

SILVER-LEAD MINING in TASMANIA

SUMMARY

Major discoveries included the Magnet silver-lead lode near Waratah and at Mount Farrell (Tullah).

In 1891 William Robert Bell, no relation to George, found a rich silver lode in the valley of Magnet Creek. Three years later, the Launceston-based Magnet Silver Mining Company opened a mine which by 1923 had produced 6.5 million ounces (184 tonnes) of silver and 27,000 tonnes of lead. In 1932 the Company transferred the mine's lease to its employees. The Magnet Mine finally closed in 1940, after producing 38,000 tonnes of lead and 8 million ounces (227 tonnes) of silver.

The next important mineral discovery occurred at Mount Farrell in 1896–97, when surveyor Edward George Innes observed mineral occurrences beside the track being cut from Mole Creek to Rosebery. The Mount Farrell Company pegged leases and mining commenced during 1898. By 1906, the mine had produced more than 430,000 ounces of silver and 4000 tonnes of lead, and a sizeable community lived near the mine. Known as Tullah, the township became famous for its narrow-gauge tramway and diminutive locomotive, 'Wee Georgie Wood', which provided the only link to the outside world between 1924 and 1961. The North Farrell Mine closed in 1932 due to low world metal prices. Fortunately for Tullah, another outcrop of galena was found north of the old lode, and the North Farrell Mine re-opened in 1934, producing 700,000 tonnes of silver-lead ore by the time it closed in 1974.

MAGNET MINE NEAR WARATAH

This is a precis of an article by Keith Preston "The Magnet Mine 1894-1949", Australian Mining History Association 2015.

Mining began in 1894 with a 30m long adit. Ore samples up to 50 tons were sent to smelters in Germany and Queensland. Transport costs were high. A corduroy track was built to the Waratah Road leading to the EBR Railway at Waratah.

In 1897 No. 4 adit was excavated at Magnet Creek level, and a trial shipment was sent to Dapto NSW where smelting was cheaper. A 2ft gauge horse tramline was built zigzagging 1.5km up the Magnet Range. Mine output was 102t/month.

In 1902 a 15.2km steam tramline directly towards Mt Bischoff was built, with 3 locos hauling 1100t/week, halving the transport cost. Max grade 1 in 25 to avoid need for a rack railway like Mt Lyell. A water race from Magnet Falls supplied a head of 79m to a pelton wheel which rotated a cylindrical ore dryer using heat from a furnace. A second pelton wheel drove an air-compressor and the haulage winch for the mine shaft. Another water race from the Arthur River drove an air-compressor for rock drilling.

Some ore was sent to the smelter at Zeehan when the EBR Railway was extended to that town. Ore was also smelted at Dapto and at Cockle Creek near Newcastle. Profits enabled creditors to be repaid and the first dividends started.

In 1905-07 a concentrating plant handling 50-65t/day was built, using steam power to conserve water power for pumping out the mine. More water was drawn from the Arthur river and a high level race from Magnet Creek provided a 124m head for power generation.

In 1907 a storage dam was built but dividends stopped. There was a miners strike, pumping stopped and water rose 40m in the mine.

When the Zeehan Smelter closed in 1909, all the ore was sent to Germany.

During WWII, metal prices rose and dividends resumed. In 1917 No. 2 dam was built. The 500kW pelton wheel turbine and alternator bought in 1916 at auction from Cassilis in Victoria, together with steel pipelines were erected by 1921. The power was used to drive the mine winder and pumps. Steam was used when water was short.

In 1919 the 'flu epidemic reached Magnet but there were no deaths. Production was suspended in 1921 due to low metal prices. Ore was sent to Port Pirie for smelting. The supply of water was often a problem and the No.2 dam was raised and a new water race finished in 1923. The main shaft was extended by 61m. In 1925 more pumps were needed and more steam meant less profits.

The mine was closed in 1932. Plans for a revival involving a new mill with electric motors and refining the ore using flotation were abandoned and final closure occurred in 1940.

Conclusion: At the dawn of the 20th century a very capable management team, ably led by chairman Petterd, backed their judgement by privately financing key infrastructure projects, such as the steam tramline. A 1926 newspaper article attributed the continued financial success of the mine to 'careful management – constant production', all of the prolonged shutdowns were caused by factors beyond their control: such as the outbreak of war, smelter stoppages, metal price slumps and to a large extent, water shortages.

The **silver** output, 226,222 kg, exceeded that of the largest producing mines on the Zeehan field and the North Farrell mines at Tullah. The Magnet appropriately acclaimed as Tasmania's most productive silver mine, until surpassed by the Hellyer mine in the 1990s. The **lead** output, 37,983 tons,, was exceeded by both the largest producing Zeehan mines and the North Farrell mines,

MOUNT FARRELL MINE AT TULLAH

Mount Farrell was the reason that the town of Tullah exists today. Josiah Innes and his brother surveyor Edward George Innes discovered major ore bodies while cutting the Innes Track from Mole Creek to Rosebery in 1897. It was found to be rich in Galena (lead and silver ore) and was the reason many people flocked to the area to stake their own claim on the mountain.

All that glistens is not gold. Although mostly humble lead, Galena can be a beautiful mineral. Some galena crystals have been discovered as large as twenty-five centimetres across. The lustre is from the silver, the metal still most prized for its unique reflective quality. The ore mined at Mt Farrell was galena, commonly called silver lead, or more accurately, lead sulphide. Galena [Latin for silver lead] is the most common form of lead-bearing ore around the world.

The Mount Farrell Company pegged leases and mining commenced during 1898. By 1906, the mine had produced more than 430,000 ounces of silver and 4000 tonnes of lead, and a sizeable community lived near the mine. Several shafts, adits, drives and winzes at 4 levels worked a single discontinuous lode.

At 1,000 feet [304 metres] the mine at that time was the deepest on the West Coast.

For several years only high-grade lead silver ore from the mine was sent by pack horse for transfer to the Emu Bay Railway line near the old Pieman bridge down river. This system was replaced by the North Mount Farrell Tramway which was opened in November 1902. See article below.

At its height, the Farrell mine produced galena that was 63% lead and 60 ounces of silver to the ton. Prior to both world wars, there was an enormous demand for lead for bullets and, before its toxic effects became better understood, it was commonly used as a performance booster in petrol.



Mt Farrell mining field c1905

The mine closed in 1932, after producing 46,974 tons of lead and 4,926,966 ounces of silver.

NORTH MOUNT FARRELL MINE AT TULLAH

Mount Farrell is named after prospector Tom Farrell who discovered galena on its eastern slope in 1892. While he had some success mining copper, the lode was patchy and unprofitable. Two years later he moved on.

Payable lodes at Mount Farrell were found however, when the Innes brothers were surveying and cutting the track from Liena near Mole Creek to the new mining fields at Rosebery. The brothers did not publicise their find, but returned ten months later to peg their claim.

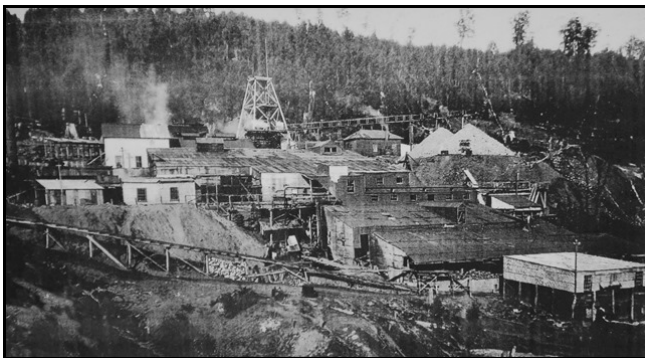
In 1899 the North Mt Farrell Co. was formed and very quickly consignments of ore were packed out by horses to the Emu Bay Railway Line because there was no road or track to Tullah.

By 1906, the mine had produced more than 430,000 ounces of silver and 4,000 tons of lead, and a township was established.

In March 1908 the Mt Farrell tramway was completed which was the first mode of transportation out of the town except horse or foot. See article below.

The mine prospered and the community grew, but by the 1930s the quality of the ore had diminished. As the Great Depression took hold, metal prices fell and for the 50 miners and their families the outlook was bleak. The mine closed. Milling operations continued but only a few days before the scheduled closure another, a richer outcrop of galena was found just north of the old mine.

The North Farrell Mine re-opened in 1934, producing 700,000 tonnes of silver-lead ore by the time it closed in 1974.



North Mt Farrell mine working c1920



North Mt Farrell mine winder

MOUNT FARRELL TRAMWAY

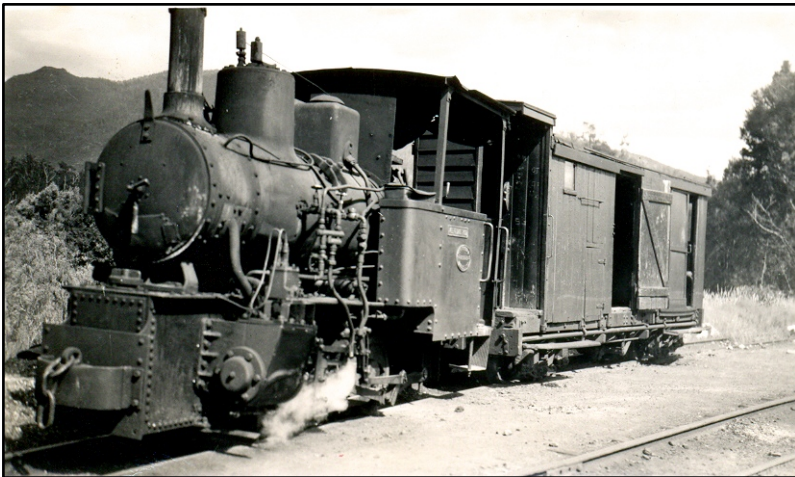
The tramway was constructed originally in 1902 using wooden rails and horse drawn carriages which connected to the Emu Bay Railway at Boco. When operations at the mine increased, the Company became more financial, a new two-foot gauge line was constructed with steel rails for tiny steam locomotives in 1909. The new line followed a major route along the Pieman River to connect with the Emu Bay Railway Line at Farrell Siding 8½ miles away.

The first steam locomotive in use on the new tramway was a 6 ton Krauss locomotive built in 1892. It continued in use until the early 1920s. The Krauss locomotive was supplemented in 1910 with an Orenstein and Koppel locomotive built in 1901, weighing 6¾ tons. This was purchased from the Magnet Mine near Waratah and was in use until about 1928.

In 1924 a new 6 ton Fowler locomotive, Wee Georgie Wood arrived to replace the ageing Krauss. In 1928 another new 6 ton Fowler locomotive, Wee Mary arrived to replace the Orenstein and Koppel. Wee Georgie Wood and Wee Mary continued to share the workload until 1946 when Wee Mary was withdrawn from service and parts used to rebuild Wee Georgie Wood.

To maintain services a 10 ton Krauss Locomotive built for the Mt Lyell 2 foot gauge system built in 1908 was acquired in 1949 and continued in service until the line was closed. This locomotive carried its original Mt Lyell numbering, No 9.

In 1964 after the completion of the Murchison Highway the tramway was closed.



Wee Georgie Wood locomotive