VICTORIAN GOLDFIELDS PROJECT

HISTORIC GOLD MINING SITES IN THE NORTH EAST REGION OF VICTORIA

GAZETTEER: STATE & REGIONAL SIGNIFICANT SITES

Department Of Natural Resources & Environment

July 1999

Name	Location	Goldfield	Ranking	Page
Martins Engine Shaft	Bethanga	Bethanga-Granya goldfield	Heritage Inventory	
Gift Mine	Bethanga	Bethanga-Granya goldfield	Heritage Inventory	
Welcome Engine Shaft	Bethanga	Bethanga-Granya goldfield	Heritage Inventory	
Wallaces Smelting Works	Bethanga	Bethanga-Granya goldfield	Heritage Inventory	
Conness Reef Mine Site	Bethanga	Bethanga-Granya goldfield	Heritage Inventory	
Granya State Battery	Granya	Bethanga-Granya goldfield	Heritage Inventory	
Thowgla Creek Workings	Corryong	Corryong goldfield	Heritage Inventory	
Glendart Township	Corryong	Corryong goldfield	Heritage Inventory	
Dart River Battery	Corryong	Corryong goldfield	Heritage Register	
La Mascotte Mine	Corryong	Corryong goldfield	Heritage Inventory	
La Mascotte Treatment Works	Corryong	Corryong goldfield	Heritage Register	
Young Australian Mine	Corryong	Corryong goldfield	Heritage Register	
Pioneer Battery Site	Corryong	Corryong goldfield	Heritage Inventory	
Glengarry Battery	Corryong	Corryong goldfield	Heritage Register	
Greens Creek Battery	Corryong	Corryong goldfield	Heritage Register	
Wildboar Battery	Benambra	Dart River-Zulu Creek	Heritage Inventory	
Saltpetre Creek Workings	Benambra	Gibbo River Goldfield	Heritage Inventory	
Sassafras Creek Workings	Benambra	Gibbo River Goldfield	Heritage Inventory	
Lady Lock Mine	Benambra	Gibbo River Goldfield	Heritage Inventory	
Golden Treasure Mine	Benambra	Gibbo River Goldfield	Heritage Inventory	
Agememnon Claim	Benambra	Gibbo River Goldfield	Heritage Inventory	
Cribbate Creek Workings	Benambra	Gibbo River Goldfield	Heritage Inventory	
Pride of Mitta Mitta Claim	Mitta Mitta	Mitta Mitta Goldfield	Heritage Inventory	
Grand Junction Claim	Mitta Mitta	Mitta Mitta Goldfield	Heritage Inventory	
Mammoth Sluicing Claim	Mitta Mitta	Mitta Mitta Goldfield	Heritage Inventory	
Long Point Sluicing Claim	Mitta Mitta	Mitta Mitta Goldfield	Heritage Inventory	
Pioneer & Union Claim	Mitta Mitta	Mitta Mitta Goldfield	Heritage Register	
Mount Merrimac Battery	Mitta Mitta	Mitta Mitta Goldfield	Heritage Register	
Mt Wills Proprietary Battery	Glen Valley	Mount Wills Goldfield	Heritage Inventory	
Maude & Yellow Girl 1931	Glen Valley	Mount Wills Goldfield	Heritage Register	
Maude & Yellow Girl 1941	Glen Valley	Mount Wills Goldfield	Heritage Register	
Sunnyside Township	Glen Valley	Mount Wills Goldfield	Heritage Inventory	
Mt Moran Battery	Glen Valley	Mount Wills Goldfield	Heritage Inventory	
Knocker Track Battery	Glen Valley	Mount Wills Goldfield	Heritage Inventory	
Red Robin Mine	Hotham Heights	Hotham Heights Goldfield	Heritage Register	
Buckland River Workings	Buckland River	Upper Ovens Goldfield	Heritage Register	
Alta & Nelson Battery	Buckland River	Upper Ovens Goldfield	Heritage Inventory	
Leviathan (Hungfee) Battery	Porepunkah	Upper Ovens Goldfield	Heritage Inventory	
Canyon Alluvial Workings	Bright	Upper Ovens Goldfield	Heritage Register	
Bright State Battery	Bright	Upper Ovens Goldfield	Heritage Inventory	
Ganders Reef Mine	Wandiligong	Upper Ovens Goldfield	Heritage Inventory	
Gunislake Mining Settlement	Wandiligong	Upper Ovens Goldfield	Heritage Inventory	
Oriental Reef Workings	Wandiligong	Upper Ovens Goldfield	Heritage Inventory	
Buckeye Battery	Harrietville	Upper Ovens Goldfield	Heritage Inventory	
Phoenix Battery	Harrietville	Upper Ovens Goldfield	Heritage Inventory	
Liffey (Gribbles) Battery	Harrietville	Upper Ovens Goldfield	Heritage Inventory	
Growlers Creek Dredge	Wandiligong	Upper Ovens Goldfield	Heritage Register	
Rose Thistle & Shamrock	Harrietville	Upper Ovens Goldfield	Heritage Register	
United Miners Mine	Harrietville	Upper Ovens Goldfield	Heritage Inventory	
Champion Battery	Harrietville	Upper Ovens Goldfield	Heritage Inventory	
Monarch Battery	Harrietville	Upper Ovens Goldfield	Heritage Register	
Guns Reef Battery	Harrietville	Upper Ovens Goldfield	Heritage Register	
Razorback Battery	Harrietville	Upper Ovens Goldfield	Heritage Inventory	
Sambas No. 7	Harrietville	Upper Ovens Goldfield	Heritage Inventory	
Biplane Battery	Harrietville	Upper Ovens Goldfield	Heritage Inventory	
Star Extended Battery	Harrietville	Upper Ovens Goldfield	Heritage Inventory	
Centenary Battery	Harrietville	Upper Ovens Goldfield	Heritage Inventory	
Tronoh Dredge Holes – north	Harrietville	Upper Ovens Goldfield	Heritage Register	
Tronoh Dredge Holes – south	Harrietville	Upper Ovens Goldfield	Heritage Inventory	

Grasshopper Battery	Sandy Creek	Sandy Creek Goldfield	Heritage Inventory	
Osbornes Flat Diversion	Yackandandah	Yackandandah Goldfield	Heritage Inventory	
Caledonia Mine	Yackandandah	Yackandandah Goldfield	Heritage Inventory	
Pride & Stringer Reef	Yackandandah	Yackandandah Goldfield	Heritage Inventory	
Markhem Reef Workings	Yackandandah	Yackandandah Goldfield	Heritage Inventory	
Sydney Reef Workings	Yackandandah	Yackandandah Goldfield	Heritage Inventory	
Yackandandah Creek Workings	Yackandandah	Yackandandah Goldfield	Heritage Register	
Kirby Flat Sluice	Yackandandah	Yackandandah Goldfield	Heritage Register	
Yackandandah Creek Gorge	Yackandandah	Yackandandah Goldfield	Heritage Register	
Yackandandah Creek Sluice Works	Yackandandah	Yackandandah Goldfield	Heritage Register	
Stanley Battery	Stanley	Beechworth Goldfield	Heritage Inventory	
Wallaby & Kingston Mine	Beechworth	Beechworth Goldfield	Heritage Register	
Rechabite Mine	Beechworth	Beechworth Goldfield	Heritage Inventory	
Homeward Bound Mine	Beechworth	Beechworth Goldfield	Heritage Inventory	
Hope Reef Workings	Beechworth	Beechworth Goldfield	Heritage Inventory	
Nine Mile Workings	Beechworth	Beechworth Goldfield	Heritage Inventory	
Reedy Creek Workings	Beechworth	Beechworth Goldfield	Heritage Inventory	
Sheepstation Creek Workings	Beechworth	Beechworth Goldfield	Heritage Inventory	
Reedy Creek Alluvial Company	Beechworth	Beechworth Goldfield	Heritage Inventory	
Fletcher's Tailrace	Beechworth	Beechworth Goldfield	Heritage Register	
Rocky Mountain Tunnel	Beechworth	Beechworth Goldfield	Heritage Inventory	
Woolshed Falls Workings	Beechworth	Beechworth Goldfield	Heritage Inventory	
Chinaman's Flat Workings	Beechworth	Beechworth Goldfield	Heritage Inventory	
Magpie Creek Diversion	Beechworth	Beechworth Goldfield	Heritage Register	
Hodgson's Creek Workings	Beechworth	Beechworth Goldfield	Heritage Inventory	
Six Mile Creek Workings	Beechworth	Beechworth Goldfield	Heritage Inventory	
Well's Murmungee Battery	Beechworth	Beechworth Goldfield	Heritage Register	
Rocky Mountain Dredge	Beechworth	Beechworth Goldfield	Heritage Inventory	
McEvoys No. 4 shaft	Eldorado	Beechworth Goldfield	Heritage Inventory	
Cocks Eldorado Dredge	Eldorado	Beechworth Goldfield	Heritage Register	
Cocks Pioneer Sluicing Works	Eldorado	Beechworth Goldfield	Heritage Inventory	
Magenta Mine	Chiltern	Chiltern Goldfield	Heritage Register	
Golden Bar Company	Chiltern	Chiltern Goldfield	Heritage Inventory	
New Golden Bar Company	Chiltern	Chiltern Goldfield	Heritage Inventory	
Golden Bar Extended Mine	Chiltern	Chiltern Goldfield	Heritage Inventory	
(New) Ballarat Lead Workings	Chiltern	Chiltern Goldfield	Heritage Inventory	
Chiltern Valley Extended Mine	Chiltern	Chiltern Goldfield	Heritage Inventory	
Wallace Chiltern Valley Consols	Chiltern	Chiltern Goldfield	Heritage Inventory	
Chiltern Valley No. 3 Shaft	Chiltern	Chiltern Goldfield	Heritage Inventory	
Indigo Deep Lead Workings	Chiltern	Chiltern Goldfield	Heritage Inventory	
Wallaces Gully Puddlers	Chiltern	Chiltern Goldfield	Heritage Register	
Old Indigo Lead Workings	Chiltern	Chiltern Goldfield	Heritage Inventory	
Rutherglen Poppet head	Rutherglen	Chiltern Goldfield	Heritage Inventory	
Great Southern & Prentice Mine	Rutherglen	Chiltern Goldfield	Heritage Register	
North Prentice Mine	Rutherglen	Chiltern Goldfield	Heritage Register	
Deep Lead Mine	Rutherglen	Chiltern Goldfield	Heritage Inventory	
Rutherglen Government Battery	Rutherglen	Chiltern Goldfield	Heritage Inventory	
Great Southern & Chiltern Valley	Rutherglen	Chiltern Goldfield	Heritage Inventory	
Lady Ethel Mine	Benalla	Benalla Goldfield	Heritage Inventory	
Tallangallook Creek Workings	Gold Mountain	Dry Creek Goldfield	Heritage Inventory	
Cocker's Sluice Hole	Gold Mountain	Dry Creek Goldfield	Heritage Inventory	

Clear Creek Workings	Gold Mountain	Dry Creek Goldfield	Heritage Inventory	
Dry Creek Workings	Gold Mountain	Dry Creek Goldfield	Heritage Inventory	
OK Quartz Mine	Alexandra	Alexandra Goldfield	Heritage Inventory	
Italian Gully Workings	Alexandra	Alexandra Goldfield	Heritage Inventory	
Wilson Creek Mine	Alexandra	Alexandra Goldfield	Heritage Inventory	
Robbs Reward Mine	Alexandra	Alexandra Goldfield	Heritage Inventory	
Stockyard Creek Sluices	Howqua	Howqua Hills Goldfield	Heritage Register	
Mountain Chief Mine	Howqua	Howqua Hills Goldfield	Heritage Inventory	
Howqua United/Great Rand Mine	Howqua	Howqua Hills Goldfield	Heritage Register	
Lucks All Mine	Big River	Big River Goldfield	Heritage Inventory	
Londonderry Workings	Big River	Big River Goldfield	Heritage Inventory	
Star of Erin Mine	Enoch's Creek	Big River Goldfield	Heritage Inventory	
Ten Mile Diggings	Jamieson	Jamieson Goldfield	Heritage Inventory	
Jamieson Diggings	Jamieson	Jamieson Goldfield	Heritage Inventory	
United Gleesons Mine	Sailor's Bill	Jamieson Goldfield	Heritage Inventory	
No Sweat Diggings	Jamieson	Jamieson Goldfield	Heritage Inventory	
Burns Bridge Workings	Jamieson	Jamieson Goldfield	Heritage Inventory	
Tunnel Bend Diversion Tunnel	Goulburn River	Gaffneys Creek Goldfield	Heritage Inventory	
Goulburn River Workings	Goulburn River	Gaffneys Creek Goldfield	Heritage Inventory	
Victoria-Homeward Bound Mine	Gaffneys Creek	Gaffneys Creek Goldfield	Heritage Inventory	
Wallaby Mine Site	Gaffneys Creek	Gaffneys Creek Goldfield	Heritage Inventory	
Lauraville Battery	Gaffneys Creek	Gaffneys Creek Goldfield	Heritage Inventory	
Demsey Mine	Gaffneys Creek	Gaffneys Creek Goldfield	Heritage Inventory	
Wombat Mine	Gaffneys Creek	Gaffneys Creek Goldfield	Heritage Inventory	
Eldorado Mine	Gaffneys Creek	Gaffneys Creek Goldfield	Heritage Register	
Sir John Franklin Mine	Woods Point	Woods Point Goldfield	Heritage Inventory	
North Sir John Franklin	Woods Point	Woods Point Goldfield	Heritage Inventory	
Never Mine Mine	Woods Point	Woods Point Goldfield	Heritage Inventory	
Royal Standard Battery	Standers Creek	Woods Point Goldfield	Heritage Register	
Leichardt Battery	Standers Creek	Woods Point Goldfield	Heritage Register	
Champion Mine	Standers Creek	Woods Point Goldfield	Heritage Inventory	
All Nations Mine	Standers Creek	Woods Point Goldfield	Heritage Inventory	
Star of the West Settlement Site	Kevington	Woods Point Goldfield	Heritage Inventory	
Matlock Township	Matlock	Woods Point	Heritage Inventory	

NAME: **MARTIN'S ENGINE SHAFT**
Bethanga–Granya goldfield
HI No. ***H8325-0003***

LOCATION: South of Bethanga–Wodonga Road, below Bethanga Gap lookout and above the Gift mine site.
MUNICIPALITY: Towong Shire.
CURRENT STATUS: Historic Reserve.

SITE HISTORY:
One of the shafts on the South Gift line worked by the Wallace Bethanga Co. and Bethanga Goldfields Co. during the 1880s and 1890s. The shaft took its name from Thomas Martin, Wallace's works manager.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of Martin's engine shaft are mullock heaps, shafts, a quartz-roasting site, engine bed, and two boilers.
Mullock heaps—Two peaked mullock heaps with open (fenced) shafts.
Roasting area—Near the upper mullock heap is a burnt platform.
Near the lower mullock heap are an engine bed and two boilers.
Mining machinery—The engine bed is built of brick-capped stone and measures 18 ft x 6 ft x 5ft high, with 1¼-inch mounting bolts.
Boilers—One is a Cornish boiler, measuring 20 ft long x 5ft diameter, from which all fittings have been removed). The other is a dome or cylinder, 15 ft long x 3ft diameter. Neither boiler is in its original position.
Shaft—The shaft is open but fenced.

CONDITION OF FEATURES: Boilers have been bulldozed from original locations.

SIGNIFICANCE RANKING: Site listed on Heritage Inventory.

Assessed by: David Bannear *Date:* May 1995.

NAME: **GIFT MINE SITE**
Bethanga–Granya goldfield
HI No. ***H8325-0004***

LOCATION: Bethanga–Wodonga Road, southeast of Bethanga Gap lookout.
MUNICIPALITY: Towong Shire.
CURRENT STATUS: Historic Area.

SITE HISTORY:
The New Year's Gift (Gift) Reef, discovered in 1876, was the first reef worked at Bethanga. From 1878, it was worked, in turn, by Harris & Hollow, the Wallace Bethanga Co., and the Bethanga Goldfields Co. The Gift engine shaft was commenced in 1884, following the amalgamation of Harris & Hollow's Bethanga GMC and Wallace & Co. The Gift shaft was flooded out in 1887, forcing its abandonment for some years. In 1899, four years after the Bethanga Goldfields Co. took over the Wallace Bethanga Co.'s leases, the Gift shaft was the main focus of mining operations and the "best equipped" of the company's shafts.

References: *Australian Mining Standard*, p. 96.
Butler, p. 23.
Flett, p. 163.
Mining Surveyors' Reports (Mitta Mitta Division), March 1876; (Bethanga Subdivision), September 1884, September 1887.
Philipp (1987), pp. 32, 190.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Gift mine site is bisected by the Bethanga–Wodonga road.
Features on the south side of the road include:

Mullock heap—A large, partly quarried heap with sixteen dumping lines.

Mining machinery—To the northwest of the heap is a large pepper tree, growing over a U-shaped brick mounting bed. The bed measures 30 ft x 9 ft x 5 ft high. To the southwest, in a gully, are a small dam and the remains of a brick powder magazine.

??—The brick and concrete-rendered foundations are partly buried and obscured by large pepper trees. Below the foundations are an intact tailings dump and the remnants of a mullock heap.

Features on the north side of the road include:

Mullock heaps—A small, peaked heap near the road and another low dump in the gully below the site.

Mining machinery—33 ft x 16-ft concrete slab with an 8ft-square concrete winder bed. The winder bed has one inch mounting bolts and is associated with several smaller beds.

Concrete tank or vat—To the east of the winder bed is a T-shaped vat or tank (18 ft x 13 ft) with ¾ft-thick brick and concrete-rendered brick walls. A large pepper tree growing in the structure has cracked and pushed over some of the walls.

Battery engine—To the west of the winder bed is a set of concrete mounting beds (each bed is 10½ ft x 2 ft, standing 5 ft, with one-inch bolts). There is a small section of brick floor visible at the base of the concrete foundations.

Battery—Little survives of the stampers except for the upper and lower levels of the battery house. The two floors, both 24-ft square, are marked by a largely obscured brick wall.

Tailings—In the gully below the battery site is a 30m-wide spread of tailings.

CONDITION OF FEATURES: Good, with archaeological potential.

SIGNIFICANCE RANKING: Site listed on Heritage Inventory.

Assessed by: David Bannear *Date:* May 1995.

NAME: **WELCOME ENGINE SHAFT**
Bethanga–Granya goldfield
HI No. ***H8325-0005***

LOCATION: North of Martins Road, Upper Bethanga
MUNICIPALITY: Towong Shire
CURRENT STATUS: Historic Reserve

SITE HISTORY:
The area of the Welcome mine was first worked in 1875. During the late 1890s, the Bethanga Goldfields Co. held large leases on the Gift reef and on a minor lode to the east. On the minor lode, the Welcome was one of the two main shafts, and was worked by horse-whim. A 1908 plan showed extensive surface plant, high brick chimney stacks, and multiple shafts. The mine was the most extensively developed (surface) mine group on the field; its chimney stacks once dominated the town.
References: *Australian Mining Standard*, p. 96.
Butler, p. 24.

DESCRIPTION & INTERPRETATION OF FEATURES:
Welcome engine shaft
Mullock heap - Immediately above the smelting works, is a large peaked mullock heap.
Mining machinery - West of the mullock heap, slightly uphill, is a benched platform. On the platform is a largely buried 16ft long U-shaped engine bed, which has 4ft thick walls and one inch mounting bolts. To the east of the engine bed is the outline of a 26ft long brick bob-pit and associated shaft depression.

CONDITION OF FEATURES: Possibility of buried foundations.

SIGNIFICANCE RANKING: Site listed on Heritage Inventory.

Assessed by: David Bannear *Date:* May 1995.

NAME: **WALLACE'S SMELTING WORKS**
Bethanga–Granya goldfield
HI No. ***H8325-0006***

LOCATION: Upper Bethanga. Off Martins Road, on a small spur overlooking Bethanga Creek
MUNICIPALITY: Towong Shire
CURRENT STATUS: Historic Reserve

SITE HISTORY:

With the discovery of copper at Bethanga, Harris and Hollow (a mining partnership from Rutherglen) built a smelting works on the flats at Lower Bethanga, with a view to smelting copper for the public. The first furnace of the Great Eastern Copper Smelting Works was opened with great ceremony in January 1878. Two further furnaces were added by mid-year.

As mining entrepreneurs went, Harris and Hollow (themselves working miners made good) had fairly altruistic intentions and won general support from the Bethanga miners. But their intentions were thwarted when the Hon. J.A. Wallace, MLC (the North-east's mining entrepreneur extraordinaire) took an interest in the Bethanga mining scene. Wallace purchased important mining leases and major mines at Bethanga and built his own smelting works to treat their ore. His three furnaces were complete by June 1878, but Wallace shut them down within two months, having successfully divided the loyalties of the Bethanga miners. Harris and Hollow had been forced to follow Wallace's lead, buying mining leases and smelting only for their own mines. Bethanga was now without a public smelting works.

Both smelting works employed the Welsh process: the ore was burnt in open clamps (heaps) or kilns, close to the mines, and the residue was then concentrated in a reverberatory furnace at the smelting works. The product, copper regulus, was sent to Europe (England, Wales, or Germany) for further processing.

Wallace and Co. took over Harris and Hollow's Bethanga Gold Mining Co. in 1883, resulting in the formation of the Wallace Bethanga Co. It was proving almost as difficult to smelt copper from the Bethanga ore as to retrieve gold from it. But Wallace was determined to conquer it, no matter what the cost. In 1880, he had had very expensive plant constructed—two large boilers, 35-hp steam engine, large air cylinder, and two furnaces—in order to experiment with Holloway's process of ore treatment. Crude ore was melted in a cupola (or low-blast) furnace, then transferred to a “Wallace's Patent Converter” blast furnace with flux, to achieve concentration of the copper into regulus, which was still shipped to Europe. The Holloway's experiments went on for three years, but were not a success.

In 1884, Wallace brought three smelting experts from Wales to supervise further trials. New works were again commissioned: an improved reverberatory furnace and alterations to the old blast furnaces. But the Welshmen had trouble with “bears”—congealed lumps of metallic iron, which formed in the furnaces during smelting. The problem was due to the lack of proper fluxes—that is, other ores to mix with the Bethanga ore to achieve effective smelting.

The Welsh experiments (1881-5) failed, and Wallace wheeled in a Dr Wunderlich to conduct a new “wet process connected with electricity”. This involved placing cakes of regulus in a solution of sulphate of iron and passing an electric current through them, after which they were again smelted. The experiment cost £2,500 and failed to eliminate the “bears”, as did an improved vertical furnace installed in 1887 at the instigation of yet another of Wallace's “sanguine inventors”.

The Wallace Bethanga venture—mining and smelting—was costing more than £1,000 a month for working expenses alone. Wallace complained that he was losing money, but was determined not to give in. A new calcining process commenced in 1885—setting the ore to burn for a month or more in large open heaps—set Bethanga's mining community in further opposition to Wallace (there was already strong resentment over his monopolisation of the field). Wallace's smelting works were situated just north of the upper township, and the choking fumes from his open calcining kilns added injury to insult. Strong objections were lodged. Wallace was of the opinion that the townsfolk, rather than the kilns, should be removed, but in 1887 the Wallace Bethanga Co. was prevented from burning the ore in open kilns.

The Wallace Bethanga Co. was in liquidation in 1887, having spent countless thousands of pounds and paid not a single dividend. A year later, Wallace's attempts to float a new company in London attracted the attention of the Metal Extraction Co., which sent its own representatives—“three experts from the old country”—to try out their patent process of chlorination under pressure, which inevitably failed, proving too costly to pursue.

Having spent more than ten years trawling the globe for experts to tame his Bethanga "bears", Wallace's problem was finally solved by his own works manager. Thomas Martin knew the Bethanga ore better than anybody. The process that finally unlocked the Bethanga ore was a modification of the oldest chlorination process—the Plattner system or "wet process"—which used open vats (Chlorination in closed vats by means of dry gas was one of the many techniques already tried and rejected). He also found the reverberatory furnaces to be faulty, not properly and evenly roasting the ore, and had them rebuilt in 1894. Wallace had his solution at last.

The Wallace Bethanga Co. finally attracted a takeover, and in 1895 the Bethanga Goldfields Ltd. was formed. Bethanga was once again a goldfield; copper was produced merely as a payable by-product.

References: *Australian Mining Standard*, p. 96.
Mining Surveyors' Reports (Bethanga Subdivision), June 1882, September 1884, June 1887, March 1889.
Philipp (1987), pp. 102-4, 116-19, 133-9, 163-6, 170, 187-90.

DESCRIPTION & INTERPRETATION OF FEATURES:

The site of Wallace's Upper Bethanga smelting works is extensive, with four working levels, some of them benched, others created by slag banks. At first glance the site appears very stark and barren, but closer inspection reveals the platforms to have ground level and/or buried brick, timber and iron foundations. Easily identified features on the platforms include:

Engine bed—A large engine bed. The engine bed has a stone base (24 ft x 14 ft) with two adjoining brick beds (each measuring 22-ft x 4 ft). Only one of the brick beds is intact: it is capped with stone and has one-inch mounting bolts. On the west side of the bed are the remains of a large loading ramp.

Furnaces—Below the engine bed is a long bench which has traces of largely-buried furnace foundations (mainly furnace bottoms), various sections of brick floors, and an intact section of brick-flue. Running north from the eastern end of the platform are traces of the brick flue (6 ft wide with 1¼ft-thick walls) that went to the main chimney stack. Below the platform are the remains of a beehive brick structure.

Battery—Located below the furnace platform is a battery site—some timber-work and loading ramp.

Cyanide works—To the east of the battery are two oval-shaped brick cyanide vats and associated slum pond. The vats measure 47 ft x 30 ft x 3 ft deep; the pond, with its clay embankment intact, is 50 m x 25 m x about 3 m deep.

Calcined sand—To the west of the battery site is a dump of purple (calcined) sand. The dump is approximately 50 metres x 30 metres and 10 metres high. At the base of this dump is an extensive spread of slum and sand which is washing into Bethanga Creek. Visible in the eroding slum are some concrete foundations.

Slag banks—There are two main slag dumps associated with the furnace platform. The upper dump is 50 m x 20 m; and the lower dump is 25 m x 15 m and at least 5 m high.

Chimney stack—The smelting work's main stack has been demolished. Below the site of the main stack, north of Martins Road, is a small brick chimney stack base.

CONDITION OF FEATURES: Sites still retains features which provide an insight to the layout of the smelting works.

SIGNIFICANCE RANKING: Site listed on Heritage Inventory.

Assessed by: David Bannear *Date:* May 1995.

NAME: **CONNESS' REEF MINE SITE**
Bethanga–Granya goldfield
HI No. ***H8325-0007***

LOCATION: North of Upper Bethanga
MUNICIPALITY: Towong Shire
LAND STATUS: Historic Reserve

SITE HISTORY:
Conness' Reef—north of the Gift lode, on the southern flank of Mt Talgarno (or Flagstaff Hill, as it was called), was among the first reefs worked on the Bethanga field in the mid-1870s. In 1879, the mining registrar referred to "Conness' old forfeited gold mining lease", which was then being worked by the Endeavour Co. From 1884, Conness' was part of the Wallace Bethanga Co.'s ground. Late that year, Conness' upper tunnel was reported to be in about 400 ft on a lode considered to be very rich. Good stone was produced until at least the end of 1886, and the tunnel was driven a further 200 ft during 1887-8.

After the Wallace Bethanga Co. was prevented from calcining (burning) its ore in open kilns at the upper Bethanga township in 1887, a 400-ton capacity calcining kiln was built on Conness' Reef and was in operation by 1889. (The company also had a public battery on Flagstaff Hill—possibly at Conness' Reef.)

References to Conness' Reef beyond that date have not been found, but it is almost certain that work on the lode was continued by the Bethanga Goldfields Co. when it took over Wallace's leases in the mid-1890s.

References: Mining Surveyors' Reports (Mitta Mitta North) March 1879; (Bethanga Subdivision), December 1884, September 1886, June 1887, December 1889, March 1889.
Philipp (1987), p. 170.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Conness' Reef mine site comprises two adit levels with large mullock heaps.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **GRANYA STATE BATTERY**
Bethanga–Granya goldfield
HI No. ***H8325-0008***

LOCATION: McFarlanes Road (east of Granya)
MUNICIPALITY: Towong Shire
LAND STATUS: Crown land

SITE HISTORY:

A five-head government battery was installed at Granya in 1906, which crushed stone for the small mining parties scattered through the ranges. By 1914 the Granya mining scene was dormant and the government battery idle.

In 1935, the government battery was again at work, crushing small parcels of ore for thirty-eight parties in the district. A private chlorination plant was erected in the yard of the government battery, where it treated tailings and the local pyritic ore. Late in the 1930s, the Eastern Star Co. installed a reverberatory furnace at the government battery, and reopened first the Star of the East mine and then the Burning Stump shaft. The government battery remained at Granya until 1949, crushing small tonnages of ore for modest yields of gold, wolfram, tin, and antimony.

References: Department of Mines Annual Reports, 1903-14, 1935, & 1941-9.
Mining and Geological Journal, 1937-41.

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the Granya State battery are floors and foundations of the former battery, a slum pond, tailings, and a cyanide vat.

Battery—Two levels of concrete flooring (both measuring 28 ft x 24 ft) with associated post stumps. The upper level features an H-shaped concrete foundation (12 ft x 8 ft x 2 ft high, with 1¼-inch bolts) which contains well-preserved mortar blocks for five head of stamps. The lower level features two wooden bearers and three small concrete mounting beds.

Slum pond—Below the battery is a full slum pond (80 metres x 20 metres, and two metres high). On the east corner of the pond is a small dump of tailings with one *in situ* small galvanised iron cyanide vat.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **THOWGLA CREEK ALLUVIAL WORKINGS**
Corryong goldfield
HI No. ***8425-0001***

LOCATION: Upper Thowgla Creek, just above (south of) the Bullocky Creek junction
MUNICIPALITY: Towong Shire
LAND STATUS: State Forest

SITE HISTORY:
Gold was got at Thowgla and Bullocky creeks, south of Corryong, by prospectors in 1861, but no rush ensued until 1880, when discoveries at Zulu Creek renewed interest in the area. A population of over 200 miners worked the creek in the summer of 1880-81. Small numbers of alluvial miners were still at Thowgla Creek in the mid- to late 1880s, sluicing with pumps and wheels fed by water races. Working along the creek continued into the twentieth century, with more diggers setting up shop during the 1890s depression and parties of hydraulic sluicers still at work on Thowgla and Bullocky creeks in 1907.

References: Flett, p. 166.
Mining Surveyor's Reports (Gibbo Subdivision), December 1880.
Mining Surveyors' Reports (Dark River Division), December 1886, March 1888.
Butler, p. 85 (GSV.R3/1, p. 98f).

DESCRIPTION & INTERPRETATION OF FEATURES:
Thowgla Creek alluvial workings comprise patches of terrace sluicing, with stacked pebble dumps and tailraces, on both sides of the track that follows the creek. A substantial water race runs above the alluvial workings.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: Glen Mawson, ranger, CNR Corryong *Date:* 199?

NAME: **GLENDART TOWNSHIP**
Dart River goldfield
HI No. ***H8424-0006***

LOCATION: Sipthorpes Track, Glendart
MUNICIPALITY: Towong Shire
LAND STATUS: Alpine National Park

EXISTING HERITAGE LISTING: Dart River goldfield under nomination to National Estate Register

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SITE HISTORY:
Glendart township developed from two earlier mining settlements—Canvas Town and Williamstown (originally called Dark River)—which were on the route to the Gibbo River rushes of the 1850s and 60s. Canvas Town lay 1½ miles upstream from Williamstown.

When Glendart grew up in response to the development of the Dart River reefs in the early 1880s, its two parts were still apparent. The main activity was at the Canvas Town end, near the Dark River Co.'s mine and battery. An earlier hotel (Meurant's) was re-built, and there was a post office, store, bakery and butcher's shop. At the Williamstown end of Glendart, the old Dark River store was joined by two more stores, as well as two hotels, a bakery, two butchers' shops, and a police station.

By 1884, Glendart was already well on the wane—only one store, Meurant's hotel, and a few other buildings remained.

References: Morrow (2), pp. 99-101.

DESCRIPTION & INTERPRETATION OF FEATURES:
Glendart township site comprises numerous hut platforms, some with stone or brick fireplaces. Butler's LCC study (p. 32) also recorded rubble relating to a bakery and a powder magazine, and a cemetery 2 km to the east of the township.

CONDITION OF FEATURES: Site retains some integrity. The township site has been looted by bottle hunters.

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **DART RIVER BATTERY**
Dart River goldfield
VHR No. ***H1267***
HI No. ***H8424-0007***

LOCATION: Off Sipthorpes Track, Little Dart River, Glendart
MUNICIPALITY: Towong Shire
LAND STATUS: State Forest

EXISTING HERITAGE LISTING: Dart River goldfield under nomination to National Estate Register

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SITE HISTORY:

The Dark River GMC's battery was erected in 1884, to crush for its own and many other mines in the vicinity. The company gave up its leases in 1886 and the plant was put up for sale. To the relief of the local miners, the purchasers kept the battery on its existing site and took up the old Dark River leases. Sparks and son (tributers) worked the Dark River mine until at least the end of the 1880s, and the battery enabled a number of other small claims in the vicinity to keep working.

References: Mining Surveyors' Reports (Dark River Subdivision), March & September 1884, June 1886.

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the Dart River battery site are a boiler, steam engine, and battery, with mine workings nearby.

Boiler—Intact stone boiler setting with under-fired multi-tubular boiler. According to its manufacturer's plate, the boiler was made by "Langlands Foundry, Limited, Engineers, Melbourne, 1884". It has a diameter of 5 ft and is 10½ ft long. A pressure pipe runs from the rear of the boiler.

Horizontal engine—The wooden foundations have decayed and the engine has toppled onto its side. It is a single cylinder engine and measures 11½ ft in length. The cylinder is 16 inches in diameter, and 2¾ ft long. The engine has a 13-ft diameter fly wheel.

Battery—5-head wooden-framed (collapsed) battery which has been partly scavenged—e.g., cam shaft and one stem gone. The battery box rests on a large cog wheel. No manufacturing mark is evident on the box. The surviving stems are all of the screw-tappet type.

Mine workings - At least one adit level near the battery.

CONDITION OF FEATURES: Good integrity, all major plant components visible.

SIGNIFICANCE RANKING: Site listed on Victorian Heritage Register
Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **LA MASCOTTE MINE**
Dart River goldfield
HI No. ***H8424-0008***

LOCATION: Glendart
MUNICIPALITY: Towong Shire
LAND STATUS: Alpine National Park

EXISTING HERITAGE LISTING: Dart River goldfield under nomination to National Estate Register

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SITE HISTORY:
In early 1883, the La Mascotte Reef was discovered near the head of Brown's Creek, about 5 km south of the later Glendart settlement. The La Mascotte mine provided the impetus for the Dart River goldfield's development in the mid-1880s and became the biggest producer (with the deepest workings) on the field—during 1884 its crushings gave an average yield of 1 oz 12 dwt to the ton. The mine was most recently worked just prior to WW2.
References: Morrow (1), pp. 2-3, 8.
Department of Mines Annual Report, 1941.

DESCRIPTION & INTERPRETATION OF FEATURES:
The features of the La Mascotte mine site are an adit and large mullock heap.

CONDITION OF FEATURES: Good integrity

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **LA MASCOTTE TREATMENT WORKS**
Dart River goldfield
VHR No. ***H1276***
HI No. ***H8424-0021***

LOCATION: Off Sipthorpes Track, Little Dart River
MUNICIPALITY: Towong Shire
LAND STATUS: Alpine National Park

EXISTING HERITAGE LISTING: Dart River goldfield under nomination to National Estate Register

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SITE HISTORY:

The ten-head battery at the La Mascotte was driven by a 10-hp steam engine, the whole lot carted in by bullock from Wodonga. It took five bullock teams—100 bullocks in all—to cart the machinery (weighing more than 18 tons) over the steep Mt Gibbo ("the Gibb"), at the head of the Nariel valley. Ore was conveyed to the battery by horse-sledge from the adit on the hill. Morrow writes that: "Soon, benched out on the hill beside a huge spilling of mullock, was an array of rough-sawn, shingle-roofed huts, each with a sheet iron chimney". When the Government geologist visited the field in 1894, he found the Dark River ore "not of a specially intractable character" and believed that it would be "easily amenable to the ordinary processes for treatment of iron pyrites"—i.e., chlorination. A company took up the challenge and erected a chlorination works on the field that same year. Ore was first roasted in a reverberatory furnace, then treated in a revolving barrel. But the furnace burned for less than three months then closed down, as a result of which most mines were also abandoned. The Mascotte Co. erected a new chlorination works on the same site (the old furnace having been pulled down) in 1897, comprising "A large boiler, engines, a ten-head stamp mill, and a large mechanically rabbled furnace, constructed of iron and lined with fire bricks, together with vats and accessory plant". This works, too, seemed doomed to early closure because of the excessive costs charged for the transportation of vital fluxes. The government responded with a grant to complete the road between Glendart and Cravensville, some 20 km north-west, which was connected by road with Tallangatta and beyond. It was expected that the improved road access would reduce carting prices by half and make chlorination viable at last. When the road was completed, chlorination resumed at the Glendart works, but poor returns forced its closure in 1903.

References:
Australian Mining Standard, p. 103.
Department of Mines Annual Report, 1941.
Grieve, p. 61 and Murray, p. 65 and Morrow (1), pp. 2-5.
Mining Surveyors' Reports (Mitta Mitta South Subdivision), June 1883; (Gibbo Subdivision), March & June 1884; (Dark River Subdivision), March 1885.

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the La Mascotte treatment works site comprises two benched levels, the lower one containing the remains of a furnace, battery and boiler.

Upper level—Measures 20 m x 10 m. Little is visible except for a scatter of bricks.

Lower level—Measures approximately 50 m x 12 m and contains some foundations and the remains of plant including:

Furnace—Remains of an iron mechanically-rabbled furnace, constructed of 3¼-ft riveted panels and measuring 60 ft x 4 ft, and standing 4 ft high. Along each side of the furnace is a row of small portals, each measuring 8 in. x 5 in. The furnace is partly obscured by vegetation and is half-full of rubble and ironwork, underneath which a lining of fire bricks may still exist. An iron screw mechanism runs under the furnace and is still visible at the front. A drain runs from the front of the furnace to a large rectangular brick vat, which is largely obscured by vegetation. It measures approximately 30 ft x 14 ft x 5ft deep. A flue running from the rear of the furnace has been covered by a collapsed stone retaining wall.

Boiler and battery site—A battery and boiler, as indicated by the scatter of iron artefacts around the site, was probably located near the furnace.

CONDITION OF FEATURES: Furnace in good condition, battery and boiler has been scrapped.

SIGNIFICANCE RANKING: Site listed on Victorian Heritage Register
Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **YOUNG AUSTRALIAN MINE SITE**
Dart River goldfield
HI No. ***H8424-0009***

LOCATION: Follow the Glendart Track for 500 m from the Corryong-Benambra Road.
MUNICIPALITY: Towong Shire
LAND STATUS: State Forest

EXISTING HERITAGE LISTING: Dart River goldfield under nomination to National Estate Register.

SITE HISTORY:

The Young Australian mine was founded on the same line of reef as the La Mascotte in 1883, and it was heralded as the most promising mine on the field. Crushing machinery for the mine—an eight-head battery and a 12-hp steam engine by Robey & Co., Lincoln, England—came over the Gibb, pulled by 86 bullocks, in early 1884. It was the first battery to crush for the public on the Dart River field. The "elaborate gold-saving measures" taken by the company in setting up its plant were in vain: the mine closed within six weeks of the battery's commencement, due to poor yields. The Young Australian was worked on tribute later in the 1880s.

The existing remains apparently relate to a later (20th-century) phase of the site's history. The 1927 Dodge chassis and engine suggests that the cyanide works, at least, date to the Dart River mining revival of the later 1930s.

References: Mining Surveyors' Reports (Mitta Mitta South Subdivision), September 1883; (Dark River Subdivision), June 1884, September 1888.
Morrow (1), p. 3.
Morrow (2), p. 110.

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the Young Australian mine site are a battery, oil engine, cyanide works, mine workings and miners' camp.

Battery—On a benched platform (measuring 25 m x 15 m), low down in the gully at creek level, is a wooden-framed 10-head battery. Two of the stamper stems have been removed; the cam shaft is still present and has a 5ft-diameter flywheel.

Battery engine—The battery was powered by a single cylinder, horizontal, oil engine, which remains on the site. The engine has a 4ft-diameter fly wheel; the cylinder is 2 ft long and 8 inches in diameter.

Cyanide works—Below the battery is a six-cylinder car engine and part of the chassis of a 1927 Dodge. The engine drove an agitating plant for three adjoining cyanide vats. The galvanised iron cyanide vats (now partly decayed) are set in a stone-retained platform. All the agitating arms have been removed but the iron framework and pulley system are still in place. The cyanide works is largely obscured by man-ferns.

Morrow ([1], p. 8) also recorded the Young Australian mine workings and miners' camp on the opposite side of the creek to the battery.

CONDITION OF FEATURES: Good. A dead tree has fallen across the battery, causing it to collapse. The stampers are fairly overgrown.

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **PIONEER BATTERY SITE**
Dart River goldfield
HI No. ***H8424-0010***

LOCATION: McKays Creek
MUNICIPALITY: Towong Shire
LAND STATUS: Alpine National Park

EXISTING HERITAGE LISTING: Dart River goldfields are under nomination to the National Estate Register

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SITE HISTORY:
The Pioneer Co. installed a battery powered by portable steam engine at the head of McKay's Creek in 1884. The Pioneer worked in conjunction with the neighbouring Bobbie Burns Co. During the mid-1880s their claim, worked by shaft, gave average yields of 1–3 oz per ton.

Morrow (2: p. 114) wrote: The Pioneer was one of the more remote mines to visit. To find it, the instructions were—"Leaving the Mascotte machine track, you follow along the Gibb for about two miles, when having passed a tree marked, "Water—J. Harris", which refers to water in a gully a short distance off the track, you come across another tree marked "Pioneer". Here turn off to the right, and soon pick up a faint track, which becomes better defined as you proceed down the spur at an angle of thirty-five degrees slope, the direction of which is westerly. Then you reach the ridge of a very particularly formed razorback spur tending nearly south; and on this spur is the Pioneer, Bobbie Burns and Republic claims".

References: Mining Surveyors' Reports (Dark River Subdivision), March & June 1884, March & September 1886.
Morrow (1), p. 3.
Morrow (2), p. 114.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Pioneer battery site are a portable steam engine and pumping engine.
Portable steam engine—A single-cylinder portable engine still stands on its four wheels. The fly-wheel still in position, but the flue has gone from the smoke box and the engine's front plate has fallen off.
Pumping engine—Single-stroke steam pumping engine. Engine is approximately 6 ft long.

CONDITION OF FEATURES: Portable engine in good condition.

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **GLENGARRY BATTERY & CHLORINATION WORKS**
Dart River goldfield
VHR No. ***H1278***
HI No. ***H8424-0011***

LOCATION: On the Corryong-Benambra Road, just past the Wheelers Creek Road turn-off, the road is side-cut to the top of the ridge—large white gum on right-hand side. Walk directly across the ridge into the Dart River fall. A spur, not very obvious at first, narrows as it goes down and is easy to follow. The mine site is in a fairly steep gully on the right-hand side near the end of this spur.
MUNICIPALITY: Towong Shire
CURRENT STATUS: Alpine National Park

EXISTING HERITAGE LISTING: Dart River goldfield under nomination to National Estate Register.

SITE HISTORY:
Nothing is known of the history of the Glengarry mine itself. A chlorination plant was shifted there from Granya in 1937, where it operated in conjunction with a five-head stamp mill (possibly ex-Dark River Co., according to Morrow), power unit, and roasting furnace. The treatment process gave unsatisfactory results and operations were short-lived.
References: Department of Mines Annual Report, 1941.
Grieve, p. 61 and Morrow (1), p. 8 and Watson, p. 19.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Glengarry battery and chlorination works are a battery, water tank, Wilfley table, oil engine, furnace, cyanide works, mine building and remains of plant, and cyanide works.
The battery is located on a small mullock paddock which has stone-retained walls.
Battery—On a small mullock paddock with stone-retained walls is a 5-head wooden-framed battery, still standing. The cam shaft has a 6ft-diameter double-spoked fly wheel (similar to one at the La Mascotte chlorination works) and the stems are screw-tappet types. The battery box still has a wooden cover. According to the maker's plate, the battery was manufactured by Langlands Foundry Co.
Water tank—A partly-decayed galvanised iron water tank is situated above the battery.
Wilfley table—By the side of the battery are the largely-buried remains of a Wilfley table, measuring approximately 17 ft x 5 ft, with a wooden base and some ironwork visible.
Battery engine—The battery was powered by an oil engine, which remains on the site. It rests on wooden foundations and is fairly complete, although the maker's plate has been removed. The twin fly-wheels are each 2¾-ft in diameter.
Furnace—Below the battery is a stone-retained platform bearing a more-or-less intact (albeit overgrown) roasting furnace. Constructed of brick and stone, it measures approximately 40 ft x 7 ft, and stands 5 ft high. At the rear (northern end) of the furnace are the remains of a small brick chimney stack, measuring 2½ ft x 1½ ft x 5ft high.
Cyanide works—Below the furnace is an intact circular oregon vat, measuring 13 ft wide x 4½ ft high and retained by five metal bands. The vat is full of calcined sand and sits on wooden bedlogs. The wooden foundations of the vat have decayed, causing it to tip to one side. A second vat has completely collapsed and survives only as a jumble of boards, metal rings and a spread of calcined sand.
Mine building—On the opposite side of the creek to the battery are three benched platforms. The most northerly bears a stone forge which is covered by collapsed timber. The next platform has a small oil engine which is fixed to a wooden trolley. The piston and other parts have been removed from the engine and lie scattered about. The third platform may have been the site of a hut.
Adit—Directly above the gully, on the east side and about half way up the spur, is a collapsed adit.

CONDITION OF FEATURES: Mortar blocks and uprights are very decayed.

SIGNIFICANCE RANKING: Site listed on Victorian Heritage Register
Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **GREEN'S CREEK BATTERY**
Dart River goldfield
VHR No. ***H1266***
HI No. ***H8424-0012***

LOCATION: On Dartmouth jeep track, fire trails take off on either side of the track, at nearly the same point, as it approaches the head of Greens Creek. Continue on the jeep track, which leaves the main ridge on a side cut which cuts back on to the spur again in a saddle (?). At this point an old pack trail leads off to the south, crossing one gully before it reaches the battery.
MUNICIPALITY: Towong Shire
CURRENT STATUS: National Park

EXISTING HERITAGE LISTING: Dart River goldfield under nomination to National Estate Register.
"The Greens Creek battery site is the only known example of a 19th-century steam-powered quartz crushing plant in Victoria where the three main machinery elements (vis. boilers, steam engine and stamp battery) survive, intact and still standing in situ. In addition, the site contains both the oldest known Victorian-built steam engine and the oldest known Victorian-built multi-tubular boilers that survive in situ, at the site of their original installation.
The machinery at Greens Creek provides a good representative example of Victorian gold-mining technology of the late 19th century. The Greens Creek battery is, in addition, the most extensive and intact machinery installation to survive in the State, from the output of a firm that was both Victoria's earliest foundry and one of the State's largest 19th century mining machinery manufacturers and exporters" (Churchward, p. 17).

SITE HISTORY:
The first quartz mining activity in the vicinity of Greens Creek came with the discovery of the White Stone Reef on Millar's Creek, south of Greens, in 1881. The next year, further reefs were discovered in the hills above Greens and Larsens creeks. In May 1883, a trial crushing was taken from the Morning Star claim on Greens Creek, with promising results: by mid-year mining operations were in full swing. The nearest batteries were at Larsens Creek and were accessible only by pack horse, and late in 1883 the Morning Star Co. began making preparations for crushing machinery of its own. Erection of the Morning Star battery was completed by September 1884, and it was described as "a very compact plant of eight heads". Churchward suggests that the mining registrar who thus described it must have confused it with one of the several 8-head batteries in the district: the Morning Star was in fact a 10-head plant.

The Morning Star mine was situated on a ridge 500 ft above the battery site, and about 25 chains (500 m) to the south-west. A cable-operated counter-balanced tramway ran directly down the hillside conveying ore from mine to battery. A parcel of 400 tons crushed late in 1884 yielded a disappointing 240-oz, and was the only large crushing recorded for the Morning Star mine. A number of other mines in the vicinity sent ore to the Morning Star battery for crushing. The Golden Eagle Reef, half a mile down Greens Creek to the west, was connected to the battery by a track cut along the hillside, along which ore was carried either by horse drays or a horse tram. The battery also crushed for the Clara mine. It is likely that the Morning Star Co. battery crushed more quartz for neighbouring mines than it did from the company's own mine. A year after the battery's completion, there was still insufficient quartz from mines in the locality to keep the plant running at anything like full capacity, and average yields were also beginning to decline. Claims were abandoned as miners drifted away to fields offering better prospects. That Greens Creek never rated highly as a mining locality is evinced by the number of miners there in its heyday: 38 in June 1884, 20 at the end of September, and just seven in mid-1885.

There was a slight revival in 1887, when some further crushings were done for the Clara mine and Morton & party, but the Morning Star mine did not reopen and within a few months the battery was again idle. In 1888, the Saltpetre United GMC called for tenders to remove the Morning Star battery to a site on Saltpetre Creek. It is not known whether the Greens Creek plant was actually sold at this time, but the move obviously never went ahead as planned and in the following year the Saltpetre Co. installed an alternative plant with Cornish Rolls driven by a Pelton wheel.

All the mines on Greens and Larsens creeks had closed down by the early 1890s. In 1905, the Dark River Mining Sub-division was abolished, almost all mining activity on the field having ceased.

Churchward says that the Morning Star battery (already idle for 15 years) began to be known, at about that time, as the "Greens Creek battery".
References: Churchward, pp. 6-10.

DESCRIPTION & INTERPRETATION OF FEATURES:
Churchward recorded the following features of the Greens Creek battery site: two boilers, steam engine, stamp battery, pump, foundations, dray track, and Morning Star tramway site.

Boilers—Two single-drum underfired multi-tubular boilers. Maker's name plaque cast into front face plate: Langlands Foundry Co. Ltd., Melbourne. Date of manufacture, 1883.

Steam engine—Single-cylinder horizontal non-condensing (double-acting) stationary steam engine. Manufactured by Langlands Foundry Co. Ltd., Melbourne, 1884 (according to slide provided by Ted Stabb of CNR Wodonga, which shows maker's name plaque cast onto the now-missing steamchest cover).

Stamp battery—10-head, iron-framed, revolving gravity stamp battery. Maker's plaque cast into side faces of battery frame pillars: "Langlands Foundry Co. Ltd., Melbourne, 1882". Mortar boxes have been partially dismantled, and all of the stamps have been removed from and sit upright (in 1991) on the ground behind the boxes. Other loose battery components lying about the site include cast iron lining plates from one mortar box, two sets of mercury troughs and a clutch control mechanism.

Battery pump—Situated below the north end of the battery camshaft is a small double-acting force pump which raised process water for the battery from a well about 3 m to the east into an elevated iron tank. Both suction and delivery pipes are still attached to the pump casing, and a number of other components of the pump are scattered about, including drive pulley, pump pulley, crank, connecting rod, etc.

Steam engine foundations—Shallow depressions beneath the engine bedplate indicate the position of timber foundations.

Battery frame foundations—Clear depressions indicate where battery foundation timbers were positioned.

Mortar box foundations—Both mortar blocks are badly charred above ground level, which supports the hypothesis that the battery and engine foundations were destroyed by fire rather than by gradual decay.

Morrow (1: p. 9) further recorded a dray track and tramway site.

Dray track—Above the battery is a dray track, along which ore was conveyed from mines further to the west.

Tramway site—To the south is a steep tramway site, down which ore was conveyed to the battery from the Morning Star mine.

CONDITION OF FEATURES: The battery's subsequent short working live and isolated location has helped to ensure its survival in essentially original form, without any major alterations or modifications. However, several components are missing and/or have been removed from each item of machinery. Fire has largely destroyed timber machinery foundations.

SIGNIFICANCE RANKING: Site listed on Victorian Heritage Register
Site listed on Heritage Inventory

Assessed by: Churchward *Date:* 1991-3.

NAME: **WILDBOAR BATTERY**
Dart River–Zulu Creek goldfield

HI No. ***H8424-0022***

LOCATION: Zulu Creek. Access is from the top of the highest point of the Wild Boar. A spur to the west leads down to Zulu Creek. The mine is below the alpine ash level in a gully to the right.
MUNICIPALITY: Towong Shire
LAND STATUS: National Park

EXISTING HERITAGE LISTING: Dart River–Zulu River goldfields are under nomination to the National Estate Register.

SITE HISTORY:
Well up the slopes of the Wildboar, away from most of the other Zulu Creek mines, the Wildboar Co. in 1884 erected a 4-head battery, with wooden-spoked wheels, portable steam engine, and timber-clad boiler. It was the only mine on the Zulu field to employ steam power. Morrow calls that engine, which remains on the site today, "possibly the oldest engine of its type in Australia".

Not much is known of the progress or success of the Wildboar mine: it was still crushing with fair success in 1886.

References: Mining Surveyors' Reports (Gibbo Subdivision), March & June 1884; (Dark River Subdivision), September 1884, September 1886.
Morrow (1), p. 5.
Morrow (2), p. 23.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Wildboar battery site are a portable steam engine and the remains of a battery.

Portable steam engine—Resting on its side is a single-cylinder engine. Its maker's plate reads: "Clayton Shuttleworth & Co., Lincoln Engineers, 1858 No. 2840". Its fly-wheel and some fittings, including its governor, are still in place, but the boiler's outer casing and flue are missing. Wheel hubs, finely crafted with holes for spokes, indicate that the engine once had wooden-spoked wheels.

Battery—Battery box and cam shaft. The stamper stems have been removed.

CONDITION OF FEATURES: Good condition. Visibility is poor—mine and machinery are hard to find.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **SALTPETRE CREEK ALLUVIAL WORKINGS**
Gibbo River goldfield

HI No. ***H8424-0023***

LOCATION: Saltpetre Creek
MUNICIPALITY: Border of Towong and East Gippsland shires
LAND STATUS: National Park

SITE HISTORY:
Alluvial mining was in progress on Saltpetre Creek as early as 1866-7, when terraces on the spurs above Hatter's Creek were worked. The creek itself was considered too deep to work. In 1868, Saltpetre and Sassafras creeks were rushed by about 150 diggers. A rush to Sassafras Creek ten years later caused a track to be cut from Omeo by the Mines Department. That, in turn, led to an influx of miners to Saltpetre Creek and other creeks to the north: there were 300 diggers in the area by September 1879. The discovery of reefs in the district soon after saw the alluvial diggings eclipsed. Just a handful of sluicers were at work on Saltpetre Creek in the mid-1880s, using sluice boxes and small water wheels. Steady small-scale working is suggested by a further reference, in 1905, to a few individuals and small parties working the creek.

References: Department of Mines Annual Reports, 1905.
Fairweather, p. 208.
Flett, p. 164.
Mining Surveyors' Reports (Omeo Subdivision), December 1878, September & December 1879; (Dark River Subdivision), September 1884, March 1886.

DESCRIPTION & INTERPRETATION OF FEATURES:
Saltpetre creekbed workings—Network of diversion sluices, paddocks, head and tail races and stacked pebble dumps. Creek bed has been extensively worked.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: John Morrow, Corryong/ *Date:* 1995.
Brett Lee, Benambra

NAME: **SASSAFRAS & SALTPETRE CREEK ALLUVIAL WORKINGS**
Gibbo River goldfield
HI No. ***H8424-0013***

LOCATION: Junction of Sassafras and Saltpetre creeks.
MUNICIPALITY: Border of Towong and East Gippsland shires
LAND STATUS: National Park

SITE HISTORY:
Alluvial mining was in progress on Saltpetre Creek as early as 1866-7, when terraces on the spurs above Hatter's Creek were worked. In 1868, Saltpetre and Sassafras creeks were rushed by about 150 diggers. A rush to Sassafras Creek ten years later caused a track to be cut from Omeo by the Mines Department. That, in turn, led to an influx of miners to Saltpetre Creek and other creeks to the north: there were 300 diggers in the area by September 1879. The discovery of reefs in the district soon after saw the alluvial diggings eclipsed. Just a handful of sluicers were at work on the creeks in the mid-1880s, using sluice boxes and small water wheels. Prospecting on the Gibbo River, some 10 miles to the south, in 1887, Foster observed sluicing of the terraces on either side of the river. Miners wheeled and carried washdirt from the terraces to the river for washing, there being no water race in operation. But "even this primitive mode of working pays wages". It is to be supposed that the same "primitive" style of washing was used by terrace sluicers on Sassafras and Saltpetre creeks at that, or an earlier, period. The tailraces evident on the site today show that washing was later carried out on the spot.

References:
Fairweather, p. 208.
Flett, p. 164.
Foster, H., 'Preliminary Report on the Operations of the Omeo Prospecting Party' in Mining Surveyors' Reports, December 1887.
Mining Surveyors' Reports (Omeo Subdivision), December 1878, September & December 1879; (Dark River Subdivision), September 1884, March 1886.

DESCRIPTION & INTERPRETATION OF FEATURES:
Terrace workings at the junction of Sassafras and Saltpetre creeks—Open cutting and stacked pebble dumps. Some of the tailraces associated with the workings have been hewn through bedrock to a depth of approximately 2 m. The area is relatively free of blackberries.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: John Morrow, Corryong/ *Date:* 1995.
Brett Lee, Benambra

NAME: **LADY LOCH MINE SITE**
Gibbo River goldfield

HI No. ***H8424-0014***

LOCATION: Saltpetre Creek
MUNICIPALITY: Border of Towong and East Gippsland shires
LAND STATUS: National Park

SITE HISTORY:
It seems likely that the Lady Loch battery was erected in 1889 by the Saltpetre Creek United Co. When the South Federation Co. took over the Lady Loch and other Saltpetre Creek leases in 1898, it removed the Lady Loch's 10-head battery to a more advantageous site (see below); as it was, the Pelton-wheel-powered plant could only run for a few months each year and ore from the Golden Treasure and Lone Hand mines had to be carted uphill for crushing. A Pelton wheel and stone-crusher were left behind on the Lady Loch site.

References: Fairweather, p. 212.
Mines Inspectors' Reports.
Mining Surveyors' Reports (Gibbo Subdivision), June 1889.

DESCRIPTION & INTERPRETATION OF FEATURES:
Lady Loch battery:

Pelton wheel—5ft-diameter, 5-inch shafting, only three or four of its original twenty 4-inch cups are present. Lying near the pelton wheel are two grooved pulleys, which were used for transmission of power from wheel to battery. The battery was removed for use at the Golden Treasure mine, while the Watson & Denny pans were taken out as recently as 1948.

Stone breaking plant/jaw crusher—About 4ft square. Associated with the machine are some grinding plates.

Dam and water race—Above the battery is a breached, stone-retained dam and the race which supplied the water to powered the battery.

Blacksmith's forge—Remains of a blacksmith's forge (position?).

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: John Morrow, Corryong *Date:* 1995.
Brett Lee, Benambra

NAME: **GOLDEN TREASURE BATTERY**
Gibbo River goldfield
HI No. ***H8424-0015***

LOCATION: Saltpetre Creek
MUNICIPALITY: Border of Towong and East Gippsland shires
LAND STATUS: National Park – Towong Shire

SITE HISTORY:
This was the site of the South Federation Co.'s operations, from c.1898. The company moved the 10-head battery from the Lady Loch mine and erected a 30ft-diameter-overshot waterwheel. Other works included: two ore-roasting kilns; a 3,000ft-long, 7ft-wide track carrying tramline and wooden fluming (2¼ ft wide x 1¼ ft deep); a 15m-long bridge across the creek. Timber for the works was supplied by a water-powered sawmill (20ft-diameter waterwheel, fed by race), to the north of the battery. In 1938, a grinding pan was removed from Saltpetre Creek—presumably from this site—to the Maude & Yellow Girl mine at Glen Wills.
References: Fairweather, pp. 212, 220.
Mines Inspectors' Reports.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Golden Treasure battery site are a 10-head battery and remains of a waterwheel and tramway.
Battery—Collapsed (intact) 10-head of stamps. The cam shaft has a massive cog and the battery is located on a benched platform.
Waterwheel—Hub of waterwheel (approximately 5 ft wide), remains of framework and 4 ft wide tin buckets.
Tramway—Remains of a self acting tramway.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: John Morrow, Corryong *Date:* 1995.
Brett Lee, Benambra

NAME: **AGEMEMNON CLAIM & GIBBO RIVER DIVERSION SLUICE**
Gibbo River goldfield

HI No. ***H8424-0016***

LOCATION: Gibbo River
MUNICIPALITY: East Gippsland Shire
LAND STATUS: National Park

SITE HISTORY:

The Gibbo River was first mined in the mid-1850s. Ten years later, parties of Chinese re-opened claims on the river's lower reaches, and in 1868 there was a rush on the upper Gibbo. A handful of small parties persevered in sluicing river and terrace claims throughout the 1870s and '80s. In 1888, a company was formed at the upper Gibbo (i.e., upstream or east of this site) to bring water at a high level for the purpose of sluicing terraces on each side of the river—miners on the Gibbo had hitherto carried their washdirt from the spurs and terraces to the river for washing. Claims on the river at that time included King's, McKibbin's, and German Harry's.

The Agememnon Gold Sluicing Co. was formed to work a claim on the Gibbo River in 1899. Sluicing on an extensive scale, they operated seven sluice boxes for three shifts each day. The company failed to win sufficient gold to cover expenses, and operations ceased in about 1902. Sluicing on the Gibbo at the same time was the Chatsworth Co.

References: Fairweather, p. 209.
Flett, p. 164.
Foster.
Mining Surveyors' Reports (Omeo Division), December 1866, September 1868.

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the Agememnon claim are a water race, terrace sluicing, tailrace, and hut sites.

Water race—A well-defined race, constructed in (Brett Lee says) 1895 to deliver water from the upper reaches of the Gibbo River.

Terrace sluicing—The base of a spur has been sluiced away.

Tailrace—A 6ft-deep, approximately 150ft-long tailrace, hewn through bedrock, leads from the workings.

Hut sites—Several hut platforms are situated above the alluvial workings.

Diversion sluice—Downstream of the Agememnon workings (approximately 100 yards above the junction with Kings Creek) is a 300ft-long diversion sluice.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: Brett Lee, CNR Benambra *Date:* 1995.

NAME: **CRIBBATE CREEK ALLUVIAL WORKINGS**
Gibbo River goldfield

HI No. ***H8424-0017***

LOCATION: Tributary of Sassafras Creek
MUNICIPALITY: Border of Towong and East Gippsland shires
LAND STATUS: National Park

SITE HISTORY:
Cribbate Creek was rushed—with Sassafras and Saltpetre creeks—in 1868, and there was another, larger influx to the area in 1878-9. Sluicing was carried on at Cribbate Creek throughout the 'eighties (and possibly into the 20thC) by just a handful of men, using sluice boxes and small waterwheels to drain their claims.

References: Department of Mines Annual Report, 1905.
Flett, p. 164.
Mining Surveyors' Reports (Omeo Division), December 1878–December 1879; (Dark River Subdivision), September 1884, March 1886.

DESCRIPTION & INTERPRETATION OF FEATURES:
Cribbate creek bed workings—An extensively worked creek bed including one location featuring a network of stone-retained diversion sluices and stacked pebble dumps. The lower reaches of the creek (near its junction with Sassafras) are choked with blackberries.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: Brett Lee, Benambra *Date:* 1995.

NAME: **"PRIDE OF THE MITTA MITTA" SLUICING CLAIM**
Mitta Mitta goldfield

HI No. ***H8324-0004***

LOCATION: Junction of Callaghan's Creek and Mitta Mitta River, approximately 8 km NW of Mitta Mitta, on Dartmouth Road
MUNICIPALITY: Towong Shire
LAND STATUS: State Forest

SITE HISTORY:
Diggers first tried their luck at Callaghan's Creek in 1853. The water-race (or "ditch") used by the Pride of the Mitta Mitta sluicing claim from 1884 was originally cut for an earlier sluicing operation in about 1873. The race was eight miles long. In 1884, the Pride of the Mitta Mitta Co. put the race in working order, constructed a dam where it "headed" on Callaghan's Creek, and put pipes in place for hydraulic sluicing of the "boulder terraces". The company had its first "wash-up" in mid-1885—with what result the mining registrar could not say. By 1887, over an acre of ground had been worked and future mining operations were expected to extend southwards, in which direction a continuation of payable wash was indicated. The depth of the sluiced face in the claim was 25 ft.

References: Mining Surveyors' Reports (Mitta Mitta South Subdivision), June & December 1884, September 1885.
Stirling (1887), p. 78 (includes map).

DESCRIPTION & INTERPRETATION OF FEATURES:
The site of the Pride of Mitta Mitta sluicing claim is marked by a massive sluiced face extending along the southern side of the Dartmouth Road. At the base of the sluiced face is a more-or-less continuous stacked pebble dump, which is linked to several very deep tail races. The sluiced terrace is quite a height above the river, and is covered with tea-tree.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **GRAND JUNCTION SLUICING CLAIM**
Mitta Mitta goldfield

HI No. ***H8324-0005***

LOCATION: Both sides of Snowy Creek, between Mitta Mitta and Granite Flat
MUNICIPALITY: Towong Shire
LAND STATUS: State Forest

SITE HISTORY:

Snowy Creek was first worked for alluvial gold in about 1855. Twelve years later, the ground on either side of Snowy Creek between the Mitta Mitta junction and Granite Flat was considered "worked out". In 1867, Chinese diggers were providing otherwise, making fair wages from claims in the bed of the creek, near Granite Flat.

With the introduction of hydraulic nozzle sluicing in the early 1880s, the Grand Junction Hydraulic Gold Mining Co. was one of numerous parties to peg out leases around Mitta Mitta. The company first began work on its claim on Snowy Creek in 1884, but operations did not begin in earnest until 1886. Throughout 1887 and 1888, the company was occupied with constructing head- and tail-races. Works included a 240-ft flume across Snowy Creek, to join the south and north sections of their water race. When completed in mid-1889, the water race was more than 12 miles in length, including fluming and a 679-ft tunnel. It was fed by the main creek, ensuring a year-round supply of water. Six hundred feet of column iron pipes delivered water to the sluice nozzle. A tail-race, 240 ft long, was cut through hard slate bedrock, allowing full-scale sluicing to commence in mid-1889. In preparation for their first wash-up, the company sluiced away 20,000 cubic yards of ground. When regular mining surveyors' reports ended in 1889, fair expectations were held for the Grand Junction claim. Like most Mitta Mitta sluicing operations, the Grand Junction probably wound up sometime during the 1890s.

References: Mining Surveyors' Reports (Snowy Creek Subdivision), June 1865; (Mitta Mitta Division), March & December 1867, March 1868; (Mitta Mitta South Subdivision), 1883-89.

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the Grand Junction site are the sluicing claim itself and the water race which fed it.

Sluicing works—Extensive bank and terrace sluicing with stacked pebble dumps and tail-races. The workings are largely obscured by thick scrub.

Water race—The race is traceable for its entire length. Sections along the eastern bank of Snowy Creek are stone-retained. The race passes through at least one tunnel and takes water from the east branch of Snowy Creek, just above (south of) the fork.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **MAMMOTH SLUICING CLAIM**
Mitta Mitta goldfield

HI No. ***H8324-0006***

LOCATION: Snowy Creek to Granite Flat. The sluicing claim was at Yankee Hill, Granite Flat—the site runs south from Walshs Road. The Mammoth flume crossed Lightning Creek near the site of the present camping area. The water race carried water from Snowy Creek.
MUNICIPALITY: Towong Shire
LAND STATUS: State Forest

SITE HISTORY:
The Mammoth Co. was formed in 1885 to sluice extensively at Snowy Creek and Granite Flat. 'Their race and flumes, when completed,' wrote the mining registrar, 'will be, it is said, the largest one in the Southern Hemisphere.' The Mammoth Co.'s flume was completed in 1886 and carried water across Lightning Creek as part of the 22-km water race from Snowy Creek to the site of the company's operations, Yankee Hill, near Mitta Mitta township. Reputedly, it was the largest flume in Victoria. Originally it had been intended that the race would cross the Lightning Creek gorge by means of two inverted 18-inch syphons; but as suitable timber was available, a structure was built instead of mountain ash spars. (The company had a sawmill on the site of the present-day camping ground, to cut timber for the flume's construction.) Built in two tiers, the flume was nearly 200 metres long and 33 metres high, and the road into Mitta Mitta passed beneath it. After only three years, the Mammoth Co. ceased operations and abandoned its giant flume. It was used briefly by a prospector some years later and water flowed through its boxes until 1906. But it served chiefly as a tourist attraction until, in 1908, its state of disrepair became hazardous to traffic passing below, and the flume was demolished.

References: Colquhoun, p. 31
Department of Mines Annual Report, 1911
Mining Surveyors' Reports (Mitta Mitta South Subdivision), June 1885

DESCRIPTION & INTERPRETATION OF FEATURES:
Mammoth sluicing claim and works
Water race—Well-defined water race which is still traceable for all of its length. The race took water from Snowy Creek
Flume site—All traces of the flume have gone - all that marks the site are the inlet and outlet points.
Sluice open cut - Extensive open cutting with stacked pebble dumps and tail races. The sluicing works covered by thick scrub.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995

NAME: **LONG POINT SLUICING CLAIM**
Mitta Mitta River

HI No. ***H8324-0008***

LOCATION: Approximately 10 km NW of Mitta Mitta, on the south side of Mitta Mitta River—east of the Pride of the Mitta sluicing claim.
MUNICIPALITY: Towong Shire
LAND/STATUS: State Forest

SITE HISTORY:
The Long Point Sluicing Co. commenced work on constructing their water race in 1884. It was late 1887 before sluicing was in full swing at the company's ground on the upper Mitta Mitta. Sluicing with giant nozzles ('on the latest Californian principle') was introduced the following year.

The Long Gully claim (like the Pride of the Mitta) was situated in what Stirling called the "boulder terraces", the oldest of the Tertiary geological deposits in the Mitta Mitta area.

References: Mining Surveyors' Reports (Mitta Mitta South Subdivision), 1884-88.
Stirling (1887).

DESCRIPTION & INTERPRETATION OF FEATURES:
The site of the Long Point Co. sluicing claim is marked by a massive sluiced face, together with stacked pebble dumps and numerous tail races. The workings are covered by tea-tree. The face is not as deep as that in the Pride of Mitta sluicing claim.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **PIONEER & UNION SLUICING CLAIM**
Mitta Mitta goldfield

VHR No. ***H1229***
HI No. ***H8324-0007***

LOCATION: Mitta Mitta
MUNICIPALITY: Towong Shire
LAND STATUS: Historic Reserve

SITE HISTORY:

In 1884, the Pioneer Co. became the first to introduce the giant nozzle for hydraulic sluicing on the Mitta Mitta field. The mining registrar remarked that, "The use of machinery in sluicing operations is a novelty in this subdivision, and opinions are divided upon its probable results".

Commencing in 1883, the Pioneer Co. cut "a magnificent race", more than 20 km in length, from "Lendenfeld's" or the west branch of Snowy Creek to their workings at Mitta Mitta. Early in 1888, when the company's works had been operating for seventeen months, a report described the plant in detail: a 4½-inch ("Little Giant") nozzle was used, supplied by iron piping of 11-, 20-, and 22-inch diameters. A giant box sluice—a series of inclined boxes set on raised trestles—was positioned in a broad passage cut through rock, likened in size to a railway cutting. The tail-race draining the claim carried water to the Mitta Mitta River via a 100-metre-long tunnel, cut by hand through the hillside at the bottom of the claim. Sluicing was carried on day and night, consuming four million gallons of water every twenty-four hours. A hydraulic jet elevator was used to work deep ground, lifting the dirt off bedrock to the height of the sluice. Operations were managed by Thomas Hedley, a leading figure in Victorian hydraulic sluicing.

The activities of the Pioneer Co. had sparked the commencement of other large-scale sluicing operations in the neighbourhood. The other major operator was the Union Co. whose claim (on part of the Pioneer Co.'s lease) was fed by three existing races from Scrubby Creek and was sluiced by three-inch nozzle. The average depth of ground sluiced by the Pioneer Co. was 30 metres, while the Union Co. was working a face nearly 40 metres deep. Between them, the Pioneer and Union claims had yielded approximately 5,400 oz, worth £19,000, since the commencement of sluicing in the early 1860s. (The ground worked by the Pioneer Co. had originally been supplied by a 10-km race from Scrubby Creek, cut in 1859-60 at a cost of £4000.) In 1888, the Pioneer Co. bought out the Union Co.

Large-scale company sluicing operations wound up during the 1890s, but sluicing continued on a comparatively small scale into the twentieth century. Sluicing in the old Pioneer claim was eventually halted in 1916 due to the pollution of the river by tailings.

References: Mines Department Annual Reports, 1908-17.
Mining Surveyors' Reports, March 1884.
Morrow, p. 7.
Stirling (1888).

DESCRIPTION & INTERPRETATION OF FEATURES:

The features of the Pioneer and Union sluicing claims site are a sluiced open-cut, water race and tailraces.

Sluiced open-cut—A massive sluiced open-cut, measuring approximately 500 x 300 m, with sheer walls up to 30 m. At the entrance to the open cut (off highway) are two tail-races: the eastern race is a deep cutting, the western is a tunnel. Both races drain to the Mitta Mitta River. The open-cut has stacked pebble dumps and an intricate system of tailraces. The bedrock rises near the centre of the open-cut and has been cut by two deep converging tailraces. The open-cut is very scrubby (mainly tea-tree) and the pebble dumps covered with moss. A walking track has been established through the open-cut. The track runs through the pebble dumps and over the high ground formed by the bedrock. The track utilises one of the deep tailrace cuttings.

Water race—The race is still traceable for its whole length. The race took water from the west branch of Snowy Creek, two miles up from junction with the east branch.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed on Victorian Heritage Register
Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **MOUNT MERRIMAC BATTERY**
Mitta Mitta goldfield

HI No. ***H8324-0036***

LOCATION: Junction of the Lightning and Snowy creeks, near Mitta Mitta.
MUNICIPALITY: East Gippsland Shire
LAND STATUS: State Forest

SITE HISTORY:
Extant battery site. Battery active 1918-36 - comprised two 5-head mortar boxes and pelton wheel from 20-head Mt Wills Prop. Co. 1892 plant. Battery still standing, waterwheel gone. "Muhlhauser's original plant comprised a two-head stamp-mill driven from a race with a 20-ft head of water. The original battery box was of wood shaped out of a tree stump in situ, and the stamps were driven by an undershot paddle wheel, the whole plant being a monument of bush ingenuity. Later a 4-head mill, with an overshot wheel, was erected, and is in use at the present time. The ore was conveyed from the mine to the mill by a sleigh track down the spur … The mine is situated on the spur between Bogong-creek and the Mt Wills branch of Snowy-creek, two miles south of the junction of the Lightning and Snowy creeks. The workings are three-quarters of a mile west of Snowy creek …" (Kenny, 1937).

DESCRIPTION & INTERPRETATION OF FEATURES:
Mount Merrimac Battery (also known as 'Muhlhauser's battery').
The Merrimac battery is located in dense bush a few metres above creek level. The battery was wooden-framed and has now collapsed. There are traces of tin shed and some woodwork. All components of the battery survive on the site, but the pelton wheel that drove it has been removed about 28 years ago it was hauled out by the Forestry Department). The pelton wheel was 8 to 10ft diameter and is now in the possession of CNR.

Battery—The battery is a very heavy one. Two battery boxes, 10 stamper stems (stamped Langlands Foundry Melbourne). The gearing on the cam shaft is 3¾ft diameter, with 9 inch teeth. The stamper stems have screw tappets which are bolted together.

Pipeline—The iron pipeline which supplied water to the pelton wheel still survives.

Ore truck— Above the battery (near the track cut to remove the pelton wheel) is a well preserved mine truck which is still attached to a long length of wire rope. Immediately below the truck are the remains of a sledge. The area is very overgrown.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **MT WILLS PROPRIETARY BATTERY SITE**
Mt Wills goldfield

HI No. ***H8424-0018***

LOCATION: Junction of Gill & Scrubby creeks, north east of Sunnyside
MUNICIPALITY: East Gippsland Shire
LAND STATUS: State forest

SITE HISTORY:
The battery of the Mt Wills Proprietary Co. was the first known to have been erected on the Mt Wills field. It was christened in March 1892, after two years' construction. The battery was situated about two miles from the mine, on Gills Creek which it was hoped would provide a plentiful supply of water. The distance between mine and battery necessitated a series of self-acting and level tramways for the conveyance of stone. The machinery initially consisted of a stone breaker, a 20-head stamper battery, and a series of classifiers and concentrators, all driven by a double-cupped Pelton wheel, 8 ft in diameter.

The first eight months of operation were disastrous, the failures indicating the difficulty of managing so extensive an undertaking in such difficult terrain. In July it was reported that the mine had not been sufficiently developed to provide enough ore to keep the battery busy. In the summer the plant ran short of water and the tramroad required re-grading to minimize the number of men engaged in haulage. Worst of all, though, the plant proved incapable of saving tin: from 800 tons of stone treated during this period, only 1½ tons of oxide were recovered; the rest was swept away into the creek with the tailings. Extensive alterations were made to the plant in 1893 (apparently including the addition of a steam engine and boiler), but no improvement resulted. From that point, the company's operations were almost solely confined to prospecting and the machinery lay idle. The Mt Wills Proprietary Co. had spent £30,000 on its mine and machinery.

In about 1898, 10 heads of stampers, boiler and steam engine were removed to the Samaritan battery site in Four Brothers Gully. In 1907, the remaining 10 heads and Pelton wheel were removed to the Mulhausen battery site on Merrimac Creek.

References: Milner & Pengilley, pp. 12-14, 76.

DESCRIPTION & INTERPRETATION OF FEATURES:
Machinery components littering the site include: shafts, gearing, pulleys, flywheels, nuts, bolts, chutes, handwheels, dog clutches, jaws, the overturned body of the stone breaker—stripped but otherwise intact—and a neat stack of 18- and 24-inch diameter pipes (over 150 ft in total length).

CONDITION OF FEATURES: Overgrown. Buildings destroyed by fire and machinery has been dismantled by scavengers removing bearings.

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: Milner & Pengilley *Date:* June 1979.

NAME: **MAUDE & YELLOW GIRL ORIGINAL BATTERY SITE**
Mt Wills goldfield

HI No. ***H8324-0034 (1931)***

LOCATION: Glen Valley
MUNICIPALITY: East Gippsland Shire
LAND STATUS: Historic reserve

EXISTING HERITAGE LISTING: Mt Wills Historic Reserve (9,190 ha)
Historic Reserve nominated to National Estate Register (date?), but 'insufficient data to evaluate'.
NOMINATING BODY: LCC (Alpine Review), 1982.

SITE HISTORY:
Gold reefs in the Glen Wills area were worked from 1891, following the failure of the tin lodes. Yellow Girl Reef was opened up in 1892, by adit on the west bank of Mt Wills Creek. The reef gave some phenomenal yields (reputedly up to 42 oz per ton), but the shoots of ore were small. From 1902, the Yellow Girl mine was worked on a larger scale. A 5-head water-driven battery, complete with gold-saving appliances, was installed close to the tunnel mouth in 1905, and its first crushing, of 2,000 tons of ore, returned 4,544 oz of gold. From a shoot of gold 150-ft in length, 121 tons of stone for crushed for 2,860 oz. The mine eventually closed in about 1917, having produced £28,000 worth of gold.

The Maude and Homeward Bound mines were first worked in 1892, and by the end of the decade were amalgamated under one company. The company had a steam-driven plant. By 1907, when the mine was let on tribute, £75,820 worth of gold had been produced. In 1912, the Maude Reefs Co. was formed to work the Maude and Homeward Bound. A new steam-driven battery was installed, to be replaced by a water-powered plant in 1916, shortly before the mine closed down.

The Maude and Yellow Girl Co. was formed in 1931 to work the former Maude, Homeward Bound, and Yellow Girl ground, and their mine was the focus of a mining revival at Glen Wills. Initially (according to Fairweather), the 5-head Yellow Girl battery was used for crushing, but it was upgraded to ten heads before long. (FOR CONTINUATION OF MAUDE & YELLOW GIRL MINE HISTORY, SEE "MAUDE & YELLOW GIRL 1942 TREATMENT PLANT", BELOW)

References: Fairweather, pp. 118-41.
Convey, pp. 27-31.
Milner and Pengilley.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Maude and Yellow Girl original battery site comprises the following features:

Battery shed —Timber-framed shed with galvanised iron roof and paling walls. The battery has been removed, only concrete foundations left.

Engine shed—Concrete mounting beds and machinery. The intact plant includes a large compressor (manufactured by Ruston, Lincoln, England) and double cylinder engine (Ingersoll-Rand Co., New York, USA, Imperial type 10).

Pelton wheel shed—The shed has collapsed slightly and contain intact machinery including intact pelton wheel and single cylinder engine.

Office or change room—Small shed.

Tailings dump—To the south of the sheds is a small tailings dump.

Mullock—Small heap with open (fenced) shaft.

CONDITION OF FEATURES: Battery shed is beginning to deteriorate badly. Part of a tree has fallen on the battery shed.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **MAUDE & YELLOW GIRL TREATMENT PLANT & No. 5 ADIT**
Mt Wills goldfield

HI No. ***H8324-0034 (1941)***

LOCATION: Glen Valley
Treatment plant—north of original Maude & Yellow Girl battery site.
No. 5 adit—located above Cooper's battery (ore was trucked from adit to battery).
MUNICIPALITY: East Gippsland Shire
CURRENT STATUS: Historic Reserve

SITE HISTORY:
A 20-head battery and new treatment plant—including a gyratory crusher, Wilfley tables, Watson & Denny pans, cone classifier, and eight-cell flotation machine—were installed at the Maude and Yellow Girl mine in 1941. Operations at the mine were wound down during the later years of WW2, but by 1948 the battery was operating for two (and occasionally three) shifts daily. The mine closed down in 1952, but work continued by other parties until 1967, and the mine is currently held under lease. The workings that comprised the Maude and Yellow Girl mine yielded a total of 103,556 oz of gold—almost half the total gold production of the Mt Wills field.

References: *Chemical Engineering and Mining Review*, 11 December 1944.
Milner and Pengilley.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Maude & Yellow girl treatment plant comprises:

Intact battery shed and machinery (now partly scavenged). The shed contains machinery which includes:

Battery—Intact wooden-framed battery of 20 stamper heads. The two northernmost battery boxes were manufactured by Thompsons (nine of the ten stems have been removed from the building); the other two boxes bear the mark "Thompson & Co., Engineers, Castlemaine, No. Victoria" (one of the ten stems has been removed from the building).

Slurry plant—Intact plant.

Pelton wheels—Inlet pipe and five pelton wheels which variously drove the battery and slurry equipment.

Loading chute—Above the rear of the shed is a large wooden chute.

Slum ponds—Large pond approximately 200 m wide and 2 m deep.

No. 5 adit represents the main mine workings associated with the treatment plant. The adit is open, but fenced, and is accompanied by a number of empty mine buildings.

CONDITION OF FEATURES: Battery shed is in good condition but the large timber-loading chute looks to be near collapse.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **SUNNYSIDE TOWNSHIP SITE**
Mt Wills goldfield

HI No. **H8324-0037**
LOCATION: East side of Omeo Highway.
MUNICIPALITY: East Gippsland Shire
CURRENT STATUS: Historic Reserve

SITE HISTORY:
Gold reefs were worked in the Sunnyside area from 1891, and the reefs there were the main focus of activity during the first phase of quartz mining in the Mt Wills area (the second phase beginning in 1931 at Glen Wills). By 1893, Sunnyside township (originally known as the Slope), on the northern flank of Mt Wills, had a population of 300. The town had a store and post office, two billiard saloons, an accommodation house, numerous huts, and 37 'habitations' at the end of 1894, and a school was established soon after. The township was surveyed in 1896. Sunnyside store was burnt down in 1906, after which the town began to decline. As time went on, Sunnyside's sole reason for existence was to service the United Brothers mine, and when it shut down in 1913 the town was finished. The last house was removed from Sunnyside in about 1920.
Reference: Fairweather, pp. 169-89.

DESCRIPTION & INTERPRETATION OF FEATURES:
The site of Sunnyside township township is a large clearing with some visible features including streets, hut platforms (some with stone fireplaces), and a few fruit trees.

CONDITION OF FEATURES: Still retains some integrity. Site has been thoroughly looted by bottle hunters.

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **MT MORAN BATTERY**
Mt Wills goldfield

HI No. ***H8324-0012***

LOCATION: East side of Omeo Highway, 900 m north of entrance to Sunnyside. Located at the head of a gully, on the north side.
MUNICIPALITY: East Gippsland Shire
CURRENT STATUS: Historic Reserve

SITE HISTORY:
The Mt Moran was the lowest mine on the Sunnyside field, and was worked by three adits. Total production from 1894 to 1915 was more than 7,500 oz. In about the 1930s, Cecil Cooper salvaged a winch from the Mt Moran mine site, which ended up at his Glen Wills battery.
References: Convey, p. 31.
Fairweather, p. 142.
Milner & Pengilley, p. 59.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Mt Moran battery site comprises the remains of a portable engine, battery, and two ore trucks.
Portable engine—Single-cylinder engine with an overall length of 11 ft. Pistons, etc., have been removed. The firebox still has its door but there is no inspection stamp is visible. The engine's 6ft-diameter fly wheel has been removed and lies nearby. Also lying near the engine are some sections of its flue. The wheels (complete with hubs) lie at the eastern end of the benched platform below.
Battery—Below the portable steam engine is a benched platform. Almost hidden by thick blackberries is a collapsed, but otherwise intact, battery. Two battery boxes, 10 stamper stems, and the drive shaft are visible.
Ore trucks—Two ore trucks lie along the track leading to the portable engine and battery remains.

CONDITION OF FEATURES: Good integrity

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **KNOCKER TRACK BATTERY SITE**
Mt Wills goldfield

HI No. ***H8424-0020***

LOCATION: Junction of Omeo Highway and Knocker Track, just south of Sunnyside
MUNICIPALITY: East Gippsland Shire
LAND STATUS: State Forest/Historic Reserve

SITE HISTORY:
History of this site not known. [Not the same as Samaritan boiler site, recorded by Milner in June 1979? An in situ Cornish boiler (ex Mt Wills Proprietary Co.) and iron stack are the main features of that site, which is situated in Four Brothers Gully, south of Sunnyside.].

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Knocker Track battery site are a Cornish boiler, and mine workings.
Mine workings—Adit level and mullock heap. A carting track runs from the adit around the head of a gully.
Battery site—Reported to be large, in situ Cornish boiler. The above track may lead to the site.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: To be surveyed *Date:*

NAME: **RED ROBIN MINE**
Hotham Heights goldfield

VHR No. ***H1881***
HI No. ***H8324-0035***

LOCATION: Bogong Unit, Alpine National Park, Mine approximately 5kms north of Hotham Heights Development.
MUNICIPALITY: Alpine Shire
LAND STATUS: Alpine National Park

SITE HISTORY:

In 1941, after several years of prospecting the country between Mts. Hotham and Feathertop, Bill Spargo opened up the Hotham Heights field, which comprised two reefs: the Red Robin and One Alone. The Red Robin was fabulously rich where it outcropped: a sample crushing yielded an average 112-oz per ton. Small, rich crushings continued through the 1940s. In 1949, a road into the Red Robin mine was completed and a 3-head battery brought in. Three years later the mine was purchased by the owners of the Sambas mine at Harrietville. They cut an improved track down to the mine and reconditioned the battery, also adding a hopper and self-feeder. At that time, the Red Robin was one of the richest in Victoria—in terms of its yield per ton, not total production—and was the highest mine in the State. Being well above the snow line, the mine could only be worked seasonally, and its crushings remained small. In 1954, the mine crushed 49 tons for a gold return of 48 oz. From 1956 stone from the Red Robin was sent to the government battery at Bright for crushing. A 10-head battery (formerly the Bairnsdale government battery) was erected at the Red Robin mine in 1966, lower down the valley than the earlier plant had been. The mine and battery are still in operation.

References: Kenny, J.P.L., "Red Robin and One Alone Reefs, Hotham Heights", in *Mining and Geological Journal*, September 1941, pp. 263-7.
Mining and Geological Journal, 1941-57.

DESCRIPTION & INTERPRETATION OF FEATURES:

The original workings of the Red Robin mine are still intact, as is the prospecting hut of Bill Spargo, the mine's discoverer. The original (top) battery shed is standing, but in poor condition. The 1966 battery is still in operation, as is the mine (three adits, underlay shaft, etc.).

Mine—remains include Spargo's original hut site, No.1 to No. 3 adits, site of Spargo's original discovery, mine workings along outcrop, carting tracks and tramway, rock wall retaining switchback, site of original battery (wooden foundations, etc), Spargo's second (1940s) hut, sand dam with rock retaining wall, ore tip, and mullock heaps.

Battery—remains include new battery shed and associated other sheds, accommodation hut (ex Bonegilla), two-storey stone house, tailings dams, and carting tracks.

New Battery Shed—5 head stamp battery and 5 head partly installed, c.1920s Wilfley table, berdan pan. All flat-belt driven from diesel engine.

Spargo's original hut—some of the material of the hut still survives.

Spargo's second hut—is intact at the mine. It is in excellent condition and is fully furnished.

CONDITION OF FEATURES: Operating mine

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: Rob Kaufman, Bright *Date:* 1995.

NAME: **BUCKLAND RIVER ALLUVIAL WORKINGS**
Upper Ovens goldfields—Buckland River

VHR No. ***H1224***
HI No. ***H8224-0058***

LOCATION:	The banks and terraces of the Buckland River has been extensively sluiced for at least 7 km upstream from the Buckland Cemetery to the Junction. Most of the workings occur on the western side of Buckland Road.
MUNICIPALITY:	Alpine Shire
LAND STATUS:	State Forest

SITE HISTORY:

The Buckland River was sluiced for gold from 1855. An estimated 6,000 diggers were swarming up the Buckland River valley by January 1854. Soon after, the rush was abruptly halted by an outbreak of "colonial fever". Within a few days, most of the diggers were either dead or had fled. For years afterwards, the Buckland was known as "The Valley of the Shadow of Death" and was largely shunned by diggers until early in 1857 when there came a great number of Chinese.

On the Ovens River and Morse's and Growler's Creeks in 1860, the quartz mines were the focus of activity; but only nine of the more than 1,200 miners on the Buckland were reef miners. The rest were occupied in sluicing the beds, banks and flats of the river and its tributaries. A network of races wove along either side of the Buckland, and the river's course was already becoming choked with tailings from sluicing claims on the banks. The higher flats were worked by hydraulic sluicing, using large sluice boxes and a strong head of water (hence the water-races), while the waterways and the lower flats were 'paddocked' or stripped of their goldless overburden and the washdirt then raised to the sluice. Small waterwheels drove Californian or elevator pumps to drain the lower claims.

The vast majority of alluvial miners on the Buckland River were Chinese. In what became known as the Buckland Riot ("the most disgraceful of the Victorian riots"), an estimated 2,000 Chinese miners were driven out of the Buckland valley in July 1857 by a mob. Their camps—about 300 tents and "tenements", stores, and a joss house—were looted and torched, and their possessions destroyed. According to official report next day, "Broken shovels, cradles, picks, torn garments, ripped up bedding, half-burnt clothing, battered buildings, whole quarters of beef and mutton trodden into the mire, the earth bestrewed with rice, empty sugar bags, and broken tea boxes, were the chief features of the late home of the Celestials". The Chinese miners were themselves beaten and some, it is claimed, were murdered as they were hounded up the river valley by the mob. Twelve men were charged over the riot: three were found guilty of unlawful assembly and one of riot. The Chinese were dismissed as "deceitful" and their evidence discredited, as was that of the European wife of one of them, who had herself been beaten by the mob. It is said that the rioters were principally American and Irish miners, who bore the Chinese the strongest enmity, and that the escaping Chinese were aided—and the rioters condemned—by the English and Scottish of the district. After the discovery of reefs in the area in 1860, the Chinese began filtering back to the Buckland, being more confident that they would be left unmolested to work the "exhausted" alluvial ground.

In 1864, there were close to 2,000 Chinese alluvial miners among a total mining population of 2,500 on the Upper Ovens–Buckland goldfield. Alluvial mining was at that time centred on the Buckland River (1,280 miners), especially the Lower Flat (680). At the end of 1866, the mining registrar wrote of shallow alluvial workings (i.e., sluicing) on the Buckland River: "This branch of mining gives employment to nearly the whole of the local mining population, and through their labours is produced the larger portion of the gold sent from the entire division, although the Buckland has been opened since 1852, and has been looked on as being worked out". Soon after, it seemed that the older Buckland workings were indeed becoming exhausted. Some Chinese were leaving, and water-races commanding the best sluicing grounds depreciated in value nearly 50 per cent in 1867. In 1871, more European miners were trying shallow alluvial mining, many Chinese co-operative parties (4 to 12 men) had broken up, and claims were increasingly being worked by cradle. "In some instances on the Buckland", wrote the mining registrar, "the European owners of water-races take sleeping shares in Chinese claims, as compensation for use of water. Water-race property, once so valuable, is now almost worthless—no race would fetch £500 if sold". And so shallow alluvial mining on the Buckland wound down.

It is possible that large-scale hydraulic sluicing operations took place on the Buckland (as in other rich alluvial areas) during the last decades of the 19th century, but no record of such operations has been found. According to a report in 1903: "When the individual miner ceased to make river bed mining remunerative, sand pumps were tried on the Buckland"—not with much success, though. The Buckland River wash was unsuitable for the sand pump, 40 per cent of it being too coarse to go through the runner blades. On the other hand, being free of clay, the river turned out to be ideal for bucket dredging. From the turn of the century until 1920, the Buckland River—like all the upper Ovens waterways—was worked by dredge. No doubt hatters and small parties of miners tried their luck on the Buckland during the depression years of the 1930s. The last report found of alluvial working on the Buckland River dates to the late 1950s, when Corrigan and Co. were sluicing on high terrace ground above the river, about 11 km south of Porepunkah.

References: Adcock, pp. 130-32.
Department of Mines Annual Reports, 1903, 1905.
Flett, p. 70.
Kaufman (3).
Mining and Geological Journal, March 1942, 1855-7.
Mining Surveyors' Reports (Buckland Division), May 1860, November 1861, September 1864, December 1866, March 1867, June 1871.

DESCRIPTION & INTERPRETATION OF FEATURES:

The banks and terraces of the Buckland River have been extensively sluiced for at least 7 km upstream from the Buckland Cemetery to the Junction. A large extent of the workings have become overgrown with blackberries, etc. The following sites were recorded because of their relative visibility/un-vegetated state.

Sluiced open cut and tailraces—A large sluiced open cut with stone-retained pebble dumps and several tailrace cuttings.

Sluiced landscape—A 20m-high vertical face overlooks a vast pebble dump. Several tailraces are visible (marked by lines of trees and vegetation). There is an area for vehicle parking near the viewing point.

Sluiced open cut and tailrace—On the opposite side of river to the camping ground is a relatively small sluiced open cut, measuring approximately 100 m x 50 m x 10 metres deep. The base of the open cut is covered by a high pebble dump, through which runs a tailrace. The tailrace is approximately 8 ft deep and 5 ft wide, and connects into a major drainage race running along the eastern side of the river. The drainage race is stone-retained in places. There are several other open cuts to the south (upstream). These are all much larger and deeper but more overgrown. Presumably their tailraces connect into the same drainage race.

CONDITION OF FEATURES: Good, except for a few very overgrown spots.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* March 1995.

NAME: **ALTA & NELSON BATTERY SITE**
Upper Ovens goldfield—Buckland River

H No. ***H8224-0067***

LOCATION: At the head of the left-hand fork of the Buckland River.
MUNICIPALITY: Alpine Shire
LAND STATUS: State Forest

SITE HISTORY:
The Alta and Nelson were the earliest reefs worked on the Upper Ovens goldfield, opened up by shafts in 1858. Surface stone from the Alta yielded 13 oz per ton, but yields from both reefs soon dwindled. Two Chilean mills, a 10-hp steam engine and boiler, kilns, incline tramway, and engine house were erected in 1858, at a cost of £1,700. In 1859, a (timber?) stamp battery and plate tables were added, but appear not to have helped much with gold-separation from the pyritic ore. The steam engine proved too costly to run, and in 1860 it was replaced with a waterwheel. Much gold appears to have been lost by the inefficient battery. The mines struggled on, with unremunerative yields, until they were abandoned in 1862.

In 1864 a new company took up the reefs and built a new water-powered battery, removing the Chilean mills. No success seems to have come of the venture.

References: Mining Surveyors' Reports (Buckland Division), May 1860–November 1861, October 1863, March 1864.
Morgan, Henry.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Nelson battery site is completely overgrown with blackberries, but Rob Kaufman has been able to identify a number of features: i.e., battery foundations, a Cornish boiler, tramway, and quartz and alluvial mine workings.

Battery—foundations.

Boiler—Cornish boiler, 14 ft x 5 ft, still in its stone setting. A section of the boiler sheeting has been cut away (by oxy).

Tramway—Tramway and cutting through spur.

Reef workings—Mullock from an adit spills out over alluvial workings.

Alluvial workings—Stacked pebble dumps and tailraces.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Rob Kaufman (Bright Gold Shop) *Date:* 1995.

NAME: **LEVIATHAN (HUNGFEE) BATTERY SITE**
Upper Ovens goldfields—Porepunkah

HI No. ***H8224-0062***

LOCATION: Roberts Creek, near Porepunkah—5.3 km along Mt Porepunkah Road, from second cattle grid.
MUNICIPALITY: Alpine Shire
LAND STATUS: State Forest

SITE HISTORY:
The Leviathan Reef was discovered at Roberts Creek in 1913, by W. Hungfee (of the Quan Kee Hotel). He erected a 10-head battery and worked the reef until 1915. According to Kaufman, the battery was removed in the 1980s.
References: Lloyd & Nunn, p. 152.
Rob Kaufman (Bright Gold Shop), pers comm.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Leviathan Reef (Hungfee) battery site are a portable steam engine, battery foundations, and cyanide works.

Portable steam engine—The double-cylinder engine is still standing on rear wheels. The smoke box is partially rusted and the flue is missing. Most of the boiler's wooden lagging is still in place, but the fly-wheel and all brass fittings have been removed. The engine measures 9 inches in diameter, 16 inches in length, and has a total dimension of 13 ft. The maker's marks around the wheel hubs read: "Marshall Sons and Co., Gainsborough".

Battery foundations—Only traces of wooden bedlogs and some stone retaining are left to show the former position of the battery.

Cyanide works—15 m west of the engine, on the north side of the creek, is a small tailings dump and a partly buried cyanide vat. The vat is constructed of stone (1ft-thick walls) and measures 15 ft x 12 ft. The wall nearest the creek has been washed away.

CONDITION OF FEATURES: Battery has been removed but portable engine and cyanide vat. Area overgrown with large man ferns.

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* April 1995.

NAME: **CANYON ALLUVIAL WORKINGS**
Upper Ovens goldfields—Bright

VHR No. ***H1231***
HI No. ***H8224-0022***

LOCATION: Bright
MUNICIPALITY: Alpine Shire
CURRENT STATUS: Crown land

SITE HISTORY:
Sluicing was conducted on an extensive scale at Bright from 1856, with large claims worked by hydraulic sluicing from the early 1870s. "The Canyon" appears to be a comparatively modern name for the carved-out landscape created by sluicing operations.

References: Lloyd & Nunn, p. 14.
Mining Surveyors' Reports (Buckland Division), July 1861, September 1873, September 1876.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Canyon is a massive sluiced open cut extending along the western side of the Ovens River. The open cut is very overgrown with fir and blackberries but has a continuous covering of pebble wash. Through the pebble dumps run several tailraces which drain into the river. The tailraces have been cut through a ridge of bedrock from the open cut to the river: the deepest is 14 ft. A walking track (the Canyon Walk) follows the western bank of the river, crossing at least 12 tailraces, some by small bridges. Towards the northern end of the workings, the alluvial ground was shallower and the pebble dumps and tailraces extend to the river, the track rising and falling like waves on the sea.

CONDITION OF FEATURES: Sections of the open cut have been rehabilitated for residential purposes. Workings are very overgrown, and some of the tailrace cuttings have been filled.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **BRIGHT STATE BATTERY**
Upper Ovens goldfields—Bright

HI No. ***H8224-0063***

LOCATION: Corner of Churchill Avenue and Wandiligong Road, Bright.
MUNICIPALITY: Alpine Shire
LAND STATUS: Unreserved Crown land

SITE HISTORY:
In 1956, the Bright State battery was giving higher average yields than any other government battery in Victoria. It is still operational and negotiations are underway to have the battery retained as a permanent heritage display.
References: Rob Kaufman (Bright Gold Shop), pers comm.
Mining and Geological Journal, 1957.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Bright State battery are an intact battery, complete with battery shed and outbuilding. The shed is of the standard government battery design: galvanised iron, wooden-framed shed, with green painted roof and yellow walls.

CONDITION: Good

SIGNIFICANCE RANKING: Site listed on Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **GANDERS REEF MINE SITE**
Upper Ovens goldfield—Wandiligong

HI No. ***H8224-0057***

LOCATION: East side of Growlers Creek, north of Growlers Creek Road.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: State Forest

SITE HISTORY:
Gander's (sometimes known as the Specimen) was among the first reefs opened up on the Upper Ovens goldfield, in 1859. In early 1860 it was one of just a handful of reefs from which stone had been crushed, and was among the richest. The Gander's Reef Co. was working by shaft and tunnel, close to the creek. They crushed at Gitchell's battery on Morse's Creek and installed a pump and engine for draining their shaft in 1861. Yields fell off during that year, making the reef unpayable. Attention briefly shifted to the northern portion of the claim. Gander's Reef was again worked in 1867-8, although not very profitably.

In 1886, a diamond drill struck gold at depth on the Gander's line. The Diamond Drill Co. was formed to work it, with a capital of £10,000. A new shaft was sunk, pumping and winding plant installed, and an office and blacksmith's shop erected. Hopes of a quartz mining revival for the whole district hinged on the Diamond Drill Co.'s success. But when the reef was reached, through sinking and driving, in mid-1888, it was found to be barren of gold. Local shareholders urged an investigation "to ascertain how a golden core was drawn from a reef that otherwise carries not a trace of the colour of gold". The Diamond Drill Co. immediately stopped work and removed its plant, despite local opinion that, with perseverance, gold-bearing stone would certainly be struck within 50 or 60 ft. After the Gander's Reef failure, the local mining scene sank even deeper into its slump.

References: Kaufman, historic mine sites assessment notes, August 1994.
Lloyd & Nunn, p. 30.
Mining Surveyors' Reports (Buckland Division), May & December 1860, September & December 1861, September & December 1867, June 1868, March-December 1887, June & September 1888.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Ganders Reef mine site are tunnels and surface workings on the spur above the creek, and a shaft and mullock dump on the creek flat. Kaufman points out the importance of the site because of the age of the workings (early 1860s) and the fact that the mine employed shaft and a poppet head (unusual for this area).

CONDITION —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Rob Kaufman (Bright Gold Shop) *Date:* 1995.

NAME: **GUNNISLAKE MINING SETTLEMENT**
Upper Ovens goldfield—Wandiligong

HI No. ***H8324-0002***

LOCATION: Head of Growlers Creek east branch.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: State Forest

SITE HISTORY:
No historical information has been found about Gunnislake settlement. The Ebenezer mine, which appears to be linked with the site, was worked between 1860 and 1867. The settlement, apparently situated at the foot of a track leading down from the Ebenezer mine, may have also been the site of the Ebenezer battery (one of the earliest on the field), erected in October 1860. Perry's Ebenezer crushing works comprised a four-head battery powered, two Chilean mills, a 24-ft waterwheel. The mining surveyors' reports also show that an engine (ex-Nelson mine, Buckland River), formed part of the plant.
References: Lloyd & Nunn, p. 27.
Mining Surveyors' Reports (Buckland Division), May 1860–September 1867.

DESCRIPTION & INTERPRETATION OF FEATURES:
According to Rob Kaufman, who observed the site after it had been burnt by bushfire, the Gunnislake mining settlement comprises a series of benched hut sites and built-up terraces, some bearing traces of fireplaces. Rob also observed a blacksmith's forge, a possible grave, and a sleigh track to the Ebenezer mine. The site is currently obscured by blackberries.

CONDITION: Overgrown with blackberries.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Rob Kaufman (Bright Gold Shop) *Date:* 1995.

NAME: **ORIENTAL REEF WORKINGS**
Upper Ovens goldfields—Wandiligong

HI No. ***H8224-0060***

LOCATION: A steep walk east from the main Bright-Wandiligong road, from opposite School Lane turn-off.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The reef workings on the Oriental Reef were the most substantial on the Upper Ovens goldfield—the largest open cut, largest recorded tonnage of ore, and the second-largest gold producer. Quartz mining on the Oriental Reef began very early, in 1858. The Oriental Perseverance Co., which operated from 1861-9, had a 16-head battery and produced a reported £300,000 worth of gold. Also at the mine workings, about 1000ft above the valley, during that period was the "Oriental Restaurant and bunkhouse". The Oriental Australasia Co., on No. 1 South claim, was active between 1861-76 and had a 32-head battery (of which 16 heads and the engine were later removed to the London & Myrtle Reef, also at Wandiligong).

After the mid-1870s, intermittent work continued on the Oriental Reef until World War One. The largest effort was that of the Bright District Prospecting & Gold Mining Co., which, between 1886 and 1912 (or later) drove a tunnel for over 1,100 m (aptly called the Long Tunnel), in search of the southerly continuation of the Oriental Reef. Local shareholders held 26,000 shares and paid monthly calls of ha'penny per share: in 1899, the 144th call was made. The long-searched-for reef was eventually found, but proved worthless. The Long Tunnel is now used for Wandiligong's water supply.

References:
Kaufman (1).
Kaufman (2), pp. 6-9.
Kenny, pp. 25-7.
Lloyd & Nunn, pp. 14-15, 130-1.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Oriental Reef are various mine workings and the site of the "Oriental Restaurant and bunkhouse".

Reef workings—Several levels of adits, mullock heaps and benched tracks, representing workings on Gladstone Reef, the Long Tunnel, and of the Oriental Australasia and Oriental companies.

Open cut—Near the top of the ridge is a large open cut, measuring 15 m wide, 9 m deep and approximately 400 m long. The open cut is partly filled and overgrown with trees and ferns. At its northern end is a haulage adit and large mullock heap. Forty metres north of the haulage adit, along a benched track, is a well-preserved stone blacksmith's forge.

No. 7 Adit—These workings lie NE of the northern end of the open cut and consist of two open adits with a large heaps which has several dumping lines.

Hotel site—The site of the 'Oriental Restaurant and bunkhouse' is represented by an extensive spread of bottle glass above the upper edge of the open cut.

CONDITION: Good. Artefacts associated with hotel site—looted by bottle hunters

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **BUCKEYE BATTERY SITE**
Upper Ovens goldfields—Wandiligong

HI No. ***H8324-0014***

LOCATION: Off Mongrel Creek Ridge, at head of Buckeye Gully, west of Albion Track, Harrietville.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The Buckeye Reef was discovered in mid-1860 in the bed of the creek (a tributary of Upper Morse's Creek) near Richardson's Reef. It was one of several neighbouring reefs held and worked at that time by the partnership of Chalmers & Gitchell, who owned a battery at Morses Creek and another (erected late in 1860) at Richardson's Reef. It appears that the Buckeye Reef failed to develop beyond the prospecting stage at this time, as it disappeared from the records after a few months and just a couple of small crushings.

In about 1878, the Buckeye QMC (Page, Jones & Co.) took up the claim. A battery was erected in 1881, but was idle after less than a year. The battery house was burned down by bushfire in 1890, by which time the mine was long abandoned.

The Buckeye was taken up again in 1900. A 10-head Thompson's battery situated at Smoko was purchased, and the Buckeye ore carted there for crushing. In 1904, rich stone was struck, and the Harrietville GMC was formed to work it. The company installed a 5-head battery closer to the mine, on Morse's Creek—probably, according to Lloyd, the site of the earlier Buckeye battery—in about 1907. A small oil engine powered the winding machinery on the Buckeye shaft, and in 1909 a blower was fitted for ventilation. The Harrietville GMC had its last crushing in 1909. The Buckeye mine was recently held under lease.

References: Lloyd, pp. 105-6.
Rob Kaufman (Bright Gold Shop), pers comm.
Mining Surveyors' Reports (Buckland Division), June 1860, October 1860; (Wandiligong Subdivision) March & June 1881, June 1882, September & December 1884.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Buckeye battery are mine workings, Cornish boiler, and battery site.

Mine—An open adit and large mullock heap. The mine was re-worked recently, but is now abandoned.

Boiler—On a benched platform, on the south side of the gully, 350 m downstream from the mine, is a well-preserved stone boiler setting, *in situ* Cornish boiler and small stone chimney stack. The eastern wall of the boiler setting is bedrock; the western wall is constructed of local stone set in clay mortar. The boiler setting measures 20 ft x 10 ft, with its built side wall being 2 ft thick and 5 ft high. The stack, at the south-east corner of the boiler setting, is built against the slope. It stack stands 15 ft high, is 4 ft square and has a 2 ft square flue. The Cornish boiler has a diameter of 5 ft and is 20 ft in length. There are still some brass taps on the fire box and a section of safety valve rests on top of the boiler.

Battery—The stampers have been removed—there is a possibility of buried foundations.

CONDITION: Good. Various artefacts on the platform, including the remains of a square iron tank, some fire bars, and a valve. There is the possibility of more artefacts being buried or obscured by vegetation.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* April 1995.

NAME: **PHOENIX BATTERY SITE**
Upper Ovens goldfields—Wandiligong

HI No. ***H8324-0015***

LOCATION: At head of Growlers Creek West Branch, on east side.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: State Forest

SITE HISTORY:
In 1884, the Phoenix Co. opened up a new shoot of stone on the Buckeye Reef, which gave fair returns until about 1887.
References: Mining Surveyors' Reports (Wandiligong Subdivision), September 1884, September 1885, and March 1887.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Phoenix battery site are a forge, tailings, and mounting bolts.
Forge—A substantial forge which is largely buried. It appears to have two separate stone beds, set 1½ ft apart. One bed measures 5½ x 1½ ft, and stands 4 ft high; the other is 9 ft x 5½ ft with two long (now bent over) 1-inch mounting bolts. At the end of the second bed is a brick-lined furnace with 1½ ft-wide opening. On the side of the furnace is the remains of a hearth (slate slabs and some ironwork). The furnace probably had a brick stack (indicated by brick rubble). A small hole runs through the brickwork of the furnace to the hearth. The entire forge is very overgrown.
Battery site—On an overgrown benched platform, the only visible remaining features of the battery are a small dump of tailings and several protruding mounting bolts.

CONDITION: Forge in good condition, but hearth has been dug up by looters (reconstruction would be possible). Potential for artefacts on this very overgrown site.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* March 1995.

NAME: **LIFFEY (GRIBBLE'S) BATTERY**
Upper Ovens goldfields—Wandiligong

HI No. ***H8324-0016***

LOCATION: Near junction of Mongrel and Stevensons creeks, 5km north-west of Harrietville.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The Liffey GMC erected a 10-head battery battery at their mine, west of Harrietville, in 1905. The mine operated until 1908, then was reworked from 1937-42 and again from 1947-?
References: CNR Historic Places section historic site database, no. 1429.
Department of Mines Annual Report, 1904.

DESCRIPTION & INTERPRETATION OF FEATURES:
The remains of Gribble's Liffey battery are situated on a 20m-square benched area, which is thickly covered with blackberries. Features of the site are a portable steam engine, battery site, and mine workings.
Portable steam engine—The engine's twin cylinders measure 7 inches in diameter and 12 inches long. The straight-spoked flywheel is 5 ft in diameter and 13 ft in length. Inspection markings on the boiler read: MD 17-3-1905, T40, [WP?] 30. The engine has no wheels, but still has a section of its flue. The bottom section of the boiler is buried by silt.
Stampers—A 10-head battery was removed from the site in 1985.
Reef workings—Several adits linked by carting tracks.

CONDITION OF FEATURES: Portable engine in fair condition. Site is overgrown, but artefacts identified include iron water tank and part of engine flue. Strong possibility of other artefacts.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* March 1995.

NAME: **GROWLERS CREEK DREDGE**
Upper Ovens goldfields—Wandiligong

HI No. ***H8224-0061***

LOCATION: North side of Growlers Creek, at end of Williams Road, 400 m south-east of caravan park—good access via walking track.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The Growlers Creek dredge was built in 1924, using parts from the Minerva Dredge on Morses Creek. It worked up Growlers Creek to the boundary of the Melburnian Dredge lease from 1924-30, after which it was stripped and parts used in the construction of the Freeburgh dredge.
References: Rob Kaufman (Bright Gold Shop), pers comm
Wandiligong Preservation Society, p. 28.

DESCRIPTION & INTERPRETATION OF FEATURES:

Growlers Creek dredge - one of the last surviving relics of the famed Ovens River dredging industry. The rotting pontoon of the Growlers Creek dredge rests on its side, apparently broken in two, in a silted pond. It is very overgrown by trees, ferns and blackberries, but appears to measure approximately 70 ft x 30 ft. The flooring of the pontoon has been stripped.

CONDITION OF FEATURES: Largely buried

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* April 1995.

NAME: **ROSE THISTLE & SHAMROCK WORKINGS**
Upper Ovens goldfields—Harrietville

HI No. ***H8324-0017***
H8324-0018

LOCATION: Turn right off Ovens Highway into Cemetery Lane, just before the first bridge. Battery site located 1.2 km along Shamrock Track from Harrietville Cemetery. Mine workings located above battery site, near head of gully. (Site map in Kaufman (2), p. 5).

MUNICIPALITY: Alpine Shire

CURRENT STATUS: State Forest

SITE HISTORY:

The Rose Thistle & Shamrock mine was the largest recorded gold-producer and had the deepest workings in the Upper Ovens district. It was worked almost constantly from 1860 until 1934.

Crushing on the Rose Thistle & Shamrock Reef commenced in 1861, and soon emerged as one of the district's premier reefs. In 1866, the Rose Thistle and Shamrock mine was called, by the mining registrar, "the most valuable mining property in the Division". It ceased work at the end of 1868, when it was down 600 ft and employing 25 men. A new reef was tried within three metres of the old one in 1877 and an 8-head (existing?) battery was used to test it—but the find appears to have come to nothing.

In 1880, a new run of gold was struck by the Shamrock QMC (a Wallace-owned company in the supposedly "worked out" Rose Thistle & Shamrock shaft, at a depth of 650 ft. Before long, the pumps proved inadequate for draining the mine, and "very powerful machinery" was installed in 1882, comprising a 15-hp stationary engine for pumping and one of 8-hp for winding, and a 10-hp portable engine to run their existing 8-head battery (2 x 4 stamps). The whole plant was valued at £6,000. Less than two years later, after attaining a depth of 850 ft, the Shamrock Co. ceased work, "after employing constantly, for many years, a number of men". Nothing more was heard of the mine until 1888, when the Shamrock Reef Co. installed four Wheeler's pans and an 8-hp stationary engine, "for the purpose of treating a twenty-years accumulation of sand".

In 1906, the Rose Thistle & Shamrock Co. erected a 10-head steam-powered battery, adding a cyanide plant the following year. An air compressor was installed in 1918; two Pelton wheels were added in 1921, to supplement steam power; a further boiler was added in 1925; and the air compressor was replaced by a larger one in 1926. The Rose Thistle & Shamrock was the main producer on the field in the 1920s. Between 1920-34 it produced 46,000 oz from 49,000 tons. The company even paid a £17,000 dividend in 1929—one of only two mines in Victoria to pay a dividend that year. Operations ceased in 1934 and the plant was sold.

References:
Kaufman (2), p. 4.
Lloyd, pp. 147-56.
Mining Surveyors' Reports (Buckland Division), September 1860, January 1861, September 1866, December 1868, June 1877, September 1880, March & June 1882, September 1883, March 1884, December 1888.

DESCRIPTION & INTERPRETATION OF FEATURES:

SHAMROCK BATTERY SITE

Battery—The battery was formerly situated on a large excavated platform (stone-retained in places). The battery foundations have largely been buried and are overgrown by blackberries. Near the western end of the platform are the remains of a large brick engine mounting bed (ground-level, 12ft x 10ft, with 1-inch mounting bolts) and a square iron water tank. The foundations are mainly defined by a number of largely obscured iron tie bolts.

Inclined tramway—Above the battery site is a well-defined inclined tramway embankment. The tramway is stone-retained in places.

SHAMROCK MAIN ADIT—The adit entrance has been bulldozed, but its large mullock heap is intact. The Shamrock Track runs between adit and heap.

Between the adit and the Shamrock shaft/boiler site are several features including benched tracks, another large adit and heap (with two dumping lines) and at least one hut site (indicated by a stone fireplace).

SHAMROCK SHAFT

At the head of Shamrock Gully, on the south side, is a large benched platform, fringed by mullock.

Boiler setting—At the eastern end of the platform is a well-preserved stone boiler setting and a partly collapsed square stone chimney stack. The eastern wall of the boiler setting is bedrock; the western wall is constructed of local stone set in clay mortar. The boiler setting measures 22 ft x 10 ft, with its built side wall being 2 ft thick and 5 ft high. A water outlet pipe protrudes from the ground near the front of the boiler. The stack is situated in the corner of the boiler setting and is built against the slope. It stands 12 ft high x 6ft square and has a 2ft-square flue. There are traces of iron sheeting near the top of the stack—it may have had a short iron extension. At the base of the boiler setting, on its western side, are some parts off a boiler, including part of a dome.

Adit—An open adit abuts the north-west corner of the boiler setting.

Shafts—At least two shafts on the benched platform.

CONDITION OF FEATURES: The foundations of the Shamrock battery appear to have been buried, rather than bulldozed. The site would have good archaeological potential.
Boiler setting in good condition but the stone stack has partly collapsed.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* April 1995.

NAME: **UNITED MINERS MINE & BATTERY SITE**
Upper Ovens goldfields—Harrietville

HI No. ***H8324-0019***

LOCATION: Head of Miners Creek, east branch of Ovens River.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: Alpine National Park

SITE HISTORY:
Discovered in 1866, the United Miners Reef had produced nearly 20,000 oz by 1874—nearly half of it in the first three years' mining. The reef straddled the Omeo Road, about 3-km south of Harrietville and was traced along the surface of the spur for about 150 metres. Initially it was worked by shaft, then by a series of five adits, No. 5 being the lowest.

A 10-head battery was erected at the mine in late 1867, and in its first ten months' crushing the mine paid dividends in excess of £16,000. In 1868, appliances were added to the battery to aid in the separation of gold from the pyrites in the ore. High-level production continued until 1874, when the gold cut out. The Admiral Co. worked No. 5 tunnel from 1877 into the next decade, erecting a battery which saw very little work. Very little gold was produced after 1875. Nonetheless, the early success of the United Miners mine made it by far the biggest gold producer at Harrietville during the 1870s. It was considered at the time one of the "most important and valuable mines" in the entire Buckland Mining Division.

The United Miners Reef was worked in a small way during the late 1880s and early 1890s. The Port Melbourne Co., working the mine in 1894, was considering installing a (new/additional?) battery. Soon after, the mine was sold to the large Harrietville Co., which appears not to have worked it. The mine was prospected from 1910-13, but no more gold was forthcoming. The United Miners was finished.

References: Lloyd, pp. 14, 28, 35, 68, 98-9.
Mining Surveyors' Reports, June & September 1868, September 1874.

DESCRIPTION & INTERPRETATION OF FEATURES:
Admiral Company, United Miners battery - possibly the oldest portable steam engine still surviving on the Victorian goldfields.

Mine workings—Five levels of adits. No. 4 adit is open, with a post and rail door and a large mullock heap. The battery is located below the No. 5 adit.

Battery site—On a benched platform is a portable steam engine. The engine's boiler is in fair condition, although its flue has gone and the smoke box has rusted. The engine has two cylinders, each 7 inches in diameter and 17 inches long. The engine itself is 11 ft long. The firebox door is still in place, but a tree has fallen across the engine and smashed its fly wheel. The back wheels of the engine have been removed and lie (obscured by ferns) near the engine, their hubs still bearing traces of red paint. The battery itself has been removed from the site—only a few artefacts remain to indicate its former presence.

Forge—A well-preserved stone forge is located near the back wheels.

CONDITION OF FEATURES: Good. The benched platform has numerous artefacts (good potential for others) including some lifters and a 1½ ft-square, 2 ft-high strong box.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* March 1995.

NAME: **CHAMPION BATTERY**
Upper Ovens goldfield—Harrietville

HI No. ***H8324-0020***

LOCATION: Washington Creek, east branch of Ovens River.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: Alpine National Park

SITE HISTORY:
The Champion Reef was discovered in 1866. In 1871, it was taken up by Osborne & Co. and yielded 1685 oz (averaging 3 oz per ton) before the gold cut out in 1874. The mine was reworked briefly in 1881-2, and again in the early 1890s. In 1920, the mine was reopened and a Pelton-wheel-powered battery erected. The old No. 2 tunnel was extended, but no gold was forthcoming. Work ceased in 1925. The mine was further tried in 1945, again without success.
References: Lloyd, pp. 30-31, 46-7, 69, 136.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Champion battery comprises three head of stamps (and a Pelton wheel?).

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Rob Kaufman (Bright Gold Shop) *Date:* 1995.

NAME: **MONARCH BATTERY**
Upper Ovens goldfields—Harrietville

VHR No. ***H1273***
HI No. ***H8324-0021***

LOCATION: East side of Alpine Road, on the east branch of Ovens River, south of Harrietville. Battery is located at the junction of two gullies.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: Alpine National Park

SITE HISTORY:

The 10-head battery (2 x 5-head boxes) at the Monarch mine was originally purchased by the New Options Co. in 1896 and was operated by Pelton wheel at a site near the company's Crescent mine. The New Options Co. closed down in 1904, and in 1913 the battery was moved to the Monarch Reef.

The Monarch Reef was one of those discovered in the difficult country above the west branch of the Ovens, south of Harrietville, in 1896 and taken up by the New Options Co. After an initial few rich crushings, yields became small and patchy. Nonetheless, by 1900, the reef had produced 2,446 oz from just 519 tons. The Monarch was prospected again during the 1910s, after which the Monarch GMC was formed in 1913 and the ex-Crescent battery installed, powered by steam engine. The mine was taken over by C.F. Proctor in 1915, and he prospected and developed it for many years, driving an adit at battery level, without success. Finally, in 1927, payable stone was struck and crushing commenced. According to Lloyd, the mine employed a 5-head battery, initially powered by a portable steam engine, which was later replaced by an oil engine. The last recorded crushing at the Monarch battery was in 1935. Four years later, bushfires incinerated the mine buildings and badly damaged the battery.

References:
Australian Mining Standard, 1 June 1899.
Department of Mines Annual Report, 1916.
Kaufman, notes on Monarch mine, 1994.
Lloyd, pp. 64-5, 69, 78-9, 99-100, 136-8.

DESCRIPTION & INTERPRETATION OF FEATURES:

Rob Kaufman considers the Monarch battery site the best preserved in the district. Features of the site are a portable steam engine, a 5-head battery, remains of a shaking table and battery feeder chute, a water tank, and mine workings. The battery is one of the best-preserved battery sites in Victoria.

Portable steam engine—Situated on an excavated platform, the portable engine that powered the Monarch battery is still upright and in good condition. It stands close to a small creek and is partly buried by silt. Its wheels and broken fly wheel have been removed and lie in the eastern corner of the platform. The engine has a single cylinder, measuring 10 inches in diameter and 1½ ft long. The engine's overall length is 12 ft. The boiler still has most of its timber lagging and some of its brass fittings. The front of the firebox has a small brass registration plate, which reads No. 6144. A similar plate on the guide for the piston rod reads AK PE 56, and on a bearing for the fly wheel, AK PE 36.

Stampers—Five stamper heads remain of an iron-framed 10-head battery, the other 5-head box having been removed from the site. The battery's enclosed 6ft diameter fly wheel and cam shaft are still in position. The maker's plate on the battery reads: “Thompson and Co., Makers, Castlemaine, Victoria”. The mortar blocks are in good condition and a substantial portion of the shaking table still survives. Near the table lie the remains of the battery feeder chute. There is an iron water tank on the western side of the battery.

Mine—On the opposite side of the gully is a large mullock heap and collapsed adit.

CONDITION OF FEATURES: Relatively intact battery, which is largely hidden by large man ferns. Access to the site is through thick blackberries.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* March 1995.

NAME: **GUNS REEFS BATTERY SITES**
Upper Ovens goldfield—Harrietville

HI No. ***H8324-0022 (Big Gun)***
H8324-0023 (Guns Battery)

LOCATION: Upper west branch of Ovens River.
MUNICIPALITY: Alpine Shire
STATUS: State Forest

SITE HISTORY:
The Big Gun Reef was discovered in 1896 and traced for 1000 ft on the southern slope of Guns Creek gully, with a second reef running parallel. The Big Gun Extended, discovered soon after, extended up the north spur to an elevation of 4000 ft. The New Options Co. bought the reefs from their discoverers. Trial crushings from these two and the neighbouring Cannon and Little Gun reefs gave rich yields, and a tramway was constructed to the New Options Co.'s Crescent battery. Work appears to have focused on the Big Gun Extended mine, which was still yielding strongly at the turn of the century.

After the New Options Co. closed down in 1904, the Big Gun Reef was taken up by a party who installed a battery there in 1907. The venture appears to have been unsuccessful, with no gold production recorded from the mine. The Big Gun Extended was reworked between 1915-17 and a battery installed, crushing 355 tons for an average return of 1 oz per ton.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the **Big Gun** battery site are a battery, Pelton wheel, tramway, and hut.
Battery—Light 4-head stamps manufactured by Langlands.
Pelton wheel—The Pelton wheel still rests on its wooden footings and the water pipe-line is still in position.
Tramway—Inclined tramway with one truck (still with braking mechanism).
Hut—Roof is gone, but the walls are standing and there are still pots and pans on the table.
The **Big Gun Extended** site comprises an intact stamp battery (and engine?).

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Sites listed Heritage Inventory

Assessed by: Rob Kaufman (Bright Gold Shop) *Date:* 1995.

NAME: **RAZORBACK BATTERY**
Upper Ovens goldfield—Harrietville

HI No. ***H8324-0024***

LOCATION: Razorback Spur, east branch of Ovens River.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: Alpine National Park

SITE HISTORY:
The Razorback Syndicate held a lease at the western end of Razorback Reef from about 1895 until 1903. They installed a battery by 1900 (probably earlier), crushing for their own and other mines in the vicinity. The battery was sold in 1903 to a party working the Unique Reef (at the foot of Bon Accord Spur on Washington Creek), and tramway was constructed between that mine and the battery. The Unique mine ceased production in about 1905.
References: Lloyd, pp. 100-102.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Razorback battery site comprises the remains of a 10-head stamp battery.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Rob Kaufman (Bright Gold Shop) *Date:* 1995.

NAME: **SAMBAS NO. 7 BATTERY**
Upper Ovens goldfields—Harrietville

HI No. ***H8324-0025***

LOCATION: Sambas mine, west branch of Ovens River
MUNICIPALITY: Alpine Shire
CURRENT STATUS: State Forest—under mining lease

SITE HISTORY:
Sambas Reef was discovered in Jackass Gully in 1910 and opened up from 1912. The reef was lost in 1917, and the mine abandoned. In 1927, a 5-head battery was erected in Jackass Gully, from a battery box ex-Big Mill. The Sambas mine was worked through the 1930s and 40s. Crushing operations shifted to a 5-head battery (the Johnson or New Options battery) in Lady Jane Gully in 1954. The following year, the Sambas Co. erected a 10-head battery (ex-Tawonga mine) close to Harrietville, and during the late 1950s the Sambas was "by far the best of the smaller mines in Victoria". A 10-head Thompson's battery (ex-Williams United mine) was installed at the mine in 1966. That battery (the No. 7) is now out of use but is still on site. The Sambas mine is currently being worked.

References:
Department of Mines Annual Report, 1912.
Rob Kaufman (Bright Gold Shop), pers comm.
Lloyd, pp. 104, 139, 198.
Mining and Geological Journal, 1955.

DESCRIPTION & INTERPRETATION OF FEATURES:
The remains of the Sambas No. 7 battery are located on a benched platform above the sheds of the current mining company. Below the platform is a massive mullock heap. The mine is a good illustration of a recent phase of battery technology.

Battery—The stampers have been removed but the air compressor and 4-cylinder diesel engine remain *in situ*. The loading ramp is still in position, but is obscured by vegetation. Near the battery site are the remains of a galvanised iron, timber-framed shed.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* March 1995.

NAME: **BIPLANE BATTERY SITE**
Upper Ovens goldfield—Harrietville

HI No. ***H8324-0026***

LOCATION: East side of Alpine Road, on the east branch of Ovens River, south of Harrietville.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: National Park

SITE HISTORY:
Located in the "Black Hole", up the east branch of the Ovens River, the Biplane mine was discovered in 1919. The Biplane GMC worked the mine from 1920, erecting a 10-head mine in 1921. The mine was worked from three adits, the ore conveyed to the battery by aerial ropeway. Also operating were the North and South Biplane mines. After 1921, production from the Biplane mine fell away sharply, and it gave its last crushing in 1925. The next year, a fire destroyed huts at the mine. Prospecting continued for some years, but there is no record of further gold production. In total, the mine yielded 3,762 oz of gold. In 1937, concrete cyanide vats were erected and the mine tailings treated.

According to Kaufman, 10-head and 5-head batteries were removed from the Biplane site during the 1980s. The 10-head is now in the possession of E. Cook of Bright and is to be donated to the Shire for heritage display purposes. The 5-head battery is in the possession of P. O'Donnell of Wandiligong, who plans to use it as part of a "tourist mine".

References: Kaufman, pers comm, 1994.
Lloyd, p. 140.
Mining & Geological Journal, July 1937.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Biplane battery site are battery foundations, cyanide works (vats and tailings), and the collapsed remains of huts.

CONDITION OF FEATURES: Integrity considerably reduced by the removal of stampers, etc.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Rob Kaufman (Bright Gold Shop) *Date:* 1995.

NAME: **STAR EXTENDED BATTERY**
Upper Ovens goldfield—Harrietville

HI No. ***H8324-0027***

LOCATION: East branch of Ovens River, at foot of Mt Smythe, off Star Spur.
MUNICIPALITY: Alpine Shire
CURRENT STATUS: Alpine National Park

SITE HISTORY:
The Star Extended Amalgamated GMNL worked ground on west side of east branch of Ovens, near Baldy Creek, Harrietville, from 1922. The mine employed a 5-head Pelton wheel battery and operated until 1924. It reopened, without success, in 1933.
References: Lloyd, p. 141.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Star Extended battery site comprises five head of stamps and a Pelton wheel. According to Rob Kaufman, who has visited the site, the Pelton wheel is in good condition.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Rob Kaufman (Bright Gold Shop) *Date:* 1995.

NAME: **CENTENARY BATTERY SITE**
Upper Ovens goldfield—Harrietville

HI No. ***H8324-0028***

LOCATION: Upper west branch of Ovens River
MUNICIPALITY: Alpine Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The Centenary Reef was discovered on the north side of Guns Creek, south of Harrietville in 1934. A 5-head battery, driven by a Pelton wheel, was installed, together with an aerial ropeway connecting mine (adit) and battery. Bushfires in 1939 damaged the battery. It was repaired in about 1946, and work continued in the mine's No. 2 (lower) adit until about 1952. The battery was removed during the 1980s.
References: Kaufman, pers comm, 1994.
Lloyd, p. 142.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Centenary Reef battery site are a Pelton wheel, aerial ropeway (complete with buckets), and huts.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Rob Kaufman (Bright Gold Shop) *Date:* 1995.

NAME: **TRONOH DREDGE HOLES**
Upper Ovens goldfields—Harrietville

VHR No. ***H1756***
HI No. ***H8324-0029***
HI No. ***H8324-0030***
HI No. ***H8329-0031***

LOCATION: Harrietville
MUNICIPALITY: Alpine Shire
CURRENT STATUS: Recreation Reserve–State Forest

SITE HISTORY:

In 1938, the London-based Tronoh Finance Co. (already with dredging interests in Malaya) leased river flats totalling 356 hectares on the Upper Ovens. The Tronoh leases extended southwards for a distance of 7 km from a point halfway between Stoney and Smoko creeks. The bucket dredge was the biggest in the Southern Hemisphere: it measured 167 metres long, weighed 4,813 tonnes, and could dredge to a depth of approximately 41 metres. The dredge was built by Thompsons of Castlemaine, and an electricity line was installed from Bright. Construction costs totalled £380,000.

The Tronoh dredge commenced operations in 1942. Soon after, however, wartime manpower restrictions forced its closure for the duration of the WW2, and it was 1946 before operations commenced in earnest. The dredge turned to face north in 1949, the same year in which it returned its highest average yield of 2.29 grains per cubic yard. In fact, the annual volumes of material excavated by the dredge did not exceed much more than half the projected target. Added to that, continuing low yields and high labour costs eventually made operations unprofitable and the dredge ceased work in 1954. The total gold production of the Tronoh dredge at Harrietville was 54,000 oz. The company failed to honour the land rehabilitation and reclamation covenants on its leases. In 1955, the Tronoh dredge was sold and shipped to Malaya.

References: Lloyd, pp. 173-81.
Mining & Geological Journal, January 1939.

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the Tronoh dredge site are two dredge ponds and a turning pond.

North pond—Large dredge hole, now largely surrounded by freehold land.

Turning pond—Narrow, crescent-shaped pond where dredge turned, in 1949, to work northwards. The vertical face on the eastern side of the turning hole shows unworked sediment layers. On the western side is a massive unquarried tailings dump, now covered by pines.

South pond—Situated at the southern end of the above tailings dump. When working this hole, the dredge was turned back by rising bedrock (visible in the southern face of the hole) and turned northwards, re-working its own tailings.

CONDITION OF FEATURES: The turning and southern ponds and associated tailings dump are relatively undisturbed. Uncontrolled harvesting of the pines could affect the area's integrity.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Sites Listed Heritage Inventory

Assessed by: David Bannear *Date:* March 1995.

NAME: **GRASSHOPPER BATTERY**
Sandy Creek Goldfield

HI No. ***H8325-0009***

LOCATION: East of Sandy Creek Road, access through private property.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State Forest (access through freehold land)

SITE HISTORY:
The installation date of the Grasshopper battery is unclear. The mine appears not to have had its own battery during its initial phase of working in the 1880s, but the plant—a 10-head battery and cyanide works—was apparently in operation by 1903. The British and Australian Co. worked the Grasshopper mine from 1909-15, using the same plant. From 1916-18, the ex-British and Australian plant was utilised as the Sandy Creek government battery, treating mainly "tips".

References: Dunn
Flett, p. 158.
Mining Surveyors' Reports (Yackandandah Division), December 1886, December 1890,
Department of Mines Annual Reports, 1903-18.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Grasshopper battery are a portable engine and the remains of a battery, cyanide works, loading ramp, and hut—mine workings are situated nearby.

Portable engine—The engine rests on the ground on a benched platform below the track. Most of its fittings have been removed. It has double cylinders (one has been removed), each measuring 12 inches in diameter and 16 inches long. An inspection stamp on the smoke box reads: MD 011, T105, WP70, 11-2-10. The engine measures 12½ ft long and its 4½-ft fly wheel has been dislodged and now rests against the side of the engine. The base of the engine's flue is still evident.

Battery—The stampers have been removed from the site; the cam shaft lies near the road. Surviving foundations suggests the battery had ten head of stamps.

Treatment works—A small, intact slum pond (30 m x 15 m) is situated on a bench immediately below the battery. At the western end are the remains of a small roasting furnace. Most of its stone and brickwork has been scavenged, only the rear end—a roughly-built stone stack base with a small brick-lined flue—surviving.

Loading ramp and hut platform—50 m above the battery site are the remains of a loading ramp. Adjacent is a benched platform with a scatter of galvanised iron sheeting and a few flower [?] bulbs.

Mine workings—40 m east of the battery site is a deep open stope—very dangerous.

CONDITION OF FEATURES: Fittings have been removed from the engine, but the boiler body and smoke box are in good condition. The site has been thoroughly scavenged, but still retains a range of features.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* May 1995.

NAME: **OSBORNES FLAT DIVERSION SLUICE**
Yackandandah goldfield

HI No. ***H8225-0020***

LOCATION: West of Osbornes Flat Road
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Crown land

SITE HISTORY:
Osborne's Flat was one of the first areas mined at Yackandandah, rich alluvial gold being discovered there in 1852. It formed part of what the mining surveyors called Lower Yackandandah. Initially the ground was worked by sinking, then by paddocking—wholesale stripping away of the non-auriferous topsoil to reveal the gold-bearing washdirt beneath. By 1859, the main method of alluvial working on the Yackandandah field was sluicing. The mining surveyor remarked upon several deep tailraces and tunnels in progress, designed to divert the course of the creek and act as channels for sluice boxes. Among them was the tailrace of Carlo Re and party '(foreigners)', cut through hard slate in the creek bank at Hayes Point, taking two years to complete and costing £1,200.

The tailrace at Osborne's Flat is likely from, say, the late 1850s–1870.

References: Adcock
Australian Mining Standard, p. 93.
Mining Surveyors' Reports, 1859, February 1860.

DESCRIPTION & INTERPRETATION OF FEATURES:
Osbornes Flat diversion sluice

Eastern channel—750ft long, cut through granite with stone-retained walls. The channel appears to continue for some distance without stone walls. The creek now passes through this diversion channel, into which would originally have fitted sluice boxes.

Western channel—The original course of the creek? This channel has been blocked off and is very silted-up. Sections of stone-retaining are still present. Part of the channel may be on freehold land.

Water races—On the eastern slope of Yackandandah Creek run four levels of water races.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **CALEDONIA MINE SITE**
Yackandandah goldfield

HI No. ***H8225-0021***

LOCATION: South-west of Yackandandah. On east side of Stringers Ridge, at junction of Northern Stringer and Stringer Ridge roads.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State Forest

SITE HISTORY:

Discovered in late 1860, the Caledonia was among the first reefs opened at Yackandandah. Situated on the Clear Creek range, it was originally worked by shafts on several claims along its course. Crushing was carried out at the Phillippi Co.'s battery on Clear Creek. After yielding richly during 1863-4, the reef was abandoned due to excessive water. In 1879, Chambeyron brothers commenced working by tunnel and soon struck the reef. Initially, their stone was crushed at the Pride and Stringer mill; then, in 1886, the Chambeyron's Caledonia Co. erected its own 4-head battery and engine on Clear Creek, to which they carted stone for crushing. Their mine, at that time, was at the 375-ft level and yielded stone averaging 2 oz of gold per ton. Good yields continued during the later 1880s, the only drawback being that the poor state of the tracks between mine and battery made carting impossible during wet months. Up to 200 tons of stone would be stacked at the mine, awaiting improved conditions for carting.

Of the subsequent history of the Caledonia Reef, nothing has been found. It is possible that the mine was worked from 1906–14 by the Relay Co., which mined at Clear Creek during that period, installing a steam winding plant and battery.

References: Department of Mines Annual Reports, 1909-14

Mining Surveyors' Reports (Yackandandah & Nine-mile Divisions), June & December 1860, April & June 1861; (Yackandandah Division), June 1863; (Yackandandah South) December 1879, September 1880, December 1881, June 1882, September 1885; (Yackandandah Division) June & September 1886, September & December 1887, June 1889

DESCRIPTION & INTERPRETATION OF FEATURES:

The Caledonia mine site features three levels of workings.

Upper level—Open stope (2 m wide x 25 m deep x 20 m long) and intact mullock heap; and benched platform and open adit.

Middle level—Benched area and open adit.

Lower level—Two lines of mullock and adit.

CONDITION OF FEATURES: Undisturbed mine workings

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994

NAME: **PRIDE & STRINGER REEF**
Yackandandah goldfield

HI No. ***H8225-0022***

LOCATION: At the head of Clear Creek
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The claims of Pride and Stringer at Back Creek (a southern tributary of Yackandandah Creek and formerly part of the Nine-mile Division) appear to have first been worked in 1866. Both claims gave magnificent yields of gold—as much as 5 oz per ton—and they amalgamated to form the Pride and Stringer Leasehold Co. in 1869. A "splendid" 20-head battery (probably water-powered) was erected, said to be "the most complete plant in the district", and a tunnel was driven with the aim of cutting the reef at depth. The enterprise seems to have fallen flat, probably because the expense of the battery left insufficient capital to cover working costs. The forfeited Pride and Stringer mining lease was tried in 1875 by the Beechworth Prospecting Association, with good results. A company was formed to work the mine, and purchased the battery which was still on site. The battery continued to work—possibly only in a public capacity—until at least 1885, although the mine seems to have been idle for some time before that date.

References: Mining Surveyors' Reports (Yackandandah Division), December 1866, December 1869, March–December 1875, September 1876, June 1885.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Pride and Stringer Reef are mine workings on two levels, and the remains of a quartz roasting kiln and battery.

Mine workings

Upper level—Mullock paddock with an open shaft, decaying bedlogs, remains of a stone boiler setting, short section of flue, and stack base.

Lower level—Open adit and intact mullock heap. Remains of wooden rails within the adit.

Quartz roasting kiln—At the base of the spur is a well-preserved, below-ground kiln with its flue intact.

Battery site—Below the kiln, in the pine plantation, is the site of a water-powered battery. All that survives is a section of the cam shaft and fly wheel.

CONDITION OF FEATURES: Good integrity, except for the site of the water-powered battery, which has been disturbed by pine planting and harvesting activities.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **MARKHAM REEF WORKINGS**
Yackandandah goldfield

HI No. ***H8225-0023***

LOCATION: On the west side of Markham Creek Road
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The Markham Reef, at the head of Back Creek, appears to have first been worked in 1867. The following year, a battery was erected on the reef. In 1880, the battery (which had been 'unused for some time') was purchased by Wilberforce & Sons and moved to Clear Creek. No further details have been found of the workings on Markham Reef.
References: Mining Surveyors' Reports (Yackandandah Division), June 1867, September 1868, March 1869, December 1880.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of Markham Reef workings are an open adit, intact mullock heap with five dumping lines, benched platform, and a track heading north on the east side of the gully.

CONDITION OF FEATURES: Undisturbed

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* December 1994.

NAME: **SYDNEY REEF WORKINGS**
Yackandandah goldfield

HI No. ***H8225-0080***

LOCATION: Gully Road, west of Plunkett Track
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State forest

SITE HISTORY:
Sydney Reef was one of the Twists Creek group first opened in 1860. A crushing was first recorded from the Sydney Reef claim in 1866. Nothing is known of its later history.
References: Mining Surveyors' Reports (Yackandandah Subdivision), September 1866.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Sydney Reef locality features three apparent groups of workings: an open stope, shaft, and stone-retained whim platform (horse walk-way visible); a line of shafts with small mullock heaps; and, via a track below the whim shaft, an open adit and small mullock heap.

CONDITION OF FEATURES: Undisturbed workings

SIGNIFICANCE RANKING: Site listed heritage Inventory

Assessed by: David Bannear *Date:* December 1994.

NAME: **YACKANDANDAH CREEK CEMENT WORKINGS**
Yackandandah goldfield

VHR No. ***H1227***
HI No. ***H8225-0025***

LOCATION: On the west side of Yackandandah Creek, near the junction of Nine Mile Creek.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State Forest

SITE HISTORY:
History of these workings not known.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Yackandandah Creek cement workings feature a massive open cut with vertical walls. The floor of the open cut has extensive stone-retained pebble dumps, with several tail-race adits on its western side.

CONDITION OF FEATURES: Relatively undisturbed, except for one track and some quarrying.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **YACKANDANDAH CREEK GOLD HYDRAULIC SLUICING WORKS**
Yackandandah goldfield

VHR No. ***H1775***
HI No. ***H8225-0074***

LOCATION: Junction of Yackandandah and Cohns tracks, Yackandandah
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The Yackandandah Creek Gold Hydraulic Sluicing Works is the most intact site of its type in Victoria. The substantial remains, including water race, delivery pipelines, jet elevator, sluice box and mine workings would belong to gold mining operations undertaken during the 1940s.

DESCRIPTION & INTERPRETATION OF FEATURES:
Remnants of delivery pipes, sluice hole with pebble dumps, hydraulic elevator and sluice box, and water race.

CONDITION OF FEATURES: Relatively undisturbed, except for one track.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* 1998.

NAME: **KIRBY FLAT SLUICE**
Yackandandah goldfield

VHR No. ***H1256***
HI No. ***H8225-0026***

LOCATION: South of Bells Flat Road, Kirby Flat, Yackandandah Creek. The sluice is located 100 m upstream from the road.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State Forest

SITE HISTORY:
Kirby's Flat, south of Yackandandah, was first worked in 1853-4. By 1860, miners had shifted the course of Yackandandah Creek eastward to facilitate the working of its bed. The local mining surveyor wrote of Kirby's Flat: "This flat has been worked and re-worked … The gold … is too much diffused in small quantities through the soil to be remunerative to the dry-sinker, while it amply repays the sluicer, although he may have to incur an enormous expense in cutting head and tail-races to work the ground in a proper manner". A party of Chinese that year paid more than £200 for a tailrace and proven alluvial claim on Kirby's Flat. Thirty-odd miners worked the Flat during the 1860s. No records of later sluicing operations have been located.
References: Mining Surveyors' Reports (Snake Valley and Yackandandah Division), April, May & August 1860.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Kirby's Flat sluice is a stone-retained channel, 90 ft long x 2½ ft deep x 2¼ ft wide. After 12 ft, the sluice narrows and curves to join the creek. There is a small dump of pebbles at the end of the sluice, on the eastern side. The east bank of the creek, near the sluice, has been deeply quarried. A dump of six riveted sluicing pipes and water-race can be seen on the bank above the sluice.

CONDITION OF FEATURES: The stone wall nearest the creek is beginning to erode—needs stabilisation.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **YACKANDANDAH CREEK GORGE**
Yackandandah goldfield

VHR No. ***H1254***
HI No. ***H8225-0027***

LOCATION: On the east side of Bells Flat Road, west side of Yackandandah Creek
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Crown land

SITE HISTORY:

An 1860 map included a notation describing the position of "One of the expensive tailraces mentioned in my reports blasted thro' granite"—its position corresponds with that of the present-day upper gorge. A mining surveyor's report of December 1859 appears to refer to the same tailrace: "Messrs Edwards and party's tailrace at the bridge, near the Bridge Inn, on the road to the township is completed. The greater portion was cut through granite, and boxed throughout its entire length". In 1854 a sawmill had been erected on Yackandandah Creek, and Edwards' claim (worked from 1857) took in the "Falls of sawmill tail race".

The lower gorge was apparently constructed when the Premier GMC (Jessop & Fletcher) excavated a 100m-long tailrace in 1882, cut through hard rock to a depth of more than 2m in places. The Premier Co. had a sluicing lease at Rowdy Flat, on the creek just north of the township. The race was extended in 1885.

References: Keamy
Mining Surveyors' Reports (Yackandandah & Nine-Mile Divisions), September 1860; (Yackandandah Division) December 1882, March 1885.

DESCRIPTION & INTERPRETATION OF FEATURES:

Yackandandah Creek Gorge tail race comprises two channels—an upper and a lower—and stone-retained dam embankments. An interpretive trail has been established for the site.

Upper channel—Stone-retained walls and channel cut through granite, 10 ft deep, 8 ft wide and runs for approximately 200 ft. The channel is dry, blocked off from the present course of water by a concrete wall. The north end of the channel is completely obscured by blackberries, making it impossible to establish its relationship with the lower channel. Several dumps of pebbles are located at the northern end of the upper channel.

Lower channel—Cut through granite, 10–15 ft deep x 8ft wide x approximately 600 ft long. The lower channel now forms the present course of Yackandandah Creek.

Embankments—A stone-retained embankment runs across the dry original bed of Yackandandah Creek, on the eastern side of the tail race. It is 75 ft long and 6 ft wide and constructed of granite blocks and clay mortar. A second, smaller embankment has been placed across the mouth of a tributary to the creek.

CONDITION OF FEATURES: Good, although some sections of the sluice–tailrace are overgrown.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **STANLEY BATTERY**
Beechworth goldfield

HI No. ***H8225-0028***

LOCATION: East side of Beechworth–Stanley Road, Stanley
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Freehold land

SITE HISTORY:
The Stanley battery was operated as a public crushing works by the grandfather and father of Les Sinclair, the present owner, commencing early in the twentieth century.
References: Les Sinclair, pers. comm., November 1994

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Stanley battery site are an intact battery and tailings.
Intact battery—Site largely obscured by blackberries. Five head of stamps with cam shaft and wooden fly wheel (timber planks bolted to metal plate). Battery held in upright position by iron horses and timber bearers. Maker's mark on battery box reads: Jeffcott Street, Melbourne and Richmond. Eastern iron horse bears the casting inscription: "W. Anderson & Sons, Engineers and Iron Foundry, Melbourne & Richmond". No engine is present, and the battery shed has collapsed.
Tailings—Most of the tailings have quarried.

CONDITION OF FEATURES: Battery in good condition; shed has collapsed

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **WALLABY & KINGSTON MINE SITES**
Beechworth goldfield

VHR No. ***H1272***
HI No. ***H8225-0029***

LOCATION: Hurdle Flat. On the south bank of Nine-Mile Creek, 6.5 km east of Beechworth.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Nine Mile Historic Reserve (460 ha)

EXISTING HERITAGE LISTING: Nine-Mile Creek Historic Area is classified 'B' by the National Trust and is on the Register of the National Estate.

'The Nine Mile Creek Historic Area is significant for its outstanding diversity of gold-mining sites which represent nineteenth-century methods of both alluvial mining and reef mining (including open cut reef mining), the two main types of gold-mining carried out on Australian fields. (Criteria A3, B2)
"The area is associated with an important era in the history of north-eastern Victoria and it reflects the industry which supported Beechworth, Yackandandah and other towns in the region for a substantial part of the second half of the last century". (Criterion A 4)
"The way in which the mining sites blend in with a rugged creek valley heavily clad with native timber gives the place aesthetically important landscape qualities". (Criterion F 1) (Australian Heritage Commission, file no. 004656 2/08/245/0001/02).

SITE HISTORY:

The first recorded claim on Wallaby Reef was registered in February 1869. At the same time, four Irishmen registered a quartz claim named the Cead Mille Failtha on Hurdle Flat, one mile above Rocky Point. Before the year was out, good stone was struck in the Cead Mille Failtha shaft, and O'Dwyer and Co. erected a battery near their reef early in 1870. By that time, the Wallaby Co. had a good reef exposed at a depth of 70 ft, and a trial crushing at O'Dwyer's mill yielded 16 oz per ton. The operations of these two companies were credited with the growth of reef mining at Hurdle Flat—"this hitherto neglected locality".

By 1873, the Cead Mille Failtha mine was known as the Kingston, and both it and the Wallaby were flourishing. The new owners of the Wallaby adopted a more systematic plan of working, "taking out the stone in a face, and not picking it here and there where it may look well". In 1875 the Wallaby Co. came upon an immense reef, 24 ft wide, and to facilitate its working purchased a pumping wheel from the Rechabite mine, installing it at the mouth of the tunnel. At the same time, the company bought the Kingston battery.

The Kingston mine was, at that time, on a rich patch its 120-ft level, but was abandoned as "too poor" in the mid-seventies. From 1879, when it was taken up by Alexander Newton, the Kingston Reef was known as the Marco Polo. Crushing at the Wallaby battery, he got good returns from the mine for a few years, until an excess of water caused work to be suspended.

The Wallaby Co. commenced driving a long tunnel in 1880, in order to work the reef more cheaply. The ground proved very hard, and progress was made at the rate of just 20 ft a month, with the tunnel measuring 8 ft x 4 ft. In 1882, rich stone was stuck at last, when, at 554 ft, the tunnel broke through into the old workings. The company repaired its battery the next year, but the payable stone was soon exhausted and the mine struggled for the remainder of the eighties. An amalgamation of the Wallaby, Rechabite, and Marco Polo companies was mooted in 1889, for the purpose of jointly installing pumping plant to drain the three mines. That amalgamation appears not to have taken place. The Wallaby mine seems to have been only desultorily worked—if at all—during the 1890s, while the Marco Polo remained disabled by excess water.

At the turn of the century, a swag of new plant—including a large boiler—was installed at the "Old Wallaby" mine, and dead work was carried out ahead of the recommencement of mining. Locals were "looking forward to the time when a lot of Wallaby money will be circulated in Stanley". A survey of the Hurdle Flat quartz mines in 1908 described the workings on the "Wallaby side of the creek" as two tunnels driven into the hill just above creek level. The one into the Kingston–Marco Polo workings opened out into a large quarry, in which a whim had operated and a shaft been sunk. The Wallaby tunnel, three chains lower down the creek, was 600 ft long and ran into large open workings. Below the

tunnel were the remains of the old battery, which had been damaged by bushfire. By the following year, the mine was in the hands of G.B. Fletcher, who was "gallantly" persevering with its development. He erected a 12-head battery at the mouth of the shaft, and turned out his first trial crushing early in 1910. Two years later, the battery closed and mining all but ceased at the Wallaby mine.

In 1977, the Wallaby mine and battery were classified "C" by the National Trust. Following vandalism on the site, some movable items were removed and placed in storage by the Shire of Yackandandah. The local Lions Club was encouraged by the National Trust to relocate the Wallaby battery in a park in Yackandandah, as a temporary measure until such time as vandalism at Hurdle Flat could be "controlled". The army agreed to undertake the relocation. The Buildings Committee of the National Trust opposed the removal of the battery from its original site, as did the Shire of Beechworth on the grounds that Hurdle Flat was within its Shire boundary, not in Yackandandah: if the battery were to be relocated, it should be to the grounds of the Burke Museum in Beechworth. As it turned out, the battery was left on its original site, where it remains today.

References: Dunn

Gold Mining Claims Registers, held at the Burke Museum, Beechworth—summarised in note form by G.F. Craig of Stanley, July 1994.

Mining Surveyors' Reports, September 1870, September 1873, December 1875, September 1879, September 1880, March & December 1882, March 1883, June & December 1875, March 1889.

National Trust of Australia (Victoria), File no. 3218.

Ovens and Murray Advertiser, 10 January 1899, 20 January 1900, 23 April 1910.

DESCRIPTION & INTERPRETATION OF FEATURES:

The main features of the Wallaby and Kingston mine sites are mine workings (including mullock heap and haulage adit), the intact Wallaby battery, a boiler setting, collapsed battery site, and water races.

Wallaby mine workings—A glory hole (underground workings driven upwards to create an opening at the surface), approximately 40 m in diameter.

Mullock heap—Associated with the glory hole is a large (100m-long) intact mullock heap.

Haulage adit—A haulage adit runs from the base of the glory hole to a battery site on Nine-Mile Creek.

Intact battery—On a benched platform below the haulage adit is a battery, comprising 12 head of stamps, wooden horses, collapsed loading ramp and a horizontal single-cylinder engine.

Boiler site—Stone boiler setting (24 ft x 13 ft, with 2½ft thick walls), short brick flue, 4½ft-square brick chimney base, short section of iron stack, and decaying iron ship's tank.

Collapsed battery—Located 14 m south of the boiler setting, the remains consist of decaying mortar blocks (for four head of stamps), cam shaft and waterwheel pit. The remains are obscured by blackberry bushes.

Water races—Water for the battery was supplied by races visible on the slope above the battery site.

Kingston mine workings—On the slope below and to the east of the glory hole are several deep open stopes, mullock heaps, and at least two open adits.

CONDITION OF FEATURES: The battery stamps and boxes are still standing although the wooden horses are almost rotted out. The battery is being held in place by the iron tie bolts. The cam shaft and gear wheel are still attached to the stamper frame, but are in a precarious situation. The horizontal engine is supported by tie bolts and the bed logs are rotten.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* October 1994.

NAME: **RECHABITE MINE SITE**
Beechworth goldfield

HI No. ***H8225-0030***

LOCATION: Hurdle Flat. On east side of Nine-Mile Creek, 6.5 km east of Beechworth.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Nine Mile Historic Reserve (460 ha)

EXISTING HERITAGE LISTING: Nine-Mile Creek Historic Area is classified 'B' by the National Trust and is on the Register of the National Estate
NOMINATING BODY: National Trust, 1978

SITE HISTORY:
The first claim was registered on what was then called the Teetotal Reef in 1869. From 1870, crushings were carried out at O'Dwyer's Cead Mille Failtha battery. The numerous quartz claims on the Teetotal reef were amalgamated in 1873 and the reef was renamed the Rechabite. The mine gave patchy returns over the next few years: occasionally very rich, often poor. In 1876 the Rechabite Reef was held by 20 shareholders; it was divided into just four shares the next year. The mine seems not to have been active during this period, as its pumping machinery was sold to the Wallaby Co. at the end of 1875. In 1881, the Rechabite Co. (re?) opened a crushing mill and commenced working on a large scale. Within months, they had plans to replace it with a larger one. At the end of 1882, the shoot of payable stone being worked in the Rechabite mine ran out, and mining was suspended. In 1884 the Rechabite mill site was re-registered and the abandoned ground was taken up as the Old Rechabite Reef. An expensive tunnel was commenced in 1886, with the intention of cutting the reef at a lower level—"where they know rich stone lies"—but (surprise, surprise) the reef was not struck in the place expected. The mine was flooded out in 1887, and the claim was repeatedly suspended pending the erection of pumps. In 1889 an amalgamation of the adjoining Rechabite, Wallaby, and Marco Polo companies was mooted, to enable the purchase of pumping machinery which would drain all three mines. It is not clear whether that proposal went ahead. No further mention of the Rechabite Reef has been found.

References: Gold Mining Claims Registers, held at the Burke Museum, Beechworth—summarised in note form by G.F. Craig of Stanley, July 1994.
Mining Surveyors' Reports, March 1875, December 1875, June and September 1881, March 1883, March & September 1886, March 1889.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Rechabite mine site are mine workings, a mullock heap, and a benched platform and track.
Mine workings—Open stope with adit.
Mullock heap—large mullock heap
Benched platform—Overgrown with blackberry growth and open adit.
Benched track—Track runs west, above the creek

CONDITION OF FEATURES: The overhang of the stope is very rotten

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* October 1994.

NAME: **HOMEWARD BOUND MINE SITE**
Beechworth goldfield

HI No. ***H8225-0031***

SITE NETWORK: Nine-Mile Historic Reserve

LOCATION:	Hurdle Flat. On north side of Kerry Eagle Creek, off Lower Nine-Mile Creek.
MUNICIPALITY:	Indigo Shire
CURRENT STATUS:	Nine Mile Historic Reserve (460 ha)

EXISTING HERITAGE LISTING:	Nine-Mile Creek Historic Area is classified 'B' by the National Trust and is on the Register of the National Estate
NOMINATING BODY:	National Trust, 1978.

SITE HISTORY:

The Homeward Bound was the first reef discovered in the (then) Nine-Mile Mining Division, in August 1861. Numerous claims were registered and the first crushing took place in June 1862. A steam-powered battery was erected, which, in 1864, was converted to water-power by means of an overshot waterwheel. The mine had hitherto been worked by shaft, but a tunnel was completed in 1864, striking the reef at a depth of 300 ft. A tramway conveyed ore from mine to mill. The “economical” waterwheel turned out to be impractical in the notoriously dry Nine-mile Creek catchment, and in 1865 a new, more powerful steam engine was installed. In 1866, the mine was being worked at a depth of 370 ft, by means of a tunnel 750 ft long. Shareholders were congratulated on possessing “one of the best plants, and certainly one of the finest reefs in the district”, and quartz reefers on other mines at the Upper Nine-Mile were “waiting their turn at the mill”. Up to the beginning of 1866, the Homeward Bound mine had yielded 8485 oz, valued at over £33,600. By June 1868, though, the reef had diminished, and the Homeward Bound battery ('the only mill in district') was advertised for sale.

In 1869, the Homeward Bound Crushing Co. Amalgamated took over the reef. The company's nine shareholders included John A. Wallace. A new machinery site, 500 yards from the reef, was registered, as was a tramway connecting the two. Apparently, no progress was made, and the reef was abandoned as unpayable when Bigelow & Co. took it up in 1873. Shortly after commencing work they discovered a payable reef running parallel to the old one, and a water-powered battery was erected, giving “very handsome” returns for several years. Diminishing yields resulted in the mine being let on tribute in the late seventies. By 1884, the Homeward Bound tunnel had been extended from the 400 ft of ten years earlier to 1200 ft. The company was reorganised in 1886 and received government assistance to proceed with working the reef to a greater depth than its existing 700 ft. The mining surveyor called the Homeward Bound “the longest and best defined reef in the district”, having been worked for more than 25 years and generally yielding “splendidly”. A steam engine for pumping and winding was erected in the tunnel, and the water-powered battery was still operating. Within months, the company was discouraged by poor yields and operations wound down. “It is a pity”, wrote the mining surveyors, “that a strong company cannot be got to take the working of this reef in hand, as all experienced miners are of opinion that it is the best reef in the locality”.

The mine and machinery changed hands numerous times during the 1890s, but little actual work appears to have been done. In 1903, a tailings dam was constructed 400 yards from the Homeward Bound battery, with a tailrace connecting the two. Operations were confined to opening up and working the No. 3 shoot of ore, between No. 3 level and the surface.

In 1910, the “practically abandoned” Homeward Bound mine was floated on the English market and re-styled as the Lake Kerferd gold mine. The Beechworth mining registrar estimated that to that date the mine had yielded gold to a total value of £250,000. The mine had been idle for some time before a bushfire in 1914 claimed the battery house, engine house, assay office, cyanide office, poppet legs, and stables—“the iron roofs of the buildings and the ponderous machinery from which the supporting timber was burnt came crashing down at intervals”. (*Ovens & Murray Advertiser*, 11 February 1914) Ashes falling down the shaft ignited the mine timbers, and the draught through the tunnel (now 1800 ft long) which joined the shaft at 150 ft depth fanned the flames so that flames erupted from the shaft “like a volcano”. Forty years' accumulation of tools was twisted and ruined, as was the assay equipment and the “splendid” mill.

In 1978, the National Trust proposed that its existing Wallaby Mine Historic Area be expanded to include the Homeward Bound mullock heap, which was earmarked by the Forestry Commission for road metal. The site was subsequently classified as part of the Nine-Mile Historic Area by the LCC and registered on the National Estate.

References: Department of Mines Annual Reports, 1905, 1906.
Gold Mining Claims Registers, held at the Burke Museum, Beechworth—summarised in note form by G.F. Craig of Stanley, July 1994.
LCC, p. 87, Recommendation N10.
Mining Surveyors' Reports, August 1861, June, September & December 1864, September 1865, September 1866, June 1868, June & September 1873, September 1874, June 1875, March & June 1878, June 1879, September 1886, March, June & September 1887, December 1888, March 1889.
National Trust of Australia (Victoria), File no. 3218.
Ovens & Murray Advertiser, 8 February 1866.

DESCRIPTION & INTERPRETATION OF FEATURES:

The main features of the Homeward Bound mine site are a mullock heap, adit, battery site, and baker's oven.

Mullock heap—Large intact mullock heap, over 100 m long.

Adit—Open adit/cutting overgrown.

Battery site—Mound of rubble and various metal fragments. Now completely obscured by blackberry bushes.

Baker's oven—Remains of large brick baker's oven.

CONDITION OF FEATURES: Mullock heap intact, battery site obscured by blackberry growth.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* October 1994.

NAME: **HOPE REEF WORKINGS**
Beechworth goldfield

HI No. ***H8225-0032***
H8225-0033

LOCATION: Hurdle Flat–Nine-Mile Creek, 6.5 km east of Beechworth. West of Wallaby mine site.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Nine Mile Historic Reserve (460 ha)

EXISTING HERITAGE LISTING: Nine-Mile Creek Historic Area is classified 'B' by the National Trust and is on the Register of the National Estate
NOMINATING BODY: National Trust, 1978

SITE HISTORY:
The earliest-found record of workings on Hope Reef dates to 1870. Records show that various claims operated in a very small way (1–4 men) during the early 1870s, early 1890s, and 1900s.
References: Gold Mining Claims Registers, held at the Burke Museum, Beechworth—summarised in note form by G.F. Craig of Stanley, July 1994.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Hope Reef workings are two adits: one collapsed, with an associated small mullock heap; the other an open adit with overgrown cutting and a large intact mullock heap.

CONDITION OF FEATURES: Undisturbed mullock heaps

SIGNIFICANCE RANKING: Sites listed Heritage Inventory

Assessed by: David Bannear *Date:* October 1994.

NAME: **NINE-MILE CREEK ALLUVIAL WORKINGS**
Beechworth goldfield

HI No. ***H8225-0034***

LOCATION: Nine-Mile Creek, on the northern side of Lower Nine-Mile Track
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Nine Mile Historic Reserve (460 ha)

EXISTING HERITAGE LISTING: Nine-Mile Creek Historic Area is classified 'B' by the National Trust and is on the Register of the National Estate
NOMINATING BODY: National Trust, 1978

SITE HISTORY:

Alluvial ground was worked along Nine-Mile Creek from early in the 1850s. The creek yielded coarse gold at Rocky Point and fine gold further down. Box-sluicing was the principal mining method used during the 'fifties. By the end of the decade, the ground had been worked over and abandoned several times (as many as six times, in some instances), and parties of miners were beginning to work on a larger scale, by 'a greatly improved method' of ground sluicing. Thomson and party at Hurdle Flat were an example. In 1859, they cut a deep and expensive tail race or sluice from Europa Gully up to their claim, "nearly the whole way through a reef which crops out between the claim and the gully". Parts of the tail-race were cut through rock to a depth of 12 feet. Water was supplied to the claim from springs on Hurdle Flat itself. Thomson's was just one of many claims taken up for working in a similar fashion at that time. In addition to the new mode of working (deep tail races), re-working was given impetus by reduced wage levels and new mining regulations which allowed for the granting of larger claims. On Hurdle Flat in mid-1860, "sluices are in full operation, and a great number of parties are busily engaged re-working, on improved methods, the bed of the lower Nine Mile Creek".

The Chinese population of the Nine-Mile Division numbered over 1,000 in 1860. The Chinese, at that time, were principally engaged in 'dry sinking', unlike the Europeans who favoured sluicing, in spite of water shortages. Many European claimholders employed Chinese, mainly for throwing out tailings from the end of sluices.

The Ovens Water Co. took up a portion of Nine-Mile Creek at Hurdle Flat, in 1860, for the formation of a reservoir, to supply water to sluicers on the lower Nine-Mile (the Nine-Mile/Stanley area was notoriously dry). Almost 150 men were employed on the works, which involved opening up the Hurdle Flat springs, driving a tunnel, and cutting a race from the mouth of the tunnel to the reservoir. The site of the reservoir was itself sluiced—"a most remunerative method of getting rid of the soil"—and, in the process, two quartz reefs were discovered.

In 1864, more than 200 miners were at work on Hurdle Flat, most of them engaged in alluvial mining. Deep tailraces and tunnels were still the order of the day, and claims were being worked with success. From the mid-1860s, alluvial mining at Nine-Mile Creek rarely rated a mention in mining records, being steadily overshadowed by the growth of quartz mining. Late in the 19th century, large-scale hydraulic sluicing and sand-pumping operations commenced in the Stanley area, and some of this activity undoubtedly extended along Nine-Mile Creek to Hurdle Flat. Small parties were doing well on Nine-Mile Creek just before the First World War, and the ground probably received renewed attention during the depression of the 1930s and possibly during the 1950s when Parkinson's Sluicing Co. worked ground in the Stanley vicinity.

References:
Department of Mines Annual Report, 1912.
Mining and Geological Journal, 1955-7.
Mining Surveyors' Reports (Snake Valley Division), August & September 1859; (Snake Valley and Yackandandah Division), February–July 1860; (Spring Creek, Three-Mile, and Woolshed Divisions), July 1860; (Yackandandah & Nine Mile Divisions), October 1860, June 1861; (Nine-Mile Creek Subdivision), March & June 1864; (Beechworth Division), June 1881.

DESCRIPTION & INTERPRETATION OF FEATURES:

The Nine-Mile Creek workings are now overgrown by blackberry bushes. The main features recorded by the National Trust in 1977 were:

- Extensive signs of hydraulic sluicing—red clay cliffs up to 20 m high, long (stone-retained?) sluices, and massive accumulations of stones and other tailings;
- Numbers of water races and dams. In some sections of the valley there are as many as six tiers of races, one above the other, and sometimes only a metre or so apart;
- Evidence of buildings and gardens.

CONDITION OF FEATURES: Almost completely overgrown with blackberries.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* October 1994.

NAME: **REEDY CREEK ALLUVIAL WORKINGS**
Beechworth goldfield

HI No. ***H8225-0035***

LOCATION: On south-west side of McFeeters Road, opposite the track into Reedy Creek Alluvial Co. power plant.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State Forest

SITE HISTORY:
Reedy Creek, at this point, would have first been worked in 1852-3 and then intensively throughout the 1850s–60s. In the late 1880s, the mining surveyor wrote of a large-scale operation in progress on Reid's/Reedy Creek: "Much of Reid's Creek Valley has been washed down to the bedrock, and removed by the Excelsior Company. They are steadily advancing towards the falls at the upper end of the valley, and, by the time they have finished, there will be scarcely a trace of gold left in this once fabulously rich locality".
References: Flett, pp. 62-5.
Mining Surveyors' Reports, September 1887.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Reedy Creek workings comprise an area of sparsely vegetated, sluiced hill-slope (approximately 400 m x 200 m). A number of partly silted sluice channels (1 ft wide, 2 ft deep) are cut into bedrock on the eastern side of the workings, some of the channels extending for more than 100 m and some of them connecting.

CONDITION OF FEATURES: Sluiced area is being cut up by trail-bike riders; also some silting of the sluicing channels.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **SHEEPSTATION CREEK ALLUVIAL WORKINGS**
Beechworth goldfield

HI No. ***H8225-0036***

LOCATION: Cheesewring, Sheepstation Creek—north-west of Beechworth
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State Forest

SITE HISTORY:
No historical references to the site have been found. However, it is likely to date to the period 1855-80. The diversion sluice would have operated in much the same way as one described at Dry Creek in 1861, which involved "cutting a tail race in the rock in the bed of the creek, and fixing a permanent set of large boxes, and working the points and sides of the creek by means of branch boxes, all, however, falling into the main ones". *(Mining Surveyors' Report (Kilmore Division), January 1861)*

DESCRIPTION & INTERPRETATION OF FEATURES:
Diversion sluice - The sluice ends immediately below the Cheesewring granite tor. The stone-retained section of the sluice is largely obscured by blackberries. Walls of the sluice stand to a maximum height of 5 ft. Water now runs though both channels of the sluice.

CONDITION OF FEATURES: Overgrown

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **REEDY CREEK ALLUVIALS CO. WORKINGS**
Beechworth goldfield

HI No. ***H8225-0037***

LOCATION: North of McFeeters Road, on south side of Reedy Creek.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The Reedy Creek Alluvials Co. operated from 1937 until ?. Water pressure was supplied to the sluicing plant by an electric pump.
References: *Mining and Geological Journal*, 1937-8

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Reedy Creek Alluvials Co. workings are the site of a power plant, a water race, and an extent of hillslope sluicing.

Power plant site—Concrete slab, 35 ft x 25 ft, with engine mounting beds. Near the south-east end of slab is a small concrete sump (14 ft x 10 ft). To the east of the slab is a 20ft-long concrete retaining wall.

Water race—A well-defined race runs along the south side of the creek, below the power plant foundations.

Hillslope sluicing—The slope below the water-race has been sluiced to a depth of 3 to 4 m's, and is now littered with dumps of pebbles and wash.

CONDITION OF FEATURES: Good, although the surfacing has been disturbed by logging tracks.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **FLETCHER'S TAILRACE**
Beechworth goldfield

VHR No. ***H1424***
HI No. ***H8225-0038***

LOCATION: Below Newtown Bridge, at Pennyweight Flat
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State Forest

SITE HISTORY:

Donald Fletcher's tailrace was completed in mid-1871, and was cited as evidence "that individual enterprise is not yet dead on this goldfield". It was nearly as long as (but cost less to construct than) the one just completed by the Rocky Mountain Co., which was about half a mile in length. The ground being sluiced was 'old' (i.e. had been previously worked) and was about 35 ft deep. It had yielded well for Fletcher, although his operations were hampered by an inadequate water supply.

Butler attributed the site to a race cut by the Union Mining Co. in the mid 1850s, to drain the wetter sections of Spring Creek. In 1861, Fletcher's party at Pennyweight Flat extended their already long tailrace, which fell into Spring Creek. It is possible that the tailrace completed in 1871 was a further extension of a race originally cut in the 1850s.

References: Butler, p. 19.
Mining Surveyors' Reports (Spring Creek), September 1861; (Beechworth Division), June 1871.

DESCRIPTION & INTERPRETATION OF FEATURES:

Fletcher's tail race is a deep, narrow channel cut through granite bedrock. The race extends for approximately 300 m and is visible from both sides of Newtown Bridge.

CONDITION OF FEATURES: Good—clear of vegetation

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **ROCKY MOUNTAIN TUNNEL**
Beechworth goldfield

HI No. ***H8225-0039***

LOCATION: Tunnel commences at the south-western end of Lake Sambell, Beechworth.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Beechworth Historic Park (1130 ha)

SITE HISTORY:
The Rocky Mountain tunnel had its origins in a 400ft-long tailrace blasted through rock by the Rocky Mountain Co. (a party of twelve men) in 1859. In 1867, the Rocky Mountain Gold Sluicing Co. was formed and the tailrace deepened and extended, to enable the working of deep ground higher up the valley. When the tailrace was completed in 1871, it was an average 14 ft deep and 6 ft wide, cut through granite for almost half a mile. The mining surveyor at Beechworth called it "without doubt, the greatest undertaking of the kind in the colony".

The Rocky Mountain claim paid good dividends until 1876 when, as sluicing operations proceeded higher up the creek valley, the ground became deeper and the tailrace was again no longer adequate. The company reorganised as the Rocky Mountain Extended Gold Sluicing Co., increased its capital, and purchased adjacent claims, then cut a tunnel through granite from a point about 600 ft below the Newtown Falls to the company's workings, east of the town. When the tunnel was first mooted, "it was scoffed at by many people as being wild, visionary, and impracticable". It cost £13,500 and was reputed to have established world records for tunnelling in hard rock. It has been claimed that mining would not have continued at Beechworth had it not been for the construction of the Rocky Mountain tunnel.

It was utilised for sluicing and dredging purposes for 45 years and was later used by the defunct Zwar Brothers tannery. It now acts as an outfall drain for the lake and town drainage.

References:
Butler, p. 20.
Canavan
Davidson
Mining Surveyors' Reports (Spring Creek Division), May 1859; (Beechworth Division), June 1871.
Myers
National Trust file no. 4756.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Rocky Mountain Co.'s water diversion tunnel measures 1010 m long x 2.13 m high x 1.52 m wide, and is cut through granite under Spring Creek from an inlet at Lake Sambell (the flooded site of the Rocky Mountain Co. alluvial works) to an outlet near Newtown Falls. The spoil from the tunnel lies on the north side of the gorge. The outlet has been plugged with concrete. Remains of the original heavy timber sluicebox are said to remain on the tunnel floor (a substantial sluice box of heavy timber was laid on floor of tunnel, with a floor of wooden ripples and coir matting to catch gold that escaped the sluicing operations at the diggings). Entrance of tunnel in water reserve, adjoining public land including Lake Sambell reserve. Tunnel exit in Beechworth Regional Park, ending in a deep cutting through the granite bed of Spring Creek. The exit adit has been closed off with a wire mesh screen, through which water still flows.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **WOOLSHED FALLS ALLUVIAL WORKINGS**
Beechworth goldfield

HI No. ***H8225-0040***

LOCATION: North of McFeeters Road, Woolshed Falls
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Beechworth Historic Park

SITE HISTORY:

The Woolshed—a section of Reedy Creek about 6.5 km below Beechworth—was opened in 1853. Within two years, it was the richest and busiest locality on the field and was renowned throughout the colony. The Woolshed township extended along the creek for 4 km, serving a mining population of thousands.

The alluvial ground on the Woolshed was very wet and deep, making it difficult to work. Innovation and money were required to tackle the problems of drainage and tailings disposal. In the ground-sluicing claim of Bawden's (or Rawden's) Steam Co. in 1861, "an endless band of vulcanised india rubber, 15 ft long, was employed to raise tailings and water in buckets and discharge them over the bank into the creek." Deep tailraces, cut through rock, were the order of the day. By the mid-1860s, Chinese miners predominated: working in large parties, they were able to profitably work ground that others had given up as worthless.

The Woolshed and its tributaries yielded not just gold, but "black sand", or tin. By 1870 tin "streaming" was proving more profitable than gold mining.

In 1890, the Woolshed Valley Co. was formed, to re-work the creek by the new system of "dredging". This pioneering dredging operation employed a barge-mounted Jennings sand (or gravel) pump. The mining surveyor wrote that the Woolshed Valley Co.'s methods 'could lead to opening up of a new era in alluvial mining'—and he was right. The yields from the dredge were "splendid", despite the ground having already been worked over twice. The Woolshed Valley dredge continued work until 1911.

References:
Australian Mining Standard, pp. 90-93.
Butler, p. 22.
Department of Mines Annual Reports, 1906, 1907, 1911.
Dunn
Flett, p. 65.
Mining Surveyors' Reports (Spring Creek Division) July 1861; (Beechworth Division), June 1866, December 1870, June 1872, March 1890, June 1890.

DESCRIPTION & INTERPRETATION OF FEATURES:

The Woolshed Creek alluvial workings cover an extensive area, showing evidence of a range of alluvial mining methods and technology, including a creek diversion, "surfacing", races, tunnels, and remnants of flume supports (an oblique line of steel dowells driven into the rock face of the falls - said to date to 1930s).

Creek diversion—Above Woolshed Falls, the creek has been diverted to the south in a channel approximately 300 m long, cut through granite to the head of the falls. At the commencement of the diversion channel is a short adit, cut through a spur on the south side, through which water still passes. To the north of the diversion channel is the dry bed of the original creek course.

Alluvial 'surfacing'—Beside the creek above the falls can be seen a patch of "surfacing", where miners scraped out gold-bearing soil from between the granite boulders.

Water races—Two levels of races are evident, the upper level retained with stone.

CONDITION OF FEATURES: Good—free of vegetation

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **CHINAMAN'S FLAT ALLUVIAL WORKINGS**
Beechworth goldfield

HI No. ***H8225-0041***

LOCATION: Red Hill, at junction of Hurdle, Deep and Silver creeks. Off Ott's Track, just east of Beechworth.
MUNICIPALITY: : Indigo Shire
CURRENT STATUS: Beechworth Historic Park

SITE HISTORY:
A map of the Beechworth goldfield completed at the end of 1852 showed diggings near Red Hill. Historically, the area of the Beechworth goldfield known as Chinaman's Flat was on the lower Three-mile Creek, at Bowman's Forest. No historical references have been found to a Chinaman's Flat in the vicinity of Red Hill, other than that, during 1865, between 30 and 60 Chinese miners (and no Europeans) were working at a Chinaman's Flat which was grouped with Silver, Deep, and Hurdle creeks in the mining population list.

The name, Chinaman's Flat, suggests that Chinese miners predominated there at some date—probably in the early to mid-1860s. In 1866, Chinaman's Flat (Bowman's) was named as a locality occupied solely by Chinese. At that time, Chinese miners were working with considerable success, in many parts of the Beechworth goldfield, on ground abandoned by Europeans as unremunerative.

References: Flett, p. 64.
Mining Surveyors' Reports (Beechworth Division), March–December 1865, June 1866.

DESCRIPTION & INTERPRETATION OF FEATURES:
Chinaman's Flat has been extensively sluiced and is very overgrown. Visible features are two adits, a sluicing sump, and a dam embankment.

Adits—Upper (drainage) adit and lower (sluice) adit, running in an east-west direction through Red Hill Spur.

Sluicing sump—On the east side of Red Hill Spur is a 20ft-square concrete sump (recently fenced). The sump is at least 20 ft deep and the level of the upper adit is just below the top of the sump.

Embankment—An embankment, 75 m long x 2-m high embankment runs around the northern side of the sump.

CONDITION OF FEATURES: The adit and sump are in good condition. The sluiced ground is very overgrown.

SIGNIFICANCE RANKING:

Assessed by: David Bannear *Date:* November 1994.

NAME: **MAGPIE CREEK DIVERSION**
Beechworth goldfield

VHR No. ***H1253***
HI No. ***H8225-0042***

LOCATION: Wooragee, north of Beechworth
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Magpie Creek Historic Reserve

SITE HISTORY:

The Magpie Creek diggings were opened in 1856. In 1864, about 150 Chinese rushed Magpie Creek, all engaging in surfacing and sinking. More than 150 Chinese miners remained in exclusive occupation of the alluvial ground at Magpie Creek until at least 1867—memorably, they were joined by a lone European miner for a short time in early 1866. Many claims yielded as much as 30 to 40 oz. per week that winter. In 1887, Dunn wrote:

> *In the valley of Magpie Creek there is an extensive deposit of shingle over the wash-dirt… For over twenty years a large party of Chinese have been working the lead. They are now sluicing away the whole of the drift, and if it proves payable there is ground enough for another 30 years' work.*

The New Wooragee Sluicing Co. operated a sand pump in the Wooragee area—possibly extending to Magpie Creek—during the first ten years of this century.

References: Department of Mines Annual Reports, 1906, 1911-12.
Dunn
Flett, pp. 65-6.
LCC, p. 87, Recommendation N10.
Mining Surveyors' Reports (Beechworth Division), March & September 1865, March, June & September 1866.

DESCRIPTION & INTERPRETATION OF FEATURES:

The Magpie Creek workings feature a complex system of water diversions—deep channels, large dams, stone diversion walls—as well as shafts with mullock heaps, and high sluiced faces.

Creek diversion—The stone-retained (local granite blocks) section of the diversion channel is approximately 200 m long and its walls are 1.5 m high. Water now runs only though the diversion channel. At the southern end of the sluice is an extensive dump of pebbles and wash. A water race takes off from the northern end of the sluice. The sluicing complex is completely free of blackberries.

Dredged landscape—The southern part of the Historic Reserve has been sluiced and dredged and presents a confusing and overgrown landscape of dredge holes, slum ponds and disturbed ground.

CONDITION OF FEATURES: Most of the granite blocks that retain the diversion channel are still in position. Overgrowth by vegetation and disturbance by later phases of gold mining have substantially degraded the southern part of the Magpie Creek Historic Reserve.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **HODGSON'S CREEK ALLUVIAL WORKINGS**
Beechworth goldfield

HI No. ***H8225-0082***

LOCATION: Hodgson's Creek, east of Voights Road, near junction of Voights Road and Hodgson's Creek Track—south-west of Beechworth.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Streamside Reserve

SITE HISTORY:
Just a couple of historical records of mining on Hodgson's Creek were found. An 1860 report referred to "part of the lower Three-mile or Hodgson's Creek". In 1868, a minor rush occurred to "the Yellow Creek, below the Melbourne Road"—apparently Hodgson's Creek. The creek had been tried "a few years back", at which time it had not been considered payable; with lower labour and plant costs, it was thought that the creek might now pay. The prospectors' claim (a shaft sunk 30 ft on the lead) failed, but another paddock further down the creek gave better yields. After two years the prospectors abandoned their claim, and the mining registrar remarked, "If a tail-race could be brought up to this ground, and it worked by sluicing, it would pay well, but it is too poor to pay for any other system of mining".

As part of the locality known as the Three-mile, Hodgson's Creek would have been subject to sluicing activity from the mid-1850s, intensively reworked by parties of Chinese throughout the 1860s, and possibly included in the large scale sluicing operations of Pund & Co. (1880s-17) and the GSG Co. (1918-50).

References: Department of Mines Annual Reports, 1903-18.
Mining and Geological Journal, 1937-50.
Mining Surveyors' Reports (Spring Creek, Three-Mile and Woolshed Divisions), December 1860; (Beechworth Division), September & December 1868, December 1870.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Hodgson's Creek alluvial workings bear the features of a sluiced landscape.

Tailrace—Cut through bedrock on the west side of the creek is a tailrace, approximately 100 m long, 3 ft wide and 5 ft deep in places. The creek currently runs through the tailrace.

Slum ponds—On the east side of the creek, running upstream from the tailrace is a network of massive slum ponds. The one nearest the tailrace is approximately 100 m in diameter and about 4 m high. The intact ponds are presumably linked to hydraulic sluicing operations conducted in 3- and 6-mile creeks, etc.

Alluvial workings—Downstream of the tail race (extending for about 750 m) is an extensive area of sluiced ground containing the remains of tailraces, water or head races, and small pebble dumps.

CONDITION OF FEATURES: The workings are relatively clear of vegetation.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* March 1995.

NAME: **SIX MILE CREEK ALLUVIAL WORKINGS**
Beechworth goldfield

HI No. ***H8225-0083***

LOCATION: Bates Track, Six Mile Creek—south of Beechworth
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Beechworth Historic Park

SITE HISTORY:
Six-mile Creek is a southern tributary of Three-mile Creek, south of Beechworth. Alluvial miners worked at intervals along its course during 1852, with the main concentration at the creek's upper end, near its junction with the Three-mile. "At the head of this creek", wrote the mining surveyor in 1860, "there is a tolerably good site for a reservoir … but the gathering ranges adjoining are so low and limited, that the quantity of water that would be collected would be small. The rocks also crop out very much in this part of the district, which allows water to be absorbed, and prevents races from being of much service". It was probably due to this apparent shortage of water that few miners worked on the Six-mile during the 1860s, compared with the neighbouring Three-mile: miners numbered between 20 and 40, roughly half of them Chinese and half European.

Reefs were worked at the upper end of Six-mile Creek from 1866; one of the early reefing parties being Ah Gee and Co. A party of Frenchmen working a creek claim in 1871 discovered a very rich surface vein of quartz, which they named Bon's Reef and sold for £1,000. A battery was erected on the reef by its new owners. Several claims were taken up, and an old reef further up the creek was reopened. The Six-mile reefs sank from view in the mining records until 1879 when the Frenchman's Reef was revived and again yielded richly for a short time. The reefs were again taken up in 1889, at which time the workings were still confined to surface patches.

By the early 1900s, sections of Six-mile Creek were included in the sluicing claims of John Pund, whose large-scale operations made him one of the main gold producers on the field. In 1911, Fletcher was sluicing a claim at Six-mile by gravitation. Sluicing at Six-mile is likely to have continued until at least the 1920s, and possibly beyond, in the hands of large operators like GSG Amalgamated and Parkinson Alluvials.

References: Department of Mines Annual Reports, 1906, 1911.
Flett, p. 63.
Mining Surveyors' Reports (Spring Creek, Three-mile, and Woolshed Divisions), August 1860; (Beechworth Division), March–December 1866, December 1868, December 1871, March–September 1872, December 1879, March 1880.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Six-Mile Creek alluvial workings are located in the vicinity of Bates dam. Features include a boiler, stone fireplace, and examples of bank sluicing and hydraulic sluicing.
Boiler—At the southern end of Bates dam, on the south side, is a 12ft-high vertical boiler. Nearby are the remains of a stone fireplace. No other features are visible.
Bank sluicing—The bank of the creek, above (east) of the boiler is an undisturbed example of bank sluicing, featuring stone-retained channels and massive mounds of pebbles.
Hydraulic sluicing—The gully below Bates dam has been deeply sluiced. The absence of blackberry growth makes it a very visible and impressive sluiced landscape.

CONDITION OF FEATURES: Alluvial workings above and below the dam are undisturbed and free of blackberry growth. The boiler is in good condition.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **WELLS' MURMUNGEE BATTERY**
Beechworth goldfield

VHR No. ***H356***
HI No. ***H8225-0077***

LOCATION: Cunningham Gully, Murmungee—10 km south of Beechworth
MUNICIPALITY: Wangaratta Rural City
CURRENT STATUS: State Forest

EXISTING HERITAGE LISTING:
Classified 'C' by National Trust, 1972. Listed as the "Weone" mine on the Register of the National Estate. Listed on Historic Buildings Register. Recommended as an historic reserve by the LCC North East Study.
'Picturesquely situated in a low forested glade, this ramshackle collection of structures is probably unique in Victoria. Although erected in fairly recent times, it demonstrates superbly the small gold mining practices of the past. The engine and crusher originated from an old mine at Stanley and survive from earlier times. The roughly hewn timber and iron structures epitomize the aesthetics of rough bush buildings.' (Australian Heritage Commission statement of significance).

SITE HISTORY:
Gold was discovered in Cunningham's Gully in 1858. Reefs were opened in the vicinity from the mid-1860s, the first of them being McLean's Reef, discovered by alluvial miners in McLean's Gully. A water-powered battery was erected in Cunningham's Gully by Dean & Co. in 1868, to crush for their King, Annandale, Solway reefs. The Murmungee–Bowman's Forest reefs were briefly the major gold producers on the Beechworth field. Operations at that time were short-lived, though, due in part to the scarcity of water in the locality, and the battery was removed in 1871. When the Bowman's Forest reefs were revived in the mid-1880s, a steam-driven battery was erected at Murmungee by George Biddington. Development of the reefs was again limited to surface scratchings, where rich stone was easily procured. The mining registrar wrote of the reefs in 1887 that "up to the present none of them have developed into good permanent reefs".

There were small parties working on reefs about Murmungee early this century. One of them, Wells and party, erected a small battery on their prospecting claim on McLean's Reef in 1915. The party was still prospecting in 1917. The fate of the 1915 battery is not known, but according to information cited by the National Trust, the existing plant was erected in 1939 and the mine, known as the Weone, worked (unprofitably) until the late 'forties by Walter Wells and his son Max. They crushed stone, not just from the Weone, but from various quartz shows in the vicinity. The shallow workings evident near the battery today suggest that the Murmungee quartz workings never progressed much beyond the surface scratchings noted in the mid-1880s. In the early 1980s, the local branch of the National Trust proposed that the waterwheel and other remaining plant be re-sited to Beechworth, after the theft of several components from the Cunningham Gully site. The plant is still owned by Max Wells.

References: Department of Mines Annual Report, 1906, 1915, 1917, Flett, p. 68, LCC, p. 87.
Recommendation N8, National Trust of Australia (Victoria) file no. 3276.
Australian Heritage Commission, file no. 004531 2/08/230/0011/02.
Mining Surveyors' Reports (Beechworth Subdivision), March & June 1866, December 1867, March–December 1868, December 1870, March–September 1885.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Wells' Murmungee battery site are a waterwheel, battery remains, and reef workings.
Waterwheel—The wooden spokes and iron hub of a waterwheel, 13½ ft diameter x 2½ ft wide. Part of the wheel's timber shrouding and most of the back sheeting still survives, but none of its buckets remain. The waterwheel is set in a stone-retained pit.
Battery—The battery stampers were stolen in 1982. Features surviving today include the timber framework of the battery house, mortar blocks and a collapsed loading ramp.
Reef workings—Shallow workings at head of gully.

CONDITION OF FEATURES: Poor

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **ROCKY MOUNTAIN BUCKET DREDGE**
Beechworth goldfield

HI No. ***H8225-0075***

LOCATION: Near Mauger Road, Hurdle Creek
MUNICIPALITY: Indigo Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The Rocky Mountain Dredge commenced working in 1914 and operated for several years.

DESCRIPTION & INTERPRETATION OF FEATURES:
Rocky Mountain Dredge
Dredge—30 x 10 metre timber pontoon skeleton lying partly buried in a dredge pond. Pond is still retained by a bank of tailings

CONDITION OF FEATURES: Largely buried.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* 1998.

NAME: **McEVOY NO. 4 SHAFT**
Beechworth goldfield

HI No. ***H8225-0016***

LOCATION: Eldorado
MUNICIPALITY: Wangaratta Rural City
CURRENT STATUS: Crown land

SITE HISTORY:
The McEvoy mine was worked by four shafts (three on the north side of creek, one on the south) between 1859-1901. Mining gold and tin, it was the richest deep lead mine at Eldorado. However, its main claim to fame was the McEvoy mine disaster, 1895, which signalled the end of deep shaft mining on this wet field and opened the way for wide-scale sluicing and dredging. Of regional significance.
References: Butler (GSV.M7, M6 diagram).

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the McEvoy No. 4 shaft are the shaft site, mullock heap, mining machinery foundations, and a walking track. Site of a well-known mine disaster.
Shaft site—The site of the No. 4 shaft is marked by a depression where the shaft-capping has subsided
Mullock heap—An extensive mullock heap, measuring 25 m x 5 m high.
Mining machinery foundations—An arrangement of bedlogs and mounting bolts and the remains of two boiler settings.
Walking track—The site forms part of the Reid's walking track.

CONDITION OF FEATURES: Site only

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **COCKS ELDORADO DREDGE**
Beechworth goldfield

VHR No. ***H386***
HI No. ***H8125-0008***

LOCATION: Eldorado
MUNICIPALITY: Wangaratta Rural City
CURRENT STATUS: Historic Area

EXISTING HERITAGE LISTING:
Listed on the Register of the National Estate
'The last remaining sizable object on the Ovens goldfields and served as superb reminder of the final phase of the gold era in Victoria, when profitable mining could only be undertaken on an industrial basis with extensive capital outlay and large machinery. It was the last of the big alluvial gold dredges in Australia, the largest bucket dredge in the country at that time, and is the largest surviving of its type in Victoria, possibly Australia. The Eldorado dredge expresses the immense scale of mining in a way that underground mining cannot, and is of State, if not national importance. (Australian Heritage Commission statement of significance).

SITE HISTORY:
The dredge was designed and built in 1935 by Thompson's Engineering and Pipe Co., Castlemaine, for Cocks Eldorado Gold Dredging Co., and was used to excavate gold- and tin-bearing material from the river flats on the Eldorado Plain. When mining operations ceased in 1956, the dredge had treated 30 million cubic metres of creek bed, yielding 70,664 oz of gold and 1,475 tonnes of tin. The site is still owned by Cocks Eldorado Co.
References: Butler, p. 82.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Cocks Eldorado dredge site are the bucket dredge itself, a dam and water race, and the foundations of the power station and amalgamation shed.
Bucket dredge—A massive corrugated iron-clad plant placed on a pontoon raft with 110 dredging buckets and gantry to its east end, winding gear, cabling, engines, trammels, etc., with assorted machinery deposited to the north and south of the site. The dredge is sited in a large water-filled hole.
Power station—Foundations are located on north-west corner of Cocks Pioneer Sluicing Co.'s hole. Arrangement of concrete mounting beds and concrete walls.
Water supply—Concrete dam (granite boulders used for footings) and substantial water race. The race runs west from the dam, along the northern bank of Reedy Creek.
Amalgamating/tin shed—Large concrete slab (approximately 55 m x 40 m) with concrete mounting beds.

CONDITION OF FEATURES: Most of the features associated with the dredge are in reasonable condition, but require interpretation and a clean-up.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **COCKS PIONEER SLUICING WORKS**
Beechworth goldfield

HI No. ***H8225-0084***

LOCATION: Eldorado
CURRENT STATUS: Crown

SITE HISTORY:
From 1899-1913, Cocks Pioneer Sluicing Co. reworked by barge-mounted gravel pump much of the deep alluvial ground previously worked by the deep shafts of the Kneebone (1859-72) and McEvoy (1859-79, 1890-1901) mines. From 1903, the Cock's Pioneer dredge was driven by electricity generated at a steam power plant. The company was re-formed as Cock's Pioneer Gold and Tin Mines NL in 1914 and carried on large-scale hydraulic sluicing operations until 1929, and then again from 1934-41. In 1935, the Cocks Pioneer ranked as the second highest dividend-paying mine in Victoria. In total, it produced 3,650 kg of gold.

References: Butler, p. 83.
Canavan, p. 47.
Department of Mines Annual Reports, 1903, 1915.
LCC, p. 87, Recommendation N7.
O'Shea, p. 7.
Supple

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Cocks Pioneer sluicing works are a massive sluiced open cut and dredge hole.

Sluicing—Extensive (600 m x 300 m) open cut with 20ft-high walls. The floor of the cutting is covered with mounds of pebbles. Most of the open cut is dry and part of it is being used as tip.

Dredge hole—The dry open cut abuts a flooded dredge hole. Some concrete foundations are visible near the north-east corner of the hole

CONDITION OF FEATURES: Good, but the open cut has been devalued by rubbish dumping.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **MAGENTA MINE SITE**
Chiltern goldfield

HI No. ***H8225-0078***

LOCATION: Off Battery Hill Road
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Chiltern Regional Park

SITE HISTORY:

The Magenta mine was among the earliest quartz mines on the Chiltern field, and was worked uninterruptedly from its discovery in 1858 until 1901. In 1860, the first battery was installed on the reef, but was removed within months. A new battery was erected in 1861, and the Magenta was in that year the principal reef on the goldfield. The Magenta Co.'s mine—worked by open cutting—was one of the few Chiltern quartz mines to continue active into the 1870s; its battery was the only one on the field in 1872. The company commenced re-treating its accumulated tailings in 1885, using "an improved process"—probably roasting and chlorination. During the mine's heyday a residential area, known as Magenta, was situated nearby; as late as 1907, an unbroken chain of miners' dwellings extended from Chiltern to Magenta, via the Suffolk Lead.

The Magenta mine finally shut down in 1901. Eight years later, a new Magenta Co. took up the lease, sinking a main shaft east of the old open cut and installing a steam winch. In 1912, tailings cyanidation commenced. Mining at the Magenta ceased in the mid-1920s, but was revived in a minor way during the Depression years.

Published figures state that mine yielded a total of 9,900 oz of gold, at an average of just under 10 dwt to the ton, but the actual yield is thought to have been closer to 13,000 oz.

Mining operations from 1909 onwards were centred on the shaft, east of the eastern portion of the open cut, large quantities of mullock being tipped into the open cut. When Baragwanath visited the mine in 1921, the western portion of the open cut measured 15 m deep x 4.5 m long x 18 m wide, and an open stope on the western side was 6 m wide x 38 m long x more than 30.5 m deep. According to a local authority, [the late?] Clarrie Moon, all that remains of the 20th-century mining operations at Magenta is a small heap of white quartz and blue slate alongside a cement-sealed shaft, over which stood the poppethead with engine house, with winding gear some metres north and blacksmith's forge a few metres to the east.

Place's crushing mill—which forms part of the Magenta mine site today—is said (by Moon) to have originated on the Indigo quartz rush, c.1860.

In 1968, the Mines Department released the Magenta mine site to the Shire of Chiltern for development as a tourism venue, and a safety fence was erected around the site. CNR now manages the site and has installed a carpark, walking track and interpretive materials. The Magenta mine site forms part of CNR's Chiltern Historic Drive.

References:
Baragwanath
Butler, p. 43.
Department of Mines Annual Reports, 1909, 1912.
Mining Surveyors' Reports, March, July & September 1860.
Moon
National Trust file

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the Magenta mine site are an open cut, stope, Magenta battery site, Place's battery site, two sealed shafts, slum pond, tailings dump, and dam. The site is served by a walking track, carpark, and picnic facilities.

Open cut—North-west of the carpark is a substantial open cut (50 m x 30 m, 8 m deep) in which one adit is visible. The walking track enters the open cut via a 30m-long access cutting.

Stope—On the west side of the open cut is an open stope, 20 m x 5 m and 40 m deep. A look-out has been constructed at one end of the stope. To the west of the look-out is a fenced, open shaft.

Magenta battery site—40 m south-west of the open cut is an excavated platform which bears traces of concrete stamper foundations and a possible stone boiler setting—remains of the second Magenta QMC's crushing plant (date?).

Place's battery site—60 m south of the Magenta battery site is another excavated platform containing a partly buried arrangement of bedlogs for a 10-head mill. The bedlogs measure 1½ ft thick and are covered by the collapsed wooden horses (foundations).

Shafts—Nearby are two sealed shafts.

Slum pond—Immediately below Place's battery is a quarried slum pond. The pond's 100m-long embankment is intact and bears traces of its wooden retaining posts and rails.

Tailings dump—One of the tailings dumps is intact, the other has been largely quarried.

Water dam—On the east side of the entrance track to the mine is a breached dam.

CONDITION OF FEATURES: Battery sites are in poor condition. Walking track goes *through* battery sites, rather than around them. The partial filling of the open cut and removal of mullock heaps has reduced the site's integrity, but the main shaft (1909) remains impressive.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **GOLDEN BAR CO. MINE SITE**
Chiltern–Rutherglen goldfield

HI No. ***H8225-0085***

LOCATION: 1.5 km off Hume Highway, on Bar Trail, near junction of Tower Track
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Chiltern Regional Park

SITE HISTORY:
The Golden Bar Co. struck good stone in 1863 on Higgins Reef, which had been worked in a desultory fashion since 1855. The Higgins, West's and Alfred reefs—all in the same locality—were later jointly known as the Golden Bar Reef. In 1864, a battery was installed—"the best in the division", with 16 stamp heads and a 16-hp engine—but a good deal of gold escaped in pyrites. From 1868, the mine was worked by the United Consols Co. and was one of the few active quartz mines on the field. The United Consols mine was idle by 1872: its plant was removed and the tailings profitably treated by a party of Chinese.

The Golden Bar Reef—touted as "Chiltern's most famous"—lay idle until 1898. Up to that date, a total of 20,000 tons from the reef had yielded an average 1-oz per ton.

The Lady Rose mine operated in the locality between 1909-15. Its plant included a steam winch.

References: *Australian Mining Standard*, pp. 88-9.
Butler, pp. 39-40 (GSV.M1, p. 35; GSV.R 4/2 p. 1532, 1911).
Department of Mines Annual Reports, 1909.
Mining Surveyors' Reports, June 1864, March 1867, September 1868.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the **Golden Bar Co. mine site** are two dams, a battery site, and tailings dump.

Dams—Upper and lower dams with breached embankments, 70 m long x 4 m high. The upper dam has traces of in situ sludge (battery tailings) below the western end of its embankment.

Flattened battery site—On the slope above the western end of the upper dam is an excavated platform on which are a spread of brick rubble, some decaying bedlogs and a few protruding iron tie bolts.

Tailings dump—Below the lower dam is an extensive spread of cyanided tailings.

Lady Rose mine site—100 m from the upper dam, on the west side of the track, is a partly quarried mullock heap and a flattened machinery site.

Alluvial workings—Puddler and water race. On the eastern end of the of the upper dam's embankment is a weathered puddler, fed by a well-defined water race.

CONDITION OF FEATURES: Poor; but site has a range of features. The battery site may have some archaeological potential.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **NEW GOLDEN BAR MINE SITE**
Chiltern–Rutherglen goldfield

HI No. ***H8225-0086***

LOCATION: South of Cyanide Road
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Chiltern Regional Park

SITE HISTORY:
The Golden Bar Co. was formed in 1901 and had its main workings on the West's branch of the reef. In 1903 the Golden Bar was the most important quartz mine in the district and was joined on neighbouring claims by the Golden Bar No. 1, and Golden Bar Extended companies. The workings on West's Reef in 1903 consisted of: a main three-compartment engine shaft (30 m deep) linked to other shafts (as deep as 90 m), as well as three large open cuts connected by tunnels, an abandoned shaft, and the South and Gift shafts. The operations of the Golden Bar Co. extended to the Higgins and Alfred reefs, where work was also carried on by open cuts and shafts. The company was refinanced as the New Golden Bar (or Chiltern Golden Bar) QMC and a new 10-head battery, Wilfley tables, new boiler, and tandem compound engine were installed in 1904. About six years later, the mine was equipped with a new battery and winding gear—the battery later blew up. By 1910, the company's operations had yielded 12,453 oz of gold. The mine closed down in 1912. It was the district's deepest mine, and one of its richest.

References: Directors' Report, July 16, 1904 (copy on file in Historic Places Section).
Butler, pp. 39-40 (GSV.M1, p. 35; GSV.R 4/2 p. 1532, 1911).
Department of Mines Annual Reports, 1904, 1907, 1909, 1912.
Mining and Geological Journal, July 1937.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the New Golden Bar mine site are mine workings, a battery site, dam, sludge ponds, tailings, and the remains of a stone building.

Mine workings—Workings are located at the head of the gully and on the associated ridge. Main features are several patches of shallow open cutting, a capped shaft and a small peaked mullock heap.

Battery site—The battery site is located in the next gully to the mine workings, near a large full dam. A partly buried concrete slab, 33 ft x 18 ft, which has upper and lower levels. On the upper floor are three burnt mortar blocks and a slot for three more blocks, indicating that they supported a 10-head battery. The remains of a 30m-long loading ramp can be seen at the rear of the battery.

Sludge ponds—Below (to the east of) the battery site is an arrangement of four small adjoining rectangular sludge ponds, each measuring approximately 20 ft x 10 ft x 3ft deep. The four ponds drain into a common rectangular pit, 30 ft x 15 ft. To the west of the sludge ponds is a long tailings culvert. The ponds are obscured by spiny rush and other vegetation.

Tailings—Below the battery site, on the west side of the dam, is an extensive, partly quarried spread of cyanided tailings. No *in situ* vats were visible, but sections of uprooted galvanised iron vats are scattered about.

Stone building—The tailings have partly buried the remains of small stone building.

CONDITION OF FEATURES: The area is part of an interpretive walk, which could be improved with some site clearance and identification.

CULTURAL SIGNIFICANCE:
The site has:

Scientific significance—because of its range of relics
Network values—with Golden Bar and Golden Bar Extended mine sites

SIGNIFICANCE RANKING: Site listed heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **GOLDEN BAR EXTENDED MINE SITE**
Chiltern–Rutherglen goldfield

HI No. ***H8225-0056***

LOCATION: Bar Trail, just before it crosses gully.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Chiltern Regional Park

SITE HISTORY:
The Golden Bar Extended Co. was in operation between 1903-12. In 1907 a new battery was erected adjacent to the company's existing winding engine and air compressing plant. The plant was removed in 1916.
References: Department of Mines Annual Reports, 1903, 1907, 1912, 1916.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Golden Bar Extended mine site are a mullock heap, mining machinery beds, a gas-producer stand, chimney stack base, and boiler setting.
Mullock heap—Heap has largely been quarried away.
Mining machinery—A brick, tank-like winder bed, 18 ft x 12 ft x 7ft high. The engine bed has been demolished and all mounting bolts have been removed; but there is a possibility of footings beneath the brick rubble.
Gas producer stand—Concrete, 5ft-square at base, 7ft high, with a 2ft-diameter impression where the gas-producer was mounted.
Chimney stack base—Concrete, 3½-ft square, 5 ft high.
Boiler setting—Concrete boiler setting, 21 ft x 6 ft, with 1½ft-thick walls.

CONDITION OF FEATURES: Poor; but site retains a range of features.

SIGNIFICANCE RANKING: Site listed heritage inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **(NEW) BALLARAT LEAD ALLUVIAL WORKINGS**
Chiltern–Rutherglen goldfield

HI No. ***H8225-0088***

LOCATION: Puddler No. 1 - East side of Ballarat Road, below White Box Walking Trail
Puddler No. 2 - East side of Ballarat Road, above White Box Trail
Puddler No. 3 - East side of Ballarat Road, below Puddler No. 1
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Chiltern Regional Park

SITE HISTORY:
The New Ballarat Lead was discovered in December 1858, and the following year the lead was one of the focal points of the new Chiltern field. By 1861, only the upper, dry part of the lead was still called the New Ballarat; for most of its extent it was known as the Chiltern Lead and was worked by deep shaft. From about that time, the shallow alluvial ("dry") ground was principally the domain of Chinese miners. In 1871, they were reworking sluice tailings using water pumped from the deep workings, which they conserved in small dams and reservoirs. By the end of the seventies, few Chinese miners were returning to the dry leads after the first winter rains—"a sure sign [wrote the mining registrar] that the old workings are no longer remunerative". Canavan says that, "Highly payable gold yields were obtained from the dry workings of the upper part of the Chiltern Lead".

References: Ashley, 1974.
Canavan, p. 40.
Mining Surveyors' Reports, November 1860, March 1871, March 1878.

DESCRIPTION & INTERPRETATION OF FEATURES:
The (New) Ballarat Lead features three puddling machine sites.

Puddler No. 1—A low breached embankment with a weathered puddler.

Puddler No. 2—A puddler is located on the west side of a tributary to the main gully. It is very weathered (the inner mound is barely distinguishable from the puddling trench). No pivot post or slabbing is visible, and little wash. 100 m upstream is a breached dam embankment.

Puddler No. 3—A weathered puddler, the inner mound of which is nearly gone, exposing part of the pivot post. Very little pebble-wash in to be seen, indicating that the puddler was worked for only a short period. Nearby is a remnant of a small embankment.

CONDITION OF FEATURES: Poor

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **CHILTERN VALLEY EXTENDED DEEP LEAD MINE**
Chiltern–Rutherglen goldfield

HI No. ***H8225-0089***

LOCATION: Adjacent to Black Dog Creek on the north side of Withers Road, west of Chiltern
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Freehold

EXISTING HERITAGE LISTING: LCC study (1985) recommended that this 10-ha site be made an historic reserve.

SITE HISTORY:
The Chiltern Valley Extended mine was a minor producer during the 1890s deep lead revival. Canavan states that the mine earlier operated under the name Chiltern Valley Consols GMC.

References: Canavan, p. 46.
LCC, p. 77.
Lloyd, p. 113.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Chiltern Valley Extended deep lead mine are a mullock heap, pebble dump, and a foundations for a range of mining machinery.

Mullock heap— Large peaked heap.

Pebble dump—Remnant of a pebble dump.

Mining machinery foundations. Majority of the foundations are obscured by tree growth. The main features are:

Winder beds—Two brick, tank-like beds. The northern one measures 30 ft x 8½ ft x 5 ft high, 2ft-thick walls, and has arrangements of 1¾-inch and 2½-inch mounting bolts; the southern bed is 20 ft x 12 ft x 7 ft high. The former still has 1¼-ft square wooden bearers.

Narrow beds—On the eastern side of the winder beds are two narrow beds: the northern is 18 ft x 4 ft x 5 ft high; the southern bed is 30 ft x 4 ft. Another narrow bed is located on the western side of the winder bed which has well-preserved wooden bearers.

Boiler house— The corner of a brick building; the rest of the building has been reduced to rubble.

CONDITION OF FEATURES: Foundations are in good condition, but wooden bearers are beginning to decay.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **WALLACE CHILTERN VALLEY CONSOLS MINE SITE**
Chiltern–Rutherglen goldfield

HI No. ***H8225-0090***

LOCATION: South of Whites Lane
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Freehold

SITE HISTORY:
The Wallace Chiltern Valley Consols mine operated for a short time during the deep lead revival of the 1890s. A shaft was sunk and some underground development done, but the wash was too low-grade to justify production.

References: Canavan, p. 47.
Lloyd, p. 113.
Mining Surveyors' Reports, December 1890.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Wallace Chiltern Valley Consols mine:

Mullock—Partly quarried peaked heap.

Machinery foundations—Remains of large brick tank-like winder bed, 70 ft x 10 ft, and 8 ft high. The northern end of the bed has collapsed. Large brick engine bed, 26 ft x 12 ft, 6 ft high, with 2½ ft wide strengthening arch. Next to the engine bed is a rectangular arrangement of high concrete walls. Sections of the concrete walls have been pushed over by large pepper trees and some of the standing walls are on the point of collapse.

Boiler settings—At the rear of the brick foundations are two stone boiler settings, 24 ft x 10 ft, with 2ft-thick walls.

Chimney stack—Brick footings and sections of a demolished brick stack base.

CONDITION OF FEATURES: Likelihood of buried foundations. Considerable disturbance by growth of pepper trees—foundations hidden.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **CHILTERN VALLEY NO. 3 SHAFT**
Chiltern–Rutherglen goldfield

HI No. ***H8225-0091***

LOCATION: South side of Withers Road, Court Moor Farm
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Freehold

SITE HISTORY:
The Chiltern Valley GMC operated from 1877 to 1920 on the former leases of the Sons of Freedom and Doma Mungi companies. Up until 1898, the Chiltern Valley GMC had produced 180,000-oz gold and paid £150,000 in dividends. After bottoming two shafts at approximately 90-m depth, the company, in 1912, selected the site for its No. 3 shaft and commenced sinking and erecting plant. When mining ceased in 1920, gold production from the company's leases—dating back to their origins in the 1870s—totalled 9,457 kg. Canavan wrote that, of the several companies to have worked on the Chiltern/Chiltern Valley Lead, "only the Chiltern Valley GMC established efficient operations which eventually worked out the lead completely for a distance of about 8 km".

References: *Australian Mining Standard*, pp. 84-5.
Canavan, pp. 40, 46.
Department of Mines Annual Report, 1912.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Chiltern Valley No. 3 are a mullock heap and shaft site, mining plant foundations, and a slum pond.

Mullock heap/shaft—Large peaked mullock heap and shaft depression.

Mining plant foundations—Arrangement of large concrete mounting beds, remnant of a concrete bob-pit, and a square chimney stack base.

Slum pond—Intact slum pond.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **INDIGO DEEP LEAD WORKINGS**
Chiltern–Rutherglen goldfield

HI No. ***H8225-0092***

LOCATION: Two patches of workings:
Workings No. 1—East side of Rutherglen–Chiltern Road
Workings No. 2—West of Cornishtown Road
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Freehold

SITE HISTORY:
The Indigo Lead was discovered in 1858 and attracted thousands of diggers. The 'dry' (i.e., shallow) ground at the upper end of the lead was worked mainly by Chinese sluicers and puddlers from 1860 onwards. Deep workings were confined to the lower end of the lead.
References: Canavan, pp. 41-2.
Mining Surveyors' Reports, May 1859, May 1860, November 1861, June 1863, March 1871.

DESCRIPTION & INTERPRETATION OF FEATURES:
Two patches of Indigo deep lead workings—featuring filled whim shafts, mullock heaps, puddlers, and pebble dumps—were identified.
Patch No. 1—Five whim shafts, spaced about 100 m apart. The whims platforms have been bulldozed to fill the shafts. Surviving features are mullock heaps (with short dumping lines), puddlers and pebble dumps associated with the shafts. All the puddlers are very weathered and only two escaped damage during shaft filling-operations.
Patch No. 2—Four whim shafts and associated mullock heaps and puddlers. One whim platform (32-ft diameter) is still intact; the rest have been bulldozed. All puddlers are weathered but intact.

CONDITION OF FEATURES: The whim shafts have been partly bulldozed.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **WALLACE'S GULLY WORKINGS**
Chiltern–Rutherglen goldfield

HI ***H8225-0065 (adjoining puddlers)***
H8225-0066 (line of puddlers)

LOCATION: Wallace's Gully. Puddlers are located along Wallace's Track that runs north from Depot Track to Mount Pleasant Road.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Chiltern Regional Park

SITE HISTORY:
Wallace's Gully is a tributary of the Indigo Lead. According to Canavan, the ground in Wallace's Gully was highly payable, averaging 18.6 g (? oz) per load in the shallower and between 30 and 60 g per load in the deeper portions of the lead. The first found reference to Wallace's Gully appeared in 1866, at which time 12 miners were employed there.

References: Canavan, p. 41.
Mining Surveyors' Reports (Indigo Division), September & December 1866, March 1867.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Wallace Gully alluvial workings are a pair of adjoining puddlers and a line of twelve puddlers.

Adjoining puddlers—Two well-defined puddlers situated 2 m apart, to the west of the track. Both puddlers have pronounced inner mounds and deep puddling troughs. No pivot posts or trench slabbing are visible and the associated pebble-wash dumps have been quarried.

Line of twelve puddlers—Puddlers are located on the east side of the track and are situated 50–100 m apart. All are approximately 20 ft in diameter, raised about one metre above ground-level and most show no remaining evidence of trench slabbing and pivot posts. Some of the puddlers are associated with deep holes, presumably quarries for their construction.

1 Weathered, associated with a breached dam embankment, traces of wash.
2 Well-defined associated with a breached dam embankment with a very weathered puddler on its the other end. The pebble-wash has been quarried.
3 Well defined, with a remnant of its pebble-wash dump and loading ramp.
4 Weathered, associated with a 100m-long low embankment and a large pebble-wash dump.
5 Weathered, with a remnant of pivot post. The pebble-wash has been partly quarried.
6 Weathered, associated with a low dam embankment
7 Weathered, with its outer rim beginning to disappear and pebble wash gone. Associated with a low embankment.
8 Weathered, with its outer rim beginning to disappear and pebble wash gone. Associated with a low embankment.
9 Weathered, with a small dam on its west side. The pebble-wash dump is intact.
10 Small (14-ft diameter) weathered puddler, associated with a 20ft-square hole.
11 Very weathered puddler (16ft diameter) associated with mounds of pebble-wash.
12 Weathered puddler and low embankment, on the north side of Mount Pleasant Road. The puddler's inner mound has been excavated.

CONDITION OF FEATURES: Puddlers beginning to weather badly.

SIGNIFICANCE RANKING: Site listed heritage inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **OLD INDIGO LEAD**
Chiltern–Rutherglen goldfield

HI No. ***H8225-0067***

LOCATION: Bartleys Brewery—west of Howlong Road.
Cemetery—south of Cemetery Road.
Puddlers—south-east and south of cemetery.
Conness whim shaft and puddlers—north side of Mount Pleasant Track junction of Riley's Road.
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Chiltern Regional Park

SITE HISTORY:
The Indigo Lead was discovered in 1858 and attracted thousands of diggers, leading to the formation of Mt Pleasant settlement. The "dry" (i.e., shallow) ground at the upper end of the lead was worked mainly by Chinese sluicers from 1860 onwards and was little worked after 1870. Deep workings were confined to the lower end of the lead.

References: Canavan, pp. 41-2.
Mining Surveyors' Reports, May 1859, May 1860, November 1861, June 1863, March 1871.

DESCRIPTION & INTERPRETATION OF FEATURES:

BARTLEY'S BREWERY

The foundations of the brewery and house are located on swampy ground with high sedge grass and spiny rush.

House site—Partly buried brick foundations, brick rubble, garden beds and paths, and exotic plants (including persimmon trees)

Brewery—Largely buried footings, brick rubble, sections of concrete floors, dams and two underground wells (one open circular brick, the other a brick beehive well).

CONNESS MINE

Whim shaft—Filled shaft, remnant of mullock heap, and 35ft-diameter whim platform.

Puddler—Ten metres to the west of the whim shaft is a weathered raised puddler. No pivot post, trench slabbing or pebble-wash is visible.

ALLUVIAL WORKINGS

Downstream from Rileys Track:

Puddler No. 1—Very weathered 20ft-diameter puddler (inner mound and trench nearly merged), burnt pivot post, and section of embankment.

Puddler No. 2—Weathered 18ft-diameter puddler, remnant of small embankment, no pivot post or trench slabbing, and small mound of pebble-wash.

Upstream from Rileys Track:

Puddler No 3 & 4—300 m upstream from Riley's Track is a high breached embankment. On the northern end of the embankment is a well-defined 20ft-diameter raised puddler (pronounced inner mound and deep puddling trench), traces of pebble-wash, and one construction quarry. There is also a well-preserved 18ft-diameter puddler on the southern end of the embankment. This puddler is the best preserved of those recorded in the area and has a 2½ft-deep puddling trench. No pivot post or slabbing and small pebble dump. The puddler is completely obscured by regrowth.

Embankments—There are at least three embankments up the gully from Puddler 3 & 4 (at 50 m, 100 m and 300 m). Only at the third embankment is there any sign of a puddler.

Line of reef workings—A line of shallow workings cross the gully above the third embankment.

INDIGO CEMETERY (1858 to 1864)

Cemetery site—All that remains to mark the site of the cemetery is a post—no headstones—and an interpretation shelter. All the puddlers identified in the vicinity of the cemetery are raised above ground level.

Puddler No. 1—South-east of the cemetery, on the south side of the gully, is a long, low embankment. On the south end of the embankment is a very weathered puddler. No pivot post or trench slabbing survives. The puddler has a construction quarry but most of the pebble-wash has gone.

Puddler No. 2—Weathered 20ft-diameter puddler (inner mound and puddling trench beginning to merge), two construction quarries and a small intact pebble-wash dump. No pivot posts or trench slabbing visible.

Puddler No. 3—Small weathered 16ft-diameter puddler associated with long embankment. Near the puddler is a construction quarry, and most of the pebble-wash has gone. No pivot post or trench slabbing survives.

Other sites in the vicinity of Bartley's Brewery are:

Tailings dump, on the north side of Mt Pleasant Road;

Site of Washington Hotel, on opposite side of road to tailings dump.

CONDITION OF FEATURES: Puddlers are in varying states of weathering—the best preserved puddlers are near Bartleys Brewery

SIGNIFICANCE RANKING: Site listed heritage inventory.

Assessed by: David Bannear *Date:* November 1994.

NAME: **RUTHERGLEN POPPET HEAD**
Chiltern–Rutherglen goldfield

HI No. ***H8125-0013***

LOCATION: Rutherglen
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Freehold land

SITE HISTORY:
No historical information has been found for this site, but the survival of a poppet head and engine shed suggest a most recent operating date of 1930s+.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of this unidentified quartz mine site are a poppet head and engine shed.
Poppet head—Small intact poppet head (circular iron legs and wooden framing) and loading hopper.
Engine shed—Small galvanised iron shed

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **GREAT SOUTHERN & PRENTICE MINE SITE**
Chiltern–Rutherglen goldfield

HI No. **H8225-0081**

LOCATION: North of Up River Road, near Rutherglen
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Freehold

SITE HISTORY:
The Great Southern and Prentice Co. sank this shaft—the most northerly on Prentice Lead, north of Rutherglen—from about 1895. The company's operations were limited to shaft sinking and boring—no gold was produced. The company amalgamated with the Prentice and Southern Deep Lead GMC in 1901.
References: Canavan, pp. 41, 46-7.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Great Southern and Prentice Co. mine site are an engine bed, bob pits, shaft, chimney stack base, and boiler house site.
Engine bed—Brick engine bed, 50 ft x 11 ft x 8 ft high, with 3-inch bolt holes. The northern (front) end of the bed has stepped brickwork.
Bob pits—Remnants of double bob pit. The rear compartments of the pits (16 ft x 7 ft) are intact and contain large wooden bearers; the front compartments have been demolished.
Shaft—A depression marks the site of the filled shaft.
Chimney stack base—The 10ft-square base is 8ft high and slightly collapsed, with an ornate concrete lip.
Boiler house site—An extensive spread of brick rubble, mortar and basalt blocks marks the site of a boiler house.

CONDITION OF FEATURES: Brickwork in good condition; chimney base is slightly collapsed.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **NORTH PRENTICE MINE SITE**
Chiltern–Rutherglen goldfield
HI No. ***H8225-0079***

LOCATION: East of Police Paddocks Road
MUNICIPALITY: : Indigo Shire
CURRENT STATUS: Freehold

SITE HISTORY:

The North Prentice Co. was active during the 1890s, although exact dates and details of operation are not known. In 1906, the Prentice and Southern leases were bought by English capitalists and the Prentice and Southern Deep Leads Ltd commenced operations, reverting to the North Prentice shaft where they installed the biggest mine-pumping plant in Victoria. Despite high yields (1000 oz per month at the end of 1909); mining operations on this very wet lead were unprofitable. Three hundred men were employed. The company closed down in 1909. Rutherglen Dumps Ltd treated the slime dump (not on this site: the treatment plant was situated elsewhere) by cyaniding in 1949.

References: Department of Mines Annual Reports, 1906, 1909.
Lloyd, p. 116.
Mining and Geological Journal, 1949.

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the North Prentice mine site are a mullock heap, capped/filled site, slum pond, and mining machinery foundations representing two periods of operation.

Mullock heap—Largely quarried.

Shaft—A depression marks the site of the North Prentice shaft.

Slum pond—Large pond.

Two periods of mining machinery foundations are evinced by use of different materials. The principal features are:

Concrete foundations—Massive irregular-shaped concrete engine bed 46 ft x 36 ft, and 9 ft high; and remains of associated concrete bob-pit (13 ft wide, with 3-ft thick walls). Remains of the biggest (for its time) mine-pumping plant in Victoria, installed in 1906.

Brick foundations—Solid brick engine bed, 30 ft x 10 ft x 7 ft high, with stepped brickwork and 3-inch mounting bolts; brick winder bed, 53 ft x 10 ft x 7 ft high, with stepped brickwork and 3-inch mounting bolts; and narrow brick bed, 30 ft x 5 ft.

Bob-pit—Remnant of brick bob-pit associated with winder bed.

Boiler house—30 ft long x 2 ft thick x 5 ft high stone (basalt blocks) wall with inner lining of red brick. The rest of the boiler foundations are covered by mounds of rubble.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* July 1994.

NAME: **UNIDENTIFIED DEEP LEAD MINE**
Chiltern–Rutherglen goldfield
HI No. ***H8125-0010***

LOCATION: West of Great Southern Consols mine site, on east side of Chandlers Road, Rutherglen
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Freehold land

SITE HISTORY:
No historical information for this site has been found, but it is likely to date to the heyday of Chiltern–Rutherglen deep lead mining, 1891-1905.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of this unidentified deep lead mine area a mullock heap, bob pit, mining machinery foundations, and boiler house site.
Mullock heap— Small peaked mullock heap and shaft depression.
Bob pit—Remnant (rear wall) of brick bob pit.
Mining machinery foundations—Large brick tank-like engine bed, 75 ft x 9 ft x 6ft high. All mounting bolts have been removed.
Boiler house site—Two boiler setting depressions. One wall still visible of the boiler setting nearest the engine bed. The wall is 18 ft long x 2 ft thick, and constructed of bluestone blocks.

CONDITION OF FEATURES: Good visibility

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **RUTHERGLEN GOVERNMENT BATTERY**
Chiltern–Rutherglen goldfield
HI No. ***H8125-0011***

LOCATION: Off Battery Road, Rutherglen
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Crown land

SITE HISTORY:
The government battery at Rutherglen was installed in 1899. In its first five years, it produced just 628 oz from 1,110 tons of stone, but it made the Rutherglen quartz reefs (which yielded an average total of only 230 oz per year between 1902-19) viable.

Three more stampers were added to the original 3-head battery in 1905. The plant was further upgraded in 1908 and a new 16-hp suction gas engine was installed in 1910. The battery was in operation until at least 1918, and then from 1935-49. In 1949, the Rutherglen government battery was described as a gas-powered plant of five heads.

References: Department of Mines Annual Reports, 1935-49.
Lloyd, pp. 72, 117.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Rutherglen government battery features an intact battery in a galvanised iron shed—painted green with yellow walls—with a lean-to and a small front verandah. Also a small, partly quarried tailings heap.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **GREAT SOUTHERN & CHILTERN VALLEY UNITED MINE SITE**
Chiltern–Rutherglen goldfield
HI No. ***H8125-0012***

LOCATION: South of United Road, west of Chiltern
MUNICIPALITY: Indigo Shire
CURRENT STATUS: Freehold

SITE HISTORY:
Canavan says that the Great Southern and Chiltern Valley United mine yielded fairly and should have been payable, but the mine was overdeveloped and closed due to a lack of liquid capital. The company held leases totalling 4 km along the Prentice Lead, between 1899-1903.
References: Canavan, p. 47.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Great Southern and Chiltern Valley United mine site are foundations of a battery and mining machinery, a mullock heap, pebble dump, and sand dumps.
Battery—Concrete footings for 10-head of stamps (measuring 24 ft x 6 ft x 3ft high) and associated tables (14 ft x 9 ft x 4ft high); T-shaped concrete engine bed (22 ft x 17 ft x 3 ft high and 1-inch bolts); and four 5ft-square gas-producer stands.
Mining machinery foundations—Concrete engine bed (30 ft x 3 ft) and winder bed (26 ft x 9½ ft), and remnant (rear wall) of brick bob-pit.
Mullock heap—Largely quarried heap with a single dumping line, and the depression of a filled/capped shaft.
Pebble dump—Largely quarried.
Sand dumps—Two large dumps. The southern dump has two rows of cyanide vat impressions; the eastern dump has three rows.

CONDITION OF FEATURES: Concrete foundations are beginning to deteriorate; shaft full of dead sheep.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* November 1994.

NAME: **LADY ETHEL ALLUVIAL MINE**
Benalla goldfield
HI No. ***H8024-0006***

LOCATION: Reef Hills Park, 175-m north-west of junction of Indian and Wattle roads
MUNICIPALITY: Delatite Shire
CURRENT STATUS: Reef Hills Park

SITE HISTORY:
An 1899 plan of the (now) Reef Hills Park area shows alluvial claims in Lady Ethel Gully and in several other gullies in the vicinity of the reefs that were being worked at the same time. Ferguson's report of the same date, noted that alluvial miners were working by shaft, whim, puddler, tub, cradle and tin dish, there being insufficient water for sluicing. Of the several shafts along the alluvial lead in Lady Ethel Gully, that of the Lady Ethel claim (worked to 120 ft, then abandoned) had been the most successful.
References: Ferguson, p. 15.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Lady Ethel alluvial mine are a mullock heap, whim, puddler, and dam embankment.
Mullock heap—Filled shaft and intact heap (10 m long x 1.5 m high) with five short dumping lines.
Whim and puddler—30ft-diameter raised whim platform and associated puddler. The 14ft-diameter puddler is very eroded (the inner mound and puddling trench have almost merged) and has no surviving pivot post or slabbing, or pebble-wash. Near the whim and puddler is a construction quarry.
Dam—The remains of a low earthen embankment across the gully marks the site of a dam.

CONDITION OF FEATURES: Good integrity

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* December 1994.

NAME: **TALLANGALLOOK CREEK ALLUVIAL WORKINGS**
Dry Creek goldfield
HI No. ***H8024-0007***

LOCATION: Black Track No. 2, Bust-a-Leg Gully, east side of Tallangallook Creek, below junction with Clear and Black creeks.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: Tallangallook–Dry Creek Historic Reserve (240 ha)

SITE HISTORY:
Gold first found in Hell's Hole Creek (the steep upper reaches of Tallangallook Creek) in 1851. The diggings were for a short time called "Wilkenson's". In 1860, Hell's Hole Creek was rushed for about four miles down from its source, with digging confined to the creek bed and banks. Glen, Dry, and Brankeet creeks also formed part of the Hell's Hole diggings. The creeks were largely deserted by the end of 1861. In the late sixties and early seventies, Hell's Hole Creek again received attention and gave steady returns to sluicers. Hell's Hole Creek was little mentioned in the records of this period, and it seems likely that it was included under the general designation of Dry Creek. The Dry Creek area thrived during the early–mid seventies, with Chinese miners in the majority. Alluvial mining was on the wane by 1877, as reef prospecting on the highlands proved successful.

In 1888, Hell's Hole Creek was renamed Tallangallook Creek. Quartz mines came and went, and a handful of alluvial miners persisted along the creek into the 1890s. A Sludge Board inquiry in 1906-7 found that hydraulic sluicing, without elevation, had been carried out for years in Tallangallook and Dry Creeks. These activities presumably continued. Records show that sluicers were active on Dry and Glen creeks during the 1930s, and some mining is likely to have occurred on Tallangallook Creek at that period.

References:
Department of Mines Annual Report, 1907, pp. 74-6.
Flett, pp. 120-21.
Mining Surveyors' Reports (Kilmore Division), January 1861; (West Buckland Subdivision), August & October 1861; (Jamieson Subdivision), March & September 1867; (Jamieson North Subdivision), September 1869; (Dry Creek Subdivision), June 1874, September 1888.
Wylie (1987), pp. 5, 8, 22, 24.

DESCRIPTION & INTERPRETATION OF FEATURES:
Hillslope sluicing—A series of small sluiced holes or open cuts with stone-retained pebble dumps and long tailraces. The workings are free of blackberries. Sluicing water was supplied by a water race, which runs along the slope above the open cuts. Some of the tailraces are 2 m deep and all appear to link into a lower race.
Bank sluicing—The eastern bank of Tallangallook Creek has been extensively quarried leaving faces (5-6 m high), large stone-retained pebble dumps and short tailraces. The southern end of the workings is relatively free of the blackberries, which have virtually obscured the workings near the junction with Clear Creek.

CONDITION OF FEATURES: Undisturbed workings. Hillslope sluicing is free of blackberries; bank sluicing is beginning to be overwhelmed by the brutes.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* December 1994.

NAME: **COCKER'S SLUICE HOLE**
Dry Creek goldfield
HI No. ***H8024-0008***

LOCATION: Junction of Tallangalook Road and Golden Mount Track
MUNICIPALITY: Delatite Shire
CURRENT STATUS: Tallangallook–Dry Creek Historic Reserve (240 ha)

SITE HISTORY:
Robert Cocker sluiced weathered creek banks to bedrock some 50 ft below the original surface, exposing the underlying granite. (Noted by Dunn in 1912.) Water for the operation must have been drawn, at least initially, from headwaters higher up the Golden Mountain. The washings flowed through a series of sluice boxes which enabled rocks and coarse material to be rejected and allowed the heavy gold particles to be trapped in collection boxes.
References: Dunn
Wylie (1987), p. 22.

DESCRIPTION & INTERPRETATION OF FEATURES:
Sluicing hole—Large, sluiced open cut, with high vertical faces. The bottom of the open cut is covered with man-ferns. Presumably there are pebble dumps and a tailrace, although these were not observed. The hole can be viewed from Tallangalook Road and is identified by a CNR sign.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* December 1994.

NAME: **CLEAR CREEK ALLUVIAL WORKINGS**
Dry Creek goldfield
HI No. ***H8024-0009***

LOCATION: Above junction with Tallangalook Creek, west side of Black Track No. 1.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State Forest

SITE HISTORY:
Historical information not found for this site.

DESCRIPTION & INTERPRETATION OF FEATURES:
Hillslope sluicing—Four large sluice holes or open cuts with stone-retained pebble dumps and long tail races. Like the workings recorded downstream on Tallangallook Creek, water races run above and below the sluice holes. Beyond the fourth sluice hole the whole gully becomes choked with blackberries.
Bank sluicing—Extensive workings obscured by blackberries.

CONDITION OF FEATURES: Undisturbed site with good integrity—but the workings are rapidly being overwhelmed by blackberries.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* December 1994.

NAME: **DRY CREEK ALLUVIAL WORKINGS**
Dry Creek goldfield
HI No. ***H8024-0010***

LOCATION: Head of Dry Creek
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State Forest

SITE HISTORY:

Dry Creek was named for the fact that, except in wet weather, its bed was perfectly dry. The creek was rushed, as part of the Hell's Hole diggings, in 1860, and by the end of the year has been worked from its head to its junction with Hell's Hole (Tallangallook) Creek. Already, at that date, at least one party was preparing to undertake sluicing on a large scale. The Dry Creek Sluicing Co. brought water three miles from Brankeet Creek by a water race cut through rock in some places and flumed in others. They intended fitting their sluice boxes into the rock of the creek bed itself.

Most diggers had deserted the Hell's Hole diggings by the end of 1861, but the field was revived in 1868, first as the Strathbogie, then the Dry Creek diggings. There were 200 miners at Dry Creek in 1869, 100 of them Chinese. The village of Dry Creek was formed near the head of the creek, but the Chinese mostly camped on the opposite bank of the creek, below the township. The years 1868-70 were the peak period of alluvial gold production at Dry Creek, and a great many fossickers—the majority of them Chinese—continued on in the area through the early–mid seventies. Alluvial gold production was declining by 1877, and energies were instead directed towards reef prospecting on the highlands. The Dry Creek township area was sluiced to bedrock in the late 1870s by the Dry Creek and the Alpine companies, which gave employment to many of the remaining Chinese diggers. Dry Creek township and diggings diminished to a great extent during the late 1880s, as the Tableland/Tal-langallook township grew. "A few persevering Chinamen" remained at "old" Dry Creek in 1889; five years later, the population of the area comprised eight Chinese and 37 Europeans.

In 1907, a Sludge Board inquiry found that hydraulic sluicing, without elevation, had been carried out for years in Dry Creek, without major ill-effects to waterways. In later years (1910s-30s) bucket-dredging and hydraulic sluicing were carried out on Dry Creek's lower reaches, at Bonnie Doon, but no further records have been found of mining activity towards the head of the creek. Dry Creek village was largely destroyed by bushfire in 1923.

References:
Department of Mines Annual Report, 1907.
Mining Surveyors' Reports (Kilmore Division), January 1861; (Dry Creek Subdivision), December 1873, June & September 1874, December 1879, December 1889.
Wylie (1987), pp. 5, 7-8, 11, 22-3.

DESCRIPTION & INTERPRETATION OF FEATURES:

Dry Creek sluiced workings—The headwaters of Dry Creek have been deeply sluiced, leaving vertical faces with large dumps of pebbles. The sluiced creek course is overgrown with blackberry bushes.

CONDITION OF FEATURES: Undisturbed sluicing landscape, overgrown with blackberry bushes.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* December 1994.

NAME: **OK QUARTZ MINE**
Alexandra goldfield
HI No. ***H8023-0013***

LOCATION: West of Taylor's Road, approx. 10 km east of Alexandra
MUNICIPALITY: Murrindindi Shire
CURRENT STATUS: Mine workings—Fraser National Park
Battery—freehold land

SITE HISTORY:

According to Maud, the OK mine was the most productive in the Alexandra district during the early 1870s, employing more than 100 men. The first OK Gold Mining Co. was formed in 1871, to work a lease on the Eldorado Reef, at the head of UT Creek in the Puzzle Ranges. When it was first worked in 1867, the ground had yielded between five and 15 oz per ton. Operations at that time were short-lived, due to heavy water close to the surface and the expense of carting stone long distances for crushing. In 1871, the OK Co. let a contract for driving a tunnel. The next reference found to the OK mine is dated 1873, and appears to refer to a new OK Co. The company had been floated just two months before, and was erecting pumping machinery on its shaft. In 1876, the OK lease had recently been forfeited, but was taken up again by Milroy and party. The former lease holders had spent nearly £2,000 in tunneling, and the new party continued to tunnel towards the reef. "This will be a fortune to the shareholders", said the *Alexandra Times*, 'when they erect machinery on the spot. There are great natural facilities for erecting tramways, dams, etc.' Maud refers to a "hydraulic battery [on UT Creek] mentioned in contemporary literature" and two stone-retained dams along the creek to store water for the battery and for domestic purposes. Activity at the OK mine seems to have been virtually over by the end of the 1880s.

No further reference to the OK mine has been located. However, a reef—possibly the Eldorado—was being worked at UT Creek, about 10 km from Alexandra, in 1914.

References:
Alexandra Times, 11 August 1868, 6 January 1871, 5 April 1873, 27 May 1876, 10 March 1877.
Department of Mines Annual Report, 1914.
Maud, pp. 3-4.
Mining Surveyors' Reports (Jamieson Subdivision), September 1867.

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the OK mine are mine workings, a benched track, battery site, quartz-roasting kiln, and a hut site.

Mine workings—Located at the head (north side) of a gully, the workings consist of several adits and small heaps, filled shafts and some open cutting. There are also workings on the hill above.

Track—500m-long benched track runs from the head of the gully to battery site.

Battery—The site, on freehold land, has been bulldozed by the current owner in the course of constructing a boundary track.

Quartz roasting kiln—Down from the flattened battery site is a small quartz roasting kiln, 9 ft in diameter, 8 ft deep, with 2ft thick walls. The rear of the kiln is natural rock. The kiln is largely obscured by blackberries, and its stone front has collapsed slightly but the flue appears to be intact. The location of the kiln suggests the possibility of an earlier battery.

Mine workings—The gully above the battery site has one adit and several subsided shafts with mullock paddocks.

Switchback track and hut—A track and hut site are situated on the ridge, to the north-east of the battery site. Only the small stone fireplace of the log hut is still standing.

CONDITION OF FEATURES: Range of features

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* December 1994.

NAME: **ITALIAN GULLY WORKINGS**
Alexandra goldfield
HI No. ***H8023-0015***

LOCATION: Off Station Creek Track, west of Lake Eildon
MUNICIPALITY: Murrindindi Shire
CURRENT STATUS: Fraser National Park

SITE HISTORY:

The Italian Gully mines are said to have been extensively worked by small parties of miners in the early 1870s—although no reference to the gully at that date has been traced by this project. It is likely, in fact, that the mines in Italian Gully post-date the discovery of the Solferino Reef "at the head of the Italian and Mountaineer Creek" in 1880. Many of the mines were re-worked by Bob Briers from the 1930s. Briers was a hermit-like figure who lived at Italian Gully until his death in 1953. According to local information, Briers had a number of huts in the area, which were burnt after his death.

References: Maud, p. 3.
Mining Surveyors' Reports (Alexandra subdivision), June 1880.
Supple et al, citing information from CFL Alexandra, 1989.

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the Italian Gully workings include mine shafts, open cutting, water race, alluvial workings, and the site of Bob Brier's house and garden.

Shafts—A well-defined band of shallow sinkings running along the south side of Italian Gully. The shafts are mainly rectangular and many have subsided (or are open) to a depth of 10 m. Some of the shafts have drains running around them, and many retain portions of their mullock paddocks and also quartz dumps.

Open cutting—There is at least one patch of shallow open cutting, accompanied by a fairly large mullock heap.

Water race—A water race runs from the head of a side gully and becomes lost in the workings.

Alluvial workings—According to Supple et al, the area also shows signs of extensive alluvial mining.

Bob Brier's camp and garden—On the south bank of Italian Gully are five stone fireplaces and a scatter of domestic rubbish. Around the camp site, and through the surrounding bush, are small stacks of timber. The garden is represented by a small raised platform, garlic plants, and evidence of a collapsed wooden fence. Brier also had garden beds on the south terrace of Italian Gully.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* December 1994.

NAME: **WILSON CREEK MINE SITE**
Alexandra goldfield
HI No. ***H8023-0012***

LOCATION: Wilson Creek, Eildon State Park
MUNICIPALITY: Murrindindi Shire
CURRENT STATUS: Eildon State Park

SITE HISTORY:

Wilson Creek—a tributary of Jerusalem Creek and 3½ miles from the nearest previously known gold—was rushed and named in July 1871. The discoverers made the following submission to the Secretary for Mines, on 8 July 1871:

Sir,

I have the honor to report that on Thursday, the 6th of July instant, David Wilson, Colin Wilson, and James Colba, and I the undersigned, commenced prospecting for gold in a creek running into the Jerusalem Creek, at a point situated three miles and a half from the nearest poinet where gold had previously been discovered; that on the same day that we commenced working we struck payable gold at a depth of four (4) feet from the surface; that on Friday, the 7th day of July instant, we washed up and obtained for the two days' work 1 oz 19 dwts 18 grs of gold; and that after obtaining this we washed another dish out of the same paddock, and obtained from it 3 dwts of gold; that, from the extent of ground available for mining, I believe that this will prove a goldfield which will support a large number of miners; and that I having, with my mates, been the first discoverers, we have reported this with a view to obtaining a Government reward, should such be given.

I have the honor to be, Sir,
Your most obedient servant,
WILLIAM WILSON

One hundred miners were soon on the ground, engaged in shallow sinking. The Jamieson mining registrar visited Wilson Creek and wrote on 18 July that the gold obtained there was very coarse and of excellent quality, the bank paying £3 18s per oz for it. "Very few of the miners", he wrote, "have as yet supplied themselves with appliances for draining their paddocks. Many are now, however, engaged in making Californian pumps, &c …" He observed that 'there is a large area available for mining, the flats on the creek being of considerable extent, and many of the spurs and low hills in the locality being apparently "made" ground". Two quartz veins were struck that same month and a total of 102 claims—alluvial and quartz—were registered, but half of them were never worked or abandoned within weeks. The rush to Wilson Creek was short-lived and the locality disappeared from mining records.

During the 1930s, Rickards and son worked a quartz claim at Wilson Creek. A battery operated at their mine, with ore conveyed from the (lower) adit by incline tramway. In 1936 the Rickards crushed 210 tons for a yield of just 35 oz.

References: Department of Mines Annual Report, 1936.
Mining and Geological Journal, July 1937, January 1938.
Mining Surveyors' Reports (Jamieson Subdivision), June 1871 (postscript); (Big River Subdivision), September 1871.

DESCRIPTION & INTERPRETATION OF FEATURES:

The mining relics at Wilson Creek mainly date from the 1930s, although the locality was originally worked in 1871. Features of the Wilson Creek mine are a battery shed, remains of a 4-head battery, hut site, water race and puddling machine, and mine adit.

Battery—Old battery shed with split paling chute, and battery foundations. Shed covered with iron roof—collapsed at one corner. Near the shed are parts of an old battery, including four stampers (manufactured by Vickery Burnley, Melbourne)—also rails, small wheels from mining skips, lengths of pipe, and other small metal objects. The army removed a large fly-wheel from the battery (1970s?).

Hut site—Just above the battery is a hut made of rusted flat iron and containing a fireplace and two crude beds. The hut walls are pocked by gunshot.

Race & puddling machine—A water race leads from the battery site around the spur. Just below the race is a puddling machine, in very good state of preservation. Inlet and outlet are both visible.

Mine adit—Mine tunnel about 1.7 m high and 1 m wide. Excavated by Rickard's party in 1930s, originally about 120 m long. Tunnel is now significant as a roosting place for, and the most westerly occurrence of, the eastern horseshoe bat, *Renolohus magaphyllus.*

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: R. Sumner (Historic Places Section) *Date:* July 1981.

NAME: **ROBB'S REWARD MINE SITE**
Alexandra goldfield
HI No. ***H8023-0011***

LOCATION: Upper Thornton, Eildon State Park
MUNICIPALITY: Murrindindi Shire
CURRENT STATUS: Eildon State Park

SITE HISTORY:
The Robb's Reward mine at Upper Thornton was worked co-operatively by Robb & party from c.1890s until 1909, when it closed down due to a depleted ore body. During that period, the mine had a 6-head battery. Andy Miller says a descendant of the original Robb lives locally and has documentation about the mine's history.

References: Department of Mines Annual Report, 1909.
Andy Miller (Eildon State Park ranger), pers comm, June 1994.

DESCRIPTION & INTERPRETATION OF FEATURES:
Robbs Reward Mine
Upper adit area—adit, cutting and level tramway connecting to formation of a inclined tramway
Middle adit area—large mullock heap associated with adit, tramway leading to inclined tramway, and deep shaft.
Lower adit area—adit containing some remnant sleepers, costean, large mullock heap, remains of mining skip and some domestic artefacts.
Dray track—dray track leads from the terminus of the incline tramway to the battery site
Battery—site only.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Not assessed *Date:* —

NAME: **STOCKYARD CREEK SLUICE**
Howqua Hills goldfield
VHR No. ***H1255***
HI No. ***H8123-0017***

LOCATION: Stockyard Creek
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State Forest

SITE HISTORY:
Stockyard Creek was one of the localities where alluvial gold was found and worked following the original Howqua rush to Cameron's Creek in 1866. Nuggets of up to 45 oz and "tolerably rich" yields are said to have been obtained from Stockyard Creek. By 1882, the alluvial diggings of the Howqua valley were deserted "save by two or three men".

The diversion sluice on Stockyard Creek would have operated in much the same way as one described at Dry Creek in 1861, which involved 'cutting a tail race in the rock in the bed of the creek, and fixing a permanent set of large boxes, and working the points and sides of the creek by means of branch boxes, all, however, falling into the main ones'. *(Mining Surveyors' Report (Kilmore Division), January 1861)*

References: Murray
Wylie (1987), p. 44.

DESCRIPTION & INTERPRETATION OF FEATURES:
Stockyard Creek diversion sluice—250m-long stone-retained sluice with three distinct channels. The sluice has a main channel (through which the creek currently runs) and two shorter side channels. Each of the channels is 6 ft deep and about 4 ft wide. Associated with the sluice are mounds of pebbles and extensive bank quarrying.

CONDITION OF FEATURES: Good condition. The sluicing system is fairly free of blackberries but is overgrown with ferns.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* December 1994.

NAME: **MOUNTAIN CHIEF MINE SITE**
Howqua Hills goldfield
HI No. ***H8123-0018***

LOCATION: Howqua Hills
MUNICIPALITY: Delatite Shire
CURRENT STATUS: Howqua Hills Historic Area (1,300 ha)

EXISTING HERITAGE LISTING: Howqua Hills Historic Area
Howqua Hills Historic Area is registered by the Australian Heritage Commission, as part of the National Estate (file 004502 2/07/236/006/01)
NOMINATING BODY: LCC Alpine Report, 1979.

SITE HISTORY:
The Mountain Chief—the first Howqua reef—was discovered in 1866, but little headway was made with the pyritic ore at that time. The reef was taken up and worked in earnest in 1882. After sample crushings yielded up to 14 oz per ton, the Mountain Chief Co. in 1883 erected a treatment plant costing £3,000. The (6-head?) battery was powered by water, which was supplied by a race from Howqua River. The plant also included furnaces for treating the highly mineralised ore. The company worked the reef by an open cut on a spur south-west of Fry's Flat (between Sheepyard Flat and Fry's hut), but yields were poor and the mine closed in 1885.

The Mountain Chief mine was again taken up early in the 1890s. The company reconditioned and utilised the battery of the Howqua United Co., lower down the ridge from the Mountain Chief mine, and erected (at a reputed cost of £8,000) a substantial roasting furnace and tall chimney beside the Howqua River at Fry's Flat in 1892. (See Grand Rand, below) As before, the venture was short-lived and unsuccessful.

References: Christie, pp. 32-4, 46.
Flett, p. 110.
Mining Surveyors' Reports (Jamieson Subdivision), September 1882.
Wylie (1987), p. 44.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Mountain Chief mine site are mine workings and a battery site.

Workings—Filled, slightly subsided shaft and small heap. The traces of the double-acting tramway from the Great Rand open cut runs over the top of the workings. On the side of the hill is an open adit with a 20m-long cutting.

Battery site—Little sign survives of the 1883 Mountain Chief battery, except for excavated platform, largely buried wheel pit, tail race running to the river, and a water race on the ridge above.

CONDITION OF FEATURES: Good range of features

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: David Bannear *Date:* December 1994.

NAME: **HOWQUA UNITED/GREAT RAND MINE SITE**
Howqua Hills goldfield
VHR No. ***H1279***
HI No. ***H8123-0019***

LOCATION: Howqua Hills
MUNICIPALITY: Delatite Shire
CURRENT STATUS: Howqua Hills Historic Area (1,300 ha)

EXISTING HERITAGE LISTING: Howqua Hills Historic Area
Howqua Hills Historic Area is registered by the Australian Heritage Commission, as part of the National Estate (file 004502 2/07/236/006/01)

SITE HISTORY:
The Howqua United GMC was formed in 1883 to work a lease lower down the ridge than the Mountain Chief. Driving the 20-head Howqua United battery was a waterwheel—christened the Hanney—which at 63 ft diameter was reputedly the largest in the southern hemisphere at that time and the third-largest ever to operate in Victoria. The water for the wheel was supplied by a race passing through Tunnel Spur to a supply point about 5 km upstream from the battery, which was situated on the flat below the Howqua United mine. Trial crushings produced poor yields, and the mine closed down within a year.

The Howqua Hills GMC reworked the Howqua United mine from 1886 until the early 1890s, for only small returns. The remaining portion (most of the 20 heads had been removed—perhaps five remained?) of the Howqua United battery was reconditioned and re-utilised when the Mountain Chief mine was reworked for a short time from 1892. Additional plant was constructed at this time, in the form of a substantial furnace and tall brick chimney stack, on Fry's Flat.

The Mountain Chief and Howqua United leases were taken up by the Great Rand Proprietary GMC in 1902. Commencing with £32,000 capital, the company erected a 30-head battery on the site of the old Howqua United battery, once again employing the old Hanney waterwheel. The high-level water race which fed the wheel was reopened and extended, but gave insufficient water to successfully run the battery. A hopper, Krupp ball mill, classifier and concentrating tables were installed and operated in conjunction with the ore furnace and stack of the early 1890s. As before, the mine gave inconsistent yields and operations ceased in 1903. The Hanney waterwheel was dismantled and removed in 1916.
References: Christie, pp. 34, 46, Wylie (1987), pp. 45-6, and Wylie (1988), p. 5.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Howqua United/Great Rand mine site are an open cut, the formation of a double-acting tramway, water-race and tunnel, battery site, and roasting furnace.

Open cut—Partially collapsed (or filled) open cut, which opens out into a stope. Short haulage adit at entrance to (western end of) open cut.

Double-acting tramway—A 1km-long tramway runs from the open cut to a battery site on the bank of Howqua River.

Diversion tunnel/water race—Water still passes through the Tunnel Spur diversion and the water race is traceable along the southern side of the river. Sections of the race have been removed by the construction of a track. The race is very visible at the Sheepyard Flat Camping Area.

Battery site—The Howqua United/Great Rand battery site is obscured by high blackberry bushes, the only visible feature being a tailrace running to the river.

Roasting furnace—Intact square brick stack, approximately 25 ft high. At the rear of the stack is a partly collapsed 9ft-long brick flue, running along the sides of which are the foundations of the roasting furnace. Although largely obscured by rubble and vegetation, there appear to be at least seven lines of brickwork, each line a single brick wide.

CONDITION OF FEATURES: Stack is in good condition. Furnace area and battery sites are obscured by growth of blackberries and ferns, and by rubble.

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: David Bannear *Date:* December 1994.

NAME: **LUCK'S ALL MINE WORKINGS**
Big River goldfield
HI No. ***H8123-0005***

LOCATION: Situated at the fork formed by two tributaries at the head of Warner's Creek.
MUNICIPALITY: Murrindindi Shire
CURRENT STATUS: State Forest

SITE HISTORY:

The Luck's All mine was the principal quartz working on the Big River goldfield, and one of the last to cease operation. The mine was in work from 1865-86, 1903-5, and 1913-15. During the initial period, the Luck's All Co. paid dividends of £60,000. Gold production from the mine totalled 14,016 oz. According to Milner, the mine is significant for being the northernmost extension of the same dyke formation worked on Morning Star Hill and at the Loch Fyne mine near Matlock.

A 4-head, water-powered battery was installed at the fledgling mine in 1865, and was added to almost immediately by a 12-head battery (with foundations laid for four more heads) and a 16-hp steam engine. A tramway between mine and battery, 266 yards in length, was constructed the same year, and extensive tramways to convey timber and firewood were built in 1869. After languishing in the late 1860s, yields revived in 1871. The waterwheel and smaller battery were removed to the reefs at Acheron in 1875. By the early 1880s, the Luck's All was the only Big River quartz mine still operating. It recorded its last crushing as in 1883; mining ceased in 1886.

The Luck's All mine continued idle until 1899, when prospecting recommenced. The mine was again in production between 1903-5 and 1913-15, returning modest yields from small crushings.

References:
Australian Mining Standard, 1 June 1899, p. 103.
Milner, pp. 20-23.
Mining Surveyors' Reports (Big River Subdivision), March & June 1865, December 1869, June 1871, March 1876, December 1882, September 1885, June 1886; (Alexandra Subdivision), June 1875.
Murray, pp. 22-4.

DESCRIPTION & INTERPRETATION OF FEATURES:

The Lucks All mine workings feature two adit levels, a tramway formation, machinery site, and associated mine workings nearby.

Tramway—Starting at a point near the entrance to the upper adit, there are traces of a short self-acting tramway which conveyed stone down to a machinery site about 50 m below (at 190.539).

Machinery site—This site contains an early Cornish boiler (probably the original 1865 one), a Canal Basin Foundry double-acting horizontal steam engine, and parts of an 8-head Langlands stamp battery. The steam engine is one of only a few such engines now extant from this manufacturer, though they were once much more common, and it is remarkably well preserved.

Mine workings—In the gully to the north is another adit and mullock dump, which probably belonged to the Ariel Co., which drove a tunnel in 250 feet during 1865 before abandoning their work.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Peter Milner *Date:* 1990.

NAME: **LONDONDERRY & UNKNOWN WORKINGS**
Big River goldfield
HI No. ***H8123-0003***

LOCATION: Access to both workings is by a bench track which turns due east into the valley of Railway Creek from Donald Track at about the 700-m mark, where two trees (one on either side of the track) have been blazed.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State forest

SITE HISTORY:

The Unknown, on the south slope of Railway Creek, was one of the first reefs discovered at Big River, in 1864. The next year, an 8-head battery was erected, enclosed in a weatherboard building and powered by a 30ft-diameter-overshot waterwheel. In 1866, the action of the wheel was reversed, the battery foundations improved, and a further 5-head battery and 16-hp steam engine added to the plant.

In 1868, the holders of the Londonderry lease purchased the Unknown Co. battery and constructed a tramway thence from their mine on the flank of Mt Terrible, at the head of Railway Creek. According to the mining registrar, 'the shoots, inclines, and trams, through and over which the stuff must pass before reaching the only available machine on the Railway Creek, add a very material item to the cost of raising'. As a result, the battery was moved higher up the creek, closer to the Londonderry claim, in 1871. Two years later the Londonderry mine was virtually amalgamated with its neighbour, the Retriever, when a party of tributers undertook to work the two mines in unison.

Back on the Unknown Reef, three years' prospecting (after years of abandonment) led to the discovery of rich stone in 1874. Stone was packed to the Londonderry battery for crushing until 1876, when a 5-head battery was again erected on the Unknown Reef. By 1878, the mine was abandoned.

The Boscobelle tributers at the Londonderry mine had struggled during the mid-1870s, but again came onto good stone in 1878 and worked profitably until 1882. The Londonderry and Unknown mines were prospected and re-opened in a very small way ('a man and a boy' worked the Unknown) in the mid-1880s. In 1888, the Surprise Co., on the opposite bank of Railway Creek, purchased the 13-head Londonderry battery, apparently conveying ore thence by a connecting tramway.

When Murray reviewed the goldfield in 1898, he noted that workings were underway at the Londonderry. The Unknown mine was idle and some of the old main workings had been filled in; about 4,000 oz of gold, he noted, had been won from the mine.

References: Milner, pp. 21-3.
Mining Surveyors' Reports (Gaffney's Creek subdivision), December 1864; (Big River subdivision), September 1865, June 1866, March 1867, June 1868, September 1868, March 1869, June & December 1870, December 1871, September 1873, March 1874, March & June 1876, June 1878, September & December 1882, March & December 1885, December 1887, March 1888, December 1889.
Murray, pp. 23-4.

DESCRIPTION & INTERPRETATION OF FEATURES:

Unknown mine workings—A large quarry, several adits and a shaft. The battery site is apparently situated below the mine on Railway Creek, but has not yet been located.

Londonderry mine and workings—Further west from the Unknown mine and just above the level of the creek, the track terminates at the lowest adit of the Londonderry mine. This level is no longer accessible.

Battery—Just above the track, to the east, is a three-pass Cornish boiler, the foundations of a stone chimney and parts of a Young double-acting horizontal steam engine. The principal component remaining is the cast iron frame—it is the only extant example known in Victoria of this once popular London engine maker. Below the lowest adit, and almost at the level of the creek, is an 8-head stamp battery and sections of penstock piping.

Hut sites—Higher up the creek and north-east of the adit are several open terraces cut into the hillside. These may have been the sites for a small settlement. On the slope above are a water race and the site for either the mine or the battery manager's house. This site commands a view all the way down Railway Creek, across the Big River, to the ranges on the other side.

Other adit levels—There are at least four other levels further east up the gully to where it forks, together with piles of mullock, a blacksmith's shop, a section of level tramway and ore truck and several small metal fittings. From the middle levels there was an aerial tramway down to the battery

site. The cable for this and some of the fittings are still in place. On the ridge separating Railway and Enoch's creeks and only a short distance away from Donald Track there is an air shaft.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Peter Milner *Date:* 1990.

NAME: **STAR OF ERIN MINE WORKINGS**
Big River goldfield
HI No. ***H8123-0004***

LOCATION: On a spur at the head of the left-hand branch of Enoch's Creek.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State forest

SITE HISTORY:

Milner says that the Star of Erin—about 4 or 5 miles north-east of Enoch's Point, on left-hand branch of Enoch's Creek— was the largest mine on Enoch's Creek, although quite small by Victorian standards.

The Star of Erin Reef was worked from 1864. In 1865, five claims amalgamated to form the Star of Erin Co. and to drive a tunnel in search of the main reef. Instead, a new shaft was started. In 1866, an 8-head battery was erected, powered by a 30ft-diameter waterwheel, with a 208-yard tramway connecting mine and battery. Big things were expected; but little was achieved. The company was "signally unfortunate", its initial crushing proving "eminently disappointing". The machinery was blamed, so that the claim was not considered a total failure. The lease was forfeited and the plant sold by the bank.

In 1898, the Star of Erin Reef was again being worked, having apparently been tried on several occasions in the interim. Murray noted two tunnels and various surface workings and trenches. A water-powered battery was being erected several hundred feet below the workings; only "very primitive appliances" had been used in the past. Nothing is known of later developments, although Milner's work indicates that a suction gas engine and gas-producer were later employed.

References: Milner, p. 23.
Mining Surveyors' Reports (Big River Subdivision), March & September 1865, March, September & December 1866.
Murray, pp. 23-4.

DESCRIPTION & INTERPRETATION OF FEATURES:

Star of Erin mine workings—These workings are situated on a spur at the head of the left-hand branch of Enoch's Creek. Just to the west of the ridge there are several costeans and a quarry where the reef outcropped. Below this the reef has been stoped to the surface and from here a shaft connects to the next level. There are at least four other levels and from the second lowest of these there is an inclined tramway formation down to a battery site at the junction of two small creeks (8123-3-2: 242590). At the head of this formation the brake drum, operating lever and large pulley wheel are still in position and in a remarkably good state of preservation.

Battery—With the exception of a few small battery components, all the machinery at the battery site appears to have been removed. The sites of the waterwheel, battery, and a large building were found, but due to the overgrown nature of the site, the position of the suction gas engine and the gas producer were not found.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Peter Milner *Date:* 1990?

NAME: **TEN-MILE ALLUVIAL DIGGINGS**
Jamieson goldfield
HI No. ***H8123-0020***

LOCATION: About 500-m north-west of Bain's Bridge, 75-m north-west of centre of driveway RMB 5805.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State forest

SITE HISTORY:
The Goulburn River was worked for alluvial gold in this area from c.1860 into the 20thC.
References: Steenhuis, p. 48

DESCRIPTION & INTERPRETATION OF FEATURES:
Ten-mile alluvial diggings
A series of large trenches at right angles to the river into an old bed of the Goulburn River. At the end of some trenches are small tunnels of 2 to 10 m's in length. At one point, the entire bank of the Goulburn, extending out to 75 m from the river, has been excavated to bedrock. Piles of rocks have been left behind. The walls of the excavations are from 6 to 10 m in height. There are a number of tunnels into the excavation face. (Steenhuis, p. 48).

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Steenhuis *Date:* 1993.

NAME: **JAMIESON ALLUVIAL DIGGINGS**
Jamieson goldfield
HI No. ***H8123-0011***

LOCATION: West bank of Goulburn River, 500 m south of Gooley's Bridge.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State forest

SITE HISTORY:
The alluvial workings probably date to the 1930s, but they also may relate to claims taken up on a lead discovered near Jamieson township in 1872. About 12 claims were taken up at that time and worked by shaft.

References: Mining Surveyors' Reports (Jamieson Subdivision), March 1872.
Steenhuis, p. 49, after Supple et al.

DESCRIPTION & INTERPRETATION OF FEATURES:
The alluvial workings at Jamieson commence about 20 m above the Goulburn River and consist of six to eight adits in groups of two or three. The workings are in only fair condition, having partially collapsed. Timber spars remain in some. Small piles of stone are heaped up on leveled areas just in front of each group of adits. They are all connected to a 1-ha flat area on the bank of the Goulburn River, via a small track.

Further up on top of the bank are several vertical shafts, about 900 x 600 mm, which may have been connected to the adits. Some are about 20 ft deep.

CONDITION OF FEATURES: Adits have partially collapsed.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Supple, Perham & Griffiths *Date:* 1989.

NAME: **UNITED GLEESONS MINING AREA**
Jamieson goldfield
HI No. ***H8123-0008***

LOCATION: Sailor Bill's Creek
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State forest

SITE HISTORY:

The United Gleeson's mining area covers the site of numerous mining operations dating back to 1864. The Hungarian GMC, in 1865, erected a 15-head water-powered battery at their mine on Sailor's Creek. (Lloyd says that a 5-head battery was initially erected, which was enlarged to 20-head in 1866, at which time the waterwheel was replaced by a steam engine.) At the same time, the Hungarian Co. constructed a system of level and inclined tramways and two short water races. One of the tramways—near vertical, with a grade of 6-in-7—was probably (according to Milner) the steepest ever constructed in Victoria and a considerable engineering achievement.

Gleeson's Co., on the same reef, first appeared in the records in 1866-7, when it achieved impressive yields—for example, 379 oz of gold from 80 tons of stone. In 1871, the mine was still/again recording "splendid" yields, from both the 150-ft and 350-ft levels. A tramway was, at that time, constructed from the Gleeson's mine to 'an adjoining machine' (a 20-head battery—probably that of the Hungarian Co., which was still in operation) and stoping between levels commenced. The Gleeson's Co. worked the reef by tunnel: the main one was 600 ft in length, and a No. 3 (lower) tunnel had been commenced. In 1872, the company made "some fresh arrangements with regard to machinery"—presumably moving the battery closer to their mine, or installing their own battery—then kept up its "high character" with more impressive crushings. Dividends for just one quarter in 1874 amounted to £3375.

Driving a low tunnel towards Gleeson's rich ground from the opposite direction was the Sailor Bill's Co. Its tunnel was begun in 1872, and it took 4½ years and more than £5,000 before crushing commenced. In 1877, the company erected a 10-head battery powered by a 40-ft waterwheel, at the junction of Sailor Bill's and Purdy's creeks, about 1,200 yards from the mouth of their tunnel.

Also driving tunnels on the Gleeson's/Sailor Bill's reef in the early 1870s were the North Gleeson's and Clancy's parties.

By 1877, the Gleeson's Lease Co. was scratching to find good stone. They repaired their battery and let the mine on tribute to "a very good party of men". The Sailor Bill's Co.—which, between poor stone and no water for crushing—had achieved little, let their mine on tribute in 1878. In the same vicinity, the Clancy brothers got an occasional good crushing from their claim, and the Perseverance Co., driving for Gleeson's Reef, discovered the Wind-bag Reef in their tunnel. The Gleeson's lease tributers appear to have abandoned prospecting in 1882, after sinking a shaft intended to strike the Clancy's Reef.

The Sailor Bill's Co. added five more stampers and a steam engine to their plant in 1883, water being available for crushing during just three months of the year. Their tunnel was in a distance of 1,178 ft. The company pushed on with prospecting and development of the mine until 1887, without striking payable stone. Likewise, tributers were unable to find gold in the Gleeson's mine (sample crushings were carried out at the Sailor Bill's battery). In 1889, the Sailor Bill's and Gleeson's companies amalgamated.

The United Gleeson's and Sailor Bill's mine (generally known as the United Gleeson's) operated more or less continuously until 1928, using the old Sailor Bill's battery the whole time. Focusing on the Sailor Bill's workings, the mine was Jamieson's premier gold-producer from 1900-08, yielding 4952 oz during that period. In 1907, Dunn reported on the immense amount of work done in the past: a great mass of very rich quartz had been removed when the mine was first worked, leaving a cavity known as "the Ballroom".

When the Gleesons–Sailor Bill's amalgamation took place in 1889, working of the Clancy brothers' reef was again (still?) underway. That year, the Clancy party erected an 8-head battery powered by a 20ft-diameter pitch-back waterwheel. The Clancy's Reef GMC later operated the mine, from 1908-10, crushing with a 5-head battery.

The United Gleeson's mine was re-opened in the late 1980s, with a new adit driven parallel to the old Hungarian adit, towards the Clancy brothers' mine workings.

References: Department of Mines Annual Report, 1908-10.
Dunn, p. 44.
Lloyd, p. 28; Tables 2-4, 9-1, 15-1.

Milner, pp. iv, 3.
Mining Surveyors' Reports (Jamieson Division), June & December 1865, September & September 1866, December 1867, June & December 1871, March–December 1872, December 1874, September 1875, September & December 1876, June & December 1877, September 1878, March & June 1880, December 1881, June 1883, September 1887, December 1888, September 1889.

DESCRIPTION & INTERPRETATION OF FEATURES:

United Gleeson's mining area—The only remains of the earlier operations are a few benched hut sites (one of them with a stone chimney), the benched area where the Clancy brothers' battery was located, some open stopes about 10-15 m above the level of the new adit, and the site of the winch for the flying fox that brought ore from the Windbag mine workings to the hopper for the Clancy brothers' battery.

Sailor Bill's/United Gleeson's battery site—The site described by local historian Peter Poole as the United Gleeson's battery site is about 1 km east of the present (1989) United Gleeson's mine. The site occupies both sides of Sailor Bill's Creek and is very overgrown with blackberries. It consists of a number of benched building sites, a cutting in the bank above the creek where the waterwheel operated, a water-race, and some tramway formations.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Supple, Perham & Griffiths *Date:* 1989.

NAME: **NO SWEAT DIGGINGS**
Jamieson goldfield
HI No. ***H8024-0011***

LOCATION: Two kms south of Jamieson on the east side of the Mansfield-Woods Point Road
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State forest

SITE HISTORY:
As with most alluvial mining features there is really no readily available information on the history of this site. In Upper Goulburn Heritage Plan, Parks Victoria, 1999

DESCRIPTION & INTERPRETATION OF FEATURES:
No Sweat Diggings
This site is an excellent example of an alluvial sluicing site, where the main features - an open cut and tail race - are still in a relative stable condition. The vertical walls of the cuttings still seem to be reasonably stable and the site has not been disturbed since mining ceased. Its condition suggests that mining occurred here in the twentieth century. The site is located very close to the Mansfield - Woods Point Road. People are already accessing the site via a deep tailrace, up to 2 m deep and 1.5 m wide with vertical sides. This race leads into the south west corner of a substantial open cut. This tail race would have been used to drain water from the open cut to the Goulburn River. The open cut is 10 m wide by 15 m deep and approximately 150 m long with a few open adits cut into its vertical walls. The race that supplied water for washing the gold bearing material through the sluices is located along the south side of the open cut. There are three or four house sites near the western end of the open cut. These house sites are distinguished by piles of rubble stone, the remains of the chimneys, and scatters of glass and pottery fragments.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Smith and Supple *Date:* 1999.

NAME: **BURNS BRIDGE ALLUVIAL DIGGINGS**
Jamieson goldfield
HI No. ***H8123-0022***

LOCATION: 300 metres south of Burns Bridge at the first bend and on the west side of the Mansfield-Woods Point Road
MUNICIPALITY: Delatite Shire
CURRENT STATUS: Private

SITE HISTORY:
As with most alluvial mining features there is really no readily available information on the history of this site in Upper Goulburn Heritage Plan, Parks Victoria, 1999

DESCRIPTION & INTERPRETATION OF FEATURES:
Burns Bridge Alluvial Diggings
An extensive area of sluiced and worked over ground, which is covered in water washed stones heaped up during the sluicing process. It contains cuttings, race lines and piles of stones discarded by the alluvial miners. There was at least one earthen water race found which suggests that at least some of the working was perhaps from the 1930s. In places the race lines have been formed by stacked stone. In other places the stone is stacked to form retaining walls. The area is covered with scrub and eucalypt regrowth. It has not been disturbed and is a good example of terrace sluicing.

CONDITION OF FEATURES: Site is covered with scrub and is undisturbed.

SIGNIFICANCE RANKING: Site listed heritage Inventory

Assessed by: Smith and Supple *Date:* 1999.

NAME: **TUNNEL BEND STREAM-DIVERSION TUNNEL**
Gaffneys Creek goldfield

HI No. ***H8123-0023***

LOCATION: Goulburn River
MUNICIPALITY: Delatite Shire
CURRENT STATUS: Tunnel Bend Reserve

SITE HISTORY:
The tunnel that gives this bend in the Goulburn River its name was constructed by the Goulburn Valley Sluicing Co. in 1866, to divert the river flow and enable the working of the bed:

> *…a party has been formed for working the bed of the River Goulburn below Gaffney's Creek. The bed of this river has long been known as highly auriferous, but up to the present time has only been partially worked by means of "wing dams" from its banks (Chinamen being the principal adventurers hitherto); but this party purpose diverting the stream from its course for a distance of about a mile in length, a highly favorable bend of the river has been secured, across the isthmus of which the current will be carried by means of an open channel, terminated by a short tunnel.*

In mid-1867 the company had fourteen men employed sawing timber for boxes, building a dam for raising water into a head ditch for sluicing purposes. They had stripped two large paddocks, but were unable to bottom without the aid of a California wheel and pumps, which were expected to be in action shortly. A couple of months later, heavy floods carried away their dam and 'injured' the company's works to the tune of £700 or £800. They planned to rebuild and resume operations when the flooding subsided, but there is no evidence that this happened.

References: Mining Surveyors' Reports (Gaffney's Creek Subdivision), September 1866, June & September 1867.

DESCRIPTION & INTERPRETATION OF FEATURES:
The Tunnel Bend diversion tunnel is dry during periods of low river flow, and appears quite safe to walk through. The south-east end features an open-cut channel about 15-20 m in depth. (Steenhuis, p. 46). The tunnel is approximately 3 metres wide and 2 metres high and 200 metres long through stable rock.

CONDITION OF FEATURES: Water still flows through the tunnel.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Luke Steenhuis/Smith and Supple *Date:* 1993/1999.

NAME: **GOULBURN RIVER ALLUVIAL WORKINGS**
Gaffneys Creek goldfield
HI No. ***H8123-0021***

LOCATION: Goulburn River, between Knockwood and Ten-Mile.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State forest

SITE HISTORY:
In August 1859, the Kilmore mining registrar wrote:

> *Reports have reached me of some few parties doing well in alluvial mining at the Upper Goulburn and the Big River; but from what I can learn great difficulties have to be encountered, both from the sudden flooding of the river claims, as well as from the difficulty of obtaining stores, provision, &c…*

Early alluvial mining on the Goulburn River was largely confined to bank-sluicing claims, worked by both Europeans and Chinese.

Until 1866, the bed of Goulburn River was only partially worked, by means of "wing dams" from its banks ("Chinamen being the principal adventurers hitherto"). At that time, the first organised attempt to work the river bed was made at Tunnel Bend, south of Ten Mile (see foregoing site). "The success of one attempt", the mining surveyor wrote, "would lead to the working of the bed of the river for many miles of its tortuous course". Severe flooding stymied that attempt and appears to have continued to retard alluvial mining along the upper Goulburn. In 1868, the mining registrar was of the opinion that "there is still remunerative employment for alluvial miners, if they would turn their attention to the banks and spurs of the Goulburn river". But did they? Perhaps eventually, when Gaffney's, Raspberry and the other creeks were exhausted. In 1891, alluvial mining on the Gaffney's Creek field was confined to the Goulburn River.

References: Lloyd & Combes

Mining Surveyors' Reports (Kilmore Division), August 1859; (Gaffney's Creek Subdivision), December 1865, September & December 1866, June & September 1867, December 1868.

DESCRIPTION & INTERPRETATION OF FEATURES:
Goulburn River alluvial workings
Evidence of alluvial diggings is visible from the road in many places. The most extensive are at 8123-3-2: 331501 (north of Picnic Point), where large trenches diagonal to the river extend to and across the road. These trenches might well have been 'wing dams' which were commonly used by Chinese (and others?) as a means of diverting water from the river, in order to enable working of the river bed or to house sluice boxes. At or near the ends of the trenches are short tunnels into an old river bed. The tunnels have partially collapsed near their entrances; some have been used by campers as rubbish pits. (Steenhuis, p. 46).

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Luke Steenhuis *Date:* 1993.

NAME: **VICTORIA–HOMEWARD BOUND OPEN CUT**
Gaffneys Creek goldfield
HI No. ***H8123-0072***

LOCATION: On western slope of the high ridge between Raspberry and Gaffneys Creeks.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State forest

SITE HISTORY:

The Victoria or Homeward Bound Reef on Raspberry Creek was one of the earliest reefs worked on the Gaffney's Creek field, from 1860. In 1860, a battery of eight square heads, powered by a 20ft-diameter waterwheel was erected 50 ft above the creek by O'Connor and party. Three hundred feet higher up, they cut a quarry into the hill, which yielded richly. At the end of 1864, the open cut had a vertical face of 60 ft and a shaft had been commenced to work the lower ground. The Victoria GMC purchased the claim and in 1865 began driving a tunnel in order to work the lower levels of the mine at less expense. The old square stamps were replaced with revolving ones in 1867. The mine was let on tribute and for a couple of years vast quantities of stone were crushed for relatively small returns (e.g., 2,000 tons for 216 oz)—suggesting that the open cut was still in use. Despite flagging yields late in the decade, the Victoria was one of only a handful of Gaffney's Creek mines to have made a profit during the 1860s.

The mine was recapitalised in 1871 and a new battery of 15-head erected (not surprisingly, the old one was worn out). A new tunnel was commenced, intended to strike the reef about 460 ft above creek level. At the same time (?) a level—the lowest— was put in from the creek. The mine was "talked up" but failed to produce better yields. Tributers struggled on ('prospecting with three men and the battery') until 1880, when continuing poor prospects and excessive water finished the mine.

The Victoria ground was taken up again in 1888 and the New Victoria and Golden Belt Co. were formed. The battery was shifted downhill, but no gold was found.

References:
Flett, p. 109.
Lloyd & Combes, p. 111.
Mining and Geological Journal, 1948.
Mining Surveyors' Reports (Gafftney's Creek Subdivision), June 1865, June 1867, December 1868, September 1871, March & June 1872, September 1877.

DESCRIPTION & INTERPRETATION OF FEATURES:

Victoria–Homeward Bound Reef open cut—The sides have fallen in a little and trees grow within it, but it is still an impressive excavation—about 30 m wide x 15 m deep—and runs almost all the way down the steep hillside to Gaffney's Creek. Blackberries obscure the sites of the original Victoria battery and the Victoria and Hunts adits further down the hillside.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Lloyd & Combes *Date:* c.1980.

NAME: **WALLABY MINE SITES**
Gaffneys Creek goldfield
HI No. ***H8123-0006***

LOCATION: The original workings are situated towards the head of Wallaby Creek at the junction of three gullies. The upper workings are accessible either from the end of Sibley Track or by Hogarth's Track, which starts near the junction of Ryan and Gaffney's creeks. Although both tracks are relatively clear and well defined, the upper workings are heavily overgrown with blackberries.

MUNICIPALITY: Delatite Shire

CURRENT STATUS: State Forest

SITE HISTORY:

The reefs towards the head of Wallaby Creek were discovered in 1864 and a waterwheel driving a small four-head stamp battery was in operation that year. It was replaced a year later by a 16-hp horizontal steam engine driving a 12-head stamp battery. The upper levels were worked by adits at least until the end of the century. The most productive phase of mining was between 1869 and 1879 when some 4,000 oz of gold were obtained from about 15,000 tons of stone. Mining continued sporadically thereafter until 1912. In 1894 a 300-ft iron flume carried the creek over the old workings. The battery house and mine buildings were burnt down by bushfires in 1898. In 1904 a shaft was sunk to reach the lower levels, but this does not appear to have been particularly successful. In 1923 a fresh start was made by driving a long adit from lower down the creek in order to get into the lower workings more economically. The old steam-driven battery was shifted down from the old workings to a new site on the creek, 25 feet below, in 1925. An 8-head battery from Dempsey's mine was added in 1926. But the results were disappointing and the mine was abandoned in 1927. Some of the smaller and more easily transportable equipment was removed several years later.

References: Lloyd & Combes, pp. 193-4.
Supple et al, after Milner, 1989 (2).

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the Wallaby mine sites include a lower level of mine workings, a portable steam engine, battery, and heavily overgrown upper workings.

Mine workings (lower level)—Several collapsed adits, a shaft and associated mullock dumps.

Portable steam engine—In the creek below the workings is a machinery site, which still contains an early Clayton, Shuttleworth & Co. portable boiler, 6-ft diameter by 20 ft long.

Battery—Some distance further down the creek (271503) are the later (1926) workings which Lloyd & Combes say consist of a machinery site on a small excavated platform containing intact horizontal steam engine, vertical boiler with brass fittings attached, baling tank, battery box (part of 18-head battery), several stamper stems, a few broken cams, and mullock dump from adit above; also the remains of several huts on either side of the gully

Upper workings—are heavily overgrown with blackberries. Lloyd & Combes say they comprise a large mullock dump, a 200ft-deep shaft sunk during WW1, thimble and gin wheel from the top of poppet legs, stonework from boiler housing, and the remains of a blacksmith's shop.

CONDITION OF FEATURES: Undisturbed, protected by blackberries

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Peter Milner/Lloyd & Combes *Date:* 1989/c.1980.

NAME: **LAURAVILLE BATTERY**
Gaffneys Creek goldfield
HI No. ***H8123-0007***

LOCATION: Geffen's Creek township
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State forest

SITE HISTORY:
The original Drysdale and Co. battery was constructed on Homeward Bound Reef, Raspberry Creek in 1864. The 12-head (Lloyd says 8-head) battery was said to be the most modern then in the ranges, and its 35-ft waterwheel was probably the largest in Victoria at the time. The mine failed to strike the rich stone found in adjacent claims.

The battery was still in place and considered usable in 1894, when it was moved 600 yards up Raspberry Creek, to the east bank, near the new Lauraville GMC tunnel. The dilapidated battery was sold and removed in 1905. In 1924, a 15-head battery (ex-Wood's Point) was erected on the old battery site. It had a large waterwheel drive and a 45ft-high timber trestle carried ore from the mine tunnel across the road and creek to the battery. The mine gave good crushings in 1925, 1927 and 1929, and small, less successful crushings continued until 1934. The battery remained in place until at least 1940. Hunts Consolidated Co. worked the Lauraville mine from 1946-8. A battery was erected and the adit extended, but the mine proved too wet.

References: Lloyd & Combes
Mining & Geological Journal, 1946.
Mining Surveyors' Reports (Gaffney's Creek Subdivision), March–December 1864.

DESCRIPTION & INTERPRETATION OF FEATURES:
The battery site is located close to the Mansfield Woods Point Road on the east side of Raspberry Creek. There a number of pieces of plant and equipment on the bank of the creek, however the relationship between these individual items is not very clear particularly as the bank of the creek has eroded from time to time. From south to north along the bank there are some riveted pressure vessels which may be part of a gas plant, a galvanised corrugated iron water tank, some cast iron cylindrical pieces of plant mounted on concrete marked with the name "Crossley Bros. Limited Manchester" and a collapsed galvanised corrugated iron shed. Then a further 50 m north is the battery site where a mullock heap which ends abruptly at the creek. This site contains a cam shaft from the battery, two battery boxes and what appears to be a water wheel pit. There is also a substantial water race running parallel to and approximately 5 m above the creek. The Lauraville adit, which is open and accessible, is located at road level immediately adjacent to the Mansfield to Woods Point Road and on the opposite side of the road to the battery and machinery site.

CONDITION OF FEATURES: Substantially disturbed

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: CNR Mansfield *Date:* 1988.

NAME: **DEMPSEY MINE**
Gaffney's Creek goldfield
HI No. ***H8123-0024***

LOCATION: East bank of Ryan's Creek approximately 600 metres south-west of Gaffney's Creek.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: Public Land

SITE HISTORY:
Mining on the Dempsey lease began in 1860 by July 1861 an eight-head battery powered by an 18-foot diameter wooden waterwheel had been erected in the site. A new eight-head battery and 30-foot diameter iron water wheel were installed in 1879. The mine was worked with limited returns until the early 1880s. It was then abandoned until being taken up again in 1887 and was worked more or less continuously with limited success until 1899 this includes several periods during which it was operated on tribute. A new reef was then discovered and the mine prospered for the first decade of the twentieth century. This was the only time when dividends were paid. In 1920 the manager of the mine left to become the underground manager of the A1. Attempts were made to form new companies in 1922 and 1940 but nothing eventuated. An unsuccessful attempt was made to pump out the shaft in 1972. It was not until the mid 1980s that mining recommenced in earnest. However this did not prove to be successful and has now ceased leaving behind a relatively modern battery.
Upper Goulburn Heritage Plan, Parks Victoria, 1999.

DESCRIPTION & INTERPRETATION OF FEATURES:
Dempsey Mine
The remains at the site include a modern functional five-head battery and associated tables and berdan pan. It is possible that this battery may be used for a tourist mine, which would make a fantastic adjunct to the fabulous collection of historic mining machinery at the surrounding sites. The site also contains a number of sheds, the entrance to the adit and an old Cornish boiler no longer in its setting.

CONDITION OF FEATURES: Modern functional battery

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Smith and Supple *Date:* 1999.

NAME: **WOMBAT MINE**
Gaffney's Creek goldfield
HI No. ***H8122*-0086**

LOCATION: Wombat Creek, Gaffney's Creek
MUNICIPALITY: Delatite Shire
CURRENT STATUS: Public Land – State Forest – Proposed Historic Reserve

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SITE HISTORY:
A production of 28 ounces from 7 tons was reported in *Gold at Gaffney's Creek*, and the Mining Surveyors Report for March 1870 stated that the company was erecting a steam engine and an eight-head battery. There was sporadic activity during the 1890s. There were a few more attempts in the early 1900s, then again in 1918/19 and there were some small quantities of gold were recorded in the 1920s. Upper Goulburn Heritage Plan, Parks Victoria, 1999.

DESCRIPTION & INTERPRETATION OF FEATURES:
Wombat Mine
The site contains a vertical boiler, remains of a blacksmith shop and some scattered remains on a flattened area in front of an adit. There is also evidence of a dam. At a second site some distance away are the remains of some collapsed buildings. The site has not been disturbed and offers some potential for archaeological investigation. (Need to confirm that this is the Wombat Mine)

CONDITION OF FEATURES: Good, relatively undisturbed.

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Smith and Supple *Date:* 1999.

NAME: **ELDORADO MINE**
Gaffney's Creek goldfield
HI No. ***H8123-0025***

LOCATION: Boarding House Creek approximately 4 kms south-west of Gaffney's Creek.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: Public Land – State Forest – Proposed Historic Reserve

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EXISTING HERITAGE LISTING:
The site is of regional significance and has potential as a site of State significance. It is significant for:

- The collection of mining plant at the site, which represent several distinct stages of mining over nearly 70 years,
- Its intactness and corresponding archaeological potential,
- The features on the site which date from the 1860s, which is very early in the mining history of the state and the time when this area was first opened up by miners. It was also the period when mining first began in this area.
- The relationship of the site to the Wallaby and Wombat mines as well as the general Gaffney's Creek / A1 mining area,
- The ability of the site to demonstrate the progression of mining over a 70 year period,
- The ability of the site to be used to tell the story of the high and lows of mining and the people and families involved, including the accident / disaster which killed two miners.
- The relationship between the mineral processing sites, the mine adits and workings, and the sites where the miners lived.

NOMINATING BODY: Upper Goulburn Heritage Plan, Parks Victoria, 1999

SITE HISTORY:
The Wallaby / Eldorado Reef System is west of and parallel to the main Gaffney's Creek and A1 reef system. The Eldorado is south of the Wallaby and was opened in 1864. A company was formed in 1865 and a new 10-head battery driven by a 14-hp steam engine purchased from Robinson & Scott. Steam was provided by a large boiler 16 feet (4.9m) long and 5 feet 6 inch (1.7m) in diameter. Ore was brought to the battery using a self acting incline tramway. It cost £4000 to set up the plant. The mine showed early promise and mining was conducted in a grand scale during the first two years. There were 35 men employed in 1867 for a weekly payroll of £127. Unfortunately the rich deposit was worked out by the middle of that year. Tributers were let in but even they gave up in 1869. Despite this downturn, the Eldorado was one of only eight mines out of forty that made a profit during the 1860s. After the company folded the Bank of Victoria held the lease until it was given up in 1871. Ah Louey and a group of his countrymen who worked it unsuccessfully for a couple of years. Then in 1873 Aarons formed the Royal Co. to work the mine. After a promising first crushing the gold cut out again and tributers found little gold for the rest of the decade. The mine was then idle from 1881 to 1892 when it was taken up again, after some encouraging trials the Great Eldorado G.M. Co was formed in 1895. The old Eldorado battery was moved up to the new workings and was operational by mid 1896, with large settling tanks and a pump providing water for the machine. Thirty men were employed raising stone from the upper tunnel using a horse haulage and a 50 foot whip shaft. A small township started to develop. However the good gold had finished by 1897 and the mine was let out on tribute. In 1898 a steam winder was purchased using a government mortgage of £750. At the end of the decade the company was in debt but the future looked bright.

In 1900 two men were killed when water broke through from an old winze into the stope where they were working. The mine manager was charged with manslaughter but was acquitted. The mine had indifferent results from 1900 to 1905. There was no gold production in 1905 and the government foreclosed on the £750 loan advertising the plant for sale, but there were no takers. The inventory of plant for sale included a 9 foot by 4 foot vertical boiler, a steam winch with two cylinders 8 inches in diameter, a safety cage and a bailing tank, a ten head battery housed in a 36 by 30 foot building with a 16 foot by 5.5 foot Cornish boiler, a single cylinder steam engine 14 inches in diameter and 24 inch stroke, other ancillary equipment and 2400 feet of steel rails and an office 24 by 12 feet. In 1913 the Mines Department let a contract to remove machinery from the Eldorado underground chamber, this involved reconditioning one of the adits and subsequently the mine was taken up again. Work continued underground until 1919, when it was reported that gold was in sight. However the war intervened and the mine was not worked again until the early 1920s. Then in 1926 a quartz formation was found. Under the management of Ben Lloyd, a 10-head battery driven by a Kynoch gas suction engine, from the Working Miners Mine at Kevington was erected on site and commenced operating in 1927. However after an excellent start the ore body was exhausted by 1929. The mine closed again in 1932. There was another attempt some time later however this also proved unsuccessful. Production over the life of the mine was 10,000ozs at an average yield of 12.5 oz. Some machinery was taken out on sleds in the mid 1930s.
(Source: Lloyd, B. & Combes, H., 1981, *Gold at Gaffney's Creek*, Shoestring Bookshop, Wangaratta, Victoria.) in Upper Goulburn Heritage Plan, Parks Victoria, 1999.

DESCRIPTION & INTERPRETATION OF FEATURES:
Eldorado Mine
The site contains a significant collection of historic features from each period of operation covering nearly 70 years. There is an 1860s battery, boiler and single cylinder steam engine. A feature that should be relatively simple to locate from this period is the self-acting tramway that took ore to the battery at its original site. The battery was relocated to its current site in the 1890s and parts of the battery; the engine and boiler are still in this location together with the pump and one of the tanks used to supply the battery with water. The winder, purchased with a government loan, is still on site as is the baling tank and safety cage advertised for sale in 1905. There are some ore trucks and several open adits. The area is generally undisturbed and what may be the chimney associated with the 1930s operation is still on site, while there are no other obvious signs of the 1930s equipment, there will undoubtedly be more evidence of this period of operation. Two undisturbed house sites were found north east of the mine site. These sites undoubtedly have archaeological potential. The relationship of this site to the Wallaby Mine is important, as is the relatively close proximity to Gaffney's Creek.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Smith and Supple *Date:* 1999.

NAME: **SIR JOHN FRANKLIN MINE SITE**
Woods Point goldfield
HI No. ***H8122-0013***

LOCATION: Webster's Spur and Gooley's Creek, Webster's Spur south of Wood's Point.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The Sir John Franklin at Gooley's Creek emerged during the 1860s as one of major reefs on the Wood's Point–Matlock field. After the quartz mining slump of the mid-sixties, it was one of the few mines in which methodical development of deeper ground continued through the next decade.
Another quartz mining revival took place towards the end of the 1890s. One focus of this revival appears to have been Gooley's Creek where several companies commenced work, including the Comet, Little Comet, Sir John Franklin and North Sir John Franklin. All these companies appear to have erected water-powered batteries. The most successful of them was to be the Sir John Franklin Company. In 1899, this company erected new works, including a tramway and a 10-head battery. The new battery was powered by a 45ft diameter water-wheel. As the new mill was sited on the opposite side of Gooley's Creek to the mine, a high wooden flume had to be erected. This company worked from 1899 to 1909 and produced 6,267 ounces of gold.
The 1930s saw major mining operations kick off on two mines: the Sir John Franklin and Morning Star. The New Sir John Franklin Company commenced work in 1932. It installed new plant consisting of a diesel engine and five-head battery; the old boiler, foundations and smoke stack of an earlier stage being bulldozed to make way for the new plant. The company only had a few crushings between 1940 and 1941; the plant was sold in 1949.
References: Holliday, pp. 5-6.
Milner
Mining Surveyors' Reports, March 1872.
Supple et al.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Sir John Franklin mine site are mine workings and the remains of two batteries.
Workings—At the head of Jenkins Gully are some open cuts/stopes, trenching and an incline shaft.
Battery No. 1—Further down the gully is a succession of short adits and, at the lowest level, a collapsed and partially flooded adit driven initially through river wash, and a large and essentially intact mullock heap which juts out into the main part of the gully. At this site is a Cornish flue boiler, and parts of a steam engine and stamp battery. Near the entrance to the adit, on the northern side, are some rubble masonry foundations which probably mark the original position of the boiler and its associated chimney flue. Adjacent to these structures is a cutting, which marks the start of a self-acting tramway. This descends along the western side of Jenkins Gully before eventually crossing it and the Goulburn River to discharge stone at the Gold Bar battery site on the opposite side.
Battery No. 2 and water race—Just below the start of the above tramway, and commencing at the edge of the mullock dump, is a bench track, running northwards around the spur. It crosses the line of the tramway and, at the point where it crosses the spine of Webster's Spur, joins with the head of a second self-acting tramway formation. This formation generally runs down along the spine of the spur, occasionally in a square-sectioned cutting, to a battery site on the south bank of the Goulburn River, opposite a small blackberry-infested flat upon which it is thought that Biggs's (1900s) pyrites plant was situated. At the battery site are burnt-out remains of a large wooden waterwheel, 45 ft in diameter x 5 ft wide, with sheet iron buckets, geared first and second motion shafts, and some components of two Roberts 5-head wooden-framed stamp batteries. Water for the wheel was supplied by a race, which ran behind the battery, and along the southern bank of the river back to Gooley's Creek.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Peter Milner/Supple, Perham & Griffiths *Date:* 1988/9.

NAME: **NORTH SIR JOHN FRANKLIN MINE SITE**
Woods Point goldfield
HI No. ***H8122-0015***

LOCATION: Gooley's Creek. Towards the head of Atlantic Gully, on the western side of Webster's Spur, are the workings of the North Sir John Franklin mine.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The North Sir John Franklin Co. was one of several active at Gooley's Creek during the quartz mining revival that commenced late in the 1890s. An 8-head battery operated at the company's mine from 1903-10.
References: Department of Mines Annual Reports, 1903-10.
Holliday notes, p. 5.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the North Sir John Franklin mine site are mine workings and the sites of a battery and several buildings.
Mine workings—Five levels and a large shaft.
Battery & building sites—Represented by levelled areas. All machinery has been removed.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Milner/Supple, Perham & Griffiths *Date:* 1988/9.

NAME: **NEVER MIND MINE SITE**
Woods Point goldfield
HI No. ***H8122-0016***

LOCATION: Never Mind Spur, Gooley's Creek. Bench tracks run south-westerly from above and below the North Sir John Franklin workings, past several small prospecting shows to the workings of the Never Mind Co.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State Forest

SITE HISTORY:

Never Mind Reef ('a fine-looking reef') was struck in mid-1864, below the junction of Gooley's Creek, on the south bank of the Goulburn River. The surface stone was very rich in find gold, and seventeen claims were marked out along the reef's course soon after its discovery. The prospecting claim was at first opened up by tunnels at levels of about 100 and 180 ft on the Never Mind spur. A water-powered battery of eight heads was installed by the prospecting company in 1865, and the initial crushing averaged more than 2 oz per ton. A further 8-head Langland's battery was added the following year. At the same time, floodgates were fitted to the race, which fed the waterwheel, and a blacksmith's shop and retorting and smelting furnace were constructed. Stone was passed down chutes from a series of open cuts to a tunnel beneath, and thence by a tramway in trucks to a self-acting tramway, which finally led to the battery. In 1867, the original battery was improved, the race was improved to give more fall, additional buildings were constructed, and the tramway was upgraded.

Prospects in the Never Mind Prospecting Co. were "not very brilliant" in 1868 (yields having dropped to about 2 dwts per ton), and the mine was let on tribute; but things failed to improve. Holt & party, further along the reef on ground originally known as the Sons of Freedom claim, ran a tramway from their mine to the Never Mind battery in 1871. Other mines on the Never Mind Spur during the 1870s—including the New All Nations and Lady Franklin—may also have crushed at the Never Mind battery. The battery and tramways were overhauled by the St Osyth Co. (Never Mind tributers) in 1875, but no success resulted from their venture. After being a long time idle, the Never Mind was again re-tried during a prospecting surge in the mid-1880s, this time as the Abo mine, and a New Abo Co. (and machine) was active in 1889.

References: *Dicker's Mining Record*, 6 March 1866, p. 159.
Holliday notes, p. 5.
Milner, p. 13.
Mining Surveyors' Reports (Wood's Point Division), September 1864, September & December 1865, December 1866, March & June 1867, June 1868, December 1870, September 1875, September 1885, September 1886, December 1889.

DESCRIPTION & INTERPRETATION OF FEATURES:

Features of the Never Mind mine site are mine workings, a dam, tramway formation, building sites, and a water race.

Mine workings—At the head of the workings is a large open cut. In the gully below this are two long adits, which probably connect with air shafts, which open out on the spur above the open cut. The upper adit appears to have been the main working level, although the quartz may have been shot down to and trucked out along the lower adit, as it is from here that the tramway to the battery commences.

Dam—Below the second adit, from which water flows, there is a dam, the wall of which is breached.

Tramway—At the northern end of the dam wall is a tramway formation, which runs down to the battery site on the eastern bank of Gooley's Creek. The site of the battery appears to have been washed or sluiced away.

Building sites—In the gully between the two adits is an unusual and quite extensive thicket of deciduous trees, within which there appear to be a great many house/building sites, seeming to represent a small settlement formed here at the time the mine flourished (the construction of "buildings and a house" was mentioned in July 1867 [*Dicker's Mining Record*]).

Water races—Along the eastern margin of the creek is raceways, which has later been extended across Johnson Hill Track and around the slope behind the township so as to allow sluicing along the Goulburn River further downstream.

North Never Mind workings—Along the track back towards Johnson Hill, and on the slopes above, are a number of small adits, trenches, tracks and building sites which are presumably connected with the northerly extension of the Never Mind reef. The longest adit is at the level of the track and runs almost due east for about 40 m.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Milner/Supple, Perham & Griffiths *Date:* 1988/9.

NAME: **ROYAL STANDARD MINE WORKINGS & BATTERY SITE**
Woods Point goldfield
VHR No. ***H1270***
HI No. ***H8122-0017***

LOCATION: Workings located on Royal Standard Spur, to the south and west of Standers Creek.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State Forest

SITE HISTORY:

The Royal Standard Reef was discovered in 1865, giving the appearance of "by far the richest vertical reef found in the Wood's Point district". Early in 1866, the Royal Standard Co. installed a water-powered battery of 15 heads, and their first crushing yielded almost 3,000 oz, averaging more than 9 oz to the ton. Over the ensuing six months, the yield dropped to 2½ oz per ton, a circumstance which the mining registrar attributed in part to 'a probably extensive abstraction of specimens by an organised number of men, who have been watched for some time and were caught in the act… In consequence of this discovery,' he went on, "the whole of the Cornish men, and the underground manager have been dismissed from the claim". But the yield from the Royal Standard mine continued to plummet—to an average of 14 dwt per ton early in 1867, falling to just 5 dwt by year's end. Soon after, production was at a standstill, and the mine was let on tribute.

Early in 1867, five more stampers had been added to the battery, along with a steam engine as a supplementary power source. In 1868, the battery was leased for a short time to the nearby Oriental Co. Adjoining the Royal Standard Co.'s ground, a "floating reef" was struck by the Strap & Buckle Co. in 1869, and gave an impressive trial crushing. Its promise was short-lived, though. By mid-1870, the Royal Standard and Strap & Buckle were giving only poor returns. The Royal Standard Co.'s continued prospecting had shown up nothing worth working, and it leased ten of its stampers to the Golden Star Co., which was prospecting new ground adjoining the Oriental. In 1871, the Oriental Co., after a "protracted and unpromising" career, finally struck good stone, and was, at that time, the only mine on Stander's Creek giving returns of any sort. The battery 'known as late the property of the Royal Standard Company' was in need of repair, and the Oriental tributers chose instead, to tram their stone to the battery of the Champion Co. The Royal Standard battery's state of disrepair was blamed for the poor state of mining on the Black River (Stander's Creek) reefs. The Golden Star, Strap & Buckle, and Oriental companies struggled on until 1873, after which the mining registrar wrote, "The mines at the Royal Standard are all but abandoned, the number of miners being reduced to three". (The name 'the Royal Standard' by this time designated a vicinity rather than a mine and had become synonymous with the name "Black River".) There was talk of amalgamations, but none appear to have transpired.

In 1875, the Oriental was reborn as the Mountaineer. At that time, Stackpoole and party (tributers at the Morning Star mine, Wood's Point) were pioneering a new method of quartz mining. The method entailed sluicing away the face of the dyke, and then "saving what loose gold there may be by the usual sluice-box with false bottom, running all solid rock into a paddock of which the fence acts as a grill, screening in pebbles and stones exceeding three inches; these are forked and hand-picked roughly, so as to exclude barren blocks of granite, &c., and the residue, chiefly made up of quartz and veined granite stones, is trucked to the battery and crushed". This was seen as an inexpensive way of operating upon large bodies of stone, and was soon after adopted at the Mountaineer. A race was cut to increase the available water power. But neither that nor conventional mining methods could wring a payable result from the mine.

Since 1876, the party of McGregor & Mulholland had been engaged in "long and arduous" prospecting at the Royal Standard. In 1879, they got fair prospects from ground near the Mountaineer. A water-powered battery was ready in time for the first rains of 1881, but poor yields resulted. Prospecting and small-scale working continued in that claim and the Mountaineer workings until 1886, when the claim of McGregor & Mulholland was sometimes known as the Fixed Star. William Wye's new "loaming" technique of prospecting was, at that time, given its first trial on the Wood's Point goldfield—in the Black River/Royal Standard vicinity. New discoveries resulted, but progress was stymied by the absence of crushing machinery—indicating that the Royal Standard machinery had by that time been removed or was beyond repair.

In 1907, a new Royal Standard Co. was formed to work the old Royal Standard mine, and a 10-head battery was installed.

References: Milner, p. 16.

Mining Surveyors' Reports (Woods Point Division), March & June 1865, March, June & December 1866, March 1867, September & December 1868, September 1869, June & September 1870, March & June 1871, December 1873, March 1874, June 1875, June & December 1876, June 1877, June & September 1879, June & December 1880, March 1881, June & December 1886.

DESCRIPTION & INTERPRETATION OF FEATURES:

Features at the Royal Standard Reef are extensive mine workings, a tramway formation, remains of a battery, and the remains of buildings.

Workings—On the Royal Standard Spur, to the south and west of Standers Creek, is a substantial open cut. Extending generally northwards from this open cut, and all the way down to the level of the creek, is a series of adits and shafts, many of them still accessible (workings of the Strap and Buckle, 3 adits; Oriental/Mountaineer, 6 adits and 1 shaft; Mulholland, 3 adits and an open stope). In the gully below the middle level workings of the Oriental mine is a substantial dam, several worn drill bits, sections of rails, truck wheels and other pieces of ironwork and, on the opposite side, a quartz track which connects around the slope to an inclined tramway formation.

Battery site—North-east from the Royal Standard open cut, and running approximately due north down a small spur between two gullies, is a self-acting tramway formation. This terminates just above the creek at a machinery site which contains the remains of three 5-head stamp batteries, the hub and broken shrouding of a waterwheel, two Cornish boilers (one made by A. Roberts & Sons, Bendigo), a metal chimney flue, some steam engine components, and equipment for working the tramway.

Building sites—On the slope above the battery site, on the same side of the creek, are the remains of a rubble masonry chimney, which probably formed part of the battery manager's house. A dray track formation leads from the rear of the rubble masonry chimney east along the creek, along which area a number of rubble chimneys, about 100 m from the manager's house. About halfway up the tramway formation are sections of cable and a small assortment of metal fittings from ore trucks. On the east side of the creek, and just below the battery site, is a platform constructed of rubble masonry, which probably marks the site of another building.

CONDITION OF FEATURES: Good. Machinery components and ironwork (detailed above)

SIGNIFICANCE RANKING: Site listed Victorian Heritage Register
Site listed Heritage Inventory

Assessed by: Milner/Supple, Perham & Griffiths *Date:* 1988/9.

NAME: **LEICHARDT BATTERY**
Wood's Point goldfield
HI No. ***H8122-0074***

LOCATION: Stander's Creek
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State Forest

EXISTING HERITAGE LISTING:
This site is at least regionally significant, and may have potential as a site of State significance. It contains a range of rare features that are substantially intact and on their original sites. The mine used water power, which although relatively common in this locality, is generally rare at mining sites in Victoria. The presence of the cyanide plant in combination with a water-powered battery is also an unusual feature. The site has high archaeological potential and could hold important information about a Mountain gold mine in the 1880s and 1890s. Its close proximity to the former settlement of Wyeton also provides an opportunity to research and then understand the relationship between life at a mine and the small mountain settlement that it spawned.
NOMINATING BODY: Upper Goulburn Valley Heritage Plan, Parks Victoria, 1999.

SITE HISTORY:
The discovery of the lode that was worked as the Leichardt claim, in September 1886, was one of the high points of William Wye's "loaming" campaign on the Wood's Point goldfield. The position of the lode was given as: "About one and a half miles northerly of Abbot's Restaurant (*vide* my map of the mining district of Wood's Point, 1866) on a permanent watercourse, known now as Wye's Creek". J. Stackpoole purchased the claim from the prospector and drove a tunnel commencing at the south and lowest end of the spur. With no battery nearby, stone had to be packed long distances for crushing. Accordingly, the Leichardt Co. had a 15-head battery, powered by portable steam engine, on Stander's Creek ready for use by winter 1888. The mine produced good stone and paid dividends into the early 1890s.
References: Mining Surveyors' Reports (Wood's Point Division), September & December 1886, December 1887, June & December 1888, December 1889.
Additional historical notes from Upper Goulburn Valley Heritage Plan, Parks Victoria, 1999.
The reef was found in 1886 by a party of prospectors from the Ovens district. It is near Standers Creek about 2 km north of Abbots Restaurant on Wye's Creek. About 300 feet of reef was prospected and the ground was taken up by J. Stackpoole who commenced driving a tunnel at the lower end of the reef. Results of trial crushings gradually improved. At the end of 1887 they began construction of a 15-head battery. The battery started crushing early in 1888. Gold production continued to be reported until 1891 with dividends being payed from 1886 to 1889. The mine site is close to the site of the settlement of Wyeton located on Standers Creek. Wyeton was a short-lived settlement established in 1886 and abandoned in the 1890s. It had a shop and restaurant or shanty. There were enough people in this locality in the 1890s to form a cricket team. It would have been a cold and dark during the winter months. At certain times of the year there were only two hours of sunlight for the inhabitants.
(Source: Steenhuis, L., 1993, *Ghost Towns of the Mountain Goldfields: Upper reaches of the Yarra, Goulburn, LaTrobe & Thomson watersheds*, ABC Maps, Launching Place, Victoria. Milner, P., 1990, Northern Division Sites, Mining Heritage, Preliminary Report, a report prepared for the Office of Water Resources, Department of Conservation & Environment, Melbourne).

DESCRIPTION & INTERPRETATION OF FEATURES:
Leichardt Battery
The site is located close to Macmillan's Walking Track. It contains a large collections of features, including a complete 15 head battery with the name "Enoch Chalmer's, Melbourne & Prahran" cast into the side of the boxes, the cast iron sections of the processing tables immediately below the battery, the bowl of a berdan pan plus the grinding ball, the cast iron hub of a water wheel, corrugated iron tanks – some of which are part of a cyanide plant, substantial stone fireplaces of either the mine or battery manager's house, substantial retaining wall which would have supported the flume taking water to the water wheel, a waterwheel pit, a substantial quantity of battery sand some of which appears to have been cyanided. The site has not been disturbed and does not appear to have been re-mined after the

1890s. It is a time capsule that is potentially full of information about how a water-powered mine of this period operated in a mountain goldfield.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: CNR ranger *Date:* 1997.

NAME: **CHAMPION MINE SITE**
Woods Point Goldfield
HI No. ***H8122-0018***

LOCATION: About 500 m upstream from the Royal Standard battery site, on the steep western side of the Stander's Creek.
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State Forest

SITE HISTORY:
The Champion Reef (or claim) was one of a bundle discovered in the Black River/Stander's Creek vicinity in 1865. A 16-head water-powered battery was installed the next year, and the first crushing yielded an average of 15 dwt per ton. The mine was worked by open cut and the supply of stone for crushing "may be said to be almost unlimited"—but the claim-holders (or shareholders) were said to be disappointed and the lease went un-worked until 1868. Being reliant on water for crushing, the Champion Co. spent a lot of time waiting for rain; when it came, their stone yielded only poorly. In 1871, the Oriental Co., also on Black River, struck good stone and laid a tramway from their mine to the Champion battery. Nothing more was heard of mine or battery for many years.

In 1886, pioneer "loamer", William Wye, found a reef (called the New Standard) crossing a narrow ridge "on which runs a track long in disuse" leading to the Champion mine. At the same time, the Golden Fleece Reef was struck a short distance to the south. In 1888, the Champion battery was removed by the Golden Fleece Co. a distance of two miles ("but this is equal to fully 200 miles in the lower country'" to a new site on Stander's Creek, where it crushed for the two new mines. The Champion mine itself is not known to have been worked again.

References: Milner, p. 3.
Mining Surveyors' Reports (Wood's Point Division), March & December 1865, March & June 1866, September & December 1868, March 1870, June 1871, September 1886, June 1888.

DESCRIPTION & INTERPRETATION OF FEATURES:
Features of the Champion mine are a battery site, tramway, mine workings, and building sites

Battery site—About 500 m upstream from the Royal Standard battery site, on the steep western side of the creek, are three house sites. In the creek itself are rubble masonry foundations for what was probably an undershot waterwheel and, on the eastern bank in the vicinity of the site, beneath an almost sheer rock wall, are other rubble masonry structures which probably define the position of the Champion battery, a storage bin, and several buildings. To the north-east of this site, and running down a quartz-strewn gully, is a tramway formation. This terminates below the lowest workings of the mine, at about the 1000-m level.

Workings—The mine itself consists of several adits, shafts and open cuts on a shallow spur between two gullies.

Building sites—On reasonably level ground above the workings, and extending into the shallow head of the gully at the northern end, are at least eight building/house sites.

CONDITION OF FEATURES: —

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Milner/Supple et al *Date:* 1988/9.

NAME: **ALL NATIONS MINE**
Woods Point goldfield
HI No. ***H8122-0018***

LOCATION: Matlock
MUNICIPALITY: Delatite Shire
CURRENT STATUS: Public Land - State forest – Recommended LCC Historic Reserve

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SITE HISTORY:
The All Nations Mine was discovered in July 1863 by Frederick Stander. It was named because of the variety of nationalities among the members of the original syndicate. The All Nations and the other major mines in this locality led to the township of Matlock being established. The All Nations was a source of water for the township as well as the site of one of its slaughter yards. Mr. Salmon, the owner of the slaughter yard at the mine, was supplied with sheep brought into him along the Yarra Track. In 1865 there were two hotels at the All Nations mine and another thirteen at Matlock.
At the end of 1863 investors paid for a battery and engine for the All Nations Mine. This equipment weighed sixteen tons included a Cornish boiler 16 feet long by 5 feet in diameter, a 14 hp single cylinder engine and a 16 head battery. This equipment was transported by boat from Melbourne to Port Albert. It was then transported overland via Sale to Bald Hill at the start of McEvoy's Track. It was taken by bullock wagon to Donnelley's township. A team of 36 pack horses was used for the final stage of the journey to Matlock. The transportation cost £900. The machinery arrived in December 1863 and took several months before it was operational. The initial results were not up to the promise shown in the original trial crushing at Woods Point. However improvements to the recovery process dramatically increased the yield. The improvements to the battery included four new tables each over 20 feet, copper plates, blankets, ripples, wells, a Youngson's barrel and pipes to carry steam from the boiler for heating the water to the temperature required to operate the battery.
The company was reformed under the Mining Companies Limited Liability Act 1864. It was also at this time that the output from the mine started to decline and there were suggestions that the directors had been giving false reports on the progress of the mine. These concerns were never proved and eventually the storm that had developed blew over. In 1870 there was a brief rise in yield when a new reef was found at the 300-foot level. The company registered as a No Liability Company in 1871. In 1885 the yield had dropped off to 19 oz. from 165 tons and the lease was abandoned. The mine had a slight resurgence in the 1890s with fairly poor results interspersed with the occasional rich patch. Another tunnel was put in further down the hill and new machinery installed, however costs eventually became too high and the mine closed in 1916.
There have been several companies who have done exploration work at different time without finding anything that would warrant reopening the mine. Unfortunately part of the plant from the battery was moved to Walhalla in the last decade.
(Source: Bailey, A. & R., 1998, *A Windy Morn of Matlock: The history of a Victorian Mountain Goldfield*, Mountain Home Press, Melbourne.
Milner, P., 1990, *Water Resources Management Report Series, No. 56 Northern Diversion Sites, Mining Heritage Preliminary Report*, Office of Water Resources, Department of Conservation & Environment, Melbourne.) in Upper Goulburn Heritage Plan, Parks Victoria, 1999.

DESCRIPTION & INTERPRETATION OF FEATURES:
<u>All Nations Mine</u>
As you make you way down the hill you can find the original 1864 open cut and nearby shaft, together with the two related tramlines which carried ore to the upper battery. Further down the hill is the 1865 tunnel. Still further down is the battery site which includes numerous scattered artefacts, a Cornish boiler still with part of its setting in place, the remains of the battery part of which has been moved to Walhalla - the name "Enoch Chambers Melbourne & Prahran" is cast into one of the remaining battery boxes. There is an iron chimney 0.6-m in diameter by 12 m high, sitting on a 1.5 by 1.5 m brick base next to a depression, which could be a boiler setting. There is also a substantial brick foundation near the chimney. The site is very over grown and it is difficult to understand exactly how the battery operated.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Smith and Supple *Date:* 1999.

NAME: **STAR OF THE WEST SETTLEMENT SITE**
Woods Point goldfield
HI No. ***H8123-0026***

LOCATION: Kevington
MUNICIPALITY: Delatite Shire
CURRENT STATUS: State forest

SITE HISTORY:
This is reputed to be the original site of the Star of the West mine. It is surprising that a settlement was established so far from a permanent water supply
Upper Goulburn Heritage Plan, Parks Victoria, 1999.

DESCRIPTION & INTERPRETATION OF FEATURES:
Star of the West Settlement Site
This site is located at the end of a four-wheel drive track constructed in recent years for mining purposes. The main features at the site are four very substantial stone fireplaces, two of which have an oven incorporated into the structure. These fireplaces are spread out over an area running for 200m along the side of a ridge with terraces at a few different levels up and down the slope beginning at the end of the track. The walls of the fireplaces consist of outer skin of stone set in mud mortar encasing a rubble core. The outer stone has been faced to give a relatively smooth appearance. Two of the chimneys have what appears to be an oven built into the left side of the fireplace as you face them. The open fireplace section of these two are approximately 1.5 m across and the oven section is about the same width, giving a total width of about 3-m. The oven is completely encased in stone and is about 0.9 m above the ground with an opening of 0.4 m by 0.4 m.
The chimneys in themselves are very unusual and having a collection of four is even more unusual. They are beginning to collapse but are relatively complete and could easily be stabilised.

CONDITION OF FEATURES: Good

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Smith and Supple *Date:* 1999.

NAME: **MATLOCK TOWNSHIP**
Woods Point goldfield
HI No. ***H8122-0006***

LOCATION: Matlock
MUNICIPALITY: Delatite Shire
CURRENT STATUS: LCC Recommended Historic Reserve

SITE HISTORY:
The settlement of Matlock sprang up in 1863 and expanded rapidly. It developed as a centre for "Grand Balls and Entertainments" and retained this reputation. By 1865 it boasted seven hotels, three restaurants, seven stores, one bakery, two butchers, two banks, one sharebroker and a few private residences. In December 1873 the town was almost completely burnt out in a bushfire. The remaining residents moved down the hill to re-establish the town on a new site.
(Sources: Bailey, A. & R., 1998, *A Windy Morn of Matlock; The History of a Victorian Mountain Goldfield*, Mountain Home Press, Melbourne.
Griffiths, T., 1992, *Secrets of the Forest: Discovering history in Melbourne's Ash Range*, Allen & Unwin, Sydney).
Upper Goulburn Heritage Plan, Parks Victoria, 1999.

DESCRIPTION & INTERPRETATION OF FEATURES:
Matlock Township
Evidence of the hilltop mining town of Matlock includes: a cleared area with a few remaining houses, bottle and domestic rubbish dumps, old street alignments, house and hotel sites, a cemetery, the sites of satellite towns of Thackeray and Toorak as well as the nearby mine site such as the All Nations. The weeds and undergrowth have recently been cleared from the cemetery by the local community. This has uncovered several broken headstones as well as some that are still intact. Some paths have been located as having many of the metal markers from many of the graves.

CONDITION OF FEATURES: Some disturbance but still substantial evidence surviving

SIGNIFICANCE RANKING: Site listed Heritage Inventory

Assessed by: Smith and Supple *Date:* 1999.