The Bon Accord Mine

In 1846, two Scotsmen, Robert Morehead and Mathew Young started the Bon Accord Mine by sinking a shaft in an area to the north of the SAMA property, but with no luck. They did, however, find good underground water that supplied the townships of Burra with water for many years.

A story from the mining days of the 1850s

"One day I witnessed the breaking of a chain when the kibble was nearly up to the surface and its weight as it descended pulled the loose chain so fast that it was entangling itself about the posts and pulleys breaking timbers and making a great clatter. Men were running in every direction except in the line of the posts. Much damage was done to the gearing, but I have wondered whether the men below could find a safe place when they heard the kibble coming down the shaft. They must have realised that the law of gravity was in its worst mood."

Recorded by Solomon Williams in 1934

References:

Cornish Beam Engines in South Australian Mines G.J. Drew and J.E. Connell

The Story of "The Monster Mine" Ian Auhl



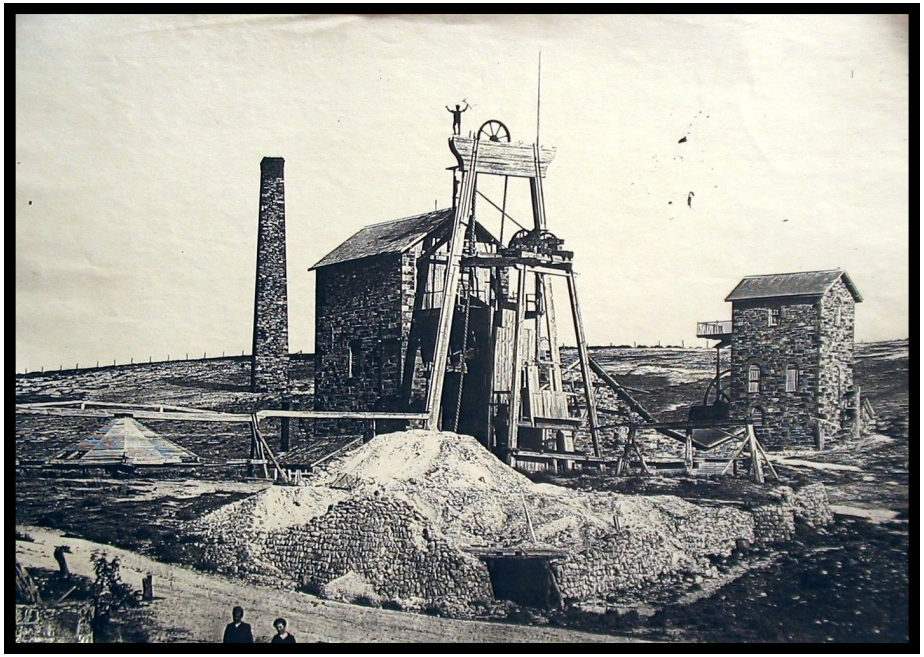
Contact the Burra Visitor Centre for entrance with a "Burra Passport Key"

Compiled by Julian Ratcliffe

The Burra History Group Inc. 2007

THE BURRA MINES

BURRA
SOUTH AUSTRALIA



Morphett's Engine and Pumping Houses c1900

The Burra Burra Mines

The Discoveries

When two shepherds William Streair and Thomas Pickett discovered outcrops of copper in two separate locations along the Burra Burra Creek in 1845 the South Australian Mining Association (SAMA) purchased a large tract of land reaching north along the creek from Stein Hill and The Princess Royal Mining Company took land to the south. Only one of these ventures proved successful. The 'Nobs' of Princess Royal, owners of the Kapunda copper mine, were to discover very early on that there was little ore to mine and their venture ceased in 1851.

The Monster Mine

The "Snobs" as the group of Adelaide businessmen were known, were much more fortunate having very rich ore on their land and so began the "Monster Mine" in the area where Thomas Pickett had found the brightly coloured ore. SAMA or Sammie named the mine Burra Burra after the name of the creek that ran nearby. The ore body was trapped in fractured dolomite between two faults. The ore zone was up to 70 metres wide and 55 metres deep. The ore was mainly a mixture of blue azurite and green malachite, both hydrated copper carbonate minerals, formed by a natural process known as secondary enrichment.

Sammie advertised for miners in Wales and Cornwell to migrate to the Burra mine, and many did, as times were hard in The British Isles**.**

Mining the Ore

At first, the ore close to the surface was mined by tributers, who sought out the best outcrops with their picks and shovels, because this brought the highest rewards.

The tribute system of mining was one where the ore dug in a particular week was sorted and graded, with the tributers being paid according to the value of the ore they had recovered. If the ore was rich then the pay was good. Later as shafts went deeper, tutworkers were employed to shore up the drives and timber the shafts.

The ore was transported by bullock teams to Adelaide via Kapunda and later along the Gulf Road to Port Wakefield, the nearest seaport.

The Gulf Road

The Gulf Road was nothing more than a series of waterholes for the bullock teams that hauled the copper from the Burra Burra Mine to Port Henry, now Port Wakefield.

These waterholes were found at Gum creek, Kadlunga, Skillogalee Creek, near Clare, Hoyleton, and Dunn's Bridge at Balaklava, before the final long haul to the seaport.

A "Wet Mine"

As the mine grew, shafts were dug deeper and deeper with drives going off in different directions until eventually, at 30 fathoms*, they reached aquifers that began filling the mine with water. The deepest shaft, Morphett's Shaft, reached 100 fathoms a few weeks after the mine was closed in November 1877.

Dewatering the Mine

Eventually stone engine houses with their Cornish beam engines and lift pumps were built to dewater the mine. All of this heavy machinery was imported and carried on jinkers drawn by bullock teams from Port Adelaide.

The first of these, Roach's Engine house, commenced pumping operations in 1849.

The water from the mine was stored in mine pools and used in boilers to produce steam for the steam engines, to drive waterwheels and ran along wooden launders through the buddle pits eventually being discharged from the mine site into the Burra Creek. Even to this day water from the mine flows in Burra Creek.

In 1852 Schneider's Engine house with a larger engine and more efficient lift pump replaced the Roach's engine house which was showing signs of collapsing, having been built on unstable foundations.

Winding Engines

Horse powered whims were replaced by more powerful steam driven winding engines. The first of these was Peacock's Pumping and Winding Engine, which came into service in April 1858. This "Fire Whim" hauled kibbles containing the ore to the surface from four shafts (Peacock's main shaft and air shaft, Waterhouse's and Roach's shafts). All of these engine houses have been demolished to make way for the modern open-cut mining operation.

The Remaining Engine houses

Today only three of these engine houses remain. Morphett's Engine house constructed in 1858 to pump water from the deepest level, has been restored and is now a tourist site that gives an insight into Burra's mining past. Morphett's Winding engine house was installed in 1861 to haul ore to the surface from Hector's shaft and Graves's Engine house started in 1868 with its timbered shaft to 50 fathoms was never put into operation because of implementation of open-cut operations. With higher costs, lower copper prices and the ore running out SAMA's mining operations ceased in November 1877. Over the time of the mine's operation the total ore recovered was 234,648 tons valued at £4,749,234.

The Burra Mine was reopened in 1970 with a modern open-cut mining operation that ceased in 1981 to leave behind the mine pool as we see it today.

*1 fathom = 1.83metres