold. These tools then gave way to huge machinery and the landscape of Gympie was transformed as many of the illustrations in this book show. The search for gold continued into the modern era and this book details the various stages of the Gympie goldfield. Many Queenslanders share a historical link with Gympie and will find the history revealed in this book fascinating.

I commend the authors, Elaine Brown and John Ferguson, on their research for this book and Gympie Regional Council staff, Rachel Lethem, Geoff Barlow and Janet Lee for their dedication to the production and editing process. As Mayor of Gympie Regional Council, I am proud to see such an outstanding publication produced using local resources.

**Mayor Ron Dyne**

# Table of Contents

# Gold and Legends

*'Gold is the child of Zeus, neither moth nor rust devoureth it, but it devours the minds of men.'* Pindar, 5th century BC.

*The term 'carat' is often associated with gold and is based in antiquity. A carat equates with the weight of four grains of fruit from the carob tree and describes the gold content of an alloyed gold item. 24 carat gold is pure gold, with lower carat numbers, such as 22, 18 and 9, indicating the presence of other elements.*

Gold is a metal, the only yellow metal, and is a very rare element. Concentrations of gold in the earth's crust are few and far between. Today, a relatively rich ore deposit may yield five to ten grams of gold per tonne of ore mined, or five to ten parts per million on a weight basis.

Gold is soft, malleable, resistant to oxidation, and an excellent conductor of heat and electricity. It is a very dense metal and has a specific gravity of 19.3, nineteen times the mass of an equal volume of water.

For centuries, people have made gold into jewellery and used it as a basis of currency, trade and wealth. The quest for gold is part of folklore, inspiring legends, passionate desires and persistent hope. Two ancient legends that convey these themes came with the diggers to Gympie and form a part of Gympie's history.

## El Dorado

The Spanish term El Dorado means 'the gilded one'.

A sixteenth-century conquistador, Gonzalo Jiminez de Quesada, encountered the Muisca Indians in Colombia, South America. There he heard the story of a legendary king whose crowning ceremony involved being dusted with gold on a raft on a lake, while gold and emeralds were thrown into the water as an offering to the gods. The Spanish accepted the story, which over time became embellished to include a kingdom and a lost city. Expeditions searched for El Dorado from Colombia to Ecuador, Peru, Guyana and Venezuela.

The term El Dorado has come to represent an ultimate prize or a place where sudden wealth can be acquired, especially from gold. In early Gympie there was an El Dorado shaft.

*Gold is found in association with other minerals. On the Gympie goldfield, Gold (scientific symbol Au) was associated, in decreasing order of proportion, with quartz (SiO2), calcite (CaCo3), silver (Ag), pyrite ('fool's gold', FeS2) and arsenopyrite (FeAsS).*

Later the company that controlled mining leases on the entire goldfield was named Gympie Eldorado Gold Mines. A reef and a structural block near Monkland also bear the name Eldorado.

## The Phoenix

The Phoenix is a mythical bird that never dies. At the end of a long life, it builds a nest or funeral pyre, is consumed by flames, then rises anew from the ashes. Its splendid plumage includes the colours red and gold.

Found in Egyptian, Greek, Arabic and Chinese mythology, the Phoenix symbolizes resurrection, immortality, eternal youth, life after death, and the rising and setting of the sun.

The association of the Phoenix with gold may relate to the role of fire in the refining process that separates gold from dross. In the life of a goldfield, it may represent the renewal of searching and hard work from a new burst of energy or capital.

On the Gympie goldfield, the word Phoenix was first used by the Leishman brothers, who applied for their Prospector's Claim (PC) on the Phoenix reef in July 1868. A number of mines with the name Phoenix were successfully worked north and south along the Phoenix reef. The name Phoenix was also given to the largest bed of black slate in Gympie, which yielded 1.5 million ounces of gold bullion. As the goldfield's major structural blocks were better understood, the name Phoenix block was applied to an area between Horseshoe Bend and the One Mile.

Today, Phoenix Street, Phoenix Lane and the Phoenix Hotel preserve the Phoenix name in Gympie.

The Phoenix Reborn exploration shaft, Ray Street, Gympie.
Source: State Library of Queensland, neg. 107252.

# Before the Goldrush

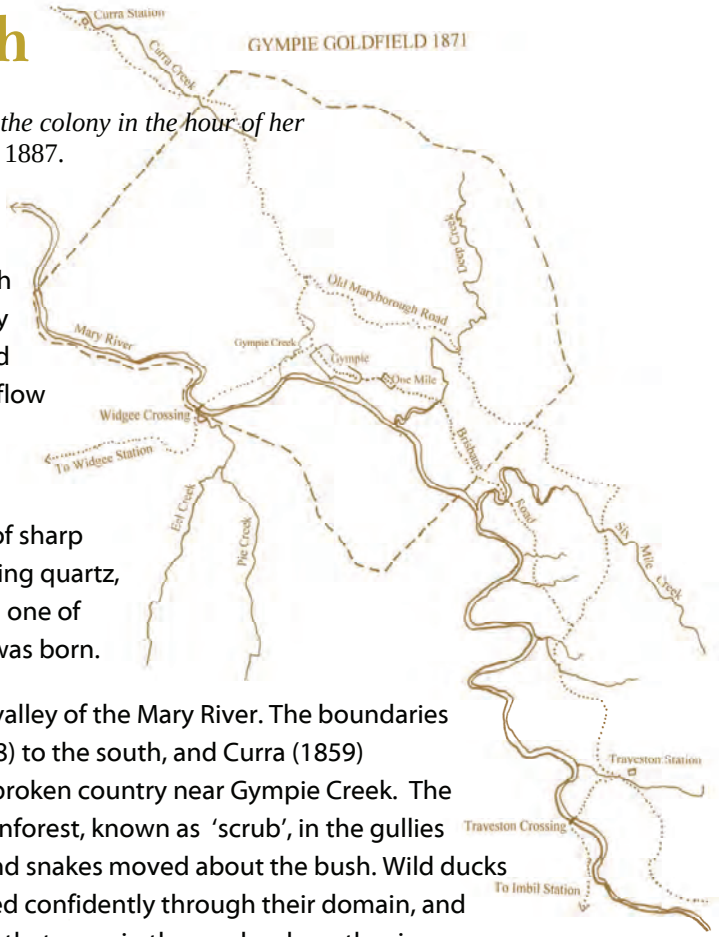
*'Gympie should always be held in reverence and known as the saviour of the colony in the hour of her deepest and darkest desolation…'* Aleck J. Ivimey, 1887.

*The crests of Gympie's ridges and the short gullies near the Mary River still bear names that link them to the goldfield's earliest days: Caledonian, Calton, Surface, Palatine, Hospital and Commissioner's Hills, and Nash's, White's, Walker's and Commissioner's Gullies.*

*Tributary creeks also enter the river at Gympie. To the south, the Six Mile and Deep Creeks drain the eastern mountains, and to the north lies Gympie Creek itself, named by stockmen from nearby stations before the goldfield was discovered.*

## The Mary River

The Mary River rises in the Conondale Range and meanders north through fertile, ever-widening flats to enter the sheltered waterway of Great Sandy Strait. When rain falls heavily on the Conondales and on the hazy, forested mountains that shadow it east and west, the Mary and its tributaries overflow their banks in floods that scour their beds and deposit silt on the flats.

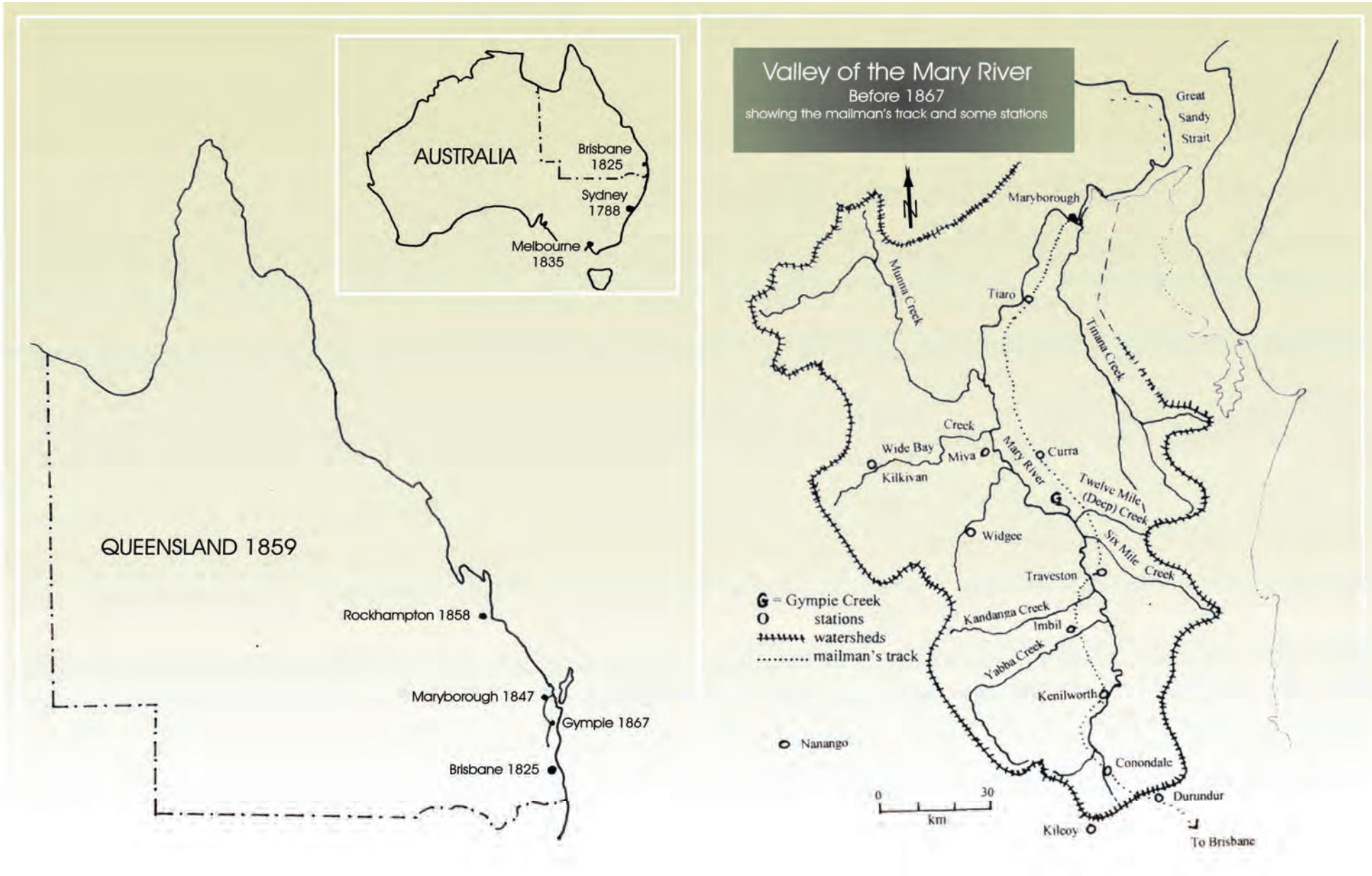



About half way along the Mary River's course, on its eastern bank, lies an area of hard rock that has been chiselled by erosion to form a landscape of sharp ridges and steep-sided gullies. Hidden in the ridges lay reefs of gold-bearing quartz, from which, over time, grains and nuggets had eroded into the gullies. In one of these gullies, in 1867, the first gold was found and the Gympie goldfield was born.

By 1867, squatters had established large sheep and cattle stations in the valley of the Mary River. The boundaries of these stations – Widgee (established 1849) to the west, Traveston (1858) to the south, and Curra (1859) to the north – were not well-defined, and stockmen tended to avoid the broken country near Gympie Creek. The area was bushland, with open eucalypt forest on the ridges and dense rainforest, known as 'scrub', in the gullies and along the river bank. Kangaroos, wallabies, scrub turkeys, goannas and snakes moved about the bush. Wild ducks frequented the river, and its waters held plenty of fish. Aborigines travelled confidently through their domain, and small parties of timber-getters had begun to log the giant red cedar trees that grew in the scrubs along the river.

A mailman's track from Maryborough to Brisbane passed east of the river, crossing it near Traveston Station. The first part of this track was marked in 1852 by Crown Lands Commissioner John Carne Bidwell, who became lost south of Six Mile Creek and was rescued by Aborigines after a week of wandering in the bush. Bidwell died in Maryborough the following year, and the track was completed in 1859 by surveyor James Buchanan.

Near what became the Gympie goldfield, the track wound along the tops of the ridges to avoid the deep gullies, coming closest to the Mary River at Pilcher's Hill, on what is still called the Old Maryborough Road. Between this track and the river, in an undiscovered El Dorado, lay the wealth that Queensland so desperately needed.




Source: Elaine Brown.

# Queensland in the 1860s

In 1859, after a ten-year struggle for separation from New South Wales, Queensland became an independent colony of the British Empire. At this time, its 23,520 settlers were scattered across the Darling Downs and through the valleys of the Brisbane, Upper Burnett and Mary Rivers. Most of Queensland, an area occupying one-fifth of the Australian continent, was unexplored by Europeans.

The colony's income depended chiefly on the export of wool, tallow, hides and skins from the large sheep and cattle stations inland from the coast. In 1860 the newly elected Queensland government set out to expand this limited economy by borrowing money to build an elaborate Parliament House and construct a railway to tap the pastoral wealth of the Darling Downs. Immigration was actively encouraged and by 1865 the population had more than tripled.

Early in 1866, the Queensland countryside was experiencing drought and the economy was in recession. In May, Agra and Masterman's, the London bank that had undertaken to finance the government's capital works, unexpectedly failed. Funds to pay the contractors who were building the Ipswich to Toowoomba railway dried up. Unpaid navvies from the railway marched to Brisbane, their anger culminating in a riot on the night of 11 September 1866. Newly arrived immigrants swelled the ranks of the unemployed.

The colony's leaders, thoroughly shaken, overcame the worst of their troubles by issuing Treasury bills and sending some of the unemployed to parts of Queensland where work was available. Agra and Masterman's Bank eventually restored its loan, but obviously there was a need for the more rapid creation of wealth. Could a goldfield be found to rival the spectacular discoveries that had enriched New South Wales and Victoria fifteen years earlier? Small deposits of gold had already been discovered in Queensland, but public confidence had been shattered in 1858, when thousands of disappointed gold-seekers from Sydney and Melbourne were left stranded in a disastrous rush to Canoona in the Rockhampton District.

On 8 January 1867, the Queensland Government announced a reward of £3,000 for the discovery, twenty miles from any existing goldfield, of a goldfield which, after six months, supported a population of 3,000. Three weeks later, this offer was amended, restricting the maximum reward to £1,000 for a discovery, five miles from another goldfield, which, after six months, supported 500 men.

Among those who set out to search the countryside in response to this offer was a reserved young Englishman named James Nash. For ten years, he had spent time prospecting for gold and, unlike many of the new seekers, he knew exactly what to look for. When his discovery of alluvial gold on the Mary River was announced in October 1867, the colony's uncertain beginnings were forgotten in the excitement of gold fever.

**THE NAME GYMPIE**

'Gimpi gimpi' was the Aboriginal name for the 'Gympie stinger' (*Dendrocnide moroides*), a shrub that grows in the rainforest, especially where light penetrates to the forest floor along creek banks or tracks, or where trees have fallen in storms. The plant bears attractive, grape-sized pink berries, but woe betide anyone who reaches to pluck them. The long hairs on its large green leaves contain acids that sting for days if you only brush against them. Source: Elaine Brown.

# Discovery and Rush

*'King Gold is unequalled in his power of commanding worship, and multitudinous is the number of his willing slaves.'* Carolan and Pascoe, 1899.

## The Fiveways

Gympie's brick and timber buildings sit lightly on a landscape of hard ridges and deep gullies that border a straight stretch of the Mary River. Beneath the ground, hidden from sight, lies a labyrinth of shafts and tunnels, dug in the glory days of the Gympie goldfield.

The historic centre of Gympie is the Fiveways, now a levelled roundabout but once part of a steepsided watercourse known as Nash Gully. In the soil of this gully, in September 1867, the lone prospector James Nash found promising concentrations of alluvial gold.

The Fiveways, 1868. Source: Gympie Regional Libraries.

The Fiveways, 2007. Photographer: Greg Weir. Source: Gympie Regional Libraries.

Four of the Fiveways' radiating roads – Lawrence Street, Mellor Street, Caledonian Hill and Calton Hill – rise steeply to reach different parts of the horseshoe-shaped ridge that surrounds Nash Gully. The fifth and lowest road is one of Australia's most unusual main streets, Mary Street, named after the nearby Mary River. During the goldrush that followed Nash's discovery, storekeepers and publicans erected tents and bark humpies along the narrow, winding bank of Nash Gully, striving to be as close as possible to that scene of great activity. Claims were forbidden in Mary Street, but miners tunnelled under the businesses. Today's Mary Street, retaining its original bends, dips into a flood-prone tributary gully, then climbs Commissioner's Hill. Since the beginning of settlement, floodwaters coursing down the river have backed up many times into Nash Gully, inundating Mary Street and damaging low-lying parts of the town.

# The Discoverer

James Nash 1868. Source: Gympie Regional Libraries.

At the Fiveways, near the Gympie Town Hall, stands a block of polished granite, a memorial erected in 1953 to immortalise James Nash. If Nash could stand at this memorial today, would he recognise the site of his discovery in the gully that bears his name?

Intense human activity has modified the topography of the past. The watercourse in Nash Gully is now a covered drain, channelling stormwater under buildings, roads and parks before emptying into the Mary River. The dusty or boggy tracks through the bush are smooth, bitumened streets, built up and paved with crushed mullock, the waste rock from the mines. The dense scrub on the river banks and the gum trees and wattles on the ridges have been replaced by orderly plantings in parks and private gardens.

Yet it is possible, using early maps and Nash's own accounts, to recreate his movements in the warm, dry spring of 1867. In mid-August, he walked away from the disappointing Nanango goldfield in the South Burnett district, intending to prospect from station to station along the mailman's track to Maryborough and take a ship back to the Calliope diggings near Gladstone if he had no luck. He had with him his swag, tin dish, pick and dog, and, after a trip to Brisbane from Imbil Station, extra rations and an old horse.

Approaching the Mary River from Imbil, Nash came across the camp of a cedar-getter, Reuben Denman. After sharing a meal, Nash asked for directions for crossing the river, and a boy showed him the Traveston Crossing. He spent that night with two stockmen at Thomas Powell's Traveston Station, dining, legend says, on a fish he caught in the creek.

The following day he travelled north along the mailman's track, which crossed the river's eastern tributary creeks some distance upstream to avoid the scrubs and gullies near the river. The first tributary, known then as now as Six Mile Creek, had been recommended by Denman as worth trying, but Nash, not liking the look of it, proceeded on his way. He crossed the next tributary, Twelve Mile (now Deep) Creek, too far upstream to discover the riches that lay in its scrub-filled bed near its entry into the river.

Following the ridge that is now Rifle Range Road and climbing to a high point on Old Maryborough Road, Nash looked westward, where the broken country near the river caught his interest. Making his way along a ridge towards the river, he descended the steep slope now known as Caledonian Hill and arrived in the gully that bears his name. Although the weather was dry, the creek still held a few waterholes.

Nash made his camp on a rise beside the creek, boiled his billy for dinner and looked around. Above him and beside the track he had just descended, a small ravine (later named Goodchap's Gully) cut into the hillside. Scrambling some distance up the ravine, he picked a dish of dirt and washed it in a waterhole. A report in 1867 stated, 'The first dish opened his eyes, the second slightly affected his nervous system'.[1] Nash himself remained calm about his discovery, stating matter-of-factly in an interview in 1896, 'Just at the end of where Mr T. J. Ferguson's garden now is, I tried a dish of dirt and got a speck in it; that half-day and the next I got an ounce and three pennyweights.'[2]

On the second day, he broke his pick and was forced to undertake a three-day journey to Maryborough to replace it. The times were so

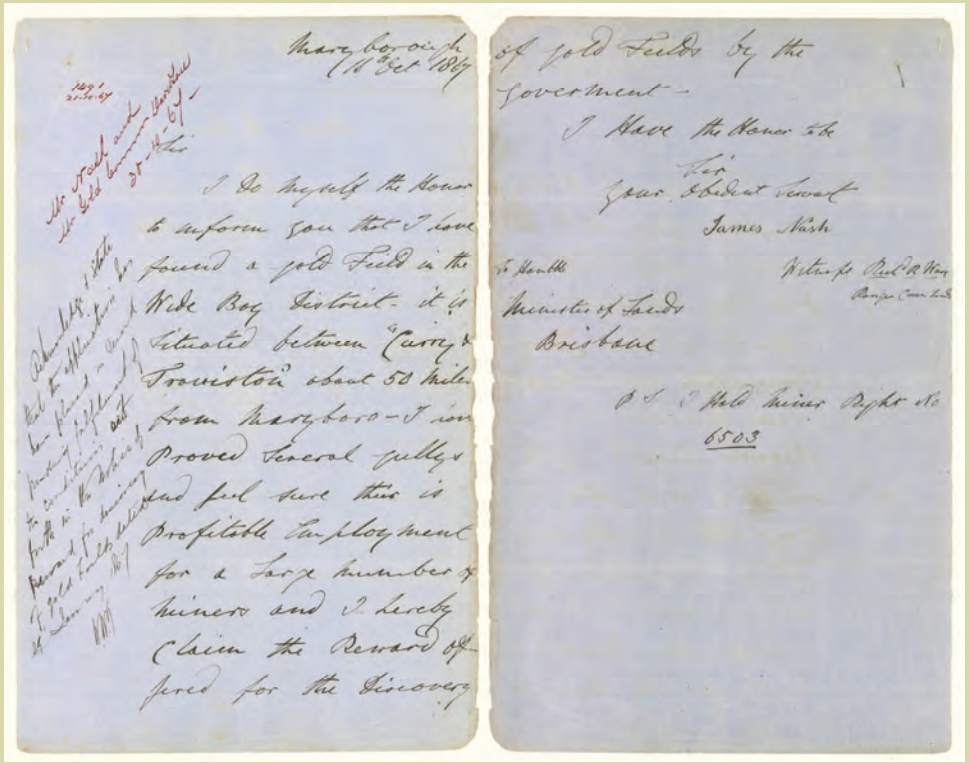
bad that he had trouble selling his gold, but eventually he exchanged it with storekeeper William Southerden for £1 in cash and £3 in tools and rations.

Back at the gully, Nash began prospecting in earnest, camping further downstream and washing his dirt in a waterhole there, then moving further up the main gully. At the site of the present Civic Centre, he found pieces of gold embedded in the soil all around him. After six days, he had recovered 75 ounces of gold and knew he had made an important discovery. But Nash was cautious. As an experienced prospector, he knew the risk of starting a goldrush that turned out to be an unprofitable 'duffer'. He needed help to prove the field before announcing his find.

Returning to Maryborough, he took a steamship to Brisbane and sold his gold to Edmund MacDonnell, the manager of Flavelle Brothers, the Queen Street jewellers. In a small town like Brisbane, secrets were hard to keep. When William Henry Walsh, the Member for Maryborough, asked Nash where he got the gold, he replied, tight-lipped, 'Up North'. Nash later said he meant north of Brisbane, but at the time his statement was taken to mean from the Cape River or another northern goldfield.

Nash bought a horse and a dray, had a cradle made, and telegraphed a message to Sydney to ask his brother John Nash to join him. Uneasy about the attention he was attracting, he returned quietly to Maryborough, accompanied by Billy Malcolm, a young Scot he had met on the voyage to Brisbane. After buying a tarpaulin and stocking up with rations, corn and chaff, Nash and Malcolm headed back to the golden gully.

For a fortnight they worked hard, waiting for John Nash and nervously answering the questions of the few people who passed by. When curious Aborigines asked Nash what he was doing, he replied, 'Looking for same as another white man at Kilkivan.' (Gold had been been found earlier on Kilkivan Station.) Nash found these Aborigines friendly because he knew their 'boss', the 'King of Miva'.



Letter signed by James Nash to the Minister of Lands regarding his discovery of a gold field in the Wide Bay District, stating his claim of the reward offered for the discovery of goldfields by the government, 16 October 1867. Source: Queensland State Archives, Digital Image ID. 2766.

Also passing by with his bullocks was cedar-getter Reuben Denman. According to Nash, Denman refused an invitation to try his luck, but Denman later claimed that, when Nash visited his camp, he had told Nash exactly where to find the gold. This claim led to a controversy that raged, in print and among miners on the field, for years afterwards.[3]

Anxious about the possibility that word would get out before he could claim his discovery, Nash set out for Maryborough on his dray horse, carrying a heavy bag of gold. On the way, without knowing it, he passed his brother John, en route to join him at the diggings. At Maryborough, he presented his gold to the Police Magistrate, Richard Bingham Sheridan, and two days later, on Wednesday 16 October 1867, his discovery was officially announced.

# Goldrush

The pace of Nash's life then increased dramatically. On Thursday, he set out for the diggings on horseback, accompanied by Police Sergeant Richard Ware and a small party of men. On Friday, Ware tested the ground and pegged out a Prospectors Claim at the spot where Nash had found gold in the soil all around him and one-and-a-half reward claims in the gully below it. As Billy Malcolm, John Nash and the men who had arrived in Ware's party pegged out their claims and started to dig, the Gympie goldrush began. The next week, Maryborough was deserted and 300 men were on the road to the diggings. Nash Gully was soon taken up with claims all the way to the river, with new arrivals forced to scour the countryside, covering the land in shallow holes, resembling open graves. George Ambrose White of Maryborough spent three days exploring the opposite side of the ridge from Nash Gully. When he told a few acquaintances of the gold he had found, the word spread like wildfire and the rush to occupy White's Gully began. Walker's Gully, a branch of White's Gully, was rushed soon afterwards. The gold in this gully was first discovered by Captain Matthew 'Alligator' Walker, who had earned his nick-name capturing crocodiles in the Fitzroy River. Shorter, steeper gullies, such as Nuggetty Gully and Scrubby Gully, were also rushed. In December 1867, nuggety alluvial gold was found at One Mile Creek and Deep Creek. The rush that followed established the second settlement on the field, One Mile township, about one mile distant from Nash Gully and the settlement named Nashville.

The *Queensland Daily Guardian* brings to life the frenzy of the time:
*The creek runs through thick scrub, full of vines with long sharp spurs growing out of them which impeded the passage of not a few. Some of the diggers, in their haste to be first, were caught by those vines and thrown on the next one to them; others had their arms and faces badly scratched and cut, and nearly covered with blood; others again with only one leg to their trowsers. When the prospector had arrived at his claim, the mob divided; some ran up the creek and others down, as if for bare life, shouting at the same time, "I will take this claim – I will take this claim." In a short time the excitement was over, and all returned to their camp with the intention of trying their claim tomorrow.*[4]


Source: Elaine Brown.

# The Diggings

At first people were reluctant to believe that Gympie might be a viable, long-term goldfield. Apart from James Nash and his mates, the first arrivals were settlers from Maryborough, stockmen from surrounding stations and, briefly, the first Chinese. But when large quantities of gold began to emerge from the diggings, a second wave of men set out, pushing wheelbarrows, riding horses, or travelling in drays – taking days or weeks to negotiate the primitive tracks to what was then a remote location. From Brisbane and Ipswich they came by Durundur Station and the rugged Conondales. From the Darling Downs and the Burnett River they arrived via Widgee Crossing. Most took ship to Maryborough and followed the mailman's track to Gympie.

On 26 October 1867, William M. D. Davidson, the Wide Bay District Surveyor, arrived as Acting Gold Commissioner to approve the boundaries of claims and issue the Miner's Rights and Business Licences that were the government's chief source of income from the goldfield. On Commissioner's Hill, overlooking the diggings, Davidson set up his tent, erected a flagpole and raised the Union Jack. He reported a peaceful population of 350 men, 'gully-raking' to obtain the quartz pebbles that contained particles of gold, and prospecting widely in the surrounding countryside.[5]

Five weeks later, when Davidson was replaced by a permanent Gold Commissioner, Henry Edward King, the population had grown to 3,000, including 200 women and children.[6] King built a bark office in place of the tent and established his family at 'The Camp', near the junction of Gympie Creek and the Mary River. Accompanied by troopers, he spent much of his time riding around the diggings, keeping order and settling disputes. His reports described the growing population and expressed optimism about the future of the field.[7]

Joseph Backler's painting of Gympie from Calton Hill, January 1869, photographed by Agrippa Bevan.
Source: Gympie Regional Libraries.

As the weather remained dry and the summer heat increased, dust and the lack of water became irritating problems. In late January 1868, heavy rain turned the dust to mud and the river rose in a minor flood, cutting the track to Maryborough and making the alluvial diggings unworkable. This was the miners' first taste of the might of the Mary River.

With the discovery of the large Curtis Nugget in February 1868, the goldfield's reputation was assured. During the year, upwards of 15,000 hopeful diggers flowed in and out, including many from other colonies and overseas. The goldfield's two main centres – Nashville around Mary Street and the One Mile near Deep Creek – developed rapidly. By early 1869, when the ex-convict artist Joseph Backler painted Mary Street from a vantage point on Calton Hill and surveyor Clarendon Stuart mapped the entire settlement, primitive bark and slab buildings straggled nearly five kilometres along the track from Commissioner's Hill in the north to the banks of Deep Creek in the south.

Storekeepers and publicans from Maryborough and Brisbane arrived in November-December 1867, keen to expand businesses that had suffered in the economic downturn. Bullock and horse teams plodded along the road from Maryborough, bringing wagon loads of goods from its busy port.

The first general store, a branch of James and Peter Graham's Maryborough business, was close to the site of Nash's discovery at the Fiveways. William Southerden, the Maryborough storekeeper who had reluctantly accepted Nash's gold a few months earlier, erected a strong slab building nearby. Baker George Kitt carved an oven into the rocky hillside to supply bread, and from a bough shelter, butcher John Hulyer sold freshly killed meat, which the diggers carried on sharp sticks to cook at their fires. The first postmaster, Brisbane storekeeper Edward Booth, sorted mail on a tree stump in his tent. Rough shanties housed numerous pubs, their bars open to the street.

Tradesmen were much in demand as settlement grew. Pit-sawyers, plumbers, carpenters, tin-smiths, bootmakers, saddlers and blacksmiths established themselves quickly to serve the diggers' needs. Carpenter James Bentley tried alluvial mining, but found it more profitable to make cradles for the diggers than to dig for himself. Builder Richard Hyne, who later established a sawmilling business in Maryborough, constructed some of Gympie's earliest substantial buildings, including two that still stand – a timber Methodist Church on Surface Hill, and a brick Masonic Hall in Duke Street.

Saw-pits were soon supplemented by a steam sawmill at the Two Mile, opened in 1869 by William Ferguson and William Henderson, who later operated the large Union Sawmill on the site of the present Memorial Park. Brickmaker Richard Dudley found a deposit of clay in Columbia Creek and started a profitable brickworks below the site of the present Gympie State High School. Pye, Batchelor and Company built a foundry on the flood-prone flat behind Mary Street, establishing an industrial area where blacksmiths and coach-builders operated for many years afterwards.

During 1868, jewellers, watch-makers, gun-smiths, chemists, drapers – even a cheap-jack and a pawn-broker – established themselves in Mary Street. Actors, singers and dancers arrived to entertain the diggers in theatres and music halls attached to hotels. The first medical man was the controversial 'Jumping Doctor', Theodore Edgar Dickson Byrne, an investor noted for snatching up abandoned claims. The first lawyer, John Wickey Stable, who was later killed by lightning in North Queensland, was followed by Horace Tozer, later Sir Horace, a Queensland Government Minister. Robert Alexander Richardson established a grammar school on Palatine Hill, near the present day Central School and Hugh Lonie opened a private school at the One Mile. Ministers of Religion of various denominations came and went during 1868, but a Catholic priest, Father Matthew Horan, began a pastorate that was to last for fifty-five years.

In February 1868, the first newsmen – publisher Francis Kidner, editor Herbert Rogers and compositor James Chapple – carried a small but heavy printing press over the Conondale Range from Ipswich to establish the *Nashville (Gympie) Times*, a newspaper that still occupies its original Mary Street site.

The diggings was a dangerous place, especially after dark. Holes were left uncovered and accidents were common. Two early deaths involved men stumbling into open shafts: George Knights drowned and Maurice Jewell was severely injured after falling nine metres. A small hospital was built by public subscription where the Masonic Hall now stands in Channon Street, not far from the first cemetery in King Street.

# Problems of Security

Free gold was liquid currency on the diggings, used to barter for food, supplies, entertainment and other services, but there was no opportunity for safe storage. When the miners' calico bags and leather pouches were filled with gold dust, flakes, grains, pebbles and nuggets, they were stored in locked wooden chests or buried in the ground.

The Commercial Bank opened a branch in William Southerden's slab store at the end of November 1867**,** but the manager, Thomas Pockley, paid only £3/10/0 an ounce for gold, and the miners knew they could get more for it outside the diggings. Unrecorded amounts of hoarded gold were removed from the field, as miners moved it privately or carried it away themselves.

The first gold escort was a private arrangement. In November 1867, ten men, including James Nash and Commissioner Davidson, left Gympie on horseback early one morning and arrived at Maryborough in triumph that evening.

In January 1868, an official escort of government troopers was established, and gold was then carried by coach.

The Commercial Bank did not stay long in Gympie. Two rival banks, the Bank of New South Wales and the Australian Joint Stock Bank, opened branches in 1868. They built substantial offices side-by-side in Upper Mary Street, installing secure safes and precise scales. This encouraged miners to channel more of their gold through the banks, but transport to and from the diggings remained a problem.

When reefs were discovered in November 1867, it became clear that the gold-field had a future. The government built a coastal road from Brisbane, which was opened in November 1868. Part of the route is still in use: in Brisbane it is called 'Gympie Road', and in Gympie it is called 'Brisbane Road'. Cobb & Co. and other coaches provided passenger and escort services between the goldfield and Maryborough until a railway line was opened in 1881. Coaches also serviced the Gympie to Brisbane route until the rail link was completed in 1891.


Bank of New South Wales, Upper Mary Street, 1872.
Source: State Library of Queensland, neg. 15896.


Australian Joint Stock Bank, Upper Mary Street, 1872.
Source: State Library of Queensland, neg. 36185.

Gympie Courthouse, Commissioner's Hill circa 1872. Criminal and civil matters were heard in a slab courthouse by the Police Magistrate, assisted by Justices of the Peace.
Source: Gympie Regional Libraries.

Mining Court, Reef Street, Gympie. A separate Mining Court, presided over by the Gold Commissioner and a team of elected magistrates, settled disputes over mining claims and leases.
Source: The Gympie Times, 1927.

Apart from clashes over claims and drunken quarrels around the pubs, the diggings was at first relatively free of crime. After the publicity associated with the Curtis Nugget, however, the goldfield attracted 'roughs', men who were more interested in living off the diggers by trickery, thuggery and theft than in digging for themselves.

During 1868 and early 1869, six armed holdups were reported on roads leading out of Gympie. Four of these were the work of a gang led by the bushranger George Palmer. In April 1868, he and two other men bailed up La Barte's coach five kilometres north of Gympie on the Maryborough Road. Later that month, the same gang entered Booker's Hotel at Curra and threatened Bank of New South Wales managers R.D.H. White and Charles Buckland. On the Maryborough Road in September, the Palmer gang stopped a Cobb & Co. coach, robbed the mailbags and took £25 from one of the passengers.

In January 1869, two roughly-clad men, identified as George Palmer and William Bond, held up another Cobb & Co. coach south of Gympie on the newly opened Brisbane Road. In a stirring confrontation, Bank of New South Wales manager Selwyn King shot both bushrangers. The wounded Bond was arrested, but Palmer escaped to Rockhampton, where, in April 1869, he was involved in the murder of a gold buyer named Patrick Halligan. Returning to Gympie, where his young wife was living, he hid in a sandstone cave at The Rocks at Eel Creek. Hunted and haunted, he gave himself up to Police Inspector Samuel Lloyd in June and was tried and hanged for Halligan's murder. Stories about encounters with Palmer, who was courteous and a crack rider, became legends of the Gympie goldfield.

In July 1868, two men held up Kilkivan Gold Commissioner Charles James Clarke and Dr Mason, as they travelled from Kilkivan Station to Boonara Station to conduct an inquest. Soon afterwards, the same men attacked miner Henry Aldridge on the road from Imbil Station to the Jimna diggings. He was hit on the head and tied to a sapling, but escaped the following morning. Four other young men were caught, bound and robbed in the same way. For these crimes, a notorious 'rough', 'Podgey' Troden, and his accomplice, Joseph Blake, were tried in Maryborough and sentenced to twenty years in the Brisbane jail, the first three years in irons.

## The Chinese Presence

Soon after the Gympie goldrush began, when there were about 500 people on the field, fifty Chinese men arrived from Gayndah. Racial tension followed and there was a clash which was reported only in the exaggerated reminiscences of people who witnessed it.

In his book *The Black Police of Queensland*, E. B. Kennedy wrote that during his stay at Gympie, the diggers chased off 600 Chinese:

> *"Roll up, roll up", we heard roared through all the camp, and at once celestials were flying helter-skelter, taking flying leaps over claims. At first they started laden with buckets, poles, bedding and other gear; gradually this was cast aside as they whirled along with an incessant jabber, which was only equalled by the oaths and shouts of the pursuing party.*[8]

Seventy years on, A. J. Robinson, who had been a child in the early days of the goldfield, recalled that the miners resented the presence of the Chinese in large numbers, maltreated them, and told them to leave the district. 'The Celestials appeared not to understand,' he said. 'Their huts were burned down, and the last I saw of them was about 300 of the foreigners disappearing over a hill.'[9]

Whatever their numbers, the Chinese reacted by keeping their distance from Gympie, awaiting more favourable times.

The flood in late January 1868 slowed the scrabbling for alluvial gold in the creeks and gullies and by March the estimated 10,000 people on the field were greatly in need of fresh food. Using this opportunity, the Chinese returned, not as miners but as market gardeners. They dug vegetable gardens near the river and this time they were tolerated.

The exodus of diggers to other goldfields continued in June, when gold was discovered at Jimna, south-west of Gympie. By July, the Chinese had taken up claims in the worked-over alluvial ground between Mary Street and the river, in what is now Memorial Park, Nelson Reserve and Albert Park. Cave-ins made their labours dangerous, but they sank small, round holes and, if necessary, worked up to their waists in water. Washing the dirt on the riverbank, they extracted gold that had been missed by their less careful predecessors.

Working in groups under head-men, the Chinese established general stores and restaurants in Mary Street and a boarding house and restaurant at the One Mile. On the rise on River Road where the Swimming Pool is today, they built Gympie's Chinatown, which was marked for years afterwards by a large clump of bamboo.

In May 1868 there was a goldrush to Kilkivan. As diggers abandoned alluvial claims at Gympie, the Chinese moved in. The *Nashville Times* reported:

> *The Mongolians have lately been arriving in gangs, and John, of Brisbane and elsewhere, has already been informed by John, of Gympie, of the chances now open for him to get a pennyweight or two. Their favourite place appears to be the flat at the end of Nash's Gully. They are orderly and harmless, so we presume there can be no objec-*

View from Calton Hill, overlooking Pumpkin Flat and the back of Mary Street, now the Memorial Park. The round holes of the Chinese diggers are clearly visible, as are the Surface Hill Methodist Church (top left) and the Varieties Theatre (centre). Photo by Thomas Mathewson, late 1869.
Source: Gympie Regional Libraries.

A Chinese digger photographed by Richard Daintree.
Source: State Library of Queensland, neg. 60526.

The *Nashville Times* described the original village:

*Their camp is very neat, most of the humpies having singular hieroglyphic notices posted outside. There is the Chinese Camp Hotel, another inn, a doctor's establishment with a stock of Chinese chemicals, a butcher's shop, grocers, fruiterers, and confectioners, and several storekeepers, together with opium-smoking and gambling huts, where droll music is occasionally to be heard.*[11]

In their short tunics, wide trousers, pointed shoes, long pigtails and wooden or straw hats, the Chinese were a distinctive presence in Gympie throughout the 1870s. When the Queensland Governor, Sir Samuel Blackall, visited the Gympie goldfield in 1869, the procession that greeted him included forty Chinese, who carried a banner identifying them as 'Canton Chinamen'. A similar procession for Governor Normanby's visit in 1873 included fifty men bearing a banner with the word 'Welcome' in English and Chinese and a band comprising a gong, a pair of cymbals and a hide drum. Thirty Chinese, carrying flags and preceded by a band and a man who let off fire crackers all along the route, greeted Governor Kennedy in 1878.

Journalist Ebenezer Thorne found the Chinese courteous and hospitable when he visited their gardens. In *Queen of the Colonies*, he described the traditional methods they used to produce large quantities of cheap vegetables, including cabbages, broccoli, turnips, cucumbers, melons and shallots. Choosing land for its access to water rather than the quality of its soil, they fenced it and built a hut on the site. They dammed watercourses, dug a network of channels and used a Californian pump to raise water to the level where it could flow through the gardens. Beds of soil were mounded for drainage and enriched with composted vegetable matter and liquid manure made from blood, offal and dung from butchers' and milking yards. As well as their gardens on River Road, which suffered great losses during floods, the Chinese established gardens on Gympie Creek at the Two Mile, on Columbia Creek below Gympie High School and at Pie Creek, Monkland and East Deep Creek.[12]

Only a few Chinese attempted reef mining. As rewards from alluvial mining declined, most moved away, leaving a small number to fossick the old ground or earn a living as shop-keepers or market gardeners. The gardeners were a familiar sight as they moved from house to house, selling their produce from baskets woven from lawyer-cane and slung from bamboo poles across their shoulders. A few married and founded families, but most had no opportunity to marry. Lin Goon, the last of the goldrush Chinese, died in 1927 and was buried in the Pagan section of the Two Mile Cemetery.

# The Gold Trail

*'The miner is a man of indomitable will and has not much faith in geological theories till he has proved them right or wrong by means of the hammer and drill.'* Gympie Times, 14 January 1869.

The complexities of the Gympie goldfield have tested geologists and practical miners for 140 years. Although its geology has been studied intensively up to the present day, the patchy distribution of payable gold has meant that discovery requires luck, as well as knowledge and hard work. Following the trail of gold back to its origins, miners first found alluvial gold on the surface, then quickly located the exposed reefs, the 'Mother of Gold' or the 'motherlode', from which it had eroded. Next they dug for sub-surface reefs, going deeper and deeper, finally mining the Inglewood structure, the feeder-delivery system from the dark depths.

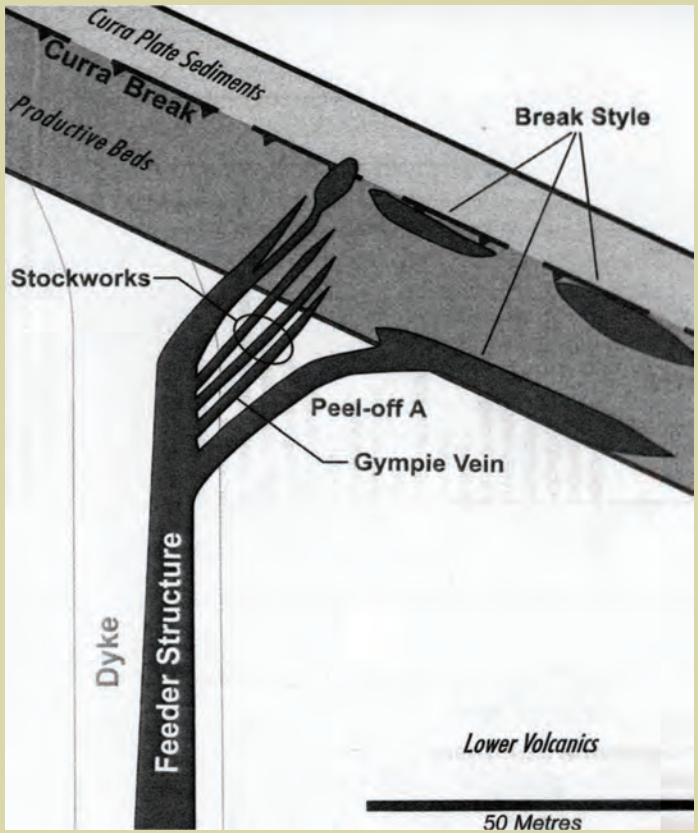
More assistance with some of these terms can be found in the Glossary in the back of this book.

## The Formation of Orebodies

Almost 300 million years ago, in the Permian era, an island arc of volcanoes occupied the space now known as Gympie. Ash and lava came from the volcanoes and basement rocks were laid down. Volcanic eruptions became intermittent, then waned. Over millions of years, ash formed a rock called tuff and lava formed basalt or greenstone. Sedimentary rocks were then laid down in distinct layers or strata. Silt became siltstone, sand became sandstone, pebbles and sand became conglomerate and marine shells became limestone. Stresses and strains within some strata formed cracks and faults.

About 225 million years ago, in the Triassic era, a prolonged intrusive event brought up hot, fluid magma (molten rock) from the depths of the earth, perhaps from a granite-like body deep below present Woondum, to the south of Monkland. This hydrothermal fluid contained large amounts of silica and minor amounts of gold. It pushed its way through the rocks above, taking the line of least resistance and forcing its way into any weaknesses present. Ultimately, the magma was distributed through a hierarchy of faults, fractures and cracks, just as water is distributed from a reservoir through large pipelines to smaller pipes and into the plumbing systems of suburban homes.

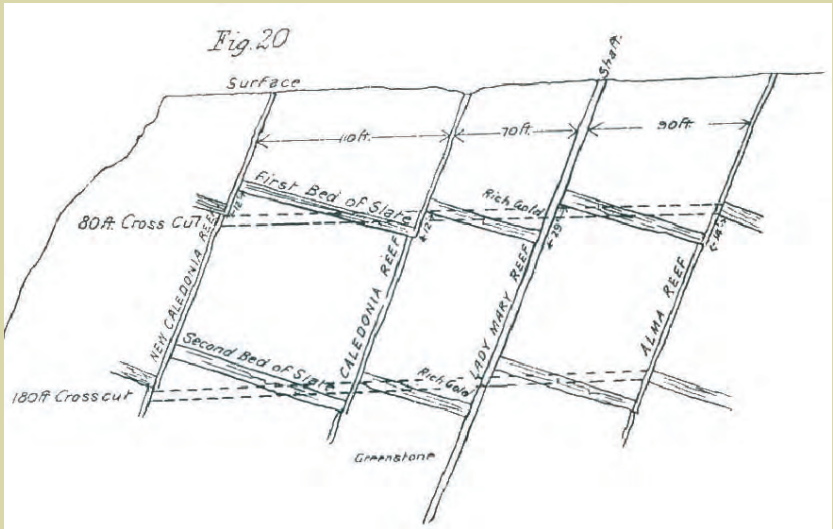
From the depths came a major upward pathway, a wide, long, vertical fault, orientated to the north-west. The resulting structure, which displaced rock on either side for a considerable distance as it rose upwards, has been given the name 'Inglewood'. The Inglewood branched into smaller and different structures, later termed 'peel-offs', feeder structures and 'stockworks'. These structures delivered fluids into a network of fractures, orientated north-south, and resulted in a network of quartz reefs or veins.




Schematic vertical representation of the Inglewood feeder structure within the Monkland structural block and the resultant ore bodies.
Source: Buka Gold Ltd. Prospectus 2005.

Numerous narrow sheets or veins of quartz, bearing varying amounts of gold, were spread over a large area, from the Two Mile in the north to the Dawn in the south. Some veins extended to the surface, where they outcropped, but for the most part they occurred within rocks below the surface.

After these mineral formation events, further major and minor fault movements occurred, dividing the Gympie region into a number of distinct chunks of the earth's crust (termed structural blocks) and sometimes dislocating the strata, veins and reefs.

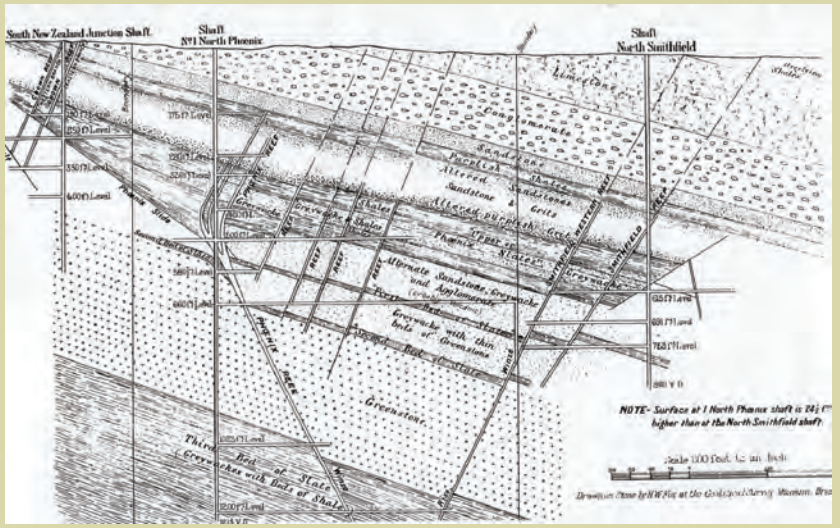



Four outcropping, parallel reefs or Gympie veins in the Phoenix structural block passing through the first and second beds of slate. Source: Rands, W.H., 1889.

This pattern of mineralisation meant there was no singular deposit or concentration of gold. The 'motherlode' was widely dispersed, both horizontally and vertically, within sheets of quartz. Miners would have to dig long and deep to find all the parts of this dispersed pattern of gold, but quite early they recognised a phenomenon that proved to be helpful.

When the liquid fluids passed along the 'plumbing system' from the Inglewood to the feeder structures and then into the veins, contact with high concentrations of carbon precipitated out more gold. Where a vein rose upwards and passed from one rock type into a carbonaceous siltstone, the concentration of gold increased dramatically, and the vein went from barren to gold-bearing. On rising above the carbonaceous siltstone into a different rock, the reverse occurred, and the vein went from gold-bearing to barren.

The early miners termed the carbonaceous rock 'black slate', although it was actually a shale or a siltstone. Recognising that different layers of black slate were present at different depths in different parts of the goldfield, they referred to them as the 'productive beds'. Four different layers of slate were found, and these were named the 'Phoenix' or 'Monkland', then the first bed, then second bed and then third bed (in descending order from the surface). At any location, confusion might occur as to which of the four beds of slate was present, but the target rock for the occurrence of gold-bearing veins became the beds of slate or the productive beds.



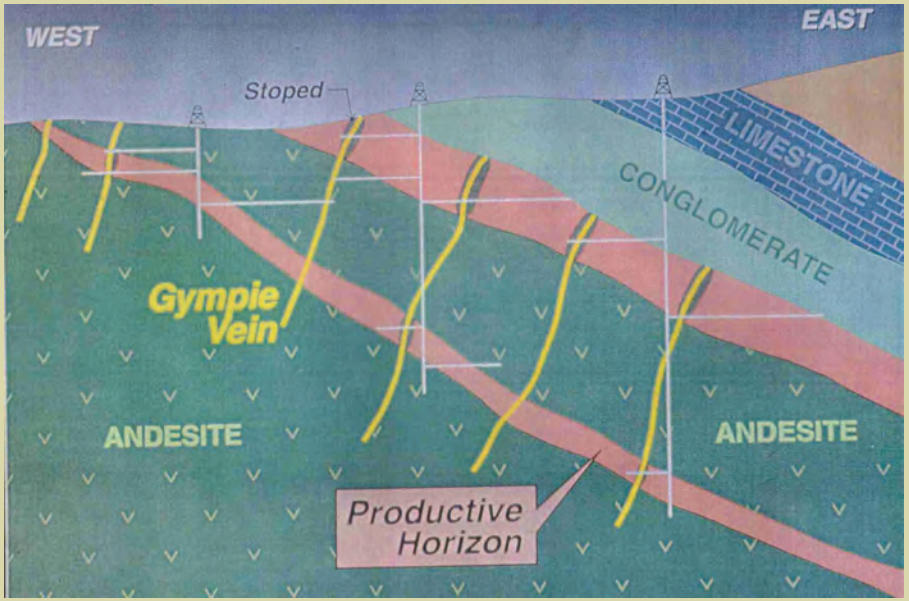

Vertical section in the Phoenix structural block near the shaft of the 1 North Phoenix, showing four beds of slate and the subsurface Phoenix reef. Source: Rands, W.H. 1895.

Miners soon learned that the productive beds were inclined to the horizontal, dipping down to the east at thirty degrees. The dip was fairly constant, allowing miners to predict the depth at which vertical shafts would encounter a bed of slate. The reefs also tended to have a regular orientation, with 'lines of reef'

(their strike at the surface) trending north-south. The reefs dipped away at fifty degrees towards the west, at right angles to the dip of the slate.

Once these trends were realised, it became the custom to locate a new exploration shaft on the line of a reef and to sink it vertically until black slate was encountered. A cross-cut was then driven horizontally, but at right angles to the line of reef, in the hope of encountering a new reef. When a gold-bearing reef was found, it was mined or 'stoped' along its length.

The first claim on a new line of reef was named the PC. Adjacent claims to the north were named 1 north, 2 north, 3 north and so on, and those to the south were named 1 south, 2 south, 3 south and so on. Shaft-sinking moved gradually towards the 'eastern ground' at Monkland, where shafts became deeper and more capital was required before gold could be produced. At depth, some of the Monkland mines proved to be outstandingly productive.




Schematic representation of the dip of the productive beds to the east, showing the resultant deepening of shafts and cross cuts in the exploration for gold bearing reefs.
Source: Devex Ltd.

# Pioneer Geologists

The first report on the Gympie goldfield was made by **Christopher D'Oyley Hale Aplin** (1819-1875). Son of an Army Captain, Aplin was born in India and came to Victoria in 1840 with his brother Dyson, who later worked in Gympie as a mine manager.

C.D.H. Aplin
Source: State Library of Queensland, neg. 191879.

C.D.H. Aplin spent time in Northern Australia and Borneo before taking up a position with the Geological Survey of Victoria. In April 1868, he was appointed Government Geological Surveyor of Southern Queensland. After a three-week visit to Gympie and with little information to work on, he did well to describe some aspects of the stratigraphy. Comparing Gympie with the Victorian goldfields with which he was familiar, he identified three main formations (bottom rocks, older alluvial and recent alluvial) and described the local rocks (greenstone, slate, sandstone and quartz). He noted the richness of the gold that was being won from the alluvial gullies and flats and the upper parts of the decaying quartz reefs that were being opened up. Believing that a 'deep lead' was possible, he fuelled the enthusiasm of those who wished to tackle what might lie under the river. He is best remembered for his bold but premature and incorrect prediction that the quartz veins would become less productive with depth.

**Thomas Ridge Hackett** (1830-1884), a mining surveyor and an Assistant Government Geologist, came to Gympie in 1869 and wrote the second report on the goldfield. He also prepared a coloured map, which was published in 1870. This map, although inaccurate in some respects, is a historical gem. It shows the Mary River and its tributary creeks and locates roads, Chinaman's Flat, the alluvial diggings, eighty reefs, the Deep Lead and the six early crushing batteries. With a few shafts down to 120 feet, Hackett was more confident of the future than Aplin, and he drew attention to the probable need for the treatment of pyrites with increasing depth.

**Richard Daintree** (1832-1878), Government Geologist for Northern Queensland from 1868 to 1870, was an explorer who also discovered new goldfields. He photographed the Gympie goldfield in a series of magnificent images, taken at the time of Governor Blackall's visit to Gympie in August-September 1869. In 1871 Daintree returned to England to supervise the Queensland display at the London Exhibition of Art and Industry. This display showcased the colony's mineral wealth and included specimens of Gympie gold and some of Daintree's Gympie photographs.

**William Henry Rands**, (1855-1914) is recognised as the geological godfather of the Gympie goldfield. English born and educated, he arrived in Brisbane in 1884. He produced a number of publications for the Geological Survey of Queensland and was appointed Government Geologist in 1899. Rands was retrenched in 1902 and then worked as a private consultant.

W.H.Rands. Source: Lees, W. 1899.

Between 1889 and 1901, Rands wrote four comprehensive reports and published detailed maps and cross-sections that are of immense value in understanding the goldfield's geological structure and historical development. They provide production data, detailed sections of strata and descriptions of individual leases, mines and reefs, including the underground workings. Rands advocated shaft sinking towards the 'eastern ground', the use of diamond drills and modern mine plans.

He provided specific mine exploration strategies and promoted the goldfield internationally. Modern geologists respect and use the precision and detail of his impressive body of work. In 1986, the Queensland Department of Mines reproduced his three 1889 map sheets as a composite historic map.

The son of a Victorian miner, **Benjamin Dunstan** (1864-1933) showed an early interest in geology, the field which became his life's work. Artistically talented, he studied and later taught at the Sydney Technical College and was employed first as an assayer and draftsman.

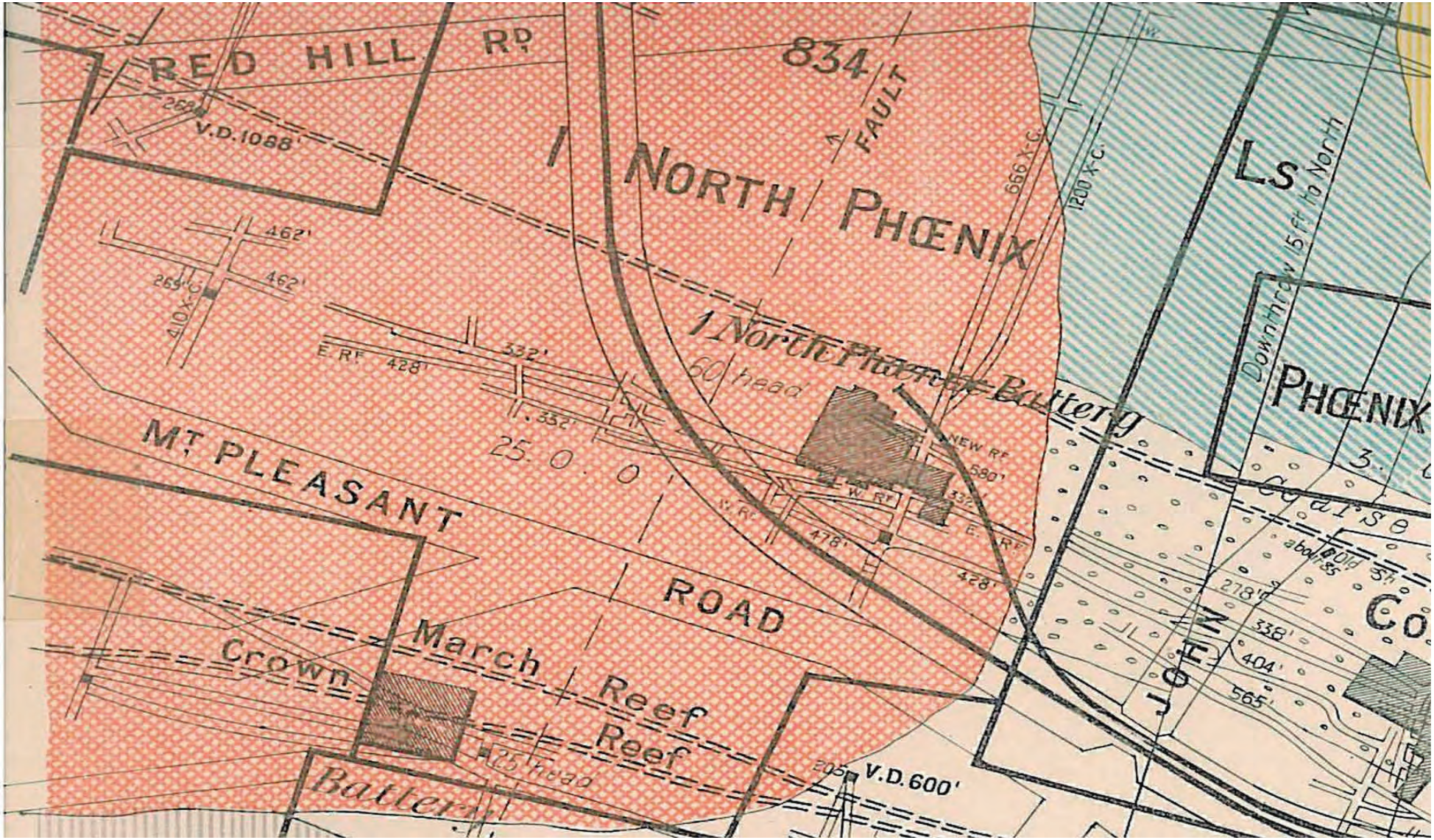
In 1897 he joined the Geological Survey of Queensland as an Assistant Geologist. When W. H. Rands was retrenched in 1902, Dunstan became Acting Government Geologist. From 1915 to 1931 he was an energetic and diligent Chief Government Geologist, with a broad interest in the whole State. Dunstan was a prolific publisher of geological studies, including the *Queensland Mineral Index* (1913), which has over 1,000 pages. His main contribution to our understanding of the Gympie goldfield was the publication, between 1910 and 1911, of the colourful, detailed geological and topographical maps known as 'The Dunstan Maps'.

Benjamin Dunstan
Source: (Keith Waser Collection) Gympie Regional Libraries.

## Modern Geological Terms and Concepts

Geology is not a static or a dogmatic science. Today, geologists are assisted by computer modelling and the use of huge data bases. Interpretations change as knowledge evolves. Alternative concepts are proposed and debated – to explain, for example, the sources of Gympie's gold. Modern exploration and mining have also benefited from the availability of historical production data, analysis of which has contributed to a three-dimensional perception of the goldfield.

In recent years, papers on aspects of the Gympie goldfield have been published by the Queensland Department of Mines and mining companies such as BHP-Gold, Devex, Gympie Gold and Buka Gold.




Extract from Rands, W.H. Geological Map of part of Gympie goldfield, 1899. Historical Map collection no.4, reproduced by Dept of Mines Brisbane, 1986.

## Stratigraphy

Stratigraphy refers to the succession of layers of different rock units with depth and age. Over the years, the names of the different strata have changed, and today the major formations in the Permian-aged Gympie group, in descending order from the surface are:

- The Tamaree formation: shale and siltstone;
- The South Curra Limestone: dark limestone;
- The Rammutt formation: units of sandstone, carbonaceous siltsone;
- The Highbury Volcanics: basalts and tuff.

## Blocks and Reefs

Major faults divide the Gympie goldfield into a number of structural blocks. The main pre-mineralisation faults include the Inglewood structure and Laing's slide (now known as Bronwyn's fault). Post-mineralisation faults include the Smithfield, Lady Mary and Peter and Paul cross-courses.

From north to south, the main structural blocks are the Two Mile, Great Northern, Phoenix, Monkland, Sovereign, Jones Hill, Six Mile and Dawn. Between blocks, the stratigraphy or layers of rock units is different, depending on the amount of movement caused by faulting, and the tendency of some rock units to lense or thin out.

The basic endowment of gold within each block is related to the number and size of the quartz reefs it contains. The number of reefs tends to increase from north to south.

The location of the major reefs as well as the top productive mines and some of the local landmarks are shown on the facing page.

Historical production data is shown on the following table.

| Block | Reefs | Gold Yield in ounces |
|---|---|---|
| Two Mile | London, Homeward Bound, Hibernia, All Serene. | 0.2 million |
| Phoenix | Lady Mary, Caledonian, Phoenix, Smithfield, Victory, Columbia. | 1.5 million |
| Monkland | Monkland, Glanmire, Great Eastern, Orient, Oriental. | 2.0 million |

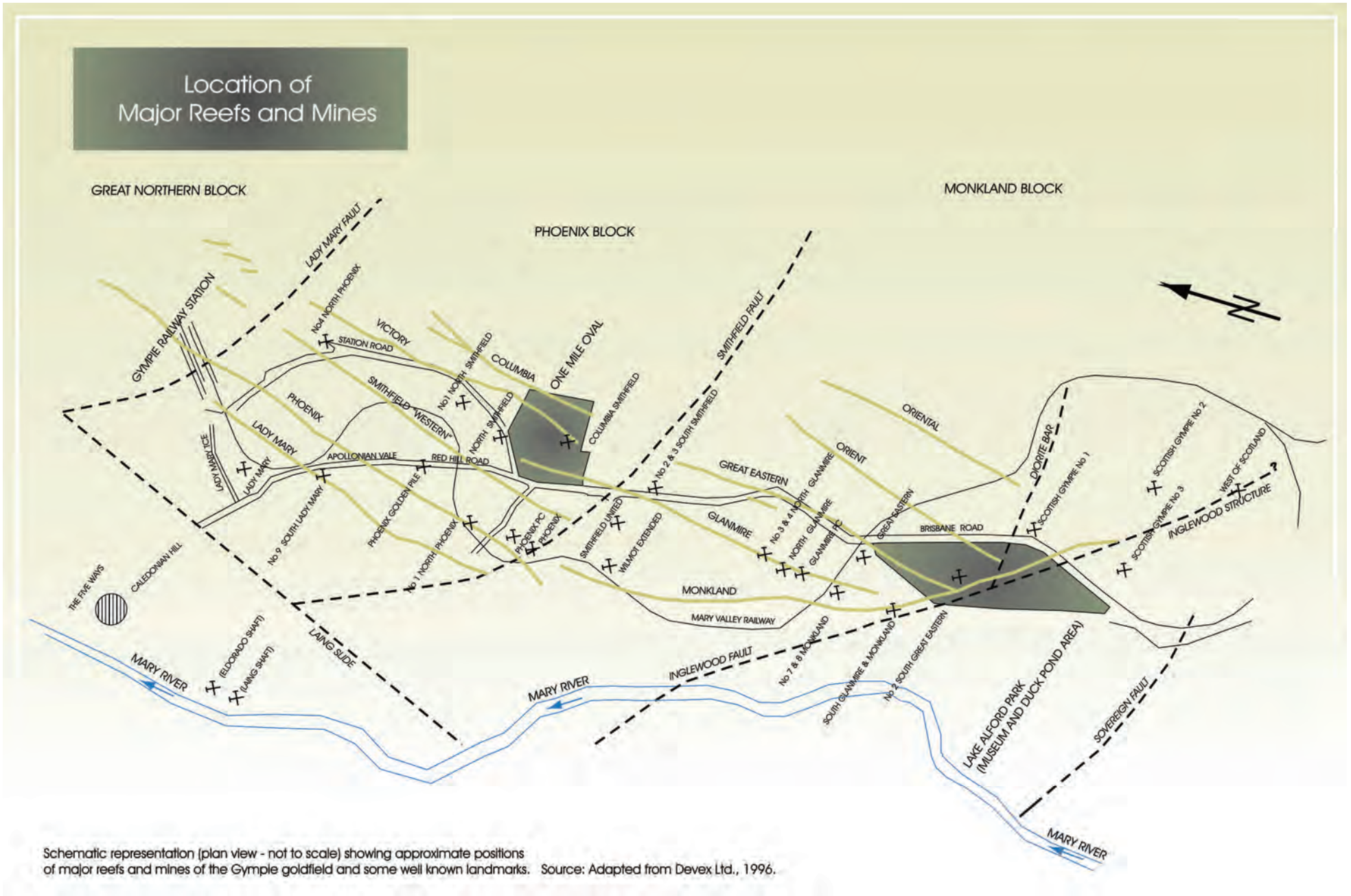
## Orebodies

Four principal types of orebodies (natural deposits from which gold can be extracted) have been mined - Gympie veins, Stockworks, Break and Inglewood.

The **Gympie veins** are narrow quartz veins (or reefs), some of which outcrop on the surface. They average twenty to thirty centimetres in width, and may extend for over a kilometre. They trend north-south and dip to the west at right angles to the bedding of the sedimentary strata. Economic gold deposits are found where reefs intersect with carbonaceous units, the black slate or productive beds within the Rammutt Formation.

Gympie veins were mined from the early days, mostly by the 'hammer and tap' method. The gold is coarse grained and free milling, yielding high grades, typically twenty to thirty grams per tonne and higher in patches, but with very irregular distribution. Post 1980, miners have looked for Gympie veins, but the irregular or 'nuggety' distribution of gold complicates the estimation of reserves. Many exploratory holes are required to confidently predict reserves, and the cost of such a drilling program becomes prohibitive.

**Stockworks** consist of multiple sheets of thin Gympie veins, and occur in zones adjacent to the eastern side of the Inglewood structure. Individual veins may be very high grade, but the stockwork zones generally yield intermediate grades of five to eight grams per tonne. When these orebodies are large, they are suitable for bulk mining using mechanical methods, so they are sought after by modern miners.




Schematic representation (plan view - not to scale) showing approximate positions of major reefs and mines of the Gympie goldfield and some well known landmarks. Source: Adapted from Devex Ltd., 1996.

**Break** type mineralisation occurs in Gympie veins which are parallel to the bedding planes on the top (upper) and bottom (lower) margins of the Rammutt formation. These contact zones can be rich in graphitic carbon and very high grade, with occasional bonanza grades. Early miners referred to these zones as 'plumbago layers'.

**Inglewood** type mineralisation refers to gold found away from the carbonaceous beds and within the Inglewood structure. The Inglewood is a complex structure which comprises a quartz/calcite reef and a dolerite dyke (an intrusive layer of volcanic rock), both of which have been intruded by post-mineralisation diorite dykes. The gold is finer grained and more evenly distributed than in the Gympie veins.

The Inglewood is also recognized as a feeder structure into other types of orebodies. The early miners believed that the Inglewood was younger than the Gympie veins and had displaced them to an unknown location on its southern side. Geologists now believe that the Inglewood reef was formed at the same time as the Gympie veins. Up to 1924, gold from the Inglewood represented only a small proportion of the Gympie goldfield's total output, but in the Modern Revival era, most of the gold produced was sourced from the Inglewood.

Geologist Jim Dugdale has suggested that the complex nature of the Inglewood structure confused the early miners but left gold for modern miners. When mining began along the Inglewood early in the twentieth century, its extension was poorly defined, and the presence of pinkish diorite in combination with quartz and dolerite was believed to be its defining feature. Underground exploration seeking the Inglewood, from the West of Scotland in 1903 and the Scottish Gympie No. 2 in 1912, encountered a barren dyke with diorite. The conventional wisdom of the time led to the mistaken belief that this was the Inglewood, and it was barren. Exploration was terminated, with negative consequences for both companies and the goldfield.

In the early 1990's, modern miners, now aware of the complex nature of the Inglewood, resumed exploration in this same area. The barren diorite dyke was named the Devex Dyke. The Inglewood was found only twenty-five metres to the west and a rich section was profitably mined.

An underground view of the Lewis mine showing the Inglewood structure. Geologist Pat Stidoff is in the foreground.
Source: Gympie Gold Ltd, Annual Report 2003.

# Mining Eras

*'It has been urged that Gympie is patchy. So it is; but the patches are exceedingly rich...and some of the mines are nearly always on gold of a more or less payable nature.'* Queensland, 1900.

Gympie's mining eras reflect the location of gold and the methods used to recover it.

The **Alluvial Era** (1867-1868) saw a rush of diggers to claim the gold on the surface and in wash dirt in the creeks and gullies that entered the Mary River.

**Shallow Reefing** (1868-1875) began early on the exposed reefs. Many small shafts were sunk to depths of less than 200 feet, and the first crushing machines put through ore that produced high grades of gold.

**Deep Reefing** (1875-1924), which sustained the goldfield for fifty years, involved powerful machinery, company structures, large capital expenditure and mines sunk to depths of 2,500 feet.

In an **Interlude** (1924-1979), mining ceased except for a little prospecting, the sinking of several shafts and the cyanide treatment of battery tailings.

The **Modern Revival Era** (1980-2008) involved one large company, advanced methods of exploration and the mining of the Inglewood structure after 1996.

The Deep Creek bridge on the Brisbane rail line, circa 1899. Note mullock, old shallow shafts and weir in the foreground and numerous headframes at Monkland in background. On the left above rail bridge is the Victoria battery.
Photographer: P. Poulsen. Source: Lees, W. 1899.

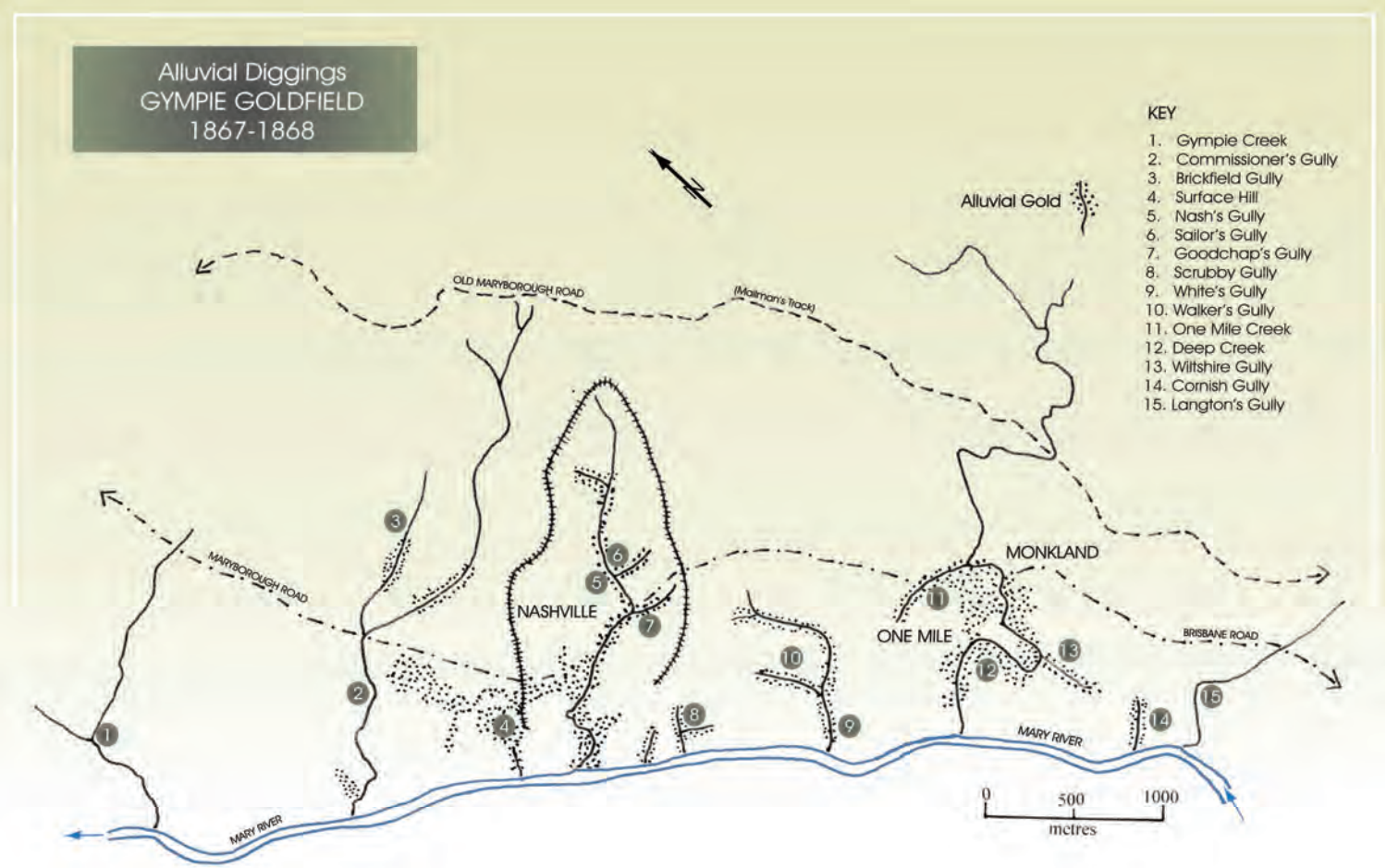
Annual Production Statistics 1877-1930. Source: After Devex Ltd, 1994.

| Year | Production of Bullion (ozs.) | Mines Operating (no.) | Mines Producing (no.) | Mines Paying Dividends (no.) | Miners Employed (no.) | Total Dividends (£) |
|---|---|---|---|---|---|---|
| To 1877 | 625,000 | | | | | |
| 1878 | 41,564 | | | | 670 | |
| 1879 | 38,453 | | | | 700 | |
| 1880 | 43,072 | | | | 750 | |
| 1881 | 67,861 | | | | 950 | |
| 1882 | 50,312 | | | | 1,200 | |
| 1883 | 64,818 | | | | 1,400 | |
| 1884 | 112,051 | | | | 1,450 | 250,000 |
| 1885 | 89,600 | | | | 1,435 | |
| 1886 | 88,600 | | | | 1,600 | 132,083 |
| 1887 | 102,149 | | | | | |
| 1888 | 107,119 | 78 | 41 | | 1,452 | 171,246 |
| 1889 | 115,590 | 88 | | | 1,468 | 212,020 |
| 1890 | 78,366 | 63 | 40 | | 1,204 | 103,138 |
| 1891 | 60,714 | 62 | 62 | | 1,150 | 53,876 |
| 1892 | 82,939 | 94 | 40 | | 1,229 | 116,725 |
| 1893 | 78,978 | 102 | | 15 | 1,394 | 130,609 |
| 1894 | 111,168 | 116 | 77 | 14 | 1,530 | 223,423 |
| 1895 | 78,026 | 122 | 73 | | 1,146 | |
| 1896 | 73,729 | 106 | 54 | 18 | 1,337 | |
| 1897 | 96,251 | 155 | 48 | 16 | 1,860 | 168,087 |
| 1898 | 106,302 | 160 | 53 | 13 | 1,710 | 141,824 |
| 1899 | 89,772 | 152 | 39 | 14 | 1,776 | 92,917 |
| 1900 | 93,522 | 170 | 49 | 13 | 1,680 | 104,713 |
| 1901 | 120,685 | 200 | | 16 | 1,683 | 200,765 |
| 1902 | 147,554 | 215 | | 15 | 1,740 | 263,829 |
| 1903 | 180,456 | | 62 | 17 | 1,793 | 318,859 |
| 1904 | 155,226 | 77 | 55 | 12 | 1,723 | 239,858 |
| 1905 | 140,732 | 99 | 67 | 12 | 1,619 | 196,215 |
| 1906 | 132,003 | 84 | 60 | 9 | 1,297 | 65,102 |
| 1907 | 77,654 | 70 | 50 | 11 | 1,254 | 62,813 |
| 1908 | 75,731 | 66 | 48 | 10 | 1,242 | 69,731 |
| 1909 | 78,246 | 64 | 49 | 9 | 922 | 68,246 |
| 1910 | 72,232 | 53 | 45 | 8 | 915 | 48,442 |
| 1911 | 62,329 | 53 | 32 | 9 | 805 | 26,330 |
| 1912 | 48,419 | 50 | 34 | 5 | 768 | 15,500 |
| 1913 | 42,397 | 42 | 27 | 5 | 690 | 23,023 |
| 1914 | 53,058 | 33 | 23 | 5 | 577 | 19,611 |
| 1915 | 51,924 | 32 | 18 | 8 | 606 | 22,519 |
| 1916 | 49,598 | 28 | 17 | 11 | 449 | 26,899 |
| 1917 | 41,273 | 20 | 16 | 8 | 254 | 11,884 |
| 1918 | 24,425 | 15 | 10 | 6 | 201 | 13,782 |
| 1919 | 18,000 | 15 | 13 | 6 | 133 | 6,272 |
| 1920 | 4,695 | 20 | 16 | 7 | 114 | 4,534 |
| 1921 | 7,677 | 15 | 11 | 4 | 211 | 24,688 |
| 1922 | 19,121 | 10 | 4 | 2 | 136 | 1,570 |
| 1923 | 9,448 | 10 | 4 | 4 | 56 | 11,084 |
| 1924 | 6,659 | 9 | 6 | 3 | 52 | 2,018 |
| 1925 | 4,275 | | | | | |
| 1926 | 3,948 | | | | | |
| 1927 | 933 | | | | | |
| 1928 | 2,253 | | | | | |
| 1929 | 1,707 | | | | | |
| 1930 | 1,512 | | | | | |

# Alluvial Era 1867-1868

*In the short but tumultuous Alluvial era, a community was created, people came and went, and everyone struggled with hardship, despair and the weather.*

*A fortunate few experienced spectacular success and some went away disappointed, but many made solid gains and found that their expectations and opportunities had expanded.*




Alluvial diggings, Gympie goldfield 1867– 1868. Early in the goldrush, alluvial discoveries were made at the top of Surface Hill and from the Two Mile north of Gympie to the Wiltshire and Cornish Gullies south of Deep Creek. Source: Elaine Brown

Flakes, grains and nuggets of alluvial gold were found chiefly in shallow wash dirt, a mixture of rock, gravel, sand, clay and organic debris that had accumulated along water courses. Heavy gold particles, worn loose and fragmented by weathering from exposed quartz reefs in the ridges, were moved by the action of water and concentrated in the wash dirt of the gullies. The bulk of Gympie's alluvial gold was worked out by mid-1868. Alluvial activities tailed off during 1869 and virtually ended when a great flood in March 1870 inundated the scarred and deforested gullies and flats. By that time, shallow reefing was well under way.

# Alluvial Mining

Alluvial miners usually worked in small groups or syndicates of two to five men. This provided mutual support for subsistence living, as well as an operational rotation for working and defending the claim. Some syndicate members were backers, who contributed rations and equipment to the working members. It was common to find businessmen, publicans and doctors investing in this way.

Many of the men who came to Gympie with the goldrush had no previous experience of mining, but were attracted by the 'lottery of luck' or the freedom to be their own boss. The turnover of diggers was high, especially among the inexperienced. Many could not tolerate the combination of hard, physical work, primitive living conditions and lack of funds that went with lack of success. In promising locations, competition for claims was intense, while in other areas the diggers' interest ebbed and flowed. Experienced diggers tended to be selective about where and how they worked, and their ways were copied by the newcomers.

No records were kept of alluvial claims on the Gympie goldfield. Its occupation was ordered by a set of Regulations and administered by a Goldfields Commissioner with wide powers to make decisions and settle disputes. Each digger was required to hold a Miner's Right costing ten shillings per year. Alluvial claims, marked by pegs at least two feet (60 centimetres) high, occupied spaces varying from 40 feet (12 metres) by 40 feet for one digger to 60 feet (18 metres) by 80 feet for a party of four diggers. Each claim had to be worked within forty-eight hours of being pegged and was liable to forfeiture if it was not worked for three days. Claims deserted even temporarily were often 'jumped', leading to quarrels.

When payable gold was recovered, the Regulations required that a red flag, not less than one foot (30 centimetres) square, should be displayed at or near the working shaft. One observer described his excitement as these 'conspicuous emblems of a new nation's prosperity'[13] spread across the landscape.

Armed with their Miner's Rights, the diggers marked the margins of their claim. Their pegs and a working presence were the main indication of occupation. They cleared the area of vegetation and sought the most concentrated spot to begin extracting wash dirt. With pick, shovel, bar and sheer elbow-grease, they opened the ground. Samples were washed in a prospecting dish to detect 'colours' or traces of gold, until a layer of gold-bearing wash dirt was reached.

Accumulated wash dirt was trundled by wheelbarrow or dray to the nearest water source – pool, creek or river – and passed through a cradle. Any gold found to be still attached to pieces of quartz was freed by 'dollying' with a mortar and pestle. If the supply of water was limited, work would be suspended or the wash dirt would be stacked on site or transported off site.

Cradle and puddling trough. Source: (Keith Waser Collection) Gympie Regional Libraries.

**Cradles** were wooden boxes set on rockers and fitted with sieves and ripples. With water added, they were manually rocked to separate large volumes of pebbly wash dirt from small quantities of residual gold concentrate. This residue was cleaned by the swirling motion of water in a panning dish, isolating the flakes and nuggets of gold. During the alluvial period an incredible clatter was made by the rocking of hundreds of cradles. Cradles were not very efficient, and if miners were inexperienced or water was lacking, much gold passed through them and was lost.

Many claims contained high volumes of clay, which required puddling. This involved soaking the wash dirt in water in tubs or tanks and agitating it before passing it through the cradle. With the use of horses, puddling became centralised and semi-mechanised.

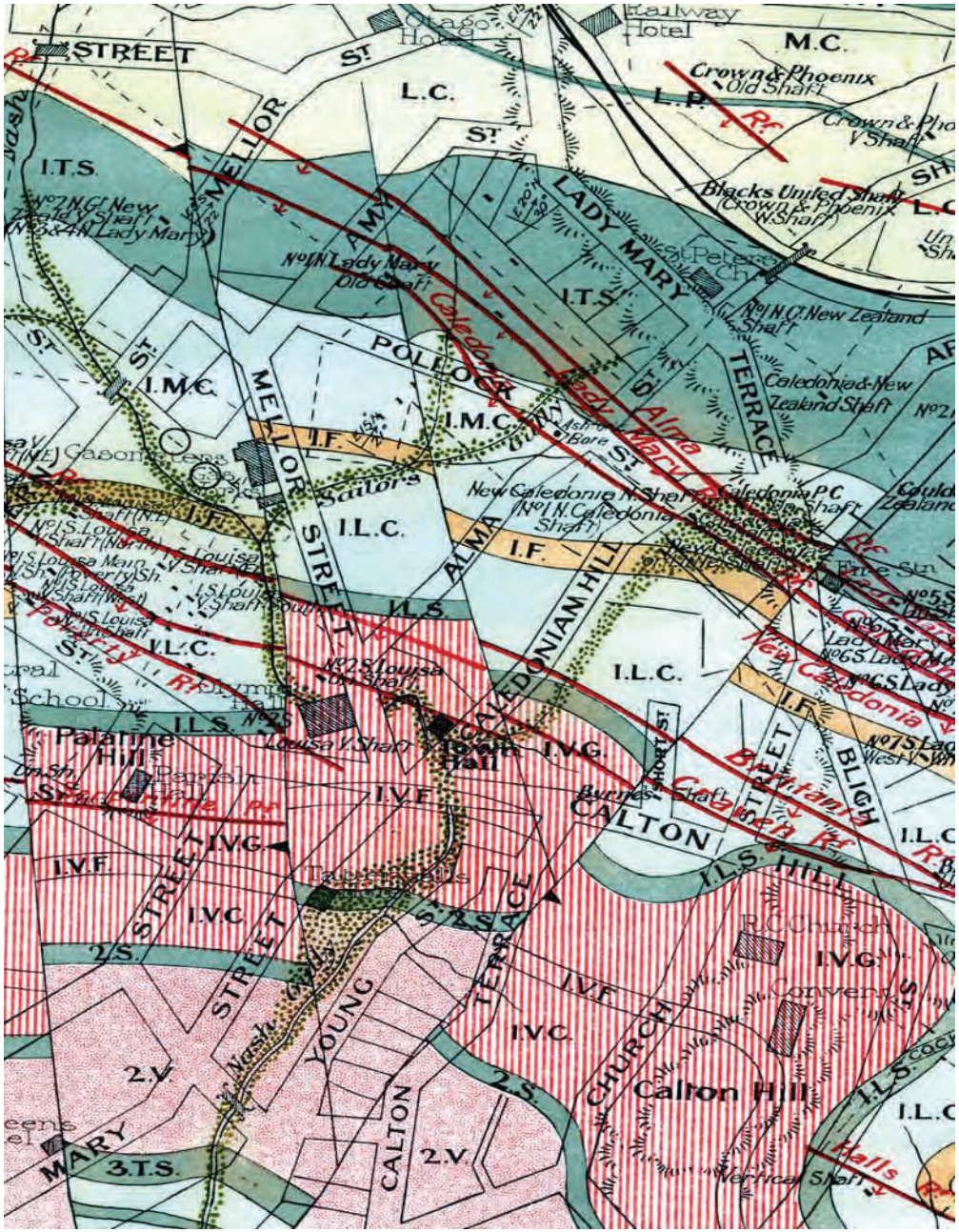
## THE CURTIS NUGGET

Gold nuggets large and small were found in the soil of Nash's and other gullies, but the credibility of the goldfield came alive with the discovery of the Curtis Nugget, the largest nugget ever found in Queensland and the third largest in Australia. The Curtis Nugget weighed 975 ounces and when refined, yielded 906 ounces of gold. It was purchased by the Sydney Mint for £3,132/9/9.

George Curtis, a Maryborough sheep inspector, came to Gympie to try his luck in December 1867. He and a partner, Michael Canny, took up an abandoned claim at the head of Sailor's Gully, on the ridge that held the Lady Mary and Caledonia Reefs, and worked it briefly for very little result. Canny left, and Curtis was joined by his nephew, Valentine Brigg**.** The pair kept digging and were on the point of giving up when, on 6 February 1868, Curtis's pick unearthed a dull, reddish lump of gold quite close to the surface.

Naming his find the Perseverance Nugget, Curtis carried it in a sack to the Commercial Bank. The public paid one shilling each to view it, the proceeds going to a fund to build a hospital on the goldfield. The nugget was later displayed in Maryborough and Brisbane, and was viewed by the visiting Duke of Edinburgh at Government House in Sydney. Surprisingly, no picture of it has survived.

As sometimes happens in cases of extraordinary good luck, the finders' rights were challenged. Curtis agreed to pay £750 to Charles Collin, the previous owner of the claim, but he resisted the demands of Canny, who had given up so quickly. In the litigation that followed, Curtis established his right to the nugget, but at a considerable cost in lawyers' fees.




An extract from Dunstan Map 1911, Sheet 9, showing alluvial workings.

One report on the Curtis Nugget stated that it was found only four feet from the Caledonian Reef. Another report placed the find between the Lady Mary and Caledonian reefs and described the colour as 'dull red'.

If correct, the latter report would indicate the Lady Mary as the host reef, as it is further upstream. The reddish colour may have reflected staining with iron pyrites.

In general, the size of nuggets decreased as they moved downstream, away from their original position in the host reef.

Early photo of miners camped near gully worked for alluvial gold, possibly Goodchap's Gully where James Nash first found gold.
Source: The Gympie Times, 1927.

## The Deep Lead

Some of the experienced alluvial miners at Gympie came from the Victorian goldfields. There it was common to find buried watercourses – old stream beds covered by sand, gravel or basalt rock, which carried gold in channels or leads down near the basement or bedrock.

These men applied the same logic to the Mary River and assumed that gold could occur in old stream beds below or near the present watercourse. A line of outcropping reefs near the mouth of Deep Creek provided the starting point for a Deep Lead prospect that continued downstream. Aplin and Hackett, the first two geologists to report on the Gympie goldfield, noted these activities.

Hackett's 1870 map designated the general riverbank area downstream from the junction of Deep Creek and the Mary River towards Nash Gully as the Deep Lead, a reference that tended to exaggerate its role.

During 1868 and 1869, attempts were made to dam the river and sink shafts in the protected areas thus created, but nothing significant was found. In March 1870, the goldfield's first serious flood gave miners an understanding of the formidable adversary they faced in the flood prone Mary River. The dams disappeared, the shafts filled with rubble and water, and from then on there were few sustained efforts to win gold from the riverbed by following the Deep Lead.

The Deep Lead was a short lived concept. It was the focus of much attention in 1868, but did not produce any significant results. Shallow reefing was the new practice, and miners achieved better results by following their luck along the quartz reefs.

Pockets of gold may exist in deep holes or lenses close to the Mary River. As late as the 1980s, alluvial deposits to the south of Gympie were being promoted as dredging prospects, worthy of further exploration.

# Shallow Reefing 1868-1875

*Stores on the diggings supplied the equipment needed for hard rock mining: picks, shovels, bars, hammers, hand drills, blasting powder, candles, ropes and buckets. Horses and drays provided power and transport, and around Gympie there was a plentiful supply of timber with which to erect whims and windlasses.*

The challenge of Shallow Reefing was to locate a gold-bearing reef, dig underground into hard rock, extract the quartz ore, raise it to the surface and crush it to extract the gold. As early as November 1867, quartz reefs were discovered by alluvial miners working in the watercourses and following leads of wash dirt upstream. For miners, these reefs were the 'Mother of Gold', and indicated a bright future for the goldfield. By mid-1869, the large number and broad extent of identified reefs indicated the magnitude of Gympie's gold-bearing formations.

The first recorded reef was found by Robert and Alexander Pollock and Franklin Lawrence at the head of Sailor's Gully and was named the Lady Mary. The shallow shaft that followed the reef soon reached a rich patch of gold. On 8 November 1867, the partners were awarded a PC of 420 feet along the supposed line of reef. Claims to the north and south of the PC extended only forty feet on the line of reef. On the same day, Frederick George Goodchap, Robert Kift and Edwin Morgan applied for the Caledonia PC, on a reef that was exposed at the top of Caledonian Hill. During the next year, exposed or shallow reefs were discovered all over the goldfield, their names reflecting the origins, names and sentiments of the finders. Thomas Hackett's 1870 map records a widespread system of quartz reefs. Reefs to the north at the Two Mile: the Ballarat, London, Homewood Bound, Hibernia and All Serene. Centrally: the Louisa, Alma, Lady Mary, Caleldonia, Nil Desperandum, Perseverance and Dodds. Around the One Mile: the Smithfield, Columbia, Ellen Harkins and Mt Pleasant. In the south: the Monkland, the Inglewood and St Patricks. Reefs in the far south-east and west of the Mary River included the Great Western, Belfast, Jones and Hit & Miss.

In February 1868, a ton of ore from the Lady Mary reef was sent to Sydney for assaying. The results were encouraging, but until May the full onset of shallow reefing was delayed because the goldfield had no crushing machines. Hard rock mining was more demanding than alluvial mining and it attracted a different kind of miner. Reefers tended to be steadier characters than alluvial miners, who were likely to down tools and rush away when the rumour of another discovery reached their ears. Reef mining required capital to purchase equipment and men had to be sustained until gold was forthcoming. Syndicates were formed, money was contributed, and gold shares were defined in proportion to the capital amounts subscribed.

## Extracting the Ore

At a site carefully chosen on the supposed line of reef, a roundish shaft was excavated. Shafts were either vertical or inclined downwards along the dip of the reef to create an underlie shaft. Some shafts were timbered, some were not. Miners entered and exited the shafts by improvised ladders. At the face below, miners worked in pairs. The tap man held the long steel tap or hand drill which was struck by the hammer man swinging a heavy, double-handed hammer. The hole was then filled with gun powder (blasting powder) and fired. Later on, dynamite, with higher blasting power and less fumes, became available. Waste rock (mullock) from the shaft or drives was broken down, used for backfill underground or shovelled into a kibble (bucket) then raised to the surface. Quartz ore still on the face was dislodged manually by a miner striking a gad with the lighter, single-handed Gympie hammer, thus the term, hammer and tap. The free quartz was hand sorted, placed in a bucket and raised to the surface. If samples of ore were required, the quartz sample was pulverized by a steel bar in a metal dolly and the gold separated in a dish to provide an indication

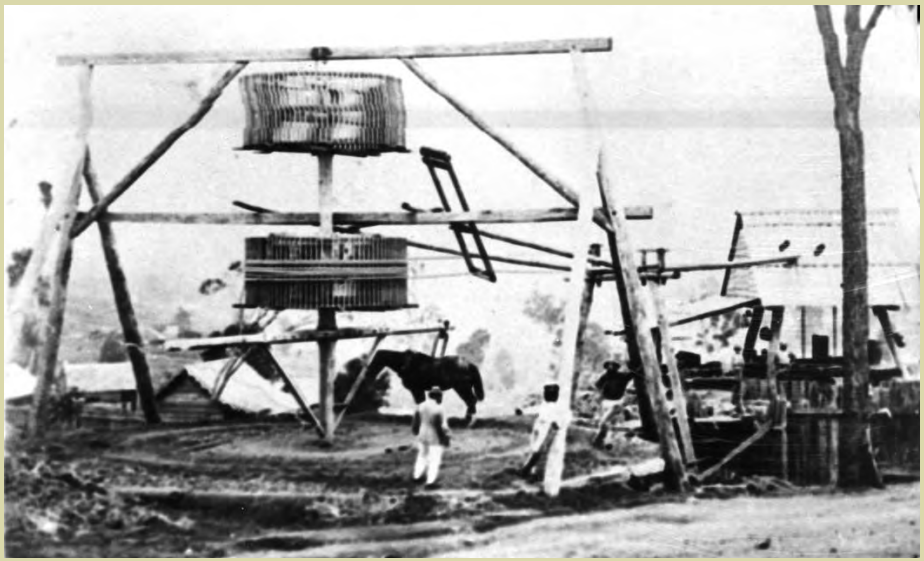
of grade or yield of gold. Underground, the environment was dark, dusty and poorly ventilated. Miners worked by candle-light, confined in irregular spaces and in danger from rock falls, fumes and misfires. Their work was hard and dangerous, with variable results and no guarantee of success. Three types of lifting mechanisms were employed for raising ore to the surface. In order of increasing capacity, these were windlasses, whips and whims.

**Windlasses** were made of wood, usually a stout tree trunk, with a handle turned by the muscle power of an operator. A rope attached to a bucket was wound around the trunk as the bucket was raised. Capacity was limited by the leverage of the winding mechanism and the strength of the operator, and the maximum depth reached was 150 feet.

**Whips** were wooden levers, based on the Egyptian shadoof, and were powered by hand or by horse. A long sapling was attached to a vertical, fixed post. The thin end, with a rope attached to a bucket, lay over the shaft. The thick end was counter-weighted to balance the load in the bucket. Two men worked in unison, one below filling the bucket, the other hauling it up to the surface. To reach depths of up to 200—250 feet, a horse could be walked along a straight path the length of the depth of the shaft.

**Whims** used the circular rotation of a horse to drive a capstan or a circular drum. Ropes attached to the drum raised a bucket in the shaft by running over a pulley. Whims could have one or two drums and were extensively used in Gympie. Their depth capacity was limited to approximately 250 feet.

Horse-drawn drays in front of a windlass carting ore to battery from the No 3 South Monkland in 1869. Photographer: Richard Daintree. Source: (Keith Waser Collection) Gympie Regional Libraries.



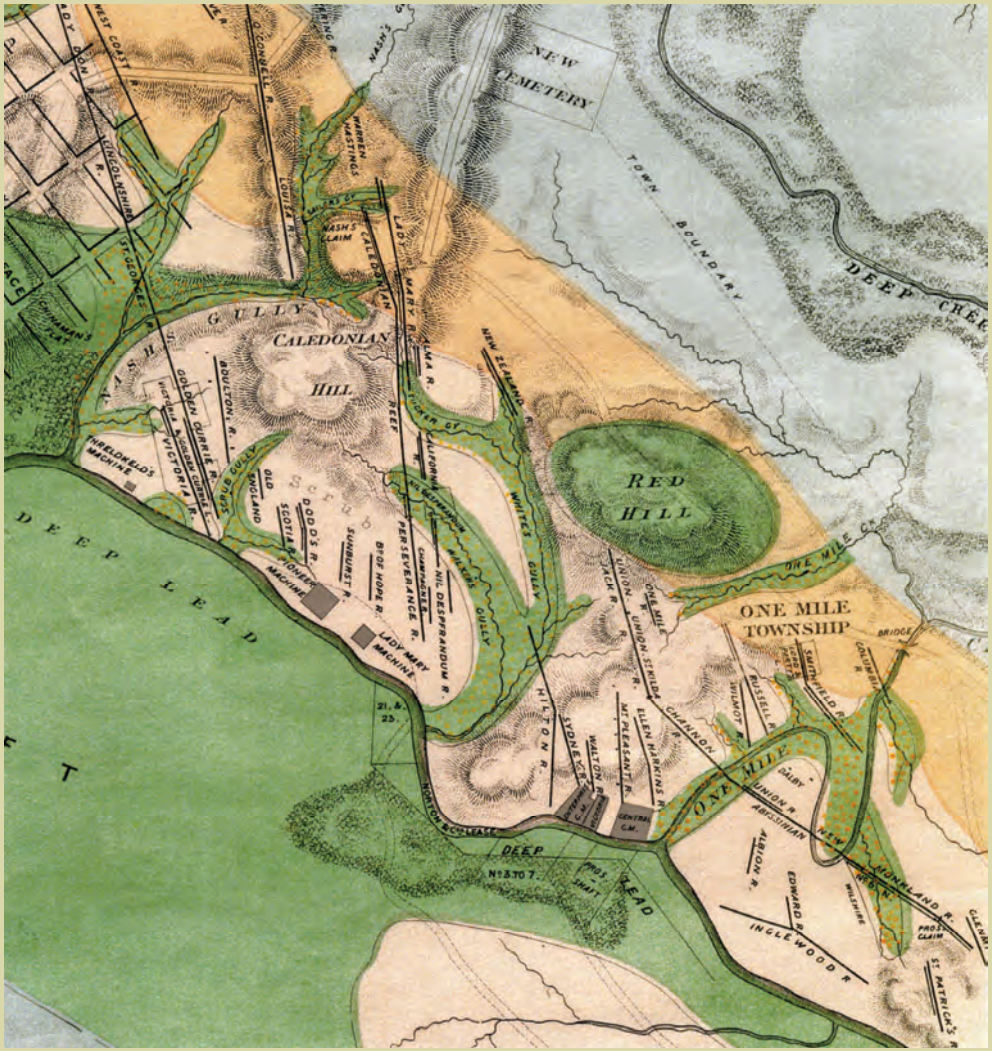
Horse-drawn, double cylinder whim at the Caledonia PC mine Source: (Keith Waser Collection) Gympie Regional Libraries.

# Treating the Ore

Quartz ore was transported to a battery, where it was crushed and the gold extracted. The ore was moved in wheel-barrows or horse-drawn drays, which were loaded directly from the whim or from a receiving bin. In the six months between the beginning of reef mining and the opening of the first battery, white quartz was stockpiled on the ground and guards were set to prevent the disappearance of rich specimens.

A battery consisted of units of stampers. Usually five stamper rods occupied a frame, with a cast iron mortar box at the base. When a batch of ore was to be processed, it was gravity fed into the mortar boxes. A wood-fueled steam engine rotated a shaft with a curved cam that raised each stamper rod. The heavy stamper then dropped vertically by gravity. The disc on the end of the falling stamper gradually pulverised the pieces of quartz to a sandy consistency. The sand grains were then conveyed by water over separation tables, where ripples and blankets caught most of the gold particles. The flow continued across copper-lined plates, where a quicksilver (mercury) solution was circulated, forming an amalgam with the particles of gold. This amalgam was collected, then heated (retorted) to separate gold bullion from the mercury. Tailings, a fine, sandy waste product, were discharged as waste into the river. Within a year of the rush, there were no fewer than six quartz crushing batteries or machines operating on the banks of the Mary River. These were the cutting edge of innovation and change. Engineers and assayers arrived and engines, boilers, pumps and batteries and the constant, metallic, roaring sound of stampers became part of life on the goldfield.

The first crushing battery, **the Pioneer machine,** was small, with a twelve horsepower engine operating ten stampers. It began operations on 2 May 1868, when, in a trial run with five stampers working, it tested ore from the Caledonia reef. This battery was built on the east bank of the Mary River at the First Pocket, below the present Hyne Street, just north of Excelsior Road, on a site that facilitated the delivery of ore along spurs of the Calton and Caledonian Hills.




Section of Hackett's Map, 1870, showing the batteries on the river and the Deep Lead, with batteries shown.

The origin of this machine is unknown. It may have been shipped in pieces to Maryborough and carried by bullock team to Gympie. Its owners were the iron founders Pye and Bachelor, who became public figures when their machine was subjected to huge interest and scrutiny. They took risks, but stood to gain if the machine performed well. Although limited in capacity, the Pioneer machine worked satisfactorily, enabling mine managers to assess the results of their crushings, run ore samples through the mill and judge whether promising reefs were worth continued effort. While some of the early crushings were mind-boggling in terms of yield (ounces and pennyweights of gold per ton of ore), this reflected the bonanza grades of the selected specimen ore put through, rather than the efficiency of the machine. Undoubtedly, a lot of gold was lost in the tailings.

The spectacular early yields of gold were widely publicized, highlighting the richness of the Gympie goldfield. Thus the Pioneer machine was a milestone, prompting further investment in crushing machines. Between May and October 1868, five more public batteries were erected on the bank of the river. During this time, the *Nashville Times* kept the community informed, with accounts of meetings, capital raisings, sailing dates, expected times of delivery and operation, and details of the machines' construction.

Enterprise and Victoria machines in 1870 flood. Photographer: Thomas Matthewson
Source: (Keith Waser Collection) Gympie Regional Libraries.

**Threlkelds' machine** started service in August 1868. Joseph and Thomas Threlkeld were brothers with several claims on the field, who had first crushed their stone at the Pioneer battery. Their machine, the furthest downstream, was at Pumpkin Flat, below the main oval at present-day Albert Park, on a slight rise between Nash and Scrubby Gullies. When fully developed, this battery had ten stampers. An early manager was John Hillcoat, who later moved the machine to the Black Snake mine at Kilkivan. This illustrates how, with the changing fortunes of men and mines, small, portable crushing batteries could be moved from goldfield to goldfield.

The **Victoria machine** was also referred to as 'Moore's machine', after its owner, John Moore. Delivered to Maryborough on the *Saxonia* in mid-July, it began operating in early October 1868. This original Victoria battery was situated at the Second Pocket, downstream from the junction of Deep Creek and the Mary River, adjacent to the Walton Reef and below present day Blake Street. Each of its fifteen stampers weighed seven hundredweight. Its blanket table and amalgamating barrel were by Enoch Chambers and Co. of Melbourne,

and the thirty horsepower engine was from T.W. Tennant and Co. of Edinburgh. Its Cornish boiler, from McCall, Black and Co. of Melbourne, was twenty feet long, six feet in diameter and worked at 120 psi (pounds per square inch). This machine was capable of crushing 200 tons of quartz each week.

The **Enterprise Quartz Crushing Company's machine** also began operations in October 1868. It was located adjacent to the Victoria battery. No one name was associated with this machine, but it may have had shareholders from Ipswich. Its second manager was Robert Lawrie, a popular man on the field. When he departed from Gympie in 1872, prominent citizens held a public farewell in the Apollonian Hall and presented him with an illuminated address.

The **Lady Mary machine** began working in late October 1868. It was located between Scrubby and White's Gullies, upstream from the Pioneer machine but downstream from the junction of White's Gully and the Mary River. The Band of Hope reef was a little to the east, where Excelsior Road, if continued, would intersect the river. The Lady Mary had a twenty horsepower engine and twenty stampers. Its machinery was purchased in Melbourne.

The **Central machine,** with twenty stampers, was operating by late October 1868. This battery was just downstream from the junction of Deep Creek and the Mary River, between the lines of the Ellen Harkins and Mt Pleasant reefs.

Although the six early public batteries on the riverbank had ushered in rapid technological change, they had relatively short lives. The great flood of 1870 and subsequent lesser floods ravaged the buildings, making operations risky. By 1875, another generation of batteries, purpose built near the shafts of deeper mines or closer to hubs of mining away from the river, had made them obsolete.

Gold grades from the shallow reefs were very high, reflecting both the concentration of gold in many of the early reefs and the practice of hand picking the ore that was taken to the batteries. Bonanza grades of specimen stone were common in some crushings. Comments from early miners suggest that less than two ounces per ton (50 grams per tonne) was not attractive enough to warrant the effort of mining.

From such rich ore, specimens of gold in matrix were sometimes kept. Some were sent to Exhibitions in Glasgow, London and Paris, and others were given as gifts to visiting dignitaries. Theft has complicated the challenge of preserving valuable specimens, and with passing time, even collection and museum grade specimens have been crushed and smelted. Today it is hard to find specimens of known provenance from the Gympie goldfield. The Shallow Reefing era ended gradually. As shafts became deeper, reefs sometimes disappeared or failed to yield payable gold. The risks and costs of mining at greater depths came into question just at the time when other goldfields, such as Charters Towers (1872) and the Palmer River (1873) were drawing miners away from Gympie. By 1875, the era of Shallow Reefing was fading.

Two Gympie hammers, dolly and dollypot. Invented in Gympie and made by local blacksmiths, Gympie hammers had balanced heads and a small striking area. Their use spread to other mines in Australia and overseas.
Source: The Gympie Times, 1991.

# John O'Connell Bligh (1835-1880)

From his appointment as Police Magistrate and Goldfields Commissioner in 1870 until his death in 1880, John O'Connell Bligh dominated the administration of the Gympie goldfield. The well-connected Bligh was a grandson of William Bligh, the controversial Captain of the *Bounty* and early Governor of New South Wales. His mother was Governor Bligh's daughter Elizabeth, and his father was her second cousin, Richard Bligh, a prominent English barrister. The family was related to the Irish patriot Daniel O'Connell, hence John's second name.

The youngest of seven children, John was born in Buckinghamshire, England, in 1843. His eldest brother, Richard Bligh, settled in Australia, becoming Commissioner of Crown Lands in the Gwydir and Clarence Districts. Richard Bligh is an ancestor of Queensland's first woman Premier, Anna Bligh.

John Bligh arrived in Sydney in 1850 as a youth of sixteen, and three years later was appointed to the New South Wales Civil Service. Moving north, where his cousin Maurice O'Connell (another grandson of William Bligh) was Government Resident at Gladstone**,** he joined the Native Mounted Police. In 1854, aged only twenty, he was officer-in-charge at the Yabber Police Station in the Upper Mary River District. He then pursued a career in the Native Mounted Police, acquitting himself well and rising to be their Commandant.

Bligh House, Channon Street, Gympie, 1872.
Photographer: E H Forster, Source: State Library of Queensland neg: 36305.

In Sydney in December 1863, Bligh married Charlotte Elizabeth Dick. Two years later, seeking a more settled life, he was appointed Police Magistrate at Gayndah. In 1870 he was transferred to Gympie.

His work as Police Magistrate and Goldfields Commissioner (later Warden) was demanding, combining judicial, administrative and social duties and involving difficult decisions, much paperwork and some unpopularity. Ill health dogged his years in Gympie, and he had a number of breaks from service.

John O'Connell Bligh.
Source: State Library of Queensland, neg. 147067.

The Bligh family lived first at 'The Camp', which had been established by commissioner Henry King near the Mary River. They then moved to a large property in Channon Street. Charlotte Bligh died of pneumonia not long after the birth of her sixth child in 1877. Three years later, John Bligh died from an overdose of chloral at the early age of forty-six. His gravestone in the Two Mile Cemetery states that his passing was 'lamented by many good men'. Bligh Street on Calton Hill is named after him.

# Deep Reefing 1875-1924

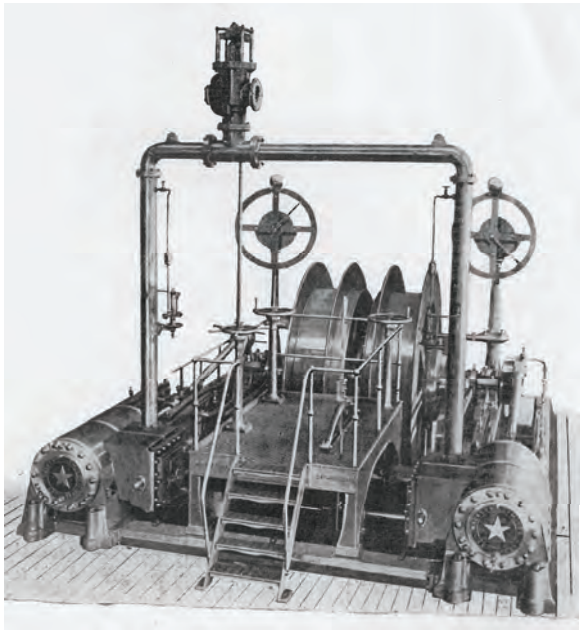
Deep Reefing is hard rock mining using steam-driven winding-machines to raise ore from great depths. From slow beginnings, this era featured the discovery of major reefs and a speculative boom in the mid-1880s. Floods and an economic depression in the 1890s caused many problems, but by late in that decade, seventeen exploratory shafts were being sunk, with target depths between 1,500 and 5,000 feet. The early 1900s saw Gympie's gold production peak, but numerous mine closures followed, and the goldfield began a slow decline.

The cluster of structures around a poppet head – boiler shed, chimney, winding engine, blacksmith's shop, mine manager's office and storeroom – was referred to as the headworks. Some of the larger mines also had a battery complex adjacent, requiring another boiler shed and chimney, as well as water storage facilities. Gympie's distinctive brick chimneys were of square Welsh and later round Cornish construction. Close to the mines, the noise of steam engines, whistles, rattling cages, underground blasting and pounding stampers continued day and night, silenced only on Sundays.

The surface panorama of deep reefing at Gympie, tall headframes, brick chimneys and mullock among the wooden homes of the community. Looking south towards Red Hill, with the headframe of the Great New Zealand mine on right and 3 North Phoenix mine at centre background. Source: Gympie Regional Libraries.

The workhorse for deep mining operations was a mechanical monster, the winding machine. Powered by steam from a wood-fired boiler, its cylinders generated a rotary movement, which was passed to large winding wheels. Wire ropes attached to the wheels extended over pulleys (poppet wheels) at the top of a timber headframe (poppet head). Cages suspended on the ropes were lifted and lowered between runners within a timbered shaft, moving men, equipment and ore. Unloading took place at the brace, a platform at a level above the ground that allowed gravity feed into ore bins or into ore trucks that travelled along an overhead tramway (gantry) to the battery.

The early winding machines came from Victoria, but demand led to the growth of foundries such as Walkers Ltd in Maryborough. As shafts became deeper, the capacity of the winding plants increased, and double engines with larger diameter and length of stroke were built. By 1900, Walkers Ltd. had supplied the most powerful winding plants to the 3 South Great Eastern, the West of Scotland and the Oriental Consols mines.



A steam winding engine manufactured by Walkers Ltd for the Oriental Consols Gold Mining Company in 1900. This plant consisted of a pair of coupled twenty inch cylinders with forty-two inch stroke and a pair of eight foot drums with a one inch rope 2,750 feet in length. The Cornish boiler was twenty-seven feet long and seven feet in diameter. Source: The Gympie Times, 1910.

## WALKERS LIMITED, MARYBOROUGH

Walkers Ltd originated at Ballarat on the Victorian goldfields in 1863, when John Walker and Thomas Braddock of Ballarat and W.T. Sandry and James Wood of Melbourne joined as partners to establish the Union Foundry. The foundry's main products were boilers, stampers and winding and portable engines for mines in Victoria.

In 1867 John Walker visited Maryborough and Gympie and saw possibilities in the sugar and mining industries. A branch of the Union Foundry was opened in Maryborough on twenty-one acres of land on the Mary River between Bowen and Kent Streets in 1868. Its manager was James Wood, who was joined by Thomas Braddock in 1872. Another partner, W.F. Harrington, went to England in 1873 to buy machine tools, which were dispatched in chartered sailing ships direct from London.

In 1884 the firm was floated as a public company, John Walker & Co. Ltd, which later became Walkers Ltd. In the booming Queensland economy of the 1880s, Walkers became the main supplier of heavy machinery. Later the company diversified into the coal, railway, bridge and ship-building markets in Australia and overseas, where the quality of their wide range of products was readily recognised. Walkers, now known as Downer EDI Rail, continues on its original site today.

Walkers provided the bulk of the heavy machinery for the Gympie goldfield, including crushing batteries, winding engines, Cornish and Lancashire boilers, poppet wheels, grinding mills, shoes and dies, cages, ore trucks, stone breakers, steam pumps and air compressors. Plants were delivered to the Scottish Gympie, 2 North Columbia Smithfield, Columbia Consolidated, 1 South Oriental & Glanmire, 1 South Gympie, West of Scotland, Oriental & Glanmire, Oriental Consols, 2 Great Eastern and 3 South Great Eastern mines.

Walkers was established so early in Maryborough that its success and the diversity of its products, combined with relative proximity and direct rail contact with Gympie after 1881, precluded the establishment of heavy engineering capacity on the goldfield. Only light engineering works, supplying cages and tanks for example, were ever established in Gympie.

# Batteries

The six batteries built on the riverbank in 1868 had combined capacity of ninety-five stampers and were all public facilities. The Gympie battery, constructed near Deep Creek in the mid-1870s, had forty stampers, later expanded to sixty-five. Like the Victoria battery, which was built at the same time on the southern side of Deep Creek, this was a public facility, serving the needs of many of the mines in the central part of the goldfield.

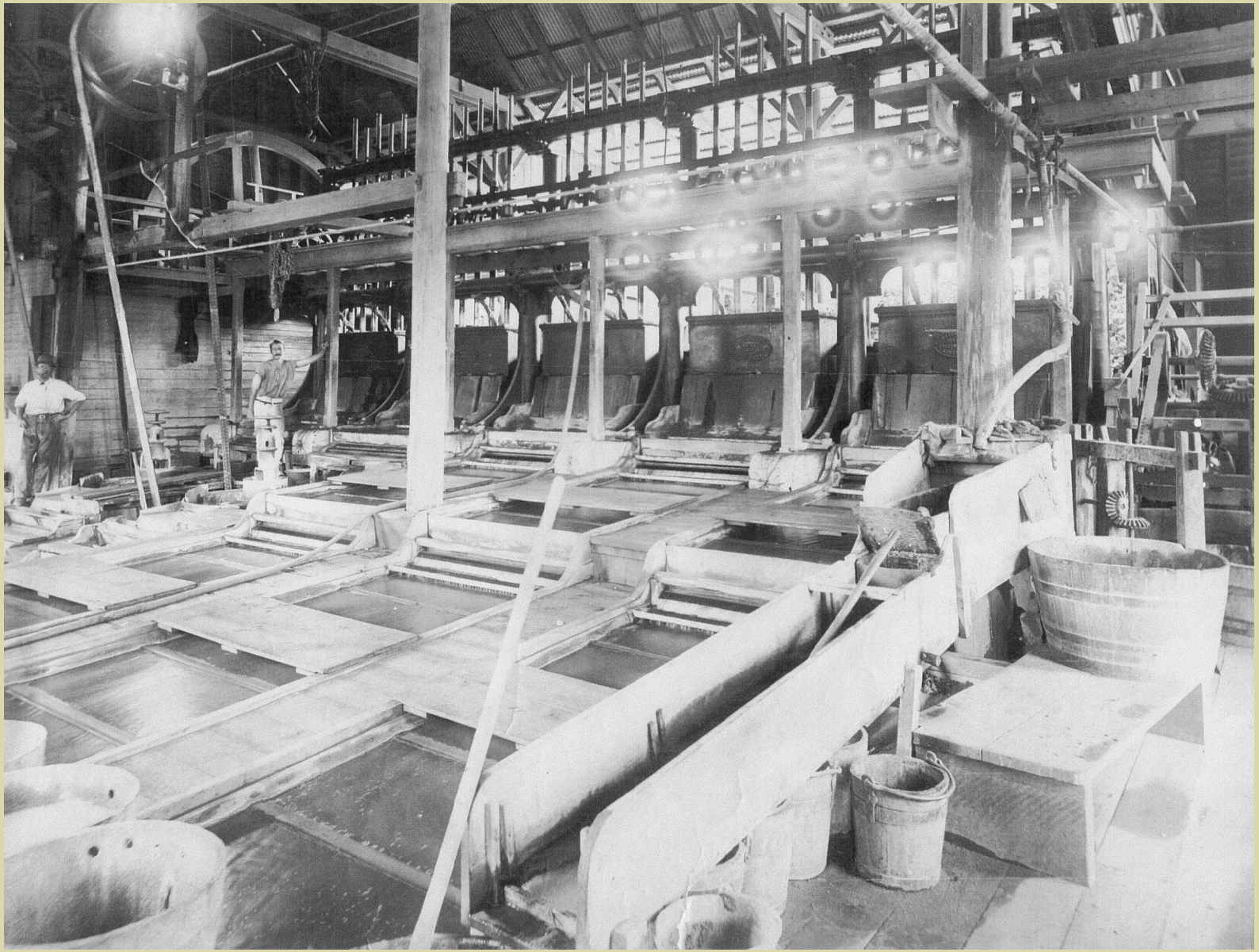
By the mid–1880s, the larger mines were constructing their own batteries to reduce costs and increase the efficiency of their operations. The New Zealand PC's Maori battery was one of the first. Then came several batteries at mines on the Phoenix line of reef at the One Mile, followed by a trend southwards to the mines at Monkland.

Around 1900, approximately 355 stampers were in use at eight batteries.

There appears to have been little crushing capacity at the Two Mile before the turn of the century. Short-lived batteries may have operated there, but the records do not indicate how the many small mines at the Two Mile crushed their ore. Late in the life of the goldfield, the 4 North Phoenix and New Gympie Gold mines were obliged to construct their own batteries because all other facilities had ceased operations.

Battery and Stamper Capacity 1868-1935.

| | NUMBER OF STAMPERS | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1868 | 1873 | 1889 | 1899 | 1903-6 | 1924 | 1933-5 |
| **A. EARLY PUBLIC MACHINES, RIVERSIDE, 1868-1872** | | | | | | | |
| Pioneer | 10 | | | | | | |
| Threlkeld's | 10 | | | | | | |
| Victoria | 15 | | | | | | |
| Enterprise | 20 | 20 | | | | | |
| United | 20 | 20 | | | | | |
| Central | 20 | | | | | | |
| **B. PUBLIC BATTERIES OR MILLS, NEAR DEEP CREEK, 1873-1915** | | | | | | | |
| Gympie or 'Big' Mill | | 40 | 65 | 65 | | | |
| Victoria or 'Small' Mill | | 15 | 20 | 20 | | | |
| **C. MINE BATTERIES, 1873-1933** | | | | | | | |
| New Zealand PC 'Old Maori' | | 10 | 10 | 0 | | | |
| Perserverance | | | 10 | | | | |
| Golden Crown | | | 25 | 25 | | | |
| Phoenix PC | | | 40 | 40 | | | |
| 1 North Phoenix | | | 60 | 60 | | | |
| 2&3 South Smithfield | | | 20 | 0 | | | |
| Ellen Harkins | | | 20 | 0 | | | |
| 2 Great Eastern | | | 25 | | | | |
| South Glanmire & Monkland | | | | 25 | | | |
| Scottish Gympie | | | | 100 | 120 | | |
| 1 North Glanmire | | | | 20 | | | |
| 2 South Great Eastern | | | | | 60 | | |
| Homeward Bound & Hibernia | | | | | 10 | | |
| 4 North Phoenix | | | | | | 10 | |
| New Gympie Gold | | | | | | | 10 |
| New Enterprise | | | | | | | 10 |



Interior of the battery shed of the Great Eastern mine, with stampers in the background and amalgamation tables in the foreground.
Source: (Keith Waser Collection) Gympie Regional Libraries.

# Mining Waste

Mining operations produced huge quantities of mullock (waste rock) and tailings (fine, sand-like material from the batteries).

**Mullock** was a waste product of shaft sinking, driving underground access ways and blasting to obtain millable ore. It was raised to the surface and usually dumped away from the shaft in huge heaps that dominated the landscape.

**Tailings** were discharged into watercourses and depressions and tended to disperse downstream into Deep Creek and the Mary River. The volume of tailings in some areas was so great that tailings dumps and watercourse blockages were controversial issues.

By the turn of the twentieth century, the Mary River was polluted with heavy tailings sands, sludge and slimes that made the water unfit to drink. Although farming communities downstream as far as Maryborough complained loudly, the Gympie Municipal Council, believing that nothing should interfere with the mining industry, declined to act.

In 1904, however, the Widgee Shire Council took the polluting companies to Court. The case was lost on a technicality, the magistrate ruling that there was no evidence of the time and place from which the water samples presented to the Court had been taken. Seven years of protest about this 'great unredressed wrong' followed, and eventually the mining companies agreed to stack their tailings instead of putting them into the river. After deep reefing ceased, gold was recovered from the tailings by the cyanide process.

This photograph shows battery tailings diverted into the Mary River from mines such as the Scottish and the 2 South Great Eastern.
Source: The Gympie Times, 1902.

# Mine Development

The pioneer deep mines included the New Zealand PC, the Phoenix PC western shaft, and the 7 & 8 Monkland. These mines had paid high dividends while working at shallow depths, and their success encouraged shareholders to buy the equipment needed for deeper sinking.

New reefs, such as the rich Phoenix reef located in 1875 at 300 feet in the Phoenix PC, were discovered at greater depths. By 1880, the 1 North Phoenix had also deepened its No.1 shaft and encountered the Phoenix reef. As a result, these mines continued to pay high dividends for many years. More deep reefs were found at the Great Eastern, the Orient at Monkland and the Western Smithfield at the One Mile. When bonanza grade gold was recovered at the Wilmot Extended and Ellen Harkins mines, investors became confident that reefs would be gold-bearing at deeper levels where black slate occurred.

A group of working miners in unnamed mine near the turn of the century. Note the two rock drills and the improvised working platform. Source: (Keith Waser Collection) Gympie Regional Libraries.

Developing deep mines required lead times of up to three years before any gold was produced, but by the 1890s, the sinking and timbering of vertical shafts with target depths of 2,000 feet was common. This work, and the driving of horizontal crosscuts, was expensive, and had to be met by continued calls upon shareholders.

One of the major innovations in hard rock mining and exploration was the introduction of mechanical drills – the rock drill or boring machine, the pneumatic drill, and finally the diamond drill. Driven by compressed air, these drills greatly increased the rate of driving into hard rock, making exploration cheaper. The drills were developed from more primitive machines, sometimes referred to as 'widow-makers', which had added to the dust in mines and the health risks to miners. More sophisticated models reduced dust with a spray of water.

The diamond drill was introduced around 1890, when the government drilled exploration boreholes, first from the surface just off Excelsior Road and then from the bottom of the South Glanmire & Monkland mine. The main mines to benefit from the capacity of the diamond drills were the 2 South Great Eastern, the South Glanmire & Monkland and the Scottish Gympie.

# Working Conditions

In the deep mines, the miners were employees working for wages, although many of them also invested in mining shares. Underground, they were organised into teams of shaft sinkers, drillers, blasters, timbermen, truckers and shovellers, and were supervised by shift bosses, instructed by mine managers. On the surface, engine drivers, boilermen, blacksmiths, battery hands and retorters provided support.

Hard rock mining was demanding physical work, conducted in a challenging, confined and dangerous environment. The atmosphere was hot and humid, ventilation was restricted and visibility was poor. Accidents were frequent from a multiplicity of causes, including rock falls, flying fragments from tools or rock, objects falling down shafts, explosions or misfires, and contact with moving equipment. Carelessness and illness were sometimes contributing factors.

Accidents were reported to the Mining Warden by the mine manager, and statistics were compiled in the Annual Reports of the Department of Mines. Deaths and injuries were tragedies for the miners' families, but benefits were only payable if management was deemed by an official inquiry to be negligent. While Gympie was spared a single major disaster, an annual death toll of one to three miners was not unusual. Unrecorded were the less obvious but cumulative respiratory problems, such as miner's phthisis, which cut short many miners' lives. Compared with modern health and safety standards, working conditions were primitive.

Miners at work in the East Oriental and Glanmire mine in 1910. Note the two rock drills, the flat reef and the hot working conditions.
Source: Gympie Regional Libraries.

Changing of the shifts at the 1 South Oriental and Glanmire, about 1904.
Source: The Gympie Times.

Andrew Fisher as a young miner.
Source: State Library Of Queensland, neg. 72105.

**ANDREW FISHER (1865-1928)**
**THE MINER WHO BECAME PRIME MINISTER**

From a family of coal miners in Ayrshire, Scotland, Andrew Fisher and his brother James migrated to Queensland in 1885, and went first to the Burrum coalfield near Maryborough. Andrew came to Gympie in 1888 and worked as an underground miner at the 1 North Phoenix, where his involvement in the union movement caused him to fall foul of mine owners such as William Smyth. Leaving the 1 North Phoenix after a strike in 1890, he studied to become a winding engine-driver and then worked at the South Great Eastern Extended mine at Monkland.

In the turmoil of flood and depression in 1893, Fisher was elected to the Queensland Parliament, but was defeated by Jacob Stumm in the 1896 election after a hostile campaign in Stumm's newspaper, the *Gympie Times*. Blacklisted by mine managers, Fisher was supported financially by ordinary miners. With some of the money they raised, he bought a printing press, hired an editor and produced the *Gympie Truth*, a newspaper that put the miners' point of view.

In 1899, Fisher was again returned to Parliament, and later that year became Minister for Transport in the short-lived, first Labor government in the world. In 1901, he was elected to the new Federal Parliament as the Member for Wide Bay, and between 1909 and 1915 he served three terms as Prime Minister. His achievements included introducing an Australian currency, pensions, a baby bonus, and improved wages and working conditions. He established the Australian Navy and the Commonwealth Bank, began work on the Transcontinental Railway, and laid the foundation stone for Canberra.

Although Fisher moved his family to Melbourne, he frequently made the long train journey north to visit his large electorate. He never lost interest in Gympie's mining industry or the miners who had placed their faith in him.

When World War I broke out during Fisher's third term as Prime Minister, he famously declared Australia's intention to fight 'to the last man and the last shilling'. Leaving office in 1915, he travelled to London to oversee the war effort as Australia's High Commissioner. He died in London in 1928 and was buried in Hampstead Cemetery.

From 1904-1907 wages were as follows: mine managers, £4-8 /week; engine drivers, 10-12 shillings/day; miners working machine drills, 10 shillings/day; miners working hand drills, 8 shillings/day; timbermen, 10 shillings/day; truckers and shovellers 7 shillings and sixpence /day.

The late 1880s saw the rise of the union movement throughout Australia, and miners on the Gympie goldfield were not slow to demand improved wages and working conditions. Collectively, they established co-operative stores and organised literacy classes and debating societies, where many of the ideas that later shaped the nation were discussed. In 1908, after years of struggle, one of their leaders, Andrew Fisher, emerged on the national stage as Prime Minister and began to put those ideas into action.

# Mine Management

Mining companies were governed by Boards of Directors elected by shareholders. These Boards balanced the costs of mine development against the payments of dividends to shareholders. Dividends were usually paid monthly and if they were paid too generously or prematurely, there could be negative effects on exploration and mine development. Late in the Deep Reefing era, rising production costs, lower operating margins and reduced dividends made it difficult to raise the capital needed. A practice commonly used to even out gold production and stabilise dividends was called 'smoothing the crushing'. This involved building up a store of gold that could be drawn upon during periods of lower production. Companies could select and store rich specimen stone or pieces of amalgam taken from the plates at the battery. Both options had security implications, as theft was an ever present threat. The mine manager and the Board of Directors would determine how much of the gold reserve would be included in the next cycle of production and dividend payment.

# Sources of Capital

The early, smaller mining companies often had directors who were shareholders and working miners. Increasing costs of plant, equipment and labour, however, drove the organisation of mining gold towards the larger structure of a public company, which could raise capital and employ professional management. Other investors became interested in the Gympie goldfield and overseas capital appeared in 1888, when investors in the United Kingdom purchased the Great Eastern mine at Monkland. This company continued as the Australasian, on a lease and shaft near Tozer Park Road. In 1896, investors from Glasgow developed the Scottish Gympie mine. Its early success and substantial dividends attracted further Scottish capital to other Monkland Mines, including the West of Scotland, Scottish Consols, Scottish Freehold, Eastern Gympie, Oriental Consols, Oriental & Glanmire and East Oriental & Glanmire. A number of mines established offices in London for overseas shareholders.

## THE MINE MANAGERS' ASSOCIATION

The most prominent and influential figures in mining companies were the mine managers. These were usually former miners, appointed because of their experience and ability. They were hands-on, practical men, directly involved in day-to-day operations. They hired and fired, gave orders to miners and service providers, and acted as the link between working miners and company directors. As well as supervising production and exploration, they were responsible for the safety of the men and the security of the mine and its assets. Although paid a salary, they were often shareholders in their own right, and they sought to serve the company by producing gold and winning revenue as efficiently as possible.

In the 1890s, led by William Smyth and George Argo of the 1 North Phoenix, Gympie mine managers formed their own association. Members met monthly to discuss such matters as safety issues and government regulations. If necessary, they lobbied the authorities for changes and improvements. The Mine Managers' Association provided opportunities for influential managers to liaise with the local community, the government and other goldfields. It can also be seen as a response to the formation of unions among the ordinary miners.

1st Row: J. Wilson, H. Enright, G. Groundwater, D. Flynn, W.Gamble, J. Edwards, J. Daly, T. Walker, A. Brown.
2nd Row: G. Jobling, W. Lydement, John Carlyon, T.Nelson, D. Dunne, J. Sibley, Jesse Mitchell, Ed. Mitchell, L. Farmer, W. King. W. Bath.
3rd Row: E. Hansen, R. Nelson, R. James, Hugh Bradford, S. Mahony, Ed. Dunne, T. Smith, J.O'Brien, W. Humphries, C. Dillon, J. Reid, J. Macnamara.4th Rowe: C.B. Steele, J. O'Connor, R. Arnell, T. B. Jones, T. B. Wallace, Thos, Baty, F. L. Power (Patron), James Brown (President), J.James, Joseph Rowe, J. Jewell, W. Black, J. Harris, J. Hudspith.
5th Row: J. O'Donohue, H. Smith, M. Caldwell, B. Treloar, J. M. Martin, T. Wilcox.

Mine Managers Association 1900. Source: Gympie Regional Libraries.

# Mining and Stock Exchanges

When Henry Farley built the Mining Exchange Hotel on Commissioners Hill in 1868, he set aside rooms where his brother James could buy and sell mining shares. In 1871 Farley's extensive buildings were pulled down to make way for Channon Street, and a two-storey timber hotel was built on the new alignment. Because some of its rooms were let as offices for various businesses, it was renamed the Commercial Hotel.

A second Mining Exchange was set up by mining secretaries John Staley and Benjamin Finney lower down on the opposite side of upper Mary Street, and the hotel next door took the name 'Mining Exchange'. In 1884 the Mining Exchange building became the first Gympie Stock Exchange, with offices and a call room. Many of the shareholders who used its services were local miners, and every night the call room was crowded with investors keen to trade and watch the trend of the market. The street outside was thronged with men, walking up and down and discussing the news of the day.

In 1902, the stock brokers bought the attractive Australian Joint Stock Bank building on the opposite side of Mary Street as their offices and club rooms. Behind it they constructed a timber call room, which was approached by a boardwalk between the club and the building next to it. The original Stock Exchange became part of the Mining Exchange Hotel.

In 1923, the Stock Exchange Club was bought by solicitor Fred Sykes, and the building has served as solicitors' offices ever since. Today, it is occupied by the firm of Neilson, Stanton and Parkinson, who have retained its architectural integrity while modernising its function. The Stock Exchange Club moved across Mary Street to Smithfield Chambers, where it remained until dwindling membership forced its closure in 1963.


The Stock Exchange & Club, Upper Mary Street, Gympie, circa 1905. Steps to the call room can be seen to the lower left.
Source: Gympie Regional Libraries.

The timber call room was dismantled. Part of it was moved to Cooroy, where it is still in use as a shop. Another part was rebuilt on Noosa Road, where, until destroyed by fire in 2003, it was the home of Fred Sykes's son, Professor Edward Sykes. While mining shares were traded by brokers, mining secretaries provided bookkeeping and share registry services for mining companies, and handled calls from shareholders. Mining secretaries' offices were also located in upper Mary Street, the financial heart of Gympie.

# Assaying and Pyrites Works

**Assayers** measure the precise amount of fine gold present in samples taken from larger weights of crude ore, battery concentrate or bullion. Samples were usually selected by the client and forwarded to the assayer, whose works were equipped with mortar and pestle, crucibles, analytical reagents (acids, fluxes etc.), weighing balances, a retorting furnace with bellows and chimney, and storage space for samples. The assayer summarised his findings in a formal report and charged a fee for his services. Sometimes he made additional recommendations to his client. Assayers were often involved in mining companies as directors or shareholders.

**Pyrite** (iron sulphide) is the most common sulphide mineral. Commercially, it can be a source of sulphur, iron or gold. Pale yellow to brassy in colour, it is sometimes called 'fool's gold'. Compared with real gold, pyrite is brittle, much less dense, and will shatter and give sparks when struck with steel.

In the reefs of the Gympie goldfield, pyrite (FeS2) was often associated with quartz and gold. Another sulphide, arsenopyrite (FeAsS), was also sometimes present. While the gold in the Gympie reefs tended to be free milling, some reefs contained pyrite that required more processing.

The process used to separate pyrite from quartz and gold involved reducing the ore to a grain-like consistency by crushing, then amalgamating the gold with mercury. Most mines developed the capacity to treat average ore in this way, but if necessary batches of tailings from ore with high concentrations of pyrite were sent for specialised treatment at 'pyrites works'. Depending on the nature of the concentrate, it was subjected to further grinding, heating or roasting to drive off sulphur as sulphur dioxide, and then treated again with mercury.

The first pyrites works, which gave its name to Iron Street, was in Commissioner's Gully, just north of the Gympie Hospital. It served the needs of miners during the Shallow Reefing era, when often the ore was reddened by iron pyrite.

In 1879 a larger plant was built on the One Mile side of Deep Creek near the Gympie Crushing Battery. This plant, operated by assayer Mark Curtis, consisted of a six horsepower engine, two large grinding pans and roasting furnaces. Later a cyaniding plant was added, with a capacity to process 300 tonnes of concentrates per month.

# Assayers

**Henry Joseph** (1832-1888) was Gympie's first assayer. Trained at the Royal College of Chemistry in London, he had been employed as an assayer by three Melbourne banks before coming to Gympie. Arriving with his equipment in September 1868, he built an office in Upper Mary Street on the site next to Smithfield Chambers that is now the carpark of the RSL Club. When Governor Blackall visited the goldfield in September 1869, he visited Joseph's works to watch demonstrations of smelting and assaying.

A Freemason, Joseph regularly served in the sometimes difficult role of magistrate. He lived with his wife and four sons on Lady Mary Terrace and had a large circle of friends. When he died of heart failure in 1888 at the age of fifty-six, he was buried with his wife Rebecca and their young son Isaac in the Hebrew (Jewish) section of the Gympie Cemetery.

Scottish-born **David Elder Reid** (1864-1930) studied chemistry at Glasgow University before working as an assayer and gaining experience in the treatment of refractory ores. Reid arrived in Queensland in 1885 to manage the Kabunga Gold Mine near Kilkivan, but the venture proved disappointing. Moving to Gympie in 1888, he bought Henry Joseph's practice and worked out of an office in the Commercial Hotel. When he became General Manager of the Scottish mine, he handed his assaying practice to **William and Sydney Griffiths,** who operated it until 1920.

After gaining practical experience on goldfields in New Zealand and other parts of Australia, English-born **Mark Curtis** (1840-1921) came to Gympie with the goldrush. He worked successfully as a goldminer, notably in the Wilmot Extended mine. In 1879, he set up an ore treatment plant, pyrites works and assaying works on Deep Creek, which he operated until his retirement in 1912. His business was then bought by **Charles Thomas Townsend**, who operated it until 1921.

Curtis was a member of the Oddfellows Lodge. In 1871 he married a young school teacher, Mary Helen Touchbourne. The couple settled on Inglewood Hill, where they raised three sons and three daughters. One son, Mark Curtis Jnr, was the chemist who invented Sitruc (Curtis backwards) Powders, a famous headache cure.

In 1883, investor William Couldrey brought assayer and analytical chemist **Matthew Dougald Hamilton** to Gympie and set him up in opposition to Henry Joseph. Trained at the Ballarat School of Mines, Hamilton established the Phoenix Assay Office at the Phoenix Battery at the One Mile and operated it for ten years before selling it to **William Edward Burbidge** (1859-1927), who also came from Ballarat. Burbidge operated at the Phoenix Battery until 1903, then built an assay office in Reef Street, where he practised until his death in 1927. This building, now occupied by surveyors, still exists.

Burbidge was a director and investor in many mining companies. From 1904 to 1910, he was an alderman of the City Council, serving as Mayor in 1909 and 1910. He also served on the School of Arts and Ambulance Committees and the Fire Brigade Board and acted as the local Secretary of the Trinity College of Music, London. Burbidge lived with his wife Esther and their four sons and four daughters in the house in Bligh Street that is now the Jessie Witham Centre. Daughter Beryl Burbidge served as a nurse during the World War I and later became Matron of the Brisbane General Hospital.

Other Gympie assayers were **Alfred Lymburner**, a son of surveyor Adam Lymburner, from 1885 to 1896, and **John Perry-Lyons** in 1906 and 1907.



Advertisements for Curtis and Burbidge. Source: Lees, W. 1899.

# Mining Surveyors

Mining surveyors who worked in Gympie included Robert Ballard, Silas Harding and John Joseph Gwynne, but the most distinguished of these skilled, resourceful men was **Charles Beevor Steele** (1860-1913).

A lineal descendant of Saint Thomas More (who was executed in 1535 by King Henry VIII), Steele was born into a large, talented family at St Helier, Jersey, in 1860. After completing his education at St James Collegiate School, he arrived in Queensland at the age of seventeen to train as a surveyor under his older brother, John Daveney Steele.

In 1882, newly licensed, Steele wrote a private report for the Gympie Railway League on the proposed railway line from Gympie to Brisbane, and was then employed to carry out the official survey. He undertook government work in the Gympie, Wide Bay and Burnett Districts and was appointed a railway surveyor in 1888.

Marrying Mary Frances (Minnie) Tymons in 1886, Steele brought his family to Gympie five years later. The Steeles occupied a house which still stands on the corner of Calton Hill and Church Street, opposite St Patrick's Catholic Church.

Steele practised as a real property and mining surveyor from an office in the Commercial Hotel. Careful and methodical, he gained an enviable reputation for the accuracy of his underground surveys. A member of the Defence Force, he captained B Company in the No. 2 Regiment. He was also a Justice of the Peace, served on the Licensing Board, and supported the School of Arts and the Chamber of Commerce. A devout Anglican with a Catholic wife and children, he served for many years as a Warden at St Peter's Church of England. He died in 1913 at the early age of 53, survived by his wife, a daughter, and four sons, including Monsignor Owen Steele, the founder of Boys' Town at Beaudesert.

# Engineers

An engineer was the man in charge of machinery at a mine. Several of Gympie's engineers invented safety devices and suggested changes that improved mining operations.

**Henry Brewer** (1854-1895) was a Cornish mining engineer, who worked in London, Devon, Shetland and Spain before coming to Brisbane in 1883. After setting up the crushing plant for the Perseverance Goldmining Company in Gympie, he worked on the goldfield for ten years.

In 1885, Brewer patented a detaching hook and cage. The clawed hook was operated by rollers placed the top of the poppet heads, and the sides of the cage held grippers that clutched the guides in the shaft if a rope broke. In 1888, Brewer invented a pump condenser with no moving parts, which eliminated maintenance and cut fuel consumption. He was also credited with improving the construction of poppet heads and introducing round Cornish chimneys, which were stronger and more economical to build than square Welsh chimneys.

**William Bush** (1850-1912) was employed for many years as the Manager of the Gympie Quartz Crushing Battery on Deep Creek. Later he worked as an engineer at the Scottish mine and the Gympie Water Works. Bush's Safety Cages, manufactured in the blacksmith's shop at the Gympie Crushing Battery, improved conditions for underground miners. Bush also developed and patented an Amalgamator and Concentrator, which was manufactured in Gympie.

Bush and his wife Sarah had a family of four sons and four daughters. In 1912, Bush and two of his sons went to the Silverspur silver mine near Stanthorpe to install machinery. While carrying out repairs at the 300 feet level of the mine, Bush put his head over the door protecting the shaft and was struck and killed by the descending cage. His body was brought back to Gympie for burial.

## The Gympie Drainage Board

When the Mary River flooded, some mine shafts were inundated. As shafts were abandoned and mines became interconnected, water entering any shaft could cause widespread disruption. The solution was to use pumps and baling buckets to remove excess water.

*The Mines Drainage Act* (1891) gave statutory powers to a Drainage Board to levy rates and control water. The first Board consisted of solicitor Francis Isidore Power (Chairman), butcher Matthew Mellor, sawmiller William Henderson, investor William Davies and store-keeper Jeremiah Swanton Cullinane. These men, while not miners themselves, were all investors in mines.

Engineer Henry Brewer was appointed to develop a flood mitigation system designed to cope with waters ten feet above the 1870 flood level. Unfortunately, the record flood of 1893 reached much higher levels, and mines were not only flooded but were also subjected to explosions from air unable to escape.

Peter Duckworth was then appointed engineer, and a new system of wooden doors and vent pipes was installed. In the 1896 flood, human failure to close just one door resulted in another bout of flooding. With the advent of continuous baling and refinements to the flood doors, the 1898 flood caused no disruption to mining activities. The Drainage Board won acclaim from other mining fields in Australia and overseas for this achievement.

By 1900, most of the goldfield's early mines were no longer worked, except by tributers. Their shafts and crosscuts accumulated water, which in time began to seep into the deeper mines in the southeast of the field.

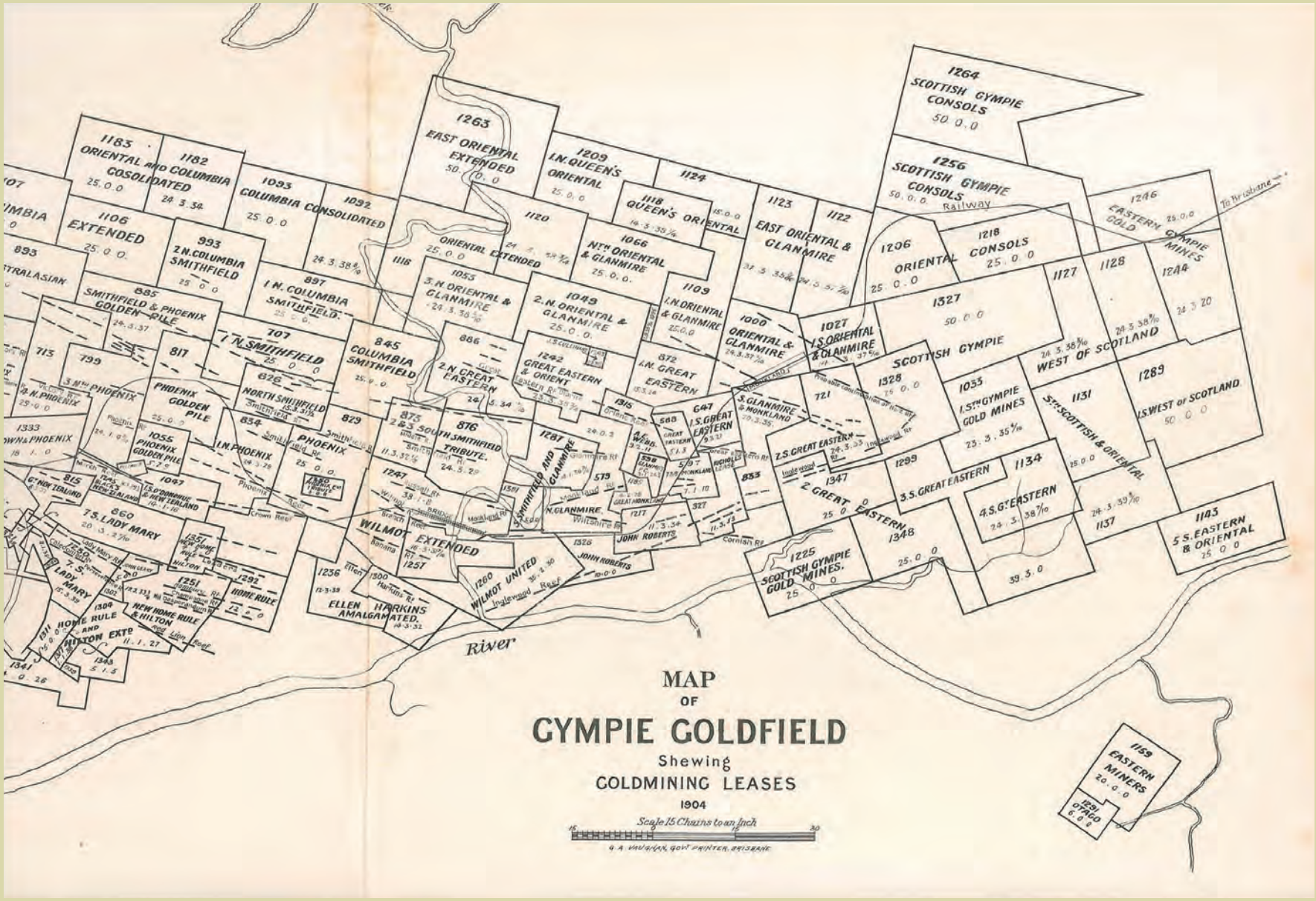
Problems became apparent in the 1 North Glanmire at Monkland, where operations were suspended until baling began from its eastern shaft. A voluntary levy funded the baling, which continued from this shaft for many years. As the problem became more apparent, the Drainage Board was given a mandate to control soakage water. By 1915, it had two major baling areas: in the north, from the Golden Crown shaft near Crown Road, and in the south, from the 1 North Glanmire.

## Government

The Queensland Government was a major player on the Gympie goldfield. It controlled mining legislation, regulations and royalty payments, allocated mining leases and staffed the Mining Warden's office. The government also provided community infrastructure, such as railways and roads.

Many of the men elected to the Queensland Parliament as Members for Gympie were closely connected with the mining industry and used their influence to benefit the goldfield. These included Henry King, Robert Lord, James Kidgell, John Hamilton, William Smyth, Matthew Mellor, Andrew Fisher, Jacob Stumm, George Ryland, Daniel Mulcahy, George Mackay and Tom Dunstan.

The Phoenix line of reef, looking towards Mt Pleasant, circa 1880.
Photographer: Agrippa Bevan. Source: (Keith Waser Collection) Gympie Regional Libraries.




Source: Queensland Government Mining Journal, April 1905.

# Decline and Closure

Two trends – duffers and tribute mining – foreshadowed changing times for the Gympie goldfield.

**Duffers** were exploration shafts that did not encounter gold bearing ore. The failure to develop a productive mine, together with increasing costs, meant loss of shareholders' money, loss of confidence, and difficulties in raising capital.

After the discovery of the Great Eastern reef at Monkland in 1886, new leases were taken up further south. After several years of work, many of these shafts proved to be duffers. These included the Scottish Gympie No.2, West of Scotland, Scottish Freehold, Great Eastern Nos. 2, 3 and 4 south, Great Eastern No. 5, Oriental Consols, Oriental & Queenslander and Eastern Gympie.

One of the reasons for the duffer outcome was the unknown nature of the Inglewood structure. The exact location of this complex fault caused intense debate within the mining community. The 'Inglewood problem', hung over the southern end of the goldfield 'like a veritable sword of Damocles'.[14] Assistance was sought from W. H. Rands, the Government Geologist, who struggled with the problem and indicated that the Inglewood structure cut off the slate beds and the probability of economic gold to the south.

By 1902, the frequency of duffers was a serious issue which was highlighted by the failure of the No.2 shaft of the Scottish Gympie. It reached a climax three years later with the failure of the West of Scotland shaft. At that time the Scottish Freehold shaft, located on the boundary of the goldfield 650 metres south-east of the West of Scotland shaft, had been expected to sink to 5,000 feet, using the largest winding engine on the field.

When the West of Scotland failed, the Scottish Freehold shaft was abandoned at 1,034 feet and new mine development to the south ceased. From that time, deep shaft sinking could not attract capital.

**Tribute mining** is an arrangement between a mining company and a group of miners, whereby the miners work a part of the mine for a fee or a share of the gold or profits. Tribute mining usually indicated that a company's profitability was declining, leading to a reduction of operations. In these circumstances, some miners would continue mining on their own account as a tribute party, with some payment to the company.

Sometimes the company was considering going into liquidation while tribute mining was underway. Tribute mining became more common from 1914 onwards, when the onset of World War I aggravated labour shortages and the cost of materials.

According to mine management, the main reasons for closures were increasing costs, poor ventilation at depth and drainage problems. Additional limitations were imposed by the lack of mine-lease amalgamation, restricted capital, limited exploration, short-term mine management, loss of investor confidence and the exhaustion of mine reserves.

By 1925 the long era of Deep Reef mining was over. There would be no more sinking, drilling, blasting, winding, stamping or retorting. But monumental change had resulted from the great quantity of gold won and the involvement of so many hard-working people.

The goldfield that had shared its mother-lode with Queensland and the wider world would rest. Ironically, the limited understanding of structural geology before World War 1 had reduced the effectiveness of exploration and left ore for future miners to find.

# Gympie's Wealthiest Men

Gympie may have been 'The Town that Saved Queensland', but the uneven distribution of gold meant that many of the workers and shareholders in Gympie's mines had little to show for their efforts. Some, like James Nash, struck it rich then lost their money in unwise or unlucky investments. Others, like Jeremiah Cullinane, balanced investment in mining with investment in business and gained considerable wealth. Only a few – Matthew Laird, William Smyth, David Reid, William Couldrey and William Davies – became extremely rich. Laird returned to Scotland and Smyth and Reid remained in Gympie. Couldrey and Davies however, took their capital to other places, allowing the wealth generated on the Gympie goldfield to become both a source of government revenue and investment capital for other industries.

Well-educated and with a cultured background, **William Couldery** (1839-1919), had an engaging personality, an interest in art and literature, and an ability to converse on a wide range of subjects.

William Couldery.
Source: Gympie Regional Libraries.

Sent to New South Wales in 1855 at the age of sixteen because of family concern about a lung complaint, Couldrey regained his health in the outback. In 1862 he visited England, and on his return came to Queensland, where he led an itinerant life as a stockman and drover. He was working on Gin Gin Station when gold was discovered and he arrived in Gympie in January 1868.

With Nugent Wade Brown, a mate from Gin Gin, he bought the 4 South Lady Mary claim and unsuccessfully worked the Caledonia reef. The claim was then amalgamated with nearby claims belonging to Robert and Frederick Lord. Noticing gold in mullock from an old shaft, the partners built a windlass, dug further, and soon struck a 'jeweller's shop', a patch thick with gold.

Couldery became a big investor on the goldfield, acquiring shares in four of the Smithfield mines. At the Logan River, south of Brisbane, he developed a sugar plantation and distillery, built a sawmill and a brickworks, established a dairy farm, and introduced pure-bred Ayrshire cattle. In 1892, he decided to re-open 'Pollock's Folly', an old shaft on the Smithfield Reef near the One Mile School. This mine, which became the Phoenix PC, struck rich gold, and Couldery made a second fortune. He moved to Sydney, investing in real estate and Sydney Harbour ferry companies. However he maintained his interest in Gympie mining, the New Dawn mine (1903-1911) being his last investment. Couldrey died at 'Warlingham', his mansion at Elizabeth Bay, in 1919. 'Warlingham' was also the name of the home on Lady Mary Terrace in Gympie, where for many years he had lived with his wife Susannah, daughter Dorothy, and sons Victor and Reginald. St Peter's Anglican Church now stands on the site.

Born in Caermarthen, Wales, **William Davies** (1847-1927) came to Queensland as a young man and was in business with his brother at Toowoomba when gold was discovered in Gympie. His first shaft, on Caledonian Hill, mined a rich patch on the Lady Mary reef and earned him his first fortune. Intelligent and cautious, he went on to invest in many successful mines, including the 1 North Glanmire, 4 North Phoenix, Great Eastern and North Smithfield.

William Davies.
Source: Lees, W. 1899.

In Gympie, Davies served as a director of many mining companies, was a member of the Widgee Divisional Board, and helped to establish the Royal Bank and the Gympie Gas Company. In 1880, he married Eliza Jane Wyllie. The couple had two sons, William and Maldwyn, and a daughter, Jessie, all born at "Willow Park", the family home at Chatsworth. Moving to Brisbane about 1903, Davies settled at Auchenflower, where he built "Drysllwyn", a grand brick mansion that is now a Theological College. Davies died in 1927, aged eighty, and is buried at the Toowong Cemetery. His wife died in 1941, aged eighty-four. Members of the Davies family have continued to play an important role in the development of Queensland.

# Interlude 1925-1980

During the Interlude era, mining lost its place as Gympie's major industry, but Gympie did not become a ghost town. The economy of the region diversified with the growth of the dairying, beef cattle and horticultural industries, forestry, fishing and tourism. Miners entered the new industries or sought opportunities elsewhere. The remains of hard rock mining – buildings, plant, equipment and mullock – were moved or sold off. For the most part, leaseholders did not renew their leases or were happy to be bought out. A long, slow process of lease amalgamation began. Over the years, there were sporadic, individual attempts at exploration, and a few mines won small amounts of gold, but the most productive activities were those of the cyaniders, who treated the battery tailings.

## Cyaniding

When deep reefing came to an end, concentrations of tailings remained wherever the crushing batteries had been located. Some of these tailings had been dispersed towards or into the Mary River, and were mixed with river sand for some distance downstream.

The cyanide treatment of tailings was carried out on a cost-return basis, defined by prior assay analysis of the gold value of the tailings. This meant significantly reduced commercial risk, compared with the relative unpredictability of underground mining. Operations were not continuous and depended on profit margins and the price of gold. The tailings were selectively dug up using long handled shovels and loaded into trucks for transport to the cyanide treatment works. Some operations also used tractor- mounted scoops.

At the works, the standard procedure involved the tailings being suspended in water and pumped into leaching vats. An upward current of water lifted organic matter and other impurities (slimes) over the edges of the vat. When the vat was full, the water was drained out. An alkaline (lime) solution was added for about twenty-four hours to neutralise the acidity of the tailings. A strong potassium cyanide solution was added for about seventy-two hours, followed by a weak solution for about ninety hours. The vats were then drained over eight hours. Residues were discharged, and the zinc filters were cleaned of sludgy deposits. These were then dried, roasted

On the Mary River near Kidd Bridge loading sand for transport to a cyanide works.
Source: Gympie Regional Libraries.

with ten per cent of nitre and fluxed with borax, soda, bicarbonate and manganese dioxide to generate a rough bullion. After sampling, the bullion was forwarded to the Royal Mint Melbourne Branch to be refined. Only then was the final yield in ounces of fine gold known and payment made.

After the Scottish mine closed in 1924, its plant and substantial mounds of tailings were purchased by **Oliver Archbold**, who worked with and later passed control to his partners, **William John Henry 'Bill'** and **John Frederick 'Jack' Runge.** Archbold and Runge had been involved in the treatment of battery tailings at the Bendigo goldfield and they introduced their technology to Gympie. Their process, which involved treating dry tailings with cyanide, achieved higher rates of gold recovery. Between 1926 and 1954, Archbold and Runge, and then Runge Brothers, built and operated cyanide recovery plants at the Scottish, Widgee Crossing, and finally at Nelson Reserve. Their office was at the Scottish site, where they also used the retort house for assaying and refining. They also moved tailings from the Phoenix PC dump at the One Mile.

Six generations of the **Runge family** have been involved in Australian mining, beginning with Jochin Runge, who came to the Victorian goldfields from Holstein in 1851. Jochin's grandsons, Bill and Jack, were joined in the family's Queensland businesses by Bill's sons, Bill, Irvine and John. These businesses included their tributing and cyaniding activities in Gympie, operating the Golden Surprise mine at North Arm (1930-1937), and mining copper at Black Snake and mercury at Cinnabar during World War 2. From 1948 to 1954, the Runge Brothers returned to cyaniding in Gympie and then operated associated limeworks at Tamaree, north of Gympie. John Runge's accidental death at Widgee Crossing in 1952 was the last mining fatality recorded on the Gympie goldfield. Bill Runge's four sons – Geoff, Robert, Ian and Greg – and Irvine's sons Don and Peter and grand-children Kim Power and Ben Hawkins, are all working in the mining industry.

Other cyaniders included **Dan** and **Ern West**, who worked an auriferous sands claim on Deep Creek during 1930 but were interrupted by flooding.

**W. 'Bill' Lovely**, an assayer who had many mining interests, processed tailings at Widgee Crossing and with the West brothers at Deep Creek. This syndicate had a works near the junction of Deep Creek and the Mary River, where Nick's Sand and Gravel now operates.

**Jack** and **Viv Bentley** were active from 1936 to 1962. Their first works was located on Deep Creek, between the Railway Bridge and the Inglewood Road Bridge. In 1941 they moved to the site formerly worked by Lovely and West. They also worked an auriferous sand claim near Pengelly's Bridge on Deep Creek and the tailings dump at the 2 South Great Eastern.

**John William Rammutt**, a man noted for his ingenuity with machinery, treated tailings from sundry heaps at his works near the old Hilton mine.

## Dredging

A skeletal timber structure, visible in the Mary River when the water level is low, arouses local curiosity. It is the remains of a barge that was used in attempts to recover gold from the bed and banks of the river during the 1940s. Ever since the Deep Lead was identified in 1868, miners have regarded the river bed as a likely source of gold, but the location is challenging because of the erratic deposition of gold, and risky because of the frequency of flooding.

In 1894, the Gympie Hydraulic Gold Recovery Company dredged the Mary River, but returns were insufficient to pay costs. The dredge was a covered platform on pontoons, which could be moved to different parts of the river. In 1897 the Deep Creek Gold Dredging Company operated along Deep Creek, but was unsuccessful because the batteries upstream interfered with dredging operations by periodically pouring tailings into the watercourse.

During the Depression of the 1930s, an increase in the price of gold raised the possibility that dredging the river sands might be profitable. From 1933 to 1937, the Gympie Gold Dredging No 1 NL Company held a claim from Deep Creek to the Channon Street Bridge. This company conducted test borings to sample the

river bed, banks and flats but could not raise enough capital to begin dredging.

Between 1938 and 1942, Dredging Claim No. 4384 was held by Mary River Gold Pty Ltd. After further test borings, a ninety-foot crane with a grab bucket was constructed on the south bank of the river opposite where Nash Gully joins the river. Operations began in October 1938, raising alluvial wash from above the bed rock while looking for gutters where gold was retained. Concentrates were first sent to Port Kembla. The crane was dismantled in late 1939, when the company sought finance to construct a dredge. This was delayed by the onset of World War II and the accidental death of the manager, **William Perry-Keene**, in May 1940. Later that year, a treatment plant was built on the river bank near the mouth of White's Gully and a barge-based dredge was constructed. Work was intermittent, and the project faced many problems. On 31 May 1941, a flash flood sank the barge, which required expensive reconditioning. The barge then fell accidentally into the river, and after being raised was sunk by vandals, damaging the pumps. Operations proving unproductive, the project was abandoned.

The dredge being built on the Mary River.
Source: Gympie Regional Libraries.

# Disposal of Mullock

Huge mullock heaps on both sides of Crescent Road looking towards One Mile School.
Source: (Keith Waser Collection) Gympie Regional Libraries.

For decades, the landscape of Gympie was dominated by the above-ground legacy of fifty years of hard rock mining, but the numerous mullock heaps soon became a resource for other endeavours. Construction projects that needed fill or gravel made use of the nearest mullock heap. Local Councils spread mullock to create playing fields such as the One Mile and Albert Park ovals. Roadworks in Gympie and surrounding shires benefitted from a ready supply of road base. Near the Monkland Railway Station, Queensland Rail established a 'cracker' for crushing mullock and a loading facility that enabled it to be transported around the State. The last mullock heap to disappear was that of the Columbia Smithfield mine near Ashford Road in the mid-1970s.

# Demolition

The surface plant and equipment of mines – the headframes, stamper batteries, engines, boilers and buildings – were sometimes removed to other mines, but were often left prey to decay, theft and vandalism. When tenders were called for demolition, scrap merchants, known as scrappies, entered the scene. If the final structures could not be disassembled, explosives were used and some once proud engine rooms met this fate.

Demolition of the Scottish headworks, note the retort house in the background to the left. Source: State Library of Queensland, neg. 34984.

# William Henry Reeve

In a period when few others would commit capital or effort, Bill Reeve persevered with his faith in the Gympie goldfield. Reeve, who had strong views on geological concepts and exploration strategies, lectured on mining at the School of Arts in 1905 and also wrote articles expressing the view that a fifth bed of black slate could be found. Reeve worked first as a draftsman-surveyor in the Department of Mines. In 1906 he became a shareholder in the Great Northern mine, located in King Street between Pine and Oak Streets and in 1908 he was appointed mine manager. Beginning as an exploration shaft, the Great Northern showed promising strata and produced 3,500 ounces of gold, with grades averaging thirty grams per ton.

In 1933, Reeve became manager of the New Gympie Gold Mine, located in the present golf course near Shield Street. The shaft was sunk to 800 feet and a crosscut was put in 1,000 feet to the east. Three reefs were found, and a ten-head battery produced 500 ounces of gold. The mine was unprofitable and by 1940 it had ceased working. In 1947, believing that the Dawn region had similarities to the Monkland block, Reeve applied for a lease in that area. In 1967, he was the principal shareholder in the Gympie Centenary Gold Mining Syndicate. He believed that sediments in the Albert Park area were the classic beds of slate, but this proved not to be the case.

The New Gympie goldmine. Source: Queenslander, 1935.

## Sporadic bursts of exploration, mining and the amalgamation of leases

**1932**

The Queensland Goldfield Development Company considered re-opening the Scottish Gympie, but the proposal lapsed before any mining took place.

**1933**

New Gympie Gold Mines sank a shaft on the present golf course to 820 feet, encountering the Monkland slate at 345 feet and the first bed of slate at 700 feet. Eleven narrow reefs with patchy gold were found. Between 1936 and 1941 some 1,600 tonnes of ore were crushed to yield approx 17 kilograms of bullion.

**Mid 1930s**

Goldmines of Australia (later to become the Western Mining Corporation) evaluated the Gympie goldfield, but made no further investment.

**1936 - 1940**

Oriomo Explorations Ltd entered the old Inglewood United shaft on Inglewood Hill and sank it to a depth of 1,600 feet.

**1948 - 1950**

International Minerals Ltd obtained a 200 acre lease, from the West of Scotland shaft north to about the South Glanmire & Monkland. Only minor work was undertaken before operations stopped. R.M. Ireland was the Engineer and W.J. Beckett the manager.

**1967-1972**

The Gympie Centenary Gold Mining Syndicate, led by Gympie Mayor Ron Witham, W. H. Reeve and Bill Runge acquired an Authority to Prospect over the whole Gympie area, and drilled five holes near Albert Park. In 1969, this syndicate was taken over by Gympie Eldorado Gold Mines. Between 1969 and 1972, an exploration shaft, called the Eldorado shaft, was sunk on the edge of Albert Park. W. H. Reeve was head of a four-man team of diggers.

In May 1972 a syndicate headed by Stan Smith began sinking the Phoenix Reborn exploration shaft in Ray Street. The shaft went down 200 feet and two drives were put in seeking a reef.

**February 1974**

The Mines Department drilled near the Phoenix Reborn shaft to 366 feet for core stratigraphic samples.

**By 1975**

David and Jean Finding had become the majority shareholders of Gympie Eldorado Gold Mines, and funded exploration until 1980. By this time, Gympie Eldorado Gold Mines had effectively amalgamated the leases over the entire goldfield.

# Modern Revival 1980-2008

In contrast to the early days of mining, when thousands of individuals sought their El Dorado, Gympie Eldorado Gold Mines Pty Ltd was the only company involved when the Phoenix was born again in 1980. As the move towards gold production began, there were many changes in the company's structure and operations.

Lacking the capital to fund large-scale exploration, Gympie Eldorado Gold Mines entered into a joint venture with Freeport of Australia Inc. The agreement provided for Freeport to manage the project and provide all exploration expenditure, with the right to acquire a majority interest when the financial viability of the field was established.

From 1982 to 1986, diamond drilling was conducted along the length of the Inglewood structure with six parent holes and numerous sidetracks or wedges to provide twenty-two intersections.

In April 1983, drill hole 13 of the Inglewood structure provided the first reported intersection with high grades of ore, and gold mineralisation was later indicated over a length of 3.5 kilometres. Gympie Eldorado Gold Mines became an unlisted subsidiary of the publicly-listed company Devex Ltd. Michael Darling was the majority shareholder and Chairman of the Board of Directors. Harry Adams was Chief Executive Officer.

In 1986 Freeport withdrew from the joint venture, and in 1987 Devex entered into an agreement with BHP Gold Mines Ltd to spend $20 million (raised later to $26 million) to conduct exploration and development, and reimburse Gympie El Dorado Gold Mines for $5 million of previous costs.

Work concentrated initially on the de-watering and refurbishment of the West of Scotland shaft. Development drives were conducted along the Inglewood structure at the 750 metre Level 15 and the 1,000 metre Level 18. A headframe from the Davidson shaft at Mt Isa was erected over the old West of Scotland shaft, and the mine workings were flood-proofed. It was planned that mining would commence beneath the old workings of the Scottish Gympie and the 2 South Great Eastern mines. Initial grades were lower than expected, and costs were inflated when water entered the workings before flood-proofing was completed.

By 1990, BHP Gold had completed its expenditure and gained 55% equity in Gympie Eldorado Gold Mines. Corporate activity unrelated to the Gympie goldfield then saw BHP Gold taken over by Newmont Australia Ltd and renamed Newcrest Mining Ltd. This new company redefined its exploration priorities, ceased expenditure at Gympie and placed its shareholding on the market.

In June 1991, Devex paid $3.5 million to Newcrest and gained full control of Gympie Eldorado Gold Mines. Devex then undertook a detailed analysis of historical mining records to define production from individual mines and establish the grades of different types of mineralization. In 1992 the Company refurbished the old Scottish No. 2 shaft to provide access and ventilation to the new mine workings.

In July 1993, Devex entered a joint venture with Gold Farmin Pty Ltd, aiming for gold production of 30,000 ounces per year within two years from the Inglewood structure. Gold Farmin, a syndicate of gold industry specialists including Bas Lewis, planned to carry out mine development, install a treatment plant using only gravity separation and complete refurbishment of a second shaft, the Scottish No. 2. In return, they were to gain 33% equity in Devex. At the completion of the project in 1995, Gold Farmin had spent $5 million, but earned only 14% equity in Devex.

Old timber structures below the Scottish No.3 shaft, exposed after the dewatering of the old workings through the West of Scotland shaft. Photographer: Bernie Crawford. Source: The Gympie Times, 1990.

**Basil Reece Lewis (1925-1994)**

A distinguished geologist, mining engineer and practical miner, Bas Lewis spent the last three years of his life in Gympie, as a key member of the Devex-Gold Farmin joint venture. After assessing the Gympie project in the early 1990s, he expressed confidence in the mine's prospects. He then took charge of mine design and development, initiated ore production, assembled the processing plant and refurbished the Scottish No.2 shaft.

Lewis was born at Murray Bridge, South Australia and studied geology at the University of Adelaide under Sir Douglas Mawson, the Antarctic explorer. He gained wide experience working for major mining companies and as a private consultant. Disillusioned after involvement in the Poseidon boom and bust of 1969-1970, he moved from mining to farming, but came out of retirement to give his expertise to the Gympie project.

Sadly, Lewis died in December 1994, just before the opening of the processing plant and the pouring of the first gold. To honour him, the old Scottish No.1 shaft was renamed the Bas Lewis shaft. In October 2000, Gympie Gold Pty Ltd. named their new mine and decline after him and a street at Monkland has been named Bas Lewis Drive.

# The Lewis decline

"Jumbo" Mine drilling rig on the Lewis decline at the entrance portal to the Lewis mine.
Source: Gympie Gold Ltd 2000 Annual Report.

In 2002, in order to access and expand the Monkland Mine and facilitate underground exploration, construction began on a modern decline. This was a bold decision, showing faith in the potential for finding gold reserves in the near mine area.

Roche Brothers constructed a one in seven grade decline drive, 5.5 metres high by 5 metres wide. The decline connected with the Monkland workings in December 2002. Mining operations became more mechanised, with diesel equipment, electric-hydraulic long-hole drilling rigs and remote controlled loaders.

Devex completed the processing plant by adding a cyanide circuit. Their modern plant did not have noisy stampers but a rotating ball to crush the ore. In 1995 Devex began underground mining in what was named the Monkland Mine. From approximately 8,000 fine ounces per year in 1995, production rose to peak at 55,000 fine ounces in 2003 with an average grade of 7.8 grams per tonne. Between 1995 and 2004, approximately 340,000 fine ounces were produced.

From 1996 to 1999, exploration covered the broad Gympie region. In 1998-1999, a program of air-core drilling sampled the bed rock beneath the alluvium of the Mary River in the southern half of the goldfield and identified more than sixty geochemical anomalies. Some of these have since been diamond-drilled, leading to the discovery of the Partridge and Wylly prospects. Infill drilling at the Partridge led to the definition of a resource status of 15,000 ounces. This was insufficient to justify an extension of the decline. Consideration was given to a possible joint venture arrangement to provide access. On the Wylly prospect, high frequencies of visible gold from Gympie veins were found in drill holes in zones of the productive beds on Bronwyn's fault.

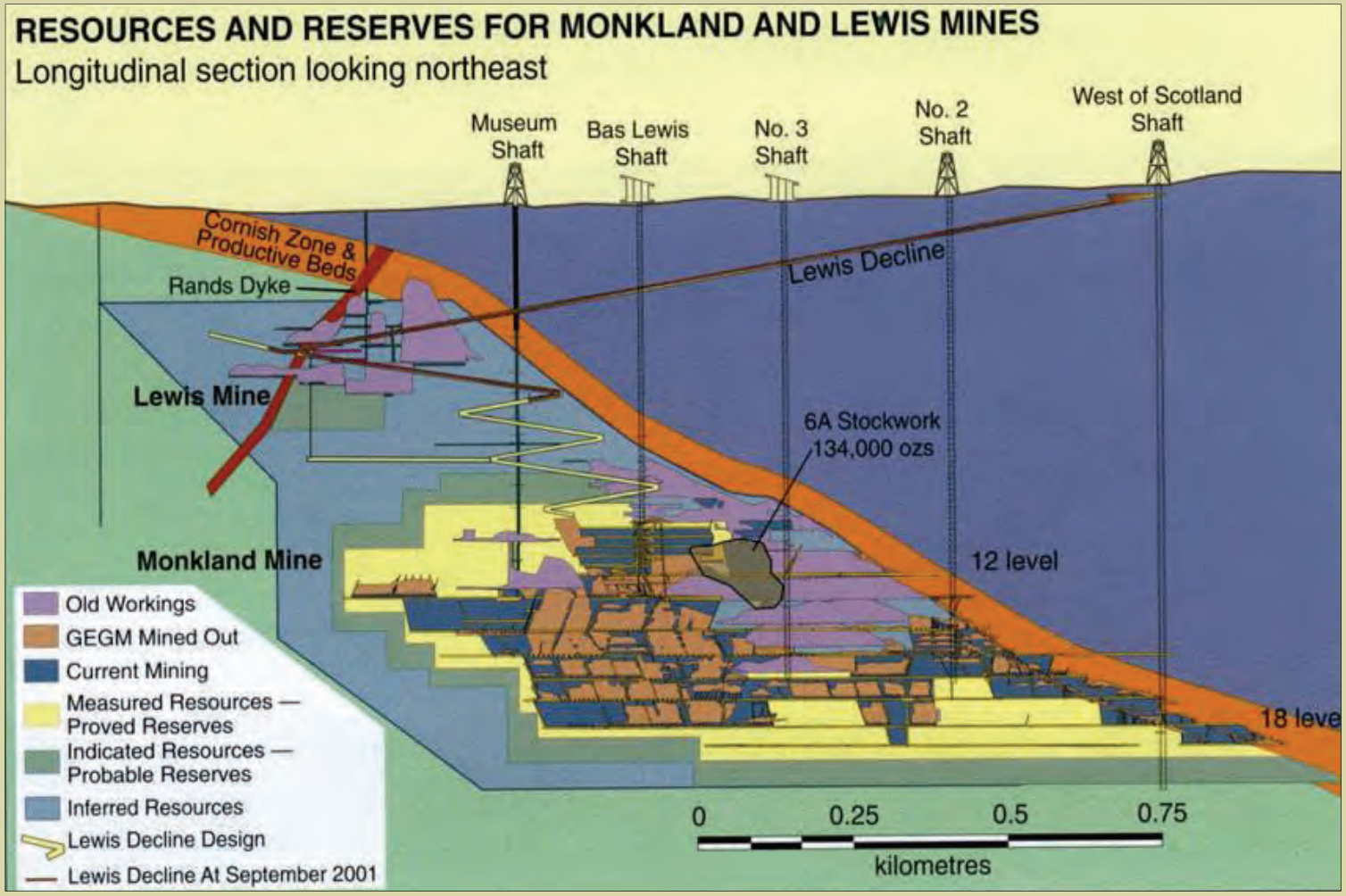
In 1997, the directors of Devex changed the company name to Gympie Gold Ltd, indicating the predominant focus on gold at that time. A year later, forseeing an increase in world demand for coking coal, they expanded the operations of their Southland Coal subsidiary at Cessnock in the Hunter Valley of New South Wales. This expansion required increasing amounts of capital and competed with the gold operations at Gympie.

In September 2000, the directors of Gympie Gold stated their intention to divide the coal and gold operations into separate businesses. However, with coal prices on the rise in 2001, directors declared that plans for two separate businesses would not proceed. This decision was to have far reaching consequences.

A stockworks, up to forty metres wide, 120 metres long and seventy metres high was discovered in 2000, adjacent to the Inglewood structure between Levels 11 and 13. This was mined to produce approximately 80,000 fine ounces. A dolerite dyke known as the Rands dyke stockworks (in honour of W.H. Rands) was discovered, giving promise of a new orebody located near the planned path of the decline. Further drilling did not fulfill early expectations.

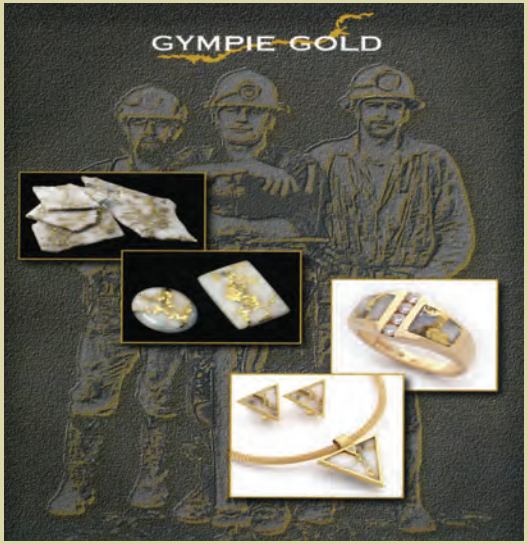
The 2002 Annual Report of Gympie Gold Ltd was optimistic, noting a significant capital raising during the year and the listing of the company on the Alternative Investment Market of the London Stock Exchange. Plans were announced to launch a unique gemstone and jewellery business based on the

attractive gold in quartz from Gympie. These were bold innovations for a small mining company. From its earliest days, the Gympie goldfield had been renowned for its rich patches of gold in quartz, known as 'jeweller's shops'. These 'bonanza' concentrations of yellow gold in contrasting white quartz were rare, beautiful occurrences. Marketing fine jewellery made of this appealing combination under the brand name 'Gympie Gold' was a way of adding value to the raw gold product. Producing the jewellery was limited only by the availability of the raw material. The marketing strategy included exposing the jewellery products to high end clients such as cruise ship passengers. This was a clever marketing strategy for a rare product, something unique from the Gympie goldfield.




A schematic cross section of the Monkland and Lewis mines, showing the position of various access and ventilation shafts, Rands dyke and the Lewis decline. Source: Gympie Gold Ltd 2001 Annual Report.

Gympie Gold Ltd staff admire Billy's boulder, a rare find of gemstone quality gold in white quartz, the raw material for gold in quartz jewellery.
Source: Gympie Gold Ltd 2002 Annual Report.




Promotional material for Gympie Gold Trade Mark specimens, slabs and cabochons, supplied to international jewellery manufacturers.
Source: Gympie Gold Ltd 2002 Annual Report.

In late 2002, a northern extension of the Inglewood structure was found, leading to indications of possible ore shoots. The Inglewood was also located in an uplifted block to the south of the Sovereign cross-course in the Six Mile Creek area. This raised expectations of a resource upgrade, as this prospect appeared to be an extension of the Monkland block towards the margin of the Woondum igneous complex, the possible source of the gold for the entire goldfield.

In August 2002, a so-called 'turbo-charged' exploration program was initiated, with a budget of $25 million over three years.[15] Just as it gained momentum, however, the problems at the Southland coal mine caused cutbacks. Between September 2002 and February 2003, as commodity prices trended upwards, the company's coal production was severely curtailed by mine stability problems. With reduced production and high remedial costs, the losses to the company were approximately $25 million. A further capital raising was undertaken to repair the balance sheet, and gold exploration was reduced. In an echo of the 1890s, capital to support gold exploration at Gympie was sought from the United Kingdom.

In 2003 a new upcast Mary River ventilation shaft was commissioned. The exhaust fans that had been installed above the old Scottish No.1 and No.3 shafts were then removed. Additional internal ventilation was provided by the old eastern shaft of the 2 South Great Eastern, now referred to as the Museum shaft.

The cover of the company's 2003 Annual Report featured coal operations, highlighting the duality of operations. A close examination of the Financial Report showed the Auditor drawing attention to "significant uncertainty whether the group will be able to continue as a going concern".[16] Just before Christmas 2003, on the eve of another capital raising in the United Kingdom, elevated temperatures were detected in the Southland coalmine. During the Christmas period the news worsened, as black smoke, then white, indicated an underground fire. The mine was evacuated and sealed, but the fire continued for some time with devastating consequences to the mine workings and equipment.

By the first week of January 2004, Gympie Gold Ltd had been forced into receivership. Small shareholders in the Gympie region, who focused only on the gold

operations, were shocked at their sudden loss of their capital. The assets of Gympie Gold Ltd were offered for sale. The smouldering remains of Southland Coal were purchased by Chinese interests, who poured in capital to refurbish the coal operation. The gold assets of Gympie Eldorado Gold Mines were sold to a new company, Gympie Eldorado Mines, then transferred, first to Buka Minerals and then to Buka Gold Ltd. This period of restructuring was disruptive to gold operations and staffing at Gympie.

When the Directors of Buka Gold Ltd resumed exploration in 2005, they intended to continue to mine only if cash flow remained positive. When the resumed operations appeared unprofitable, they cut back staff and production. With high production costs, mining operations effectively ceased by late 2007 and the mine was placed on a care and maintenance basis.

Following a review in 2008, Buka Gold decided to concentrate its future activities away from Gympie. The Monkland and Lewis mines were closed and placed on the market. Gold mining at Gympie had ceased again, with proven gold reserves almost exhausted.

Reporting of gold production in the Modern Revival era was associated with some changes. Production was defined as fine gold rather than bullion. Production units, however, were continued as ounces, even in the essentially metric period. The modern mine product was a five to eight kilogram dore bar of gold bullion containing 84% fine gold.

The Modern Revival era between 1980-2008 resulted in the production of approximately 375,000 ounces of fine gold. Assuming an average gold price of $550 per ounce, this was worth approximately $200 million.

## The Shaft Capping Project

The Shaft Capping Project team places a concrete cap over an exposed mineshaft.
Source: The Gympie Times.

During the life of the Gympie goldfield, between 1,500 and 2,000 shafts were dug. Today these shafts are in all sorts of condition – some stable, some unstable, some known and sealed, some known but uncapped, some hidden and forgotten.

A feature of life in Gympie has always been the occasional, sudden subsidence of a shaft, stope or crosscut, accompanied by terrifying ground movements and the sinking of a depression or the opening of a hole in the ground. Such cave-ins, which are more likely to occur after prolonged periods of high rainfall, are clearly a danger to life and property. As the entire city centre and many of Gympie's suburbs were mining areas, cave-ins due to the collapse of underground timbers have become more frequent, requiring Council assistance in repairing damage to roads, fences and houses.

In 1990, with State and Local Government funding, the Gympie Shaft Capping Repair Project was established. The project aims to seal unsafe shafts and to determine the extent of future hazards by locating all old shafts. When a shaft is deemed dangerous or subsidence occurs, the project team stabilises the site and places a concrete cap over the shaft or workings. The team has also developed a data base of all known shafts, making particular use of the historic Rands and Dunstan Maps. In 1993, a map was published by Barker and others, showing the old shafts on a present day street map. By the mid-1990s, the project was capping about 120 shafts per year and had completed 600 cappings. By June 2009, 884 shafts had been capped with concrete.

## Modern Exploration and the Future

Exploration is the life blood of the gold mining industry. James Nash prospected on the surface by eye and intuition, but today geologists seek ore bodies on both the surface and underground, using an array of sophisticated scientific methods. In the Modern Revival era, the Gympie goldfield was the focus of a highly credible and exciting exploration effort, although funding limitations, corporate turbulence and the irregular pattern of gold distribution frequently stalled progress.

World class professional staff were involved, including Bas Lewis, Ron Cunneen, Pat Stidoff, Jim Dugdale and Matt Houston. Progress was subject to rigorous analysis and review, complemented by advice from external consultants. For several years, Roy Woodall, a legend of Australian exploration, oversaw this process as a company director. Priorities changed with circumstances, and the focus of exploration varied between 'green field' (broad and away from the mine) and 'brown field' (narrow and near the mine). Shareholders were kept well informed by detailed Company reports, especially during the Gympie Gold Ltd period. Exploration involved the analysis of historical records; defining conceptual models of mineralisation and structure; compiling and updating geological databases; chemical analysis of surface and bedrock samples from different structural blocks to define geochemical anomalies; gravity and magnetic surveys; air core then diamond drilling of test target zones or structures; progressive mapping and definition of faults and keys structures, such as feeder dykes.

As progress was made, promising targets were prioritised and subjected to an increased density of infill drilling. While many targets were abandoned, a promising few were highlighted as prospects and given priority. From 1995 onwards, Devex/Gympie Gold Ltd named some of these after recipients of the Victoria Cross, thus setting noble and high expectations. Several prospects evolved to the stage where infill drilling intensity allowed estimations of resources and reserves. Future mining on the Gympie goldfield will require a successful exploration program and capital from either an established mining company or high-risk investors. The Phoenix may once again rise from the ashes and a new El Dorado may await discovery.

Above: Geologist Jim Dugdale analysing data. Centre: Diamond drilling by a surface rig. Below: Geologist Matt Houston interprets drill cores. Source: Gympie Gold Ltd 2003 Annual Report.

# Individual Mines

*'Gold mining is a proverbial lottery, more so than marriage, if that is possible…'* Aleck J. Ivimey, 1887.

Top 20 Mines on the Gympie Goldfield. Source: Adapted from Devex Ltd, 1994.

| Mining Company | Bullion Production (kg) | Period (years) | Ore Crushed (tonnes) | Crushing Grade (g/tonne) | Orebodies | Some Mine Managers | Shafts (No.) | Battery Stampers |
|---|---|---|---|---|---|---|---|---|
| Scottish Gympie | 18,774 | 1897-1923 | 1,606,325 | 9.6 | Inglewood, Top Break. Nos. 1,2 & 3 | D.Laing, D.Reid | 3 | 120 |
| 2 South Great Eastern | 10,473 | 1891-1921 | 432,893 | 19.8 | Great Eastern, Glanmire, Oriental, Inglewood, Glasgow, Power | J. Harris | 2 | 60 |
| South Glanmire & Monkland | 6,276 | 1874-1922 | 258,007 | 19.9 | Inglewood, Glanmire, Monkland, Great Eastern, Glasgow, Oriental, Power | J. Jewell W. Mildren | 2 | 25 |
| 1 North Phoenix | 5,969 | 1880-1918 | 214,747 | 22.8 | Phoenix (east &west), Victory, Smithfield | W. Smyth, G. Argo, T. Baty | 3 | 60 |
| North Smithfield | 5,563 | 1892-1924 | 67,732 | 67.3 | Columbia, Smithfield | P Fitzpatrick | | |
| 4 North Phoenix | 3,836 | 1889-1925 | 81,343 | 38.7 | Phoenix, Victory, Smithfield, Davis | J. Brown | 2 | |
| 3 & 4 North Glanmire | 3,769 | 1879-1906 | 55,417 | 55.8 | Glanmire, Great Eastern | T. Oswin | | |
| 1 North Glanmire | 3,004 | 1870-1911 | 86,834 | 28.4 | Glanmire, Orient | H. Saltrick, T.Gamgee | | 20 |
| 7 & 8 Monkland | 2,910 | 1870-1921 | 2,910 | 41.6 | Glanmire, McPhersons,Edwards, Great Eastern, Monkland | S. Daddow, J.Caldwell | | |
| North Glanmire | 2,491 | 1870-1912 | 2,491 | 34.0 | Glanmire, Great Eastern, Orient | D. Evans | | |
| Phoenix PC | 2,486 | 1870-1898 | 89,854 | 22.7 | Phoenix | G. Jobling | 2 | 40 |
| Phoenix | 2,244 | 1892-1897 | 47,627 | 38.6 | Phoenix, Russel, Smithfield | | 1 | |
| Smithfield United | 2,231 | 1870-1900 | 55,545 | 32.9 | Columbia | | | |
| Great Eastern | 1,971 | 1882-1908 | 28,626 | 56.7 | Orient, Great Eastern | P.McNamara | 2 | |
| 2 & 3 South Smithfield | 1,680 | 1870-1914 | 66,320 | 20.8 | Columbia, Smithfield | E Mitchell | | 20 |
| Columbia Smithfield | 1,669 | 1885-1925 | 46,602 | 29.4 | Columbia, Smithfield, Orient | P Hill | 2 | |
| South Lady Mary | 1,629 | 1870-1910 | 15,019 | 88.9 | Alma, Caledonian, Lady Mary, Little Wonder, Nelson | | several | |
| Glanmire PC | 1,599 | 1870-1900 | 34,971 | 37.5 | Glanmire | | | |
| Phoenix Golden Pile | 1,533 | 1884-1900 | 16,142 | 77.9 | Phoenix, Smithfield | J. O'Connor | 2 | |
| Wilmont Extended | 1,499 | 1870-1913 | 13,886 | 88.5 | Banana, Monkland, Russel, Wilmont | T. Wallace | 1 | |

Over time, the Gympie goldfield displayed a changing patchwork of companies, leases, mines and shafts. More than two hundred hard rock mines have operated on the goldfield and each mine had a character and history of its own. Not all shafts produced gold, and not all companies paid dividends to their shareholders.

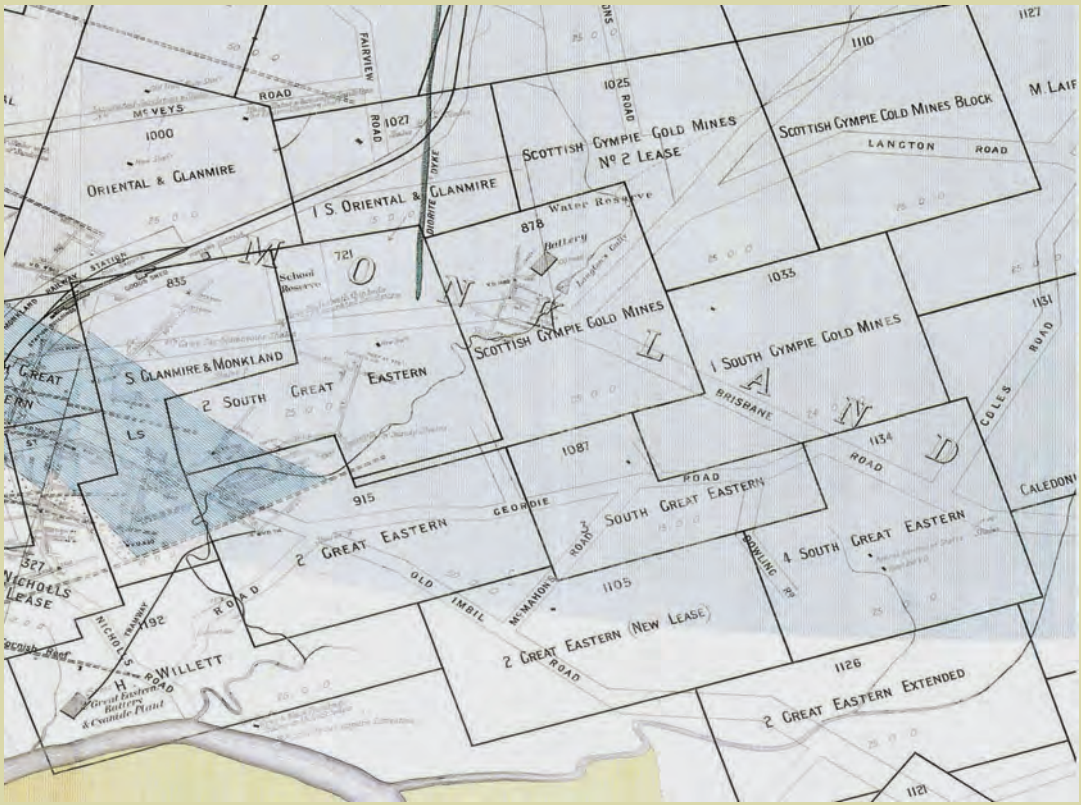
The historical footprint of individual mines, the reports, stories, photographs, maps, documents and data, is variable. Records of returns to shareholders are incomplete, but production statistics are available and some mine statistics are presented on the preceding page.

## The Scottish Gympie Gold Mining Company (1896-1923)

The Scottish Gympie Gold Mining Company, commonly called the Scottish or Scottish Gympie, was the largest producer on the Gympie goldfield and one of the last mines to close. Because of its long life and huge output, it was Gympie's best known mine. The Scottish No.1 shaft and battery were located adjacent to Brisbane Road, opposite and just south of the present Mining Museum at Monkland, where its retort house and the concrete foundations of the battery can still be seen.

The Scottish began life in the early 1890s as the East Monkland, an exploratory shaft sunk by a group of local miners. No gold was found, and the lease changed hands several times before attracting the attention of **Matthew Laird (1857-1919)**, an entrepreneurial Scot from Glasgow.

Born in Port Glasgow, Laird came from a wealthy family of timber merchants, ship owners and manufacturers. Leaving Madras College, St Andrews, at the age of sixteen, he worked first for an engineering firm, then managed a fleet of tug boats for his father. In 1886, accompanied by a younger brother, he arrived in Sydney. Moving to Brisbane, Laird was unsuccessful in a number of broking and business jobs before becoming a commercial traveller for James Lang, whose daughter Ada he married in 1888. Laird settled with his family in Gympie to seek opportunities in mining. On advice from Hugh Willett, a Gympie sharebroker, he became interested in developing the 'eastern ground' at Monkland, and was impressed




Extract from Rands 1899 map, showing leases and mines at Monkland.
Source: Queensland Department of Mines, 1986.

Matthew Laird and his home 'Wyandra'.
Source: Gympie Regional Libraries.

when Tom Smith, a manager at the 2 South Great Eastern mine, expressed confidence that a network of reefs existed at depth beneath the East Monkland shaft. Laird returned to Scotland in 1894, and with considerable difficulty persuaded investors in Glasgow to put up the capital (about £4,000 and 2,000 fully paid shares) to buy out the East Monkland shareholders.

The Scottish Gympie Goldmining Company, as it became known, began operations in April 1896, with Laird as Secretary and Managing Director. Resigning as General Manager of the Scottish in 1905, Laird took his wife and son back to Scotland, but returned in 1914 and settled at Southport, where he died in 1919.

In spite of indifferent health and many disappointments, Matthew Laird's perseverance and powers of persuasion were rewarded with amazing luck. He celebrated his wealth and success by building 'Wyandra', a two-storey timber mansion which dominated the skyline in Channon Street. Later the home of Jack Cullinane, this house was bought by the Presbyterian Church in 1946 and renamed 'Winston House' in honour of Sir Winston Churchill. Used first as a hostel for High School students and then as a nursing home, the building was demolished in 1974 to make way for the present Winston House Aged Care facility.

When work on the Scottish No.1 began in 1896, the former East Monkland shaft was at 670 feet, and Arthur Taylor was mine manager. It was hoped that black slate would be encountered at 1,000 feet, but this did not happen and sinking continued.

Early in 1897, David Laing took over as mine manager. After much tension, expenditure and hard work, black slate, known as the Monkland slate, was entered at 1,400 feet, and a cross-cut encountered gold-bearing quartz. By the end of 1898, the Scottish had produced 10,000 ounces of gold and began to pay dividends.

The Scottish No.1 shaft was small, reflecting its humble origins as a speculative exploration shaft. It consisted of two compartments, each only three feet square. In comparison, the shaft of the 2 South Great Eastern was eight feet by four feet. Later, to compensate for the Scottish No.1's small shaft capacity, its cages were double-decked.

Head works of the Scottish Gympie No. 1 shaft and battery, about 1906. The retort house is at centre foreground. Source: Queensland Government Mining Journal, 1907.

The initial crushing battery of the Scottish mine held twenty head of stampers, purchased from the Ellen Harkins mine at Mt Pleasant. Fifty new stampers were added, then another thirty, making a total of 100 by 1899. David Laing supervised the construction of the winding plant, the battery, and a new poppet head, 110 feet high. In 1902, the installation of four Lamberton ball mills (crushers with a capacity of about 5 stampers) raised crushing capacity to the equivalent of 120 conventional stampers.

The winding plant, built by Walkers Ltd, was a double cylinder, sixty horsepower, first motion hoisting engine, with a Cornish flue boiler fitted with Galloway tubes, a pair of coupled, high pressure steam engines with cylinders of eighteen inch diameter by forty-two inch stroke, driving double, eight-foot winding drums. The battery plant, also from Walkers, had ripple tables and fifty stampers, each weighing eight hundredweight, all driven by steam, powered by a Lancashire boiler. The Scottish generated its own electricity to light its mine buildings and underground workings. Years before Gympie was lit by electricity in the 1920s, the powerful lights of the Scottish shone through the darkness along Brisbane Road.

A retort house, constructed adjacent to the battery building in the late 1890s, received regular batches of gold amalgam from the crushing battery. The amalgam was removed from the mortar boxes and amalgamating plates below the stampers and placed in enamellised cast iron buckets, then put through an amalgam press to squeeze out any excess liquid mercury. When sufficient solid amalgam had accumulated, after a day or several days, depending on the richness of the ore being crushed, the retorts were charged with amalgam, no more than half full, and placed over the wood fire. Heating started slowly, and the temperature was brought up to the boiling point of mercury (approximately 675° F). At this temperature, the mercury would vaporise and pass up and over the condenser attached to the

## THE RETORT HOUSE

This gaunt old wooden building, with rusty roof and brick chimney, is the last complete on-site relic of the Scottish goldmine. Today it is empty and quiet, except when the wind whistles through its chimney and high roof. Gone are the fires, the water, the heat, and the activity of men, and gone is the gold that made them all necessary.

The retort house.
Source: Lavina Rees.

The high, wide fireplace, carefully constructed of locally made bricks, seems strangely clean, until it is realised that the bricks have been scraped bare of the accumulation of black soot that still covers the underside of the iron roof. In their final cleanup, the last owners, the Runge family, recovered gold from that soot. Above the fireplace hang wide iron sheets, which formed the chimney flue and directed smoke through the circular opening above. When necessary, the sheets could be slid aside to allow the hot retorts to be lifted and moved along two overhead rails which resembled railway lines.

Around the sides of the concrete floor, drains lead to a hole in one corner, where waste water, slopping from the tubs used to circulate water through the retorts, was channelled out. The furry texture of the wood on roughly constructed shelves attached to the walls is evidence of the chemicals that were once stored there.

In 1976 the retort house and its site were listed by the National Trust. Today, because of its fragile state, the retort house is off limits to visitors.

discharge tube at the top of the retort. Here it would condense back to liquid mercury and flow down into a receptacle containing water to a level just above the discharge tube of the condenser.

When the process was finished, the hot retorts were swung off the fires by a block and tackle and moved along overhead rails to cool. When the retort was opened, a cake of gold, like honeycomb, was turned onto a tray and taken to a smelting room near the mine office to be poured into bullion bars for dispatch to the mint.

By 1900, mining was limited by ventilation problems and the restricted hoisting capacity of the No.1 shaft. The sinking of the Scottish No.2 shaft began to the south-east, with significant capital costs. This shaft was expected to encounter the Monkland slate and mineralisation similar to that found in the No.1 shaft at a depth of 1,700 feet. By 1902, the shaft had reached 2,100 feet but no slate was found so work was discontinued. In 1913, the No.2 shaft was further deepened and then driven south on the 2,510 feet level. A barren diorite dyke was intersected and interpreted to be the Inglewood, so all work ceased.

Headworks of the Scottish Gympie No. 2 in June 1900. Despite all the modern equipment, this shaft was ultimately a duffer.
Source: State Library of Queensland, neg.19079.

In 1904, with mine capacity still limited to the No.1 shaft, the Directors employed a former Government Geologist, Robert Logan Jack, to prepare a strategic plan. In his report, Jack commented on the geology of the mine area, mining data, possible future reserves, exploration strategies and costs of production. He concluded that, at the existing rate of production of 84,000 tons per year, available ore was sufficient for another ten years of operations. In 1905, the shaft on the 1 South Gympie lease was purchased and renamed the Scottish No.3. The Scottish No. 3, already at a depth of

On 16 June 1900, 200 invited guests – prominent men from mining, commercial and financial circles – were present at the formal opening of the new winding machinery from Walkers Ltd of Maryborough. Although the No. 2 shaft was only 70 feet deep at the time, the mine was hailed as being on the threshold of its mission to sink to 2,000 feet.
Source: State Library of Queensland, neg. 19080.

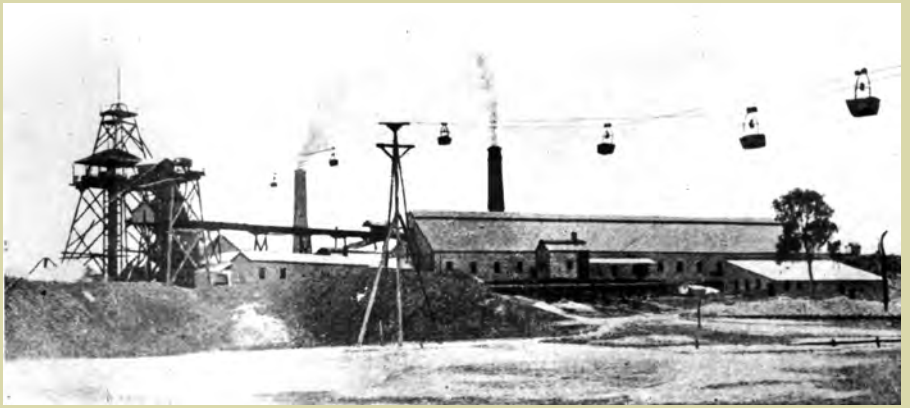
2,485 feet, was connected to the No.1 shaft to improve ventilation. Ore was then produced from both shafts and more than 300 workers were employed.

By 1915, the No. 3 shaft was producing most of the ore , which came from the Inglewood structure and contained finer gold. Recovering this gold using the amalgam process was difficult so eight steel vats were relocated from Mt Leyshon near Charters Towers and a cyanide plant was erected in 1913. The Company's last dividend was paid in 1917. In 1919 a crosscut was driven westwards for 415 feet towards the 2 South Great Eastern, but no new reef was encountered. The sun was beginning to set on the mighty Scottish. Small scale mining was resumed in the No.1 shaft, and the treatment of tailings continued until 1922. By that time, the Queensland Government was providing a subsidy for drainage costs and coal freight, in an attempt to see if the mine could still operate at a profit with ore derived from the Inglewood.

In July 1923 the Company ceased all underground work, stating that rising costs of production and the decreasing grade of treated ore had made operations unprofitable. Materials of value from underground were brought to the surface, and tenders for purchase were called. When formal liquidation was achieved, the Company destroyed its records in both Glasgow and Gympie.

The Scottish lease was sold to the local Southern Gympie Syndicate, who mined on a tribute basis for about two years, taking out parts of the underground workings as water rose in the mine. The surface plant was then broken up and sold for scrap, or moved to other areas such as Kilkivan. The tailings were sold to Archbold and Runge for treatment with cyanide.

Unlike most other Gympie mines, the Scottish had no large mullock heaps. Rock waste was used as fill in the cavernous underground voids left by mining. The battery, however, discharged tailings into Langton Gully, which drained into the Mary River. At the mouth of Langton Gully, a retaining wall was constructed so the tailings could be discharged when the river was in flood. The tailings occasionally blocked the water pumps of other mines on the Mary River and caused controversy in local Councils. Later these dispersed tailings became a source of sand for re-treatment with cyanide to extract more gold. In the latter part of its life, the Scottish used coal, rather than wood, to fuel its boilers. This led to a new



In 1911, a flying-fox (aerial tramway) was constructed to deliver ore from the No.3 shaft (unseen on right) to the crushing battery adjacent to the No.1 shaft.
Source: (Keith Waser Collection) Gympie Regional Libraries.

Front Row: C.B.Steele (mining surveyor), R.Hunter, C.D.O'Brien, W.E.Burbidge (mayor), Major D.E.Reid (general manager), Sir William McGregor, Captain Scarlet A.D.C., Mr Ranson (N.Z.), B.Dunstan, Dr Cuppaidge.
Second Row: W.Griffiths, W.Woodyatt, J.Murray, R.Galloway, D.Williams, L.W.Siemon, F.B.Sykes, W. Burbidge, Jnr, A.R. White (Mt Morgan), W.Johns, T.H.Smith (manager).
Back: T.Henderson, T.Stewart, H.Brown, T.Jobling.

The Scottish was a showplace for visitors. Seated 1,490 feet underground at the No.4 level of the Scottish are Queensland Governor Sir William MacGregor and his party.
Source: The Gympie Times, 1910.

waste heap of coal cinders. The coal, sourced from Burrum, north of Maryborough, was railed to Monkland.

During the life of the Scottish mine, its managers included Arthur Taylor, David Laing, Matthew Laird, David Reid, Tom Smith and finally Thomas Jobling. While the early managers had similar roles to their counterparts in other mines, as time went on the Scottish management became more layered and hierarchical.

Scottish-born **David William 'Davey' Laing (1847-1928)** arrived in Maryborough as a teenager and came to Gympie about 1870. Gaining in skills, experience and reputation, he was in turn manager of the 1 North California, South New Zealand, 5 North Phoenix and South Glammire and Monkland (western shaft), and was also a director in other mining companies.

David William 'Davey' Laing.
Source: Douglas Laing.

In 1897, Matthew Laird appointed Laing manager of the Scottish, where he presided over the tumultuous period of shaft sinking, the discovery of gold-bearing ore and the development of the mine and its battery. Laing profited by buying shares in the company early, when local investors lacked faith in the mine. In November 1899 he surprised everyone by resigning his job and going on a world tour to study mining methods. The miners at the Scottish organised a farewell for their manager, an event unique on the goldfield. F.I. Power presided and Andrew Fisher MLA made a presentation on their behalf. Returning to Gympie in 1901, Laing took up leases on the western edge of the goldfield near the Mary River. From 1905 to 1908, he and N. Evans funded the sinking of an exploration shaft in what is now the bowling green at Albert Park. Some black slate and traces of gold were found in 'Laing's shaft', but the undertaking ended in failure and financial stress.

When Dunstan published his Geological Map of Gympie in 1911, he named the fault that delineates the western margin of the goldfield the 'Laing slide'. In 2004, the southern portion of this fault was renamed 'Bronwyn's fault' after geologist Bronwyn Witham. Laing, an active Freemason who enjoyed music and especially the bagpipes, lived with his wife Eliza Jane Henry and their seven children in a house next door to the Scottish No.1 battery. Although referred to as the 'Mine Manager's House', this home was Laing's own property. Today, the renovated house is part of the Brisbane Road Crematorium complex.

**David Elder Reid (1864-1930)** took over as General Manager of the Scottish in 1905, remaining until the mine closed in 1923 and then acting as liquidator. A

director of many mining companies, he was noted for his metallurgical skills and was credited with introducing the cyanide process for extracting gold.

A skilled rider and marksman, Reid also had a distinguished military career. He patrolled Western Queensland as an officer of the Queensland Mounted Infantry during the 1891 Shearer's Strike and later commanded A-company in a number of engagements in the Boer War, where he was twice mentioned in despatches. In 1901 he became Commanding Officer of the 5th Light Horse Brigade. He retired in 1920 with the rank of Lieutenant Colonel.

Described as a genial gentleman, Reid was deeply involved in the Gympie community, supporting the hospital, the Masonic Lodge, and the Bowls, Racing and Rifle Clubs. An alderman for several years, he served as Mayor of Gympie in 1903. He stood for Parliament twice but was narrowly defeated. Reid acquired extensive land, including the property 'Cumbrae' at Eel Creek. After his marriage in 1903 to a widow, Ann Jannett Sim, he acquired William Davies' property at Chatsworth and built a large home, 'Glen Head', which became the centre of the social and charitable activities of his wife, daughter Elder and step-daughter Dorothy. Reid died at 'Glen Head' in October 1930, aged sixty-six, and was given a funeral in Gympie with full military honours.

During its life, the Scottish produced 660,000 ounces (18,774 kilograms) of gold bullion from 1.6 million tons of ore, with an average recovery grade of 9.6 grams per ton. This grade was well below the goldfield average of 20. The Scottish crushed over 80,000 tons per year between 1904 and 1917 and was the only company to successfully mine the low grade Inglewood ore in any volume.

Dividends amounted to £603,212, which was approximately thirty per cent of the value of the gold produced. Because of these large payments, foreign capital was attracted to the Gympie goldfield. There were differing perceptions of this situation. One view-point was that additional capital came to Gympie and flowed through into the local economy, creating employment and introducing new technologies and management skills. An opposite view-point saw loss of local control, exploitation of local labour by foreigners, and profits going overseas. These were themes that became an ongoing part of the mining industry and continue to the present day.

## The 2 South Great Eastern Gold Mining Company (1887-1920)

The 2 South Great Eastern, on a lease that straddled Brisbane Road at Monkland, was the second of Gympie's deep, productive, profitable mines. Operating for thirty-three years, it produced 335,136 ounces (10,774 kilograms) of gold bullion and reached its peak between 1899 and 1906.

The Company's first, western shaft was sunk in 1886 and crushing commenced in 1890. By 1891, the original company had exhausted its capital without any dividend being paid. A second company was then registered, and calls were made to develop the mine. A small dividend was paid in November 1892, but the company was wound up in 1896. A third company was then formed. Calls amounting to £20,400 were made until July 1897, when the Company began to pay dividends from ore bodies in its second, eastern shaft.

The western shaft of the 2 South Great Eastern met the dipping Monkland slate at about 480 feet, and was continued to a depth of 800 feet. A western crosscut was developed at 530 feet, then a deeper eastern crosscut was driven for 950 feet. This struck cut a reef and mining began. A twenty horsepower engine powered the winding gear and an eight horsepower portable engine drove an electric plant and a winding engine for a winze (a shaft between two levels) on the 775 feet level. Associated with the western shaft were the mine manager's office and the blacksmith. Production was only marginally profitable.

At the 775 feet level, a long south-westerly crosscut was driven along the western boundary with the 2 Great Eastern to encounter the Inglewood, but this work was soon abandoned. A branch crosscut was then driven north-north-west for 400 feet before encountering a large, reef, termed No.1, above the slate. A winze was sunk vertically for 100 feet, and mining levels were opened out to the north and south.

Headworks of the 2 South Great Eastern eastern shaft, about 1900. The ore bin on the left preceded construction of the battery. Source: (Keith Waser Collection) Gympie Regional Libraries.

By then, however, mining was difficult because of poor ventilation and the distance of the reef from the entrance to the shaft. The solution was to sink another shaft over the gold-bearing reef.

The sinking of the eastern shaft began in September 1897. Because it was known from the outset that payable ore would be raised, the shaft was large (eight feet by four feet). Contract shaft sinkers started with a windlass, then erected a whip to raise waste for the first 250 feet.

The Company continued sinking, timbering and concreting the eastern shaft, taking three years to complete the work. Concrete foundations were poured for the eighty horsepower, double cylinder winding plant from Walkers Ltd, a Cornish boiler and an air compressor to drive the rock drills, winch and pump. The eastern shaft reached 1,475 feet in 1901, and crosscuts were developed to meet the No.1 reef on both the 870 feet and 970 feet levels. As this reef was soon worked out, levels were also developed at 1,100, 1,230 and 1,450 feet. The two shafts were interconnected. Over time, gold bearing ore was worked from several reefs, the bottom break, stockworks and the Inglewood structure.

Initially all crushing of ore was done off the lease. Horse-drawn drays moved ore to the Phoenix PC battery at the One Mile, then to the Gympie Crushing Battery near Deep Creek. The arrangement was to engage a set number of stampers. In July 1901 this was forty stampers, increasing to fifty in October.

By this time, the 2 South Great Eastern directors were deciding to build their own battery, which was completed by August 1903, when sixty head of stampers, fed via stone breakers, commenced working. In May 1904, an additional twenty head, supplied by the Bundaberg Foundry, were added, giving a capacity of eighty head in eight sections of ten stampers each. Each stamp weighed 1,100 pounds and dropped 100 times a minute.

In 1905, alterations provided double-decker cages in the shaft, along with heavier winding ropes A continuous belt with a rising angle delivered ore from the headframe to the battery from 1910. A concrete tank was built to store water pumped from the Mary River, where a Cornish boiler drove two vertical steam pumps. A mechanical arm worked an underground pump. Tailings from the battery were discharged below the battery and made their way down Langton Gully to the river.

In 1905, the mine was plagued by accidents. During May, Charles Jones and William Buckingham were killed by a fall of earth from the hanging wall of the No.3 reef. Edward Henry broke his leg when he fell from a drilling plank. In August, John Edmonds was killed by a fall of earth on the 1,230 foot level. Later, the Company paid £50 as a benefit to each of the Edmonds orphans.

From 1907 production started to decline, as did the number of stampers in use, miners employed and dividends paid. By 1911 the eastern shaft had been

deepened to 2,051 feet, and ore was being mined from the Power Reef and the Inglewood. The Inglewood progressively gave marginal returns. A cyanide plant to treat the Inglewood ore was installed about 1913.

In 1915, Benjamin Dunstan, the Government Geologist, refused an application from the Directors of the 2 South Great Eastern for a subsidy to deepen the shaft. Dunstan considered that the directors had not made provision for lean years when paying out huge dividends and advised that the government should not subsidise the company's poor financial management. This led the company to suspend operations and tributers began working in parts of the mine. Two years later, the company went into voluntary liquidation, but tribute parties led by Barns, Benetts, Cartwright and McMahon worked on. In 1920, all operations were suspended, the winding ropes were removed and the lease was surrendered to the Crown. The plant and machinery were sold off at auction, then dismantled to be moved or scrapped, and the winding engine was demolished.

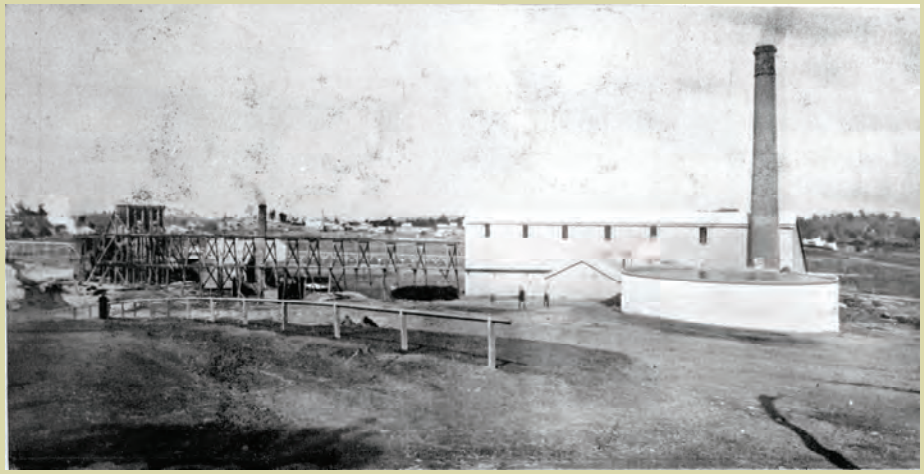
Miners at work on the No.2 reef above 1,282 ft, level at the 2 South Great Eastern, 1902. Note the drill on left and mine manager Jack Harris on right.
Source: The Gympie Times, 1902.

Among the men associated with the mine were Jack Harris, who was Mine Manager for many years and his sons, Joe, Bill and Steve. Directors included, in 1899 E. McGuiness, Chairman, M. D'Arcy, E.A. Gaden, T. Donovan, F. Kearton; in 1902 F. Kearton, Chairman, D.E. Reid, C. Elliott, W. Suthers, W. Walker; in 1905 F.I. Power, Chairman, D.E. Reid, C. Elliott, W. Walker, W. Davies. Shareholders also included overseas investors. By 1905, 34,620 shares were held by 432 overseas investors and a branch office was opened in London.

In 1904 directors and shareholders became involved in a dispute regarding the use of the mine's amalgam reserves. While it was policy to maintain an amalgam reserve of about 2,000 ounces, the chairman, without informing other directors, had ordered treatment of the entire reserve to boost the next monthly dividend payment. When it became known that the amalgam reserve was exhausted, the share price fell. The other directors disqualified the chairman and sought to assure shareholders that the mine had ore reserves. They maintained the practice of keeping a reserve of amalgam.


Directors of the 2 South Great Eastern, 1902. Source: The Gympie Times, 1902.

In 1998, Gympie Gold Ltd reopened the old eastern shaft, now called the Museum shaft, and installed modern electrical winding equipment and a ventilation system in order to reduce temperatures and provide emergency access to the Monkland and Lewis mines. Today at this shaft, a restored headframe and gantry provide visible reminders of the past as part of the museum of the Gympie and District Historical Society Inc.



Mine buildings including tramway, battery and concrete water tank at the eastern shaft of the 2 South Great Eastern in 1903. Today the tank is part of the display area of the museum. Source: The Gympie Times, 1903.

## The South Glanmire & Monkland Mining Company (1888-1915)

The South Glanmire & Monkland mine was a major producer over a long period with its glory days between 1900 and 1903. Its lease eventually covered twenty-one acres at Monkland, between Brisbane Road and the current Bruce Highway. Because of its wide east-west orientation, the lease straddled several productive reefs.

The origins of the South Glanmire & Monkland date back to 1888, when the western shaft was dug to 630 feet on a site near the present Fox Glen Motel. The Old Raggety shaft was also associated with this phase, which ended by 1899. These workings were only marginally profitable and paid few dividends. Ore was crushed at either the Victoria or Gympie batteries.

About 1895, the company acquired an exploratory shaft on the South Great Eastern Extended lease (where Andrew Fisher had worked as an engine-driver).

Located next to the 2 South Great Eastern mine on the Brisbane Road, this shaft became the main or eastern shaft of the South Glanmire & Monkland. When the shaft was deepened, a reef was found. New machinery was acquired, including a twenty horsepower winding plant, an engine with sixteen inch cylinders, and a fourteen horsepower air compressor for driving rock drills.

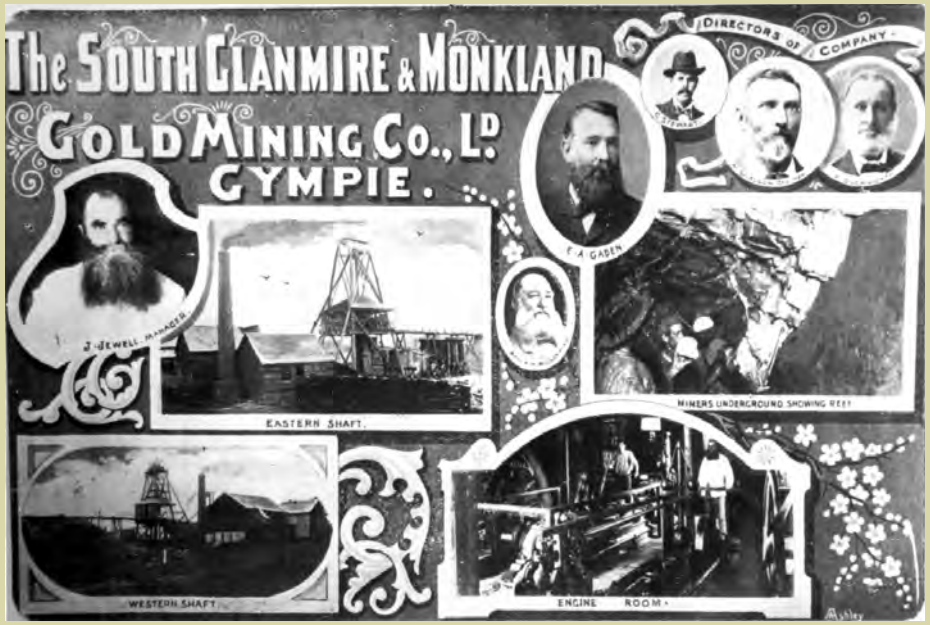
The directors in early 1899 were: S. Glasgow, Chairman, E. A. Gaden, C. Stewart, P. Duckworth, H Wilson. By December 1899, the directors were: S. Glasgow, Chairman, C. Stewart, T. Unmack, J. B. Charlton, J. J. E. Stewart, along with J. Jewell as mine manager and G. J. Lewis as Secretary. In December 1903, the directors were: S Glasgow, Chairman, J. S. Martin, W. Bulcock, A. Stewart and A. H. Wilson. Glasgow and Jewell remained as long term chairman and mine manager respectively, while changes amongst other directors were more frequent.

In 1901, the company acquired a twenty-five head stamper battery from the nearby 2 Great Eastern mine. This battery was located near the confluence of Cornish Gully and the Mary River, so a long tramway was built to connect it to the headworks at the eastern shaft. Horses pulled the tram carts. A further ten stampers and a cyanide treatment plant were added later.

During 1913, the South Glanmire & Monkland worked the Nichols South shaft at the 440 feet level, but this was considered unpayable.

As the eastern shaft was deepened, levels were opened out at 721, 990 and 1,055 feet. A deep winze was sunk from the 990 feet level and a powerful air winch was used to haul cages and trucks with the same dimensions as those used in the main shaft. This winze allowed workings to a depth of 1,132 feet.

Productive ore bodies included reefs known as 1, 2, 3 and 4 (East Oriental), the Glasgow (named after Chairman of Directors Samuel Glasgow), and the bottom break. Some work was done on the Inglewood and its ore was treated with cyanide. On very long reefs, workings extended across the entire lease




The promotional emblem of the South Glanmire & Monkland Gold Mining Co., 1899.
Source: Lees, W. 1899.

and were connected with neighbouring leases. A reef worked by the 1 South Great Eastern, for example, crossed into the South Glanmire & Monkland lease and was worked by common agreement.

The South Glanmire & Monkland paid generous dividends from a run of rich crushings in the early 1900s. On several occasions, yields were so high that the manager, John Jewell, was able to fill several dynamite boxes with rich specimen stone to 'sweeten further crushings'.[17] This may well have been from ore along the bottom break.

A report by Danvers Powers to the directors in 1904 was critical of the mine's poor ventilation, long underground haulage distances, inefficient equipment and a poorly operated battery, all of which contributed to higher operating costs.

During 1905, innovative exploration was carried out at the South Glanmire & Monkland by a joint venture of ten companies from the immediate vicinity, whose contributions were based on proximity, acreage and advantage to be gained. This exploration sought to locate another bed of slate below the Monkland slate. Sinking the 'Monkland bore', as it was popularly called, began in January by diamond drilling from the 990 feet level, 130 feet east of the shaft and was discontinued at 1,750 feet in July. Drilling was conducted by Morgan Jones of the Goldfields Diamond Drilling Company and specimens were examined by W.H. Rands**.** To the disappointment of all concerned, the elusive bed of slate was not found.

Production at the South Glanmire & Monkland declined after 1910 and fell further with the onset of World War 1. Tribute parties worked parts of the mine from 1915 and some activity continued until 1921. The last tribute parties were led by Dundas, Harrison, Daddow and Barns. The company ceased operations in 1917 and went into voluntary liquidation.

Retorted gold worth £12,000 at the South Glanmire & Monkland mine. Left to right: John Young, William McKenzie and Mine Manager John Jewell.
Source: (Keith Waser Collection) Gympie Regional Libraries.

Miners working underground on the No.3 reef in the stopes above the 990 feet level of the South Glanmire & Monkland in 1903. The man on the left, facing left, is mine manager John Jewell.
Source: The Gympie Times, 1903.

The South Glanmire & Monkland was the third largest producer of gold on the Gympie goldfield. Between 1874 and 1924, some 220,000 ounces (6,276 kilograms) of gold bullion were produced from 258,000 tonnes of ore crushed, with an average grade of twenty grams per tonne.

Writing in 1997, Matthew McMahon recalled that as a child he picked over the mullock heap of the South Glanmire & Monkland until chased away by John Jewell, the mine manager. Apparently the rock from this mullock heap shattered into such small fragments that it was difficult to separate white quartz from the darker host rock, making its mullock very attractive to fossickers.

In 1991, when the Gympie Shaft Repair project capped the old western shaft, it was found to be covered with just a flood gate and some mullock. The resident owner of the land, Clyde Kunst, had been using the pit to service machinery, unaware of its suspended foundation. He donated the flood gate to the museum of the Gympie and District Historical Society Inc.

In the Modern Revival era, part of the old South Glanmire & Monkland lease was again the scene of exciting exploration. Drilling in 2002 led to the definition of Rands reef, located under Old Imbil Road, raising expectations of a rich ore body left behind by the old timers. Although further drilling indicated low grade mineralisation, the early miners had not been so generous as to leave behind any easy bonanza for their modern day counterparts.

Horses pulling trucks of ore to the South Glanmire & Monkland battery on the river.
Source: (Keith Waser Collection) Gympie Regional Libraries.

## The 1 North Phoenix Gold Mining Company (1880-1918)

The mining lease of the 1 North Phoenix was located between Mt Pleasant Road and Red Hill Road and its main shaft was near the railway line just north of John Street at the One Mile.

This mine had its origins in 1878, when a group of miners took up a four acre lease, sank a shaft to 346 feet, put in a level at 332 feet – and encountered the rich Phoenix reef. The first dividend was declared in November 1880 and the lease was increased to twenty-five acres. The 1 North Phoenix became a prolific and consistent dividend payer and was one the leading mines on the goldfield during the 1880s. In its early years it was so profitable that shareholders were not called upon to contribute any additional capital.

Plant and equipment in 1887 included a galvanised iron engine house, a seventy horsepower engine from Walkers Ltd, a red brick chimney, a boiler room with six Cornish boilers, an enclosed poppet head, wire ropes and two cages with room for just four people. The battery, containing sixty stampers with the capacity to crush 600 tons of ore per week, came from Tooth and Company of Maryborough and had a claimed recovery rate of 97%. Underground in the No.1 shaft, levels were at 332, 428, 500 and 528 feet and at the bottom of the shaft, a Blake pump raised waste water.

There were three shafts on the lease. The No.1 and Northern shafts were on the Phoenix reef, while the Golden Crown shaft was on the Golden Crown reef. In 1887, the No.1 shaft was at 1,230 feet, with a winze sunk a further 400 feet on the underlay of the reef. The western Golden Crown and Northern shafts were 2,200 and 750 feet deep respectively.

In places, the Phoenix reef was very wide and for many years it produced consistent returns, though often at average grades. Other reefs, including the Eastern or Victory and the Smithfield Western, were encountered in an eastern crosscut on the 1,230 feet level in the third bed of slate, but these were not very

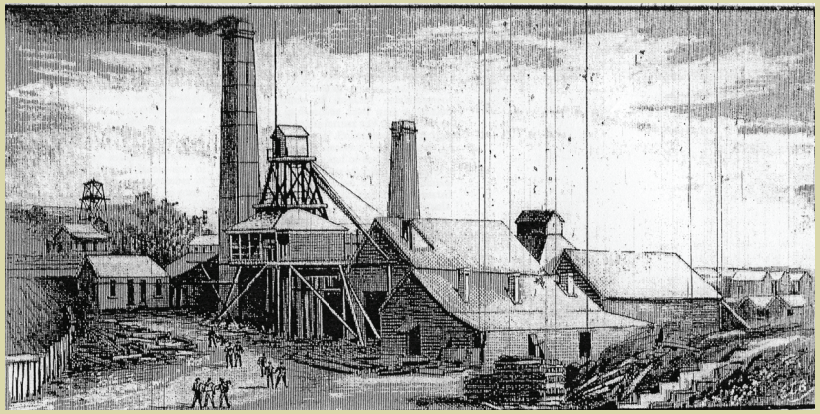
productive. Another feature of the mine workings was the contact between the Phoenix reef and the Phoenix slide, a unique fault which changed the direction of the Phoenix reef.

Like the Scottish, the 1 North Phoenix was a showplace and received many visitors. In June 1888, the Queensland Governor Sir Anthony Musgrave and Lady Musgrave visited the mine and toured the underground workings with manager George Argo. At the time, it was not 'done' for women to enter mines and Lady Musgrave's descent set a ground-breaking precedent. In a gesture that was a feature of Governors' visits to Gympie, Mayor William Ferguson and Director William Smyth presented Sir Anthony with specimens of gold.

In 1892, the 1 North Phoenix purchased the Crown battery with thirty-five head of stampers from the Golden Crown Company. A Blake pump lifted water sixty-five feet from a dam in the gully below the battery.

At rear: F.Breard, J.B.Atkinson, W.A.B.Musgrave, M.A.B.C.L (Private Sec, white headgear) C.Boase, Captain Baden Powell A.D.C. (white headgear)
Back Row: W.Smyth MLA, F.C.Walker, E.Stanley, M.Mellor MLA, W.Fryar
Second Row: G.Argo, Mrs Hughes, Mrs Cowell, Mrs McDonald, Mrs Stanley, Miss Simpson, Mrs Murray, Miss Ferguson, Miss Farrell, J.Crawford, A.Cowell, Miss Murray, G.J.Lewis
Front Row: Major Ferguson (Mayor), Mrs Ferguson (Mayoress), Sir Anthony Musgrave, Lady Musgrave, Mrs Smyth, H.Tozer M.L.A., Rev J.W.Henry.

Governor Sir Anthony and Lady Musgrave and party at the 1 North Phoenix, 6 June 1888. Source: State Library of Queensland, neg. 39220.



A sketch of the headworks of the 1 North Phoenix in 1891. Source: Queenslander, 1891.

The 1 North Phoenix was one of the few mining companies to explore away from its home lease. In November 1889, in a joint venture with the Golden Crown Company, a shaft was sunk at the Two Mile. This followed the recommendation of the geologist W. H. Rands, who had suggested that deeper sinking in the area of the Peter and Paul and John Bright reefs might encounter the Phoenix bed of slate, which had been so

productive in the south. No gold production resulted from this effort.

The 1 North Phoenix became less productive after 1900. There was some activity on deeper levels, with tribute parties working 1905-1910, 1912-1913 and finally 1916-1919, when George Jobling was manager.

During its long life, the 1 North Phoenix had periods of both high and low productivity. It was the fourth largest mine on the goldfield, producing a total of 210,000 ounces (5,969 kilograms) of gold bullion from 215,000 tons of ore crushed, with an average grade of twenty-two grams per ton.

William Smyth (inset) Source: State Library of Queensland, neg. 139906.
Smyth's home on Lady Mary Terrace. Source: Gympie Regional Libraries.

## William Smyth MLA (1846-1899)

As a boy of fifteen, Parramatta-born Smyth accompanied his father to the alluvial goldfield at Braidwood, New South Wales, and then moved to other goldfields. When news of the Gympie goldrush reached him, he took a ship to Maryborough and walked overland, arriving in March 1868 and camping between Lime Street and the Railway Bridge near Deep Creek.

Smyth made a fortune as one of the men who sank the shaft of the 1 North Phoenix, and in his subsequent career as mine manager, investor and company director, he became one of Gympie's wealthiest men. In 1882, he built a home which still stands on the highest point of Lady Mary Terrace. With its tennis court and gardens, it became the centre of his involvement in community affairs – the hospital, the School of Arts, the Show Society (GAMP) and athletics clubs. He was a member of the Oddfellows Lodge and a director of the Royal Bank. He founded the One Mile Miner's Institute and was a President of the Amalgamated Miner's Association and the Mine Managers' Association.

Elected an alderman in 1882, Smyth served as Mayor of Gympie in 1883, and in that year was elected a Member of the Legislative Assembly for Gympie. Nicknamed 'Billy the Miner', he was a popular local Member. Except for the period 1893-1896, when Andrew Fisher defeated him, he served until his health broke down in 1899. In Parliament, he focused on mining issues and was credited with the passing of a *Mining Act* in 1899.

On a visit to England in 1899, Smyth died of an unexplained fever and was buried in Brookwood Cemetery, near London. His first wife, Margaret Moore, had died in 1891 and in 1893 he had married Ellen Warner of Melbourne, who outlived him by forty-seven years. Each year from 1900 to 1917, Ellen Smyth kept his memory alive by presenting gold Smyth Medals to the boy and girl who showed the best overall proficiency at the Central, Monkland and One Mile Primary Schools.

## George Argo (1841-1895)

A tall tombstone in the Gympie Two Mile Cemetery marks the resting place of mine manager George Argo, who died tragically on 21 February 1895 when he fell 200 feet down a winze in the 1 North Phoenix mine.

Argo's status on the goldfield was such that nearly all mines closed for his funeral. The funeral itself was attended by 1,500 people and followed by 80 vehicles, 400 horsemen and 800 on foot. Argo was noted for his safety consciousness and to this day the cause of his fall remains a mystery. Legend has it that at night his tombstone glows with an eerie light that will not fade until the mystery of his death is explained.

Born in Scotland, Argo arrived in Queensland in the early 1860s and worked on the Ipswich to Toowoomba railway. In 1868 he came with a horse team to Gympie, and at first worked the unprofitable Deep Lead. After visiting the Palmer goldfield in North Queensland, he returned to work underground at the profitable New Zealand PC. He then took on the management of the 7 South Lady Mary, which reached the peak of its production while he was manager.

Successful mining investments enabled Argo to take a trip to England in 1881. On his return, he was offered the management of the 1 North Phoenix, replacing William Smyth, who had entered Parliament. Together, Smyth and Argo established the influential Gympie Mine Managers' Association, and Argo was also prominent in the Oddfellows Lodge.

Stout, hearty and barrel-chested, Argo was praised as a man of energy and enterprise, a confident man of strong will and clear mind who could guide, control and inspire men. During the distress that followed the 1893 flood, it was said that he was 'not to be found often among the talkers at the Town Hall, but out and about, advising, encouraging and putting his own shoulder to the wheel'.[18]

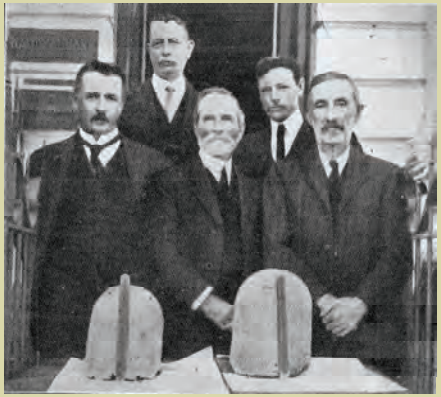
Twice married, Argo had no children, but he raised Emma Saltmarsh, the daughter of his first wife Julia, who died in 1878. In 1883, he married Elizabeth Graham, who outlived him by twenty-seven years and from her home in Bligh Street was an active member of the Ladies' Benevolent Society.

George Argo's tombstone at the Two Mile cemetery, Gympie.
Source: Gympie Regional Libraries.

# The 4 North Phoenix Gold Mining Company (1881-1924)

In a record operation of forty-three years, the 4 North Phoenix became one of the goldfield's ten top producers, delivering a consistent, though not spectacular, flow of dividends for its shareholders.

The mine was situated on a twenty-five acre lease below the Gympie Railway Station. Its first (western) shaft, sunk in Bent Street in 1881, reached 1,000 feet and worked the Phoenix reef on several levels. By 1899 these workings were unproductive and the shaft was then used for drainage. A second (eastern) shaft was sunk to 1,300 feet off Station Road and worked various reefs, including the supposed Smithfield.



Cakes of gold bullion from No. 4 North Phoenix at the National Bank, Mary Street, 1922.
Left to Right
Front: H.V. Tozer, D. Menzies, J.Brown.
Back: J.Jackson, E.Walker.
Source: Queensland Government Mining Journal, 1922.

The mine had no crushing equipment, but carted its ore to public batteries. Initially it used the Maori Mill at the New Zealand PC in Crown Road and later used the battery at the Golden Crown, accessing them with heavy horse drays via Lady Mary Terrace. When the last public battery on the field closed in 1923, the company was obliged to construct its own battery of ten stampers for its final year of operation.

The 4 North Phoenix produced 135,000 ounces (3,836 kilograms) of bullion and paid out £220,000 in dividends. In 1922, it recorded two rich crushings from the Davies reef, in June, when 120 tons of stone yielded 3,358 ounces of gold, and in December, when 1,257 ounces were recovered from one ton of stone. The 4 North Phoenix was one of the last mines to close, ceasing operations in 1924.

The success of the 4 North Phoenix was credited to Gympie's longest serving mine manager, **James Brown (1855-1943)**, who worked there for over forty years. He was a 'Geordie', a miner from Coalbridge-on-Tyne, Northumberland, England, where he entered the coal pits at the age of eleven.


Station Road, showing the 4 North Phoenix centre right, and the Australasian on the left.
Source: State Library of Queensland, neg. 189975.

In 1875, he migrated to New Zealand and worked on a railway tunnel, then moved to the Blue Mountains in New South Wales, where he mined kerosene shale. Arriving in Gympie in 1877, he worked at deepening the shaft of the New Zealand PC and was 'stoping' at the 2 and 3 South Smithfield before becoming an unusually young underground manager at the United Smithfield and the North Columbia mines. A director of the 4 North Phoenix from 1882, Brown was shortly afterwards appointed manager. During an exceptional career, he gained an unrivalled reputation for reliability, persistence and skill. He was a director of more than thirty other mines, a member of the Drainage Board and President of the Mine Managers' Association. In 1884, he married Mary Creamer, a marriage that lasted for fifty-nine years. Brown was over seventy when he retired and he died at his home in Bent Street in 1943 at the ripe old age of eighty-eight.

Second headframe on the West of Scotland shaft.
Source: (Vicki Diemar Collection) Gympie Regional Libraries.

## The West of Scotland (1898-2008)

The well-known name West of Scotland refers to a shaft that has been part of three mining companies and three leases in three different eras. Sunk in the days of Deep Reefing and re-opened during the Interlude, the West of Scotland shaft was never productive in its own right, but became part of a productive mining complex during the Modern Revival era.

The first headworks of the West of Scotland shaft, 3,163 ft deep but a duffer, in 1905.
Source: Queensland Government Mining Journal, 1905.

The West of Scotland Gold Mining Company, controlled by absentee Scottish shareholders, was listed on the Glasgow Stock Exchange but not at Gympie or elsewhere in Australia. In 1898 the Company obtained two leases totalling fifty acres in the most southerly part of the Gympie goldfield and in 1899 began sinking a 'wildcat' or exploration shaft. Shareholders, influenced no doubt by the recent success of the adjacent Scottish Gympie, were prepared to sink a very deep shaft, necessitating considerable expenditure on a large winding engine, boiler, chimney, headframe, ropes and labour.

While beds of slate were expected at depth, the unknown location of the Inglewood structure added to debate about possible outcomes. This exploration shaft was vitally important to the entire goldfield, especially to the leases south of the Inglewood, and the mining community hung on every progress report.

This high level of local interest was not appreciated by the foreign-owned company, which refused to release the monthly mine manager's reports. By August 1901, the shaft was down to 2,012 feet in limestone, but the Mining

Warden's report contained only snippets of news. In 1902, the Warden described this situation as 'regrettable' and 'reprehensible' and his protests resulted in the publication of the reports from August 1902.[19]

In February 1903 the shaft reached 3,044 feet, but there was no sign of the Inglewood structure. In May 1904 the shaft, at 3,163 feet, was the deepest in Queensland. Further exploration was conducted by crosscutting and diamond drilling.

At 2,918 feet, a crosscut was extended east for 500 feet, and from there a bore was drilled horizontally for 225 feet. From the bottom of a shaft, a bore was put down 875 feet, and at 2,812 feet a bore went east for 276 feet. All this and other small drives found no gold.

Working conditions at the bottom of the shaft were extremely hot because of restricted ventilation at such extreme depth and working shifts were reduced to half hour shifts. For the first time on the Gympie goldfield, depth limited exploration.

The concrete cap is removed from the West of Scotland shaft in November 1986, as part of the modern revival and development of the Monkland mine.
Source: (Vicki Diemar Collection) Gympie Regional Libraries.

In November 1904 the drilling stopped. Only three ounces of gold was found. There would be no productive mine. The shaft was a duffer. In 1905, to the disappointment of the Scottish shareholders whose capital had disappeared, the West of Scotland Company was wound up.

At this time, the Gympie goldfield was near its peak production. Although it was not realised at the time, the closure of the West of Scotland marked a turning point in the history of the goldfield. From then on there was very little interest in sinking deep exploration shafts. Investors would not risk failure.

In October 1949 a new company, International Minerals Ltd, obtained a lease of 200 acres, extending from the West of Scotland shaft to near the old South Glanmire & Monkland, and announced plans to revive exploration from the bottom of the West of Scotland shaft. W. J. Beckett was managing Director and R.M. Ireland was the exploration engineer. The seal was removed from the shaft, a new 65 feet timber headframe was erected and a million gallons of water were pumped out. The timbering in the three-chambered shaft was found to be in good condition. Some exploratory drilling was conducted, but no gold was produced and the company ceased operations. In 1951 the headframe was removed and the shaft was recapped.

Thirty-five years later, in a Phoenix-like rebirth, the dormant West of Scotland shaft became a focal point in the modern revival of the goldfield. Joint venture partners Devex, Gympie Eldorado and BHP targeted below the Langton Gully and used the dormant West of Scotland because of its depth and its access to the deep lodes of the Inglewood structure. Between 1996 and 2007, as part of the Monkland and Lewis mine, the shaft was used extensively for underground exploration and gold production.

In November 1986, the West of Scotland shaft was uncapped. A temporary steel headframe was erected to install a submersible bore hole pump, and de-watering began. In June 1987, a steel headframe, dismantled from the Davidson shaft at Mt Isa, was erected, and a 600 horsepower electric winding engine with two winding drums, each with 1,000 metres of steel rope, was installed. Centrifugal pumps were installed, and the shaft was de-watered and refurbished. One chamber was used for waterpipes, ventilation ducts and emergency access via a ladder. The second compartment was used for raising and lowering a cage for men and equipment, while a cage in the third compartment carried ore skips.

Looking down the exposed three chambered timber lined shaft of the West of Scotland, November 1986. Note the water at the bottom.
Source: (Vicki Diemar Collection) Gympie Regional Libraries.

In May 1990, connection was made with the workings of the old Scottish Gympie No.3 mine, and a watertight door was installed for flood control. At both the 750 and 950 metre level, crosscuts were made to intersect the Inglewood structure. Drives were then made north along the Inglewood, and exploratory drilling and bulk sampling of ore were conducted to define the resource base. In 1996, when ventilation, access and safety had been improved by the de-watering and refurbishment of the Scottish No.2 and No.3 shafts, the new Monkland mine began producing gold.

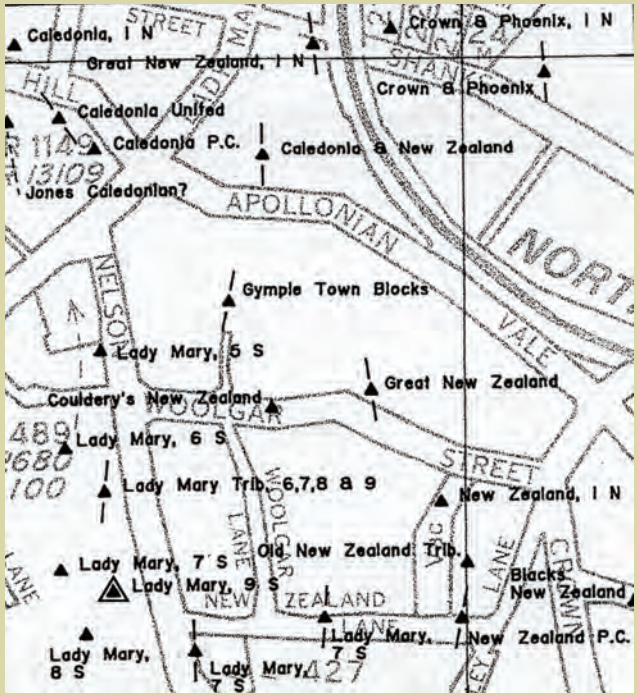
The West of Scotland and No.2 Scottish shafts and the Lewis decline were used to service the modern Monkland and Lewis mines. Under its third headframe, the West of Scotland shaft continued to be a functional part of the goldfield until 2008, when production ceased.

## The 9 South Lady Mary

The 9 South Lady Mary was a small mine, situated off Nelson Road behind the Fire Station on the Lady Mary reef. It was worked until about 1882 and then abandoned. The underground workings and part of the underlie (inclined) shaft had filled with water and the old whim still sat on top.

Early in 1885, Thomas Pollock, a Mining Secretary and Share Broker, having faith in the ground thereabouts, called meetings to raise capital by issuing new shares. These cost a 'ha'penny' (half-penny) and carried a call of a 'penny ha'penny' each month to provide for expenses. Eventually 50,000 shares were sold and new directors were appointed. George Whittington, who had been a shift boss at one of the nearby Caledonia mines, was selected as mine manager.

Now the work of re-opening the mine began. This meant expenditure on horses, ropes, buckets and hammers, as well as the building of a small blacksmith's shop, a stable, an office and a store. The horse and whim were put into action and after a month the workings were free of water. Then the few miners employed began




Extract of map showing location of the 9 South Lady Mary.
Source: Barker et al., 1993.

working on the reef. Months went by with no gold being produced, but calls still had to be paid. Some shareholders chose not to pay their calls and thereby forfeited their shares. There were no buyers for these shares.

One small shareholder, **Arthur Gunter (1862-1946)**, began working at the mine. A bricklayer by trade, he worked as a miner between jobs. One day, on instruction from the mine manager, he fired a shot of dynamite into the quartz reef to test the stone and exposed a rich patch of gold in the plumbago layer of the hanging wall. Samples sent off for assaying indicated six ounces to the ton. The news was soon about town and buyers offered five shillings per share. The forfeited shares were distributed among the remaining shareholders, who willingly took them up. Fifty tons of ore were sent to a battery and with the proceeds a dividend of six pence per share was paid. Local buyers bid a pound for each of the shares. Gunter's wife urged him to sell half his shares, but, confident of even better days ahead, he refused to part with them. A second crushing produced a low yield of gold. The directors declared no dividend, retaining the proceeds to cover the cost of operations. The value of the shares fell dramatically as buyers lost interest.

By the next month the reef had cut out. There were no more dividends, and soon it was only the income from calls that kept the mine going. Shareholders again forfeited their shares, and again there were no buyers. Soon the only shareholders were the miners working in the mine. When they realized that the mine would never pay, the company was wound up, the lease was forfeited, and the mine closed again. This time it did not reopen. Not finding his El Dorado, Arthur Gunter returned to the building trade. In 1887 he took his family to Melbourne. In 1940, at the age of seventy-nine, he wrote his 'Reminiscences', which provides fascinating details about the everyday life of a worker on the Gympie goldfield.

Gunter was born into an English family of sixteen children. Seeking his fortune, he migrated to Brisbane in 1879 and walked to Gympie with a mate the following year. Employment was hard to get, but Gunter, versatile, independent and honest, took jobs as a timber-getter and construction worker before finding work as a bricklayer. Buying tools at Cullinanes and a trowel from Ferguson Brothers, he assisted bricklayer Jack Farnsworth to build a boot factory in Mary Street for Thomas Bleakley Tronson. He then built brick chimneys at the 1 North Phoenix and Glanmire mines. Becoming friendly with Gympie's first brickmaker, Richard Dudley, for whom he built a two-roomed cottage, he tendered for chimneys, boiler foundations and retaining walls in Gympie.

As the holder of a Miner's Right, Gunter built a small residence on a vacant block off what is now Station Road, but the Directors of the 4 North Phoenix bought the land when they began to sink their first shaft. Gunter was then engaged in sinking this shaft, learning mining skills and later working in the shafts of the Smithfield and North Smithfield mines. In 1882 Gunter married Sarah Doran and the couple moved to Imbil Station, where he and a partner were contracted to fell trees and pit-saw timber to build the Imbil Homestead. Returning to Gympie in 1885, he experienced the excitement of finding gold and the disappointment of losing his money at the 9 South Lady Mary.

# Relics and Memorials

*'...in Australia's colonization, gold is the Great First Cause. It was gold that made a Commonwealth out of a convict station, that has raised cities in the sand and carried the railway to them. The prospector is always the path-finder.'* Ernestine Hill, 1940.

Obvious relics of Gympie's mining past are not easy to find. The pockmarked land is mostly smoothed over and the mullock heaps have all but disappeared. Increasingly, buildings cover the gaps where headframes once stood and many people are unaware of the old workings that lie beneath their homes. But fragments of the mining days live on in Gympie, in particular in Mary Street and at Monkland.

## Mary Street

Shaped first by alluvial diggers and later by ravaging floods and fires, Mary Street is living heritage. Its twisting route, varying frontages and small allotments remain unchanged since the goldrush and every site has its own story.

When great fires in 1881 and 1891 destroyed old wooden shops in Upper Mary Street, the Municipal Council insisted that their replacements be built of brick. These buildings, of which Smithfield Chambers and Goldsworthy's Building are excellent examples, reflect the goldfield's most prosperous period.

## Smithfield Chambers

At the time of the goldrush, the site of Smithfield Chambers was occupied by the Dunkley Brothers' draper's shop. When the Dunkleys left Gympie, the shop was leased to Joseph Freestun and James Gawthorne Kidgell, who moved their Melbourne House drapery from the opposite side of the street. In 1871, Freestun and Kidgell enlarged the store by constructing a two-storey timber building next door, with living quarters on the top floor. This building, the construction of which required much excavation, was designed by the architect Charles Grater Smith.

Freestun and Kidgell's Melbourne House, 1872.
Photographer: E.H. Forster.
Source: Gympie Regional Libraries.


Smithfield Chambers, 239 Mary Street, Gympie. After housing mining secretaries, share brokers and the Stock Exchange Club, Smithfield Chambers is now the premises of solicitors Power and Cartwright.
Photographer: Keith Waser.
Source: (Keith Waser Collection) Gympie Regional Libraries.

**James Kidgell** was the Member of Parliament for Gympie from 1877 to 1879 and served as Town Clerk from 1880 to 1896. In 1883 he sold his shops to Matthew Mellor, who in 1894 sold them to William Evan Thomas. Thomas pulled down the old buildings and employed Brisbane architect Leslie Gordon Corrie to design a substantial, two-storey, rendered brick office building, which he named Smithfield Chambers.

**William Evan Thomas** (1851-1919) was born in Pembrokeshire, Wales, the son of the manager of an estate owned by Lord Cawdor. After leaving the local National School, Thomas trained as a builder. In 1885, aged thirty-four, he was persuaded by a relative to migrate to Queensland, where he became a building contractor. After visiting Gympie while working for the Hall Mercantile Company, Thomas decided to set up in business as a share broker and mine promoter. Smithfield Chambers became his office and the Australasian was one of the mines he floated to overseas investors.

At the turn of the twentieth century, he built the beautiful home which still stands at the corner of Monkland and Channon Streets, where he lived with his wife Eleanor Roberts, daughters Elizabeth and Gwladys and son Herbert. Elizabeth married sharebroker Alfred Cuppaidge, Gwladys served as a nursing sister during World War 1 and Herbert died in a shooting accident at Eel Creek in 1903, aged fourteen. As goldmining declined after 1912, Thomas turned his attention to the Ipswich coalfields, but when he died in Brisbane in 1919, his body was returned to Gympie for burial.


Thomas Mathewson's Store, 1872.
Photographer: E.H. Forster.
Source: State Library of Queensland, neg. 36219.

## Goldsworthy's Building

Goldsworthy's building is noted for the quaint decorations on its narrow facade. On the roof stand statues of a kangaroo and an emu, bearing shields, picks and shovels. The top pediment features tiny lion's heads, acanthus leaves, and egg and dart mouldings. The edges of the top storey are indented, with thistles and shells at the corners. Triangular pediments over the upstairs windows feature scrolls and flowers, while barley sugar decorates the windows. Most curious are the heads of two unknown men wearing early nineteenth century cravats.


Goldsworthy's Building, 216 Mary Street, Gympie, on left.
Source: Gympie Regional Council.

The plastered brick structure facing Mary Street appears to be of two-storeys, but underneath there is a stone cellar, which can be glimpsed through a grating on the footpath. The building is two rooms deep and barely two rooms wide, with high metal ceilings. Ceiling roses indicate that the rooms were originally lit with gas.

Internal and external doors, window frames and skirting boards are of red cedar, and the red cedar staircase, with its brass stair-rods, is particularly attractive.

The site of this building was first acquired by the noted photographer Thomas Mathewson, who conducted a stationery and photographic business in Gympie from mid-1868 until early 1872. After a fire in 1881 destroyed Mathewson's shop, auctioneer Samuel Barter erected a one-storey brick building on the site. In 1885, the architect Hugo Du Rietz was employed to enlarge and extend this building as the offices of mining secretaries James Crawford and Ernest Rohde. After a scandal involving Crawford in 1889, the building was acquired by the wealthy investor William Davies. Partners Charles Caston and Edgar Benjamin Davidson took over as mining secretaries, followed in 1901 by Thomas Hood Sym and James Jackson.

When mining declined, optometrist William John Hodson bought the building and it has served as optometrists' offices ever since. Hodson was followed by Joseph Tilley and Cyril Carvosso. In 1973 the practice was bought by Peter Goldsworthy, who restored the building, preserving its distinctive features.

## Monkland—The Gympie Gold Mining and Historical Museum

Monkland was once a busy settlement of miner's houses, shops, hotels, churches, schools and the tall headframes and huge sheds of Gympie's deepest goldmines. Today it is a growing residential suburb, with a few old homes tucked away among the newer dwellings. Upright metal pipes in grassy paddocks mark old mine shafts that have been capped by thick blocks of concrete.

In 1967, the people of Gympie celebrated the centenary of the Gympie goldfield. This event aroused interest in developing a museum and the fifteen members of the Gympie and District Historical Society, established only four years earlier, began to collect documents, photographs and artefacts to put on display. They decided to locate their Gold Mining and Historical Museum on the site of Gympie's second most productive mine, the 2 South Great Eastern. The heroic effort needed to develop this site was generously assisted by the then Gympie City and Widgee Shire Councils, service clubs, businesses and the public. The site chosen had been abandoned for fifty years. A huge mullock heap, tailings sands, sludge and reeds, large holes, deep trenches and barely covered shafts made the ground rough and unsafe. But in September 1967, the Governor General, Lord Casey, unveiled a plaque at the site and the effort to fill and level it began. Three years later, on 6 June 1970, the Museum was officially opened by John Herbert, Queensland's Minister for Labour and Tourism.

A concrete Monier water tank, constructed in 1902 to supply the crushing battery with water pumped from the Mary River, was converted into a secure display room, with a roof and porch designed at no cost by the distinguished civil engineer, Jack Mulholland. The remains of the battery and a number of items of mining machinery were donated to the Society by the Runge family in memory of their father, W. H. 'Bill' Runge. In 1978, a shed was built to cover the remaining stampers and house other machinery.

The replica poppet head over the eastern shaft of the 2 South Great Eastern at the Gold Mining and Historical Museum.
Source: Gympie Regional Council.

Other relics of the mining days, including a cradle, prospecting equipment, assayer's scales, bullion boxes, poppet head wheels, a double decker cage, engines, pumps, boilers and baling tanks, were donated by members of the public.

During 1975-1976, a scaled-down, replica poppet head was erected over the eastern shaft of the 2 South Great Eastern, and in 1985 a gantry leading from the poppet head towards the battery shed was completed. A small quantity of mullock, taken from the last mullock heap to be demolished in Gympie, was placed next to the poppet head to illustrate the nature of the rock removed from the mines. This work was supervised by Irvine Runge. In 1981, the Society received the gift of a winding engine, which had been built in 1899 by Walkers Ltd for the mine that became the No.3 shaft of the Scottish Gympie. This engine had been bought by the Rhondda Colliery in Ipswich when the Scottish was sold up in 1924. A replica shed was built on the concrete foundations of the original 2 South Great Eastern machinery shed. The winding engine was installed and painstakingly put into working order by a band of enthusiastic volunteers led by Bill Smith-Goodwin. With the addition of a boiler, also built by Walkers Ltd, an air compressor, a pump and a chimney, the winding engine became a working exhibit, which is operated today on special occasions. The array of mining heritage that is accessible to the public at the Museum owes its existence to the generosity of many individuals, businesses, organisations and governments.

## The Andrew Fisher House

Andrew Fisher House was relocated to the Museum by removalist Clyde Kunst in 1972. This old cottage was built in Maori Lane, Red Hill, when Scottish miner Henry Irvine married Margaret McPherson in 1872. Margaret Jane Irvine, the eldest of the couple's four daughters, was born in the cottage in 1874. After Henry Irvine's death in a mining accident in 1890, his wife and daughters moved to a larger house below the cottage in Crown Road, where they earned a living taking in boarders. One of these boarders was the miner and politician Andrew Fisher, who married Margaret Irvine on 31 December 1901. Legend says that Andrew and Margaret Fisher spent their wedding night in the cottage, which was also available to them when they visited Gympie in the early days of their marriage. Their eldest son Robert is said to have learned to walk on the brick path that led up to the back gate.

Ownership of the cottage eventually passed to Margaret Fisher from her mother Margaret Irvine. It was rented out by Margaret Fisher's Gympie relatives, and Andrew Fisher paid rates on it until his death in 1928. It then passed to other owners and over the years became derelict.

Andrew Fisher House being relocated. Source: Elaine Brown. Andrew Fisher House at the Gympie District Historical Mining Museum. Source: Gympie Regional Council.

Although altered in various ways during a century of habitation, Andrew Fisher House remains a typical miner's cottage. Its walls and floors are constructed of pine timber and its front door is red cedar. The walls were originally single skin, but exposed walls are now covered with weatherboards. The cottage had never been painted, either inside or out, and the kitchen walls and ceiling were black with the soot of decades of smoking stoves. Today its walls are protected by preservative paint. At some stage, the original gabled roof was re-constructed as a hip roof and the original shingles were replaced by galvanised iron. Verandahs cover the front and one side of the building, and its sash windows are protected by metal shades. The building's furnishings, donated by local people, are in the style of the period around 1900.

# James Nash (1834-1913)

James Nash was born into a farming family of five brothers in the village of Beanacre in Wiltshire, England. In 1857 he followed two of his brothers to Australia and spent ten years as an itinerant bush worker and prospector in Victoria, New South Wales and Queensland. Then, combining experience and persistence with remarkable luck, he found the gold that gave him a fortune and the title of 'Discoverer'. His wealth and his luck did not last, however, and his life contained a great deal of sadness.

In July 1868, Nash married Catherine (Kate) Murphy, daughter of a Mary Street hotel-keeper. Two months later, he sold his claims and took his new wife home to England to meet his family. When he left, the settlement he had founded was known as Nashville, but soon after his departure it was officially renamed Gympie.

On his return, Nash invested his money in a number of unsuccessful ventures, including the Queen's Hotel and 'Tilson Farm' farm at Tiaro and a draper's shop in Gympie. By 1884 he was so badly off that his friends approached the government for assistance and he was made Keeper of the Gympie Powder Magazine, then located on what is now Bath Terrace.

In 1898, when the Powder Magazine was relocated to a brick store near the Traveston Railway Station, Nash and his daughter Amy moved to Traveston to look after it. This move enabled him to keep in touch with his sons, Allan and Herbert, who had taken up a selection at nearby Kin Kin. In 1911, ill health forced Nash to move to his brother Mark's home in Gympie, where he died on 6 October 1913 at the age of 79. Kate Nash lived on until 1931.

In later years, Nash and his wife lived apart, though remaining on good terms. Three of their six children died young. Of the others, Allan, married with two sons, became headteacher at the Chatsworth State School, served as a Major in the Australian Imperial Force and was killed at Gallipoli in 1915. Herbert, deaf and dumb as the result of an accident in childhood, lived to a great age in Gympie. Amy married Joseph Moore and had two sons.

Those who knew him remembered Nash as a quiet, humble man, who could occasionally be persuaded to tell the story of his momentous discovery. In Gympie, his name is perpetuated in Nash Street, on the hillside parallel to Mary Street; in Nashville, a former railway station on Mt Pleasant Road; in the James Nash Arcade, a two-storey building in Central Mary Street; and in the James Nash State High School. Memorials include the granite block near the Gympie Town Hall, an earlier stone fountain, now located in Memorial Park, and his grave in the Gympie Cemetery.

Two years after James Nash's death in 1913, a memorial fountain was erected outside the Town Hall. Over the years the fountain fell into disuse. In 1939 it was moved to its present site in a corner of Memorial Park.




Some of the memorials to James Nash in Gympie.
Source: Gympie Regional Libraries.

In 1953 a granite block was erected outside the Gympie Town Hall. This memorial has been moved several times to make way for roadworks at the Fiveways, and today it stands on the footpath outside the Town Hall.

Opened in 1977, Gympie's second State High School was named after James Nash. It is unusual for State schools in Queensland to be named after a person.

## Statue of Gympie Miners

Migrating from Holland in 1950 with his wife and children, Herman Husman worked in Gympie for twenty-two years as an electrician. Upon his retirement, he turned to art to express appreciation of his adopted country, creating the Miners' Statue as a gift to all Australia.

During World War 2, Husman had worked in underground mines. His experience of the toughness and solidarity of his fellow workers inspired this striking memorial to Gympie's goldminers. Encouraged by the Gympie City Council and using materials provided by the Gympie Lions Club, he made models and then spent two years shaping the larger than lifesize statues in his backyard in Cartwright Road.

Seven metres tall, weighing nine tonnes, and finished in white cement mixed with beach sand, the Miners' Statue is located beside the Bruce Highway at Monkland. Its four miners, authentically dressed, are engaged in various activities. A tall man, holding a pick, raises a lamp to examine the wall of a mine. The second man pounds ore in a dolly pot, the third examines a specimen of rock he has just hammered, and the fourth pans gold in a prospecting dish.

Herman Husman's statue of Gympie Miners, erected in 1977.
Source: Gympie Regional Council.

# Miners' Memorial Wall, Calton Hill Park, 2008.

The Miners' Memorial Wall is part of the restoration of Calton Hill Park in Young Street. Opened in February 2008 by Cooloola Shire Mayor Mick Venardos, the wall commemorates 148 miners who died in accidents on Gympie District goldfields between 1868 and 1952.

1868
HORSELEY, Frederic
KNIGHTS, George
McGARRIGLE, Hugh
1869
JEWELL, Maurice M
1870
KNIGHT, Alfred
1872
JARVIE, Alexander
THEILAN, Heinrich
1873
BOHANNA, Joshua
CAPEL, Marmaduke
KELLY, Michael
MAYNARD, Richard
ONAN, William
1874
DODD, Samuel T.
MORONEY, Timothy
O'NEILL, Frederick
1875
MAHONEY, Michael
O'DONNELL, John
1876
DILLON, Michael
GREENTREE, John
RILEY, Joseph
1877
CAMPBELL, David
D'ARCY, Thomas
FISHER, William
HALLORAN, John
HILL, Lawson
HOGAN, Jerimiah
NAPIER, James
ROBERTSON, Daniel
ROGERS, Owen
WEST, Joseph
1878
BREWER, Edward
HICKEY, John
MORET, Henry
WADDELL, Thomas
WRIGHT, Thomas
1879
HOLM, Jeppe
MILLS, George
1880
RIDLEY, John
JENKINS, Thomas
VIVIAN, James
1881
CURTIN, James
DEE, Cornelius
FERGUSON, Walter
HOPPER, John
LAZERINE, Martin
McDOWALL, Thomas
McKEOWN, James
MURPHY, Hugh
SHANAHAN, John
1882
CAMPBELL, John
GARVEY, Michael
LAPTHORNE, Thomas
MURPHY, Daniel
PRITCHARD, Lewis
WHITETHREAD, W.
1884
BREWITT, Jonathan
GIBB, Charles
HAMILTON, James
MAHONEY, John
OUTRED, William
1885
CLARQUE, Ralph
MALLON, Joseph
RONAN, Thomas
1886
BENYON, Thomas
1887
GILROY, Hugh
HEWITT, David Hall
MAHER , Edmond
SAVAGE, Thomas
1888
CARKEET, William
JAMES, Richard Henry
KELLY, James
RICHARDSON, S.
SANDS, Robert
SULLIVAN, Thomas
1889
HECKSCHER, B.
LARCOMBE, Thomas
McILWRAITH, Andrew
1890
BILLINGS, John
IRVINE, Henry
POWELL, John
1891
BEAUFORT, Charles
GRENNAN, Thomas
LEAHY, Cornelius
RICHARDS, William
1892
CUNNINGHAM, W.
1893
CAREY, Elijah
1894
JOHNS, Griffith
1895
ARGO, George
LEE, William Francis
LONG, James
1896
ANDERSON, Joseph
EATON, Alfred
HOLLAND, John
1897
IMPERIAL, Peter
SHEEHY, John
1898
CLARKE, William
GRAPNER, Fred
STOLBERG, William
1899
COCKBURN, William
TUCKER, William
1900
PILMER, George
1901
DOXEY, Albert
GIBNEY, Thomas
OTWAY, James
RICHARDS, Isaac
1902
GRACE, Thomas
ORTT, Julius
1903
DAWSON, John Wilson
DILLON, Frederick
1904
BRADFORD, Hugh 1900
SCHACHT, Charles Allen
VASEY, Norman
1905
BROWN, Andrew
BUCKINGHAM, William
EMMONS, John
JONES, Charles Harley
MILLINER, Thorn Marston
STYLES, William Bradshaw
1906
CHAPPLE, John Baker
McDONALD, James
1907
O'CALLAGHAN, James
1908
DREW, William Pope
LEAHEY, Walter Leslie
O'CALLAGHAN, Patrick Francis
PARR, Isaac
1909
CROKE, Michael John
DAVIES, Edwin
EDWARDS, William Henry
GRAHAM, William John
1910
DUNNE, Patrick Francis
GALBRAITH, James
HAY, Ralph Reed
HUDDLESTONE, Robert
WALLACE, William John
1911
COCKBURN, Thomas
TREMAYNE, Alfred
1912
ATKINSON, William
REILLY, John
1914
SWEPSON, James William
1915
BRADSHAW, John
1917
ALLEN, William John
GANLEY, Bertie
HUGHES, Hugo Griffiths
1918
HOSE, Robert
1922
CHRISTOPHER, Nicholas
COUNTER, George
1940
PERRY-KEENE, William Harold Addison
1952
RUNGE, Robert John


Calton Hill Park with Miners' Memorial shown top right.
Source: Gympie Regional Libraries.

# Glossary

**alluvial** – erosional material accumulated in watercourses. At Gympie, alluvial gold occurred as grains and nuggets in association with sand, gravel and clay in some gullies and creeks.

**amalgam** – an alloy of mercury with another metal, for example, a mixture of mercury and gold.

**anomaly** – an unusually elevated concentration of some element.

**assay** – the chemical analysis of rocks.

**auriferous** – gold-bearing.

**battery** – an ore processing plant; a frame holding five head of stampers, used to crush ore.

**black slate** – an early miners' term for country rocks which hosted gold bearing veins. Over time, four beds of slate were recognised at Gympie. See productive beds.

**boiler** – a closed vessel in which water is heated to produce steam for heating or for driving engines. At Gympie, boilers were of Cornish or Lancaster types.

**bore** – an exploration drill hole.

**brace** – the support platform on a headframe for receiving trucks of ore.

**bullion** – end product of the amalgamation and smelting process, comprising precious metals and some impurities. At Gympie, a cake or a dore bar, with approximately 85% fine gold.

**cage** – a frame or platform for hoisting and lowering men, equipment, mullock and ore within the shaft of a mine; may be single or double-decked.

**Californian pump** – a device used by goldminers and Chinese gardeners to raise water from a lower to a higher level. A hand-turned belt, fixed with wooden blocks, carried water up a wooden trough.

**call** – demand or notice to pay unpaid capital on contributing shares; reading aloud of prices of company shares at a stock exchange.

**capping** – covering and sealing a mine shaft.

**chimney** – a tall vertical structure to release hot fumes from boilers. Mine chimneys in Gympie were of two designs, Cornish (rounded) and Welsh (angular).

**country (or host) rock** – a rock unit containing an orebody. See productive beds and black slate.

**Cousin Jack** – a miner from Cornwall, England.

**cradle** – a wooden box on rockers used to separate gold particles from wash dirt or gravel.

**crosscourse** – a fault which occurred after the gold mineralisation event, displacing gold-bearing veins.

**crosscut (or drive)** – an underground passage, usually horizontal, allowing exploration or access to an ore deposit. At Gympie, from a shaft across to a reef or between two reefs. A crosscut is usually perpendicular to the strike of an orebody, while a drive is parallel to the strike of an orebody.

**crucible** – a small melting pot used in assaying.

**cyanide (process)** – method of extracting a precious metal from its ore by treatment with a dilute solution of potassium cyanide.

**decline** – an inclined tunnel that serves as roadway access to a mine. At Gympie, the Lewis Decline serviced the integrated Monkland-Lewis mine from December 2002.

**Deep Lead** – a dispersed orebody buried in old watercourses, such as channels in bedrock which were later covered by sand, gravel and other rocks. At Gympie, the bed of the Mary River between Deep Creek and Nash Gully.

**dinner** – mid-day meal.

**dolly** – a heavy metal hand tool used to crush small quantities of ore in a dolly pot.

**dolly pot** – metal pot for crushing small quantities of ore using a dolly.

**drive** – see crosscut.

**duffer** – an unproductive or unprofitable claim, shaft or mine.

**dyke** – an intrusive, sheet-like volcanic rock that cuts across the host rock e.g. dolorite or diorite dykes have intruded the Inglewood structure.

**element** – a substance that cannot be decomposed into another substance. Common elements include hydrogen, nitrogen and oxygen, while gold is a rare element.

**engineer** – man in charge of machinery at a mine.

**engine driver** – operator of a steam driven machine such as a winding engine.

**fault** – a fracture in rock along which there has been an observable amount of displacement.

**fossick** – search for gold in crevices or abandoned workings.

**gad** – a sharp, hand-held mining chisel, hit with a Gympie hammer, used to dislodge pieces of quartz from an orebody.

**gantry** – a bridge-like, supportive framework with tram tracks, used to transport ore from the headframe to the battery.

**Geordie** – a coalminer from the North of England or Scotland. Geordie Road at Monkland commemorates the contribution of these men to mining in Gympie.

**grade** – gold content as determined by either assay or yield after ore treatment, with units of grams per tonne (g/t) equivalent to parts per million (ppm).

**gully-raking** – removal of wash dirt from a gully down to bedrock.

**Gympie hammer** – a double-sided hammer, from four to six pounds in weight, with a wooden handle, used for hitting a hand steel or drill.

**headframe (poppet head)** – a timber or steel framework, constructed over a shaft, supporting pulleys (poppet wheels) for ropes used in lifting cages up and down a shaft.

**hydrothermal** – pertaining to superheated waters which transport minerals in solution. At Gympie, gold and other metals as well as quartz-forming silica was carried in solution by fluids up to 250°C.

**Inglewood structure** – a major geological feature and complex ore body of the Gympie goldfield, which rises in near vertical fashion from the depths in the southern part of the goldfield. It has a north-westerly strike and displaces the productive beds to the south. Structurally it is very complex, 10-20 metres wide and consists of several variable components, these being: a quartz-calcite gold vein 0.5-5.0 metres wide; a dolorite dyke; and two microdiorite dykes which intruded post mineralisation. The Inglewood was a feeder structure for Gympie veins, at least in the southern part of the goldfield.

# Glossary

**'jeweller's shop'** – a rare occurrence of high (bonanza) grade gold in a quartz reef.

**'jumping'** – occupying a claim when the miners who hold it are absent.

**lode (ore body)** – a natural deposit of minerals, host rock and waste material from which a metallic element such as gold can be extracted. At Gympie, types of orebodies included Gympie veins, stockworks and parts of the Inglewood.

**mineral** – a naturally occurring solid with a definite chemical composition and an ordered crystalline structure, resulting in a relatively uniform set of chemical and physical properties, for example gold, quartz and pyrite.

**mercury** – a heavy, toxic element used in the amalgamation process to separate free gold from grains of quartz. See amalgam.

**mullock** – waste rock from mining operations, raised from excavations and underground workings.

**ore body** – See lode.

**ounce (oz.)** – a unit of weight. See Troy Weight.

**pan** – a round metal dish with sloping, grooved sides used to trap gold particles when dirt is being washed. See prospector's dish.

**pennyweight (dwt)** – a unit of weight. See Troy Weight.

**poppet head** - see headframe

**productive beds** – carbon-bearing sedimentary rock sequences, dominantly siltstone with minor shale, sandstone and conglomerate. Gold was preferentially deposited in quartz veins within the carbonaceous units, e.g. the Pengelly siltstone. See black slate.

**prospector** – a person who searches an area for gold.

**Prospector's Claim (PC)** – the first claim on a new line of reef, granted to the prospector who made the discovery.

**prospector's dish** – See pan.

**puddling** – soaking wash dirt in water and agitating it before passing it through a cradle.

**quartz** – a common crystalline silica occurring in most rock formations in veins or reefs and occasionally containing gold.

**Rammutt Formation** – the Permian-aged rocks that hosted the carbonaceous slate that produced gold at Gympie. See black slate and productive beds.

**reef** – a vein of quartz that may be barren or auriferous. See vein.

**resources (reserves)** – estimates of the amount of gold within a prospective orebody.

**retort** – a long-necked receptacle used for the distillation of amalgam. Heated amalgam separates into mercury vapour and liquid gold.

**rock** – a mass of mineral matter which, according to the mode of formation, may be igneous (andesite, basalt, diorite, dolorite, tuff); sedimentary (conglomerate, limestone, sandstone, siltstone, shale); or metamorphic (slate).

**rush** – the frantic dash by miners to take up new claims on a goldfield.

**scrub** – the local (Queensland) name for rainforest.

**shaft** – a vertical or inclined excavation giving access to a mine.

**skip** – a self-dumping bucket used in a shaft for hoisting ore or rock.

**slate, slate beds** – see black slate and productive beds.

**slimes** – organic matter and fine chemical fractions, separated out of battery tailings during the cyanide process.

**smelt** – to extract metal from ore by melting.

**stamper** – a heavy iron rod with a broad, flat terminal shoe, which, when raised by a cam, falls by gravity to crush ore. Usually mounted in sets of five within a steam-powered battery.

**stockworks** – a concentrated mass of very thin or sheeted Gympie veins within the productive beds.

**stope** – an underground excavation in a mine from which ore has been extracted.

**stratigraphy** – the succession of layers of different rock units with depth and age.

**strike** – the direction or bearing from true north of a vein or rock formation, measured on a horizontal surface.

**tailings** – waste products from a mineral treatment plant. At Gympie, fine ore fragments, mostly quartz sand particles, discharged from a battery.

**tribute mining** – an agreement between a mining company and a group of miners, who work part of a mine at their own risk for part of the gold produced.

**Troy Weight** – the system for weighing gold, silver and jewels.

24 grains = 1 pennyweight (dwt).

20 dwt = 1 ounce (oz).

12 ozs = 1 pound (lb).

**underlie shaft** – an inclined (non-vertical) shaft which follows the angle of decline of a reef down from its outcrop.

**vein** – a tabular, fracture-filling mineral deposit in which individual minerals grew inwards from the walls towards the centre. See reef.

**washdirt** – concentrate extracted by alluvial miners at shallow depths from creek beds. Gold was then separated from sand, gravel and clay by sieving with water.

**whim** – an elevated, circular drum or capstan, turned by a horse walking in a circle. A rope wound around the drum raised and lowered men and buckets of ore in a mine shaft.

**whip** – a horse walked in a straight line along a path the same distance as the depth of a mine shaft, moving a rope which passed over a pulley to raise and lower men and buckets of ore.

**windlass** – a hand-turned, horizontal pole above a mine shaft, which raised and lowered ropes to which men or buckets of ore were attached.

**winze** – a vertical or inclined sub-shaft sunk between two levels in a mine; a separate structure to the main shaft.

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