



Kalgoorlie

a busy railway crossroads

Text and images by John Hoyle

It was the mining industry that brought about Western Australia's first government railway, the 53-kilometre line from Geraldton to Northampton. Opened in July 1879 it linked lead and copper mines to the port of Geraldton. Two years later a railway line was opened from Fremantle to Guildford and in March 1884 this line was extended up the Darling Range to Chidlow's Well. It was pushed on a further 78 kilometres to York in June 1885. A 10-kilometre railway was opened from the York line at Spencer's Brook to Northam in October 1886. Gold discoveries near Southern Cross in 1887, Coolgardie in 1892 and Kalgoorlie in 1893 provided the impetus to extend the railway across the future Wheatbelt. A 281-kilometre extension reached Southern Cross in July 1894 and Kalgoorlie, 655 kilometres from Perth, was reached in October 1897.

Railway expansion continued in the Kalgoorlie area with a 256-kilometre line opening northwards to reach Leonora in January 1903 and in February 1905 a 100-kilometre branch off the Leonora line at Malcolm was opened to Laverton in February 1905 but was last used in 1957. In the southerly direction a 369-kilometre line, opened in sections from 1908, finally connected Coolgardie to Esperance in August 1927. The importance of Kalgoorlie at this time can be gauged by the fact that it supported its own suburban rail network to Boulder and Kamballie as well as a street tramway system. In 1901 the mainline was duplicated between Coolgardie and Kalgoorlie, a distance of 37 kilometres although this proved to be short-lived with the section being singled in 1922 as Coolgardie declined in importance. A significant event occurred in Kalgoorlie's railway history when the standard gauge Trans Australian Railway from Port Augusta was opened to the town in October 1917. The line's operator, the Commonwealth Railways, established its depot and freight transshipping yard at Parkeston, on the eastern outskirts of Kalgoorlie.

In 1912 the Commonwealth Government had proposed a standard gauge line from Kalgoorlie to Fremantle to be completed at the same time as the Trans Australian Railway but lack of finance prevented it from proceeding. However, in 1960 the WA Government signed an agreement with BHP for the establishment of an integrated steel works at Kwinana, south of Fremantle, contingent on the construction of a standard gauge railway to link BHP's proposed iron ore mine at Koolyanobbing, north of

Southern Cross, with Kwinana. This commitment formed the basis of an agreement between the Commonwealth and WA Governments to jointly fund gauge standardisation between Kalgoorlie, Perth and Kwinana. The project included a completely new dual gauge double track alignment via the Avon Valley to surmount the Darling Range, deviations from the narrow-gauge alignment to improve curves and improve the ruling gradient to 1:150 between Northam and Southern Cross and a new alignment between Southern Cross and Kalgoorlie to serve the Koolyanobbing mine. Commencing in 1962 the entire project was completed in 1968 and cost around \$160 million or at least \$2 billion today. The Leonora and Esperance lines were also converted to standard gauge to prevent them from becoming "gauge isolated". The Leonora line was closed while being converted. The Esperance line was relocated to commence from Kalgoorlie with the new standard gauge line joining the narrow-gauge alignment near Widgiemooltha. It was converted under traffic using three and four rail sections. Both lines were commissioned in September 1974.

Despite its fluctuations mining has been the backbone of the Kalgoorlie rail scene but with the completion of standard gauge from Sydney to Perth in 1970 interstate freight traffic became a significant contributor to rail activity. Today's ARTC timetable shows 35 interstate freight trains passing through Kalgoorlie each way weekly. There are also 20 Perth-Kalgoorlie freight services, 20 iron ore services to Esperance and two Esperance - Kalgoorlie fuel trains, all in each direction each week together with the (generally) weekly *Indian Pacific* passenger train and daily/twice daily *Prospector* railcars. The Leonora line has 15 return services each week. Gold has been the foundation of the Kalgoorlie region's prosperity but in the 1970s nickel started to be transported by rail in the Kalgoorlie area. Today the rise of electric vehicles and renewable energy generation has created a "nickel boom" which makes the Eastern Goldfields rail network an interesting place to observe train operations as the following photos demonstrate.

Special thanks to Peter Donaghy for providing detailed information on current Kalgoorlie area rail operations, David Whiteford for assistance with historical events and Greg Travers for travel planning.



Left (page 34): SCT competes with Pacific National and Aurizon for intermodal rail business between the eastern states and Western Australia and the company dominates the rail sphere in the area of palletised freight carried in vans – a business essentially thrown away by National Rail after it was formed in 1992. SCT ran its first Melbourne – Perth service in July 1995. On Sunday, 10 September 2023 SCT 006 and CSR 021 power past Kalgoorlie station with service 7PG1 from Perth to the company’s Parkes terminal. Behind the on-line refueling tanks and the crew car can be seen two “Greater Freighter” maxi cube PBHY vans designed for palletised freight. The tracks visible in the dock platforms were originally used for standard gauge trains with narrow gauge trains, including suburban trains to the Boulder area, relegated to the far-left platform face and the main platform after the arrival of the standard gauge line.

Above: Pacific National’s 6PM6 from Perth to Melbourne is not far out of Kalgoorlie on Saturday, 9 September 2023 with NR class units 28 (in *Indian Pacific* livery), 21 and 120 in charge. Prominent in the train are triple and double deck car carriers indicating that there is still some motor vehicle business for rail, despite the demise of motor vehicle manufacturing in Australia. Pacific National has a local presence in Kalgoorlie through the operation of a normally twice-weekly overnight fuel train from Esperance to West Kalgoorlie.

Below: Aurizon’s processed mineral sands service for Tronox from Broken Hill to Kwinana is regarded as the longest regular mineral rail haul ever operated in Australia, covering a distance of just under 2,900 kilometres. On Sunday, 10 September 2023 the empty Tronox Kwinana to Broken Hill train (7PU1) with its load of distinctive green half-height containers and led by UGL C44aci ACD units 6049, 6048 and 6022 is approaching Binduli, the junction for the transcontinental and Esperance lines on the western outskirts of Kalgoorlie. In addition to the Broken Hill – Kwinana haul, Aurizon hauls Tronox mineral sands 305 kilometres from Ivanhoe in western NSW to Broken Hill in three blocks from where it is hauled in one train (No. 4UP1) to Kwinana.





Above: Cockburn Cement's plant, located at Parkeston on the eastern outskirts of Kalgoorlie, is a regular rail customer with Aurizon transporting containerised cement from Kwinana to West Kalgoorlie on its daily overnight freighter service. A shuttle service then operates from West Kalgoorlie to the Parkeston plant. On Sunday morning, 10 September 2023 Clyde/EMD GT46C unit Q 4006 leads a train of Cockburn Cement "tanktainers" past Kalgoorlie station on its way to the company's plant.

Above right (page 37): Watco operates a shuttle to convey nickel concentrate between BHP's Redmine concentrate plant at Kambalda to the company's smelter at Hampton, south of Kalgoorlie, a distance of 46 kilometres, for processing into nickel matte. On Saturday, 9 September 2023 Rail First's UGL/GE GL 111 heads a load of tank wagons as train No. 7434 just south of its destination at the Hampton smelter.

Right and inset (page 37): In a scene that was to become history from 1 November 2023 a Mineral Resources Limited (MRL) iron ore train No. 7043 from Mount Walton (near Southern Cross) to Esperance is just west of Kalgoorlie on Saturday 9 September 2023 with Aurizon AC 4304 (still ARG livery) and Pacific National NR 43 in the lead and AC 4308 and NR 16 mid-train. From that date the unusual joint operation of MRL services by Aurizon and Pacific National was to cease with just Aurizon and Mineral Resources locomotives being employed. This train comprised 152 MHPY/MHLY hopper wagons arranged 100 + 52 either side of the mid-train locomotives and the total train load was 13,984 tonnes and length 1,784 metres.





Above: Watco operates a rail service to Leonora for BHP's Nickel West operations at Mount Keith and Leinster, north of Leonora. Qube road trains haul the nickel concentrate in "tanktainers" from those locations to Leonora for loading on Watco's train which then transports them to BHP's Kalgoorlie nickel smelter at Hampton on the Esperance line. On Friday, 8 September 2023 Watco train No. 6471, led by Rail First's EMD duo of C503 and VL358, is at Lake Raeside, south of Malcolm, on its way to Leonora to pick up another load.

Right: Aurizon operates a service from Kwinana to Malcolm on the Leonora line conveying sulphur (in containers) and anhydrous ammonia (in white tank wagons) from BIS Industries at Kwinana. The products are then trucked to the Minara Resources (Glencore) nickel and cobalt mine at Murrin Murrin, 34 kilometres east of Malcolm on the former line from Malcolm to Laverton which saw its last train in 1957. On Friday, 8 September 2023 Q class units 4005 and 4016 leading No. 5029 have arrived at the Aurizon siding at Malcolm in preparation for unloading. 4005 is the last remaining Q class in orange livery. The station platform for this former junction can be seen on the mainline to the right of the white tank wagons on the train.

In addition to the Watco service to Leonora for BHP Nickel West and Aurizon's Minara Resources service to Malcolm, Aurizon also operates a weekly service to Leonora for Lynas Rare Earths' Mount Weld mine, 160 kilometres east of Leonora, near Laverton. The train is normally powered by a Q class locomotive.

