

Light Railway Research Society of Australia Inc.  
P.O. Box 21, Surrey Hills, Victoria 3127

Also by Ross Mainwaring  
*Modernising Underground Coal Haulage - BHP Newcastle Collieries Electric Railways*  
*Elrington - The 'Peter Pan Colliery' 1927-1962*

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Published January 2012 by Light Railway Research Society of Australia Inc.

ISBN 978 0 909340 49 0

#### CONVERSION TABLE

1 inch (in)	= 25.4 millimetres
1 foot (ft)	= 0.305 metres
1 yard (yd)	= 0.914 metres
1 chain	= 20.11 metres
1 mile	= 1.609 kilometres
1 pound (lb)	= 0.454 kilograms
1 hundredweight (cwt)	= 50.80 kilograms
1 ton	= 1.016 tonnes
1 pound per square inch (psi)	= 6.89 kilopascals
1 horsepower (hp)	= 0.746 kilowatts
1 gallon	= 4.536 litres
1 cubic yard	= 0.765 cubic metres
1 super foot	= 0.00236 cubic metres
1 acre	= 0.405 hectares
£1 )s )d	= \$2.00 in February 1966

12 pence = one shilling, 20 shillings = £1 (One Pound)

National Library of Australia Cataloguing-in-Publication entry

Author: Mainwaring, Ross.  
Title: Riches beneath the Flat : A history of the Lake George Mine at Captains Flat / Ross Mainwaring  
ISBN: 978 0 909340 49 0 (pbk.)  
Notes: Includes bibliographical references and index.  
Subjects: Mines and mineral resources--New South Wales--Captains Flat Region--History  
Captains Flat Region (N.S.W.)--History

Other Authors/Contributors: Light Railway Research Society of Australia.

Dewey Number: 338.2099447

Designed by Robin Phelan & Associates

Printed in Australia by

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## Glossary

**Adit:** A nearly horizontal passage from the surface into a mine.

**Ball mill:** A large rotating cylinder in which pummelling steel balls grind the ore.

**Bogging:** To load broken rock underground by hand or machine.

**Brimstone:** Raw sulphur

**Bullocky:** Man in charge of a bullock (ox) team.

**Cage:** Enclosed steel platform used in a shaft for raising and lowering men or materials.

**Calcine:** To reduce ore to a powder by heating to a high temperature.

**Chalcopyrite:** The most important ore of copper – copper iron sulphide [CuFeS<sub>2</sub>], otherwise known as copper pyrites.

**Concentrate:** To separate metallic ore from rock so as to improve the proportion of the valuable portion (verb); the valuable metallic material in this case (noun).

**Cross cut:** An underground roadway driven at an angle to the main tunnel.

**Cut and fill working:** See *Rill Stoping*.

**Drive:** Tunnel following the ore-body.

**Flat back stoping:** A stoping method in which the ore is broken in slices parallel with the levels.

**Flatsheet:** A steel plate on which skips are turned at plat or working face.

**Flotation:** An ore concentration process that uses the principles of surface tension and colloid chemistry to separate metallic components and waste.

**Fluorine:** A non-metallic halogen element that is isolated as a flammable, toxic, irritating gas.

**Footwall:** The wall beneath the ore-body.

**Galena:** Common lead sulphide.

**Gangue:** The worthless rock or other material in which valuable minerals are found.

**Gossan:** The oxidation of the capping of a mineral deposit, usually in the upper and exposed part.

**Grizzly:** A grating of steel rails for screening ore or mullock.

**Hanging wall:** The upper wall of an ore-body, whether lying flat or inclined.

**Hanging wall country rock:** The barren rock that forms the hanging wall of the ore-body.

**In-letted:** The chiselling out of a timber to accept another pre-formed piece of timber for construction purposes.

**Level:** A horizontal passage in a mine.

**Lode:** A deposit of metalliferous ore that fills or is embedded in a fissure (or crack) in a rock formation.

**Marmatite:** A ferrous form of zinc blende [(ZnFe)S]

**Matte:** The metallic product of a smelter, which must be refined further to obtain pure metal. It is a mixture of copper, copper sulphate and ferrous silicate.

**Mullock:** Waste or refuse rock.

**Mullock pass system:** A shaft(s) that connect the levels above or surface quarry so that waste rock can be passed down to the working stope.

**Ore-body:** Generally a solid and fairly continuous mass of ore.

**Ore pass:** A shaft that carries the broken ore down to the level below or down to a shaft loading station.

**Ore reserve:** The economically mine-able part of a mineral deposit.

**Pass:** A vertical or inclined shaft for the downward transfer of ore or mullock.

**Plat:** The floor of a level near its intersection with a shaft.

**Pyrite:** A mineral that is a sulphide of iron.

**Rill stoping:** The void where the ore was blasted out is replaced by mullock from a surface quarry. Also known as cut and fill working.

**Screen:** To mechanically separate mineral according to categories of size (verb); a device used to perform this separation (noun)

**Shaft:** A vertical passage from the surface into an under-ground mine (or sometimes completely within a mine), often with a winding mechanism to raise or lower men, materials and ore.

**Shoot:** Portion of a lode rich enough to be considered payable.

**Skip (shaft):** A self dumping bucket used in a shaft for the hoisting of ore or rock.

**Stope:** An excavation from which ore is extracted under-ground.

**Sub-level:** An intermediate level a short distance above a main level.

**Sulphide:** A compound of a metallic element (or elements) and sulphur.

**Tailings:** Material remaining after all economic minerals have been removed during the processing of ore.

**Tailings dam:** Where the waste material is deposited to settle after milling and processing.

**Winze:** An inclined shaft down from a level.

**Zinc-blende:** A sulphide of zinc, otherwise known as sphalerite [essentially ZnS].

## Introduction

The Canberra-Monaro region, some 300 kilometres south east of Sydney, is well known for the production of fine merino wool. During the 1950s the Australian economy ‘rode the sheep’s back’ and the white fleece was the nation’s dominant export.

Far less glamorous, but second only in importance to wool for our export income at that time, were the base metals of lead and zinc. Lead and zinc were mostly associated with mines situated in the remote, dry, dusty, outback region of New South Wales (NSW). There was one exception: a locality on the doorstep of the nation’s capital, Canberra, where the countryside and climate were in stark contrast to the distant western reaches of the state.

This locality was Captains Flat. It was here that the Lake George Mine worked the large lead and zinc ore-body, the shafts following the mineralisation far down into the sedimentary rocks of the Silurian period. No flat, sweltering treeless plains here — dense eucalypt forest clothed the surrounding mountains, and often winter ice and snow turned the landscape white.

Lake George Mines operated from 1939 to 1962. It was an English company whose capital financed mines in the New World; many of the senior staff were recruited from Mexico and the United States. Similarly, many skilled workers were engaged from other mining fields in Australia or they had gained experience from working overseas in lead and zinc mines.

The historic beginnings of Captains Flat go back to the 1860s, but in those times gold was the treasure sought by the prospectors. Pack tracks followed the Molonglo River through the narrow valley providing access until adventurous prospectors climbed the valley’s western flank and discovered a large mineral lode. By the mid-1880s many companies had acquired leases and erected smelting plants to treat the gold, silver and copper bearing ore. At that time zinc was the bane of all metallurgists, obstinately resisting all efforts at profitable separation from the more valuable metals associated with the ore-body, such as silver and lead.

English capital was readily forthcoming and the name of Lake George Mines Limited was bestowed on a company in 1896 that had succeeded in amalgamating all the mining leases. Its life, however, was short. The zinc problem was insurmountable with the smelting technology then available, and work ceased in 1899. Captains Flat reverted to near ghost town status for the ensuing quarter century.

During this forced hiatus the science of metallurgy came a long way in solving the problem of extracting zinc from lead ores and other minerals. The marvel of the flotation process of mineral separation, for which much of the early experimental work was done at Broken Hill in far western NSW, had guaranteed success and rejuvenated many moribund mining fields around the world. Captains Flat was to be no exception. All that

was awaited was a bold company to furnish the capital and expertise.

Once again a British company accepted the challenge and money was injected into the field, resulting in the name of Lake George Mines again being associated with the township of Captains Flat. By 1928 work was under way at the mine site and an experimental flotation plant erected. Diamond drilling proved huge ore reserves and the flotation plant demonstrated that the finely structured ore could be profitably treated. Then the Great Depression intervened, wrecking all the well laid plans.

As the worst effects of the Depression began to ease the prospects for a revival at Captains Flat improved. A railway connection to the mine was begun in 1938 and construction of the mine and plant was hurried along, with production commencing in January 1939. Much promise was forecast for the business, but problems beset the company from the very beginning. The onset of the war, shortages of men and materials, increase in costs, contraction of export markets, shipping — all were very nearly insurmountable difficulties and the mine faced closure on more than one occasion. But the able management of the company mastered these tribulations.

Lake George Mines and the dedicated mill staff were credited with advancing metallurgical science as their application of new techniques had a major impact upon differential flotation methods worldwide. In 1942, to assist the war effort, the flotation of copper (chalcopyrite) ahead of lead in the flotation circuit was accomplished and two years later a high grade copper concentrate was regularly produced in the mill. Many of the flotation fundamentals developed at Lake George Mines continue in use in present day mills around Australia.

This book portrays the underground operations of the mine, from when the ore-body was blasted down in the stopes through to when the mineralised rock entered the mill and passed out as lead, zinc, copper and pyrite concentrate. A description of the company’s Port Kembla concentrate storage and export operations is included to complete the story — from mine to smelter.

**Ross Mainwaring**

St Ives, New South Wales

September 2011

## Abbreviations

**AIS** Australian Iron and Steel (Pty Limited).
**AWU** Australian Workers Union.
**CIF** Cost of insurance and freight.
**dwt** (Troy) pennyweight.
**FEDFA** Federated Engine Drivers and Firemens’ Association
**FOB** Free on board (ship)
**FOR** Free on rail
**LGM** Lake George Mines (Limited)

**MCB** Master Car-Builders (Association). The US association formed in 1867 to oversee standards for the items used to construct railway rolling stock. A MCB automatic coupler is one that meets the association’s design standards.
**NSWGR** New South Wales Government Railways
**psi** Pounds per square inch (unit of pressure)
**WIU** Workers Industrial Union of Australia.





# 1

## The Captains Flat mineral field

*Great wealth has been won from the earth at Captain's Flat. No man put that wealth there: it is the gift of God to mankind. By the partnership of capital and labour that mineral wealth has been exploited.<sup>1</sup>*

Canberra's picturesque Lake Burley Griffin is formed by the damming of the Molonglo River, interrupting its meandering flow downstream to a meeting with the Murrumbidgee. Recreational sailors, tacking their boats into an easterly breeze across the lake can glimpse the distant peaks of the Tinderry Mountains, part of the Great Dividing Range where the headwaters of the Molonglo rise, some 45 km to the south east of the nation's capital. Thereabouts, the infant stream skirts the eastern flanks of Jerangle Hill before entering the confines of a narrow valley, running south to north, which is home to the residents of Captains Flat.

From the centre of this valley protrudes a prominent ridge, not unlike a prehistoric creature's back-bone, upon which outcropped an ore-body containing a wealth of lead, silver, zinc, copper, gold and pyrite; metallic minerals which have been the object of man's endeavour since the discovery of alluvial gold in this area way back in the 1860s.

In common with similar mining communities elsewhere in Australia, the story of Captains Flat is one of boom or gloom. Following the inability of the smelting plants to satisfactorily deal with the complex low grade sulphide ore-body and the inevitable closure of the mines in 1899, the prominent geologist Joseph Edmund Carne expressed disillusionment at the prospects of the lode in these terms:

*It is impossible for anyone to pass through the working levels of the Koh-i-noor and Commodore sections of the Lake George Mines without a feeling of profound regret for the poverty of a lode which, for size, solidity, and permanence, is rarely equalled.<sup>2</sup>*

By 1930, with the effects of the Great Depression permeating throughout society and generally retarding the State's economy, the *Chemical Engineering & Mining Review* looked to Captains Flat as a source of optimism:

The rapid progress of metallurgy in recent years is well emphasized by the fact that £1,000,000 has been found for the resuscitation and development of the Lake George Mine, which was abandoned as worthless only 30 years ago.<sup>3</sup>

This is the story of that revival from 1924, the heyday of the operation during the mid to late 1940s and its gradual decline in the post-war period until the final closure in 1962 with the exhaustion of the ore-body. In this chapter, however, we will review the mining activities that pre-dated the 1924 revival.



Captains Flat, from Mine Hill, 2007  
Photo Bill Brown.

### Early mining activity

*It is astonishing what very little is known in Sydney, or indeed anywhere away from the immediate vicinity, of the flourishing mining township of Captain's Flat.<sup>4</sup>*

In the County of Murray, Parish of Bullongong, a post office was opened in April 1883 on the river flats beside the Molonglo River to serve the fledgling gold mining community. It was not until 1887 that a surveyor laid out the Village of Bullongong. This name did not survive long when the small township, now bearing the name of Captains Flat was proclaimed on 23 June 1888. How did the 'Flat' arrive upon its unusual name? One romantic version is as follows:



# End notes

## Chapter 1

1. *TQA*, 3 August 1954.
2. Carne JE, 1908.
3. *CEMR*, 5 May 1930, p 286.
4. *The Sydney Mail*, 3 July 1897.
5. *CFMR*, 15 January 1898.
6. *CFMR*, 15 January 1898.
7. DMAR, 1886.
8. *CFMR*, 15 January 1898.
9. DMAR, 1884, p 82.
10. DMAR, 1885, p 77.
11. *Argus*, 20 July 1897, p 7. The financial arrangements increased the capital from £120,000 to £150,000 in £1 shares. 50,000 shares were placed in London to secure working capital.
12. DMAR, 1895.
13. *TSM*, 3 July 1897.
14. *Argus*, 20 July 1897. The new company came into existence on 1 August 1896.
15. Charles Edward Bright was associated with Gibbs, Bright and Co.
16. DMAR, 1896, p 31.
17. *Argus*, 20 July 1897, p 7.
18. Trevenack was general manager of Sunny Corner copper mine in central west NSW in 1890–1891.
19. Powell's Shaft plant comprised a steam winding engine built by Thompson and Co. of Castlemaine, Victoria and two 75hp boilers supplied by the Otis Co. of Melbourne. The shaft named after David Powell, Chairman of Directors.
20. Named after Mr. Francis Amboor Keating who was associated with Gibbs, Bright and Co.
21. *T&CJ*, 7 August 1897, p 19.
22. Correspondence with Bill Hanks, Melbourne.
23. *Argus*, 20 July 1897.
24. *T&CJ*, 7 August 1897, p 19.
25. *TSM*, 3 July 1897.
26. DMAR, 1897.
27. *AMS*, 24 February 1898, p 2205.
28. *Argus*, 20 July 1897, p 7.
29. *CFMR*, 15 January 1898.
30. *T&CJ*, 7 August 1897, p 19.
31. *CFMR*, 15 January 1898.
32. NBAC, Lake George Mines Pty. Ltd. Company records (Henceforth: NBAC, ANU, LGM) 67/122, Reports on LGM, Report dated 9 February 1897.
33. Captain Remfrey was succeeded by Captain Longton.
34. *CFMR*, 12 March 1898.
35. *T&CJ*, 7 August 1897, p 19.
36. *CFMR*, 25 June 1898.
37. Powys, Vicki, 1989.
38. *AMS*, 27 October 1898, p 3383.
39. *AMS*, 6 October 1898, p 3316.
40. *AMS*, 3 November 1898, p 3404.
41. *AMS*, 15 December 1898, p 3525.
42. DMAR, 1898.
43. *AMS*, 15 December 1898, p 3515.
44. *Argus*, 20 July 1897, p 7.
45. *TQA*, 14 January 1899.
46. NBAC, LGM: 67/122, Messrs. Jaquet and Watt Report dated 27 April 1897, p 13.
47. NBAC, LGM: 67/122, Report by Mr EW O'Sullivan to Minister for Works, dated 9.2.1897
48. *AMS*, 20 July 1899, p 43.
49. DMAR, 1899, p 68.
50. as above.
51. *AMS*, 5 October 1899, p 267.
52. *Peters' Modern Copper Smelting*, 7th Edition, 1896.
53. *AMS*, 1 June 1899, p 439.
54. *TQA*, 15 February 1899.
55. *AMS*, 26 April 1900, p 374.
56. *AMS*, 16 June 1904, p 875.
57. *AMS*, 25 December 1902, p 910.
58. *AMS*, 7 August 1902, p 188.
59. *AMS*, 25 December 1902, p 904.
60. *AMS*, 12 May 1904, p 678.
61. *AMS*, 16 June 1904, p 875.
62. Mr. Dunn was previously Government Geologist of Cape Colony, South Africa.
63. *AMS*, 12 May 1904, p 678.
64. *AMS*, 12 May 1904, p 678.
65. *AMS*, 9 February 1905, p 183.
66. *TQA*, 23 October 1903.
67. *TQA*, 23 October 1903.
68. James Channon had interests in the Cowra Creek Field gold mines near Cooma, NSW and at Leadville, NSW.
69. *The Copper Handbook, Volume VIII*, H J Stevens, 1908.
70. *SMH*, 5 October 1940.
71. Correspondence with Bill Hanks.
72. *ARHSB*, January 1968, No. 363.
73. NBAC, LGM, 67/177 (Letter dated 20.12.1927).
74. *The Evening Herald*, Melbourne, 12 September 1928.
75. Lynch, AJ, Harbort, GJ and Nelson, MG, 2010, p 2.
76. as above, p 4.
77. as above, p 21.
78. as above, p 39.
79. ML 1 was 15 acres; lease was granted on 23 September 1924. Rent payable was £1 12s a year. NBAC, LGM: 67/122.
80. *CEMR*, 5 May 1930, p 286. This shaft was now referred to as Elliott's No.1 Shaft. In later years it was to become a mullock pass serving Elliott's Section.
81. NBA, LGM: 67/122, Reports on LGM, Report dated 20 December 1927.
82. NBAC, LGM: 67/228 (Capital employed File). Capital of *Lake George Leases Ltd* was only £4,000.
83. *The Sun*, 12 September 1928.
84. Camp Bird, Ltd.: was formed in London in 1900 with capital issued of £649,625 in preference shares of £1 each and £252,884 16s in ordinary shares of 2s each.
85. *CEMR*, 5 May 1930, p 273.
86. *Labor Daily*, 27 May 1930.

87. NBAC, LGM: 67/ 123, Private Reports, (30.1.1926).
88. *CEMR*, 5 May 1930, p 273.
89. NBAC, LGM: 67/73, A24, Underground Progress Reports 1927 – 1937.
90. *The Sun*, 12 September 1928.
91. *CEMR*, 5 May 1930, p 273.
92. NBAC, LGM: 67/122, Preliminary Report on LGM by FL Thomas, 20 December 1927.
93. NBAC, LGM: 67/122, Report on Captain's Flat by Chief Inspector of Mines, JB Jaquet., 19.1.1927
94. *CEMR*, 8 March 1937, p 248.
95. Reynolds, E, *Lake George Mines* paper presented to the AusIMM Centenary Conference (Adelaide), 1993, page 338.
96. NBAC, LGM: 67/174, Box 1, Sundry Reports, Report dated August 1931.
97. *Argus*, 20 July 1897, p 7.

## Chapter 2

1. *CEMR*, 8 March 1937.
2. *SMH*, 5 October 1940.
3. Steam was originally supplied from the Elliott's No. 1 boiler house before the boilers' removal to a more convenient location at the new shaft. Elliott's No. 2 Shaft was later fitted with a Thompson double drum electric hoist fitted with a 100hp motor.
4. NBAC, ANU, LGM: 67/70, A24, Mine Equipment file (Letter dated 15.11.1929). Five skips were purchased for £6 each and four more were built at the mine. Morrison & Bearby Ltd of Newcastle, NSW, were asked to quote for 30 mine cars for 1ft 8in gauge track. It would seem that their quote of November 1929 for £58 a car was not accepted.
5. NBAC, LGM: 67/81. File dated 1928. AL Thomas began his career as assistant assayer, Dapto Smelting Works, NSW; moving on to assayer, at Wellington Mines Ltd. NSW; chief chemist, Great Cobar Ltd. NSW; works manager, British Molybdenite Ore Works, Sydney; chemist, Broken Hill Steel-works, Newcastle, NSW and chemist at HMS Factory, Langwith, England.
6. NBAC, LGM: 67/81, File dated 1928. BW Lennon graduated Melbourne University in 1908. He worked at North Broken Hill Ltd., NSW; Briseis Tin Mine, Tasmania; Mt. Elliott Copper Mine, Qld.; Central Mine, Broken Hill, NSW; Victorian Railways, Bridge Inspection; Junction North Mine, Broken Hill, NSW; Zinc Corporation Ltd, Broken Hill, NSW and Burma Corporation Ltd, Northern Shan States, Burma.
7. *CEMR*, 8 March 1937, p 248.
8. *CEMR*, 5 May 1930, p 284.
9. NAA, Canberra, Lake George Mines Pty Ltd (Henceforth NAA): A786/2, 064/7 (Mines and Mining A – L. Lake George Mine), Letter dated 7.11.1930.
10. as above.
11. as above.
12. NSW Dept. of Mines Annual Report, 1935, p 24.
13. NBAC, LGM: 67/122, *Preliminary Report on LGM*, Superphosphates, page 15 and 67/121. Evidence before the PWD Railway Inquiry of 1929 quoted imported sulphur from the America at 115s. per ton cif for an annual cost of £115,000. (NBAC, LGM: 67/28, File No.31, p 30).
14. *SMH*, 16 September 1929.
15. NBAC, LGM: 67/92, box 2, File No.4, dated 8.2.1930.
16. *CEMR*, 5 May 1930, p 286.
17. NBAC, ANU, LGM: 67/122, Reports on LGM, Report dated 20 December 1927.
18. NBAC, ANU, LGM: 67/28, Correspondence, Item dated 5.6.1929. Henry Lee was local secretary for Australian Mines and Metals Association (Inc) and was once accountant for the old LGM Company from 1895 to 1899.
19. NBAC, ANU, LGM: 67/122, File No.31, Letter dated 7.11.1929. Public sittings held at Sydney, Queanbeyan, Captain's Flat, Braidwood and Bungendore.
20. *CEMR*, 5 May 1930, p 273.
21. NBAC, ANU, LGM: 67/28, File No.31, Letter dated 5.11.1929.
22. Moss Vale-Port Kembla Railway Act, 1927. (Act No.21).
23. NBAC, ANU, LGM: 67/28, File No.31, Letter dated 24.3.1930.
24. NBAC, ANU, LGM: 67/28, File No.31, Letter dated 5.2.1930.
25. as above.
26. One project axed was the St. Leonards to Eastwood railway.
27. NBAC, ANU, LGM: 67/92, Box 2, File No.4, Letter dated 25.10.1929.
28. NBAC, ANU, LGM: 67/174, Box 1, LGM Report of August 1931.
29. NBAC, ANU, LGM: 67/28, File No.31.
30. *SMH*, 1 August 1930. Mr Buttenshaw was Minister for Public Works.
31. *CEMR*, 5 May 1930, p 285.
32. NBAC, ANU, LGM: 67/116, Correspondence for the Secretary, Letter dated 27.2.1931.
33. *The Sun*, 12 September 1928, p 28.
34. Share capital was £1,110,000 in 2,220,000 shares of 10s each.
35. Lake George Metal Corporation went into voluntary liquidation.
36. NBAC, ANU, LGM: 67/228 (*The Financial News*, 10 March 1937). The Executors of Rudolph Harriott Henning (deceased) transferred to LGM Corp. 563, £1 Shares of Lake George Leases Limited in consideration for 55,550 10s Shares and Julius Adolphus Amschel transferred 187 £1 LG 'Leases' Shares in consideration for 18,450 10s Shares.
37. *CEMR*, 10 February 1939, p 212.
38. *The Bulletin*, 18 January 1939.

39. *CEMR*, 8 July 1937, p 365.
40. NBAC, LGM: 67/225, Letters to and from T. Owen (letter dated 3.6.1937) With 'suspension of labour conditions' from 29 August 1930, Baker resigned but was kept on a retainer of US\$2500 pa.
41. *TMER*, 5 November 1914, p 44.
42. Carroll, Brian, 1986.
43. Homebush Gold Mining Co. Ltd. of Avoca, Victoria. One diesel engine later went to the Glen Davis oil shale mine's powerhouse in Central West NSW.
44. *CMER*, 10 February 1939, page 212 and NBAC, LGM: 67/155, Letters Inwards 1937 – 1955, (Letter dated 12.6.1937)
45. *TQA*, 12 May 1939.
46. NBAC, LGM: 67/28, File No.31, Letter dated 7.11.1929. Public sittings were held at Sydney, Queanbeyan, Captain's Flat, Braidwood and Bungendore.
47. Wilson, Ross. 'The Bungendore to Captain's Flat Branch Line', *ARHSB*, November 1980, No.517, pp 233-243.
48. *TQA*, 4 November 1938.
49. *TQA*, 21 October 1938.
50. *TQA*, 28 October 1938.
51. *TQA*, 5 July 1938.
52. *TQA*, 24 January 1939.
53. *GEPP*, 16 November 1939.
54. *TQA*, 25 August 1939.
55. *TQA*, 13 October 1939.
56. NBAC, LGM: 80/13, Railway Agreements Folder. (Letter dated 28.1.1944); Department of Railways, NSW, Finance Branch, Paper dated 18 June 1940, P Neve collection.
57. *TQA*, 17 November 1939.
58. *TQA*, 25 August 1939.
59. Department of Railways, NSW, Traffic Branch, File dated 4 April 1940, P Neve collection.
60. Wilson, Ross, 'The Bungendore to Captain's Flat Branch Line', *ARHSB*, November 1980, No. 517.
61. *TQA*, 18 June 1940.
62. *TQA*, 16 May 1939.
63. *TQA*, 4 June 1940.
64. *TQA*, 29 August 1941 and 14 November 1941.
65. *TQA*, 10 October 1941.
66. NBAC, LGM: 67/28, File No.31, PWD Committee Evidence of 18.9.1929, p 32.
67. WH Tregaskis had worked in the West Australian goldfields and at Mount Lyell, Tasmania. He was a licensed boiler inspector for NSW and was once engineer at Mount Hope copper mine, NSW. He had been employed at Lake George Option in 1925. NBAC, ANU, LGM: 67/81. File dated 1928.
68. *LM*, 17 March 1939.
69. NBAC, LGM: 67/156, Box 2 & 3, Correspondence, Letters Outward-1939 (Letter dated 18.10.1939).
70. *TQA*, 3 February 1939.
71. *TQA*, 6 October 1939.
72. *TCT*, 13 August 1929.
73. NBAC, LGM: 67/174, Box 1, Sundry Reports, Report dated May 1930.
74. *TQA*, 10 January 1939.
75. NBAC, LGM: 67/174, Box 1, Sundry Reports, Report dated August 1931.
76. NBAC, LGM: 67/174, Box 1, Sundry Reports, Report dated May 1930.
77. *TQA*, 25 July 1939.
78. *TQA*, 7 January 1938.
79. *TQA*, 16 September 1938. The mail closed at 2:30pm M-F and 12:00pm Saturday. A road mail van conveyed the mail to Bungendore for sorting. It was sent to Sydney by passenger train that night.
80. *TQA*, 12 April 1938.
81. *TQA*, 4 February 1938.
82. *LM*, 17 March 1939.
83. *TQA*, 4 November 1938.
84. Stanton, Susan, 1984.
85. *TQA*, 30 January 1940.
86. *TQA*, 20 August 1940.
87. NBAC, LGM: 67/188, Correspondence with Board of Directors, Sydney. Letter dated 22 April 1946.

## Chapter 3

1. NBAC, 67/28, File No 31, 18.9.1929, page 32.
2. NBAC, ANU, LGM: 67/190, *Natlake* Staff Club monthly magazine, 1958–1960. Wilkins was later appointed Assistant General Manager. He retired in February 1959 through ill health. A park in Captain's Flat bears his name.
3. Reynolds, E, 1993, p 341.
4. *TQA*, 23 September 1938.
5. *CC*, 20 April 1940, p 8.
6. *TQA*, 23 April 1940.
7. NBAC, LGM: 67/202, Report by HC Wilkins re mining methods, 1948 p 22.
8. BAC, LGM: 67/225, Letters to and from Tom Owen (Letter dated 30.6.1937); and McNeil, Ian, 'Simsville and the Jarrah Mill', LR, No. 113, July 1991, pp. 35-36.
9. Mancha Storage Battery Locomotives Catalogue, undated. Author's collection.
10. Watson, Lindsay, 'The Wiluna Gold Mines and their tramways', LR, No. 190, August 2006, pp. 3-12.
11. NBAC, LGM: 67/147, Letters and Files of Officials, 5.1937.
12. NBAC, LGM: 67/155, Letters Inward 1937-1955 (Letters 1938-1939 No.79). Carruthers & Co forwarded the order to WR Degenhardt, an engineer in the Purchasing Office of the Mechanical Engineering Department of New Consolidated Goldfields Ltd. in London. He in turn forwarded it to Wellman Smith Owen Engineering Corporation Ltd of Darlaston, Staffordshire, UK agents for Mancha. Their order number was 2360A. The Mancha (USA) order number was C-29867.
13. The Sons of Gwalia gold mine's firewood tramway in West Australia was 20-in gauge as was significant underground trackage at the Lake View & Star mine in that state and at least one copper mine in British Columbia, Canada.



14. Atlas Company records, Irwin Car and Equipment, Irwin, Pennsylvania, USA.
  15. NBAC, LGM: 67/202, Report by HC Wilkins re mining methods, Cost of mining plant, p 127.
  16. NBAC, LGM: 67/115, General file of TC Baker 1929-1935, Memo - mine cars (dated 8.7.1931).
  17. NBAC, LGM: 67/158, Correspondence from New Consolidated Gold Fields Ltd, 1938 – 1950.
  18. NBAC, LGM: 67/188, Correspondence with Board of Directors, Report dated 19.9.1947.
  19. *CEMR*, 20 September 1937, p 459.
  20. *TQA*, 8 December 1939.
  21. NBAC, LGM: 67/156, Box 2 & 3, Correspondence outwards 1937–1955, Letters outwards, 5.1939.
  22. *CEMR*, 11 December 1939, p 132.
  23. *The Sun*, 3 July 1939.
  24. NBAC, LGM: 67/156, Box 2 & 3, Correspondence outwards, 1937–1955, (Letter of 15.7.1939).
  25. *CEMR*, 11 December 1939, p 132.
  26. as above.
  27. NBAC, LGM: 67/156, Box 2 & 3, Correspondence outwards, 1937–1955, (Letter dated 30.6.1939).
  28. NBAC, LGM: 67/92, Box 1, Letter dated 23 January 1928.
  29. as Above
  30. NBAC, LGM: 67/156, Box 2 & 3, Correspondence outwards, 1937–1955, (Letter dated 7.7.1939).
  31. NBAC, LGM: 67/28, File No.31, PWD Evidence, 9.9.1929, p 30.
  32. *IAMS* 12 May 1927, p 510.
  33. *ARHSB*, February 1972, No. 412.
  34. NAA: SP857/4, PD/202, Barcode 1051710. This land may have been purchased from the State Government. LGM had tentative plans to build a smelter on this site as well as the storage depot.
  35. NBAC, LGM: 67/155, Correspondence inwards (Letter dated 11.7.1939).
  36. *IM*, newspaper, 28.4.1939.
  37. NBAC, LGM: 67/176, Correspondence outwards 1943–1959, Folder 48/50.
  38. NBAC, LGM: 67/188, Correspondence with Board of Directors, Report dated 19.9.1947.
  39. Blainey, Geoffrey, 1967, p 40.
  40. *SMH*, 5 October 1940, p 17.
  41. *TQA*, 20 October 1939.
  42. *TQA*, 3 December 1940.
- Chapter 4**
1. DMAR 1939, p 49.
  2. *TA*, 21 September 1939.
  3. NAA: A621/1, S297, Barcode 136946 LGM (Non Ferrous Metals) Letter dated 9.10.1940.
  4. *SMH*, 5 October 1940.
  5. NAA: A621/1, S297, Barcode 136946 (Non Ferrous Metals) Letter dated 22 July 1940.
  6. NAA: A621/1, S297, Barcode 136946 (Non Ferrous Metals), Shipping of Lake George concentrates to America (Letter dated 13.8.1941)
  7. *TQA*, 18 October 1940.
  8. *CEMR*, 10 September 1941, p 388.
  9. *CEMR*, 11 August 1941, page 352.
  10. NAA: A1146/1, Item N6/4, Part 1, Barcode 198606 (Letter dated 14.4.1942)
  11. as above, (Letter dated 18.9.1942)
  12. as above
  13. as above, (Letter dated 9.11.1942)
  14. as above, (Letter dated 14.12.1942)
  15. as above, (Letter dated 2.12.1942)
  16. *TQA*, 11 December 1945, p 2.
  17. *CC*, 5 October 1940, p 3.
  18. *TQA*, 1 October 1940.
  19. NAA: A1146/1, Item N6/4 Part 1, Barcode 198606 (Letter dated 8.6.1942)
  20. *TQA*, 29 April 1941.
  21. NAA: A1146/1, Item N6/4 Part 1, (Letter dated 19.6.1942)
  22. *TQA*, 14 January 1941.
  23. Owen TM, Reynolds C, Nixon JC, 1952.
  24. NAA: A1146/1, Item N6/4 Part 1, Barcode 198606 (Letter dated 2.2.1943)
  25. NAA: A1146/1, Item N6/4, part 2, (Letter dated 9.2.1944)
  26. as above (Letter dated 9.2.1944)
  27. NAA: A621/1, S297, Barcode 136946 LGM (Non Ferrous Metals)
  28. *TQA*, 16 August 1940.
  29. The Commission included representatives of Australia, New Zealand and United Kingdom.
  30. *TQA*, 30 April 1940.
  31. *TQA*, 6 September 1940.
  32. *TQA*, 20 September 1940.
  33. *TQA*, 16 August 1940.
  34. *TQA*, 24 February 1942.
  35. *CEMR*, 10 July 1947, p 395.
  36. *CEMR*, 11 September 1944 (page 346) and 10 May 1945 (p 263). This new ore shoot had an average width of 10-ft and averaged 7.4 per cent. lead and 13.8 per cent. zinc.
  37. NAA: A1146/1, Item N6/4, Part 1, Barcode 198606 (Letter dated 18.5.1942)
  38. NAA: A1146/1, Item N6/4, Part 1, (Letter dated 2.2.1943)
  39. NAA: A1146/1, Item N6/4, Part 2, (Telegram dated 18.1.1944)
  40. NBAC, LGM: 67/171, Correspondence to and from GFAD Co. Ltd, 1948–1953.
  41. NBAC, LGM: 67/159, Correspondence to and from GFAD Co. Ltd, 1942–1947.
  42. NAA: Dept. of Import Procurement (DIP) files, CP117/12/1, Item 4.
  43. As above and NBAC, 67/159, Correspondence to and from GFAD Coy Ltd, 1942–1947, Letter of 6.4.1943. Packing of the Atlas was done to US Army No.100-14A and US Navy No.39P-16A specifications.
  44. NBAC, LGM: 67/147, Letters and files kept by Officials, Box 3 & 4, (Letter dated 7.6.1946)
  45. NBAC, LGM: 67/147, Letter files, Box 3, Item dated 7 June 1946.
  46. *TQA*, 14 January 1941. Estimated cost of this tonnage was £881,654. Small coal for railway power-house consumption was 518,599 tons valued at £316,620.
  47. NAA: A1146, N6/4 Part 2, Barcode 198606 (Letter dated 9 January 1945)
  48. Rate of transhipment was 120 tons a day. NAA: A621/1, S297 (Non Ferrous Metals) Barcode 136946, Letter dated 30 January 1945.
  49. NAA: A1146, N6/4 Part 2, Barcode 198606 (Letter dated 9 January 1945)
  50. as above.
  51. *TQA* 1 January 1945.
  52. *TQA*, 6 February 1945.
  53. *TQA*, 9 October 1945.
  54. NAA: A621/1, S297, LGM (Non Ferrous Metals), Report dated 26.1.1945.
  55. NAA: A1146, N6/4 Part 2, (Letter dated 5.12.1945)
  56. as above.
  57. NBA, 67/156, Box 2–3, Letters outward 1946–1947, (Letter dated 25.9.1947)
  58. NBA, 67/147, Letters and files kept by Officials, Box 3 & 4, (Letter dated 7.6.1946)
  59. NBA, 67/156, Box 2 & 3, Correspondence outwards, 1937–1955, (Letter of 10.10.1946)
  60. NBAC, LGM: 80/13, General subjects, Box 1 & 2.
  61. NBAC, LGM: 67/188, Correspondence with Board of Directors, Report dated 6.7.1946.
  62. NBAC, LGM: 67/188, Correspondence with Board of Directors, Report dated 13.3.1946.
  63. NBAC, LGM: 67/147, Letters and files kept by Officials, Box 3 & 4, (Letter dated 1.11.1947)
  64. William Harold Tyler, MSc, FGS, AIMM was an English born geologist. He became general manager in August 1947, replacing Mr HE Munn.
  65. NBA, 67/156, Box 2 & 3, Correspondence outwards, 1937–1955, (Letter dated 4.12.1947)
  66. NBA, 67/158, Correspondence from NCGF Ltd, 1938–1950, (Letter dated 17.12.1947)
  67. as above, (Letters dated 3.2.1948 and 4.2.1948).
  68. NBA, 67/176, Box 1 & 2, Correspondence outwards, 1943 – 1959, (Letter dated 27.7.1948)
  69. NBA, 67/175, Correspondence inwards, (Letter dated 4.8.1948)
  70. NBA, 80/13, Box 1 & 2, Capital expenditure.
  71. *CEMR*, 10 May 1949, p 304.
  72. NBAC, LGM: 67/162, Correspondence with FED & FA, 1948–1961, (Letter dated 18.7.1946)
  73. as above, (Letter dated 13.10.1949 – Investigation of Trammings).
  74. *TQA*, 30 August 1940.
  75. Mr HE Munn, an American, was previously underground manager at Mount Isa Mines in Queensland. He had succeeded Tom Owen on 1 June 1945. Munn tendered his resignation in November 1946.
  76. NBAC, LGM: 67/162, Correspondence with FED & FA, 1948–1961, (Letter dated 13.10.1939)
  77. NBAC, LGM: 67/188, Correspondence with Board of Directors, 1946–1947.
  78. NBAC, LGM: 67/176, Box 1 & 2, (Letter dated 11.5.1951).
  79. NBAC, LGM: 67/155, Correspondence inward, 1937–1955, (Letter No.58 dated 7.7.1949)
  80. NBAC, LGM: 67/158, Correspondence from NCGF Ltd, 1938–1950, (Letter dated 9.8.1949)
  81. NBAC, LGM: 67/175, Box 1 & 2, Folder 48/50 (Letter dated 10.3.1950).
  82. NBAC, LGM: 67/155, Box 2, Letters inward (Letter dated 7. 9.1949)
  83. *TQA*, 25 July 1941.
  84. NBAC, LGM: 67/147, Box 3 & 4, (Letter dated 12.8.1943).
  85. Hoogendoorn, W, 1999.
  86. NBAC, LGM: 67/176, Box 1 & 2, Correspondence outwards, 1943–1959, Folder 48/50.
  87. as above.
  88. as above.
  89. as above.
  90. NBAC, LGM: 67/162, Correspondence with FED & FA, 1948–1961, (Letter dated 24.12.1952)
  91. as above.
  92. NBAC, LGM: 67/155, Letters inward, 1937–1955, (1947-1948, Letter dated 9.9.1948)
  93. NBAC, LGM: 67/175, Correspondence, 1943–1959, Box 1 & 2, Folder 48/50, Letter dated 20.2.1948.
  94. *TQA*, 21 December 1945.
  95. *TQA*, 11 December 1945.
  96. The 1946 agreement for payment of the lead bonus at Broken Hill was that the bonus was paid at the rate of 6d. per shift for each £A1 rise over £A16 in the averaged realised price of lead sold during the calendar month next but one preceding the month in which the fortnight ended.
  97. NBAC, LGM: 67/228, Metal prices file, 1937 to 1951 (undated).
  98. as above.
  99. NBAC, ANU, LGM: 67/228, Metal prices file, 1937 to 1951 (undated, p 13).
  100. *CC*, 9 October 1948, p 1.
  101. McGowan, Barry, 2009.
  102. *AWW*, 29 January 1949, p 24.
  103. *CC*, 14 May 1950, p 5.
  104. *CMER*, 10 July 1950, p 410.
  105. *CC*, 14 May 1950, p 5.
- Chapter 5**
1. NBAC, LGM: 67/176, Box 1 & 2, Folder 51 (Letter dated 8.10.1951) and Folder 51/53 (Letter dated 30.6.1952).
  2. *TQA*, 26 February 1954 and 25 June 1954.
  3. NBAC, LGM: 67/176, Box 1 & 2, Folder 51 (Letter dated 2.8.1951).
  4. NBAC, LGM: 80/9, Annual report, YE 30 June 1954.
  5. NBAC, LGM: 80/24, GM's File, Industrial Awards, 1950–1959.
  6. Supervisory clerical staff costs amounted to £15,343 11s. NBAC, LGM: 67/228, Item YE 30.6.1948.
  7. NBAC, LGM: 67/176, Box 1 & 2 (Letter dated 30.11.1949).
  8. as above.
  9. as above.
  10. NBAC, LGM: 67/218, circulars and reports to the GM (Report dated 23.11.1951).
  11. as above.
  12. NBAC, LGM: 67/176, Box 1 & 2 (Letter dated 9.5.1950).
  13. NBAC, LGM: 67/171, Letter dated 12.5.1952). These locomotives could recharge their storage tanks via a hose connection from a valve in the level's compressed air pipe.
  14. NBAC, LGM: 80/52, (Letter dated 4.7.1950).
  15. NBAC, LGM: 67/156, File "Underground locos" (Letter dated 20.6.1955).
  16. as above.
  17. NBAC, LGM: 80/9, Monthly reports, (Report dated 21.9.1955).
  18. NBAC, LGM: 67/176, File 50/51 (Letter dated 8.5.1951).
  19. *CEMR*, 11 April 1955, page 264. Output was 8kw DC.
  20. NBAC, LGM: 67/176 (Letter dated 8.5.1951).
  21. Atlas Car & Equipment Company files.
  22. NBAC, LGM: 67/156, Box 2 & 3 (Letter dated 15.6.1940).
  23. NBAC, LGM: 80/13 (Letter dated 26.2.1954).
  24. *TQA*, 5 March 1954.
  25. *TQA*, 5 March 1954.
  26. In 1954 or 1955 this shop was sold to a private individual. NBAC, LGM: 80/9, Annual Report, Year ended, 30.6.1955.
  27. *TQA*, 22 January 1954.
  28. *TQA*, 26 July 1957 and 13 August 1957.
  29. *TQA*, 12 March 1954.
  30. *SMH*, 11 November 1953; *TQA*, 15 January 1954.
  31. NBAC, LGM: 67/228, Reports 1937–1951. No date.
  32. NBAC, LGM: 67/156, Box 4, Correspondence (Letter No. 1450, dated 11.1.1950)
  33. *TQA*, 3 August 1954.
  34. NAA: A1146, N6/4 Part 2 (Letter dated 1.1.1946)
  35. *TQA*, 25 June 1954.
  36. *TQA*, 18 June 1954.
  37. *TQA*, 18 June 1954.
  38. *TQA*, 13 August 1954.
  39. *TQA*, 13 August 1954.
  40. *TQA*, 3 August 1954.
  41. McGowan, Barry, 2009.
  42. NBAC, LGM: 80/9, Annual Report (No date)
  43. McGowan, Barry, 2009.
  44. As at December 1956, General Shaft was at a depth of 2171ft.
  45. The internal shaft measured 11ft by 7ft and extended from Elliott's 1230ft level down to 2030-foot level. A 100hp Holman winder was installed in a chamber at the top of the shaft.

## Chapter 6

1. DMAR, 1957.
2. *SMH*, 31 January 1957.
3. NBAC, LGM: 80/9, Monthly reports (Report dated 2.11.1956).
4. NBAC, LGM: 80/9, Annual Report, YE 30 June 1956.
5. NBAC, LGM: 67/218 (Report dated 17.1.1957).
6. NBAC, LGM: 67/214, Letter dated 15.11.1957.
7. *CC*, 30 November 1957, p 6.
8. *TQA*, 21 May 1957.
9. DMAR, 1957.
10. *SMH*, 24 September 1958.
11. as above.
12. *SMH*, 25 September 1958.
13. *SMH*, 24 September 1958.
14. NBAC, LGM: 80/9, Annual Report, YE 30 June 1958.
15. NBAC, LGM: 67/190, *Natlake* Staff Club magazine, 1958-1960 (September 1958).
16. *SMH*, 24 September 1958.
17. NBAC, LGM: 67/190, *Natlake*, Staff Club magazine, 1958-1960 (October 1958)
18. *SMH*, 1 October 1958.
19. *SMH*, 2 October 1958.
20. *CMER*, 15 February 1958, p 76.
21. *Pix*, 18 October 1958, 'A Town too tough to die'.
22. DMAR, 1958, p 15. The duty came into effect when the overseas price of copper fell below £A275 per ton and became payable at the rate of £1 per ton for each £1 by which the determined Australian price (based on UK) prices fell below £A275.
23. *Mining World*, May 1960.
24. NBAC, LGM: 80/9, Annual Report, YE 30 June 1958.
25. NBAC, LGM: 80/14/1, Cablegram dated 8.3.1960.
26. NBAC, LGM: 80/9, Annual Report, YE 30 June 1960.
27. as above.
28. NBAC, ANU, LGM: 80/24, General Managers file, Industrial Awards, 1950–1959, Letter dated 31.3.1960.
29. NBAC, LGM: 80/25, GM's File, Contract Working Rates.
30. NBAC, LGM: 80/24, General Managers file, Industrial Awards, 1950–1959, Letter dated 17.12.1959.
31. NBAC, LGM: 80/9, Annual Report, YE

- 30 June 1960.
32. NBAC, LGM: 67/190, Natlake Staff Club magazine, 1958-1960 (May 1960).
33. Acts of Federal Parliament, 1960. A basic rate of £3 per ton of sulphur content of the pyrites, rising or falling inversely with variations in the landed cost of imported brimstone below or above £16 per long ton (subject to reduction should annual profits exceed 1½ per cent of the capital used.)
34. DMAR, 1961.
35. *TQA*, 3 August 1954.
36. *TQA*, 6 December 1960.
37. NBAC, LGM: 67/172, Box 1 & 2, School file, Letter dated 22.11.1961.
38. Department of Mines, NSW. Annual Report, 1962. NBAC, LGM: 80/13, Box 13–15, ‘Cessation of operations folder’, paper dated 22.11.1961 and E. Reynolds interview. The mine nearly closed prematurely on 22 November 1961 when during the procedure of oiling the General Shaft’s winding rope, insufficient turns were left on the winding drum and the rope fell down the shaft. The only spare rope of the correct diameter in Australia was procured from Coalcliff Colliery near Wollongong.
39. NBAC, LGM: 80/13, Box 13 & 15, General subjects. (See also NBAC, LGM 67/172 Box 1 & 2; RS Prout folder dated 9.6.1955). Ronald Samuel Prout was a graduate of Thames School of Mines, New Zealand and Otago University School of Mines. He had previously worked for Big Bell Mines Ltd., WA and the EZ Company at Rosebery, Tasmania. He began at LGM in July 1955 on a salary of £1750pa plus a staff production bonus (then) of £2 10s/week. Company house rental was 30s/week with free electricity. He resigned in May 1962 and went to Rio Tinto’s Mary Kathleen uranium mine in north Queensland.
40. *CC*, 17 March 1962, p 8.
41. *TCT*, 12 March 1962.
42. NBAC, LGM: 80/9, Annual Report, YE 30 June 1962.
43. *TCT*, 13 March 1962.
44. as above.
45. *TQA*, 16 March 1962.
46. *TQA*, 9 March 1962.
47. *TCT*, 13 March 1962.
48. NBAC, LGM: 80/9, Annual Report, YE 30 June 1962.
49. NBAC, LGM: 80/10, Auction disposal (Letter dated 13.4.1962).
50. NBAC, LGM: 80/10, Report PE 29 July 1962 (dated 6 August 1962).
51. *SMH*, 20 December 1962, p 13.
52. *TCT*, 8 February 1963.
53. NBAC, LGM: 80/10, Auction disposal, (Letter dated 13.4.1962).
54. *TQA*, 19 February 1963.
55. NBAC, LGM: 80/10, Monthly reports, PE 11.3 1963 to 30.6.1963. As at 30.6.1963 cash funds were given as £421,645.
56. NBAC, LGM: 80/13, Box 13–15,

- Cessation of operations folder (Letter dated 29 November 1961).
57. NBAC, LGM: 80/2, Minutes of Board Meetings (Dated 16.3.1963).
58. NBAC, LGM: 80/9, Annual Report, YE 30 June 1962.
59. *TCT*, 13 March 1962.
60. *TQA*, 22 March 1963.
61. *TQA*, 26 March 1963.
62. *TQA*, 8 February 1963.
63. *TQA*, 26 March 1963.
64. *TQA*, 26 February 1963.
65. *TQA*, 6 September 1968.
66. Letter dated 22 February 1961, Mr P Allen to Mr L Tully, Captains Flat Railway Records, P Neve collection.
67. NBAC, LGM: 80/13, Box 1 – 2, Railway Agreement, paper dated 23.5.1963.
68. *ARHSB*, No. 517, November 1980, Wilson, Ross, ‘The Bungendore to Captain’s Flat Branch Line’.
69. *TQA*, 9 July 1964.
70. *TQA*, 6 September 1968.
71. *TQA*, 6 September 1968.
72. *The Roundhouse*, November 1969 (Journal of the NSW Rail Transport Museum). The railway was reopened for the special train on 10 August 1969. NSWGR locomotive 1243 had its funnel changed and was renumbered 176 for the duration. The film was directed by Tony Richardson for Woodfall Film Productions with a budget of UK£1 million. It was not a success at the cinema, receiving poor reviews.
73. NBAC, LGM: 80/13, Box 1 & 2, Railway Agreement Folder.
74. Letter dated 15 June 1971, MA Morris to SG Mauger MLA, Captains Flat Railway Records, P Neve collection.
75. Ross Mainwaring, press cutting, ‘Itching to go with his own locomotive’, dated 8 May 1974, probably from *The Canberra Times*.
76. *TQA*, 3 August 1954.
77. *SMH*, 12 March 1962.
78. *Goulburn Evening Post*, 16 September 1964.
79. *Bungendore Mirror*, 12 April 2006.
80. *AWW*, 29 January 1949, page 25. One verse from poem ‘Old Captain’ written by Mr Bert Beros, underground shift boss at LGM.

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