

# **LIGHT RAILWAYS**

**Number 125**

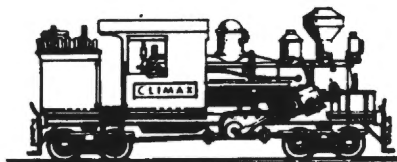
**July 1994**

**Prospect Reservoir Tramway  
Sanderson's Locos  
Obscure Mining Tramways**

**ISSN 0 727 8101**



**The Light Railway Research Society of Australia Inc.**



**Light Railway Research Society  
of Australia Inc.**

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**Light Railways Editor:** Norm Houghton, PO Box 1128, Geelong 3220. Phone (052) 21 7007 or (Home) (052) 29 4805. Articles, photographs and letters welcome.

**Cover Photo:** What is it? A traversing winch, Wilsons Reef, Trunkey Goldfields, NSW c. 1870. (See Letters Section p.26).

*Photo: NSW Dept of Mineral Resources*

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## EDITORIAL

The Society has long held the view that no information in these pages can be regarded as final. New information is being discovered all the time and this sometimes contradicts previous information. The article herein on Alex Sanderson's stable of locos at Forrest, Victoria, is a good example of this. Over the years various members have unearthed information on Sanderson's locos, parts of which have proved definitive and other parts of which not so precise. Since Victoria's Sesquicentenary Celebration, a vast range of information previously unknown or inaccessible has been offered for general perusal by Victoria's Public Record Office and State Library and many gaps in our knowledge can now be filled.

The same situation applies in most other states so members are urged to dust off those troublesome files and take another look. You might be pleasantly surprised at your findings.

Jim Longworth presents another of his interesting delves into the mysteries of the Sydney Water Board locos. And like a sirocco blowing in from the arid reaches of the outback, the obscure quarry trams of Koolka and Oodlawirra are revealed by Arnold Lockyer.

**Norm Houghton**

# NARROW GAUGE TRAMWAYS AT PROSPECT RESERVOIR (NSW)

by Jim Longworth

## PROSPECT RESERVOIR

Sydney's fourth water supply scheme, following the Tank Stream (1788-1826), Busby's Bore (1826-1858) and the Botany Swamps (1858-1886), was the Upper Nepean Scheme. Supplies were taken from several tributaries draining into the Nepean River. Prospect Reservoir was built during the 1880s as an on-line water storage for the scheme. Prospect is situated between the suburbs of Blacktown and Smithfield, about 35 kilometres west of Sydney.

The Prospect dam was constructed as an earthen embankment wall 110 chains long by 85 ft high at the deepest part and 30 ft wide at the top. The dam sides sloped at 1 (vert):3 (horiz) on the upstream side and 1:2.5 on the downstream side, with two 15 ft wide berms (an earth terrace midway up the slope) on the downstream face. The upstream embankment<sup>1</sup> is faced with 18 inch diorite blocks. The embankment flanks a puddled clay core.

The NSW Department of Public Works called tenders for construction of the dam by contract (PWD Contract No 11) during early 1882. Tenders were to be received by 25 July 1882.<sup>2</sup> Mr James McGuigan was the successful contractor. Mr R. Shand managed the business upon the death of the former in December 1883, during the construction period. Mr Rutherford was the sub-contractor for stone pitching the upstream face of the dam embankment.<sup>3</sup>

Construction materials were first conveyed to the site by horse drawn drays. During August 1886 the contractor asked permission to use 'railroad wagons'. The request was denied in this instance because a railroad would reduce the advantageous compaction caused by the passage of dray traffic, but was approved later on.<sup>4</sup>

Bulk materials for the puddle clay core and flank- ing embankments were hauled over standard gauge lines employing at least one steam locomotive. There was a series of shallow borrow-pits in the valley floor, downstream of the dam wall.<sup>5</sup> A locomotive, known by the name of 'FISHBURN', is reported to have worked at the site.<sup>6</sup> However this article is only concerned with the narrow gauge lines at the Prospect site.

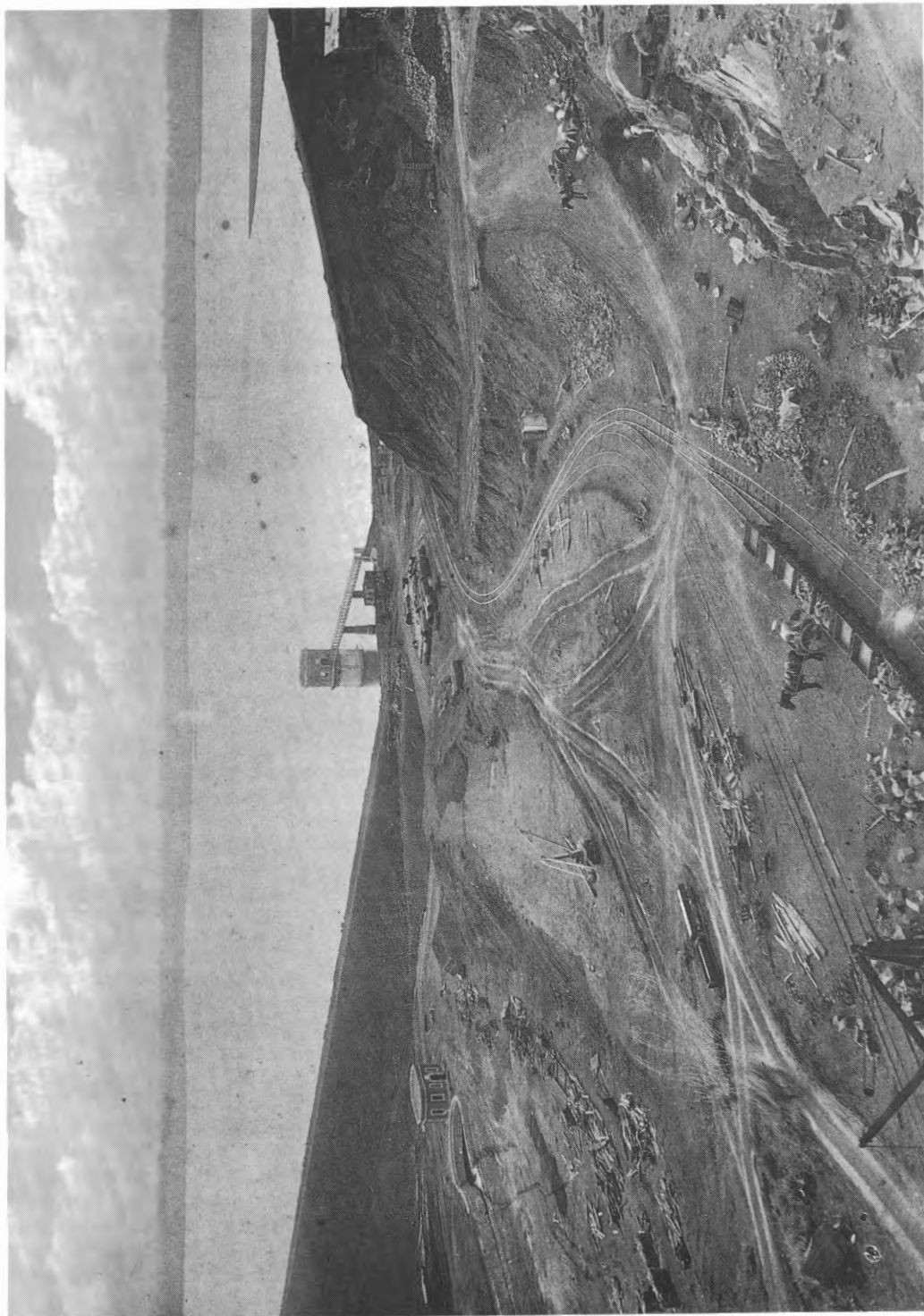
Basalt for concrete aggregate and stone pitching the upstream wall was dug from a small quarry in the southern flank of Prospect Hill. This quarry had no connection to any other past or present quarry operation at Prospect Hill. Some of the excavated rock from the quarry was hauled up a two track

incline to a stone crushing works and storage bin located on the southern wall of the quarry.<sup>7</sup> The rail tracks in the quarry and for access to construction sites were relocated frequently.

On 8 January 1887 the PWD approached a contractor on site to see if the Department could purchase several 2 ft 6 in gauge wagons from him but the contractor refused the request. A detailed drawing of the wagons at the time shows them to be the same type as the wagons later used during the initial excavation for Potts Hill No 2 Reservoir. During July 1887 the contractor sought the Department's approval to use a locomotive in association with these wagons on the dam wall.<sup>8</sup> Under the agreement the contractor had to supply all materials, labour, tools, plant, tackle, machinery, scaffolding etc for the execution of the works.<sup>9</sup>

During April 1888 the puddle wall started to subside so the dam wall was under-drained to release soakage water.<sup>10</sup> Prospect Reservoir was finally completed and handed over to the newly formed Metropolitan Board of Water Supply & Sewerage in 1893. In the early part of 1897 and in 1899 the upstream embankment slumped again. The slumping was stabilised by weighting with 12,000 cubic yards of basalt spalls dumped over the face of and along the toe of the slumps. Basalt was provided from the quarry mentioned earlier<sup>11</sup>, behind the current 'Prospect Reservoir Training Centre'. Connection between the quarry and dam wall was by means of a narrow gauge railway line worked by at least one steam locomotive.<sup>12</sup>

Initially the locomotive hauled trains of ballast-laden wagons along the crest of the dam wall. Trucks were run from the top of the dam wall out onto a long pontoon floating on the stored waters of the dam, and the contents tipped. However, vibration caused by the train running along the outer top edge of the dam wall upset the sensitive surveying equipment measuring subsidence and probably increased subsidence of the puddle wall as well. Loading of the slips was then carried out from punts floating on the stored water of the reservoir, which were towed into position by a steam launch. Punts were loaded from a sloping jetty erected from the reservoir shore<sup>13</sup>, just beyond the still extant walkway out to the offtake valve tower.



*Prospect Reservoir quarry during construction of the dam.*

*Photo: Sydney Water Board*



## LOCOMOTIVE

The MBWS&S records document the maintenance history of the locomotive. During 1897 Messrs Vale and Son of Auburn overhauled the locomotive at Prospect Reservoir, turning up three pairs of wheels and making new bogie springs for a cost of 52 pounds 10 shillings. During July 1898 the bogie wheel flanges were turned down to reduce the flange depth by half an inch in diameter. One of the bogie wheels was so badly grooved from running on the 18 lb light rail used that its flanges were cutting the bolts of the fish plates. This extreme wear was attributed to the '... heaviest' [i.e. tightest Ed.] curves all being laid the '... one way' [i.e. same direction Ed]. The site engineer tried reversing the bogie wheels to share the wear, but to no benefit. In 1902 the valve spindles were renewed and the locomotive generally overhauled. At that time the wheels were loose and in danger of falling apart so new wheels were supplied by Vale<sup>14</sup>.

During July 1913 the loco was inspected at Prospect and deemed to be in good condition, although reputed to be '... thirty years old' by that time. The boiler was tested to 170 lb/sq in hydrostatic and passed for 100 lb/sq in working pressure. The loco was then required for work elsewhere.

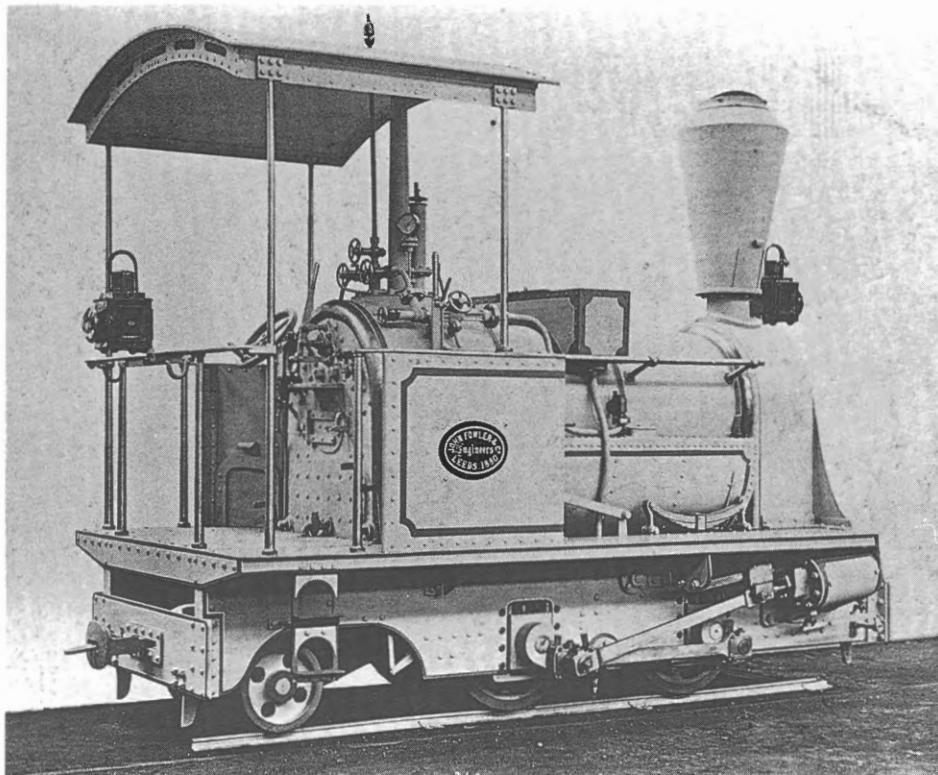
Arrangements were made for a jinker to be borrowed from the Emu Plains and Gravel Co, fitted with a suitable floor and pulled by a Water Board steam wagon, with another assisting hired from the Prospect and Sherwood Council. These steam wagons hauled the locomotive from Prospect Reservoir to Potts Hill No 2 Reservoir then about to be constructed by day labour. Water Board records<sup>15</sup> convincingly demonstrate that it was the same locomotive that worked at both Prospect and Potts Hill No 2 becoming the '... Fowler 0-4-0 (sic) T type of uncertain origin.'<sup>16</sup> at Potts Hill. At this site the locomotive hauled rakes of spoil laden skips from excavators to on-site spoil dumps, during the initial excavation of the second reservoir.<sup>17</sup>

Horne<sup>18</sup> suggested that one of the early John Fowler builder numbers 4020 of 1880, 4288 (sic, a *Light Railways* printers error, should read 4284<sup>19</sup>) of 1881 or 4445 of 1882, indexed under Brooks & Co., 7 x ? in cyls, is probably the Fowler used at Potts Hill Reservoir construction. Browning<sup>20</sup> suggested that the locomotive that had worked at both Prospect and Potts Hill No 2 Reservoirs was 4020 of 1880.

Based on Fowler photos Nos 369 and 370, builder number 4020 can no longer be considered as a possibility for the Prospect/Potts Hill locomotive. Builder

*Fowler loco at Prospect Reservoir. Jack Waters, extreme left, was the loco driver.  
Photo: B. Macdonald ex Craig Wilson Collection.*





*Builder's photo of John Fowler 4020 of 1880.*

*Photo: R. Horne ex Reading University Museum of English Rural Life.*

number 4020 was of a completely different type of locomotive as shown in the above photograph. Builder numbers 4284 and 4445 have similarities, but it is not known what they looked like. Until further details can be brought forward on Fowler 4284 and 4445, then 4790 of June 1884 seems to be the likely identity of the Prospect/Potts Hill Fowler<sup>21</sup>. The recorded change of gauge from 2 ft 6 in (as built in 1884) to 2 ft<sup>22</sup> in May 1885 is as yet unexplained. Fowler photo No 516 as given in *Light Railways* No 78<sup>23</sup> illustrates the type of locomotive that was at both Prospect and Potts Hill No 2 Reservoirs and could well be taken of a locomotive from the right period.

Substantial alterations had been made to the locomotive from its likely appearance when new. Probable alterations include addition of a rear bunker, rearward cab roof extension, provision of external steam pipes from regulator valve to cylinders, extra cab supports, buffer beam extensions, miscellaneous pipework and some sort of work to the top section of the chimney.

No precise early date can yet be set before which the Fowler locomotive had arrived at Prospect Reservoir, other than some time before 25 April 1908<sup>24</sup>, and probably before July 1887<sup>25</sup>. Taking the MBWS&S Annual Report of 1914 description of the locomotive literally (as having '... seen over twenty-five years service ...') would mean that it was in use at least before 1889, though not necessarily at Prospect Reservoir.

It is not known how the 2 ft 6 in gauge Fowler came to Prospect Reservoir and into the MBWS&S's ownership. The official letter books from Prospect Reservoir fail to mention the loco's arrival or acquisition but do record that by July 1897 a locomotive there needed repair. Possible origins include the NSW PWD or one of the construction contractors or some independent unidentified source. The gauge of 2 ft 6 in is an unusual one for a NSW construction line and perhaps it was selected because of the gauge of the available locomotive.



*Prospect Reservoir 2 ft 6 in gauge system during stabilisation works on dam wall.*

*Photo: G. H. Eardley Collection.*

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## SANDERSON'S LOCOS, FORREST (VIC.)

by Norm Houghton

The Forrest sawmiller Alex Sanderson operated a 3 ft 6 in (1067 mm) gauge timber tramway from 1897 in the hills south of the township using horses at first and then several steam locomotives.

A history of these locomotives has been chronicled in previous issues of this journal<sup>1</sup> and in *Sawdust & Steam*<sup>2</sup>. However these accounts have proven to be inconclusive and further research by the writer on newly available records in association with Richard Horne, John Browning, Michael Guiney, Reg Wilson and Mike McCarthy has shed more light on the topic. The writer is currently revising *Sawdust & Steam* and invites critical comments on this article so that any outstanding issues can be resolved before the book is printed.

Alexander Sanderson was mechanically gifted and supposedly trained in some capacity (apprentice fitter?) at the Phoenix Foundry in Ballarat during the late 1870s and early 1880s. At this period Phoenix was constructing locos for the Victorian Railways so young Alexander would have had a good grounding in this trade. The family was engaged in sawmilling to the west of Ballarat at Mount Cole and Alexander eventually joined his father David and brother George in the mill. When the Mount Cole forest was cut out the family moved to Forrest.

Folk memories at Forrest portray Sanderson as a fanatic for steam power and back up this view with reference to naming his sons after steam machinery manufacturers. A check through official records of births shows that this is substantially true with the children of Alexander and Eleanor Sanderson being listed as Marshall, Clayton, Mabel, Robert, Forrestein, Alice and Baldwin. The machine-derived names are Marshall, Clayton and Baldwin although Baldwin, the youngest and born five months before Sanderson's accidental death in November 1907, was renamed Alexander in January 1908. Sanderson's first access tramway ran into the Noonday Creek valley for four km and worked until 1902. After this Sanderson laid a new tramway into the Barwon River valley for six km to the mill and a further six km of log line to Mount Sabine<sup>3</sup>, which point was reached by late 1904.<sup>4</sup> Both tramways were solidly built using second hand 60 lb/yd (30 kg/m) iron rails leased, and subsequently purchased, from the Victorian Railways.<sup>5</sup>

Sanderson acquired seven locomotives and these, bar one, worked the tramways until 1923. In addition, Sanderson's interests did not stop at loco-

motives and he introduced the first steam logging winches to the Otways by 1904,<sup>6</sup> if not a little earlier.

One non-tramway locomotive was the Victorian Railways 'L' Class No 32, a Slaughter Grunning 2-4-0ST.IC, Builder No 410 of 1860. Sanderson bought this loco in September 1904 for 250 pounds<sup>7</sup> and used it as a stationary power plant at the Barwon mill until 1923. When the mill closed the unit was winched up to a storage site on the Forrest-Apollo Bay road at Barramunga and eventually dismantled for its metal content in about 1945.<sup>8</sup>

Regarding the tramway locomotives, the available evidence indicates that Sanderson bought a succession of second hand locos three of which, for various reasons, proved to be unsuitable. He usually had only two locos operating at any one time in the Barwon Valley, one to haul the logs to the mill and the other to cart the sawn timber to the Forrest station.

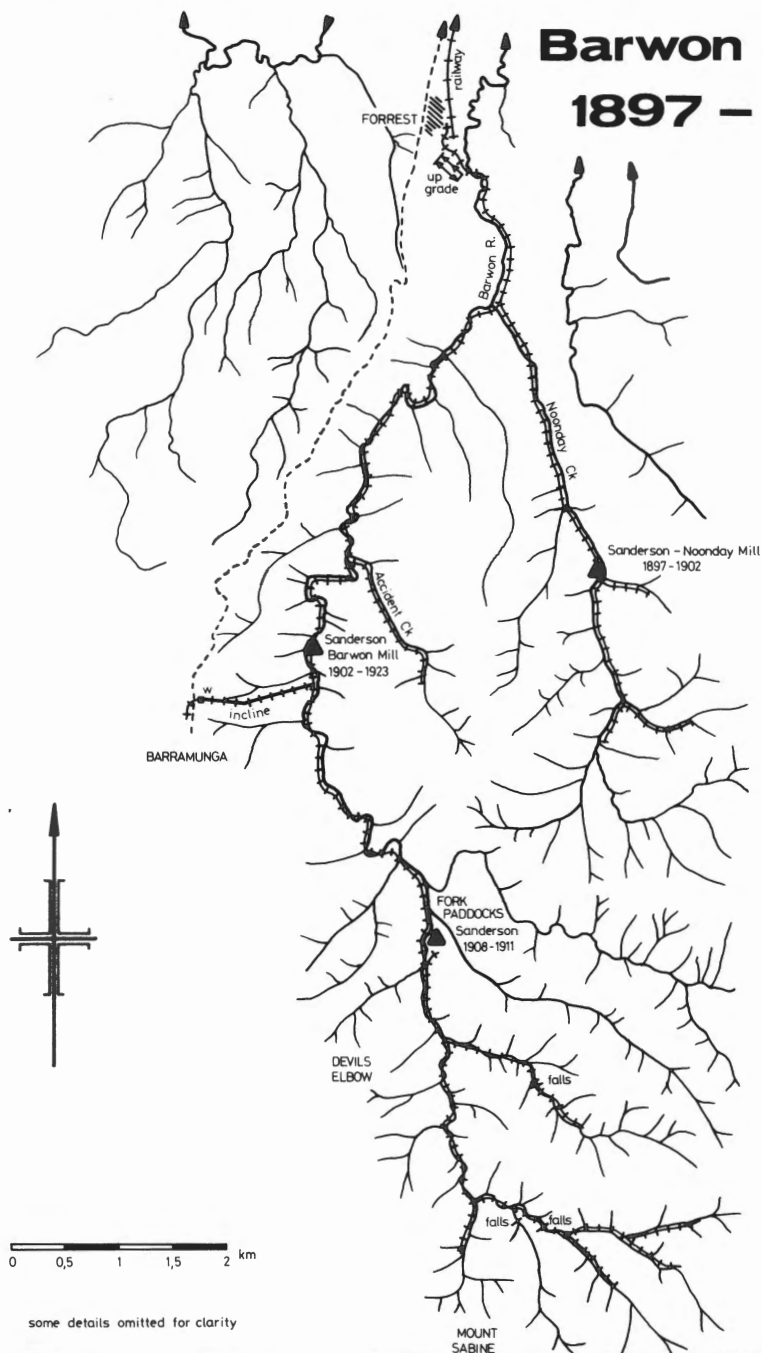
Sanderson's first loco was a 2-4-0T.O.C called *Parrot* which had indirect jack shaft drive and from photographic evidence appears to be of Fowler manufacture, possibly Builder No 4150 of April 1881.<sup>9</sup> This particular 3 ft 6 in (1067 mm) gauge loco was built for J. Spiller of the River Estate sugar plantation at Mackay, Queensland. The loco was noted as working in Mackay by July 1881. The River Estate continued operations until around 1891 when the Estate and its equipment was offered for sale. For the next few years the plant was on the market and items were disposed of as late as 1898.<sup>10</sup> There is no conclusive proof that Sanderson's *Parrot* originated from Queensland in 1898 but circumstantial evidence indicates that this is so, as well as there being strong indications that Fowler 4150 was the only 3 ft 6 in (1067 mm) gauge loco of its type known to have come to Australia.<sup>11</sup>

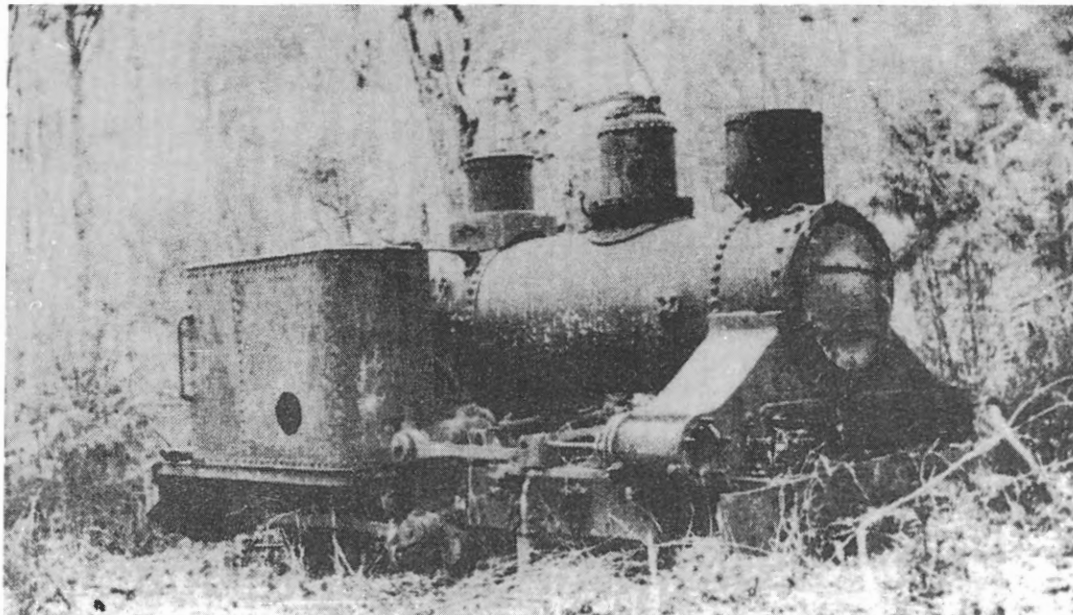
Sanderson's acquisition date for *Parrot* was likely to have been very late 1898 with an arrival at Forrest some time in 1899. The writer's reasoning for this is that Sanderson's Noonday operation did not become fully functioning until early in 1898<sup>12</sup> and for a period horse haulage was employed. The use of horses coincided with, and overlapped, the neighbouring sawmilling operation of Cowley and Cowley did not get underway before the end of 1898.<sup>13</sup> The photo in *Sawdust & Steam* p. 48 shows the two different sawmill horse teams at work.



# SANDERSON'S TRAMWAYS

## Barwon Valley 1897 - 1923





*Fowler loco Parrot pictured in an abandoned state at Crossover, 1940.*

*Photo: R. Pearson.*

*Parrot* ran on the access tram hauling sawn timber between the mill and Forrest. The log line was routed 1.5 km south of the mill on a gentle grade and built with wooden rails but it is unlikely *Parrot* used this route. It appears *Parrot* was undersized for the work required of it, especially negotiating the sharp upgrade over the last 400 metres of tram from the river level to the Forrest railway yard, and the loco was disposed of in 1901 to Gunn's tramway at Crossover, Victoria.<sup>14</sup>

Sanderson's second loco was a 2-4-0T.O.C Bagnall called *Westward Ho*.<sup>15</sup> This loco was probably Builder No 682 of 1885, 3 ft (914 mm) gauge, despatched in May 1887 to Port Welshpool, Victoria, for use on Mason's timber tramway.<sup>16</sup> Mason's sawmilling operation terminated in 1897 but the tram continued in use for another year<sup>17</sup> after which time the loco was put on the market. It appears likely that Sanderson bought the loco either directly or through another user in 1901. Somewhere along the way the loco was regauged to 3 ft 6 in (1067 mm).

*Westward Ho* worked the Noonday tram until it closed and was then transferred to the Barwon Valley tramline. When Sanderson moved to the Barwon in mid 1902<sup>18</sup> he required more haulage power because of the length of the route, the increased output of the mill and to overcome the

grade problem near the Forrest station. To this end Sanderson acquired *Tom Cue*, a Hudswell Clarke 0-6-0ST.O.C, Builder No 378 of 1891, with a much travelled history.<sup>19</sup> It was originally imported by the railway builder Edward Keane, the contractor for the Midland Railway Company of Western Australia, and when he had finished with the loco Baxter & Sadler bought it for use in the construction of the Mullewa—Cue line (WA). In 1899 it went to Tasmania and was used in the building of the North Mount Lyell railway. It was overhauled in 1900 and the boiler sent to Melbourne for repairs and there it remained, for the railway was completed in November 1900 and as the engine was no longer required it was sold to Sanderson. It most likely arrived at Forrest in 1902 when the new mill on the Barwon was built.

The two locos were employed on the access and log lines with one, probably *Tom Cue*, being used to haul seven trucks of timber from the mill to Forrest twice a day while the other, probably *Westward Ho*, hauled four logs from the felling area to the mill four times a day.<sup>20</sup> *Westward Ho* was found to be underpowered for the work demanded of it in the Barwon Valley and it was put out of service and replaced in 1903 or 1904. The loco was subsequently disposed of, eventually going to Cuming, Smith & Co's Britannia Creek tramway near Warburton in 1907<sup>21</sup>



*Left: A view of the Upper Barwon valley in 1993 showing its tight confines near the Devils Elbow. The ferns on the left are growing on Sanderson's tram formation.*

*Photo: N. Houghton*

*Below; A typical section on Sanderson's tramway. Note the heavy rails and deep earthworks.*

*Photo: LRSSA Archives.*



but whether direct, after lying idle in the Forrest railway yard for a couple of years, or through another user is not known.

Sanderson's fourth loco was an 0-4-OST.OC named *Black Angel* believed to be a Baldwin product, No 7556 of 1885.<sup>22</sup> This loco was imported on consignment by Newell & Co for the Victorian Government and was leased to the Melbourne Harbour Trust in 1887 for employment on Yarra River widening works. It was later used during the construction of the Spotswood Sewage Pumping Station (1892) and in 1895 was bought by the Australian Seasoned Timber Co for use at Wandong.<sup>23</sup> This company went into liquidation in September 1903<sup>24</sup> and sometime between then and the final wind-up in August 1904, Sanderson acquired the loco. Sanderson used the loco on the log line south of the mill.

The illustration of a Baldwin loco in LR 65, p 9 (and reproduced on p.14) in connection with the Wandong operation has the comment that the loco was probably photographed at Forrest. The picture shows a Baldwin with a roof over the entire length of the loco and a large box-slab container of sand mounted on top of the water tank.

The writer has recently walked the entire length of Sanderson's main log line and branches in the Barwon Valley, all 11 km, and offers the following

comment regarding the roofed loco. Sanderson's main log line was laid alongside the river for the entire distance and, with few exceptions, was not more than three metres above the water line. The branch log lines, and there were six, ran up even narrower side creeks on an endless succession of bridges and through damp cuttings. These branches were graded for loco haulage. Under these conditions where the tram was routed at the base of the steep sided valleys under the dripping vegetation canopy it seems reasonable to assume Sanderson tried to weatherproof the loco and beef up its sand supply.

The image was probably taken in the Fork Paddocks area three km south of the mill, where the valley opens out and the tram ran across the flats alongside and above the river. About 100 metres before the line re-enters the narrow valley, a long shallow cutting of the type the loco is shown standing in is evident. The landscape photographs reproduced on p.11 and 14 illustrate the contention.

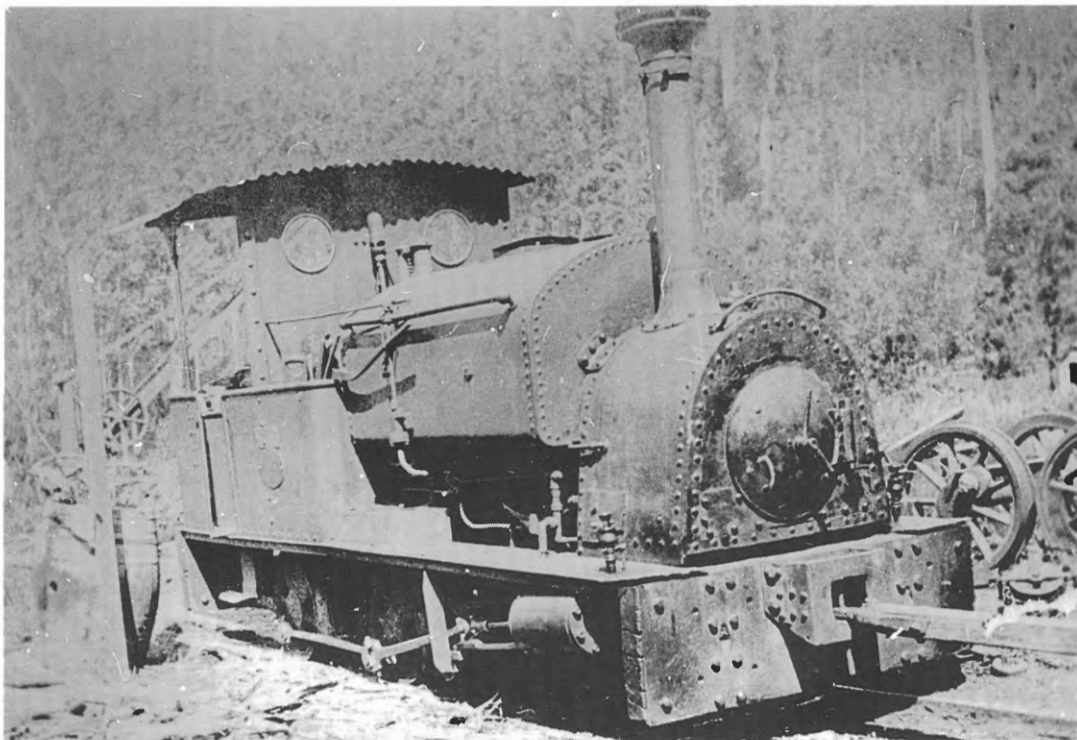
On 15 July 1907 the *Black Angel* was involved in a fatal accident when its driver 'Hellfire Jack' Southall died as a result of injuries.<sup>25</sup> The loco jumped the rails, breaking the reach bar connecting the first truck and causing a nine metre log to spear through the rear wall and smash the driver's leg against the lever ratchet. The injured man later died

*Getting up steam in Westward Ho at Sanderson's Barwon mill. Tom Cue on the left.*

*Photo: Courtesy Reg Wilson.*







*Tom Cue in the Forrest railway yard having arrived with a load of sawn timber about 1920. Note the set of driving wheels from one of the Rowan cars to the right of the loco and railway crane to the left.*

*Photo: Courtesy Apollo Bay Historical Society.*

from shock and loss of blood. Testimony given at the inquest revealed that the loco had been driven by Southall for three years. This information verifies that Sanderson bought *Black Angel* around mid 1904.

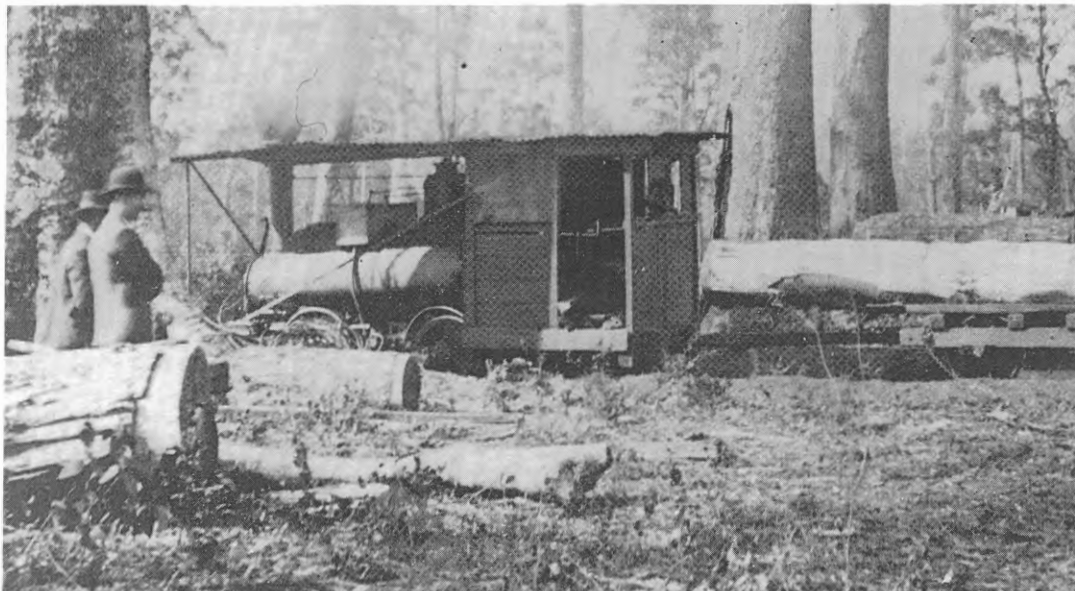
*Black Angel* was not unduly damaged in the derailment and was available for further work but it seems to have been put into retirement and rarely used thereafter. In 1915 the loco was sold to the Tasmanian Public Works Department<sup>26</sup> for use at Marawah and arrived in what was described as poor condition, which is not surprising as it had sat out in the Otway rains for seven years.

One reason for *Black Angel's* fall from favour was that Sanderson soon had more than enough locomotive power on hand with his acquisition of the two Rowan cars surplus from the Victorian Railways. These were the Kitson power units out of the Rowan Car (ABDL) that was placed in service on the VR in 1883 and consisted of a vertical boilered power plant fitted into a car body designed by W.R. Rowan. The vehicle was mounted on six wheels, including the four coupled drivers. A spare power unit was deliv-

ered with the car and in 1890 this unit was built into a second four-coupled car with a four-wheel trailer attached.<sup>27</sup> These loco units were 0-4-0VBT.OC, No T69 and T70 from the Kitson Tram series of builder numbers.<sup>28</sup> The cars were used on Melbourne suburban services until the mid 1890s and were then set aside. Sanderson converted the 5 ft 3 in (1600 mm) gauge cars to run on his 3 ft 6 in (1067 mm) gauge track by getting rid of the car bodies, trimming 450 mm off the boiler and water tank frames (originally 2490 mm wide) moving the underframes inward by more than 610 mm, and shortening the wheel axles.

Sanderson built a heavy, wooden frame roof over most of each loco to weatherproof them as well as a half-walled cabin for the crew. The two vertical boilered locos proved to be popular with the men on cold mornings because the top of the water tank made an ideal ledge for them to sit on and lean their backs against the warm boiler. These two locos were known locally as *Coffee Pots*.

The exact date of acquisition by Sanderson is not certain but it is known that the Rowan cars were still on the VR rolling stock register in January 1904.



*Above: Depiction of what is believed to be Baldwin 7556 at either Wandong or Forrest. The writer thinks the shot was taken at the Fork Paddocks, south of Sanderson's Barwon Mill.*

*Photo: Courtesy J. Gillespie.*

*Below: Formation of Sanderson's tram 1993, west side of Barwon River, at where the above photograph was possibly taken. The river is over the lip to the right and the east bank is much lower*

*Photo: N. Houghton.*



The VR Chief Engineer correspondence register shows that Sanderson first enquired about the cars in October 1901, when he offered to buy the duplicate car for 150 pounds, doubtless a replacement for *Parrot*. In April 1904 Sanderson again wrote asking that 'the engines be altered' thus indicating to the writer a loco replacement need, this time for *Westward Ho* and probably signalling the arrival of *Black Angel*. On 20 July 1907 Sanderson once again requested through the VR Secretary that 'the links' on the Rowan cars be altered at Newport. The entries in the registers are ambiguous in their brevity and the relevant file to which the notations refer has not yet turned up but it would seem that 1907 is the likely purchase period on the assumption that Sanderson was asking for some modification prior to delivery. If Sanderson had taken delivery in 1904 it seems unlikely the VR would be doing work on the cars in 1907, especially since Sanderson was a competent loco fitter who employed a capable black-

smith, and had been tinkering with his stable of locos for ten years.

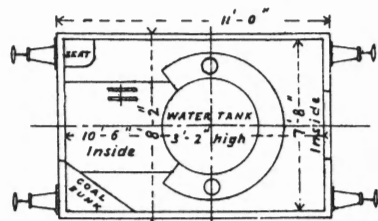
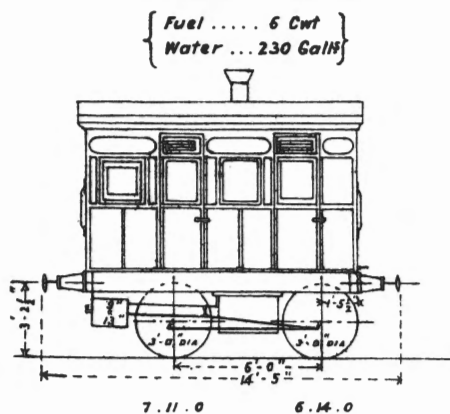
Sanderson's blacksmith was Ted Casper and he was regarded as a wizard with metal who could turn his hand to any task. The pair made a good team and this would account for Sanderson doing most of his loco work on site rather than call on engineering firms in Geelong as was the practice with other local sawmillers. Facilities for loco repairs at the mill were adequate by the standards of the day and comprised a blacksmith forge as well as a heavy lifting beam fitted between two trees.<sup>29</sup>

In 1904 Sanderson had *Tom Cue* and *Black Angel* operating so if he acquired the Rowan cars in that year he would then have four locos in good working order and this seems a bout of over capitalisation even for a steam buff like Sanderson. In any case, the *Colac Herald* in its issue of 19 September 1904 mentioned that Sanderson was using two locos, not four, in logging and sawn timber cartage. This is confirmed by a former employee of Sanderson who told the writer there were only two locos being used in his time at the Barramunga operation from 1902 to 1904.<sup>30</sup>

At the time of the accident to *Black Angel* there were five men in the cab, the driver, the bush boss and three labourers and there can be no doubt that the survivors told Sanderson *Black Angel* was unsafe and in future would give them the jitters when hauling logs. It is the writer's opinion that the accident on 15 July jolted Sanderson into the realisation that this loco type was too low and light for Otway bush work so he wrote to the VR within days, and his letter was logged on the 20th, offering to buy the Rowan cars as well as asking for some modification. If Southall had been driving a Rowan car loco the fatally projecting log would have smashed into the heavy and high sitting buffer beam and not penetrated the cab. The photographs of the other Baldwin sister locos in LR 65 show that 7108, 7860 and 8130 have had rather solid buffer beams built above the cab floor level to solve this over-ride problem.

Another possible source for verifying the 1907 acquisition date is in the annual tabulation of locomotives published by the VR Chief Mechanical Engineer in the departmental annual report. The two Rowan cars are not listed as such and it is assumed they are lumped together in the 'unclassified' column. The number in this column for the year ending 30 June 1903 (when the cars were known to be on the register) is 7 and for each year thereafter until 1908 the number is 8,5,5,3,3. The figure shows a drop by 2 or more in 1905 and 1907 thus pointing this writer to the view that the Rowan cars were deregistered in one of those reporting years and

### — ROWAN CAR —



Total weight (roadworthy)	Tons . C . Q
	14 . 5 . 0
Tractive power .....	3,042 lbs (130 lbs) press
	3,276 " (140 " ) "

Total . 2



*One of Sanderson's Coffee Pot locos (ex Rowan Car) running between the Barwon Mill and Forrest, 1911.*  
*Photo: John Thompson Collection.*

therefore available for disposal from July 1904 or July 1906 but not before.

One of the *Coffee Pot* locos was involved in an spectacular accident on 21 November 1907 when it capsized off a bridge 800 metres north of the mill.<sup>31</sup> A bridge bearer broke at one end with the weight of the loco passing over and the loco somersaulted over the side and landed end-on in the river. Alexander Sanderson was killed outright and his son Marshall, the loco driver, later died in hospital. The loco was not badly damaged and was soon back in service.

Had the accident not occurred Sanderson may well have gone on dealing in locos and more of them may have found their way to Forrest. The management of the operation was then taken over by Jim Grant, Sanderson's book-keeper and he was a totally different character. His principal interest in steam machinery was to ensure the job was done with whatever equipment was available rather than

buying any more plant. Grant's operations, particularly out of the Barwon Valley after 1923, were characterised by slow, dinky engines and second-hand improvisations.

From 1907 the loco working method was for the two *Coffee Pots* to handle most duties with *Tom Cue* as a standby and *Black Angel* as an orphan waiting for a buyer.

The two *Coffee Pots* worked as a pair until 1919 when one of them was taken out of service, dismantled, and its boiler used to drive the winch on the incline then being installed to run west up the valley side to Barramunga.

*Tom Cue* and the remaining *Coffee Pot* operated over what was then a truncated Barwon Valley tram-line as the area to Mt Sabine was cut out. The locos task was then to haul the logs from the foot of the Barramunga incline to the mill, a distance of 300 metres, and cart the sawn timber six km to Forrest. One loco sufficed and usually the *Coffee Pot* did the





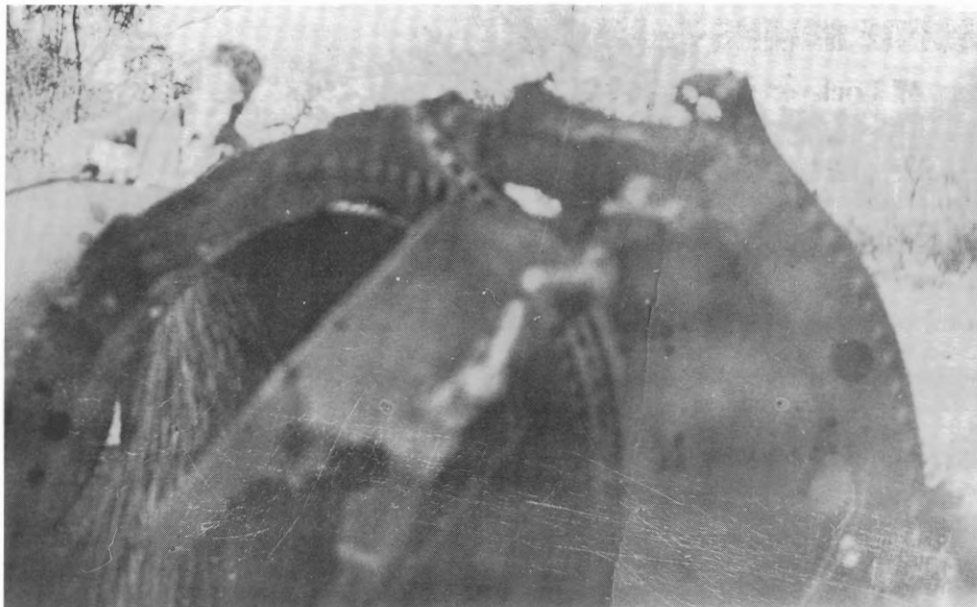
*Above: A log landing on Sanderson's tramway c. 1913. Rear end view of loco.*

*Photo: Courtesy Elsie Halliday.*

*Below: Remains of a water tank from one of Sanderson's Coffee Pot locos. Photographed at Grant's mill site, Barramunga Creek, January 1994.*

*Photo: N. Houghton.*





*Joe Wilson engaged in cutting up the boiler of 'L' class No. 32 at Barramunga c. 1945.*

*Photo: Reg Wilson*

job. This situation endured until June 1923 when a flood destroyed the tramline along the river. *Tom Cue* was in Forrest when the flood struck and remained there without turning a wheel again until being scrapped in about 1940. The remaining *Coffee Pot* was hauled up the incline to Barramunga, dismantled, and its parts used to keep the *Coffee Pot* winch in running order.<sup>32</sup>

This winch worked at Sanderson & Grant's mills on Barramunga Creek, (established 1923), Upper Gellibrand and on the spur between Barramunga Creek and Olangolah Creek until about 1937. Bits and pieces from one of the *Coffee Pot* boilers and water tanks could still be found at the Barramunga Creek mill site at the time of writing.

#### References:

1. M. Plummer, 'Tramways of the Forrest-Barwon Downs Area', LR18, pp 12-21; M. Plummer, 'More Sanderson's Tramway', LR22, pp 24-26.
2. N. Houghton, Sawdust & Steam, LRRSA, Melbourne 1975.
3. Geelong Lands District, Surveyor Tracing Book 1889—1949.
4. Colac Herald 19/9/1904
5. As for Note 3.
6. Colac Herald 19/9/1904
7. Victorian Railways Chief Mechanical Engineer Correspondence Register.
8. Information from Reg Wilson, former employee.
9. F. Jux, John Fowler Locomotive Works List, Industrial Locomotive Society 1985.
10. K.W. Manning 'In Their Own Hands', Farleigh Co-operative Sugar Milling Association Ltd, 1984.
11. As for Note 9.
12. As for Note 3.
13. As for Note 3.
14. Information from John Buckland files.
15. A. Baker & T.D. Allen Civil, Bagnalls of Stafford Locomotive Works List, Industrial Locomotive Society 1984.
16. Information from Richard Horne.
17. Victorian Railways loading statistics for Masons Siding; South Gippsland Chronicle 14/12/1897.
18. As for Note 3.
19. Information from John Buckland file.
20. Information from Wilson Stevenson, former employee.
21. LR 68, p. 9.
22. J. Buckland, 'The Saga of 'Sandfly' and the Lost Tribe', LR 65.
23. C. Harvey, Wandong Wander, LRRSA, unpub., 1989.
24. LR82, pp 18-19.
25. Colac Herald 17/7/1907; Coronial Inquests VPRS 24/818/800 Public Record Office, Laverton.
26. LR41, pp 4-7; LR82, pp 6-11.
27. L. Harrigan, VR to '62, Melbourne 1962.
28. Information from Richard Horne.
29. Information from Reg Wilson & photographic evidence.
30. Wilson Stevenson
31. Colac Herald 25/11/1907; Coronial Inquest VPRS 24/823/1300
32. Information from Reg Wilson.

# OBSCURE MINING TRAM LINES

by Arnold Lockyer

Amongst the writer's more recent research discoveries on paper and on the ground have been the stories and relics of three little-known mining tramways, two in the out-blocks of South Australia and one in the Northern Territory.

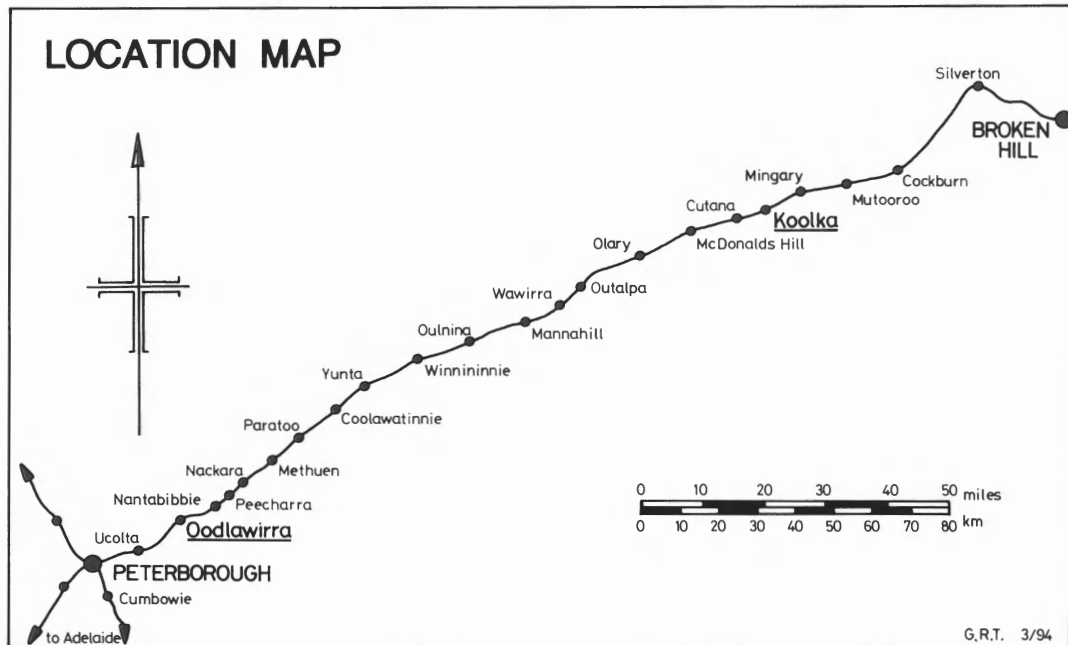
## Grant's Quarry:

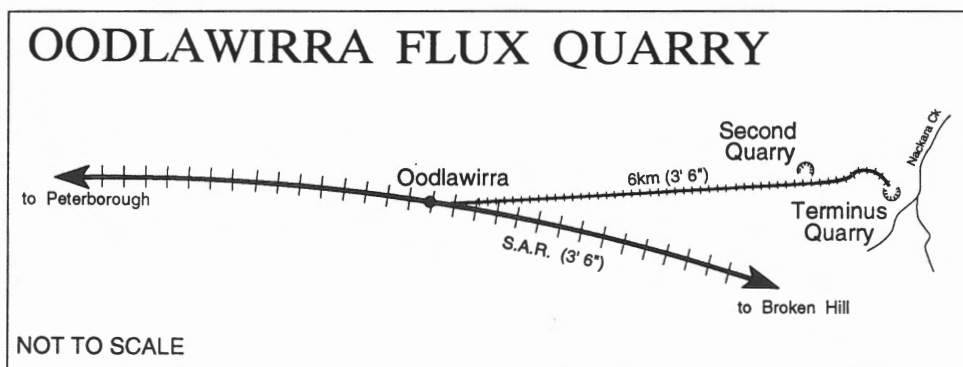
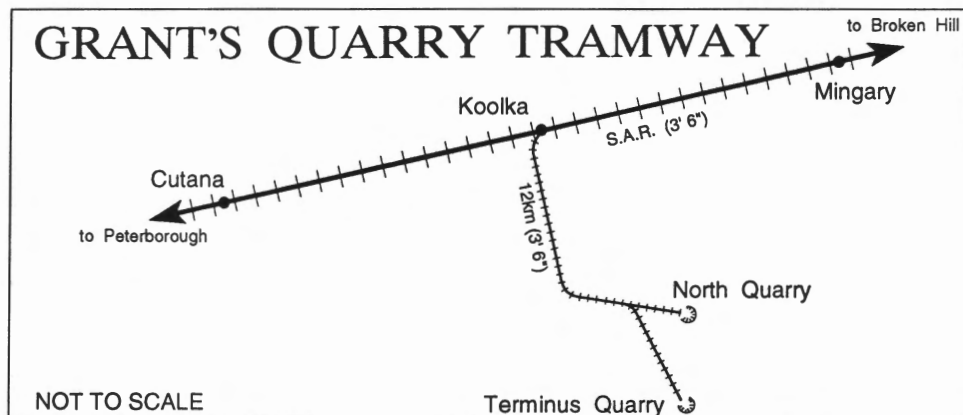
Following the discovery of the silver-lead lode at Broken Hill and the establishment of mining in the area, the first smelters were brought into commission in 1886. Smelting of the Broken Hill ore required flux in the form of iron ore and in several locations near the newly completed railway from Peterborough to Cockburn were deposits of suitable ore. It became possible to exploit these deposits with the completion of the Silverton Tramway in October 1887. In about 1892, a company called the Koolka & Mingary United Ironstone Flux Company Ltd built a tramway, 12 km in length, with a connection from the 3 ft 6 in (1067 mm) main line to Cockburn, at the 278.25 mile (445 km) point from Adelaide, to the ore deposit at Grant's & Cutana Quarries. The tramway ran in a southerly direction, almost parallel to the branch line later built to Radium Hill. During

the time Grant's Quarry was in operation, the siding at its junction with the main line was known as Koolka. Although later Mines Dept reports state that the mines were abandoned and the tramway removed 'when Iron Knob ore became available', this does not match South Australian Railway records. The Railway Commissioner's Annual Reports show various tonnages of ore originating at Koolka from 1892-93 to 1896-97. There are no figures recorded for 1897-98 and in 1898-99 the signals at Koolka were removed and its name disappeared from the map of the SAR. It is understood that the line was lifted during 1897-98.

## Oodlawirra Quarry:

About the time of the demise of the line at Koolka, another iron ore quarry, 6.5 km east of Oodlawirra, came into production. This was connected by tramway at Oodlawirra to the main line to Cockburn. The Railway Commissioner's Annual Report for 1898-99 records the laying of the junction and sidings, for which the SAR was reimbursed. For the years 1899-1900 and 1900-01, 530 tons and 1,179 tons of ore respectively originated at Oodlawirra, but





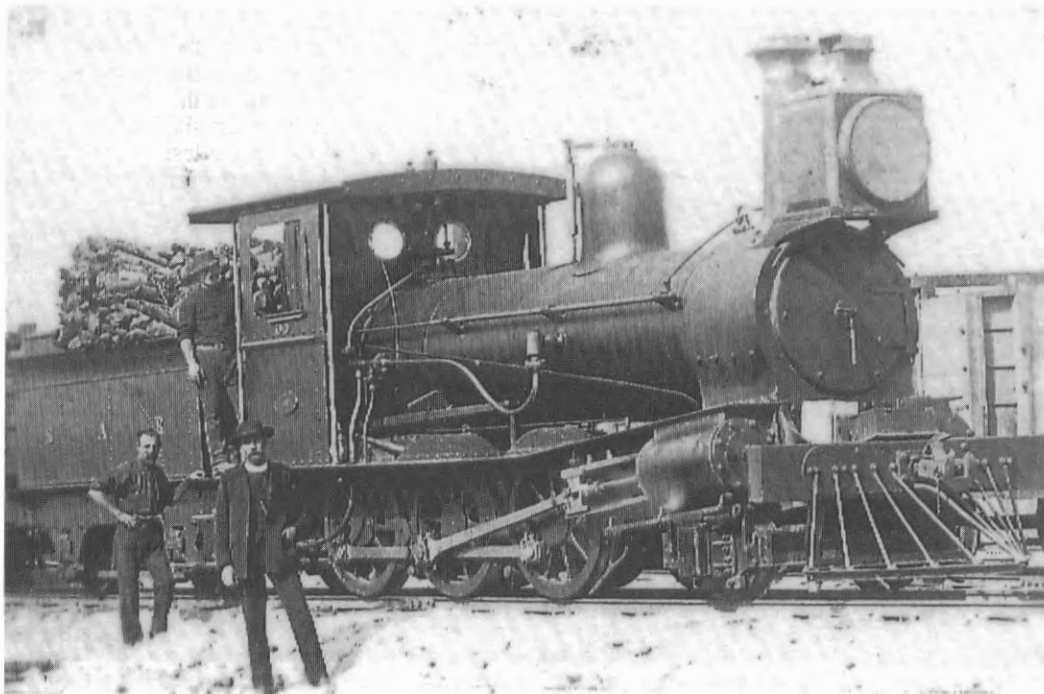
this output declined in the subsequent years to 166 tons, 66 tons, 12 tons and 16 tons respectively, indicating that the mine ceased operation when the Broken Hill smelters moved to Port Pirie and ore from Iron Knob became available. The quarry lay idle from 1906 and in 1919 the original lease holder, who is not named in any of the Mines Dept reports, resumed the lease, this time for ochre. Unlike the Koolka branch, the tram line had not been lifted when the carriage of iron ore ceased and was still available. In the early 1960s the late Lionel Kingsborough mentioned that one of his contemporaries, Harry Pearce, claimed to have worked the last train over the line when he was a Guard based at Peterborough. This would indicate that the line was likely to have survived until the 1920s or 30s.

### Motive Power:

Both the Koolka and Oodlawirra tramways were connected to the SAR main line, and were privately built. SAR records show that Docket RC1025/92 covered the hiring of SAR loco W27 to the Koolka Mingary Flux Co and this loco apparently worked

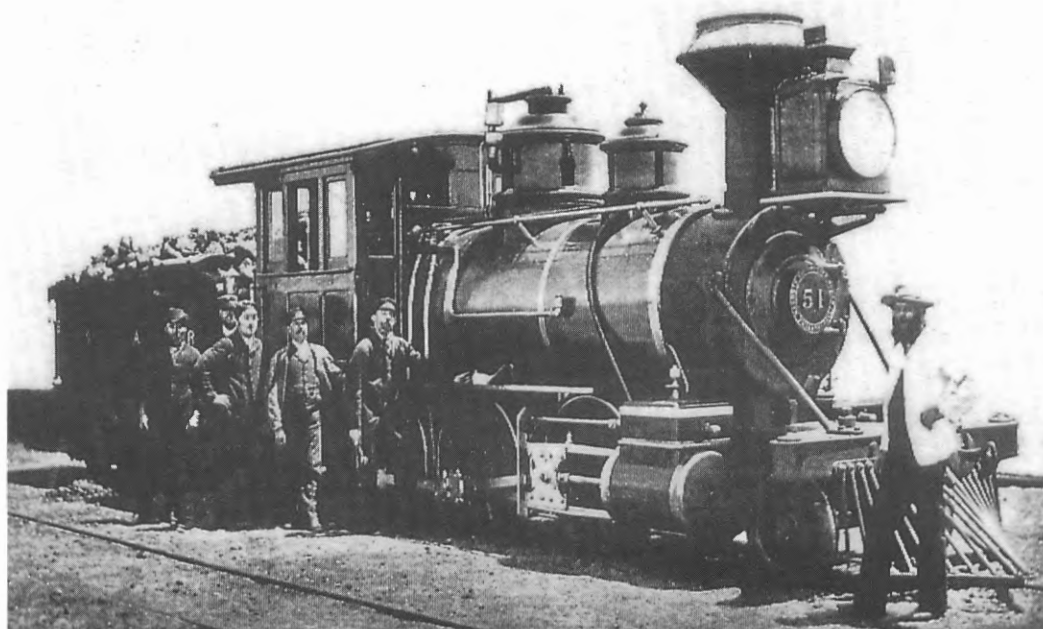
the trains on the branch line until February 1894. Port Dock Station Railway Museum member David Parsons has uncovered verification of this hiring of W27 to the mining company, and this explains how the ore despatched from the siding in 1892- 93 was conveyed from the Koolka quarries to the siding. From 1894 SAR Docket E226/94 records that SAR loco X50 was the first loco under SAR control to work over the 'Koolka Line - 8 miles long; 1/2/1894'. This working over the line appears to be confirmed by No 69 Special Train Notice of 31 January 1894 which says 'That portion of my traffic notice No 68, advising No 4 Up and No 3 Down will work on Friday 2 February between Koolka Quarries and Cockburn is CANCELLED. Nos 4 Up and 3 Down will work only on Thursday 1 February this week. Nos 4 Up and 3 Down will work on Mondays, Wednesdays and Fridays in each week until further notice, commencing on Monday 5 February 1894. Signed I. McArthur DES, Petersburg'. SAR locos continued to work the tramway until the end. After several false starts in 1981, two SA members of the





*Above: S.A.R. loco W53 (sister to W27) and of the type hired by the Koolka Co to work its tramway.*

*Below: S.A.R. loco X51. It was X50 that was the first S.A.R. loco to work over the Koolka tramway.  
Both Photos: Courtesy Port Dock Railway Museum.*



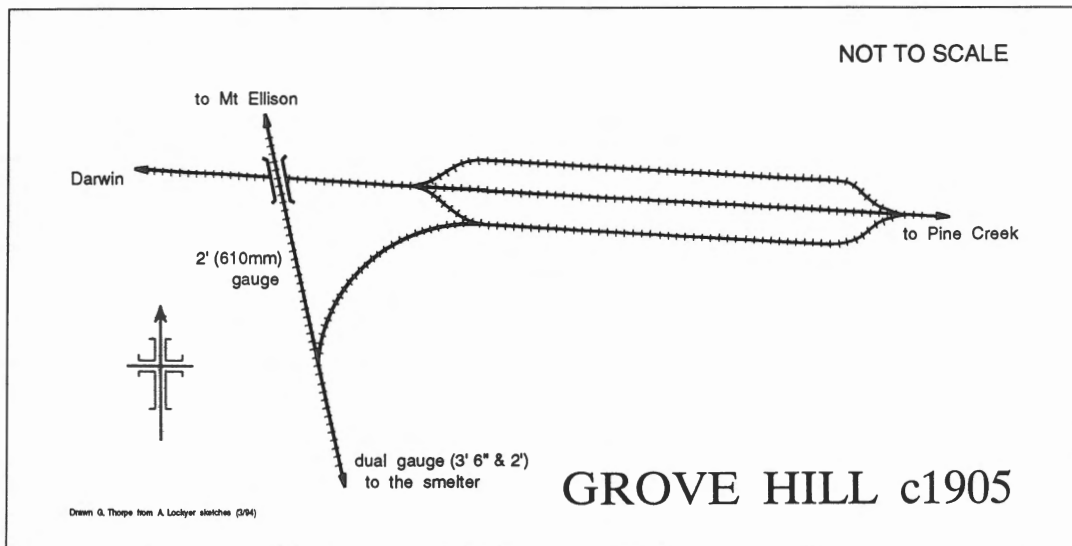


*Above: Koolka quarry area, looking north along the tramway formation 1981.*

*Below: Oodlawirra tramway cutting near the terminus, 1981.*

*Both Photos: A. Lockyer.*





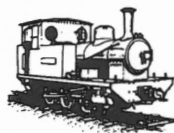
LRRSA managed to locate the roadbeds of both these branch lines and, with the permission of the land owners concerned, walked over and photographed the remains. Some of these photographs are reproduced in these pages.

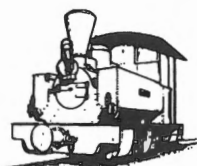
### Mount Ellison Tramway:

In the early 1900s, mining was very active throughout the Northern Territory. By 1902 the Northern Territory Mining and Smelting Co Ltd had established a copper smelter near Grove Hill railway station, midway between Adelaide River and Pine Creek on the SAR operated North Australia Railway and 180 km south of Darwin. The mining operation here was written up by R.K. Morgan in LR52, Winter 1975 so it is not proposed to repeat this apart from a brief overview. The company constructed a 2 ft (610 mm gauge) mining tramway from the smelter, 21 km northwards to Mount Ellison. A 3 ft 6 in (1067 mm) gauge spur line ran from Grove Hill station to the smelter to enable wagons to be shunted directly to the smelter sheds. This two km portion of line was dual gauge. At a point just south of the NAR main line the lines separated, with the 2 ft (610 mm) gauge tramway using the benefit of a cutting due west of Grove Hill station to cross over the main line en route to the mine. Two locos were employed on the tramway from around 1903 the first being Kerr Stuart 743, 0-4-2ST and the second, Kerr Stuart 797, 0-4-2ST, along with 40 wagons to carry timber and ore. By 1906, when the tramway was actually completed by the construction of a small section at the Mount Ellison end of the line, it was in its last

year of operation. According to the Chief Mining Warden, this final work 'was carried out more to obtain a refund of the deposit lodged with the Government as a guarantee of the construction than for the future utility of the tramline'. In February 1992 a small party from Port Dock Station Railway Museum, Adelaide, en route to Darwin for the 50th Anniversary of Japanese raids, visited Grove Hill to attempt to find and photograph any remains of the tramway. After a couple of hours of searching in thick undergrowth both the remains of the roadbed and the bridge abutments over the NAR were located. Unfortunately due to lack of time a thorough investigation of the whole area could not be undertaken, however the party was delighted with the find and many photographs were taken. Leaving Grove Hill the party saw what was believed to be where the mixed gauge track curved through the scrub en route to the smelter, and joined the Mount Ellison 2 ft (610 mm) gauge line. The party was satisfied that the present dirt road into Grove Hill off the main highway is built over the mixed gauge line from the station to the smelter - a distance of about two km.

*These articles were originally published in Catchpoint, July and September 1992.*





## LETTERS

Dear Sir,

### WEST MELBOURNE GAS WORKS

Recently while copying photos from a family album, I came across this image taken by my Grandfather with his half plate camera. The photo is untitled and undated but comparing it with the cover photo of LR No 90, it would appear to be earlier than 1890, as the cross arms on the telephone poles are a lot fewer. Grandfather lived at Albert Park in 1888 so I think the picture would have been taken around that era, obviously on a Sunday.

Claude M. Henderson.

Chirnside Park, Vic

Dear Sir,

### GLEN DAVIS/DENTON PARK

Firstly let me say how much I enjoyed Ross Mainwaring's article on Glen Davis. Whilst I never

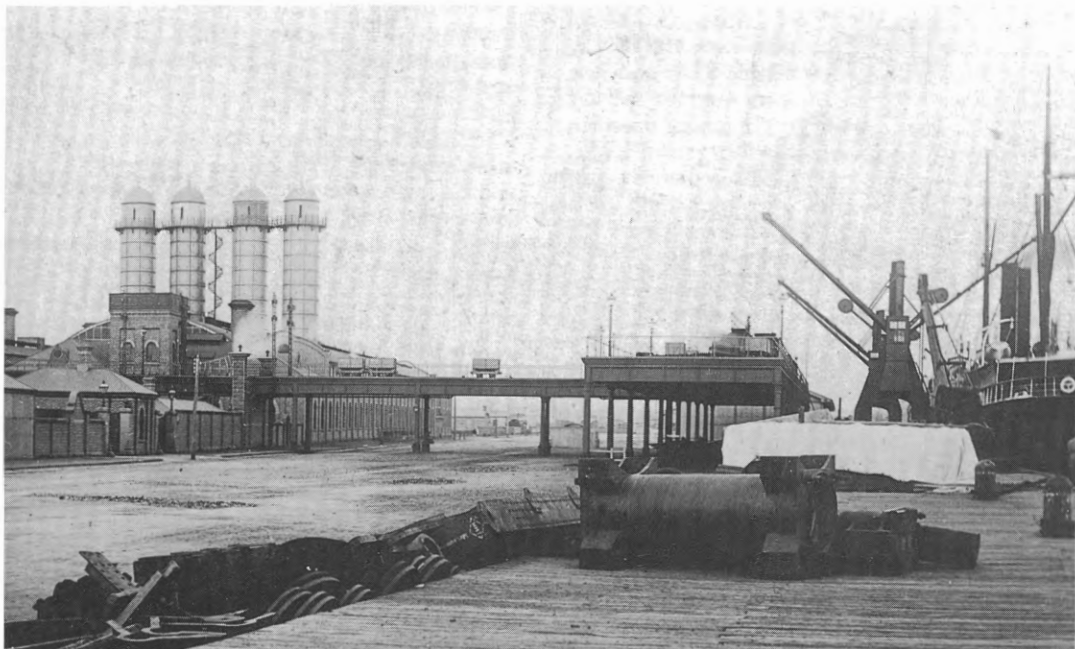
worked there in my youth I heard, first hand, many accounts of the happenings in the shale mine from some of the men mentioned in the articles and it is fitting that their tale has been put on record.

I wish to add a short postscript on one of the human aspects. Mr John Daniel Bowdler mentioned in the article was an astute Yorkshireman and a mining engineer of considerable experience, who came to Glen Davis from the Excelsior Colliery at Thirroul.

As mentioned, he resigned in 1947 from the position of shale mine manager to become the Cessnock Area District Mining Engineer with the newly formed Joint Coal Board. In that capacity he reported to my father who was the Board's Chief Engineer and I met him on a number of occasions and eventually I cajoled him into giving me a start in the coal industry.

By that time he had moved to Caledonian Collieries Ltd as Superintendent of Collieries. He retired from that position in 1965 to oversee his own mines. (Haystack Colliery at Clandulla and Bulli Main Colliery at Coledale).

When Glen Davis closed he was in the position to seek out and employ his trusted hands from the shale mine in the various mines owned by Caledonian Collieries. Some of whom he had brought with him





there from Excelsior, so that when I worked at Waratah and West Wallsend Extended Collieries there were also a number of men there who had worked at Glen Davis.

### Denton Park loco

I noted with great interest the letter from Bob Driver relating to the photograph of a locomotive said to have worked on the Denton Park Colliery railway. The matter of Denton Park Colliery has exercised my mind over many years. It was only late last year that the prominent curved embankment just east of the New England Highway at Rutherford was bulldozed as part of a subdivision. Some years ago I walked the remains of the line and it was my opinion that the standard gauge siding actually came some half mile or so from the main line and that there appeared to be the remains of a exchange point (mine screens ?) at that point.

Let me introduce another possibility. In the same general area there was another narrow gauge line which ran between Greta and Leconfield Colliery; the remains are still clearly visible and it is believed that this line was locomotive worked.

In fact one description of Greta Colliery includes a reference to a 'steam tramway'. Recently I purchased a book commemorating the 150th anniversary

sary of Greta.

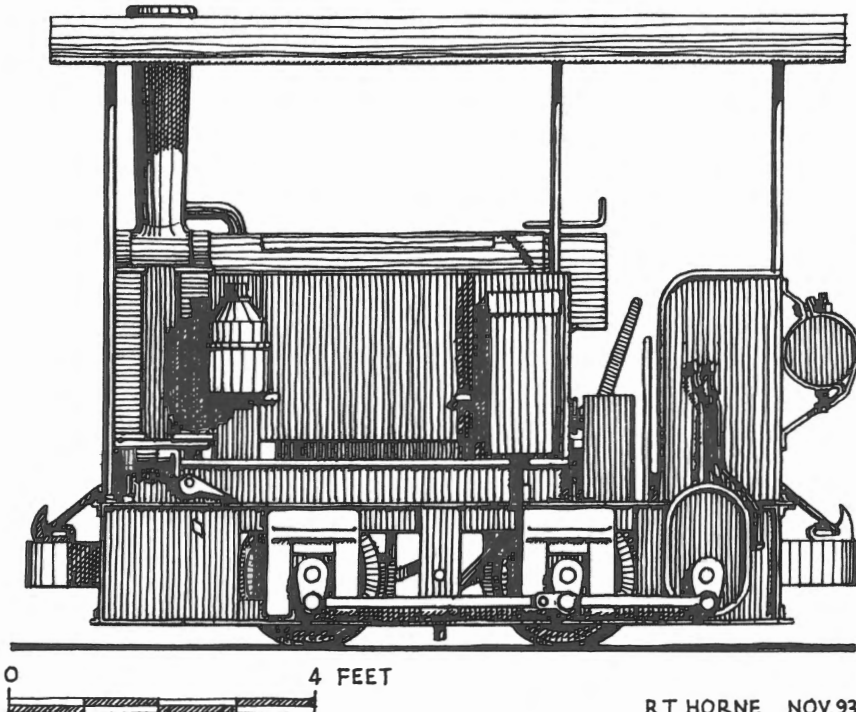
I had hoped to find a photo of this line in use but that was not to be; there was one reference and I quote:- 'Leconfield Colliery was opening a new colliery in 1889. A 81 cm (2 ft 8 in) gauge railway was under construction in 1889, to link Leconfield Colliery with the Branch Line at Greta Colliery. Under the terms of the Leconfield Coal Mine Railway Bill of 1889 this railway was to be widened within three years to the NSW Standard gauge but it is uncertain if this ever took place'.

There is a well-known photograph taken around 1900 with the mine manager, engineer, surveyor, and under-manager all posed around the standard gauge locomotive at Greta Colliery.

I have just compared both pictures to see if the surveyor was the same; he was not, though the confident gaffer with his hand on the hot safety valve quill bears some resemblance to the mine manager.

So the date is appropriate, the gauge of the line matches and I will throw my hat in the ring and suggest the Leconfield Railway as an alternative location for the photograph.

**John Shoebridge**  
Dora Creek, NSW



*Blackstone & Co. Ltd. 0-4-0 Petrol Mechanical Loco (see letter p.26)*

Dear Sir,

### BANNISTER HEAD LOCO?

David Burke's note on page 5 of *Light Railway News* 96 (October 1993) concerning a photograph of a small steam locomotive on the jetty at Bannister Head in the book 'A Pictorial History of the Shoalhaven' needs comment. The locomotive in the photograph is, in fact, not steam but a 0-4-0PM built by Blackstone & Co Ltd of Stamford, England. Blackstone first produced these narrow gauge 25 hp, 3 cylinder locos in 1921 (the year the Bannister Head jetty was built) and they were marketed by J & F Howard Ltd of Bedford. My drawing on p.25 of a typical example shows how, in an indifferent photograph, it was easy for David to mistake it for a steam loco.

The 2 ft gauge line at Bannister Head was operated by Newbolds General Refractory Co, and ran from their silica quarry at Pattimore. Another photograph of the line shows a Motor Rail 'Simplex' 4wDM, also with an all-over roof. This is quite possibly MR 5944/1936, ordered by Frank Saunders Ltd of Sydney. According to the MR records it was 'fitted with cab', being a 32/42 HP, 5 ton model.

A third locomotive used in the line was an 0-4-0WT. OC, Krauss 2179/1889. It was purchased by Newbolds in 1936, used at Pattimore until 1938 when it was transferred to their Thirroul clay pit (where it was converted to 4wPM) and transferred again in 1945 to their Home Rule quarry near Gulgong. Withdrawn circa 1946, it was derelict until preserved in 1974, subsequently being restored at the ILRMS, Albion Park, NSW.

**Richard Horne**  
South Croydon, Surrey, England

Dear Sir,

### WHAT IS A LIGHT RAILWAY?

The attached two photographs have been in our collection for some time, and could be of interest to fellow devotees of light railways. One shows a traversing winch at the Trunkley Gold Fields (p. 28), the other an oil-engined gantry crane at the Botany Sewerage Farm (p. 27). While the operations are vastly different, they both appear to raise the same question. When does a 'light railway' cease to be classifiable as a 'light railway'?

Quantifiable descriptors such as gauge, length of line, motive power, purpose, operational characteristics etc do not provide differentials adequate to define what is a light railway. British legislation is equally unhelpful. While gauge and ownership may be useful in dividing off light railways from government owned systems at one end of the spectrum, none is sufficiently definitive to divide off light railways at the other end.

Both lines in the two photographs ran on rails, ran on flanged wheels affixed to axles, moved goods from one point to another, were operated by management whose core business was other than running a railway etc.

Yet, as we peruse these photographs there is the uneasy feeling that, what we are looking at is more a piece of machinery, rather than a 'railway' (irrespective of being light or heavy). Readers are invited to submit other curiosities and comment on the topic in general.

**Jim Longworth**  
**Bruce MacDonald**

Dear Sir,

### DENTON PARK LOCO (LR 120 p.36 & LR 122 p.23)

More close examination by Phil Rickard of the photos of the Andrew Barclay locomotives referred to as the 'Denton Park' loco is not the one which became 'Squirt' (Barclay 311), and therefore can be provisionally identified as Andrew Barclay 310.

Not only does the later photo of 'Squirt' show a loco with brass spectacle cab window surrounds which are missing on the Denton Park loco as mentioned previously but there is a distinct difference in the rear cab stanchions. That on the Denton Park loco is curved at the top while those on 'Squirt' appear straight. In addition, the bolts attaching the cab roof to the stanchions appear to be placed further forward on the Denton Park loco than those on 'Squirt'.

**John Browning**  
**Mackay, Q.**

Dear Sir,

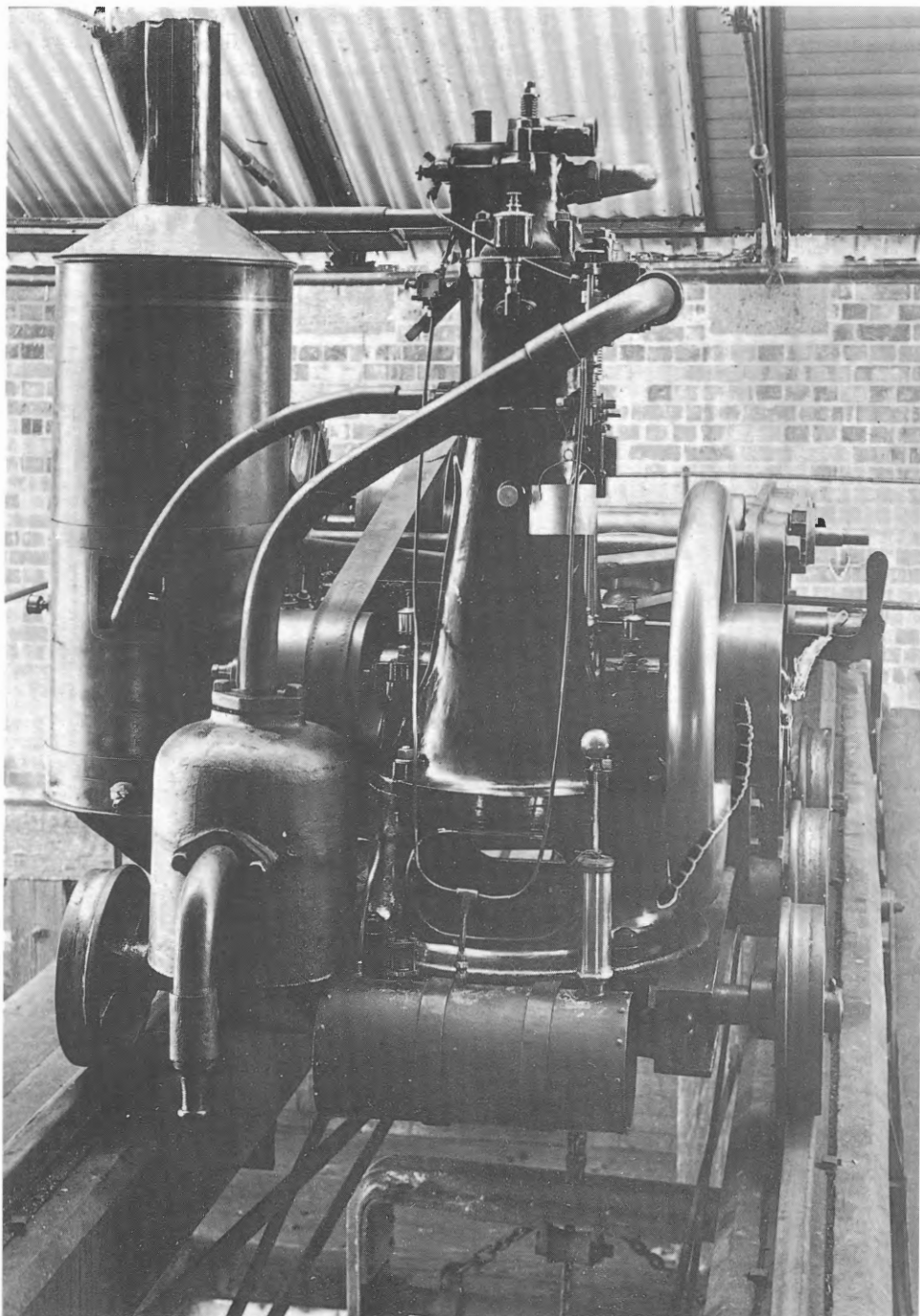
### TASMA HARDWOOD COY LOCO, LR 95

The attached photos on p.29 and 30 illustrate the loco at Lobster Creek. The ability of members to turn up photos of light railways, after a line has been described in the press, is both enjoyable and frustrating. Perhaps if the Editor were to advise some members prior to going to press, contributions from others could be collated and published together, so presenting a more complete story in a single place.

Perhaps a better idea would be for the Editor of LR, to publish a DRAFT listing of upcoming LR articles in LRN. This would both whet our appetites and offer people with material that might be relevant the opportunity to submit same to the Editor of LR for consideration.

**Jim Longworth**  
**Cheltenham NSW**

(See Editor's note on page 28)



*What in a Light Railway??? (See p. 26).*



*Full size reproduction of the photograph appearing on the front cover (see p. 26).*

*Photo: NSW Dept. of Mineral Resources.*

*(Editor's Note: — See letter page 26)*

*This is a good idea in principle but in practice it is not always possible. Anyone involved in the production side of a newspaper, magazine or newsletter will tell you that each issue is usually thrown together at the last minute and the furthest horizon is no more than two days let alone two weeks. Light Railways depends on members' contributions and although the editor spends a lot of time soliciting, cajoling, arm twisting, telephoning and writing to potential contributors the flow of articles is not always steady, rather it is infrequent deluges and long arid periods. Nevertheless, by dint of good management and relentless application, the editor has assembled a stunning array of articles for the next three to four issues. Topics proposed to be covered are W.A. Woodlines (Gwalia & Lakewood), Tullah Tram Ride, Longworth's Kendall tram, East Otway reminiscences, Henry's locos and Cameron & Sutherland loco sale catalogue. Pics are wanted for the Kendall & Woodline articles as the illustration cupboard is bare. Finally, it bears remembering that the magazine is the members' magazine so it is up to members to contribute something every now and then and not expect the editor to conjure up articles or pad out the spaces with pics.*

Dear Sir,

### **BALDWIN LOCOS LR123**

I was very interested in the article on the Baldwin loco in LR123. I have a drawing of a slightly larger type 6-10 1/3C copied from Narrow Gauge Gazette Jan/Feb 1968. The loco top right page 15 'No 8 Tankie' is a QR 4-D10,2-4-4. There were a couple of different wheel arrangements for this class and they were built from spare parts of A & B classes. The frames were extended front and rear for the one pictured, and also they had an extended smokebox. Another, using standard A10 frames, had an extended front only and a 2-4-2 wheel arrangement.

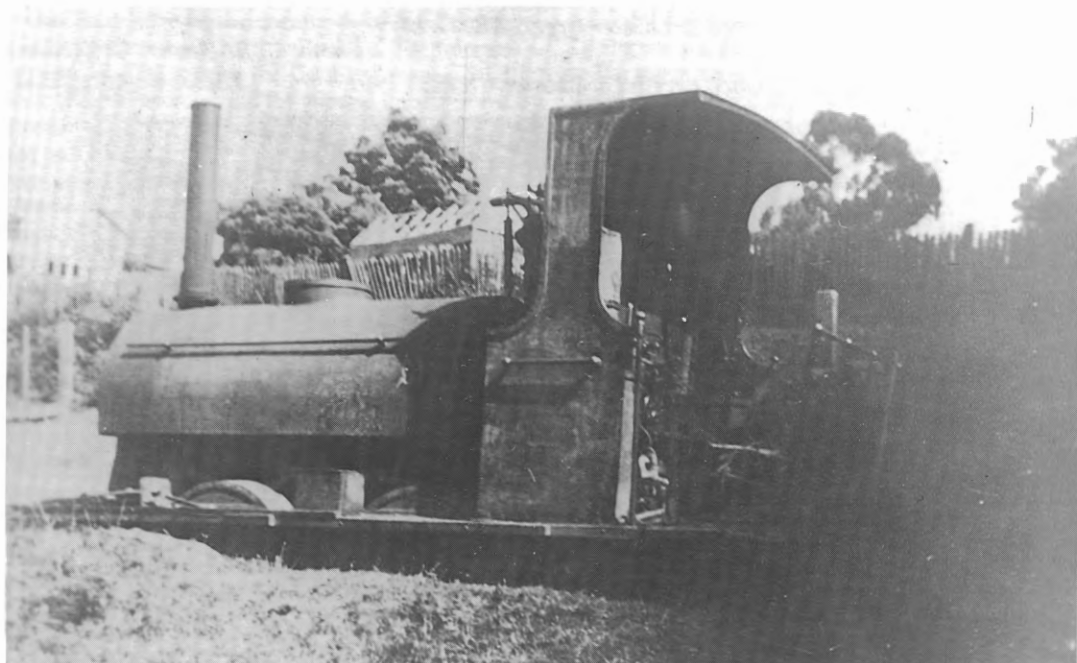
**Joe Burrell**

**Fairfield, Q**

Dear Sir,

### **NEW GUINEA MYSTERY LR 93 AND 97**

In his extensive Chronology of Trams and Railways in Papua New Guinea, Michael Pearson suggests that man and beast were the prime source of motive power on the many light railways which once operated in that country. Many of the early lines which we are aware of, such as the NGK tobacco operations at Stephansort and the SVD tramways at

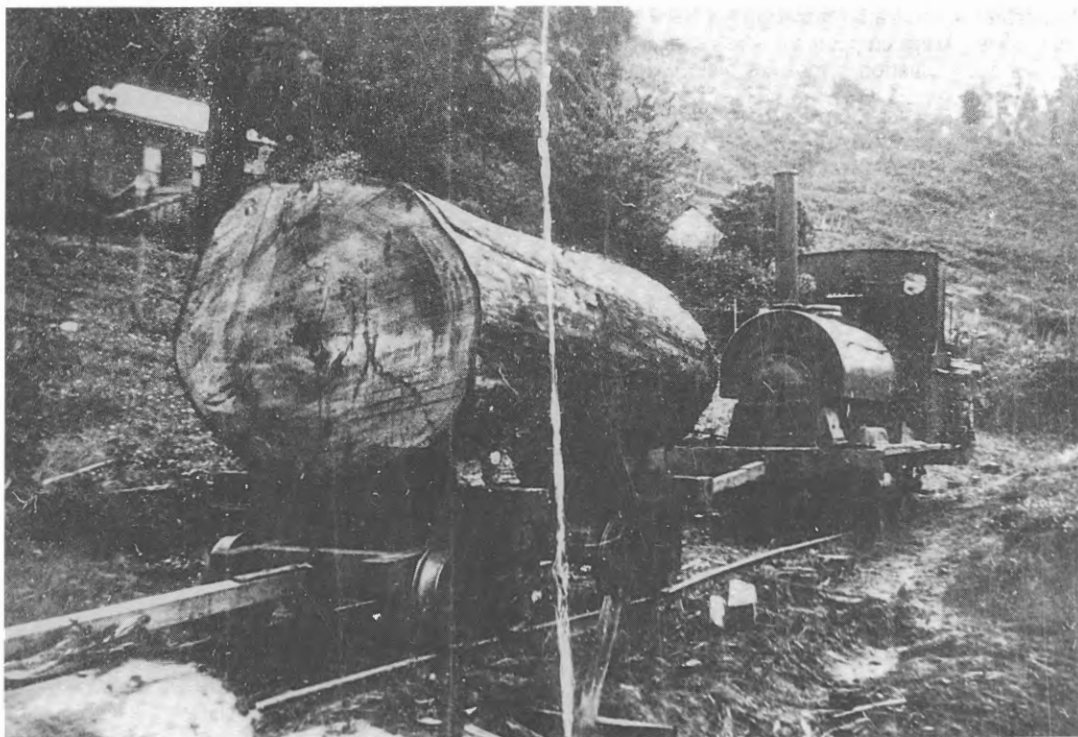


**Andrew Barclay 211/1879**

**Tasma Hardwood Co loco at Lobster Creek.**

**Photo: C. B. Thomas Collection.**





*Above: Tasma Hardwood Co loco at Lobster Creek, AB211/1879.*

*Photo: C. B. Thomas Collection.*

*Below: Tasma Hardwood Co loco derelict at Lobster Creek c. 1961.*

*Photo: B. Macdonald*



Alexhafen, were clearly operated by animal power but evidence keeps cropping up which suggests that the German plantation companies may have made use of locomotives.

Historians have mentioned illustrations of steam locomotives in old German New Guinea documents, though they keep losing the references! Krauss 0-6-0 MORETON (4687/1901), which arrived at Moreton sugar mill in southern Queensland around 1905 is reputed to have come from a German plantation in New Guinea, although the Krauss list states 'for Aust'. More interesting is the report in CRJ91 (Autumn 1992) from Jukka Nurminen of Helsinki that Ernesto Quincke, a contractor in Uruguay, delivered three replacement boilers (O&K 11544-6/1927) to New Guinea in 1927 and in 1929 Empresa Constructora Costermilla SA of Uruguay delivered three 0-4-0Ts of 600 mm gauge (O&K 11991-3/1929). Richard Horne advises that Martin Murray's O&K Steam Locomotive Works List 1892-1945 shows boilers 11544-6/Oct 1927 as 'Ernesto Quincke, Neuguinea'. The list states that OK 600 mm gauge 0-4-0T's 10512/1924, 11012/1925, 11014/1925 and 11355/1927 went to 'Ernesto Quincke, Montevideo', while the ECC SA locos are listed as going to 'Neuguinea'. This could refer to Dutch New Guinea.

Our knowledge of the operations of the German plantation companies remains sketchy. The ravages of war, tropical mould, the German language and their archival sources, and the adverse impact of the frontier on maintaining company records have made the task of tracking the fortunes of various railway ventures a difficult one. Although the official German Annual Reports make no reference to plantation tramways outside the Gazelle Peninsula, it is my belief that the significant tramway systems which operated on Bougainville Island and possibly Lindenhafen date from German times.

Of the known lines, Soraken (22 km), Kunua (12 km), Teopasino (4 km), Banio (5 km), Arigua (5 km), Boau (4 km), Numa Numa (6 km) and Lindenhafen (variously recorded as 7.5 km or 20 km) were of sufficient stature to warrant steam locomotives. Although no documentation of the O&K locomotives and boilers has been located in PNG, the timing would have followed the Burns Philp takeover of plantation tramways at Soraken, Lindenhafen, Boau and Kunua from the Expropriation Board. No doubt there was a need for rehabilitation of the systems and rolling stock after 15 years of neglect. We have reports of small Lister-powered locomotives operating at Soraken, Kunua

and Arigua by the mid-1930s, but the possibility of earlier steam operations remains. I have received a first-hand report from a kiap (Patrol Officer) who visited Lindenhafen Plantation in 1955 and noted a steam locomotive housed in a shed, while the railway was operated by a home-built locomotive based on a Ferguson tractor. Michael Pearson advises that the post-war operations Burns Philp at Soraken and Kunua were definitely of 2 ft gauge and used Australian or British material. However, a set of wheels on a truck he purchased from the Catholic Mission at Tubiana was a 600 mm gauge O&K product. He believes this may have come from Numa Numa plantation, as rails from this operation have been found embossed GHH-11B (Gutchoffnungshutte Oberhausen).

I would be grateful to any readers who can comment further on the possible destination of the O&K locomotives and boilers or the origins of Krauss 4687. Research into the records of the German locomotive builders and plantation companies may yield further information.

Readers may also be interested to note that thanks to the efforts of Ray Graf, it has now been established that US builder Brookville shipped one of their 1704, Model BFA 4 wheel, 2-ton petrol-mechanical locomotives of standard gauge to the Bulolo Gold Dredging Company at Salamua (optional Lae), New Guinea on 30 June 1932. The Lae airport railway was reported in LR 97 to be of 5 ft 3 in gauge, though I understand this statement was based on photographic evidence. I have seen contemporary reports of a small petrol locomotive operating at Lae. It appears that this may have been the Brookville and therefore the railway would have been standard gauge.

**Bob McKillop**  
Castlecrag NSW

Dear Sir,

### **THOMSON VALLEY TRAMWAY** **LRN No 17, August 1980, p8.**

On the side of the Thomson Valley Road near the 13 km post are two sections of light steel rail and points. They are in the left side gutter where the road turns on a spur, with a big clear view on the right, so maybe everyone looks there and so does not see them.

The road is usually right on Ezards line, and recent road works on the right side may have dug them up. Go and photograph them soon!

**J.A. Ovendon**  
Melbourne, V.



*Remains of the only embankment of any size on the Oodlawirra Quarry Tramway, 1981.*

*Photo: A. Lockyer*