

# *Commercial Coal-mining in Natal: A Centennial Appraisal<sup>1</sup>*

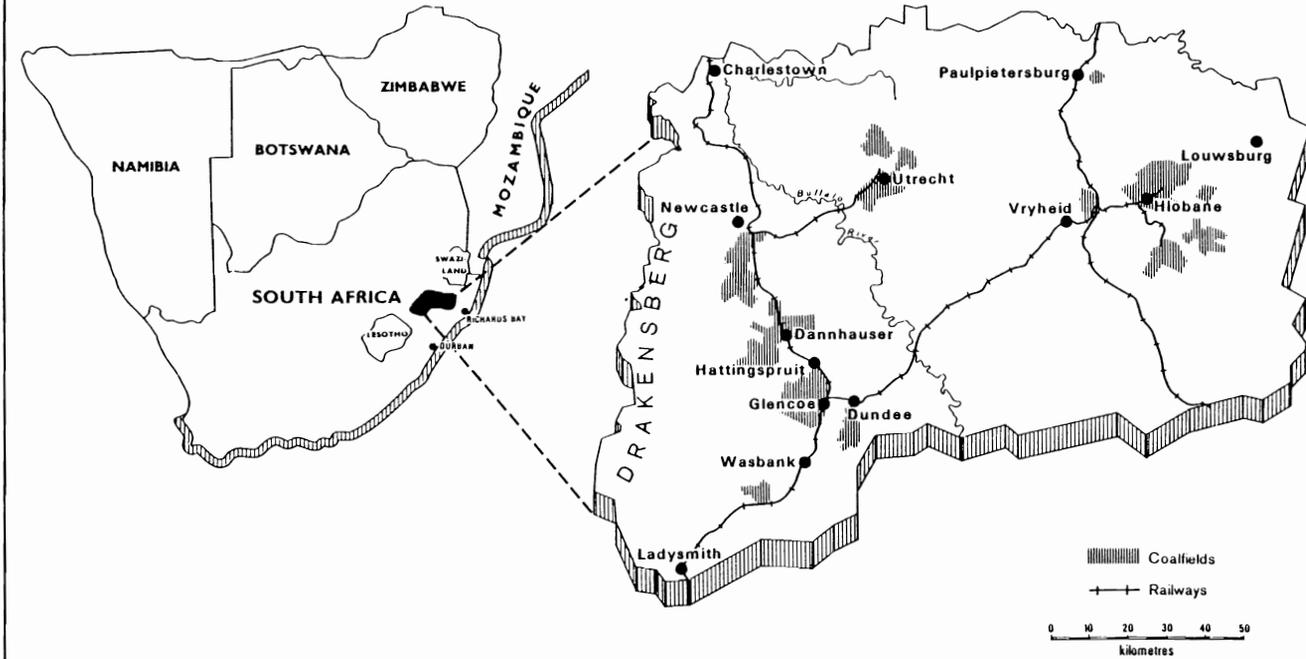
## *Origins*

The large-scale commercial exploitation of northern Natal's coal deposits was initiated by the formation in January 1889 of the Dundee (Natal) Coal Company under the chairmanship of the highly-successful Durban businessman and civic leader, Benjamin Greenacre. For half a century following the arrival of the Voortrekkers in the late 1830s numerous outcrops of coal had been haphazardly exploited for domestic consumption by the white farming community of the region and, from the 1840s, small consignments had been transported for sale as far afield as Pietermaritzburg. Deposits had been found on several properties in the Newcastle vicinity, along the Biggarsberg, near Ladysmith and, in limited quantities, in the Msinga district, on the Mvoti and Thukela rivers, and at Compensation on the coastline north of Durban.<sup>2</sup>

By the 1880s Klip River County, in the Newcastle magisterial division, had emerged as that part of Natal with the most obvious mining potential and Dundee,<sup>3</sup> where Peter Smith had initiated mining activity on the eastern slope of Talana hill, was already recognised as the Colony's coal capital, being geographically central to the Klip River coalfield in which, prior to the 1930s, most of Natal's coal-mining took place. The full potential of that coalfield could still only be guessed at, and the Colony's rudimentary wagon roads made it impossible to contemplate the transportation of any commodity in bulk except during the dry winter months.

Two events facilitated the development of commercial mining operations in the region. In September 1881 Frederick W. North, the British geological expert who had been appointed by Lieutenant-Governor Sir Henry Bulwer to investigate Natal's coal resources, attracted much attention to the region by reporting that Klip River County was endowed with a workable coalfield which was no less than 1 350 square miles (3 496,5 square kilometres) in extent and contained 2 073 million tons of coal, much of it suitable for generating steam in locomotives. Then, in 1889, the railway from Durban through Pietermaritzburg and Ladysmith at last advanced through Glencoe and Newcastle *en route* towards the Transvaal border. It was not the confirmed potential of the Klip River coalfield which promoted railway construction into the northern reaches of the Colony but the discovery in 1886 of the main Witwatersrand goldreef and a determination to ensure for Natal a reasonable share of the trade bonanza that was expected to ensue from the anticipated development of a major gold-mining industry.

# COALFIELDS OF NATAL



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Greenacre's consortium of Durban merchants and shipowners was quick to invest in a private railway-line which linked their mining properties *Coalfields* and, subsequently, *Talana* at Dundee to the main line at Glencoe but the Company soon found itself in competition with others who were similarly alert to the commercial possibilities of the region. In November 1889 Frederick North re-appeared in the Colony to secure several coal-bearing properties in the Newcastle vicinity on behalf of an unidentified English syndicate, and others followed in his wake. The Hon. F. Reynolds, member for Alexandra County in Natal's Legislative Assembly, and S. Mitchell-Innes, who farmed in the Ladysmith district, established the Elandslaagte Colliery Company at the southern end of the Klip River coalfield, where they substantially reduced the cost of transporting coal to the port by acquiring a 45-year lease on good mining property which lay within 300 yards of the railway line.

While the Dundee and Elandslaagte Companies proved to be two of Natal's more enduring mining enterprises, over half of the 60-odd collieries that were opened during the colonial era had closed by 1910 as a result of inexperience or of 'extravagant and unskilled management'. Coal-mining attracted investors from a variety of occupations and initially very few of them had any appropriate expertise to apply. For example, the unsuccessful Lennoxton Colliery Company which mined in the vicinity of Newcastle was controlled by a syndicate that included a farmer, a local doctor, a commission agent and a storekeeper, while the neighbouring West Lennoxton Collieries Ltd also went downhill when one of its guarantors, the Durban tailor W.H. Simons, became insolvent.<sup>4</sup>

Some of the Colony's mining companies did enjoy the advantage of being financially well connected. The Natal Cambrian Collieries Ltd was controlled by 'an influential Directorate' which included W.E. Butcher, the senior partner in S. Butcher and Sons of Durban, as well as the wealthy sugar magnate C.G. Smith, and C.P. Reynolds who owned extensive property on the Natal coast. The South African Collieries Ltd was uniquely fortunate in being closely connected to and financially sustained by the De Beers Consolidated Mines Ltd, which subsequently took over its Northfield Colliery. Other enterprises, like the Natal Navigation Collieries and Estate Company Ltd, Hattingspruit Collieries Ltd, and New Campbell Collieries Ltd, were either floated with Witwatersrand capital or taken over and managed by Johannesburg-based companies. One mining company, the Enyati Colliery Ltd, was floated in Mauritius and some, including the Vryheid (Natal) Railway Coal and Iron Company which developed the Hlobane Colliery, were financed and directed from London. While many of Natal's early colliery companies sought listings on the London Stock Exchange and attracted British investment capital, with varying degrees of success, most of them were financed and controlled by local entrepreneurs based in Durban.

The Dundee (Natal) Coal Company was therefore not unique in this respect, and although its board of directors was initially also lacking in mining expertise their prominence in the economic and political life of the Colony and their collective experience in commerce and shipping did offer some reassurance to prospective investors. George Payne, J.W. Leuchars and the Hon. A. Mitchell Campbell were all, like their chairman Benjamin Greenacre, prosperous Durban merchants and civic leaders. Two other directors, Charles Hitchins and (from 1903) Otto Siedle were involved in shipping businesses while one, G.M. Sutton, owner through marriage of the

property *Coalfields*, had an agricultural background and subsequently became Prime Minister of Natal between August 1903 and May 1905.

These influential commercial and political connections doubtless helped the Company to maintain its initial pre-eminence in the Natal coal industry but did not insulate it from the financial anxieties and fierce market competition to which its rivals were exposed.

*The Marketing of Natal coal: 1889–1950s.*<sup>5</sup>

The arrival of the steam locomotive in Klip River County provided the emergent coal industry with an immediate market in the form of the Natal Government Railways (NGR), which consumed 68 % of the 25 609 tons produced in 1889. There was soon fierce competition among the various colliery companies for contracts to supply the NGR, whose official tests confirmed Frederick North's opinion that much of the local product would be suitable for use in steam locomotives. These findings were vital to the NGR, for the availability of a steady supply of relatively cheap, locally-produced coal henceforth relieved it of the inconvenience and expense of having to import all its requirements through Durban. Railway contracts became an important but uncertain source of income to those collieries whose output was preferred by the NGR. Railway traffic has always been affected by economic fluctuations over which the railway authorities themselves have little control and although the NGR's consumption increased to 28 978 tons in 1894 it constituted only 20,5 % of the industry's total annual output. This figure did increase to 29 % in 1903 but the NGR never regained its initial importance to the local coal industry and by 1909 it accounted for only 14,9 % (266 286 tons) of total sales. Some producers, like the Dundee Coal Company, soon realised that railway contracts could not provide any long-term security and turned increasingly to the quest for bigger alternative markets.

Domestic consumption within Natal itself offered no better prospects, amounting to only 7,2 % of total output in 1909, and thereafter it was never sufficient to sustain the local industry. The expanding Witwatersrand market, based upon gold-mining, initially seemed to be much more promising. However, Natal's railway line to Johannesburg was only completed in 1895,<sup>6</sup> after protracted negotiations with President Kruger's republican government, and Natal's producers soon found that they were not able to compete satisfactorily with the emergent Transvaal coal industry. Its product was of an inferior quality but it was able to supply the gold-mining and other burgeoning industries of the Reef much more cheaply because of its more advantageous geographical location, its more plentiful labour supply based on more effective recruitment methods, and the geologically more favourable mining conditions which it enjoyed. By 1909 Natal's collieries had largely, though not entirely, abandoned the inland market, which by then accounted for only 8,5 % of total sales compared with the 22,6 % exported by sea through Durban and the 46,8 % bunkered there during the course of that year.

As this suggests, by the time of Union the Natal coal industry had focused its attention primarily upon the shipment trade through Durban. It was an alternative market which presented yet another daunting range of challenges. Not the least of these was the provision of adequate and inexpensive access to the increasing volume of steam-shipping which was plying the Cape sea-route to and from the Far East during the latter decades of the nineteenth century.

There were various aspects to the problem of transportation, including fluctuating railway rates and rebates which, at short notice, could effect dramatic changes to the market price of coal at the port and render it uncompetitive. The inability of the railway authorities, both before and after Union, to meet the industry's transport needs timeously and efficiently was yet another recurring source of irritation and concern to the colliery companies. Congested rail access to Durban was frequently aggravated by accidents, or by rain damage during the summer months, and prevented coal producers from taking full advantage of the occasional upswings in demand. The electrification of Natal's main line during the 1920s and 30s did not significantly ease their plight and the colliery companies were unanimous that a double line to the coast would have been more immediately effective.

Inadequate carrying capacity was attributable not only to single line congestion but also, in part, to the distances and terrain that had to be covered, to limited traction power and an inadequate supply of rolling-stock. In particular, the shortage of railway trucks became a perennial problem which, like main-line congestion, was suffered at different times by all the Natal collieries but particularly during periods of seasonal competition with more perishable agricultural freight that was invariably given priority by the railway authorities. They did not seem to take sufficient cognisance of the friable nature of Natal coal, which made it unsuitable for stockpiling at the mines and necessitated the practice of working directly from coal-seam to truck. When trucks were not available the mines stood idle, many hours of work and the sale of tons of coal were lost, and costs escalated. Main-line congestion and truck shortages were aggravated by higher winter demand and the failure of some domestic consumers to stockpile, and also by bunching of ships at the port due to unscheduled arrivals and over-strained harbour equipment.

As early as 1891 it was recognized that improved facilities for the storage and handling of coal on the quayside were essential in order to avoid deterioration through exposure to the elements and the danger of spontaneous combustion. However, the process of loading vessels by means of baskets continued until 1907 when, in response to improvements effected at Delagoa Bay, a mechanical coal-loading plant was installed. Additional facilities were added to the Bluff Coaling Wharf during the 1920s and 1940s, though the success of the shipment trade was strongly influenced by the overall development of Durban harbour in so far as it was largely dependent upon the volume of sea-traffic making use of the port. Harbour development, like railway construction, only really gathered momentum during the late nineteenth and early twentieth centuries and although by 1910 Durban was already recognized as southern Africa's major port it continued, at least until the 1930s, to be inadequately organized and equipped by international standards.<sup>7</sup>

The difficulties facing Natal's coal producers in breaking into the shipment trade did not end at the quayside. The initial variability of the local product, which was largely a consequence of indifferent screening and sorting rather than inherent unsuitability, made it more difficult to gain international recognition. The bunker trade, like railway consumption, proved to be highly sensitive to economic fluctuations and could not therefore provide a reliable foundation for any lasting prosperity. In 1907 the Union-Castle Company's largest liner, the *Kenilworth Castle*, completed the return voyage to England



Coal-loading plant, Bluff, Durban.

*(Photograph: Local History Museum)*

entirely on Natal coal instead of the mixture of Natal and Welsh coal used previously. Thereafter bunkering at Durban became a standard procedure for all the mailships, which was an important vote of confidence in the reliability of the local product, considering the regular schedules to which the Union-Castle Company was committed in terms of the mail contract. Several other steamship lines, including the Clan, Rennie, Bullard King, Holland Afrika and Deutsche-Ost-Afrika Lines, became significant consumers of bunker coal at Durban, while further business was generated by irregular shipping that plied the Cape route between Europe and the Far East.

The intense competition among local colliery companies which characterized the early years of the bunker trade was to some extent reduced by the quota system implemented with the formation in 1913 of the Natal Coal Owners' Association to regulate that business. However, the Association could do nothing to prevent the unpredictable fluctuations in market demand, or to forestall the steady increase in the number of vessels burning oil or diesel instead of coal. By the 1930s this trend already spelt the death-knell of the bunker trade which, by the 1950s, had clearly come to an end after virtually all passenger ships and most cargo lines had made the transition in the interests of easier, cleaner and speedier performance.

Natal's export (as distinct from bunker) trade in coal also virtually came to an end during the early 1950s, though not permanently and for a different reason. Prior to the outbreak of the Second World War, the export trade was not regulated by any lasting association of local producers such as controlled the bunker trade from 1913, though earlier efforts were made to fix prices and regulate output. Competition in international export markets was fierce, particularly on the part of producers in the northern hemisphere whose output

was of an inherently superior quality owing to its lower non-combustible ash content and the differing nature of the vegetation in its original composition. The Natal collieries were able to establish a share in certain East African and Far Eastern markets by means of relatively good quality and low production costs, in competition with the expanding coal industries of Australia, Japan, India, China and Malaya. Periodic disruptions to other coal industries created strong temporary demands for Natal's output but, as with the bunker trade, these fluctuations provided no security for producers and encouraged the development of new collieries during phases of high demand which resulted in even fiercer competition when the additional markets evaporated.<sup>8</sup>

Unlike the bunker trade, it was not international trends but a domestic transport crisis which terminated the Natal coal industry's export trade during the early 1950s. By then it was already of declining importance in relation to other aspects of the industry's business but in 1950, following a sudden increase in the volume of shipping calling in at South African ports, the South African Railways and Harbours proved quite unequal to the increased demands made upon it and, in the country-wide coal shortage which followed, the railway authorities themselves resorted to the expropriation of export coal for their own use. In a repetition of the action taken during a similar crisis in 1937, the Government imposed a total embargo on the export of coal in order to ensure that domestic industries and power stations were adequately supplied. This measure, coupled with the implementation after 1950 of import control which reduced the volume of shipping calling in at Durban, led to a spectacular 35 % decline in export and bunker sales between 1950 and 1951.

The uncertainties and competitiveness of the coal trade, in its various forms, induced among colliery owners and managers a penny-pinching concern for costs which was not relaxed even during phases of upswing in market demand and which was applied to all aspects of the industry, including the recruitment, accommodation and treatment of employees.

### *Labour Recruitment<sup>9</sup>*

From their inception the Natal collieries experienced great difficulty in attracting indigenous Blacks in numbers sufficient to meet their labour requirements. This perennial shortage was traditionally attributed to the unscrupulous methods employed by Transvaal labour touts in luring recruits to the gold-mines, and to the reluctance of a pastoral people to undertake heavy manual work. However, the Committee eventually appointed in 1918 by the Minister of Native Affairs to investigate Natal's labour shortage pointed to more fundamental causes when it urged the province's large-scale employers to collaborate in devising more effective recruiting methods and providing more attractive conditions of employment.

Indeed, the Natal coal industry was remarkably lethargic in forming a centralized recruiting organization. Such an arrangement was hinted at in 1912, when the Transvaal gold-mines pooled their recruiting efforts under the Native Recruiting Corporation, and was seriously suggested two years later but most of the colliery companies resisted the proposal because they feared the financial implications and were reluctant to reveal their own labour sources to each other. Consequently, it was not until 1943 that the Natal Coal Owners' Society, which had presided over the industry's fortunes since 1909, at last took the initiative in forming the Natal Coal Owners' Native Labour Association.

Prior to that the various collieries recruited labour, as best they could, independently of each other: from neighbouring pockets of settled black population where these existed, and through agents (many of them country storekeepers) in Swaziland, Zululand, Mpondoland, Transkei, Lesotho, East and West Griqualand, the Transvaal and, in one case, Botswana. The industry was not permitted to compete with the gold-mines in recruiting labour from Mozambique but colliery managers were not above supplementing their work-force with the illegal trickle acquired through Swaziland and Piet Retief. Several colliery companies owned, or partly owned, the farms upon which they conducted their mining activities and they encouraged labourers to settle on these properties with their families and build their own houses. Although contrary to the 1923 Natives (Urban Areas) Act which prohibited blacks from living permanently in urban industrial regions, the presence of these settlements on or near the collieries became a prominent feature of the Natal coal industry and, by stabilizing at least a part of its work-force, enabled more blacks to become proficient in skilled tasks which had previously been performed by Indian employees who were moving into other avenues of employment.

Indentured Indians had already been successfully employed in Natal's sugar industry and, despite reservations concerning their physical strength, they were vital to the Colony's coal industry during its early years, being considered more efficient, more dependable under their conditions of indenture, and less prone to desertion than locally recruited black labour. By 1902 Indians constituted 44,5 % of the industry's work-force, excluding the 122 Indian women employed on the picking belts, and although they never again constituted such a high proportion of employees, in real terms their numbers increased from 1 813 in 1902 to 3 409 in 1909. By then some collieries were employing more Indians than indigenous blacks and the industry as a whole would probably have increased its Indian labour-force if the Indian Government had not prohibited further indentured immigration to Natal after 30 June 1911.

All primary five-year indentures expired in 1915, so that by 1918 there were no more than 100 indentured Indians still employed in the collieries. Initial reluctance to work underground obliged the colliery companies to offer better terms of indenture than the sugar plantations, including productivity incentives in the form of ration and cash bonuses on some mines which could earn industrious individuals as much as 20 % more pay. Nevertheless, as they completed their indentures and other more attractive avenues of employment became available to them, progressively fewer Indians remained in the collieries as 'free' labourers. By 1926 they constituted 8,67 % of the industry's labour-force and by 1965 they amounted to only 1,44 %.

The difficulties which the collieries experienced in recruiting and retaining labour were not confined to indigenous black and Indian employees. Whites have always constituted a small but important element in the work-force and until the 1930s the Natal coal industry relied heavily upon British recruits to assume supervisory roles and other positions of responsibility, for which they were not all suitably qualified even though they did have a familiarity with coal-mining that was still almost wholly lacking in southern Africa at the turn of the century. While some were recruited by the British agents of Natal colliery companies, others came out on their own initiative, induced by unemployment and lack of opportunity in Britain, or else attracted by the

glowing prospects in southern Africa following the discovery of the main Witwatersrand goldreef and the development there of a major gold industry.

A 'come and go' pattern soon emerged among these immigrants, which was more pronounced on the bigger, impersonal collieries than on the smaller closely-knit ones, as many moved from one mine to another, or were enticed out of the industry by more attractive job opportunities in the cities. There were also those who remained to render a lifetime of service to the industry, ranging from the hard but canny Scots like Jock Ferguson and Robert Campbell, who initially seemed to monopolise the managerial positions, down to the nameless Welshmen, Cornishmen and north-country Englishmen who filled the lower positions of responsibility. Some, like the Lanarkshireman Mr J.R. 'Jimmy' Watson of Dundee, whose career in Natal coal-mining began in the 1920s, rose through the ranks right up to managerial level before retiring in their adopted land.<sup>10</sup>

It was men such as these who provided a vital hard core of experience and expertise when, beginning in the 1930s, the industry began to rely increasingly upon locally-recruited whites, who were unfamiliar with coal-mining, to fill positions of responsibility. Suitable recruits were not easily found, or retained, and both the Natal Coal Owners' Society and the Natal Mine Managers' Association (founded in 1903) struggled to find ways of increasing the intake of white learner miners and of improving the training that was offered to them. However, recruitment campaigns in the schools and through the Press, systematic training schemes and even improved rates of pay could not obviate the need to upgrade living and working conditions in order to persuade more and better men to make their careers in coal-mining.

### *Living conditions<sup>11</sup>*

Prior to the promulgation of the Natal Mines Act of 1899 and the Public Health Act of 1901 living conditions on the collieries were unfettered by any form of legislative control other than the provisions outlined in the Indian Health Regulations. Even then the implementation of such legislation was largely dependent upon the understaffed mining inspectorate whose primary concern was the enforcement of minimum standards of safety underground. Particularly during the early decades of the industry, Natal's colliery owners and their managerial staff were consequently more or less free to decide for themselves as to what they were willing to provide in the way of accommodation. Faced with variable market demand which made it difficult to anticipate their future labour needs, this became an obvious area for cutting costs. Only gradually did Natal's colliery companies perceive the need to compete for labour with other prospective employers, most notably the Transvaal gold-mines, by offering more attractive living conditions instead of relying on exploitable indentured Indian labour and the protection of Natal's anti-tout legislation to stem the efflux of black workers to other parts of southern Africa.

Prior to the 1940s, and in some cases even later, the accommodation and recreational facilities provided for white employees was, on most mines, decidedly spartan and, coupled with the geographical remoteness of Natal's coalfields, compounded the difficulty experienced in attracting and retaining suitable recruits. Expenditure on accommodation for Indian and indigenous black employees was traditionally accorded an even lower priority by Natal's

colliery companies. In 1903 comprehensive regulations governing sanitation and housing facilities for both categories of worker were published but the improvements specified, including proper roofing and flooring and the erection of brick or stone structures in place of corrugated iron buildings, were only gradually implemented. On some mines 'free' Indians were encouraged to erect their own housing but on most 'family' rooms (approx. 3,6 × 2,4 metres) were provided for them in unimaginative barrack-like rows. Such accommodation on remote collieries was doubtless one factor which encouraged Indian employees to seek more congenial employment elsewhere.

The housing provided for indigenous black labourers, who always constituted the majority of the work-force, was even more primitive. Apart from the family accommodation which married employees were encouraged to construct for themselves with whatever materials were available, Natal's collieries were also characterized by grim compounds for the migrant males who considerably outnumbered the married men living more or less permanently on mine properties. The wood and iron dwellings that were provided were stiflingly hot in summer and were seldom provided with fireplaces to heat them in winter, the floors were usually made of earth or roughly-laid brick and the absence of bunks encouraged overcrowding as an alternative to the expense of constructing additional buildings. In the early days sanitation services amounted to 'a few buckets and the veldt' or, on some mines, to open pits which were surrounded by roofless wood and iron screens. Black miners were usually expected to wash themselves in exposed 'plunge baths' that were sometimes supplied from polluted catchment areas in the vicinity of the collieries.

Kitchen facilities in the compounds were similarly rudimentary until well into the twentieth century, with little concern shown for the hygienic preparation of food. However, most labourers were much more concerned with the inadequacy of the rations that were issued, their diet initially consisting primarily of mealie meal although this was subsequently supplemented by an increasing quantity of meat and vegetables in imitation of the Witwatersrand gold-mines. The supply of beer soon became a cause of dissatisfaction among black colliery workers, with some collieries providing a free weekly ration and offering additional quantities through their own licensed stores, while on others beer was only available to purchase from individual license-holders or was not available at all. Several colliery companies took to brewing their own beer, recognizing that its availability was a means of attracting prospective recruits. Moreover, the sale of this commodity by means of the 'token' (token money) system through colliery beerhalls strategically situated between pit-head and compound to seduce weary workers as they came off shift soon became an effective means of inducing black employees to remain in colliery employment in order to pay off their debt, until this iniquitous system was abolished in 1938.

Service contracts and wages, shifts and hours of work, and the inadequacy of holidays and recreational facilities were also recurring sources of grievance among white as well as black colliery workers, and in all respects Natal's coal-mines compared unfavourably with the conditions of service offered by the more prosperous Witwatersrand gold industry. Like so many other aspects of the Natal coal industry, these were strongly influenced by the fluctuating and uncertain market demand with which local colliery companies had to contend. For many years hospitals and medical care on Natal's mines were also

decidedly rudimentary. It was accepted that sophisticated facilities could not be provided on each and every mine but the wide geographical distribution of Natal's collieries made it difficult to decide upon an appropriate site for a central hospital to cater for the more serious cases of illness and injury, with the result that many were left to lie in the bunkless compounds where they not infrequently died for lack of adequate attention.

In view of the unsanitary living conditions, unbalanced rations and initially inadequate medical facilities which were provided it is not surprising that life on the Natal collieries was characterized by periodic outbreaks of various infectious diseases among Indian and black employees, from which white miners and their families were not immune. Occupational diseases also showed no respect for ethnic boundaries. As late as 1952 pneumoconiosis (black lung) was identified among Natal's miners, though nothing was really done about it prior to 1958. So much for the earlier notion that coal-mining was a healthy occupation to which gold-miners who were suffering the ante-primary stage of phthisis could be transferred.

Improvements in the general standard of health on Natal's mines did depend very heavily upon the upgrading of living and working conditions, as well as the medical facilities, provided by the colliery companies. An important milestone in the improvement of living conditions was the declaration in 1924 of the two labour districts, Dundee and Vryheid, under the provisions of the Native Labour Regulation Act (No. 15 of 1911). One of the most significant requirements in terms of the Act was the appointment of licensed compound managers in place of the unqualified and often unsuitable appointees who had previously been entrusted with these responsible positions. Even so, the improvements which were effected after 1924 were only gradual and, as before, depended very much upon the conscientiousness of hard-pressed mining inspectors in enforcing the regulations and upon the extent to which Natal's colliery companies conceded the necessity for providing more congenial living and service conditions in order to attract an adequate supply of labour. This was also the case with regard to working conditions and safety standards underground.

### *Working conditions*<sup>12</sup>

Mining is an inherently hazardous occupation and, in the case of the Natal coal industry, the danger to life and limb has been compounded (more particularly on the Klip River coalfield) by difficult geological conditions and by the presence of methane gas or firedamp which, coupled with that of coal-dust, the high sulphur content of some of the coal produced, and the constant possibility of gob fires,<sup>13</sup> has resulted in several disastrous explosions for which the industry was initially quite unprepared. This danger has been less frequently encountered on the Vryheid, Utrecht and Zululand coalfields, giving rise there to the additional problem of maintaining a sufficiently high level of awareness among employees as to the need to guard against the possibility of explosions. Indeed, while allowing for the danger inherent in mining operations and for the particular difficulties encountered on the Natal coalfields, most if not all of the accidents that have occurred in the local industry were attributable to human indifference, negligence or ignorance.

Much of the blame rested with the colliery owners, who for so long were more concerned to cut costs in the face of uncertain market conditions than to

ensure the safety of their employees. The formation of the Natal Coal Owners' Society in 1909 was prompted by the proposed formulation of more demanding safety regulations in the wake of the disastrous explosions at the Glencoe and Cambrian collieries in the previous year<sup>14</sup> and thereafter, as before, the coal owners exercised a restraining, cost-conscious influence upon attempts to improve safety conditions in their collieries. When the market was slack they tried to conserve their financial resources, while during periods of upswing they preferred to strengthen their financial condition in anticipation of the lean years that might follow and to maximize output for as long as the demand lasted. Consequently, colliery employees were at greater risk of injury or death during such phases when longer working hours and higher output levels were demanded, resulting in greater physical weariness and mental carelessness as well as calculated risk-taking on the part of supervisors and even managers.

Neglect of the basic rules of safety was often due to the incompetence and/or wilful negligence of white miners, all of whom were expected to act in a supervisory capacity to ensure that the unskilled and semi-skilled black labour force did not take undue risks and that the places in which they were required to work were in a reasonably safe condition. However, it was not until 1900 that Natal mines were all controlled by properly certificated managers and even then, because they were in such short supply, many whites were entrusted with positions and responsibility that were above their level of competence and usually escaped prosecution on the rare occasions when their contraventions of the safety regulations came to light. The employment during the 1930s of increasing numbers of South African whites, in place of the British immigrants upon whom Natal's collieries had previously depended to perform skilled and supervisory tasks, initially raised further difficulties because of their unfamiliarity with mining as an occupation and with the safety precautions that it demanded. Many mines relied upon Indian and indigenous black miners to carry out semi-skilled and even skilled tasks which only whites were legally supposed to undertake, by virtue of their supposedly greater sense of responsibility, and there was little that the woefully under-staffed mining inspectorate could do to prevent such disregard for the regulations.

Contraventions of the 'job reservation' aspect of the 1911 Mines and Works Act (and of the amended Act No. 25 of 1926) were among the last of the inspectorate's preoccupations in its attempt to maintain and improve safety standards. The history of Natal's coal industry has been punctuated by a wide variety of accidents, of which explosions attracted the most media attention but were by no means the most frequent or responsible for the most casualties. Indeed, the major cause of accidental death in local collieries, as in coal-mines throughout the world, has been falls of roof, sides and coal itself. The shaly roof conditions encountered on the Klip River coalfield were a constant source of danger that was often compounded by perfunctory and infrequent inspections of working places, excessive economising on timber props in an effort to reduce production costs, and the use of mechanical coal-cutters which exposed much more roof than did the process of undercutting the coal manually.

These machines were also involved in other kinds of accidents, for they were heavy and difficult to handle, their trailing cables were easily damaged and, in the case of electrically-powered cutters, sometimes resulted in the electrocution of machine operators or their assistants. Many limbs and lives

were also claimed by the lethal cutting picks attached to the revolving chains on these machines. New recruits who had no experience of underground conditions were usually assigned to lashing (loading) and tramping (propelling) coal trucks by hand along the rails laid for this purpose to the mechanical endless rope haulages which then pulled them up to the surface. This task was by no means free from danger, particularly to those who were ignorant of the risks involved in working amidst the gloom and din of the tramping roads. There were many cases over the years of miners being struck unawares by coal trucks and of extremities being crushed in the process of tramping. The mere act of attaching trucks to the endless rope haulage and manoeuvring them into the cages at the bottom of the shaft exposed workers to the constant risk of being crushed between truck and truck or truck and cage. Prior to the 1950s such dangers were compounded by the reluctance of colliery companies to provide their black employees with any sort of formal training before going underground and by the failure of some managers to implement basic safety precautions, such as the installation of 'cut outs' and other arresting mechanisms as stipulated in the regulations.

Negligence on the part of managers and supervisors played an important part in accidents involving the storage, handling and use of explosives, the careless use of flame safety lamps in the presence of firedamp, and the failure to carry out correct blasting procedures, which was the initial cause of the worst colliery disaster thus far experienced in Natal when an ignition of firedamp and coal dust wiped out an entire night shift of 124 men at the Durban Navigation No. 2 Colliery in October 1926. Disasters such as this did lead to improvements in the standard of the safety regulations that were imposed upon the Natal industry and to the organization and refinement of a Central Rescue Station at Dundee, with properly trained teams to serve local regions. However, progress was hampered by the reluctance of colliery owners to increase working costs by investing in safety equipment and training, with the result that many lives were needlessly lost before a more enlightened attitude prevailed. Small wonder that local blacks generally preferred to migrate to the Witwatersrand gold-mines where the living and working conditions were not above criticism but were vastly superior to those prevailing on Natal's collieries.

#### *The articulation of employees' grievances<sup>15</sup>*

Those blacks who did take employment with the local coal industry expressed their dissatisfaction with these circumstances in three ways: by not returning to the collieries on the completion of their contracts, by deserting while still under contract, and by means of strike action. White miners also indicated their sense of grievance by not renewing their contracts but desertion was a response confined to the black workforce and varied considerably in scale from one mine to the next. Prior to the 1920s strike action among black miners, to which the 1911 Native Labour Regulation Act attached criminal liability, was rare on the Natal coalfields. It was not until 1943 that the Natal African Coal Workers' Union was formed, followed in 1945 by the Non-European Mine Workers' Union which represented the interests of all Indians and Coloureds employed in the industry. Both bodies were small and ineffective, so that it was not until August 1982 that black colliery workers at

last acquired a meaningful voice when the first black National Union of Mineworkers was formed.

In January 1914 approximately half of the industry's white employees participated in what has so far been the only white miners' strike on the Natal coalfields but they were forced back to work largely on the coal owners' terms and although they did form their own Mine Workers' Association in September 1916 their employers continued to dominate the negotiations that were conducted on such matters as wages, working hours and leave conditions. The reasons for this are not clear but are possibly to be found in the rural isolation of Natal's collieries, the strong sense of community identity which this imposed on some of them, and the small numbers of white employees involved in the industry — still amounting to no more than 875 in 1953. The ratio of white to black employees has been approximately 1:19 for much of the industry's existence, clearly reflecting its labour intensive nature.

### *Mining methods and technological change<sup>16</sup>*

Lack of sustained prosperity, due to fluctuating market demand and the highly competitive commercial context in which local colliery companies have had to struggle for their survival, made them extremely reluctant to undertake the heavy expenditure involved in purchasing, installing and maintaining items of machinery. Consequently, simple hand-got mining methods, involving the employment of large numbers of unskilled labourers to undertake the hand-loading and hand-tramming of broken coal between coal face and haulage, continued to predominate until well into the 1950s. Until then, the only prominent concession made to technological advances abroad, excluding the use of mechanical haulages and power drills, was the introduction of American-manufactured coal-cutters and up-to-date screening and washing equipment during the second decade (1899–1909) of the industry's existence.

The most common method of working in the Natal collieries has been the pillar and stall (bord and pillar) system, whereby the coal areas are cut up into pillars and, once fully developed, the pillars are extracted in a retreating line, allowing the roof to collapse behind and thereby form goaves. Based on mining practice in the North of England and in Scotland, this method has traditionally achieved an extraction of 90 % to 95 %, though more effective extraction is possible when only one seam is being mined in contrast to the two or more encountered in Natal's collieries. In cases where the seam being mined was less than three feet thick, the longwall method was usually employed: the coal being worked on a long face while the mined out portion is packed in order to maintain the roof. However, most of Natal's colliery managers soon came to the conclusion that, as the pillar and stall system was the most flexible and straightforward, it was usually the most suitable in mines such as theirs which employed largely unskilled workers who would otherwise require far too much supervision with regard to face conveyors, systematic timbering and the construction of pack walls.

The inability of the Natal coal industry to respond adequately to increased demand during the Second World War, when it was able to increase its output by only 2 000 tons per day instead of the 5 000 tons requested by Government, clearly exposed the limited extent to which the province's collieries had mechanized by that stage. However, the sustained post-war domestic demand

for Natal coal prompted a further phase of increased mechanization that gathered increasing momentum during the 1950s and 60s.

*The advance of the Transvaal-based companies<sup>17</sup>*

The technological changes experienced by the Natal collieries after the Second World War coincided with the progressively more influential role that was then being played in the local industry by ISCOR and by the large Witwatersrand mining and financial houses such as Anglo American, the Johannesburg Consolidated Investment Company and the General Mining Corporation. Their substantial gold-mining interests and large capital resources made them more resistant than the province's earlier colliery companies to the danger of over-capitalization and insolvency which the fluctuating nature of the coal market had established as a permanent possibility. This new trend was first evident in certain mines such as the Vryheid Coronation Colliery where, following its acquisition by Anglo American in 1945, a modern coking plant was installed and by 1953 was consuming its entire output. This reflected the fact that, although Natal's quantitative contribution to South Africa's total coal output declined steadily from 40 % in 1900 to only 10,9 % in 1981, it remained vital to the national economy as the only readily accessible source of true coking coal.

For this reason ISCOR acquired the Durban Navigation Colliery near Dannhauser in 1954 and proceeded to introduce more highly mechanized mining techniques in order to increase output. In 1974 ISCOR embarked upon a R29 million expansion programme at the mine which ultimately achieved a higher extraction rate and lower production costs than the methods used previously. The fully mechanized Ballengeich section of the JCI-owned Natal Cambrian Colliery which was opened in 1950 was the first of its kind in Natal but the new trend also made itself felt at the Newcastle-Platberg Colliery and later at Indumeni (acquired by Anglo American) and Vryheid Coronation, where new sections were fully mechanized while old ones continued to operate with traditional hand-got methods. The General Mining Corporation similarly invested a considerable amount in upgrading the productive capacity of the Hlobane, Northfield and Kilbarchan collieries after 1963 when it succeeded Federale Mynbou, which in 1959 had absorbed the Natal Navigation Group.

While Hlobane Colliery, with its valuable coking-quality deposits, later came under the control of ISCOR, and Anglo American and General Mining acquired further collieries in the province, other large mining and investment companies, including Barlow Rand, also developed a stake in the Natal coal industry. As a result, by the early 1980s the local collieries had been thoroughly integrated in the much larger South African coal industry with very few small independent producers still in existence. Most of the province's mines could boast operating sections that were mechanized or at least partly mechanized, involving the use of power loaders, shuttle cars and continually extendable conveyer belt systems, while many were further boosting their output by means of mechanized opencast mining methods which were first attempted in South Africa at Hlobane No. 1 Colliery. All these developments were accompanied by a steady improvement in the accommodation, treatment and payment of colliery workers, and by better safety measures underground.

The further advance of the big Transvaal-based companies into Natal coal-mining and their substantial investment in mechanized mining methods was largely a consequence of the commercial potential which those financial giants recognized in the local industry. It was justified by the upswing experienced in the domestic demand for coal during the 1950s and 1960s and in the export trade during the 1970s.

*The marketing of Natal coal, 1950s–1980s*<sup>18</sup>

For a variety of reasons, not least the total embargo on coal exports mentioned earlier,<sup>19</sup> the 1950s and 1960s were a difficult transitional period for the Natal coal industry in which it had to adjust from its traditional heavy reliance upon the shipping trade and gear itself more to meeting the domestic requirements of the expanding South African economy. Some of the province's colliery companies had never entirely abandoned the inland trade to their Transvaal counterparts and in 1931 had eventually formed the Natal Associated Collieries (Pty) Ltd in an effort to control competition among themselves by allocating such inland trade as they enjoyed on a quota basis among members. This proved to be a turning point in the fortunes of certain local companies which were further assisted by a subsequent improvement in the commercial climate following the opening of the Orange Free State and Far West Rand gold-mines, the ongoing railway electrification programme, the opening of the new Van der Bijl Steel and Engineering Works at Vereeniging, and the proposal to develop a new oil from coal conversion industry.

From Natal's point of view the most significant increases were achieved in sales to power stations, including new ones constructed at Colenso, Congella and (later) Ingagane, and in the sale of coal to be used for coking purposes. It was indeed the development and increasing sophistication of ESCOM and of ISCOR from the 1920s which primarily enabled the Natal collieries to improve their share of the inland market by supplying those varieties of small coals and 'fines' which had previously often been dumped but for which the emergence of these major industries created a welcome outlet.

The sustained post-war demand experienced by local collieries was followed during the 1970s by a further dramatic rise in sales which was assisted, firstly, by a 4% per annum increase in the power generating capacity of ESCOM and, secondly, by a substantial revival in the export trade that had declined so spectacularly during the 1950s and 1960s. The rise in foreign demand for South African coal, from approximately one million tons in the early 1970s to 29 million tons in 1980, owed much to the crisis of 1973/74 when OPEC demonstrated the strength of its oil monopoly and initiated an upward spiral of prices as well as raising uncertainty in the minds of consumers world-wide as to the future long-term security of oil supplies. In this climate coal again became an attractive alternative source of energy in many parts of the world and seemed likely to remain so, at least until the end of the century. By 1982 the magnificent new terminal at Richard's Bay was already handling the bulk of South Africa's coal exports and, after more than a decade of rising foreign and domestic demand, local producers had reason to be optimistic about the future of their industry.

Unfortunately this mood of confidence could not be sustained. During the mid-1980s conditions in both foreign and domestic coal markets altered

dramatically under the impact of recessionary economic circumstances, including a decline in the demand for steel. The number of Natal coal-mines in production declined from 44 to 21 by 1983 while output, and the labour force required to maintain it, was substantially reduced at others with dire consequences for the local communities that depended upon them for a livelihood.

### *Future prospects*<sup>20</sup>

It would be pleasing to conclude this centennial appraisal on a positive note but, sadly, the colourful mining communities of northern Natal face a future which is, at best, uncertain. While export prospects are again improving they are clouded not only by traditional fluctuations in demand and continuing recessionary conditions in some consumer countries but also by tightening international sanctions which could affect coal more adversely than any other exporting industry. Moreover, the domestic market has continued to shrink as the decline in economic growth produces a lower demand for coal and for electricity generated from coal. As far as the steel industry is concerned, substitution and technological change involving the use of form coke and the direct reduction process threaten to eliminate the need for coking coal and with it a vital aspect of the Natal coal industry's strategic importance to the national economy. The Competition Board's commitment to a complete deregulation of the inland coal market confronts local producers with the competition of cheaper Transvaal coal in Natal itself and may further encourage the controlling mining houses in Johannesburg to concentrate on their far larger Transvaal coal-mining operations, whose reserves positively dwarf those of Natal.

Both in its commercial and in its mining aspects the Natal coal industry has always required men of courage. What is left of it will certainly need them in the future.

### NOTES

<sup>1</sup> This article is a synopsis of some of the findings arising out of a major research project on the history of the Natal coal industry which was undertaken in collaboration with my colleague Dr D.R. Edgecombe and generously financed by the Research Fund of the University of Natal, the Human Sciences Research Council and Rand Mines Ltd. The opinions expressed herein are not necessarily those of the sponsors, or of Dr Edgecombe. Limitations of space make it impossible to provide detailed footnoting but the major collections of primary evidence consulted in the course of this project included: —

Annual Reports of the Commissioner of Mines, Natal, 1889–1909; Annual Reports of the Department of Mines (post-Union); Archive of the Standard Bank of South Africa Ltd (Johannesburg); Blue Books for the Colony of Natal, 1845–1909; Coal Commission Reports, 1920/21, 1946/47, 1951 (Archives, Pretoria); Commissioner of Mines Records (Dundee); Commissioner for Dundee, Records and for Vryheid, Records (Archives, Pietermaritzburg); Colonial Secretary's Office Natal, (Archives, Pmb); Debates of the Natal Legislative Assembly, 1893–1909; Dundee Coal Company Ltd Minute Books (Archives, Pmb); Government Native Labour Bureau (Archives, Pretoria); Inspector of Mines Records, Natal (Dundee); Inspector of Mines Natal Accident Reports (Dundee); Mines Department Accident Files (Dundee); Mining Regulations Commission, 1925 (Archives, Pretoria); Ministerie van Vervoer (Archives, Pretoria); Native Affairs and Naturellesake (Archives, Pretoria); Natal Coal Owners' Society Minute Books (Talana Museum, Dundee); Natal and South African Government Gazettes; Otto Siedle Papers (Killie Campbell Library, Durban); Prime Minister's Office, Natal (Archives, Pmb); Secretary for Mines and Industries (Archives, Pretoria); Secretary for Native Affairs, Natal (Archives, Pmb) and Special Committee of Enquiry: Base Minerals Industry, 1938 (Archives, Pretoria). The notes which

- follow refer to publications which provide further details on various aspects of the Natal coal industry.
- <sup>2</sup> The origins and early years of coal-mining in Natal are described more fully in Edgecombe, Ruth and Guest, Bill 'An Introduction to the Pre-Union Natal Coal Industry' in Bill Guest and John M. Sellers (Eds), *Enterprise and Exploitation in a Victorian Colony: Aspects of the Economic and Social History of Colonial Natal* (Pietermaritzburg, 1985), pp. 308–351.
  - <sup>3</sup> See Henderson, Sheila, 'Colonial coalopolis: the establishment and growth of Dundee' in *Natalia*, 12 (1982), pp. 14–26.
  - <sup>4</sup> The early financial history of the Natal coal industry is examined more closely in Guest, Bill, 'Financing an infant coal industry: the case of the Natal collieries' in *The South African Journal of Economic History* (forthcoming edition).
  - <sup>5</sup> For further details concerning the marketing of Natal coal prior to 1910 see Edgecombe and Guest, 'Pre-Union Natal coal industry', pp. 321–327; for the period after Union see Edgecombe, Ruth and Guest, Bill, 'The Natal coal industry in the South African economy, 1910–1985' in *The South African Journal of Economic History*, Vol. 2 (2), September 1987, pp. 49–70.
  - <sup>6</sup> See Heydenrych, Hein, 'Railway Development in Natal to 1895' in Guest and Sellers (Eds), *Enterprise and Exploitation*, pp. 46–69.
  - <sup>7</sup> See Heydenrych, Lucille, 'Port Natal harbour, c. 1850–1897' in Guest and Sellers (Eds), *Enterprise and Exploitation*, pp. 16–45 and Horwood, O.P.F. (Gen. Ed), *The Port of Durban*, (Department of Economics, University of Natal, 1969), Natal Regional Survey, Vol. 15.
  - <sup>8</sup> See Edgecombe, Ruth and Guest, Bill, 'The black heart of the beautiful mountain: Hlobane Colliery, 1898–1953' in *The South African Historical Journal*, 18, 1986, pp. 193–195.
  - <sup>9</sup> See also Edgecombe and Guest, 'Pre-Union Natal coal industry', pp. 327–330, and Edgecombe and Guest, 'Hlobane Colliery, 1898–1953', pp. 202, 207–210.
  - <sup>10</sup> *Ibid.*, p. 221; Guest, Bill, 'Exploring Natal's coal-mining history', *History News*, 28, November 1986, pp. 4–6.
  - <sup>11</sup> See also Edgecombe, Ruth and Guest, Bill, 'Wessel's Nek: a Natal mining community in depression and war,' in Thomson, P.S. (Ed.) *Natal, 1909–1961* (Mimeographed workshop papers, Department Historical Studies, University of Natal, Pietermaritzburg, 1983), pp. 4–19; Edgecombe and Guest, 'Pre-Union Natal coal industry', pp. 330–331, and Edgecombe and Guest, 'Hlobane Colliery, 1898–1953', pp. 202–207, 210–212, 214–221.
  - <sup>12</sup> See also Edgecombe and Guest, 'Pre-Union Natal coal industry', pp. 331–336, Edgecombe and Guest, 'Hlobane Colliery, 1898–1953', pp. 196–200, and Edgecombe, Ruth and Guest, Bill, ' "The coal miners' way of death": safety in the Natal Collieries, 1910–1953', *The Journal of Natal and Zulu History*, VIII, 1985, pp. 63–83.
  - <sup>13</sup> When pillars are extracted in pillar and stall mines (as in Natal), the roof falls in and closes behind the excavation. Such an area is called a 'gob'. If a remnant of coal is left behind in the gob, it is crushed by the weight of the strata above, heat is generated and, if oxygen is present, a fire can result. This creates the hazard of poisonous carbon monoxide spreading through the mine. See Lupton, A., *Mining: an elementary treatise on the getting of minerals* (London, 1889), p. 255.
  - <sup>14</sup> See Edgecombe, Ruth and Guest, Bill, 'The Glencoe disaster of 1908 and safety in the Natal collieries before Union' in Guest, W.R., Wright, J.B. and Thompson, P.S. (Eds), *Natal in the Colonial Period* (Mimeographed workshop papers, Department Historical Studies, University of Natal, Pietermaritzburg, 1985), pp. 1–21.
  - <sup>15</sup> See Edgecombe and Guest, 'Hlobane Colliery, 1898–1953', pp. 201, 202, 212–220.
  - <sup>16</sup> See Edgecombe and Guest, 'Pre-Union Natal coal industry', pp. 318–321, Edgecombe and Guest, 'Hlobane Colliery, 1898–1953', pp. 191, 192, 196, and Edgecombe and Guest, 'Natal Coal Industry in the South African Economy', pp. 50, 51, 55, 58.
  - <sup>17</sup> See Edgecombe and Guest, 'Hlobane Colliery, 1898–1953', pp. 220, 221, and Edgecombe and Guest, 'Natal Coal Industry in the South African Economy', pp. 60, 64, 65.
  - <sup>18</sup> *Ibid.*, pp. 59–69.
  - <sup>19</sup> See The marketing of Natal coal, 1889–1950s, above.
  - <sup>20</sup> *Coal Review*, 1985 and 1986: *Mining Annual Review*, 1985 and 1986.

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