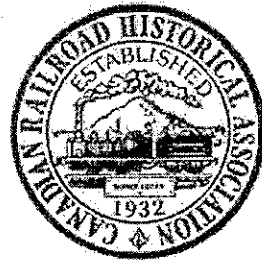


## LOGGING AND INDUSTRIAL RAILWAYS

There were three logging and mining shortlines that connected with the North Shore line;

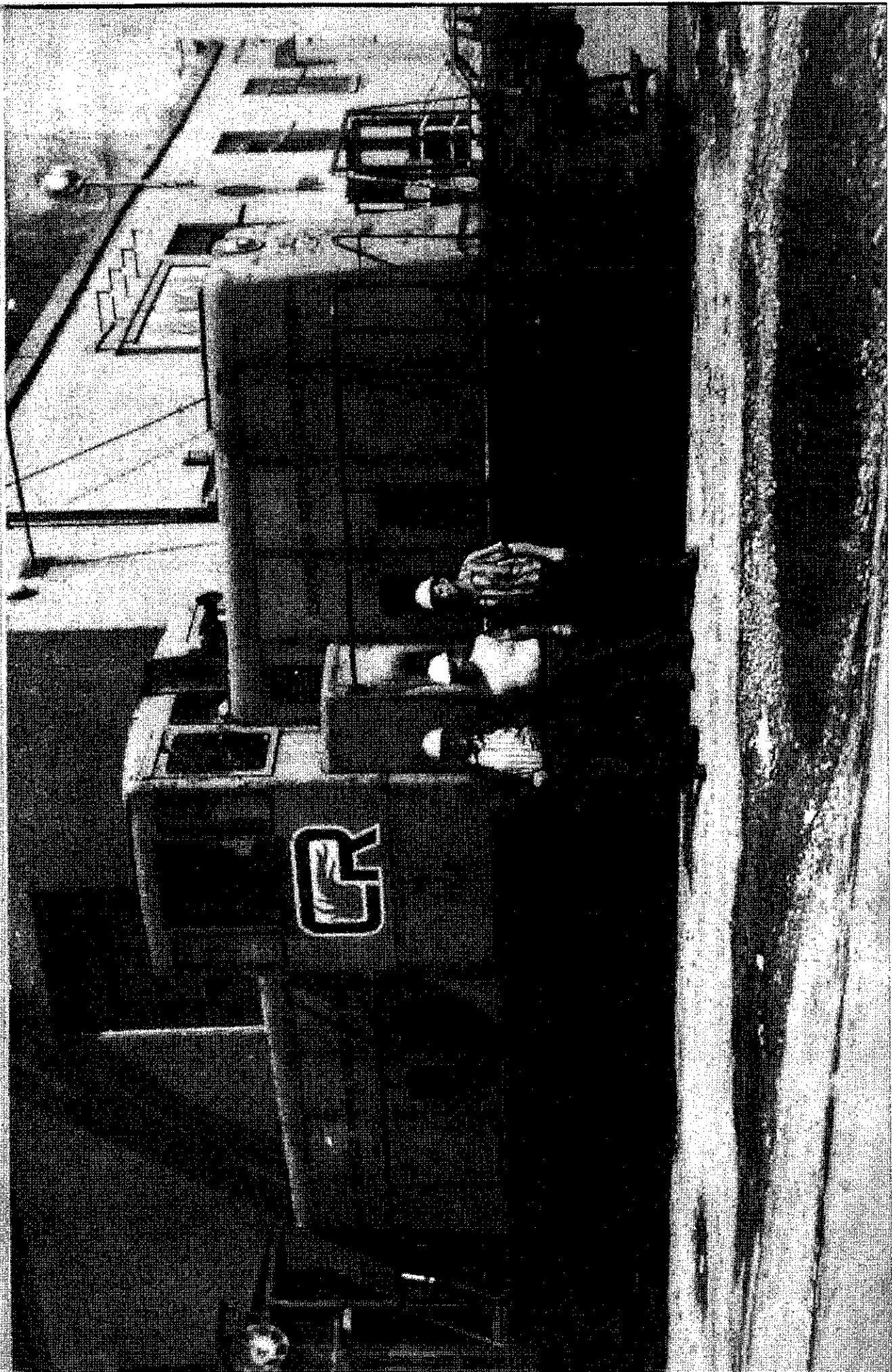
1. The Thurso and Nation Valley
2. Canadian Refractories Railway
3. The Salmon River and Northern Railway

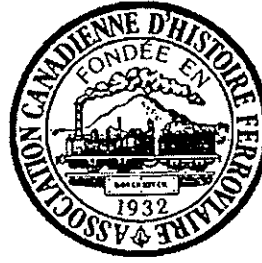
# Canadian Rail



No. 368  
SEPTEMBER 1982







# CANADIAN RAIL

Published monthly by the Canadian  
Railroad Historical Association  
P.O. Box 148 St. Constant P.Q.  
J0L 1X0

ISSN 0008-4875

EDITOR: Fred F. Angus  
CO-EDITOR: M. Peter Murphy  
OFFICIAL CARTOGRAPHER: William A.  
Germaniuk  
LAYOUT: Michel Paulet

CALGARY & SOUTH WESTERN DIVISION  
60-6100 4th Ave. NE  
Calgary, Alberta T2A 5Z8

OTTAWA  
BYTOWN RAILWAY SOCIETY  
P.O. Box 141, Station A  
Ottawa, Ontario K1N 8V1

NEW BRUNSWICK DIVISION  
P.O. Box 1162  
Saint John,  
New Brunswick E2L 4G7

CROWSNEST AND KETTLE-VALLEY DIVISION  
P.O. Box 400  
Cranbrook, British Columbia  
VIC 4H9

PACIFIC COAST DIVISION  
P.O. Box 1006, Station A, Vancouver  
British Columbia V6C 2P1

ROCKY MOUNTAIN DIVISION  
P.O. Box 6102, Station C, Edmonton  
Alberta T5B 2N0

WINDSOR-ESSEX DIVISION  
300 Cabana Road East, Windsor  
Ontario N9G 1A2

TORONTO & YORK DIVISION  
P.O. Box 5849, Terminal A, Toronto  
Ontario M5W 1P3

NIAGARA DIVISION  
P.O. Box 593  
St. Catharines,  
Ontario L2R 6W8

ST. LAWRENCE VALLEY DIVISION  
P.O. Box 99  
Ste. Dorothée, Quebec H7X 2T4

## FRONT COVER

PASSING BLACK LAKE on the run from Marelan to Kilmar, the railway of the Canadian Refractories Company describes an interesting and picturesque series of curves. This line has now been abandoned.

## INSIDE FRONT COVER

LOCOMOTIVE NUMBER 1 of the Canadian Refractories railway is a G.E. diesel-electric. In this view, taken at the Marelan plant, we see Messrs. V. Thorburn, G. Poulter (driver) and W. Stewart (trainman).

# Canadian Refractories Industrial Railway

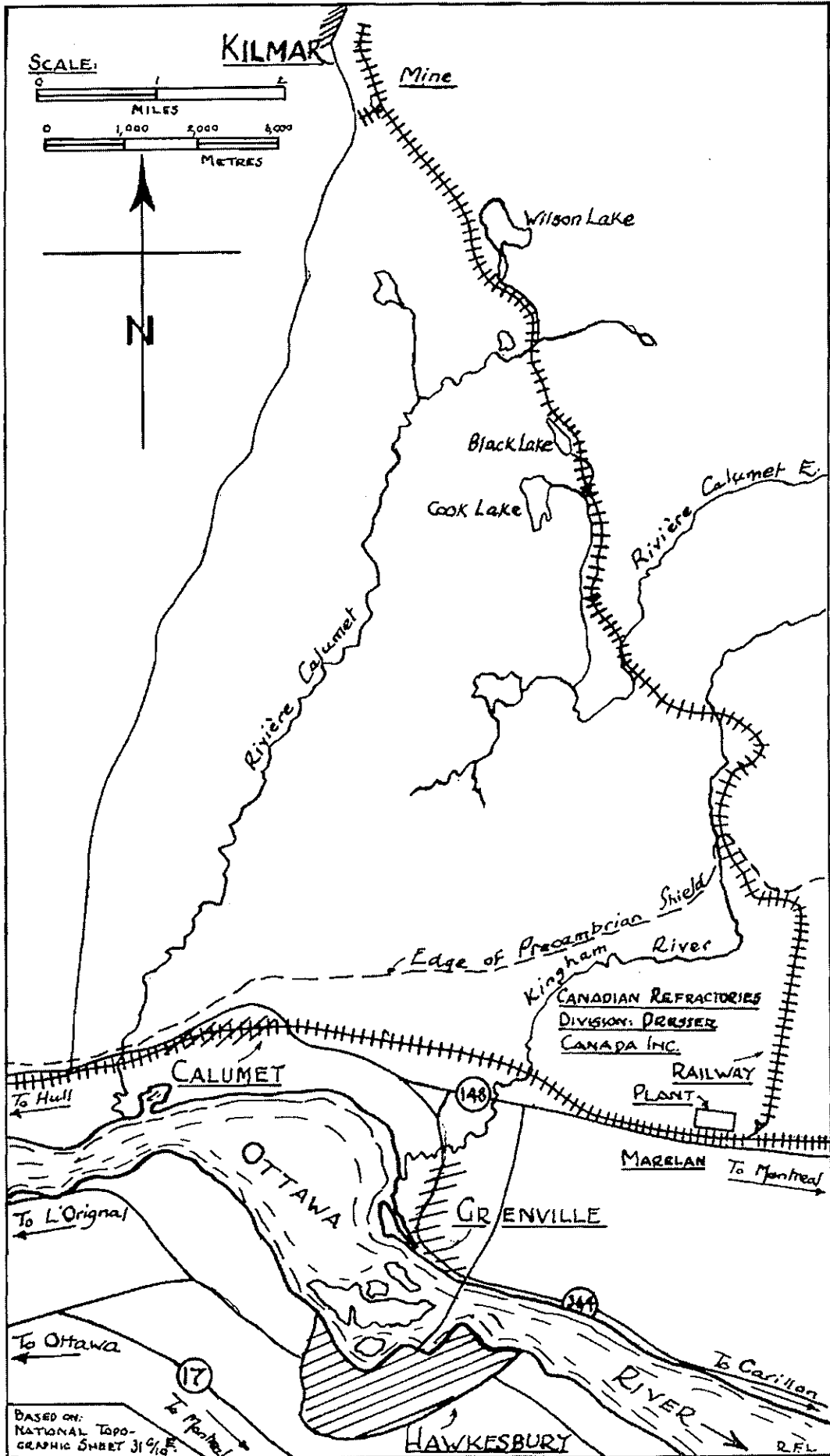
By Robert F. Legget

Another of Canada's small industrial railways has finished its course after 65 years of faithful service. It will soon be just a memory to the few who knew it well. For the last run was made on 17 July 1981 on the Canadian Refractories line from Kilmar to Marelan, Quebec. All rolling stock was then brought down to the Company's main plant, at Marelan, and has now been disposed of; the twelve miles of track have now been dismantled.

The accompanying sketch map shows the location of this little-known line in Quebec, across the Ottawa River from Hawkesbury, Ontario, roughly midway between Montreal and Ottawa. The southern limit of the Precambrian Shield here comes close to the Ottawa. Original settlements were naturally along the banks of the "Grand River" (as the Ottawa was known in earlier days) but small groups began establishing new homes along the early logging roads going up into the hills. One of these small outposts eventually became the Scottish settlement of Kilmar, eleven miles north of the river towns of Calumet and Grenville. It is said that an itinerant preacher first noticed the glistening white ore near Kilmar around the year 1900. This was start of the notable industrial complex of today.

The white ore is low-grade deposit of magnesite, formed in the Precambrian Grenville complex. It is believed that solutions high in magnesium penetrated the Grenville limestone in some geological upheaval eons ago, forming the valuable magnesium carbonate. Originally mined in open pits, the magnesite has been mined from shafts since 1936, the underground operations of today being efficient and highly mechanised, with proved reserves available for many years to come.

Mining commenced in 1914 when supplies from an Austrian mine were cut off by the first world war. Dominion Timber and Minerals Company was the operating agency. Ore was brought in horse-drawn carts down the winding road from the mine to a siding on the North Shore line of the Canadian Pacific Railway, as many as one hundred teams of horses being employed at one time. In 1916 a charter incorporating the Grenville, Harrington and Northern Railway was issued for the construction and operation of a standard gauge railway from Grenville to Labelle, Quebec but this company was apparently never set up.



Later that year, however, a narrow gauge railway was constructed from mile 54.7 of the C.P.R. Montreal to Ottawa line, as far as the magnesite mine, approximately 11.5 miles to the north. Urgently needed for war purposes, magnesite was shipped down the little line in ever increasing quantities (35,000 tons annually by 1918) and transferred to main line cars at the junction with the C.P.R. All the equipment for the little line had been purchased from a logging company in the Fort William district, "lock, stock and barrel".

The names Kilmar and Marelan were derived from the Kilbourne family which had early financial interest in the development. It was taken over in 1918 by the Scottish Canadian Magnesite Company; this company was succeeded by Canadian Refractories Limited in 1933. This Company maintained close links with the Harbison-Walker Refractories Company of Pittsburgh which finally purchased a controlling interest in the operation after the end of the second world war. In 1967, Dresser Industries obtained control and the operation is now known as the Canadian Refractories Division of Dresser Canada Inc.

In the 1920s the unique properties of the Kilmar ore, even though low-grade, were studied by scientists of National Research Council of Canada, notably by Mr. F. E. Lathe (whom I had the pleasure of knowing as a colleague in my first years with the Research Council). Methods were developed of beneficiating the ore, notably by heavy-mineral separation; it could then be "dead-burned" in a rotary kiln and crushed. It is in this form that the ore is shipped from the processing plant at the mine to the modern manufacturing plant at Marelan, adjacent to Highway 148 and so familiar to all who use this pleasant "north shore road" from Montreal to Hull. The main products of the plant are MAGNECON refractory bricks in a variety of sizes and shapes, used for such purposes as lining kilns and furnaces. They are shipped from the plant, initially by C.P.R., to countries all over the world, constituting one of Canada's notable specialist exports.

The first plant at Marelan was started in 1953; it has been expended at regular intervals since then. The latest addition is a replacement of the smaller special products plant located at the Kilmar mine. It was this change in manufacturing that sealed the fate of the little railway since all that it would now have to carry would be the crushed ore from the mine to the plant and this could clearly be done more economically by contractors using trucks. The automobile had won another victory!

Plans for upgrading to standard gauge the original narrow-gauge line were made in 1930 and carried out in 1931, using the same alignment. After leaving the mine the route follows a winding course through the bush, generally following the contours of the land with only a few short sharp grades. There are no earth-works to speak of and only a few short steel joist bridges, crossing and recrossing the Calumet and Kingham Rivers. The winding course changes abruptly to a two-mile tangent as soon as the boundary line of Chatham Township is reached, an interesting feature of location for which an explanation has not yet been traced. This long straight stretch is on a down grade of about 1.8 per cent, finishing with a Y