



## Field Reports

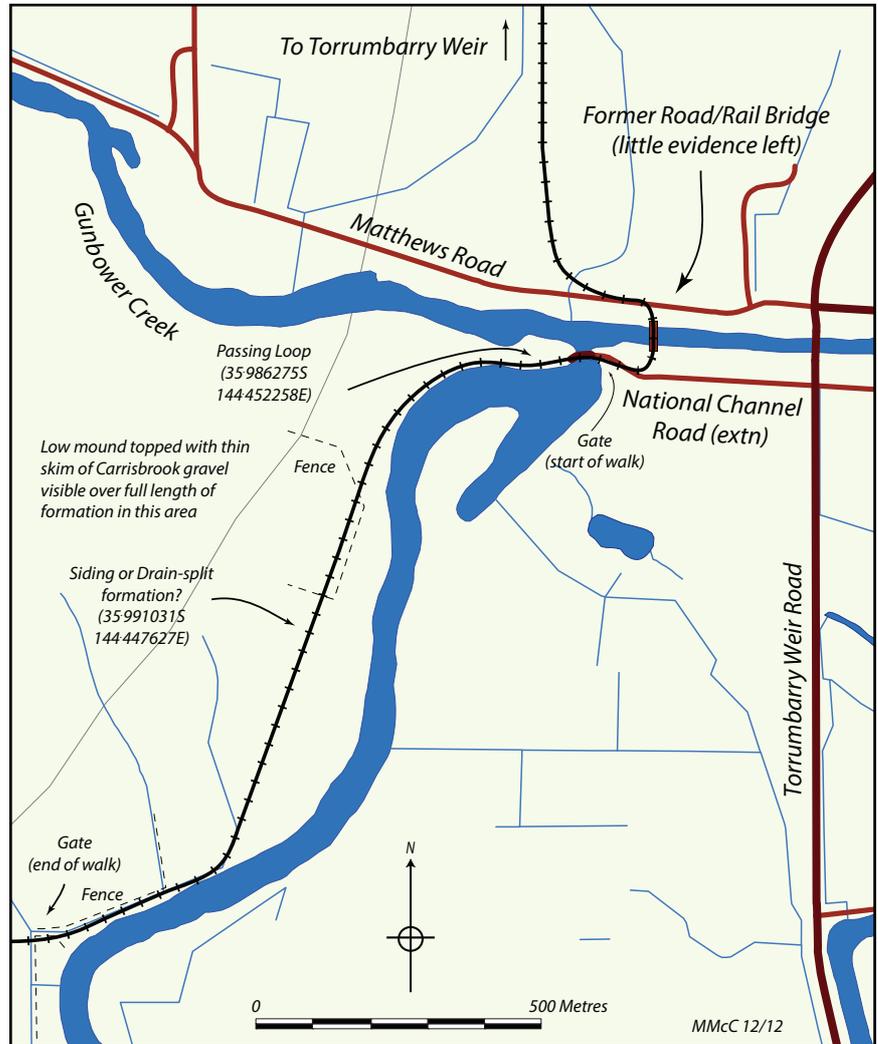
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### Old Fogeys' Torrumbarry Gallivant 2012 SRWSC Torrumbarry weir construction tramway, VIC (LR 22,24,73,74)

After a successful visit in 2011 to confirm the route taken by the Torrumbarry Weir construction tramway, a return visit was made on the 19/20 December 2012 with the aim of further exploring the tramway south of the Gunbower Creek crossing and any formations discoverable in the vicinity of the construction camp site, close to the weir.

Participants included John Dennis, Peter Evans, Colin Harvey, Chris Wurr and Mike McCarthy. The morning of the 19th was spent getting to Torrumbarry and the commencement of our exploration in blisteringly hot conditions at the end of the National Channel Road extension.

Last year's visit had led to the discovery of the formation of a 90 m passing loop 50 m from the culvert crossing that marked the start of our exploration (and first discovery!) last year. The newcomers were given the opportunity to inspect the site before we headed off along the formation. Exploration is easy in this sparsely vegetated country and the task in this case was made all that much simpler by the fact that the tramway was ballasted with Carisbrook gravel.



The gravel was recovered after the line was dismantled back in 1924 but the thin skim of remaining material provided a positive indicator that we were on track. Such an indication wasn't all that necessary in this area however as most of the alignment sat on a raised roadbed to aid drainage. The formation was followed over the 500 m to the property boundary which marked the end

of the last year's exploration and the start of "new territory". We skirted the property fence line which turned towards the south west and, fortunately for us, ran parallel with the tramway formation at only 50 m or so distance. The formation was clearly visible in the adjacent paddock.

Another 176 m brought us back to the formation as the fence line vectored away to the west. At this point however the formation had changed. On first appearance it seemed we were following another loop or siding of some sort. The proximity to the earlier loop would logically have ruled this out and the space between the two formations was narrower than that at the loop which cast doubt on it being a double set of rails. Ideas of a later constructed drain or irrigation channel cut along the centre of the formation were also explored but without a conclusive answer being reached. The anomaly covered a distance of over 530 m which would have been exceedingly long for a loop or a siding. At 1.2 km from commencement the formation entered a curve to the south west and a further 300 m brought us to a gate and the end of our trek. We thought this led to private property hence our reluctance to continue. A later check found that the land was in fact a Crown Lands road easement which we could have entered. After returning to the cars a brief inspection was made of the site of the former bridge over



The site of Gunbower Creek Passing Loop, 19 December 2012.

Photo: Mike McCarthy



Gunbower Creek. Some nails, probably from the bridge, and what may have been the remnant of a sleeper were found. The remainder of the afternoon was spent inspecting road crossing points and the site of Torrumbarry Weir Siding. No clear evidence of the formation was found at any of these locations although we were able to inspect the other end of the road easement we had walked to earlier. We could clearly see the gate we had reached in the distance and a superficial visual check along the alignment indicated nothing of obvious interest.

The expedition then retired to Echuca for sustenance, rehydration/pontification (the two seemed to go together), and rest.

The following day, suitably refreshed and refuelled, our focus turned to the Torrumbarry Weir works area and commenced with an inspection of the very well fitted out Visitors Centre. Along the way we were able to positively identify the location of a photograph in our possession. Interestingly the most compelling point confirming the location was the presence of two trees with distinctive shapes in both the c1922 photograph and the same scene 90 years later. Amazing!

In the Visitors Centre there are a number of very interesting photographs depicting construction of the weir and the lock including several showing tramway scenes.

With the aid of aerial photographs we determined the location of the construction camp and with five of us on the job the expedition set out on a reasonably systematic search (aided by a healthy and interesting dose of anarchy) for formations. After a wild goose chase along what turned out to be a low levee bank (would have

made a perfect 2ft gauge tramway formation!), we came across the "real McCoy" 930 m south east of the Visitors Centre. Although nothing was found on the ground the tramway from Torrumbarry Weir Siding had clearly followed present day Torrumbarry Weir Road into the works area but at this particular point a branch line had been laid to the south east. It was known that two sand tramways were laid from the works and it is most likely this was one of them. Faint outlines of sleeper impressions could be seen along the way. The formation was followed for 400 m through the scrub when time constraints forced a return to the cars.

A third visit by the Old Fogeys is planned for next year when this formation will be followed and mapped hopefully in its entirety. More research over the next few months will, with a bit of luck, provide a hint as to the direction of the second line. *John Dennis, Peter Evans, Colin Harvey, Chris Wurr and Mike McCarthy* (Dec 2012)

### Grant's Ironstone Tramway revisited,

**Koolka, SA (LR 125)** 1067mm gauge *Light Railways* issue 125 of July 1994 contains the late Arnold Lockyer's brief history of a tramway which ran from Koolka on the Peterborough to Cockburn line of the South Australian Railways.

Arnold's history is brief because the life of the tramway itself was brief – about five years. For readers with no access to that issue of LR (it is still available from the online shop) I recount the details, that in "about" 1892 the Koolka & Mingary United Ironstone Flux Company Ltd built a 3ft 6in gauge tramway junctioning from the Peterborough – Cockburn line at 278¼ miles

ex Adelaide. The location subsequently became known as Koolka. The line ran to Grant's and Cutana Quarries for the purpose of extracting ironstone. This was railed to Broken Hill and used as flux in the smelting of silver, lead and zinc.

Varying tonnages of ore were railed out from 1892 to 1897, when it appears from S.A.R. Annual Reports, that the line ceased to operate. In 1897 smelting of Broken Hill ore was transferred to Port Pirie, apparently using iron ore obtained from Iron Knob on the opposite side of Spencer's Gulf.

In the 1897-98 Annual Report, it was listed that the signals had been removed at Koolka and thus the name disappeared from the S.A.R. map. S.A.R. records show that their 2-6-0 loco W27 was hired to the Mingary Flux Company (from opening of the line?) until February 1894, and from 1st February 1894, 2-6-0 loco X50 was used over the line under "S.A.R. control". This seems to indicate that S.A.R. crews ran the trains on the line after 1 February 1894.

In 1981, Arnold and another member of the society inspected the line, which was understood to have been lifted during 1897-98. Whilst the schematic diagram of the line that accompanies the article is essentially correct, there is no description of observations made by these two gents.

On 7 November 2012, Victorian members Chris Wurr and Trevor Penn inspected the line to the terminus, using 4WD and walking. Permission was readily given by the property owner. When asked if he knew about the railway, he said he did, because his father (the previous owner?) had pointed it out to him when he was a young lad.

Detailed maps of any smaller scale than 1:250,000 do not exist of the area, so a compilation of Google Earth images was assembled and waypoints of key features ascertained before the trip commenced.

The ruler feature on Google Earth indicates a total mileage from Koolka to the terminus quarry to be 13.98 km (8 miles 55 chains).

At Koolka there is no sign whatsoever of the siding or the tramway. If there were ever any remnants of both prior to the conversion of the railway to standard gauge in early 1970 and the vast improvements to the road which is now called the Barrier Highway, both works have completely removed all trace.

Once clear of the Koolka siding in a direction facing up main line trains, the line curved southwards, crossed the Peterborough – Broken Hill Road and ran for six miles on long tangents with only three slight curves. This section of the line was not inspected on the day for several reasons. It mostly runs through a different property and we had not sought permission to enter. Also there are no gates in the fence through which to access the paddock. From Google Earth there were no discernible features worthy of investigation and lastly there are no vehicle tracks in the vicinity of the roadbed and with the prospect of some 19 kilometres return -- the distinct possibility of staking a tyre was not considered a worthwhile risk!

Undoubtedly the most interesting feature of the line is the turning triangle at 8.75 km (5 miles 35 chains).

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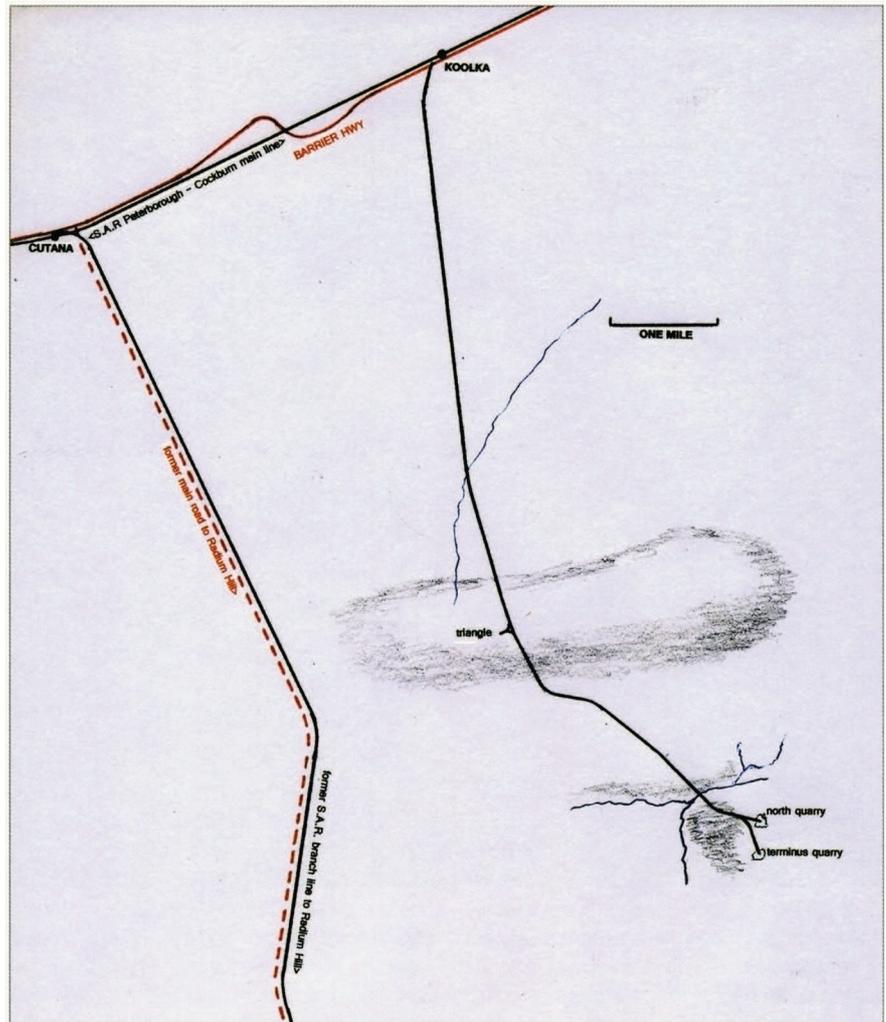
Curiously the July 1994 *Light Railways* article makes no mention of this remarkable feature. It sits astride a broad flattish hill and from this point back to Koolka the line falls or is relatively flat all the way.

Thus it would appear that the triangle was used as a location to build the train up to a maximum load for the run in to Koolka. The other reason for the triangle is to turn the loco and wagons on the outbound journey, as neither quarry had run around facilities.

The end of the triangle apex was difficult to determine precisely, but was at least 60m in length and the two legs were on curves calculated to be of 120m radius. The apex was also quite probably used for loading wagons from the nearby source of ironstone.

Continuing southwards, the line was at first carried on an embankment of about 1.8m in height at its highest, which a watercourse has breached at one point, then cresting the hill, it began falling firstly through a very shallow cutting of about 600mm depth, then onto a long tangent embankment of 2.5 to 3m in height, eventually regaining ground level. At the foot of the gradient, the line once crossed a sandy dry creek bed. This creek has no doubt flooded and scoured the area out numerous times since the line's operation, and there is no sign at all of a low bridge having been employed. However, on the far side of the watercourse is the embankment for the line. and the end of it at the watercourse has been stoned up.

From this point the roadbed rises very gently on a low embankment, then in a very shallow cutting to the point where the north quarry\* siding points were located. The line into this quarry was tangential, with the "main" line curving to the right as it climbed a low rise. At this point, both the quarry siding and the main line passed



through separate shallow cuttings side by side. The quarry siding then runs down a ramped cutting onto the floor of the quarry and is about 230m long from the points.

The siding cutting opens out into an irregular-shaped excavation of about 2.5m in depth, maybe 15m wide and perhaps 9m to the back wall.

\*as named on the schematic map accompanying Arnold Lockyer's 1994 article.

The main line continued on a very slight rise and curved to the right, to then run tangentially to the terminus quarry. As with the north quarry, the line ran down a ramped cutting onto the floor of the pit. This last quarry was of roughly the same size as the north quarry – maybe a little wider at 18 to 21m.

Except where indicated above, at cuttings and embankments, the entire line was laid on the natural ground surface. The only piece of rail found was a 4 inch section of 40 lb T rail, which we presume indicates that the line was laid in its entirety thus. This accords with the contemporary standard of the Peterborough to Cockburn line. This little piece of rail was found very near southern points of the triangle and no doubt was a filler piece for the pointwork.

Evidence shows that the entire line was ballasted in ironstone clumps about fist sized. Numerous dog spikes were found, along with the square heads of fishplate bolts. These had been snapped off and suggest that the old tried and true method of pinging them off with a sledge hammer on a freezing cold, frosty morning was employed when dismantling the line.

The use of ironstone (ferric oxide) as flux in the smelting process at Broken Hill is interesting. Calcium Carbonate mined and railed from the Tarrawingee quarries (see *Light Railways* 33, Spring 1970) was also used as flux in the smelters at Broken Hill. Two vastly different mineral materials used as flux for smelting the



The embankment leading to the north quarry face, 7 November 2012.

Photo: Chris Wurr



*Koolka Tramway terminus with the quarry cutting on far side, 7 November 2012. Photo: Chris Wurr*

output of Broken Hill mines could probably not be imagined.

The answer lies in the type of precious metals required to be extracted. Silver, lead and zinc comprised the majority of metals sought at Broken Hill. Calcium Carbonate flux is ideal for extracting zinc and lead from the ore body, but ironstone flux works better for removing lead.

From south of the triangle hill to the end of the line, ironstone abounds, either outcropping or simply lying on the surface. At face value, it would appear that the full length of the line from Koolka to the quarries, could very well have been ballasted with ironstone picked up off the ground surface south of the triangle hill.

The layout of the SAR siding at Koolka is unknown, but assuming a run-around loop with main line points at each end, the most logical method of operation of the line would possibly be that the locomotive hauled a rake of empty wagons from Koolka to the triangle, turning both loco and wagons. Perhaps leaving some empties on the apex for loading, it propelled the rest of the trucks to one or both of the quarries. On the return, the loco hauled the loadeds straight to Koolka, perhaps picking up loads off the triangle apex. The run with a full load from the triangle to Koolka would have been an easy journey due the favourable downhill drop off the hill and flat ground to the S.A.R.

The financial health of the Koolka & Mingary United Ironstone Flux Company could not have been great. The cost of construction of the 8½ mile line would appear likely to outweigh the profit made from a mere five years of ore harvesting and mining. Stockpiling the material would have been labour-intensive. There are no signs at all of the workers having lived at or near the ironstone deposits in this very harsh environment. And one doubts if there was ever anything in the way of a settlement at Koolka. Perhaps they "commuted" daily from nearby Mingary?

With the shift of smelting from Broken Hill to Port Pirie in 1897, the ironstone found in this

area was no longer required. However this was not the end of mineral exploration in the immediate area. Between 1915 and 1917 the search for copper saw the location busy with mining activity once again. Of course by this time, the tramway had been dismantled, so any ore extracted would have been moved out by horse-drawn wagon or motor lorry. The resurgence came to very little though. Evidence of this later activity can be easily found adjacent to the tramway, where several outcrops of ironstone have been exploited in the search for copper. Indeed the ironstone removed during such searches has been stockpiled ready for removal at some sites. The outcrops were driven into horizontally and opened out, and in the process, much ironstone was removed. Mining records from this period indicate several ventures in the area and some of these names

still appear on a 1:250,000 map, including Cutana No.1 Mine, Cutana No.2 Mine, North Western Mine (Forty Chain workings), and a mining record also indicates a Luxemburg Mine. Our thanks go to Andy Treloar for permission to enter his property and for his interest, and also to neighbour Will Evans for his support and interest too.

My special thanks must go to Keith Findlay, Geologist (and Train Driver) for the vast amount of work he put in researching and interpreting the mineralogy of this area.

*Chris Wurr*

### **Richmond Vale Railway, Hexham, NSW 1435mm**

With plans for extending double track back to Greta, and the proposed establishment of a large coal train holding yard at Hexham, a recent excursion was made to photograph the remaining signalling and infrastructure of the former RVR operations. Thanks (or no thanks) to vandals who had broken in, it was possible to obtain internal shots of Neath signalbox, which was the first time I have seen inside since 1994. At Hexham virtually all track has been removed, except for a sole bit of rail that was left up the Stockrington end of the yard.

Most of the structures still exist, all in advanced states of decay. The loco shed however has been wiped out and it took quite a bit of ferreting in the bush to locate its base and the covered over pits, one of which had a hole big enough for one of our braver group members to stick his hand through for photos.

Heat, and fear of snakes and getting in trouble prevented us from venturing towards the old washery and balloon loop loader, but I believe these have also been wiped out.

Standing there, you start thinking of the massive changes that have taken place to the location in 25 years.

*Brad Peadon*



*The remains of the bathhouse and control cabin at Hexham, located not far from the now-demolished engine shed, 7 October 2012. Photo: Brad Peadon*