Some Branch Line Reminiscences—4

BESIDE THE WAITAKI RIVER

A Short History of the Railway to Duntroon, Kurow and Beyond

By J. A. DANGERFIELD

THE population of North Otago was small, with the town of Oamaru in its formative stages, when construction of the Awamoko Tramway was begun in the year 1874 from Awamoko Junction, later to become Pukeuri Junction, and much more recently simply Pukeuri. The Awamoko Tramway itself, to be 21 miles 23 chains long, was to extend westward from the main line, following the south bank of the Waitaki River as far as Duntroon on the Maerewhenua River near the latter's confluence with the Waitaki.

Mr. George Proudfoot (brother of David, the builder of the Port Chalmers railway and of Dunedin's street tramways) agreed to build the earthworks, bridges and culverts for the sum of £7,231 15s. A subsequent contract for £8,323 9s. 6d was entered into for platelaying with materials supplied by the Otago Provincial Government and for the supply and spreading of ballast. The total construction costs were estimated to be £25,000.

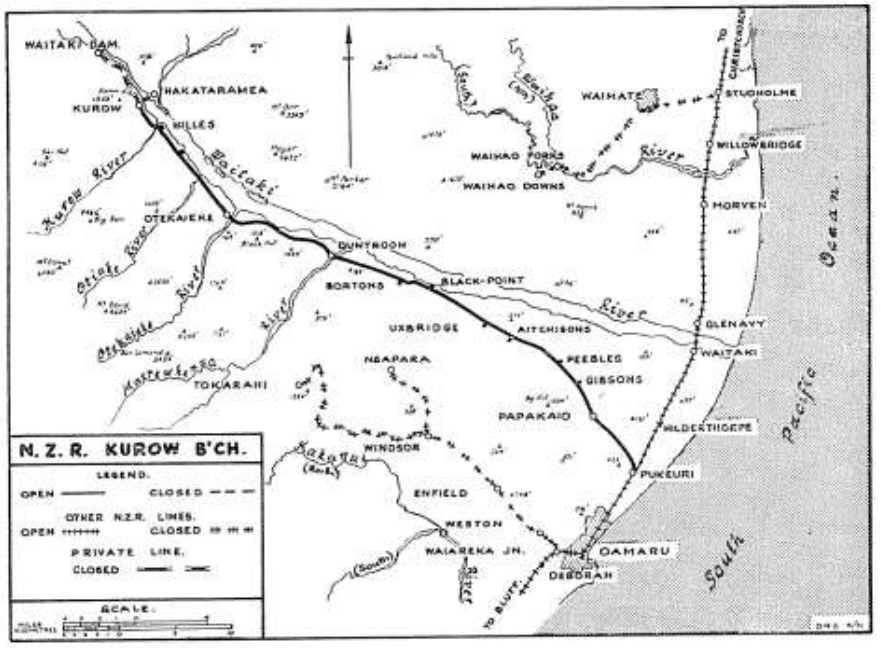
Flat-bottom rails of 28 lb. per yard were specially rolled by the Darlington Iron Company Limited in 1873, the price to the buyers being £12 12s. 6d per ton F.O.B. London, or plus 2s. 6d extra per ton at Glasgow. Many rails were shipped by the s.s. *Wild Deer* in December 1873, as were fishplates at £26 2s. 6d per ton, fish-bolts at £40 2s. 6d, and dog spikes at £32 12s. 6d. Some rails marked DARLINGTON IRON Co LIMd 73 AWAMOKO RLY may still be found in cattle stops and in fences surrounding country station cattle yards.

On 6 November 1875 George Proudfoot's construction work ceased, and if the report of Mr. Thomas C. Dennison, Assistant Railways Engineer, is to be believed, the line had to be almost entirely rebuilt because Mr. Proudfoot's methods were all wrong. Sleepers only three inches thick had been supplied, and these had the most meagre quantity of ballast underneath.

Goods trains began running from 21 December 1875, but passenger traffic was withheld until 16 August 1876, when the work of reconstruction and reballasting had been completed. The first passenger train carried about twenty persons, but no ceremony marked this advancement in colonial transportation.

The Superintendent's Report of 10 June 1876 to the Otago Provincial Council informed Members that £14,113 12s. 3d had been expended on this line, but it is apparent that fencing, cattle stops, water tanks and station buildings had still to be constructed or completed.

The Maerewhenua River was quite an obstacle, the railhead remaining near the eastern bank of this stream for several years. Harris' Hotel on the opposite side became the first building in Duntroon township, which grew on one side of the gold-



Kurow Branch Opening Dates

(Note: Mileages in this table are from beginning to end of the rails, whereas other mileages quoted are from centre to centre of stations.)

Section	Miles	Date
Pukeuri-Duntroon (1)	21.41	1 Dec 1875
Duntroon-Duntroon Jn. (2)	0.62	12 Jul 1881
Duntroon-Hakataramea (3)	15.47	1 Apr 1885
	37.50	
Kurow-Hakataramea Closed	1.04	14 Jul 1930
	36.46	

Passenger service on this line (on mixed trains) was discontinued from 25 March 1947.

(1) Duntroon was renamed Maerewhenua Siding from 1 September 1882, sometimes rendered as Marewhenua.

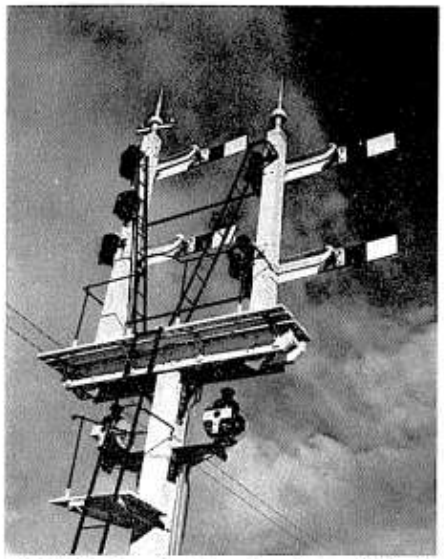
(2) Duntroon Junction became simply Duntroon from 1 September 1882.

(3) Built by the Duntroon and Hakataramea Railway Co. Ltd. and worked by the NZR from 2 July 1881 (at first as far as Kurow) until purchase in 1885.

bearing river with its railway terminus on the other.

A newspaper reported that the combined rail and road bridge, which is still in use, was crossed by an engine for the first time on 12 October 1880. This first entry of a locomotive into Duntroon township effected a link between the Government railway and a privately constructed line from Duntroon to Hakataramea (often Hakateramea in early references). Thus, for a time, two stations bore the name "Duntroon". The original one, 46 chains away from Duntroon Junction on the opposite side of the Maerewhenua River, was renamed Maerewhenua Siding in the working timetable effective from 1 September 1882. From the same date, the word "Junction" was dropped from the name of the newer station.

The Duntroon and Hakataramea Railway Company Limited constructed its line under the authority of the District Railways Act, 1877. Its objective was to construct a 16-mile line to Hakataramea and then to extend another 14 miles into the valley on the Canterbury side of the mighty Waitaki River. But after crossing that obstacle in 1881, the Company did not lay track beyond the one station built. The combined rail and road bridge opened on 7 November



ABOVE: Up Starting signals at Pukeuri. The arms on the right-hand post in this illustration are (top) Up Starting Main to Branch and (lower) Up Starting Loop to Branch.

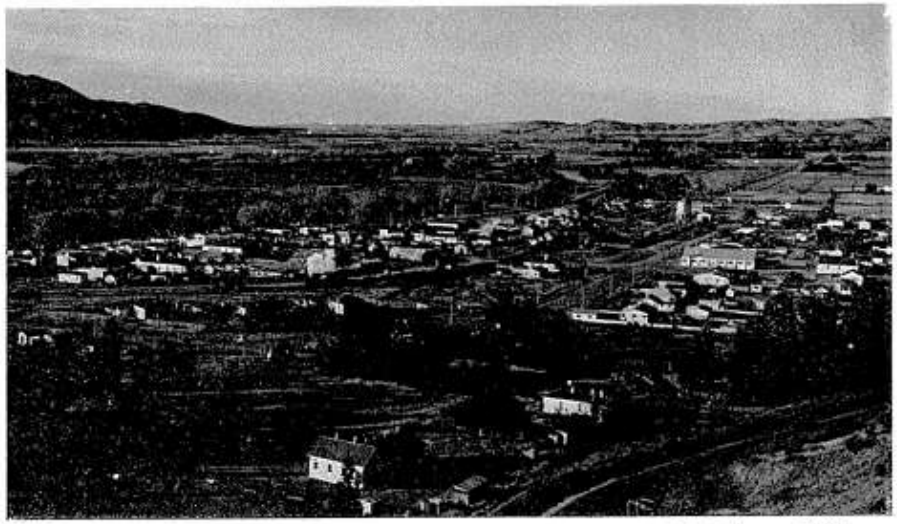
BELOW: Pukeuri Junction station and signal box in 1966. The word "Junction" was omitted in timetables many years ago.

1881 across the Waitaki River, was financed equally by the Government and the Waimate and Waitaki County Councils. Mr. J. Reid, the contractor, experienced difficulty when building, a flood in October 1878 demolishing three piers and seriously eroding the approaches, and for a time construction work was at a standstill. Indeed this and other bridges on the line have a history of flood damage which from time to time interrupted train services.

The railway company was largely financed by the Public Trustee, whose Affidavit of Satisfaction was filed on 20 April 1886 after reimbursement from the sale of the company's line and effects to the Government for £61,000 some twelve months earlier.

From the opening of its line from Duntroon Junction to Kurow on 2 July and later to Hakataramea (the first timetable to mention trains across the river is dated 1 April 1884) the company paid the N.Z.R. the sum of 5s per train-mile for operating its services with Government engines, rolling stock and staff. This arrangement ensured a fair return to the Government whether the trains were lightly laden or otherwise.

Photographs: N.Z. Railways Publicity



Photograph: N.Z. Railways Publicity

Kurow township clustered around the railway yard. This view looks to the Waitaki valley on a winter's morning.

Kurow Branch Stations in 1946

Station	Distance	Height above Sea	Siding Capacity
	miles	feet	wagons
PUKEURI (Junction)	0.00	93	168
Papakaio	4.30	171	30
Gibsons	6.32	194	12
Peebles	7.92	222	34
Aitchisons	10.87	265	15
Uxbridge	12.31	291	41
Black Point	16.14	331	13
Bortons	17.82	358	46
Maerewhenua Siding	21.37	423	18
DUNTROON	22.02	450	53
Waikaura	25.29	497	20
Otekaike	28.50	589	41
Strachans	32.45	602	41
Hilles	34.60	687	11
KUROW	36.34	668	93

Locomotives

An early report states that a 5-ton engine capable of hauling 50 tons at 20 m.p.h. was brought in sections by sea to Oamaru in 1873. This work-horse hauled much of the material required for railway construction from the Oamaru Breakwater in addition to bringing the much-needed ballast. It has not been firmly established where the ballast was obtained, but it is suspected that it came from the bed of the Waitaki River at the site of the bridge on the line opened from Oamaru to Waitaki in September 1875. Watering facilities on the branch line to Kurow were provided at Pukeuri, Peebles, Black Point, Duntroon, Otekaike and Kurow; the longest interval between tanks, of 8 miles from Peebles to Black Point, indicates the limited capacity of the small engines.

Before windmills were installed, all water for locomotives was raised by the muscular efforts of surfacemen manipulating hand pumps, and on race days, when the locomotives of three passenger trains and the train conveying racehorses required water, the four men available at Kurow spent most of the day laboriously lifting water from the 27 ft. deep bore. The windmills at Kurow and Duntroon were replaced by electric motors in 1930, and the mill at Kurow was dismantled in 1939, the other being allowed to fall down.

Photograph: N.Z. Railways Publicity

Kurow station, above, and Duntroon station, below, photographed in 1966, give an impression of having seen better days. They are typical of the station architecture of earlier years.

Photograph: N.Z. Railways Publicity

Goods train 261, 10.50 a.m. Kurow-Oamaru, headed by an "Ab" class 4-6-2 No. 660, prepares to leave the branch-line terminus on its daily run to the main line, one day in 1966.

In the earlier years, the locomotives used would have been confined to those that could work over light rails of 40 lb/yard, and probably would normally have been of the "F" class 0-6-0 saddle-tank type. In 1907, locomotives permitted on the line were the C, D, F, Fa, G, J, L, M, R, and T classes, but not all of these classes were located in the area. Load schedules were given for the D, F, Fa, L, R, and T classes only. An "F" could take 120 tons up and 220 tons down, and a "T" class 2-8-0 was allowed 180 tons and 260 tons respectively. Locomotives of the 4-6-0 type were allowed on the line much later, but Pacifics of classes "A" and "Ab" do not appear to have worked to Kurow until after May 1947, when a triangle was installed there in place of the 50 ft. turntable that had been provided by early 1903.

Train crews were based at Kurow from the time the extension beyond Duntroon was opened, and this arrangement lasted until 17 September 1952, from which date the goods trains were worked from Oamaru. Passenger service on mixed trains had been discontinued from 25 March 1947, road services being introduced instead. Today the ubiquitous "Dj" class diesel-electrics work the Kurow branch trains.

The only known serious accident on the line occurred about 1920, when the morning train was derailed while entering Duntroon by the leading wheels of the class "T" 2-8-0 engine jumping the points. The engine jack-knifed and the fireman was killed instantly.

The Clayton Steam Railcar

In its endeavours to keep abreast of world trends in passenger transport, and to combat the competition of road vehicles, the New Zealand Railways Department imported several types of self-propelled railcars in the 1920s, one of these being the Clayton car, which began regular running on the Oamaru-Kurow service on 4 August 1926.

Built in England by Clayton Wagons Ltd, this vehicle, whose vital statistics were: length 58 ft. 2 in., width 8 ft. 2½ in., and weight in working order 24 tons 3 cwt., provided seating for 54 passengers, although it is said that on one Christmas occasion no fewer than 110 persons were carried.

Numbered "Rm" 2 and painted bright red externally over all-steel construction, the railcar was powered by a vertical boiler supplying superheated steam at 230 lb. per sq. in. to two cylinders 6¾ in. by 10 in. During the initial tests a larger boiler was installed, together with other modifications. At 450 r.p.m. the engine developed 84 h.p., with gear transmission to one driving axle, outside rods coupled to another set of 3 ft. 6 in. diameter wheels giving additional traction. The designed maximum speed was 45 m.p.h. on level track, and the car was normally run with the driving bogie leading; it could, however, be driven from either end. Train tablets were exchanged at Pukeuri and Oamaru in cane hand slings.

Electric lighting, steam heating, throw-over seating of contemporary style, brown linoleum on the floor, overhead luggage racks, and curtains for the wide fixed windows were provided for the comfort of passengers, who were charged ordinary second-class fares. However, the designers omitted to provide toilet facilities, and made insufficient provision for the carriage of heavy luggage, prams, parcels and dogs, all indispensable requirements on a New Zealand country train. A light steel framework, laced with netting, was fastened outside at the rear of the car with leather straps, a canvas cover giving security and protection from the weather, and as a last resort prams were sometimes carried on top of the coal bunker.

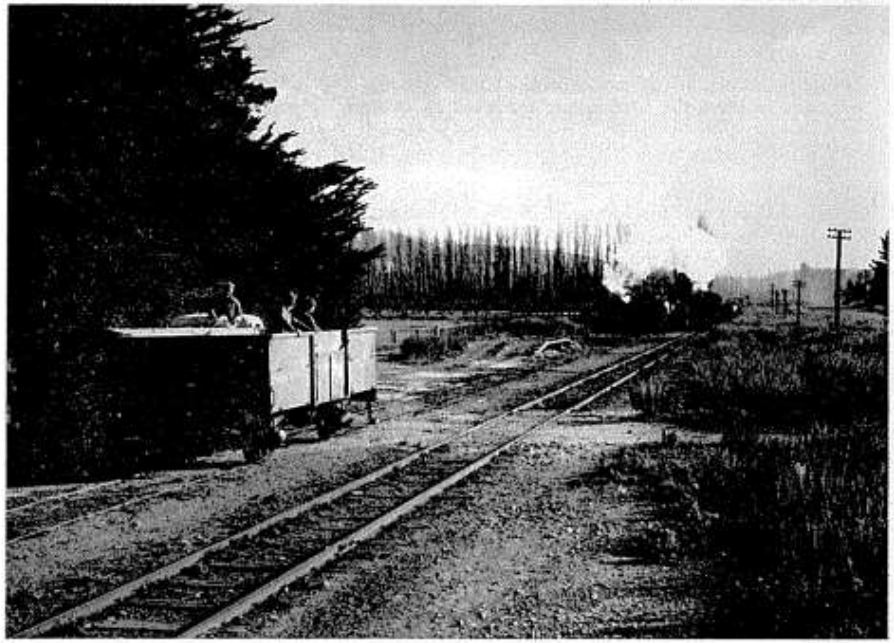
Dogs were carried in special boxes inside the luggage crate, much to the disgust of high-country shepherds, who did not like their animals so conveyed. Complaints were also made of the lack of ventilation—the side windows were fixed—and of heat from the boiler and firebox, which were separated from the passenger compartment by only a thin partition. On really hot summer days with all six roof ventilators open it was also necessary to keep the side doors open (contrary to regulations) to cool the air and clear away the cigarette smoke. The small outward-opening fanlights did little to assist with air changing.

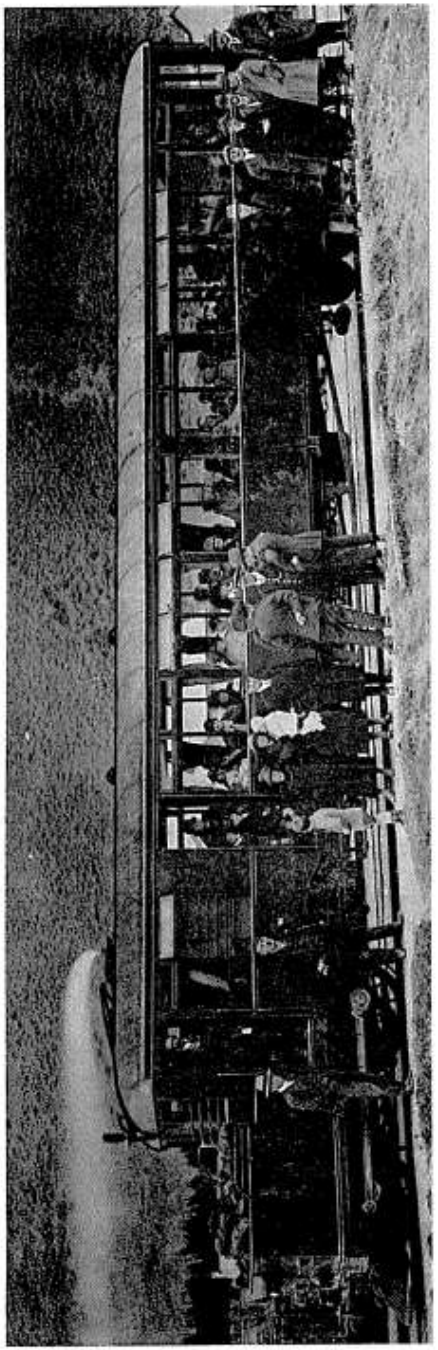
The car was taken on several trial runs after its arrival from England in the autumn of 1926. Between Wellington and Palmerston North, under normal conditions, with 12 intermediate stops, a good running time of 2 hr. 50 min. for the 87 miles was recorded. The car ran from Christchurch to Oamaru on Saturday, 31 July, a timing run was made to Kurow on the following Monday, and regular running began two days later, the timetable being:

No. 261		
Kurow	dep.	8.00 a.m.
Duntroon	dep.	8.34 a.m.
Pukeuri	dep.	9.29 a.m.
Oamaru	arr.	9.45 a.m.
No. 272		
Oamaru	dep.	3.45 p.m.
Pukeuri	dep.	3.56 p.m.
Duntroon	dep.	4.55 p.m.
Kurow	arr.	5.35 p.m.

Country branch-line simplicity. Work stops temporarily in the "La" wagon on Otekaieke siding as the daily (except Saturday and Sunday) Kurow-Oamaru goods train approaches.

Photograph: N.Z. Railways Publicity





It was August 1926 when this 24-ton Clayton steam railcar, New Zealand Railways' "Rm" 2, entered service between Kurow and Oamaru. A superheated water-tube boiler supplied steam at 230 lb. per sq. in. to two cylinders 6¾ in. x 10 in. Gear transmission to one axle was used, and at 450 r.p.m. the engine would develop 84 h.p. Designed top speed was 45 m.p.h.

Photograph courtesy N.Z. Railways Publicity

This was a faster service than the steam train operating a year previously, by about 50 minutes in each direction.

The crew were very obliging, often stopping at the level crossings near passengers' homes to set them down or permit them to board the railcar. This service was maintained until 10 November 1928, when the car was replaced by an ordinary steam service running on the same schedule, the changeover being made necessary by an impending major overhaul, and by increased passenger traffic created by the hydro-electric construction.

The passenger service was run regularly until 12 July 1930, when economies brought about by the depression changed it to a "mixed" train. This led to many complaints from the travelling public.

The Car's Later History

After an overhaul at the Hillside workshops, the railcar entered service on the Invercargill-Bluff line on 26 August 1929, running an off-peak service from Mondays to Fridays. Occasionally it was replaced by a steam mixed train which hauled wagons for shipping or other urgent loads; otherwise when necessary the steam car hauled a carriage for extra passengers or a box wagon for luggage, prams, parcels, and fish in case-lots—fish was also carried in a compartment constructed under the body-work of the car. No provision was made for the guard to move from car to car when extra passengers were conveyed. Sometimes a "Z" wagon containing oysters

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for northern markets was hauled from Bluff to Invercargill. The Westinghouse brake could not be connected, so that braking was effective on the bogies of the railcar only.

The steam car was taken out of service on 17 September 1937 and did not run again, being written off the records in the four-weekly period ended 8 January 1938. It was to be seen in a dilapidated state behind the engine roundhouse for the next couple of years or so, but eventually disappeared.

The Public Works Extension

To serve the needs of a major hydro-electric power scheme, a 4-mile light railway was built in 1928 from Kurow to the site of the Waitaki Dam. The project was completed in 1934, but the extension was retained until April 1937. Its story, however, will have to be the subject of a separate article.